Universidade do Porto
Faculdade de Engenharia
Departamento de Engenharia Civil

The Impact of High Speed Technology on Demand and Productivity in European Railways: an econometric analysis

António José Fidalgo do Couto

Supervisor:

Prof. Arnaldo Humberto Pereira de Sousa Melo

Co-Supervisors:

Dr Daniel J. Graham
Prof. Andrés Lopez Pita

A Doctor's Thesis for the award of Doctor of Philosophy of the Faculty of Engineering of the Porto University

September 2004

Partial financial support for this thesis was provided
by the “Fundação para a Ciência e Tecnologia”
through programme POCTI.

ACKNOWLEDGEMENTS

It is a pleasure to express my gratitude to my supervisor Prof. Sousa Melo and the co-supervisors Prof. Lopez Pita and Dr Daniel Graham for their guidance and support which have influenced this work.

This work has benefited from free supplementary data supplied by some European railway companies. In this context, I would like to recognise and thank their contribution, particularly to Jorge Villaverde of CP.

I would like to thank all at Imperial College for their hospitality especially to William Adeney and once again my friend Daniel Graham, I will always be grateful to you.

I would also like to thank my colleagues of the Transport Infrastructure Division of my Faculty whose enthusiasm and encouragement have helped to produce this work, unfortunately I cannot acknowledge each of the individual contributions but I do want to give my thanks to Zé Pedro, Carlos Rodrigues, António Vasconcelos and Adalberto França for their companionship of more than ten years.

The number of friends is far too large to allow me to thank them individually thus, I express my gratitude to all of them through the younger generation represented by my nephew Luís, and godsons João, Simão and goddaughter Raquel.

Finally, as always, I owe the greatest debt to my family especially my wife, my parents, my brother and sister, who always have been patiently present, giving me their understanding and affection.

ABSTRACT

In the recent past, under the pressure of large public budget deficits, European railways have undergone major reforms towards the aim of improving efficiency and promoting cost reductions. These policy reforms appear to be concentrated on reforms of the railway structure that give way to the creation of conditions towards internal competition. Apart from these policy reforms, technological developments have also been performed so that the railway transport would be able to recover from the recent past situation characterised by the decrease of market share. The major contribution in this field comes from high speed technology, either by building conventional high speed lines or by using tilting train technology.

The theory of transport economics and management has given very limited attention to the evaluation of this transformation process involving the strategy, economic efficiency and engineering technological progress. This present thesis focuses on these issues and has two primary objectives: to evaluate the impact of high speed technology on the economic efficiency of railway systems and on the demand response, using an econometric analysis. Thus, with these objectives, a stochastic cost frontier model, with minimal cost described by a translog cost system, and aggregate log-linear rail transport demand functions, both equation systems, incorporating high speed attributes, are estimated using a data set composed of twenty seven European countries in a sample period stemming from 1972 until 1999.

The economic analysis of cost function results suggests that costs saving could be obtained by using inputs in a more correct (cost minimising) proportion, especially labour and infrastructure capital stock. The industry exhibits slight scale economies and productivity growths (technical progress) of around 0.02.

In respect to high speed impact, despite the operational costs reduction which comes from increments of high speed traffic, the demand analysis shows that there is a restricted segment of the market for high speed service beyond which there is no demand increase. The tilting train’s contribution for railway performance improvements is mainly concentrated on the significant costs reduction which is obtained from its introduction into the network system; however increase of tilting train traffic density appears to have no reflexes either in cost or in demand.

Overall, the implementation and utilisation of high speed technology appears to have originated significant increments of productivity growth, mainly when considering output measured by revenue output. Thus, high speed technology utilisation shows to allow for mean increments of productivity growth of around 0.018, with the highest mean firm increments of 0.043 revealed by SNCF and SNCB.

RESUMO

No passado recente, particularmente devido às dificuldades económicas envolvendo elevados défices públicos, os caminhos de ferro europeus têm procurado implementar importantes reformas tendo como objectivo a obtenção de maior eficiência e redução de custos. Para além destas reformas, a tecnologia de alta velocidade tem dado um contributo primordial para a recuperação do transporte ferroviário, quer através da construção de linhas dedicadas quer através da utilização de veículos de caixa inclinada potenciando um aumento da velocidade de circulação em linhas já existentes.

A teoria económica e de gestão de transportes tem dispensado pouca atenção à avaliação deste processo de transformação envolvendo estratégias, eficiência económica e progresso tecnológico. A presente dissertação, tendo em conta este processo de transformação, tem como objectivo avaliar o impacto das referidas tecnologias de alta velocidade quer na evolução da procura quer nos níveis de produtividade das empresas de caminhos de ferro. Para o efeito, recorrendo a uma base de dados composta por vinte e sete países europeus para um período temporal entre 1972 e 1999, são desenvolvidos: um modelo estocástico de custo fronteira, com custos mínimos descritos por um sistema "translog" de custos, e um modelo da procura agregada do transporte ferroviário descrito por sistema de funções log-lineares, ambos os sistemas incorporando atributos relativos à alta velocidade.

A análise económica dos resultados relativos à função custo sugere possível economia de custos proporcionada por uma maior eficiência na gestão dos recursos, nomeadamente dos recursos humanos e do capital em stock. Adicionalmente constata-se que média no período em estudo esta indústria revela ligeiras economias de escala e valores de produtividade de cerca de 0.02.

No que concerne ao impacto resultante da exploração de linhas dedicadas de alta velocidade, apesar da redução nos custos operacionais que advêm de potenciais aumentos do tráfego de alta velocidade, a análise da procura revela que este tipo de serviço é limitado a um mercado bastante específico e localizado, a partir do qual não haverá qualquer contributo adicional num hipotético aumento relativo deste tipo de serviço. A principal contribuição proporcionada pelos veículos de caixa inclinável reside na redução dos custos operacionais que advêm da inclusão no sistema deste tipo de veículos. Contudo um intensificar da utilização deste tipo de tecnologia parece não produzir qualquer efeito relativo quer da variação da procura quer da redução dos custos operacionais.

Relativamente ao impacto das tecnologias de alta velocidade na produtividade, constata-se que a exploração deste tipo de tecnologias têm proporcionado significantes incrementos na produtividade, com valor médio de 0,018. Da análise efectuada verifica-se ainda que a contribuição deste tipo de tecnologias para o aumento da produtividade foi especialmente expressiva nas empresas SNCF e SNCB, com incrementos médios na produtividade de 0,043.

RÉSUMÉ

Dans un passe récent, particulièrement en raison de difficultés économiques qui ont provoqués des déficits publics élevés, les chemins de fer européens ont cherché à mettre en place d'importantes réformes ayant comme objectif meilleure efficacité et réduction de coûts. Ces reformes se sont concentrées essentiellement sur la restructuration des entreprises afin de favoriser la concurrence à l'intérieur du propre système de transport ferroviaire. Au-delà de ces réformes structurelles, la technologie de la grande vitesse a grandement contribué à la relance du transport ferroviaire, par la construction de lignes nouvelles spécifiques, ou par l'utilisation de voitures à structure inclinable qui ont permis l'augmentation de la vitesse de circulation sur des lignes déjà existantes.

La théorie économique et de gestion des transports a accordé peu d'attention à l'évaluation de ce processus de transformation, qui englobe stratégies, efficacité économique et progrès technologique. La présente étude, compte tenu de ce processus de transformation, a pour objectif d'évaluer l'impact de ces technologies de grande vitesse, d'une part dans l'évolution de la demande, et d'autre part sur les niveaux de productivité des entreprises de chemins de fer. A cet effet, en exploitant une base de données composée de 27 pays européens sur une période comprise entre 1972 et 1999, nous avons pu développer: un modèle stochastique de coûts frontières, avec des coûts minimums décrits par un système translog de coût; et un modèle de demande agrégée de transport ferroviaire décrit par un système de fonctions log-linéaires, chacun de les systèmes intégrant attributs relatifs à la grande vitesse.

L'analyse économique des résultats relatifs à la fonction coût suggère une possible économie de coût proportionnée par une plus grande efficacité dans la gestion des ressources, en particulier des ressources humaines et du capital en stock. De plus, nous constatons que cette industrie réalise de légères économies d'échelle avec une productivité moyenne sur la période analysée de l'ordre de 0,02.

En ce qui concerne l'impact de la Grande Vitesse, malgré les réductions des coûts d'exploitation qui découlent des augmentations potentielles du trafic Grande Vitesse, l'analyse de la demande montre que le service de Grande Vitesse est limité à un marché relativement spécifique et localisé, à partir duquel il n'y aura aucun apport supplémentaire dans une éventuelle augmentation relative de ce type de service. Le principal avantage des voitures à structure inclinable réside dans la réduction des coûts d'exploitation obtenue par l'adoption de ce type de voiture. Toutefois, l'intensification de l'utilisation de ce type de technologie ne semble produire aucun effet, que ce soit dans la variation de la demande, ou que ce soit dans la réduction des coûts d'exploitation.

En ce qui concerne l'impact des technologies de grande vitesse sur la productivité, nous constatons que l'exploitation de ce type de technologies a eu pour effet des augmentations significatives de productivité, d'une valeur moyenne de 0,018. De cette analyse, nous constatons aussi que la contribution de cette technologie dans la hausse de la productivité a été particulièrement importante pour les entreprises SNCF et SNCB, avec des hausses moyennes de productivité de 0,043.

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CHAPTER 1

INTRODUCTION

1.1 Background

In recent decades, the market share of European railways has decreased while the need for subsidies has increased. In response, the European Union proposed, on behalf of its Council Directive 91/440/EEC and its further associates, namely the Council Directive 95/18/EC and 95/19/EC and the recently amended Directive 2001/13/EC, a vertical separation of railway organisation, in particular involving the separation of infrastructures management from the operation of rail services and the promotion of open access to new operators with the aim of creating internal competition in the European railway market.

It was thought that competitive pressure and the competitive strategy of railway firms would culminate in a reduction of subsidies and operation costs through the elimination of inefficiencies and revenue maximisation with these directives. However, the implementation of these directives has often been weak and, despite the majority of European Union companies having now done so, some of them have only had a formal separation of infrastructure and operations and the number of new entrants so far is minimal.

This situation has raised various questions which correspond to one central issue: why is it so hard for the railway industry to pass from a vertically integrated national model to a model characterised by contestable markets and by a de-verticalisation and specialisation of activities?

There are theories that could give insights to this question. For the implementation of internal competition, railways have to overcome some barriers which assume particular importance in the transitory phase. Thus, besides the obvious political barriers which any change on structural public organisation causes and the sunk costs associated with railways that *per se* present a barrier to new entries, there are additional costs of internal competition, extensively described in Jersen (1998), such as the transaction costs of the system originated by the new costs of vertical exchange processes and the control of competition, the lost of scale implied by internal competition, the costs of vertical sub-optimisation and the inefficiency costs that could arise from the fact that the infrastructure companies are not exposed to external competition.

The other important barrier to implementation of real competition comes from the complexity which is involved in the regulation of these new systems composed by diverse entities in direct competition and/or sometimes with distinct aims. This complexity is especially relevant in setting the network access pricing and in establishing adequate and consistent public subsidy policies. Additionally, the creation of very different regulation systems among countries has been another impediment to the formation of a European competitive rail market.

Due to the multi-product nature of railways, allocating total operating costs among services is often difficult. Although some cost elements may be attributed to a particular traffic, most of them, such as energy and staff, are not. Thus, cost interdependence requires simultaneous decisions on prices and services, which makes these regulatory tasks much harder.

From what has been briefly referred to above, it seems that overall there are no certainties yet about what can be or has been done for the railway industry. If there has been some consensus in the last decade about the decision of stimulating and proceeding with the reform of the railway industry in the direction of contestable markets, it seems that the recent difficulties in the implementation and the ambiguities on the process provoked a higher degree of uncertainty about further reform results. These uncertainties led to a recognition, as referred to in Bognetti and Fazioli (1999), that the rail sector has such characteristics that only marginal and temporary contestability may be expected.

These uncertainties have motivated several authors to concentrate their research on econometric estimation of a production/cost functions aiming to predict which policy environment and firms' production structure are more adequate to overcome the problems referred to above. So, research following multiple comparison measurements of productivity performed by different entities and/or policy regimes assumes a crucial role to understand and predicted policy implications in railway transport system. Different sources of productivity reflect distinct action procedures, it follows that to an accurate knowledge of firms and policy re-structure and their specific effects, a decomposition of productivity into gains that are one time improvements, as that of elimination of inefficiencies through new managerial organisation, that gains from shifts of productivity reflecting new knowledge of technology or those due to industry restructuring policy issues for instance from scale economies, becomes of primordial interest.

However, the uncertainties referred to above are only barriers to a process; they do not question the viability of railways as an alternative transport mode. In this context, it can be pointed out that, under conditions of high demand, transferring a substantial part of road traffic to rail significantly reduces the external costs of traffic congestion, accidents, and environmental impact. This means that despite all these difficulties, the reform needs to recover railway transport as a real alternative mode. Railways by their "*non-aggressive*" characteristics are more and more a transport mode with a future.

In this way, railway engineering research has been given a special contribution towards finding new technologies which allow an increase in competitiveness, preserving railway transport with its original qualities such as the new rail transport services proportionated by high speed trains. Despite the technological and economic success of the first high speed line (Paris-Lyon) which led to the idea of the construction of a high speed network as an alternative to the traditional railway network, the high sunk costs which they involve associated with the lower demand response verified in the more recently open high speed lines have refrained enthusiasm of railway management entities, and alternative technologies, such as the tilting train technology, have been extensively introduced in the European network.

It follows that beyond the traditional econometric studies of productivity sources relating productivity growth to disembodied technological progress it becomes fundamental, due to its strong impact on demand and costs, to analyse the impact of technological developments in high speed technology on productivity.

1.2 Subject of the thesis

All the preceding railway characteristics, described above, suggest that the railway as an industry and the railway as a transport mode should be analysed within a general context, taking into account the industry's technological and organisational features, which must begin with a detailed evaluation of recent railway performances. Therefore, this research is focused on the three main aspects which best can describe the economic relevance of a transport mode: cost structure, demand response and productivity levels.

While there is an extensive literature on railway productivity and efficiency, most studies to date have concentrated on analysing particular sources of productivity. In this study we use recent developments in econometric analysis to estimate cost frontier and demand functions which allow us to simultaneous analyse of each type of productivity sources and at the same time quantify the impact of high speed technology on railway firm's performance. In addition this thesis makes a methodological contribution by paying particular attention to the choice and measurement of the variables used for estimation. Thus, beyond the variables typically used in railway econometric studies, re-evaluation of capital stock measures as well as introduction of new variables such as environment characteristics and quality of service variables were developed to improve model specification and to allow for the analysis of specific firm and technologic factors.

1.3 Objectives of the research

The first objective of this thesis is to analyse the economic performances of the European railway industry in the last decades and to determine the importance of firm/country specifics effects and policy restructuring processes on the cost structure of railways and on their performances. To this end the three main sources of productivity are to be quantified: the levels of firms' efficiency, economies of scale and technological progress.

The second aim is to explore the link between the high speed technology in use and the economic performances of the railway industry through the analysis of the economic impact of the high speed technology on demand and on the structure of cost faced by firms.

Finally, the last objective of the thesis is to find an accurate measure of the impact of high speed technology on firms' productivity growth and to predict which levels of high speed technology utilisation are most suitable in obtaining higher levels of productivity growth.

1.4 Methodology

The analysis of costs is carried out by estimating of frontier cost functions based on the stochastic model approaches. These alternative approaches are carried out following three distinct assumptions in modelling allocative inefficiency costs and two distinct data sets obtained from two different re-evaluations of capital stock investments. Thus, (in)efficiencies, productivity growth and the structure of costs of firms are measured following the most recent developments on stochastic frontier approaches.

Additionally, demand functions using data on aggregate passenger and freight rail and on country quality indicators are estimated by maximum likelihood estimation for the multivariate regression model.

The impact of high speed technology on demand and costs, measured as the marginal effect on cost and demand resulting from using high speed technology, is captured through the inclusion of dummy variables in both the demand and cost function. Using the relationships, observed from this function, among the dummies variables and the cost and demand variables, estimates of the increments on productivity growth due to high speed technology utilisation are calculated.

Finally, using a Tobit model, the relationship between these increments and the percentage of the high speed technology train usage is obtained by regressing these increments of productivity growth on explanatory variables characterising firm operating capacities. From the optimisation of this function in relation to the percentage of high speed usage, a gross measure of optimal level of high speed technology utilisation is determined.

1.5 Structure of the thesis

The second chapter of the thesis reviews the concepts and measures of productivity involved in the economic characterisation of the railway industry. It describes alternatives measures of productivity used in existing literature according to their concepts and purposes of measurement and it outlines the substantive productivity results observed in these studies. In addition, productivity measurement is conceptually described according its decomposition into sources and relevant results of previous studies are analysed.

The third chapter of the thesis provides a detailed overview of the existing literature on methodological approaches used to analyse the cost structure, the productivity and the efficiency of the railway industry. Thus, methodologies are described according to the concepts and assumptions involved in their formulation and in addition summaries of previous studies are exposed according the methodology and objectives of the research.

The fourth chapter is dedicated to the description of the theoretical methodology, data specification and alternative models used for the estimation of cost frontier and input share functions of the European railway industry. This chapter first explains and describes the methodology and the theoretical specifications of the three alternatives models used to estimate the stochastic cost frontier functions and respective cost inefficiencies. Second, it details a description and discussion of the data set used in the research, accompanied by a detailed description of the variables and the respective measures used in the cost regressions, with special focus on those related to capital stock measures' revaluation, firms' external environment variables and quality of service variables. Finally, estimation procedures are developed according to these theoretical specifications.

The fifth chapter of the thesis devotes special attention to the measurement of the sources of productivity, such as the allocative and technical inefficiencies, scale economies and productivity growth (technological progress). It then analyses the impact of the firm's external factors and organisational reforms on the obtained performance results. Therefore, first a brief resume of estimated parameter results of the main models developed in previous chapter is given. It follows that an analysis of the elasticities of input substitution and of the cost elasticities with respect to environment factors is carried out and respective cost structure results are analysed through out their main components: allocative and technical inefficiencies, scale economies and productivity growth.

The sixth chapter is dedicated to the analysis of the impact of the exploration of high speed technology, of both high speed and tilting train, on costs, demand and productivity growth. Prior to this analysis, a description of the data and of the formulation and estimation of the aggregate railway demand function is presented. Following this, the impact of high speed technology on costs and demand are analysed through an analysis of the high speed estimated coefficients of the cost and demand functions. Finally suggestions on the optimum level of high speed utilisation are given based on estimates of the predicted increments of productivity growth that are exclusively derived from the implementation of high speed technologies.

The last chapter presents the main conclusions of the research and offers some suggestions about further research to be developed in this field.

CHAPTER 2

SOURCES OF PRODUCTIVE EFFICIENCY IN RAILWAYS: A REVIEW OF CONCEPTS AND MEASURES

2.1. Introduction

There is an extensive literature on the formulation and estimation of productivity measures for the transportation industries with a special focus on rail sector. Many researchers have provided surveys either on transport sector or specifically on rail transport industries (Oum et al. (1992), Oum and Waters (1996), Oum et al. (1999), Dodgson (1985), Diewert (1992), and Hooper (1987)).

The purpose of this chapter is to review the concepts and measures of productivity involved in the economic characterisation of the railway industry and outline the substantive railway productivity/efficiency empirical findings revealed in previous studies.

This chapter is structured as follows. Section 2.2. looks at the distinct measures of productivity currently used in rail transport studies according to concepts and purposes of measurement, and outlines the substantive productivity results observed in these studies. Section 2.3 describes the concept of productivity and its decomposition into sources and discusses relevant results from previous. Some brief conclusions on this body of literature are provided in section 2.4.

2.2. Measurement of productivity

Conceptually productivity is a measure of firm production performance based on the rate at which inputs are transformed into outputs; in other words, basically productivity is the measure of the amount of output that can be produced per unit of input. Despite this basic idea of productivity viewed as a ratio between an organisation's outputs and its inputs, its measurement for comparison over time and/or across firms or industries involves various concepts and approaches. Diewert (1992) surveys alternative concepts and approaches of productivity measurement. He shows that there is a great deal of variety in concepts and approaches used, and this makes a comparative analysis of the results produced by different studies complex.

Both, the concepts of productivity and the appropriate way to measure them, are influenced by the purposes for which productivity is being measured. Oum et al. (1992) identified a list of reasons why productivity should be measured; all of them share a common desire to measure performance. According to their list, three classes of purposes are grouped according to their objectives and measurement approaches. These classes of productivity purposes are associated with three distinct measures of productivity: partial factor productivity, total factor productivity (TFP) and productivity growth (technological progress). Below we discuss each of these in turn.

2.2.1. Partial factor productivity

The first class of purposes is a self-knowledge that is required by firms to prevent and control the efficiency of their operations or more globally their wealth producing capacity. In this case partial measures of productivity or performance indicators are used as quantitative measures. Thus, proximate performance indicators are developed to assess an individual or departments performance. In this case it is possible encounter an indicator of usage equipment per time unit as a measure of maintenance or operational performance. Although simplistic performance ratios for management have proved to be useful in transportation, the development and use of performance indicators have not been extensively used by economists and researchers who tend to be more interested in broader concepts and measures of productivity.

Partial productivity measures generally relate firm's output growth to growth of a single input factor. Railway single factor productivity (SFP) often used is labour partial productivity expressed as revenue tonne-kilometres or passenger-kilometres per employee, but any other input category could be used to form a single factor productivity. In the presence of more then one output, as is the case of railway industry, usually an aggregate output index is used to measure the growth of output (aggregation inputs and/or outputs index will be discussed in next section).

Based on intermediaries activities, instead of final output, a great variety of other single factor productivity performance ratios could be found as examples: freight-tonne-kilometres per tonne capacity of the wagon stock, passenger-kilometres per carriage, trains despatched per hour, number of trains per kilometres of track, loaded to empty car-kilometres, net investment per employee, investment per ton of capacity, maintenance expenses per kilometres of track, etc.; the list of potential measures is almost endless.

Comparisons using partial productivity measures may be particularly misleading. For example, depending on the type of traffic each railway is carrying, different measures of productivity will not necessarily correspond with real levels of performance. Moreover, the productivity of one input depends on the level of other inputs being used, which implies, higher productivity performance in one input could be associated with lower productivity performance in other inputs. Thus, any conclusions drawn from partial productivity measures must be made with careful analysis of the background in which they are achieved and be compared to partial productivity performed by the others inputs.

Despite their inherent drawbacks partial productivity has been used by both academics and industry analysts, with special occurrence on annual report statistics published by transport authority associations and enterprises.

Examples of single partial productivity applied to railway industry can be found in Nash (1985), and in Tretheway et al. (1997). Nash (1985) compared efficiencies and commercial performances of twelve Western European railways based on their labour productivity for a period between 1971 and 1981. The main conclusion found in this study is that labour productivity varies substantially among European countries confirming that labour productivity is very sensitive to external environment as well as to the extend of capital investment in previous years.

Tretheway et al. (1997) in their analysis of productivity of Canadian railways briefly exposed single factor productivity rates growth for various input categories and confirmed that single productivity performance varies significantly with inputs in study, in their case they found high partial productivities for fuel and labour but low SFPs for capital and “materials and other” .

2.2.2. Total factor productivity

A second class of purposes is related to the influence of productivity gains on pricing policies. In a competitive market when firms face growth in input prices, they can follow an aggressive pricing and production strategy to control output price increases if they achieve productivity growth. Thus, if firms are confident that production costs will fall through significant productivity gains, they can avoid an increase of output prices and implement a competitive edge.

A similar phenomenon happens in a regulatory regime. Since regulation seeks to emulate competitive market effects, productivity adjustments are included in regulatory framework to regulated prices, i.e. allowable price increases are constrained by anticipate productivity gains.

Although, in the long run, either in competitive markets or in a more regulated system, productivity gains are passed on to consumers, attention must be paid to the way in which this is made. Common pricing policies in complex systems, as in the case of transportation systems, with diverse cost and market conditions may incur in inefficient and inequitable regulatory framework. Another problem that could come about when leading public incentives to innovate is that there is insufficient time for the process of investment-productivity to lower prices, i.e. for any capital investment to induce lower prices for consumers a certain amount of time is required by firms to recoup the inherent outlays to bring productivity gains about. Otherwise firms won't be able to recoup these investments and productivity gains might not result.

Studies involving productivity gains and pricing policies usually only require a gross measure of productivity, since the main point is to quantify an expected productivity gain whatever the sources.

Gross measure of productivity are obtained through the use of total factor productivity (TFP) index defined as the ratio of a total (aggregate) output quantity index to a total (aggregate) input quantity index. In this form is possible to recognise the multi-input/output nature of the rail industry.

Total factor productivity growth is the difference between the growth of the output and input quantity indices, which is the relevant effect in productivity studies.

In table 2.1 the results from some railway studies involving TFP calculation are shown.

Table 2.1 – Railway productivity estimates using TFP

Study	Sample	Aims	Findings
Hariton and Roy (1979)	Canada: 1956-1975	Productivity changes	TFP growth rates: 3 %
Caves and Christensen (1980)	Canada: 1956-75	Relative efficiency Public vs. Private firms	TFP growth rates: 1,6 - 4,9 (%)
Caves et al. (1980a)	U.S.: 1951-1974	Productivity growth	TFP growth rate: 1.5 %
Freeman et al. (1985)	Canada: 1956-81	Productivity growth comparitions Sources of productivity	TFP growth rates: 3.1 - 3.5 (%)
Gathon and Perelman (1988)	Europe and Japan: 1962-1984	Technical inefficiency TFP changes	TFP growth rates: (-0.73) - (4.84) (%)
Perelman and Pestieau (1988)	Europe and Japan: 1970-1983	Technical inefficiency TFP changes	TFP changes: (-0.41) - (2.48) (%)
Bunker (1992)	Australia: 1979-88	Productivity growth (TFP) and shadow price labour (SPL) influence	TFP growth rates: 4.9% (SPL=wage) - 3.4 % (SPL=0)
Dondgson (1993)	UK: 1900-12	Cost structure Productivity growth	TFP growth rates:-2.68 %
Tretheway et al. (1997)	Canada: 1956-1991	Productivity performance Sources of productivity	TFP growth rates: from 2.5% to 3.9%
Waters II and Tretheway (1999)	Canada: 1956-95	Productivity growth and price performance	TFP growth rates: 2.8 - 3.5 (%) TPP growth rates: 3.4 - 5.6 (%)
Coelli and Perelman (2000)	Europe: 1988-1993	Technical efficiency and TFP changes	Average TFP growth over the period: 16.70%
Sánchez and Villarroya (2000)	Europe: 1970-1990	Productivity growth Cost inefficiency	TFP growth rates: (-1.9) - (3.3) (%)

One must be cautious in making TFP comparisons because they can vary substantially depending on the approach, data and calculation procedures. That said, there is conformity among studies in productivity growth rate with values around 3%, however, the main conclusion is that this productivity rate has not been sufficient to offset the effect of rising input prices compared to the prices the railways receive for their outputs (Tretheway et al.). In sum, it appears from these studies that competitive forces have constrained the railways from raising prices in most of their market, and therefore railways to be more competitive need to increase productivity by reducing input use even more rapidly than in the past.

2.2.3. Productivity growth – technical progress

The third class of purposes, technical progress, has been extensively studied by researchers, mainly in recent years. The motivation for many researchers has been to assess multiple comparison measurements of productivity performed by different entities and/or policy regimes.

When comparing productivity, whether the comparison is between firms, industries, countries or over time within firms, it is important that we understand the sources of productivity in addition to obtaining a knowledge about gross productivity measures because for any comparison to be accurate it has to be made relative to a similar base. A decomposition of productivity is relevant in separating productivity gains that are one time improvements, as that of elimination of inefficiencies, from gains through shifts in productivity or those due to industry structure issues for instance from scale economies.

Performance improvements for firms or industries representing technical innovation and productive ability are a particular source of productivity that concentrates the most important cause of productivity growth known as true shift in productive abilities (Oum et al. (1992)). Thus, the concept of technical progress appears when one considers a shift of the function resultant of implementation of new production methods or of improving quality of the existing factors.

In econometric methods the conventional rate of productivity growth has been, since the first model proposed by Solow (1957), identified with the rate of technical progress. Following the Solow model and considering an estimated production function, differentiation of this function with respect to time provides a direct estimate of productivity growth.

As pointed out by Oum et al. (1999), there can be a substantial difference between TFP growth rate measured via index number procedures and the rate of technical progress concept of productivity measured by an econometric method. These two concepts give equal empirical results only if every firm is on its production frontier and operates in an identical set of operating environments, otherwise , the two concepts could yield very different empirical results (Oum et al. (1999)).

Thus, the straightest way of representing a production process using statistical data is the econometric estimation of a production function; however, because it is difficult to estimate a production function when firms produce more than one output, as it is the case of railway industry, cost-function approaches have been developed based on duality theory (a deeper explanation of this theory will be exposed in chapter 3). Following this theory and having specified a cost function that is dual to production technology, the rate of technical progress is defined as the negative rate of growth of total cost with respect to time, holding output and input prices constant. Therefore, differentiation of cost function with respect to time provides a direct estimate of productivity growth.

Caves et al. (1981a, 1981b) were the first to use such an approach to analyse the productivity growth of U.S. and Canadian railways instead of the index number approach of the TFP. Following Caves et al. (1981a, 1981b), the majority of recent studies involving railway industry evaluate productivity growth using the concept of technical progress from cost functions. In table 2.2 railway studies involving productivity growth directly measured from estimated cost function are summarised.

From this table it is possible to conclude that technical progress results show great variety among studies, even in those covering the same countries and period sample. Thus, despite the general concept and method of estimation of technical progress measurement, due to differences in cost function formulation and estimation models, this source of productivity could differ considerably from one study to another.

Table 2.2 – Railway productivity growth estimates using technological progress concept

Study	Sample	Aims	Findings
Caves et al. (1981a)	U.S.:1955-74	Productivity growth Scales economies	Productivity growth rates: 1.8 - 2.0 (%)
Caves et al. (1981b)	U.S. and Canada: 1956-74	Comparative Productivity growth	Productivity growth rates: 1.0-2.1% (U.S.); 3.8-5.7% (Can.)
Perelman and Pestieau (1988)	Europe and Japan: 1970-1983	Technical inefficiency Technical Progress	Technical Progress: (-0.3) - (2.2) (%)
Borger (1991)	Belgic: 1950-1986	Productivity, scale and operating characteristics effects	Productivity growth rates: 1.0 - 2.9 (%)
Borger (1992)	Belgic: 1950-1986	Productivity growth Cost structure	Productivity growth rates: 1.3 - 2.4 (%)
McGeehan (1993)	Ireland: 1973-1983	Railway costs Productivity growth	Productivity growth rates: 7.0 - 9.0 (%)
Dondgson (1993)	UK: 1900-12	Cost structure Productivity growth	Productivity growth rates: 0.31%
Bereskin (1996)	U.S.: 1978-1993	Deregulation effects Productivity growth	Productivity growth rates: 2.11%
Wilson (1997)	U.S.:1978-89	Productivity and cost savings Deregulation effects	Productivity growth rates: 3.0 - 7.5 (%)
Andrikopoulos and Loizides (1998)	Europe: 1969-1993	Cost structure Productivity growth	Productivity growth rates: (-9) - (3.6) (%)
Sánchez and Villarroya (2000)	Europe: 1970-1990	Productivity growth Cost inefficiency	Productivity growth rates: (-1.19) - (2.00) (%)

2.3. Sources of Productivity Gains

As described in previous section, the measurement of productivity is in certain cases accompanied by a decomposition of sources.

Three main sources of productivity gains are typically defined in studies of rail efficiency:

- gains due to technological progress;

- gains from economies of scale and density;

- gains from the elimination of technical and allocative inefficiencies.

Others sources of productivity gains, not so easily identifiable, can be found, as that relative to improvements in quality of output and/or inputs, reduction in negative externalities, differences in operating characteristics, such terrain, weather, etc..

Usually, when not explicitly isolated from the referred main sources, they have been incorporated as shifts in productive abilities.

Different sources of productivity reflect distinct action procedures. If one found that the source of productivity was due to economies of scale this could have significant implications for industry restructuring policy, i.e. benefits from economies of scale are very dependent of the structure and location of industry. This is different from productivity gains reflecting new knowledge of technology, new managerial organisation or new policy towards an industry that can be inferred from shifts in productivity abilities.

2.3.1. Technological Progress

In section 2.2.3 technical progress was described isolated from the remainder sources of productivity which may also contribute in simultaneity to the total (gross) productivity growth. In this section we provide, through a graphic representation, additional interpretation of technological progress which provides a better understanding of the conceptual differences between this productivity source and other productivity sources. Thus, concentrating on figure 2.1, the isoquant BAB' represents alternative combination of two inputs, assumed for simplification, labour (x_1) and capital (x_2), which would produce a particular level of a single homogenous output (q^1), in a particular point in time (t_1).

Technological progress, which may occur because of developments outside or within the firm, could be represented by a shift of the isoquant BAB' to a new position passing through point D, this means that for the two consecutive moments in time (t, t+1) due to shifts in knowledge and/or ability to produce firm is capable to produce the same quantity of output $q^1_{(t)}$ spending less quantity of inputs $x_{(t+1)}$ (moving its efficient production from A to D).

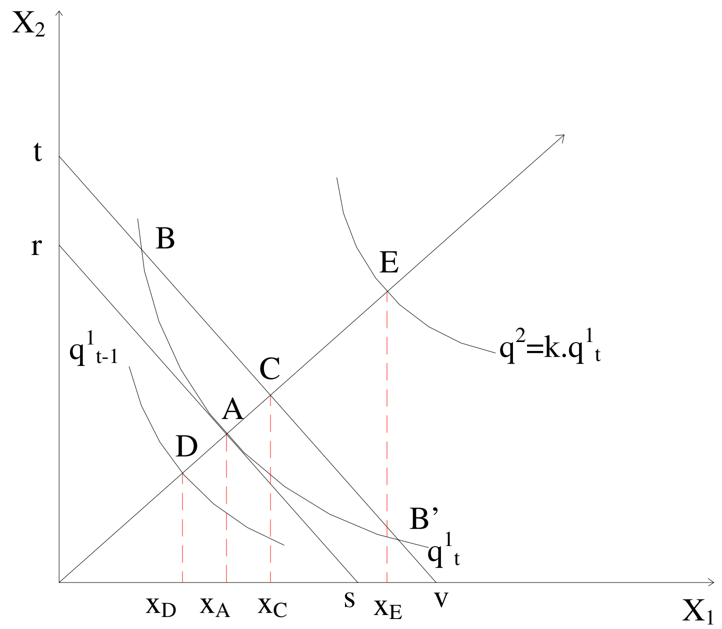

Figure 2.1 - Sources of productivity growth

A more general concept is used in some studies, incorporating all manner of technical, operational and managerial development in this category. This usually occurs when this source of productivity is estimated as a residual term, and thus estimation of this shift ability includes, beyond technical progress, other effects as efficiencies and errors of measurement.

2.3.2. Scale and scope economies

A common definition of economies of scale is the proportional increase in outputs made possible by a proportional increase in inputs, keeping time fixed.

Looking at the figure 2.1 and concentrating on isoquant BAB´, given the state of technological knowledge at time t, q^1 is the output level which is to be produced and the correspondent isoquant showing the frontier of technical efficient combinations of inputs x_1 and x_2 for this level of output. Assuming that the firm is a price-taker in the markets where it purchases its inputs, different levels of total costs are represented by isocost curves, *rs* or *tv* lines on figure 2.1, the slope of which are determined by relative input prices, that in this case are assumed to be unchanged over time. Costs will be minimised where one of the isocost curves (*rs*) is tangential to the isoquant, point A in Figure 2.1.

Gains from productivity due to scale economies could be found when increase output q^1 to $q^2=k*q^1$ are made possible by a proportional increase in inputs below k, in the example case $x_E < k*x_A$, with level of technological knowledge at time t, in figure 2.1 a move from point A to E.

In the transportation industry, it is important to distinguish various types of economies: economies of network size, economies of density, and economies of scope.

Economies of network size refers to expanding output and the network coverage at the same time, meaning that on this occurs output increases are associated with an extension of the network. Thus economies of network size (RTS) can be defined as the proportional increase in outputs and points served due to a proportional increase in all inputs, with input prices held constant (Pels and Rietveld (2000)). End -to-end mergers, very common in private ownership rail systems, is an example of organisational policy decision supported by economies of network size.

Based on this idea some authors argue that the existence of natural monopolies is justified when economies of network size prevail, mainly in the case of production of a homogeneous and single output (Savignat and Nash (1999)).

Economies of density (RTD) refer to increasing output within a given network. Thus economies of density can be defined as the proportional increase in outputs made possible by a proportional increase in all inputs, with input prices and network held constant.

The production of rail transport services, when expanding network to new points, incurs a high level of sunk costs due to expansion of railway infrastructure. Therefore, the expansion of services on existing networks, taking advances of high levels of economies of density, supports the concept of parallel mergers.

Economies of density can be seen as the ability to take advantage of indivisible inputs and spread their costs over greater amounts of output, without expanding these indivisible inputs. Economies of vehicle size and capacity network utilisation are a good example of this ability.

Another source of economies in transportation sector is due to distance factor (Oum et al. (1992)). Increasing length of haul carried imply a decreasing cost per ton-kilometre. Usually average length of haul is exogenous to a firm, since it depends on the characteristics of particular market locations, however, when effecting end-to-end mergers the length of haul can be increased thereby reducing the costs of interchanging traffic between carriers. Various authors have explicitly controlled for differences in average length of haul when making comparison across firms.

In table 2.3 results from previous studies involving return to scale and density measurement are shown. These results reveal that there is a consensus in the literature on the existence of increasing returns to density. In fact, these studies indicate that increasing returns to density may be an inherent characteristic of the railway industry confirming that given fixed capacity, as traffic density increases, unit costs of production increase less than proportionately. However, with regards to returns to scale or network size economies, even though the majority of studies reveal constant returns to scale, there is a substantial number of railway studies, mainly those concerned with European railways, which found different results for each company.

Thus, for example Preston (1994) and Sánchez and Villarroya (2000) found that only the smaller companies show economies of scale, higher sized companies such as BR, SNCF, DB and FS show decreasing economies of scale and the remaining firms reveal constant returns to scale; Andrikopoulos and Loizides (1998) found for all railway European companies in their sample increasing returns to scale.

In the case of multiple output production, common in the transportation sector, we have another source of economies that should be tested for, mainly when analysing structural organisation policy of an industry, referred as economies of scope. Although the existence of economies of scope has an important role when evaluating structural alternatives for the industry, its analysis requires a kind of information rarely available in the railway industry.

Table 2.3 – Returns to scale and density estimates from previous studies

Study	Sample	Aims	Findings
Keeler (1974)	U.S.:1968-70	Return to scale Policy implications	Increasing RTD; Constant RTS =1.01 Excess Network Capacity
Harris (1977)	U.S. : 1972-1974	Economies of traffic density	Significant economies of traffic density
Caves et al. (1981a)	U.S.:1955-74	Productivity growth Scales economies	RTS: 1.01 - 1.26
Braeutigam et al. (1984)	U.S.: 1976-78	Economies of density	RTD = 2.7
Caves et al.(1985)	U.S.: 1951-75	Scale economies Network effects	RTD = 1.76 RTS: 0.98 - 1.09
Freeman et al. (1985)	Canada: 1956-81	Productivity growth comparitions Sources of productivity	RTD: 1.56 - 2.14 RTS: 0.96 - 1.15
Borger (1991)	Belgic: 1950-1986	Productivity, scale and operating characteristics effects	RTS: 0.99 - 1.37
Oum et al. (1991)	U.S.:1955-74	Capacity of utilisation and Scale economies	RTS = 1.03
Borger (1992)	Belgic: 1950-1986	Productivity growth Cost structure	RTS: 0.85 - 1.44
Friedlaender (1992)	U.S.: 1974-86	Returns to scale Rates of return	Substantial returns to scale (RTD)
Vellturo et al. (1992)	U.S.: 1974-86	Mergers cost efficiency	RTD: > 1.4 RTS: > 1.2
Friedlaender et al. (1993)	U.S.: 1974-86	Scale effects Capital adjustments	RTD: > 1.45 RTS: 0.95 - 1.85
McGeehan (1993)	Ireland: 1973-1983	Railway costs Productivity growth	RTS ~ 1 RTD=1.33
Filippini and Maggi (1993)	Switzerland: 1985-88	Efficiency and scale economies	RTD: 1.38 - 1.80 RTS: 1.08 - 1.43
Preston (1994)	Europe: 1971-1990	Economies of scale	RTD: NS & CFF (<1); SNCB)(=1);Remain.(>1) RTS: CFF,CIE, DSB,NS (>1); CP,NSB,SNCB(=1);Remain.(<1)
Wilson (1997)	U.S.:1978-89	Productivity and cost savings Deregulation effects	RTD: 1.11 - 1.61 RTS: 0.86 - 1.06
Tretheway et al. (1997)	Canada: 1956-1991	Productivity performance Sources of productivity	Increasing RTD
Andrikopoulos and Loizides (1998)	Europe: 1969-1993	Cost structure Productivity growth	Increasing RTS
Sánchez and Villarroya (2000)	Europe: 1970-1990	Productivity growth Cost inefficiency	RTS: BR, DB, FS, SNCF(diseconomies of scale) CFF,NS,SJ, RENFE ~(CRT) Remaining firms - increasing economies of scale

Economies of scope exists when the costs of producing two or more outputs jointly by a single firm is less than the cost of producing each of them separately by an independent firm (Oum and Waters (1996)). In the railway sector economies of scope can evaluate, for example, whether it is desirable to separate passenger traffic from freight transport. In this case, if we represent the industry technology from cost functions C, the company would reveal economies of scope if:

$$C(\text{Passenger, Freight}) < C(\text{Passenger}, 0) + C(0, \text{Freight})$$

If the above condition holds, it would be cost efficient for the two firms to merge. In order to test this inequality one needs information about multiple output cost function where one of the two outputs is zero. Most companies do not have such a specialisation which limits the comparative analysis in terms of costs. This is the main reason most transportation researchers have not attempted to measure it, and it is not common to find empirical evidence of the existence of economies of scope in the transport literature.

The economic railway studies which attempt to measure economies of scope such as Jara-Díaz and Munizaga (1992) and Parisio (1993) show increasing returns to scope for almost European railways (even that in Parisio (1993) not statistically significant) with the exception of DB and SNCF showing constant returns to scope. However, for example, Preston (1994) found that European railways exhibit decreasing returns to scope with the exception of BR, and Sánchez (2000) concluded that only European railway companies of bigger size such as SNCF, DB, BR, FS, RENFE and ÖBB exhibit decreasing returns to scope. These results, even suggesting that the separated supply of passengers and freight transportation by different firms, at least for the European biggest companies, would produce significant increases in efficiency levels of the rail industry, are not totally conclusive; complementary and additional results are required to confirm the current trend in the European rail policy based on the separation of the different rail services.

2.3.3. Technical and allocative efficiencies

Sources of productivity involving gains due to the elimination of existing inefficiencies have been investigated in recent empirical studies of productivity. This has been especially important in studies of productivity focused on the implications of deregulation or privatisation.

The decomposition and measurement of a productivity activity into technical and allocative efficiencies was first introduced in Farrell (1957).

A firm is said to be technically efficient if it uses an input mix on the isoquant correspondent to a certain production level of output. Supposing that q^1 (Figure2.1) is the output level which is to be produced, if the firm produces q^1 at point C, it could reduce costs by reducing both inputs in equal proportion until reaching point A on the isoquant. Therefore at the point C firm is said to be technical inefficient, since, given the level of output to be produced, it uses excessive quantities of inputs.

A firm is said to be allocative efficient (price wise efficient) if the marginal rate of substitution between two inputs is equal to the corresponding input price ratio. Still assuming that q^1 is the output level to be produced, if the firm produces q^1 at the point B, Figure 2.1, since point B is on the isoquant BAB' the firm is technical efficient but employs inputs in wrong proportion, the same output could be produced at the point A, on the isocost line *rv*, by substituting x_1 for x_2.

Firms producing q^1 at the point F are technically and allocatively inefficient, at the point C are technically inefficient but allocatively efficient, at the point B are technically efficient but are allocatively inefficient, while at the point A are producing efficiently. Thus, overall productive efficiency requires joint satisfaction of technical and allocative efficiency conditions.

Allocative and technical inefficiency have been extensively correlated with managerial and regulatory policy framework of a firm or industry. Regulated industries and public enterprises have been often identified as being technically and/or allocatively inefficient. Policy changes, such as deregulation, privatisation or changes in regulatory technique have been proposed as competitive pressures stimulating more efficient behaviour.

Over capitalisation induced by regulatory policies, promoting innovated or expanded services beyond the economically optimum level has been a quoted example of allocative inefficiency for inputs. Another phenomenon often associated with allocative inefficiency is the subsidies that public firms enjoy from governments or public institutions that could give rise to prices that do not reflect marginal costs and consequent distortions as a result of producing inefficient mixes of output.

Regulated monopolies or public corporations, protected from competitive forces, have been regarded as also facing technical inefficiencies that retard productivity growth. Concerns about stability are often present in public enterprises supported by government that sometimes prefer to produce at higher cost than be subjected to intensive and restrictive managements rules.

Inefficiency concerns have been a motivation to deregulation and privatisation, however, gains from correcting allocative or technical inefficiencies are not a continuous source of productivity (Oum et al. (1992)). Once these efficiencies are achieved, future gains must come from other sources especially from innovation and technical progress. This lead to a critical decision point, can elimination of inefficiencies be implemented, especially those related with overcapitalisation, supported on retarding remains sources of true productivity growth involving investments in new technologies?

Firms operating in a competitive or deregulated market that are preoccupied with quick profit or market share may retard investments in new technologies, which in a railway transport system may imply high levels of capitalisation since any investment involves a great sum of quasi-fixed costs. In this case the increase of efficiency could be achieved but with a renunciation of higher productivity growth from other sources resulting in losing global productivity growth, mainly in the long term.

Often public enterprises are constrained to proportionate regional or social benefits inherent to exploration of no profitable network or/and frequencies. This kind of operational services are not compatible with profit maximisation but represent a desired objective for public firms, meaning that technical or allocative inefficiencies supported by public enterprises are, in this case, a positive and planned managerial compromise and not a result of inefficient or passive management.

Table 2.4. summarises results from previous studies measuring technical and allocative inefficiency. Generally the different studies produced highly dissimilar results. This variation can be due to different model specifications, residual functions or standardisation methods, the quality and type of data, and especially the different output and input measures that are used. While all studies show significant increase of cost due to technical and allocative inefficiency there is no agreement about which of these inefficiencies contribute to a higher increase of costs. A good example of divergent findings are provided by Kumbhakar (1988a), Kumbhakar (1988b) and Kumbhakar (1989), where using the same data sample from U.S railways, results reveal that despite similarity in the global cost inefficiency levels, the valuation of the relative importance of allocative and technical inefficiency in costs are substantially dependent on model specifications.

With regard to cost inefficiency results using data set relative to European railways it can be seen that there is little rank firm correlation among studies. In boarder terms, there is general agreement that NS, CFF, SNCF and SJ are efficient and CH, TCDD, FS and ÖBB are inefficient. However, as referred to in Cowie and Riddington (1996), for example Dutch railways operate on a very dense network, so they have high utilisation of the infrastructure, whereas for example Austrian railways have a very high proportion of rural routes; thus, unless one reliably evaluates geography and institutional environment, sources of variation in performance will reflect not only the effectiveness of operator, but also the general efficiency of transport in the countries concerned.

Giving such findings, previous results in technical and allocative measurement lead to the conclusion that accurate measurement of efficiency is a extremely difficult task since it is very dependent of good quality data and adequate model specifications, although this type of research could give important information on good and bad performs and consequently on good and bad management and/or transport government policy.

Table 2.4 – Technical and allocative inefficiency estimates from previous studies

Study	Sample	Aims	Findings
Perelman (1986)	Europe: 1970-1983	Technical efficiency	Least effic.: CP, FS, OBB,TCDD (Labour utilisation) BR, CH, SNCB (Equipement utilisation)
Deprins and Simar (1988)	Europe and Japan: 1970-1983	Technical inefficiency	Siginificant effects of exogenous factors on efficiency NS, CFF & JNR most efficient SNCB, TCDD & NSB least efficient
Gathon and Perelman (1988)	Europe and Japan: 1962-1984	Cost inefficiency	Most efficient: SJ, NS, RENFE & SNCF Least effic.: TCDD, FS & OBB
Perelman and Pestieau (1988)	Europe and Japan: 1970-1983	Technical inefficiency	Efficiency change: 0.13% per year Most effic.:CIE, NS & DSB; Least effic.:TCDD,CH & FS
Kumbhakar (1988a)	US: 1951-1975	Input-Specific Technical inefficiency Allocative inneficiency	Increase in cost due to: labour specific technical inefficiency ~ 20% fuel specific technical inefficiency - 4% allocative inefficiency - 5.5%
Kumbhakar (1988b)	US: 1951-1975	Allocative inneficiency (Input- and firm-specific) Technical inneficiency	Over the period : mean cost of technical inefficiency down (12% - 8%) mean cost of allocative inefficiency up (12% - 20%)
Kumbhakar (1989)	US: 1951-1975	Technical inneficiency Allocative inneficiency Cost of technical and allocative inneficiency	Mean level cost due to: technical inefficiemcy: 15 - 23 % allocative inefficiency: 4 - 9 %
Grabowski and Mehdian (1990)	US: 1951-1981	Revenue efficiency	Overall efficiency down by 2% Pure efficiency down by 5% Scale effic. up by 3.6%
Gathon and Perelman(1992)	Euriope: 1961-1988	Technical Efficiency	Most efficient: VR, SNCF & NS Least efficient: FS, OBB, CFL & CIE
Filippini and Maggi (1993)	Switzerland: 1985-1988	Cost efficiency	Not much variation among railways Efficiency levels > 90%
Oum and Yu (1994)	OECD: 1978-89	Productive efficiency and Public Implications	DSB, VR & SNCB: improved CFL, NSB & CH : declined Most efficient: BR, CIE, JNR, NS, SJ & VR Least efficient: CH, FS, SNCB, CFL & TCDD
Gathon and Pestieau (1995)	Europe: 1961-1988	Decomposition of technical efficiency into managerial and regulatory components	Gross effic.: NS most efficient; DSB least efficient Managerial effic.: VR most efficient; CFL least efficient
Bosco (1996)	Great Britain, Germany, France & Italy: 1971-1987	Allocative inefficiency Excess-input expenditure	Significant allocative inefficiency. Substantial reduction of excess input expenditure over time.
Cowie and Riddington (1996)	Europe: 1992	Definition and measurement of efficiency	Most efficient: DSB, CIE & SJ Least efficient: OBB, CFF & SNCB
Cowie (1999)	Switzerland: 1995	Technical efficiency	Efficiency levels (> 80%) : Private railway > public railways
Coelli and Perelman (1999)	Europe: 1988-93	Technical inefficiency	Most efficient: NS, SNCF & BR Least efficient : CH, CP & DSB
Parisio (1999)	Europe: 1973-1989	Cost of technical and allocative inneficiency	Cost of allocative ineffic. < technical inefficiency Alloctive effic.: FS least efficient Technical effic.: FS most efficient; DB least efficient
Coelli and Perelman (2000)	Europe: 1988-1993	Technical efficiency and TFP changes	Most efficient: NS, CFF & SNCF Least efficient : FS, CP & DSB
Sánchez and Villarroya (2000)	Europe: 1970-1990	Productivity growth Technical Change Cost inefficiency	Cost inefficiency: most efficient: NS, SNCF & BR least efficient : CH, CP & DSB
Cantos et al. (1999)	Europe: 1970-95	Efficiency and technical change and their determinants	Most efficient: CFF, CFL, NS, SJ & VR Least efficient : BR, CH, DSB & CIE
Cantos et al. (2000)	Europe: 1970-95	Efficiency measures and output specifiction	Most efficient: CFF, NS, & SJ Least efficient : FS, SNCB, CH & OBB
Cantos and Maudos (2001)	Europe: 1970-1990	Cost efficiency Revenue efficiency	Revenue efficiency < Cost efficiency Cost effic.:RENFE most efficient; BR least efficient Revenue effic.:RENFE least efficient; BR most efficient

2.3.4. Quality changes and differences in operating environment

Most productivity and efficiency railway transport studies implicitly assume that quality of inputs and output are constants. However, firms' improvements in velocities of circulation, on-time performances, employing improved education of the workforces or using newer and cleaner rolling stock are good examples of variability of outputs and inputs over time or across firms. Improving quality requires increased inputs and higher costs. Since the output produced is not homogeneous with that produced before, an inability to capture change in quality in the output measure could lead to an apparent productivity reduction. Therefore, the development of explicit and comprehensive quality index must be introduced into performance measurement to capture this dimension of inputs and outputs.

Additionally, when making comparison across firms or industries, factors beyond managerial control should be taken into account. Firms operating in adverse conditions such as irregular and steep terrain or bad weather conditions are expected to have apparent lower productivity gains or efficiencies if not were taken into account explicit hedonic adjusters or index reflecting this variability.

Despite the difficulty in finding adequate measures of quality output changes and of operating environment some authors have sought to explore these issues. For example Braeutigam et al. (1982) and Braeutigam et al. (1984) estimated a long run cost function for a large U.S. railway firm, using time series data, incorporating directly into this cost function a quality of service variable measured by the speed at which shipments move through the system; and they found that omission of this variable affects the coefficient on the other terms in the cost function and leads to an understatement of the extent of economies of density in the system.

Deprins and Simar (1988) estimating technical inefficiencies of European railways also estimated cost function with correction for environmental conditions. In this study they introduced two sets of operational variables, one taking into account the structural state of the network that cannot be changed in the short term such as the ratio of lines and the number of tracks by line, and the other set of variables describing some aspects of the output structure and of the demand which are not under the control of the manager such as the ratio of passenger trains in total distance covered by trains and the mean distances covered by a passenger and by a ton of freight transported. Final results showed that, for these "z-factors" explaining apparent inefficiency, all the coefficients were statistically significant and have the priori expected sign, and on the other hand introduction of these factors implied significant alterations in the raking for firm inefficiencies.

Davis and Wilson (1999) focused on the effects of deregulation and mergers on employment in the U.S. railway of Class I, also introduced directly explanatory variables representing the operating characteristics of the railways, such as the average length of haul and a measure of bulk traffic given as the percentage of unit train traffic, in the equation of firm level employment decisions, and they found that operating characteristics have significant effects on employment in all alternative estimated specifications.

Finally examples of the use of hedonic aggregator function for output specification in cost function are the studies Borger (1991) and Borger (1992) of Belgian railways. They included the operating characteristics such as the average length of haul, the average load per train and the fraction of all ton-kilometres due to bulk commodities in the hedonic output aggregate for freight and such as average trip length, average number of passenger per train and the number of times unit of seating capacity in the hedonic output aggregate for passengers, and also found that these proxy operating variables are very significant in explaining railway costs.

Overall, we can conclude from these findings that clearly ignoring the role of operating characteristics in railway cost studies may lead to seriously biased and misleading estimates of productive efficiency.

2.4. Conclusion

This chapter reviewed alternative concepts and measures of productivity. Although there might be a broad consensus about the meaning of productivity, different measures are appropriate for different purposes. Partial productivity measures, such as labour productivity, are appropriate where disaggregate operational performance is of interest but generally are not very useful for railway industry comparisons which explain why this approach has not been currently preferred in literature. Total factor productivity is the appropriate concept for most productivity measures when the purpose is to make comparisons across firms and/or over time, assessing pricing policies and public policy questions. However, TFP itself, as a gross measure of productivity including gains from all sources, covers different concepts and consequently it is more appropriate for pricing questions than public policy questions. In sum, results of the studies using TFP show a productivity growth rate with values around 3%, value which appears to be not enough to allow a pricing raising, and therefore railways to be more competitive need to increase productivity by reducing input use even more rapidly than in the past.

When the purposes of productivity measurement are related to public policy questions the use of the shift concept of productivity growth is more appropriate. This concept is associated with measures of productivity gains from fundamental changes in technology and requires the statistical estimation of production or cost functions or the decomposition regression of TFP. Improved ability to identify shifts in productive abilities as distinct from other productivity sources has been a major focus of empirical studies of productivity, however, due to differences in cost/production function formulations and estimation models, previous results show great variety among studies and the main conclusion which can be taken is that the values resultant from these measures of productivity are generally below those of TFP.

When decomposing productivity into sources the measurement of productivity gains from exploitation of economies of scale has been a theme in many articles. In transportation it is important to distinguish essentially two types of economies: economies of network size and economies of traffic density. The knowledge of the existence of these economies could have important public policy implications such as in supporting parallel and/or end -to-end mergers, or supporting institutional restructuring process toward an internal contestable market versus natural monopoly. Despite the majority of railway studies showing a trend to increasing economies of traffic density and constant economies of network size; there is no consensus with respect to economies of network size, mainly in studies involving European railways which found results of economies of firm size quite dependent of company dimension.

Empirical studies of productivity also separate productivity gains from eliminating existing inefficiencies, particularly when the aim of research involves policy changes analyses such as deregulation, privatisation or change in regulatory technique. There are two types of inefficiencies: technical inefficiency (excess inputs usage to produce outputs) and allocative inefficiency (wrong inputs combination to produce output). Recent research has been extensively concentrated with allocative and technical inefficiency measurement, however, the different studies produced highly dissimilar results, which lead to the conclusion that accurate measurement of efficiency is very sensitive to good quality data and model specifications, although this type of research could give a primarily finding on good and bad management and/or transport regulatory policies.

As Oum et al. (1992) point out, recognising the different concepts and purposes of productivity measurement are indispensable for understanding why productivity measures differ among studies. Consequently, the knowledge of these alternate concepts and approaches and when they are appropriate can reduce needless confusion and controversy over productivity measurement in transportation.

CHAPTER 3

REVIEW OF METHODOLOGICAL TECHNIQUES AND MODELS

3.1. Introduction

In chapter two we reviewed the different concepts and measures of productivity sources. Associated with these different concepts there are a variety of approaches to productivity measurement. Depending on the kind of measurement procedure, empirical results may be substantially different with consequent divergent interpretations. Thus, caution is required in making comparisons between empirical results from different approaches using a variety of different methods and concepts.

For these reasons, further sections of this chapter will described various approaches to productivity measurement used in recent rail industry studies. Discussion of different methods will be accompanied with a brief summary of the main results developed with recourse on them. Thus, in section 3.2 we look at non parametric approaches to productivity measurement, namely total factor productivity (TFP) and data envelopment analysis (DEA) methods. Following the concept of true shifts of productivity, section 3.3 describes issues related to traditional econometrics methods of productivity measurement and inherent model specifications. Section 3.4 is dedicated to describing models from parametric frontier methods involving the concepts of technical and allocative inefficiency. Conclusions are drawn in the final section.

3.2. Non-Parametric approaches to productivity measurement

Non parametric approaches to productivity measurement have been used widely in the literature. The main advantage of non parametric approaches is they can be directly constructed from data without the need for statistical estimation of production or cost functions, required on parametric methods.

Within the non-parametric measurement procedure a variety of conceptual approaches could be applied. In this section, two general categories of index number methodology are reviewed and discussed: total factor productivity (TFP) and data envelopment method (DEA).

3.2.1. Total factor productivity

The concept of TFP was introduced in section 2.2.2. Theoretical analyses of TFP involve instantaneous and continuous growth rates of output/input factors that obligate to find suitable approximations for use with discrete data (in time). Moreover, aggregation of input and output factors to form aggregate index involves empirical approaches based in different concepts. Thus, various approaches to TFP measurement lead to different interpretations and empirical results. Detailed surveys of theoretical and empirical approaches to total factor productivity can be found in Hooper (1987) and Diewert (1992).

Diewert (1992) identified a number of conceptual approaches for measuring TFP. Non-parametric approaches based on index number measures of productivity can be conceptually classified into five categories:

1) Direct quantity index – considering Q_y as aggregate quantity output growth index between two periods and Q_x as aggregate quantity input growth index between the same periods, this measures productivity change as the ratio the Q_y to the Q_x;

2) Deflated revenues divided by deflated cost expenditure – using an output price index P_y as a deflator for the revenueR_1/R_2 between periods 1 and 2 and using an input price ratio P_x as a deflator for the cost ratio C_1/C_2 between the two periods leads to the following definition of the firm's productivity change going from the period 1 to 2: $TFP_{growth} = [(R_1/R_2)/P_y]/[(C_1/C_2)/P_x]$;

3) Direct output quantity index divided by deflated expenditure index – This method for measuring the productivity change of railway company going from period 1 to period 2, originally suggested by Caves and Christensen, is given by $Q_y/[(C_1/C_2)/P_x]$, and combines the direct output quantity index as in 1) above with the deflated expenditure approach in 2) for measuring the growth in input quantities;

4) Deflated revenues divided by direct input quantity index – this is analogously the converse of 3) defining productivity change by $[(R_1/R_2)P_y]/Q_x$;

5) The Jorgenson – Griliches output-input price ratio – if revenues equal cost in each period (competitive markets where firms have no market power), then productivity changes can be defined in terms of comparing the growth in the price of output relative to the price of inputs (P_x/P_y).

All of the index number methods for measuring productivity change discussed above require us choosing functional forms for the price or quantity indexes. Diewert (1992) describes four most frequently used forms for quantity and prices indexes; denoting p^1 and p^2 as price of outputs in periods 1 and 2, w^1 and w^2 as price of inputs:

- Laspeyres quantity index uses as weights the prices of the period 1, $p^1 \equiv (p_1^1, p_2^1, p_3^1, p_4^1, ..., p_M^1)$ and $w^1 \equiv (w_1^1, w_2^1, w_3^1, w_4^1, ..., w_N^1)$, being output and input quantity indexes given by:

Output quantity index - $Q_y{}^L(p^1, p^2, y^1, y^2) = \sum_{i=1}^{M} p_i^1 y_i^2 \Big/ \sum_{j=1}^{M} p_j^1 y_j^1$, (3.1)

Input quantity index - $Q_x^{\ L}(w^1, w^2, x^1, x^2) = \sum_{i=1}^{N} w_i^1 x_i^2 \Big/ \sum_{j=1}^{N} w_j^1 x_j^1$; (3.2)

For price indexes the correspondent index uses as weights the quantities of the period 1:

Output price index - $P_y^{\ L}(p^1, p^2, y^1, y^2) = \sum_{i=1}^{M} y_i^1 p_i^2 \Big/ \sum_{j=1}^{M} y_j^1 p_j^1$, (3.3)

Input price index - $P_x^{\ L}(w^1, w^2, x^1, x^2) = \sum_{i=1}^{N} x_i^1 w_i^2 \Big/ \sum_{j=1}^{N} x_j^1 w_j^1$; (3.4)

- Paasche quantity index uses as weights the prices of the period 2, $p^2 \equiv (p_1^2, p_2^2, p_3^2, p_4^2, ..., p_M^2)$ and $w^2 \equiv (w_1^2, w_2^2, w_3^2, w_4^2, ..., w_N^2)$, being output and input quantity indexes given by

Output quantity index - $Q_y^{\ P}(p^1, p^2, y^1, y^2) = \sum_{i=1}^{M} p_i^2 y_i^2 \Big/ \sum_{j=1}^{M} p_j^2 y_j^1$, (3.5)

Input quantity index - $Q_x^{\ P}(w^1, w^2, x^1, x^2) = \sum_{i=1}^{N} w_i^2 x_i^2 \Big/ \sum_{j=1}^{N} w_j^2 x_j^1$; (3.6)

For price indexes the correspondent index is analogously given by:

Output price index - $P_y^{\ P}(p^1, p^2, y^1, y^2) = \sum_{i=1}^{M} y_i^2 p_i^2 \Big/ \sum_{j=1}^{M} y_j^2 p_j^1$, (3.7)

Input price index - $P_x^{\ P}(w^1, w^2, x^1, x^2) = \sum_{i=1}^{N} x_i^2 w_i^2 \Big/ \sum_{j=1}^{N} x_j^2 w_j^1$; (3.8)

- Fisher quantity index is based on the two indexes given above and is given by the square root of the product of the Laspeyres and Paasche quantity indexes. Thus Fisher output quantity index is

$$Q_y^{\ F}(p^1, p^2, y^1, y^2) = \left[Q_y^{\ L}(p^1, p^2, y^1, y^2).Q_y^{\ P}(p^1, p^2, y^1, y^2)\right]^{1/2} \qquad (3.9)$$

Fisher quantity input index and input and output price indexes are defined in an analogous manner;

- Tornqvist quantity index Q^T, also kwon as the translog quantity index, is defined in natural logarithm of Q^T, and for output index is given by:

$$LnQ_y^T(p^1, p^2, y^1, y^2) = (1/2)\sum_{k=1}\left[\frac{(p_k^1 y_k^1)}{\sum_i p_i^1 y_i^1} + \frac{(p_k^2 y_k^2)}{\sum_i p_i^2 y_i^2}\right]\ln(y_m^1 / y_m^2) \tag{3.10}$$

Input quantity index is defined analogously with input and quantity replacing output prices and quantities, input and output price indexes are defined in analogous manner, except that the role of prices and quantities are interchanged.

3.2.1.1. Translog bilateral productivity index

The various index number techniques associated with approaches to TFP measurement referred to above produce difficulties when making comparisons between empirical results from different studies, even in presence of such an unambiguous concept as TFP. Despite the variety of conceptual approaches involving TFP measurement, in railway industry productivity changes studies there have been certain consensus in the approach chosen, that under general circumstances follow the Tornqvist index number procedure detailed in Caves et al. (1982a). In time series analysis the most widely used approach has been the proposed by Christensen and Jorgenson known as the translog bilateral productivity index developed via Tornqvist indexes.

If economic entities minimise costs conditional on output levels and input prices, and maximise revenues conditional on input levels and output prices, total factor productivity index, between two adjacent time periods 1 and 2, is given in Caves et al. (1982b) by:

$$\ln(TFP^1 / TFP^2) = (1/2)*\left[\sum_j (R_j^1 + R_j^2)*\ln(y_j^2 / y_j^1) - \sum_i (S_i^1 + S_i^2)*\ln(x_i^2 / x_i^1)\right] \tag{3.11}$$

where j and i subscript denote the individual outputs and inputs, R's are output revenue shares, S's are input cost shares.

This expression could be used to make both time-series and cross-sectional or comparisons of TFP. In the case of cross-sectional comparisons, the temporal references 1 and 2 would be replaced with K and L, interpreted as different firms rather than different time periods.

A similar methodology is used in Hariton and Roy (1979) to measure productivity changes in Canadian air and rail transport, in this article they convert outputs, passenger-miles and ton-miles, into total output using as weights an estimated portion of railway costs attributable to each type of output. For total input they used as weights the usual input's shares in total cost of production.

Similar expression was used in Caves and Christensen (1980) to analyse the efficiency of public and private firms in a competitive environment. They compared the post-war productivity performance of the Canadian National and Canadian Pacific Railroads through the measurement of translog bilateral productivity index but replacing the revenues shares weights of output index by estimates of output cost elasticities inferred from Caves et al. (1980a). This replacement is justified by the fact that prices for railway services do not reflect the marginal costs of production.

Brunker (1992) applies the concept of shadow prices to the Tornqvist procedure in estimating TFP growth rates of the Australian National Railways. He points out that in presence of excess staff reduction in labour units affect output less than the same labour change at optimal input factors, direct use of cost shares as weights for aggregation of inputs leads to an-over-estimation of labour's contribution to aggregate input index, Thus, using the shadow price of labour (the marginal product of labour) instead of wage rate leads to lower TFP calculation. He also suggests similar applications in the output aggregation for government enterprises where market prices and shadow prices may differ as a result of externalities. Marginal social benefits not reflected on the increment of revenue, should be accounted for when measuring performance of firms constrained to community service obligations.

3.2.1.2. Translog multilateral productivity index

The inconvenient of using binary comparison is that it does not satisfy the circularity requirement, i.e. $\ln(TFP^k/TFP^l) \neq \ln(TFP^k/TFP^m) - \ln(TFP^l/TFP^m)$, which implies that this binary comparison procedure is influenced by which year or base-firm is chosen as reference.

A common way of overcoming this shortcoming was proposed in Caves et al. (1982b) is to use weights that are not specific to individual observations. Thus Caves, Christensen and Diewert proposed an alternative index, known as multilateral productivity index for making panel data comparisons:

$$\ln(TFP^k / TFP^l) = (1/2)*\left[\sum_j \left(R_j^k + \overline{R_j}\right)*\left(\ln y_j^k - \overline{\ln y_j}\right) - \sum_j \left(R_j^l + \overline{R_j}\right)*\left(\ln y_j^l - \overline{\ln y_j}\right)\right]$$

$$- (1/2)*\left[\sum_i \left(S_i^k + \overline{S_i}\right)*\left(\ln x_i^k - \overline{\ln x_i}\right) - \sum_i \left(S_i^l + \overline{S_i}\right)*\left(\ln x_i^l - \overline{\ln x_i}\right)\right] \quad (3.12)$$

where the bars over variables indicate arithmetic means for revenues and cost shares and geometric means for outputs and inputs over all observations in the sample.

This procedure has the potential disadvantage that if new observations are available, expanding the set of comparisons, new calculations will be re-computed for entire data and values of previous years will change due to change of mean values, leaving the historical comparison obsolete.

An example of an application of this methodology is Freeman et al. (1985) that compares and measures the TFP of the two Canadian Class I railways, Canadian Pacific (CP) and the Canadian National (CN) for the period of 1956-1981. In this article they explore sources of TFP growth by regressing TFP measures on various combinations of network, output attribute, capacity investment, firm dummy, time trend and technology variables. They also provide an estimate of productive efficiency in the form of residual or unexplained TFP levels.

Tretheway, Waters and Fok in their study of total factor productivity of the Canadian railways, Tretheway et al. (1997), applied the multilateral productivity index to measure TFP. They also analysed the sensitivity of results to assumptions and calculation procedures. Following the same methodology of Freeman et al. (1985) TFP is regressed on a number of factor to decompose TFP differences into a number of sources.

Waters and Tretheway (1999) using index numbers compares total factor productivity and price performance of Canadian railways in the period from 1956 to 1995. They establish a direct link between productivity, prices and changes in financial performance. Calling total price performance (TPP) to the reciprocal of the Jorgenson – Griliches output-input price ratio, the change in economic profit-ability is indicated by the (TFPgrowth / TPPgrowth) ratio. Multilateral indexes for comparisons between the two railways are constructed following the procedure prescribed by Caves, Christensen and Diewert. The output price and input price indexes are constructed as dual to the respective quantity indexes. Thus, this analysis reveals that any change in the financial condition of a firm reflects the change in productivity and any change in relative prices of inputs and outputs.

3.2.2. Data envelopment analysis

Data envelopment analysis (DEA) method is another non-parametric approach to study productivity and efficiency. This approach is a radial efficiency measurement technique that uses a specially configured linear program to calculate how efficient a firm is at transforming inputs into outputs relative to the other firms or/and other within firm (over time) observations in the sample.

For each observation the DEA technique utilises an application of linear programming to construct a piecewise linear production frontier, and to compute an efficiency index for each observation relative to the frontier. The efficient observations are that constitute the production frontier, while those not on the frontier are regarded as being inefficient. Thus, DEA formulates a best practice production frontier from which efficiency of each firm in the sample can be calculated.

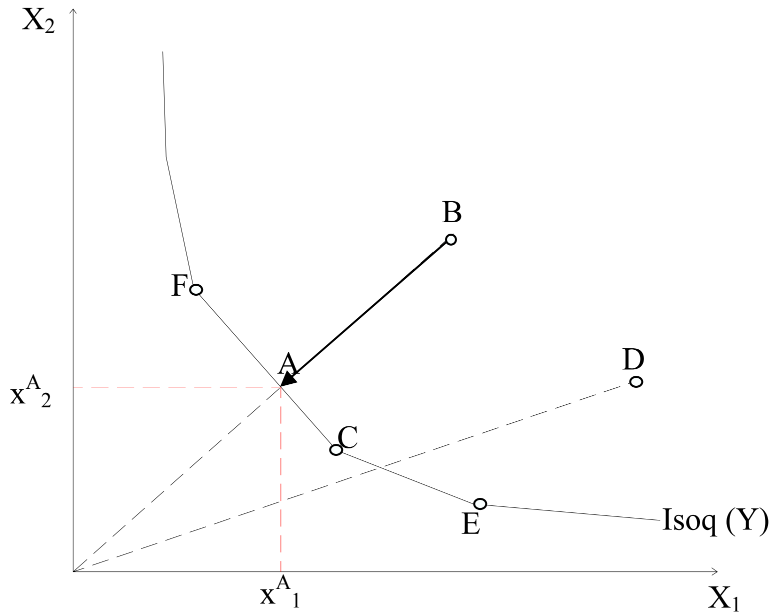

Figure 3.1 – Graphical representation of an input-oriented DEA

Figure 3.1 illustrates a hypothetical example of one-output (Y) two-input case (X_1,X_2), where Isoq (Y) is the isoquant at the level output (Y) constituting the frontier in the input space. Thus, for example, firms F, C and E are deemed efficient, since no other firms in the sample produce the same output using less of at least one of the inputs. Firm B and D are inefficient relative to the frontier, since, for example, the input vector B can be contracted in input space and still remain capable of producing the output Y with less quantity inputs corresponding to vector A (x^A_1,x^A_2).

DEA linear programs accommodate either input or output orientated configuration. Input orientated calculation produces information about how much the input mix for a firm would have to change in order to producer in a efficient manner, at a given output level. Given fixed inputs, the output oriented calculation reveals how much output would have to be produced if firm was in the best practice technology.

Several authors argue that output oriented measures should be seen as an approximation of economic output maximisation and therefore should be applied in public industry studies, whereas input oriented optimisation would be preferable in studies where the industry focus is cost minimisation.

The relative efficiency of an observation is defined as the ratio of its total weights output to its total weights input. In mathematical form, efficiency of *k*th is given by:

$$h_k = \frac{\sum_{r=1} u_{rk} Y_{rk}}{\sum_{i=1} v_{ik} X_{ik}} \tag{3.13}$$

where the Y_{rk}, X_{ik} are the known outputs and inputs of the *k*th observation, u_{rk}, v_{ik} are the weights determined by the solution of the problem.

The weights are determined by linear program optimisation. The input oriented multiplier form optimisation problem for the variable returns to scale model is:

$$\max \sum_{r=1} Y_{rk}.u_{rk} - w_k \ , \tag{3.14}$$

$$\text{s. t.} \quad \sum_{i=1} X_{ik} v_{ik} = 1,$$

$$\sum_{r=1}^{s} Y_{rj} u_{rk} - \sum_{i=1}^{m} X_{ij} v_{ik} - w_k \le 0, \text{ for } j=1,\ldots,n,$$

$$u_{rk}, v_{ik} \ge 0, \text{ for } r=1,\ldots,s;\ i=1,\ldots,m.$$

w_r is a measure of return to scale, if is assumed constant returns to scale this variable is omitted from both the objective function and constraints.

Thus DEA allows each observation to select the weights that maximise its own efficient score. The DEA index value of 1 (unity) implies the observation is on the frontier, while a value less than unity implies that its performance is below that which could be achieved.

The major advantage of DEA technique is that does not require strong *a priori* assumptions regarding production technology avoiding the knowledge of market prices of inputs or outputs in calculation.

There are some drawbacks of the DEA approach. The first one is related to the nature of process, not involving estimation of a statistical model, that implies it is not possible to test whether the efficiency index for a specific observation is statistically significant or not.

Another fact is that DEA results are greatly dependent on the observed best practices in the sample. Since DEA evaluates an observation as efficient if it has the best ratio of any one output to any one input, as a consequence, DEA efficiency scores are very sensitive to selection of inputs and outputs included in the analysis, to outliers and to measurement errors.

DEA, as a non-parametric approach, is a gross efficiency indicator, and in this way produces a global index incorporating effects of different operating environments not reflecting productive efficiency. Therefore, usually, regression analysis is performed on DEA gross efficiency index to compute a residual efficiency index beyond this operating environment differences.

DEA technique has been widely used in transport efficiency and productivity analysis, a survey of its application on public transport sector can be found in Borger et al. (2002).

Concerning rail industry, Oum and Yu (1994) use DEA to compare, over the 1979-89 period, productive efficiency of railway systems in nineteen OECD countries. Two alternative sets of output measures are used in computing the DEA index, one using revenue output measures and other using available output measures. Tobit regression was used in order to identify the effects of both public subsidies and the extent of managerial autonomy while controlling for the effects of various operating characteristics and market environments beyond managerial control, and to compute a residual efficiency index.

Focused on the comparison of results obtained from different frontier approaches, Cowie and Riddington (1996) analysed the efficiency of European railways in 1992.

Physical measures of input and output are derived and applied using variety of methodologies, DEA is one of the approaches used however their results found to be distorted by extreme values. Therefore, authors concluded that they could not recommend any reliance on results generated by this method.

To compare technical efficiency of public versus private ownership firms, Jonathan Cowie also applied DEA approach to Swiss rail industry, Cowie (1999), using one year data set, containing 57 small railways, split between 43 public and 14 private railway.

Cantos et al. (2000), using the DEA input-oriented technique, analyses the sensitivity of the efficiency indicators, of a sample of seventeen European railway companies over the period of 1970 to 1995, to different alternatives in output specification. This study shows that the analysis of the differences between the alternatives for the specification of measurements of outputs helps to explain the differences between the indicators of efficiency that such measurements can generate.

DEA technique, by definition, has a great application when leading with distance function. Examples of this application to railway productivity and efficiency studies can be found in Coelli and Perelman (1999) and Cantos et al. (1999).

In Coelli and Perelman (1999) multi-output distance functions are used to investigate technical inefficiency in seventeen European railways observed over the six year period from 1988 to 1993. They applied three alternative methods of estimating multi-output distance functions, two parametric and one non-parametric (DEA). Input-oriented, output-oriented and constant returns to scale distance functions were estimated and compared. Despite they found positive and significant correlations between the various sets of technical efficiency predictions, the strongest correlation is between the two parametric methods.

Based on the notion of distance function, the DEA technique is used in Cantos et al. (1999) to produce a total factor productivity index (Malmquist index) that allows change in productivity, in seventeen European railways in the period 1970-95, to be broken down into variations in efficiency and technical change. They also analyse the determinants of efficiency and technical change, focusing on the degree of autonomy and financial independence, following the habitual practice of using a Tobit model regression.

Another non-parametric approach following the work Farrell (1957) for measuring technical efficiency, based upon a production frontier, is the proposed by Deprins et al. (1984). This method was called the free disposal hull (FDH) since it allows one to build a production frontier without imposing convexity. This method is very simple and generalist, the frontier is staircase shaped where the position of each step is determined by an observation deemed efficient. An observation is declared efficient if is not possible to find other observation among all considered observations for which the quantity of produced output is larger and the quantities of used inputs are smaller. The degree of output and input inefficiency are calculated respectively as:

- the ratio whose numerator is the output of the observation that is to be characterised and whose denominator is the largest output produced by the observations dominating it in output;

- the ratio whose denominator is the input of the observation that is to be characterised and the numerator, the smallest input required by the observations dominating it in input.

As referred in Thiry and Tulkens (1989), an observation may therefore be deemed inefficient in output, yet not in inputs or other way round.

An application of this method to railway industry can be found in Perelman (1986), where it was applied to a data of composed of nineteen European railway over the period 1970-1983.

Table 3.1 summarises the studies reviewed above in the context of non-parametric analysis of productivity measurement. The main result that comes about looking at this table is that studies involving European railway companies have focused their attention on the efficiency analysis whereas American studies have been concentrated on total factor productivity analysis. This phenomenon is well explained by the fact that European railway productivity studies have only recently emerged.

Table 3.1 - Railway Productivity, Sources of Productivity and Efficiency Estimates with Non-Parametric Methods

Study	Methods	Sample	Aims
Hariton and Roy (1979)	Divisia-Torqvist Type Index	Canada: 1956-1975	Productivity changes
Caves and Christensen (1980)	Bilateral Productivity Index	Canada: 1956-75	Relative efficiency Public vs. Private firms
Nash (1985)	Single Partial Productivity (SPP)	Western Europe: 1971 and 1981	Labour productivity and commercial performance
Freeman et al. (1985)	Multilateral Productivity Index TFP Regression	Canada: 1956-81	Productivity growth comparitions Sources of productivity
Perelman (1986)	Production Frontier Method (Free Disposal Hull Method)	Europe: 1970-1983	Technical efficiency
Bunker (1992)	Divisia - Tornqvist Index	Australia: 1979-88	Productivity growth and shadow prices influence
Oum and Yu (1994)	Data Envelopment Analysis (DEA)	OECD: 1978-89	Productive efficiency and Public Implications
Cowie and Riddington (1996)	Frontier Methods (DEA and parametric approaches)	Europe 1992	Definition and measurement of efficiency
Tretheway et al. (1997)	SPP and Multilateral Tornqvist index (TFP)	Canada: 1956-1991	Productivity performance Sources of productivity
Cowie (1999)	DEA	Switzerland: 1995	Technical efficiency
Waters II and Tretheway (1999)	Multilateral Productivity Index	Canada: 1956-95	Productivity growth and price performance
Coelli and Perelman (1999)	DEA and Parametric Distance Function Methods	Europe: 1988-93	Technical efficiency
Cantos et al. (1999)	DEA - Malmquist index Tobit Model	Europe: 1970-95	Efficiency and technical change and their determinants
Cantos et al. (2000)	DEA	Europe: 1970-95	Efficiency measures and output specifiction

3.3. Traditional econometrics methods of productivity measurement

So far, in this review chapter, productivity growth measurement has been introduced through non-parametric approaches but conceptually it is intimately related to the structure of production and cost in the industry where is to be evaluated. As it was seen in chapter 2, one can distinguish conceptually three main sources of productivity. Using non-parametric methods, and particularly total factor productivity indices, it proves difficult to obtain direct and distinct measures of true shifts of the production function and movements alongside the function. Parametric approaches allow for this distinction.

The production function establishes the relationship between the quantities of the inputs used and of the outputs that may be obtained from the industrial process. This process may be characterised in a parametric form, continuous and differentiable, by a function f (where Y= f (X) and Y and X are respectively output and input quantities).

Introducing a time trend the conventional econometric approach estimates the following production function:

$$Y = f(X, Z, t) + \varepsilon, \tag{3.15}$$

with t = 1,2,..T; and Z other exogenous variables influencing the production process. Based on estimated parameters, the rate of technical progress is given by $\partial \ln f(X,t) / \partial t$.

As have been pointed out by several authors, in the traditional econometric approach the technical progress term, used in these studies, seems inadequate, since the rate estimated from the expression above could overlap more phenomena than those defined by the technical concept in narrow sense. Beyond the innovation and improving productive ability of the existing factors this rate could accommodate as well changes in management qualities. In this sense total productivity terminology gives a better idea what is generally measured by this rate when traditional econometric approaches are applied.

Emphasis should be made in the fact that when firms operate in distinct set of operating environment and/or on substantially different efficiency levels, the total productivity measured via index number procedure, and the shift concept of productivity measured by an econometric method yield different empirical results. For this reason comparisons of productivity results originated from different methods must be done with caution and having always in mind the purpose and the approach used and its means.

3.3.1. Cost function approach

It is sometimes difficult or unreliable to estimate the production function if there is a lack of appropriate data or if the associated assumptions are inappropriate. Examples of these situations are the unavailability data on physical input quantities, unwillingness to assume the statistical property of independency of input variables from the error term or, as is the usual case of railway industry, the existence of multi-output that imply an aggregation procedure.

Based on duality theory, cost function approaches have been developed to overcome these difficulties. Assuming that firms minimise cost at any level of output, a relationship exists between their cost function and their production function so that the characteristics of the production process may be measured from the matching cost function.

The cost function can be specified as follow:

$$C = g(Y,W,Z,t)\,, \tag{3.16}$$

where C is the total cost of the realised outputs (C=W.X), Y is the vector of multiple output levels, W the vector of input prices Z other exogenous influences on cost, including attributes of outputs and t the time trend variable.

Providing that C satisfies certain regularity conditions, the duality theory introduced by Shephard (1953) ensures that it contains the same information about production possibilities than the correspondent transformation function f(Y,X,Z,t)=0.

The regularity conditions on C are that it be nonnegative, real valued, non-decreasing, strictly positive for nonzero Y, and linearly homogeneous and concave in W for each Y.

Following Sheppard's Lemma, the first partial derivatives of the cost function with respect to the price of input factor *i* (W_i) are equal to the cost minimising input levels, and can be written in logarithmic form as:

$$\frac{\partial \ln g}{\partial \ln W_i} = \frac{W_i.X_i}{C} = S_i\,, \tag{3.17}$$

where S_i is the share of factor *i* in total cost.

Logarithmically differentiating the cost function with respect to time decomposes the rate of growth of total cost into sources:

$$\frac{d\ln C}{dt} = \sum_i \frac{\partial \ln g}{\partial \ln W_i}\frac{\partial \ln W_i}{\partial t} + \sum_j \frac{\partial \ln g}{\partial Y_j}\frac{\partial \ln Y_j}{\partial t} + \sum_k \frac{\partial \ln g}{\partial Z_k}\frac{\partial \ln Z_k}{\partial t} + \frac{\partial \ln g}{\partial t}. \quad (2.18)$$

The rate of technical progress equals the negative of the rate of total cost with respect to time, holding output, operating characteristics and input prices constant, that is, $-\partial \ln g/\partial t$. In a regression, this is the parameter measuring the shift in the cost function over time.

3.3.2. Model specification

Due to the difficulty of estimating a production function when firms produce more than one output, cost function approaches have been preferentially used on transport railway industry studies.

Albeit there is an empirical consensus about the use of cost function in the studies of traditional econometric transport railways, there are a number of issues that emerge in model specification. The two most relevant are concerning the choice of estimating short or long-run cost functions and the choice and possible aggregation of the variables that should be included in these functions, mainly that related with operating characteristics.

3.3.2.1. Quasi-fixed inputs and short-run versus long run cost functions

By definition in econometrics, the term long-run is defined as the amount of time sufficient for firms to adjust all of their inputs optimally (Oum and Waters (1996)). Thus, what should determine this empirical specification choice would be the period of observation data and the ability (even though only virtually) to adjust all factor inputs in this period of time.

Although the unit of observation time chosen has usually been one year, a period of time that implies a virtual adjustment of capital factor unrealistic, there are a several number of studies using as behavioural assumption total cost minimisation. Examples of this specification are found in the earlier studies of econometric cost function for the American railway industry.

Caves and Christensen in their first works, Caves et al. (1980a), Caves et al. (1980b) and Caves et al. (1985),use total cost functions to provide productivity and scale effect analysis of American railway industry. Another example of total cost function application is Harmatuck (1979), that developed a long term railway cost model, for the period 1968-70, trying to evaluate alternative policies involving the restructuring of U.S. railway industry.

Another characteristic of the railway industry is that investment decisions with respect to fixed structures are largely beyond the company's control. The majority of railway firms have a heavy regulatory environment, and governments have direct intervention in the decision-making process and in the financing of capital investments that reinforces the idea of erratic use of total cost minimisation.

This explains why the most recent studies abandoned the use of total cost function, being found application of it only for the rail private sector as is the case of Filippini and Maggi (1993) and Dodgson (1993).

The short-run cost function recognises that some inputs are not fully adjusted during the data period in which output change. Quasi-fixed inputs make short-run costs deviate from long-run costs. Figure 3.2 shows long-run cost average curve (LRAC) and short-run average cost curves for different levels of quasi-fixed factor (K).

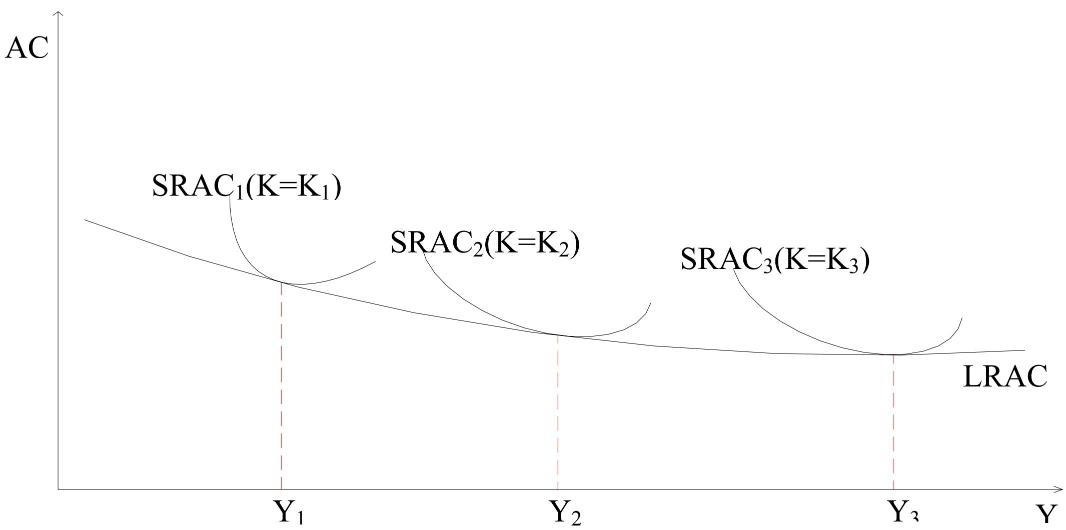

Figure 3.2 - Short-run versus long-run cost curves

Thus, using quasi-fixed inputs, usually capital factors, allows the estimation of a short-run disequilibrium total cost function. This cost function can be specified as:

$$C = g(Y, W, Z, K, t), \tag{3.19}$$

where C is observed total cost, W is the vector of input prices, and K is the level of quasi-fixed capital stock. Long-run equilibrium cost function is derived through minimisation of the short-run function with respect to the quasi-fixed factors.

A similar approach was used by Keeler (1974) in his railway cost study of Class I U.S. railways, where he estimates potential scale economies and associated excess capacity, and theirs reflexes towards public policy.

Another approach to deal with disequilibrium quasi-fixed inputs, widely used in railway transport cost analysis, is to estimate a variable cost function rather than estimate a total cost function, which can be specified as:

$$VC = g(Y, W_v, Z, K, t), \tag{3.20}$$

where, VC is total variable cost (excluding the quasi-fixed capital factors), W_v is the vector of variable input prices (excluding the rental capital prices). In this case *g* is a short-run variable cost function conditional on the level of the fixed capital stock K.

This approach was firstly introduced by, Caves et al. (1981b) in their study of productivity and the structure of costs of American railways in the period 1955-1974. Since this study, variable cost function has been the preferential choice of researchers in their econometric studies of railway industry.

Having estimated the short-run variable cost function, short-run disequilibrium total cost function is obtained by adding the parcel of capital input cost:

$$TC = g(Y, W_v, Z, K, t) + r.K, \tag{3.21}$$

where r is the rental price of the capital stock K.

By differentiating this equation with respect to capital stock, equilibrium capital stock is obtained when the opportunity cost of capital (the price of capital r) equals the firm's shadow value of capital:

$$\frac{\partial g(Y,W_v,Z,k,t)}{\partial k} = r\,, \tag{3.22}$$

the optimal level of capital stock is that results from this equality.

The long-run equilibrium total cost function is obtained by substituting the optimal level of capital stock k into the cost function (3.21).

This approach was used by Braeutigam et al. (1984) in their study focused in the analysis of economies of density of a large American railway firm of Class I for a monthly data in the period between January , 1976 and November, 1978.

Friedlaender (1992) also used this approach to estimate short-run and long-run costs and associated returns to scale in her study based on panel data of Class I of American railways for the period 1974-1986, where she looks for the implication on rates to captive coal shippers, in a quasi-regulated environment, of adequate revenue and rates of return in rail industry.

Another examples of this approach to short and long-run costs are Vellturo et al. (1992) and Friedlaender et al. (1993), where are analysed for the period 1974-1986 the effects of deregulation and mergers, resultant mainly from the Staggers Act in 1980, on the structure of costs of the major American railways.

3.3.2.2. Variables and data quality issues

In the cost function analysis there is a wide range of variables that could describe the adequate structure of cost. The number of variables to include in a specific model depends on the level of aggregation required by available data and statistical functional constraints.

The main variables employed in the cost function specification are factor input prices, output and the fixed capital stock. The input factors which usually are used in cost function are labour, energy, equipment and materials.

Dependent on the quality of data different methods of measuring input prices, output and capital stock could be applied as well as superior aggregation of theses factors. Thus similar methodologies could reach different results due to different measurement and aggregation input options. This has special relevance when leading with data from different countries.

3.3.2.2.1. Input variables

The variable representing the index of labour prices is usually given by the ratio of labour costs over the number of workers in company. When more disaggregate data is available a weighted index compound of subcategories of labour forces and respective salaries and wages is used instead, giving a more accurate labour price index.

The energy price index is usually defined as the ratio of total energy expenditure over the total quantity of equivalent thermal units consumed. As in the labour index, if there are a more detailed data, a weighted index is taken incorporating as for example electricity, diesel oil and lubricants indexes.

The two factors that more frequently show difficulties in finding reliable data are materials and capital.

The first one due to its own multilateral nature, incorporating an extraordinary large number of items, makes very complex the task of finding adequate price index. To overcome this problem several authors, as pointed out in Oum and Waters (1996), have used a PPP-adjusted (purchasing power parity) consumption price index. Based on the, often questionable, low level share of material expenses in total costs, some studies have excluded materials inputs from their cost function estimation. Another way of dealing with specification of material price index, very often used on inter-country comparisons, is to derive it as the total material expenses divided by the total train-km of each company.

Capital costs enter the cost functions in both forms, as a price for the equipment and as a quantity in the case of way and structures. If equipment is assumed to be a fixed factor, then in short-run variable cost function, both are employed as a quantity input.

Most data on capital stock comes from firm's account and financial reports. Each firm, mainly when located to different countries, has its own method of depreciation implying that, in several situations, interest payments and depreciation reports could differ substantially from the opportunity costs of using existing capital.

Therefore, to avoid discrepancies between firms and to have a reliable economic value of capital stock, researchers have generated their own measurement of capital stock, having usually recourse to the perpetual inventory method proposed by Christensen and Jorgenson [see Christensen and Jorgensen (1969) and Miller (1983)].

3.3.2.2.2. Output and attribute variables

Another fundamental point in the variable cost function specification is that related to outputs. Since railway transport industry services provided a complex diversity of passenger and freight services it would be impractical to include them as separate outputs, it is necessary to aggregate the outputs.

The usual candidates for output aggregation units are tonne-kilometres and passenger-kilometres. However, this specification treats these heterogeneous aggregate units as a homogeneous product, having sometimes little correspondence with reality. For example, the simple tonne-kilometres measure assumes that moving one tonne over 100 kilometres has identical repercussion on costs that of transporting 100 tonnes over one kilometre, or that the cost of transporting 100 passengers at the distance of 100 kms is identical to transport 10 passengers at a distance of 1000 kms.

When productive research is focused uniquely on firm management efficiency, excluding government and public entities intervention, other possible output specification units that have often been used are freight and passenger train-kilometres; however they incorporate similar bias in cost function estimation.

To minimise this bias caused by the aggregation of heterogeneous outputs, many authors introduced various operating attribute control variables into the specification of the cost function. Examples of these output attributes to include in the cost function are: average length of haul, average load per train, average number of passenger per train, percentage of bulk commodities, network size and percentage of unit train traffic.

Specification of these sorts of variable attributes is found in several rail studies, as examples one makes reference to three representative studies. The first one, Caves et al. (1981a), is a comparative study of economic performances of Canadian and U.S railway where were included as output attribute the average length of haul; a second example is the Friedlaender et al. (1993) where technological variables as percentage of coal and agricultural tonnes carried per total tonnes carried were added to the aggregate output to take into effect the composition of output; and a more recent study, Wilson (1997), where inclusion of technological variables as average length of haul, the percentage of unit train traffic and the percentage of interlined traffic were introduced in cost function to analyse the cost savings and productivity of Class I American railways, in the deregulation period from 1978 through 1989.

These types of exogenous influences on cost-output relationships are especially relevant in cross section data where differences in weather, terrain and market location characteristics are very distinct. But, beyond these geographic influences there are others, related to the firm service quality provided, that should be incorporated into the cost function. These attributes of service quality could be of crucial importance when analysing firm efficiencies. Firms that supply higher levels of quality services have a more costly service but consequently could obtain higher revenues. This effect, when not explicitly introduced into the analysis, is not recognised in the implicitly assumed homogeneity of traditional output and input measures.

There are few works that incorporate explicitly this quality of service in cost function. The main reason comes from the fact that reliable measures of this attribute, due to the lacking of data and its heterogeneity feature, are of extreme difficult quantification.

In the railway industry works, Braeutigam et al. (1982 and 1984) are the exception. Braeutigam et al. (1982) estimate a short-run cost function of a small sized American railway firm in the period 1969-77, they incorporate engineering information about the technology of the firm. These engineering process functions were used to provide observations on speed of service. Testing the hypothesis that the engineering information does not significantly improve the model, they rejected it as well the joint separability and homotheticity hypothesis.

Their model also included a flow and speed variable in their formulation and estimation of a long run cost function for a large railroad firm of their following work Braeutigam et al. (1984).

As noted in Oum and Waters (1996), if multiple outputs are specified and each has its own attributes, it is not easy to include all these attributes without imposing some structure in their relationships with outputs. With this aim, an alternative approach, re-adapted from price theory, which has been used in cost function, is the hedonic approach.

The hedonic cost function is typically specified as:

$$C = g(\eta^1(y_1, Z_1), \eta^2(y_2, Z_2), ..., \eta^m(y_m, Z_m), W, K, t), \tag{3.23}$$

where $\eta^i(y_i, Z_i)$ represents *i*th hedonic attribute-adjusted output which depends on y_i (*i*th nominal aggregate output) and Z_i (vector of attributes for *i*th output). The hedonic specification is a way of incorporating the effects of output attributes in the cost function saving degrees of freedom in estimation. Oum and Tretheway (1989) compare the number of parameters necessary to estimate a hedonic vs. general specification and theoretical reasons for preferring the hedonic specification. Hedonic output specification in railway industry can be found in Borger works as for example Borger (1991) and Borger (1992) studies about Belgian railway productivity and operating characteristic influences in cost structure analysis.

A special case of hedonic cost function is the econometric study, developed in Bereskin (1996), on U.S. railway productivity growth in a deregulated environment (the period 1978-1993), where he uses a bi-level translog cost function, with the hedonic attributes being the cost short-run variable micro function of the four major railway sectors of operation. These hedonic variables are incorporated in the short-run variable cost macro function along with the output, time trend, technological factor and fixed factor variables.

Another approach, extensively used in traditional econometric studies, to capture these differences in environmental constrains and operating characteristics is to use firm dummy variables and/or firm-specific time trend variables.

These variables represent firm-specific effects on costs unaccounted for by other arguments in the cost function. Thus these variables capture not only the cost variations which can be explained by the output attributes Z, but also the residual productive efficiency across firms and over time.

Several authors use these firm dummy variables jointly with the outputs attributes. However this procedure could create high levels of collinearity, and as referred in Oum and Waters (1996) the firm dummy variables pick up a large portion of variations in cost which could be legitimately explained by the variations in outputs and output attributes; therefore, including firm dummy variables in a cost function should be accompanied by an examination of the impacts on other coefficients.

As was said, there are several studies that include dummy variables to capture unobservable firm effects, one focus in four main distinct studies representative of this approach.

Caves et al. (1985) used firm dummy variables to measure unbiased returns to scale and density of American Class I railways in the period between 1951 and 1975, and they found that returns to density are very sensitive to the inclusion of the correction for unobserved firm effects. As well, in Vellturo et al. (1992) firm-specific dummy variables were used, in costs and input share equations, to capture the mergers and unobserved firm effects.

Similarly, to capture the merger and deregulation effects on employment decline in American railway deregulation period, from 1978 to 1994, Davis and Wilson (1999) also used dummy variables jointly with trend variables and operating characteristic variables in the formulation of these environment effects.

In a recent study of productivity growth in ten European Union railways over the period 1969-1992 Loizides and Tsionas (2002) use a set of country and time dummies on a panel data estimation technique to ensure that the data determine different railway-specific technologies, and consequently allowing for distinct fixed technical parameters across countries.

3.3.3. Functional forms for cost/production functions

Once a cost function has been specified, another issue is which functional form should be used to estimate the function.

A basic and simplest specification of cost functions is the Cobb-Douglas specified as:

$$C = \beta_0 . \prod_i^n w_i^{\alpha_i} \prod_j^m Y_j^{\beta_j} \prod_k^r Z_k^{\gamma_k} e^{\delta . T} , \qquad (3.24)$$

where $\beta_0, \alpha_i, \beta_j, \gamma_k$, and δ are the coefficients to be estimated and the remaining variables are as defined previously. The logarithmic form of this equation allows linear estimation of the cost function parameters. A recent example study with Cobb-Douglas adjusted cost function is Loizides and Tsionas (2002), where the variable time trend was substituted by time dummy variables which interacted with all prices and the fixed input, reflecting industry-wide changes.

A major restriction of this functional form is that elasticity of substitution between any pair of inputs must equal unity. A natural extension of Cobb-Douglas cost function, which allows the elasticity of substitution to differ from one, is the constant elasticity of substitution (CES) cost function. However, the CES does still require that the elasticities are fixed, that is, they are not allowed to change with output and/or input factors.

These restrictions on production technology lead to development of more flexible functional forms such as the translog, the generalised Leontif and the quadratic functional form (a discussion about these specific functional forms can be found in Caves et al. (1980b) and Diewert and Wales (1987)). These functional forms provide a second-order differentiable approximation to any arbitrary, twice continuously-differentiable cost functions, which permit additional restrictions, such as homogeneity, separability, constant return to scale or constant elasticity of substitution to be tested rather than imposed.

The flexible functional form that has most commonly been used in the railway industry studies is the transcendental logarithmic (translog) multi-product cost function. Omitting the variable time trend and the operating/output attributes for the moment for simplicity, the translog specification (for the total cost function without quasi-fixed factors) is:

$$\ln C = \chi_0 + \sum_j \delta_j \ln y_j + \sum_i \iota_i \ln w_i + \sum_i \sum_j \phi_{ij} \ln y_j \ln w_i +$$

$$+ \frac{1}{2}\sum_j \sum_k \gamma_{jk} \ln y_j \ln y_k + \frac{1}{2}\sum_i \sum_l \eta_{il} \ln w_i \ln w_l \,, \qquad (3.26)$$

where i denotes the inputs and j denotes the outputs.

According to Shephard's lemma, simultaneous estimation of input share equations, derived from this cost function, are given by:

$$S_i = \frac{\partial \ln C}{\partial \ln w_i} = \iota_i + \sum_j \phi_{ij} \ln y_j + \sum_l \eta_{il} \ln w_l \,, \qquad (3.27)$$

where, Si is the share of input i in the total cost function.

Following the regularity conditions, the cost function must be homogeneous in input prices and therefore the following restrictions are required:

$$\sum_i \iota_i = 1, \qquad \sum_i \sum_j \phi_{ij} = 0, \qquad \sum_i \sum_l \eta_{il} = 0$$

Symmetry restrictions impose:

$$\gamma_{jk} = \gamma_{kj}\,, \quad \text{and} \quad \eta_{il} = \eta_{li}\,, \qquad \text{for } i \neq j.$$

A number of additional parameter restrictions can be imposed on the translog cost function, corresponding with further restrictions on the underlying technology. For the translog cost function to be homothetic it is necessary and sufficient that˝ $_{ij}$ = 0, \$ i=1,..n and j=1,…m. Homogeneity of a constant degree in output occurs if, in addition to these homotheticity restriction, g_{jk} = 0, \$j,k=1,..m. Constant returns to scale occurs when, in addition to the above homotheticity and homogeneity restrictions, $\sum\beta_j=1$. Finally, the translog function reduces to the constant-returns to scale Cobb-Douglas function when, in addition to all the above restrictions, each of the h_{il}=0, \$*i,j*=1,…,n.

The translog cost function, regarding its analysed characteristics, is a very flexible functional form that allows, with some restrictions imposed, respecting the regularity conditions, mainly that precondition, guarantee of the existence of a duality relationship between the cost and transformation functions, of linear homogeneity in input prices. Its flaw resides in the fact that in presence of zero output observations in the sample, due to its logarithmic form is not suitable for application. However, the translog multi-product cost function can be generalised to accommodate zero output levels without introducing any handicap. Caves et al. (1980b) looking for an available metric that is well defined for zero values, found the Box-Cox metric that beyond allowing for zero value contains the natural logarithm as a limiting case.

By the investigated properties listed above the translog functional form is the most popular forms used in econometric railway studies. Alternative flexible forms to translog formulation in recent railway studies are very scarce, one of the exception is the generalised Box-Cox function used in Borger (1992), that has as limiting case the translog cost function and the generalised Leontif as a special restrict case. Borger (1992) investigated returns to scale and average rate of productivity growth of Belgian railways, in the period 1950-86, using the referred function and the others two, the translog and generalised Leontif, and found no important qualitative differences in the technological characteristics of the firms between the three specifications considered.

3.3.4. Productivity growth estimation from cost functions - technical progress

It was seen in the sub-section 3.3.1. the rate of technical progress equals the negative of the rate of total cost with respect to time, holding output, operating characteristics and input prices constant, that is, $-\partial \ln g/\partial t$. In this context, productivity growth is measured as the shift in the cost function over time. This is one of the contributions of duality theory: assuming that firms minimises cost at any level of output it allows one to redefine in terms of the cost function the productivity growth measurement.

The productivity growth may be viewed in two ways: as the common rate at which all outputs can grow over time with inputs held (i.e., the maximum output increase that can be produced with the various quantities of input), here after referred to as PGY; or as the common rate at which all input can be decreased over time with outputs held fixed (i.e., the reduction of minimal input quantities required for ensuring any quantity of output), hereafter referred to as PGX.

Duality analysis demonstrates (see Caves et al. (1981b)) that the common rate PGX and PGY are given by:

$$PGX = -\partial \ln g/\partial t \tag{3.28}$$

and

$$PGY = -(\partial \ln g/\partial t)\Big/\left[\sum_j (\partial \ln g/\partial \ln y_j)\right], \tag{3.29}$$

where g is the total cost function.

These measurements of productivity growth in terms of inputs and in term of outputs are only identical for constant returns to scale.

Following Caves et al. (1981b), if the firm minimises the cost only with respect to a subset of inputs conditional on the levels of quasi-fixed factors, as is assumed in the majority of railway studies, then the formulations above should be adjusted for short-run variable cost function (g^V):

$$PGX = -(\partial \ln g^V/\partial t)\Big/\left[1 - (\sum_k \partial \ln g^V/\partial \ln K_k)\right], \tag{3.30}$$

$$PGY = -\left(\partial \ln g^{V} / \partial t\right) \Big/ \left[\sum_{j} \left(\partial \ln g^{V} / \partial \ln y_{j}\right) \right], \tag{3.31}$$

where K denotes the quasi-fixed factors. Note that according to Morrison (1986) and Oum et al. (1991) the PGX formulation (3.30) is valid only for homothetic production technology, for non-homothetic production technology it should be modified by substituting the long-run equilibrium values of quasi-fixed inputs into formula.

Depending on the specification of the function, the rate of technical progress can be decomposed in: pure technical change or Hicks neutral technological progress, non-neutral technical change (due to the interaction between t and input prices *w*) and scale augmenting technical change (due to the interaction between t and outputs *y*).

Hicks neutral technological progress is associated with technical change in which increasing the efficiency of both labour and capital, leaves the optimal combination of the two factors unaffected so that the marginal rate of substitution remains the same.

Additionally, two types of alternative non-neutral technical change are often defined: Solow neutral technological progress and Harrow neutral technological progress. Harrow neutral technological progress sometimes referred as labour augmenting technology, corresponds to a technological growth in which labour efficiency, but not capital, increases with technology; Solow neutral technological progress describes the opposite situation in which capital efficiency, but not labour, increases with technology and for this reason sometimes is referred as capital augmenting technology.

Following the most widely used translog cost function defined in section 3.3.3., to incorporate the technical progress effects it is necessary to add the terms corresponding to the phenomena referred above, i. e.:

$$\ln C = \ln C(y,w) + \varpi_0 t + \frac{1}{2}\varpi_1 t^2 + \sum_i \eta_i t.\ln w_i + \sum_j \psi_j t.\ln y_j\ , \tag{3.32}$$

where, lnC(y,w) is given by equation (3.26), *t* is the variable time trend; the sum of second and third terms in the second hand of equation gives the cost change due to pure technical progress or Hicks' neutral technological progress, the fourth term the cost change due to non-neutral technical change and finally the last term the cost change due to scale-augmenting technical change.

3.3.5. Cost structure - elasticities

Apart from productivity growth, traditional econometric cost functions can produce additional information on the cost structure of a firm and/or industry. In other words the econometric approaches allows to make inferences about the structural economic behaviour of a firm through the estimation of scale economies, input substitutability (complementarity) and input productivities, and the manner by which they interact.

There are extensive studies focused on this analysis, a significant good example is the Andrikopoulos and Loizides (1998), where cost structure and productivity analysis is carried through ten European railway systems. Seeking this objective, for each of the ten systems, productivity growth, scale economies and a set of elasticities were estimated, using time-series data covering the period 1969-1993.

3.3.5.1. Economies of scale, density and scope

Scale and scope economies analysis are of primordial importance in understanding industry organisation and/or to implement any kind of public policy intervention. Railway industry, by its own characteristics and the continuous increase of dependence on public resources, has widely been object of study in this field.

3.3.5.1.1. Economies of scale and density

Although the existence of economies of scale is not an economic argument justifying unequivocally any type of structural organisation, scale effects have been the main focus of study in railway industry. Examples from the extensive railway studies focused in the measurement of scale economies are Keeler (1974), Harris (1977), Caves et al. (1981b), Braeutigam et al. (1984), Caves et al. (1985) and Preston (1994).

In transport economics, one often deals with transport networks; these network effects have fundamental role on transport definition of return to scale, implying two distinct definitions of economies of scale – return to scale (RTS) and return to traffic density (RTD).

A common definition of economies of scale is the proportionate increase in output made possible by a proportionate increase in inputs, keeping time fixed. Including network effects in this definition and attending to the duality theory, economies of scale could be defined as the variation in costs caused by equipropotionate increases in output and network structure (points served) when input prices are held constant, and then becomes:

$$RTS = \frac{1}{\sum_j \varepsilon^C_{Y_j} + \varepsilon^C_N}, \tag{3.33}$$

where, $\varepsilon^c{}_{Yj}$ is the elasticity of total costs with respect to output j and $\varepsilon^c{}_N$ is the elasticity of total cost with respect to network size variable.

This definition reflects the impact on costs of a change in the magnitude of the company, however another distinct definition, with a restricted traffic magnitude, is possible, which is the economies of density or returns to traffic density. By definition economies of density quantify the variation in costs caused by an equiproportionate increase in inputs, holding input prices and network structure constant, and is given by:

$$RTD = \frac{1}{\sum_j \varepsilon^c_{Y_j}}. \tag{3.34}$$

It is said to have increasing/decreasing economies of scale/density if results from equations above (RTS or RTD) give a value greater/less than unity, and there is constant return to scale/density if this figure is equal to one.

It should be noted that these definitions (based on cost function) don't give the same results as that directly measured from a production functions (scale elasticity). The elasticity of scale is equal to the reciprocal of the elasticity of cost with respect to output only if the underlying production function is homothetic.

Another point that must be stressed is that most studies are based on variable cost function than in total cost function, and then in the former cases results from equations above are likely to be biased. When variable cost functions are used, following Caves et al. (1981b), the expressions for RTS and RTD should be:

$$RTS = \frac{1 - \sum_{k} \varepsilon_{K_k}^{VC}}{\sum_{j} \varepsilon_{Y_j}^{VC} + \varepsilon_{N}^{VC}} \tag{3.35}$$

and

$$RTD = \frac{1 - \sum_{k} \varepsilon_{K_k}^{VC}}{\sum_{j} \varepsilon_{Y_j}^{VC}}, \tag{3.36}$$

where ε_K^{VC} is the elasticity of variable cost with respect to quasi-fixed capital stock.

However, as pointed out in Oum et al. (1991), these expressions only compute RTS and RTD correctly if the dual production function is homothetic, which is characterised by a firm's straight-line expansion path (i.e. the cost-minimising input proportions are independent of the output required). To extend this formulation to the case of non-homothetic production technology, Oum et al. (1991) suggest, following the similar method of shadow pricing used in Morrison (1986), to modify the Caves, Christensen and Swanson formulas by substituting the long-run equilibrium values of quasi-fixed inputs into the formulas above. These optimal levels of the fixed factors could be derived from the long-run envelope function of the short-run total cost functions, as referred to in subsection 3.3.2.1..

Recent studies have proposed a revaluation of economies of scale taking into account the interrelationships among output and output attributes, using full cost elasticity as applied in different context by Ying (1992).

The first attempt to take into account the output characteristics was in Caves et al. (1985) where returns to scale were computed using two extreme cases, one that includes the output characteristic cost elasticities in scale economies formula, other that excludes, and a intermediary case with weighted attribute cost elasticities. In Xu et al. (1994), following Ying (1992), full cost elasticities were incorporated into return to scales calculation using the linear regression that express the relationship between the output characteristics and the outputs and the other exogenous variables; showing that output and operating characteristics change with firm size.

Jara-Díaz and Cortés (1996) following the method of full elasticities costs applied it on the re-examination of economies of scale resultant from ten dimension of transport output (or output attributes). They proved analytically that elasticities from aggregates (output and attributes) should be assigned a weight. These weights would be dependent on the aggregation properties of their arguments. In their presented examples these weights vary from zero (as for example in the case of average length of haul) to one (for the true output vector as tonnes or tonne-miles).

Oum and Zhang (1997) analysed the above proposed methods of economies of scale evaluation in transport, and point out that despite Jara-Díaz and Cortés (1996) calculations contemplate economies of density rather than scale, the re-examination of economies of scale based on their theory should be a matter of further studies to ensure proper measurement and interpretation of economies of scale.

3.3.5.1.2. Economies of scope

The presence of economies of scale has been an argument sometimes used to justify the existence of natural monopoly. However, in the case of multi-product firm existence of economies of scale is not sufficient to prove the existence of subadditivity.

A related concept is the notion of economies of scope, defined in chapter 2.. Economies of scope refer to the cost advantage a firm experiences when it is producing services jointly in two or more markets compared with firms that would produce in only one market.

Baumol (1977) defined as the necessary and sufficient conditions to determine the subadditivity of the cost function the existence of scope economies and decreasing average incremental cost for each output.

The test of scope economies has been usually undertaken by the extrapolation of the estimated cost functions using data not included in the sample observations, as is the case of Parisio (1993) and Preston (1994). However, as referred in Preston (1994), results of economies of scope cannot be considered full reliable when all the companies that compose the sample are multi-product firms without specialisation in one output. Unless the sample data with which the cost function is estimated includes many single product firms as well as multiple product firms, it is risky to extrapolate the cost function to zero values.

Some researchers evaluate inter-product cost complementarity between each pair of products (see Parisio (1993)) as an alternative condition of scope economies, thus if :

$$\frac{\partial^2 C}{\partial y_i \partial y_j} > 0, \tag{3.37}$$

then cost-complementarity exists between outputs Y_i and Y_j. But, as pointed out in Oum and Waters (1996), this concept is distinct of economies of scope; economies of scope refers to co-production being less costly than each product by itself, whereas cost-complementarity could exist over a narrow range of production combinations.

Evans and Heckman (1984) suggest a locally subadditive test to overcome the difficulties referred to above, so that if local subadditivity is rejected then global subadditivity is also automatically discarded. A cost function with two outputs Y_1 and Y_2 is said to be locally subadditive if and only if:

$$\sum_{i,j} C(\chi_i Y_1, \delta_j Y_2) \cong C(Y_1, Y_2), \tag{3.38}$$

$$\text{with } \sum_i \chi_i = 1, \text{ and } \sum_j \delta_j = 1 \text{ for } i,j=1,\dots,n;$$

where, at least, two values for χ_i or δ_j are different from zero for different levels of Y_1 and Y_2. The cost function will be globally subadditive when the function is locally subadditive for all the possible levels of Y_1 and Y_2.

The Evans-Heckman test has the peculiarity of limiting the contrast within a range of observations compatible with the available data in the sample. This test must be understood valid solely within the pre-defined (admissible) region, since this comparison is in only one direction, i.e. the acceptance of local subadditivity does not imply the ratification of global subadditivity of the function. Examples of recent subadditivity applications to railway industry can be found in Sánchez (2000), Mancuso and Reverberi (2003) and Bitzan (2003).

3.3.5.2. Elasticities

Until now the review has concentrated on productivity and scales analysis, however individual elasticities analysis could make an important contribution to understanding the cost structure of a certain industry.

Elasticities of cost with respect to output, input prices and time have been widely used due to their importance to the characterisation and measurement of the different sources of productivity. However, their contribution goes beyond these applications. The most used and of crucial importance in the economic analysis of cost function are the elasticities of substitution between inputs, the price elasticities of input demands and elasticities of the average input productivity (a excellent analysis of these elasticities is Andrikopoulos and Loizides (1998)).

The most favoured in the literature, and with special relevance on examination of the regularity conditions of cost function required by economic theory, are the substitution and price elasticities of inputs.

The Hicks-Allen partial elasticities of substitution between inputs *i* and *j* for a general dual cost function C having *n* inputs are computed as:

$$\sigma_{ij} = \frac{C \dfrac{\partial C^2}{\partial w_i \partial w_j}}{\dfrac{\partial C}{\partial w_i} \dfrac{\partial C}{\partial w_j}} \qquad (3.39)$$

Using this equation, the cross- and own-partial elasticities of substitution for the translog cost function (section 3.3.3.), turn out, respectively, to be equal to:

$$\upsilon_{ij} = \frac{\eta_{ij} - S_i S_j}{S_i S_j}, \quad i,j = 1,\ldots,n \text{ , for } j \neq I; \tag{3.40}$$

$$\upsilon_{ii} = \frac{\eta_{ii} - S_i^2 / S_i}{S_i^2}, \quad \mathrm{i} = 1,\ldots..,n. \tag{3.41}$$

Global concavity of the cost function requires that all own-partial elasticities of substitution are negative at all points. No restrictions are imposed on the cross-partial elasticities of substitution. They can be either positive, suggesting input substitutability, or negative, suggesting input complementarity.

Further, since the price elasticities are $\gamma_{ij} = S_j \upsilon_{ij}$, it follows that for the translog cost function, price elasticities are calculated as:

$$\gamma_{ij} = \frac{\eta_{ij} - S_i S_j}{S_i}, \quad i,j = 1,\ldots,n \text{ , for } j \neq i; \tag{3.42}$$

$$\gamma_{ii} = \frac{\eta_{ij} - S_i^2 / S_i}{S_i}, \quad \mathrm{i} = 1,\ldots..,n. \tag{3.43}$$

Hypothesis test regarding the empirical validity of the homotheticity, homogeneity, constant return to scale can be statically inferred through constrains on partial elasticities.

There is a vast list of studies focused on analysis of railway structure of costs, examples of studies paying special attention on partial elasticity implications are Caves et al. (1981b), McGeehan (1993), Andrikopoulos and Loizides (1998), and Mancuso and Reverberi (2003).

Table 3.2 summarises the railway studies reviewed above in the context of traditional parametric productivity and costs structure analysis. The main result that comes about looking at this table is that Translog Cost Function was, in face of its flexibility, the preferred functional form.

Table 3.2 - Railway Productivity, Sources of Productivity and Efficiency Estimates with Traditional Parametric Methods

Study	Methods	Sample	Aims
Keeler (1974)	Coub Douglas Production Function Enveloping Quadratic Cost Function	U.S.:1968-70	Return to scale Policy implications
Harris (1977)	Linear Total Cost Specification	U.S. : 1972-1974	Economies of traffic density
Harmatuck (1979)	Translog Total Cost Function	U.S.:1968-70	Cost structure Policy implications
Caves et al. (1980a)	Translog Total Cost Function Bilateral Productivity Index	U.S.: 1951-1974	Productivity growth
Caves et al. (1980b)	Translog Total Cost Function	U.S.: 1963	Cost structure
Caves et al. (1981a)	Translog Cost Function	U.S.:1955-74	Productivity growth Scales economies
Caves et al. (1981b)	Translog Cost Function Bilateral Productivity Index	U.S. and Canada: 1956-74	Comparative Productivity growth
Braeutigam et al. (1982)	Translog cost function	U.S. private railway: 1969-77	Speed of service effect in structure of costs
Braeutigam et al. (1984)	Short and Long - Run Translog Cost Function	U.S.: 1976-78	Econmies of density
Caves et al.(1985)	Translog Total Cost Function	U.S.: 1951-75	Scale economies Network effects
Borger (1991)	Translog Cost Function Hedonic Output Aggregation	Belgic: 1950-1986	Productivity, scale and operating characteristics effects
Borger (1992)	Generalized Box-Cox Cost Function	Belgic: 1950-1986	Productivity growth Cost structure
Friedlaender (1992)	Short and Long - Run Translog Cost Function	U.S.: 1974-86	Returns to scale Rates of return
Vellturo et al. (1992)	Short and Long - Run Translog Cost Function	U.S.: 1974-86	Mergers cost efficiency
Friedlaender et al. (1993)	Short and Long - Run Translog Cost Function	U.S.: 1974-86	Scale effects Capital adjustments
McGeehan (1993)	Translog Cost Function	Ireland: 1973-1983	Railway costs Productivity growth
Filippini and Maggi (1993)	Translog Total Cost Function	Switzerland: 1985-88	Efficiency and scale economies
Dondgson (1993)	Translog Total Cost Function	UK: 1900-12	Cost structure Productivity growth
Preston (1994)	Translog Cost Function	Europe: 1971-1990	Economies of scale
Bereskin (1996)	Bi-level Translog Cost Function	U.S.: 1978-1993	Deregulation effects Productivity growth
Wilson (1997)	Translog Cost Function	U.S.:1978-89	Productivity and cost savings Deregulation effects
Andrikopoulos and Loizides (1998)	Translog Cost Functions	Europe: 1969-1993	Cost structure Productivity growth
Davis and Wilson (1999)	Log-linear Employment Function	U.S.: 1978-1994	Deregulation and merger effects on employment
Cantos Sanchéz (2000)	Translog Cost Function	Europe:1973-90	Subadditivity test
Loizides and Tsionas (2002)	Cobb-Douglas Cost Function	European Union: 1969-1992	Productivity growth
Mancuso and Reverberi (2003)	Translog Cost Function	Italy: 1980-1995	Industry organisation Production specialisation
Bitzan (2003)	Translog Cost Function	US: 1983-1997	Railway costs

3.4. Parametric frontier methods

In chapter 2 we reviewed the concept of the production frontier as a requirement to the measurement of technical and allocative inefficiencies

When leading with traditional econometric methods one assumes the absence of technical and allocative inefficiencies, i.e. traditional econometric methods rely on the implicit assumption that all firms are successful in reaching the efficient frontier, being the random deviation from the estimated production or cost function attributed to measurement errors, non observed explanatory variables and, particularly, random shocks that cannot be controlled by the firm managers.

If, however, firms are not equally efficient, then the traditional estimation method would not reflect the efficient frontier. Thus, the recognition that some firms have deviations from efficient operations, due to technical or/and allocative inefficiencies, has motivated researchers to estimate frontier production or cost functions that recognise and allow the measurement of these productive inefficiencies.

Studies of frontier technology can be classified according to the way the frontier is specified and estimated. First, the frontier may be specified as a parametric or non-parametric function of inputs. Section 3.2.2. has already discussed the non-parametric approach, therefore, this section focuses on parametric frontier analysis. Second, the relationship between observed output and the frontier may be specified either as an explicit statistical model or not, using for estimation in this latter situation mathematical programming models. Finally, the frontier itself may be specified to be either deterministic or random.

The next sub-sections are dedicated to the most frequent permutation of referred specifications that have had empirical application on several studies, and that involve either deterministic (statistical or not) or stochastic specification.

3.4.1. Deterministic frontier methods

A typical definition of the frontier is the maximum output which can be attained, given a set of input quantities. But, as Førsund et al. (1980) point out, it is possible to think of this maximum as being taken either with respect to those firms in the sample, or with respect to all firms which could conceivably exist and embody current technology.

In the first definition the frontier is identified as what might be called the *best-practice* frontier, and is what is estimated by non-parametric methods such as DEA or parametric frontier derived from mathematic programming, both non-statistical methods, i.e. no assumption is made about the distributional form of the deviation terms.

In the second case where the maximality is specified over all possible sample points, given technology, is for this reason called an *absolute* frontier, representing current technology, and it is that results from statistical estimation which assumes an explicit distributional form for the one-sided error.

Both, mathematic programming or statistical estimation, are what is called determinist frontier approaches, since both require all observation to be on or beneath the frontier.

3.4.1.1. Non-statistical estimation of deterministic parametric frontier

This model may be written as:

$$\ln y = \ln f(x) - u, \quad u \geq 0, \tag{3.44}$$

where the one side error term forces the produced output (y) be equal or inferior to $f(x)$.

The elements of parameter vector, say (β), that compound the function frontier $f(x;\beta)$, may be estimated by linear programming, minimising the sum of the absolute values of the residuals, subject to the constraint that each residual be non-negative. If one designates by n the number observation in the sample, which of each defined by pair (Y^k,X^k), the program reads:

$$Minimise \sum_{k=1}^{n} \left[\ln f\left(X^k;\beta\right) - \ln Y^k\right], \tag{3.45}$$

with respect to each component of vector (β) subject to the constrain that for each of n observations k , the expression $\left[\ln f(X^k;\beta) - \ln Y^k\right] \geq 0$ be satisfied.

Another alternative method for estimation of parameter vector (β) is the formulation of the objective function in terms of the squares of the residual, i.e. a quadratic programming that minimises the sum of squared residuals, subject to the same constrains $\left[\ln f(X^k;\beta) - \ln Y^k\right] \geq 0$.

Technical efficiency of each observation can be computed directly from the vector of residual, and is given by ($e^{(-u)}$).

Parametric frontier using linear programming methods have had scarce application in railway studies, exceptions are the works involving comparisons of methodologies such as Cowie and Riddington (1996) and Coelli and Perelman (1999), where results of this method application to European railways are confronted with results from alternative methods estimation such as DEA and statistical frontier methods.

The scarceness application of this method comes essentially from the fact that as a *best practice* frontier it is a restrict sample frontier and consequently very sensitive to outliers. Another problem with this approach is that the estimates which it produces have no statistical properties, and thus, implying that inference of results can not be obtained.

3.4.1.2. Statistical estimation of deterministic parametric frontier

The model of the previous sub-section can be made amenable to statistical analysis by making some assumptions. Still assuming that the deviations between the estimated function and the production situations observed are one-sided ($u \geq 0$), the estimates of the function frontier *f* may be given statistical properties by specifying a particular distribution for the one-sided residual *u* and additionally assuming that the observations on *u* are independently and identically distributed, and that vector X is exogenous (independent of *u*). Thus, the frontier *f* may be estimated using the classical maximum likelihood method. Many distributions for *u* (or, equivalently for $e^{(-u)}$) could be specified, as for example the exponential, truncate normal, gamma, Weibull and the log-normal.

Even having a variety of choices for the distribution for u, this aspect has a primordial importance since the maximum likelihood estimates depend on the assumed distribution, and different distributions led to different estimates. As pointed out by Schmidt (1976) a further problem with maximum likelihood in the frontier setting is that the range of the dependent variable depends on the parameters to be estimated implying the violation of one of the regularity conditions for maximum likelihood estimation invoked to prove the consistency and asymptotically efficiency of its estimators. It is thus uncertain what properties the maximum likelihood estimators will have.

Greene (1980a) shows that the usual desirable asymptotic properties of maximum likelihood estimators still hold if the density of u satisfies the following conditions:

- the density of u is zero at $u = 0$;

- the derivative of the density of u with respect to its parameters approaches zero as u approaches zero.

As noted by Greene, the gamma density satisfies this criterion and is thus potentially useful in this case.

There are also alternative methods of estimation based on the ordinary least squares results:

- the corrected ordinary least squares method (COLS);

- the displaced ordinary least squares method (DOLS).

Considering, for simplicity, the linear form of $\left[\ln f(X;\beta)\right]$ decomposed into two terms:

$$\ln f(X;\beta) = \beta_0 + \ln f_0(X;\beta), \tag{3.46}$$

where the second term of right hand equation has no constant term, then if one let μ be the mean of u, one can write:

$$\ln y = (\alpha_0 - \mu) + \ln f(X;\alpha) - (u - \mu), \tag{3.47}$$

where the new error term has zero mean, satisfying all the usual conditions except normality. Therefore, at a first step, an estimate of a production function could be obtained using the classical ordinary least square method (OLS), with the best linear unbiased estimates of ($\alpha_0 - \mu$) and of remain coefficients (α). In order to shift from this mean function to the [ln *f* (X;α)] frontier, in a second step, known the adopted specific distribution of ***u***, the parameters of this distribution can be derived consistently from the central moments of the least squares residual and consequently a consistent estimate of μ, from which it is possible to correct the OLS constant term.

This method has two shortcomings, first the estimated μ and, consequently, the efficiency measures of the various observations depend on the particular distribution chosen for *u*; second there is no guarantee that correcting the constant term sufficiently shifts the mean function so that all the observations are below the frontier.

One response to this problem is the called displaced ordinary least squares method (DOLS), that, after the first step of OLS estimation, correct the constant term not as above, but shifting it up until no residual is positive, and one is zero. In other words, in comparison with COLS, the μ adjustment is replaced by the highest positive OLS residual so that all the observation be beneath or on the frontier. Greene (1980a) has also shown that the estimate of the constant term obtained through DOLS is consistent.

This methodology, by its characteristics and easier calculation, has been applied in several railway studies. Perelman, Gathon and Pestieau were the first to apply it to European railway industry production studies. In Gathon and Perelman (1988), DOLS was applied to estimate the frontier and level of efficiency of eighteen European companies plus the national railway Japanese company (JNR), for the period between 1962 and 1984. Focusing on the public sector performance, viewed as technical efficiency, Perelman and Pestieau (1988) study chose two typical public enterprises, the railway and the postal services, the technical efficiency was calculated from a translog frontier production function using DOLS applied to the same railway data country of Gathon and Perelman (1988) over the period 1970-1983.

Also Deprins and Simar (1988) applied DOLS method to estimate technical inefficiencies of railway companies. In this study they used the same data country of Perelman, Gathon and Pestieau for the period between 1970 and 1983. They also applied to this data alternative determinist frontier estimations that allow for the introduction of exogenous factors explaining inefficiency (as for example, the density of network, the ratio of electrified lines in network, mean number of track by line, etc.), using for this a non-linear least square method (NLIN) and for comparison and to confirm the reliability of results they also used a maximum likelihood method with a Weibull distribution for the error term.

Unlike the previous studies, Grabowski and Mehdian (1990) estimate a ray-homothetic production frontier using DOLS method to measure revenue efficiency of US rails over the period 1950-81. Revenue refers to maximising revenue from the production of various outputs, and is intended to measure the overall efficiency including both allocative and technical efficiency.

In Filippini and Maggi (1993), DOLS is used to estimate the cost efficiency of ten Swiss private railways, Filippini and Maggi (1993) also provided some highlights on the determinants of cost efficiency by regressing the estimated cost efficiency on indicators of regulatory setting conditions as the equity-share of the confederation, the share of the cantons in subsidies linked to the deficit, the investments, the share of compensatory payments for the fulfilment of public service in the turnover and a dummy variable to capture the effect of political tariff approximation to those of the federal railways.

Coelli and Perelman (2000), applied DOLS to a multi-output distance function to analyse the technical efficiency of seventeen European railways over the period 1988 to 1993. In this work they also compared the results from distance functions with which arise from a production function with total revenue as aggregate output and from a production function with aggregate output constructed using multilateral Tornqvist index. They select, through an elimination process, the input distance function as the preferred estimates.

3.4.2. Stochastic frontier methods

In traditional regression estimation methods, such as ordinary least squares and its variants, the production/cost function can be seen as a middle data set curve (frequently called *average curve*), where the observations will be found above and below the average line, being these deviations to average curve assumed to be a random noise term, representing the effects of non-observable explanatory variables, random shocks and measurement errors. Thus, in this context, firms are assumed to be equally efficient, since all the deviations to average curve are interpreted as random error deviations outside the control of firm and essentially resultant from measurement and specification errors.

The deterministic frontier methods were developed on the principle that, recognising potential existence of firm-specific inefficiency, some firms may not be on the efficient frontier, and thus, all the observation should lie on or below (above) the production (cost) frontier. In this case, deviation to the frontier curve is interpreted as direct estimates of individual firm inefficiency.

One obvious weakness of constraining the observations to be on or below the frontier is when either measurement errors are present in the data or some type of specification errors and omitted variables occur in the imposed model structure.

Aigner et al. (1977) and Meeusen and Broeck (1977) proposed a stochastic frontier function which is consistent with economic optimisation behaviour theory and allows observations to be above the production frontier. In their approach, sometimes referred as *the composed error model*, it is introduced two separate disturbance terms: one variable, capturing the efficiency differences between units, and another variable, reflecting true random differences, such as measurement errors. In these works they applied the maximum likelihood estimation method using specific probability distributions for the disturbance terms, lognormal for the pure random term, and truncated normal (Aigner et al. (1977), or exponential (Meeusen and Broeck (1977) for the efficiency term. Thus, due to the pure random variable, the on or below frontier constrains no longer apply.

Specifying the pure random term and the inefficiency term respectively as *v* and *u*, the basic frontier model is given by:

$$\ln y = \ln f(x) - u + v, \quad u \geq 0, \tag{3.48}$$

where y represents output, *f(x)* is the deterministic part of the frontier production function. The stochastic frontier is defined by ($f(x).e^{v}$) and e^{u} is the measure of deviation of each observation from the frontier. The condition $u \geq 0$, ensuring that all observations lie on or below the production frontier, is guaranteed through one-sided assumed distribution terms such the truncated normal and exponential referred to above or for example a half-normal or gamma distribution.

Gathon and Pestieau (1995) in their work decomposing the efficiency of European railways into managerial and regulatory components used this approach to estimate a translog production frontier, computing in this way a gross efficiency index of nineteen European railways over the period 1961-88. In a next stage regression they used the autonomy index constructed by the authors in order to correct for inefficiency caused by a lack of managerial autonomy, and to decompose the gross efficiency into managerial and regulatory efficiency.

When panel data are available, estimates of the inefficiency disturbances can be obtained without a particular distribution assumption of the efficiency terms, although in this case a specification model of how efficiency changes over time must be imposed.

3.4.2.1. Estimating technical and allocative inefficiency from homothetic production function

Although the basic idea of measuring efficiency in production goes back to Farrell (1957), that defined technical and allocative inefficiency, one has been focused only in measuring technical efficiency resultant from the production frontier.

Being the production frontier the locus of maximum possible output given the level of inputs, the only indispensable assumption to technical inefficiency measurement is those related with output maximisation. In contrast, the measurement of allocative inefficiency requires additional information on the economically relevant aspect of the technology in study, being necessarily emphasised with this measurement purpose the economic assumption of optimising behaviour (profit maximisation or cost minimisation) on the part of the producer.

Technical inefficiency results from the failure to produce maximum possible output, given the set of inputs, therefore if the firm is technically inefficient it operates beneath its stochastic production function frontier; allocative inefficiency arises out of the choice of sub-optimal input-proportions, given input prices, thus, if firm is allocatively inefficient it operates off its least cost expansion path.

Incorporating the features above into the analysis, Schmidt and Lovell (1979) made the behavioural assumption that firms seek to minimise the cost of producing its desired rate of output, subject to a stochastic Cobb-Douglas production frontier constraint. This set of assumptions leaded to the derivation of a system of stochastic factor demand frontier and, from them, a stochastic cost frontier. Since both, the stochastic cost frontier and the stochastic factor demand frontiers, contain factor prices as arguments estimation, assuming that the two types of inefficiency are uncorrelated, of either one provides evidence bearing on the magnitude and the cost of total inefficiency and its technical and allocative components.

In the railway industry this methodology had a significant development through the works of Subal Kumbhakar, who is among one of the first to apply the stochastic frontier method to railways.

Kumbhakar (1988a) estimates, for a panel of U.S. class I railways over the period 1951-75, allocative and technical inefficiency following similar approach of Schmidt and Lovell (1979), but allowing for input-specific technical inefficiency.

Using the same panel data Kumbhakar (1988b) estimates technical and allocative inefficiency from a generalised production function, developed by Zellner and Revankar (1969), and the first order conditions for cost minimisation. In this work he separates allocative inefficiency from random errors, and at the same time estimating both firm- and input-specific allocative inefficiency taking advantage of the panel nature of the data. Division of the full sample period (1955-1975) into five sub-periods allowed to make efficiency comparison of individual railways over sub-periods and to check the stability of the parameter estimates.

In his subsequent work on the railway industry, Kumbhakar (1989) estimated technical and allocative inefficiency and cost thereof of thirteen US class I railways, in the period 1951-75, using similar stochastic frontier production methodology of the earlier works in a panel data framework, but where was assumed separable Cobb-Douglas output and input function.

In the quoted works observation-specific estimates of technical inefficiency were obtained by using the distribution of the inefficiency term conditional on the estimate of entire composed error term, as suggested by Jowdrow et al. (1982).

3.4.2.2. Estimating technical and allocative inefficiency from non-homothetic production function

When estimating frontiers, one faces the usual problems of selecting a functional form and deciding whether to estimate a single equation or a system of equations, but one also faces a variety of choices about which functional form to use and how to model the inefficiencies involved in the estimation process.

The advantage of using a restrictive technology such as Cobb-Douglas lies in the fact that allows the specification and estimation of different types of inefficiencies and decomposition of cost inefficiency into different components of inefficiencies. However this functional form has an important shortcoming that is the loss of flexibility. Since the technology is rarely known, it is desirable to consider a flexible production and cost function to represent the underlying technology so as to test some restrictive specifications. When it comes to specifying a flexible functional form one faces the referred problem of leading with above issues such as the specification, estimation and decomposition of different and potentially correlated inefficiencies.

3.4.2.2.1. The cost minimisation approach

Since the cost function of a firm summarises all the economically relevant aspect of its technology, dependent on the behavioural assumption on the part of producers and/or availability data, econometricians often specify models based on the cost function instead of production function.

Using Farrell definitions for technical and allocative inefficiency, cost system that allow for cost inefficiency can be written as:

$$\ln C = \ln C(Y,W) + \ln C_{v} + \ln C_{a} + v \qquad (3.49)$$

$$S_i = S_i(Y,W) + j_i \qquad \text{for } i=1,\ldots,m; \qquad (3.50)$$

where lnC is the log of the observed cost, lnC(.) is the log of minimum cost which defines the deterministic minimum cost frontier, Y is the vector of outputs, W is the vector of input prices, $\ln C_{t}$ is a non-negative term reflecting the increase in cost due to technical inefficiency, $\ln C_a$ is a non-negative term reflecting the increase in cost due to allocative inefficiency, *v* represents the white noise which may increase or decrease cost, S_i is the observed share of the *i*th input, S_i(.) is the optimal share of input *i* in the total cost and ε_i is the disturbance on the *i*th input share equation (a mixture of allocative inefficiency and noise term).

In this cost system based on the cost minimising behaviour output is assumed to be exogenous, therefore in a input-based measures of technical and allocative inefficiency, the input shares equations will not involve a radial measure of technical inefficiency, even if the cost function is not homothetic. However the allocative cost inefficiency disturbance in the cost equation is related to the allocative inefficiency disturbance in the input share equations and thus, this arises the complex problem how to model the relationship between the two-sided disturbances on the input share equations with the non-negative allocative cost inefficiency disturbance in the cost equation. This problem, often referred to as *the Greene problem*, was first noted by Greene (1980b).

Several authors have derived possible ways of specify and model this relationship, Bauer in is precise survey of econometric estimation of frontier functions, Bauer (1990), grouped in three main alternative approaches the myriad forms of leading with *the Greene problem.*

Following Bauer (1990), these three possible routes are:

a) Analytic solutions;

b) Approximate solutions;

c) Qualitative solutions.

The first approach is generally to be preferred, since one derives the exact analytic representation of the relationship. However, an analytic relationship can be found only when exists a close-form representation of both the cost and production functions, as with the Cobb-Douglas functional form. For production function as the Cobb-Douglas, the disturbances in the factor demand equation are functionally mapped into the allocative cost inefficiency term in the cost equation. Examples of this procedure can be found on the works discussed in the last sub-section focused on homothetic production function frontier, mainly in Kumbhakar works.

The second approach, through modelling the relationship using an approximating function that employs information about how allocative inefficiency links the disturbances, enables one to use more flexible functional forms such as the Translog function. Thus, this approximate relationship establishes the correlation between the error term $-_i$ in the share equations and the allocative cost inefficiency term $\ln C_a$ imposing all the structure one *a priori* knows. The level of approximation to an exact relationship of these terms depends on the tractability of maximum likelihood procedure resultant from this relationship. Most of the complexity of the model comes from the assumptions required to ensure that $\ln C_a$ follows a known non-negative distribution and the integrability condition inherent to Shephard's lemma. Beyond the estimation complexity introduced by an approximation to an exact relationship between the allocative disturbance term in the share equation and the allocative cost inefficiency in the cost equation, there is in the attempt to an exact relationship an additional structural imposition supporting this relationship which is the assumption that shares' residuals do not contain a noise component and only are constituted of allocative inefficiency term.

In railway industry analyses there are few works following this modelling approach. An exception is Parisio (1999) who uses the relationship developed by Kumbhakar (1991) which establishes the following approximation:

$$\ln C_a = -\frac{1}{2}\omega' F_0^{-1}\omega, \qquad (3.51)$$

where ω is the vector of the (n-1) shares equation residuals for each observation and F_0 is the F matrix, the matrix of the coefficients η_{il} relative to the second order regressors of input prices, with the last row and column deleted.

Parisio (1999) applies this approach to a panel data of eight main European railways in a sample period that goes from 1973 to 1989.

The third approach models the relationship but by ignoring the link among the allocative inefficiency disturbances across the equations in the system, thus treating these disturbances as independent. Greene was the first to propose this approach in Greene (1980b). The disturbance on the input share equations were assumed to follow a multivariate normal distribution with mean zero but independent of the inefficiency term in the cost equation when deriving the likelihood function.

As referred in Bauer (1990), another illustration of this approach would be to take the cost system and sever the link among the allocative inefficiency disturbances by restructuring the disturbance in the cost equation so that a total cost inefficiency is modelled as a half-normal random variable.

Such a system could be written as:

$$\ln C = \ln C(Y,W) + u + v \qquad (2.52)$$

$$S_i = S_i(Y,W) + \omega_i \quad \text{for i=1,...,n,} \qquad (2.53)$$

where the one-sided disturbance is $u = \ln C_{\tau} + \ln C_a$. Using the decomposition developed in Kopp and Diewert (1982), Zieschang (1983) and Mensah (1994) to decompose the estimated u into estimates of $\ln C_a$ and $\ln C_{\tau}$. However this approach is not fully efficient, statistically could leads to a better results than an approach which models the relationship between disturbances incorrectly. This third approach is not greatly appealing in railway industry studies. One can find a similar principle model in a railway study of Kumbhakar (1997), however, there, he uses a panel data model instead of maximum likelihood estimation and therefore only predicts the cost inefficiency *u*, without making the separation of it into technical and allocative cost inefficiencies.

Some authors ignore the cost share equations and considering only the single cost equation frontier estimate the global cost inefficiency component *u*. In this case are the works Sánchez and Villarroya (2000) and Cantos and Maudos (2001). Sánchez and Villarroya (2000) estimate the levels of productivity, efficiency and technical change from a stochastic frontier cost function applied to a data sample of fifteen European railways that covers the years 1970-1990. Cantos and Maudos (2001) estimate for a sample of sixteen European companies, covering the rail regulation period from 1970 to 1990, both cost and revenue frontier function, and calculate the losses associated with both cost and revenue inefficiency, as well as inefficiencies on the cost side, to explaining the effect of policy regulation and state intervention on the financial accounts deterioration in a period of improved level of productivity

3.4.2.2.2. Other system approaches – profit and distance functions

When estimating other systems, such as a profit function or input demand equations, problems in integrating the error structures, similar to those faced in developing cost system estimation techniques, are found as well. Therefore, the choice among different approaches depends essentially of the availability of data and the plausibility of the behaviour assumption inherent to the approach chosen.

Kumbhakar (1987) extended the use of frontier production models to firms under the behaviour assumption of profit maximisation; thus, using a Cobb-Douglas production function and the first-order conditions for profit maximisation, a system with composed error term was constructed and estimation issues were examined through maximum likelihood method.

Such as in the cost function approach, a shortcoming to the analytic approach in the stochastic frontier profit system is the complexity that a flexible functional form involves to obtain a closed-form solution. It is possible to develop stochastic frontier profit systems using flexible functional forms in a manner similar to that of cost minimisation approach. A generalized profit approach that accommodates both technical and allocative inefficiencies in a profit maximisation framework is developed in Kumbhakar (1996). In this case the relationship between production technical inefficiency and profit technical inefficiency is derived for a flexible translog profit function from a panel data model.

Similar techniques to that used in the cost system approach can also be developed to the estimation of distance functions, reciprocal of Farrell's radial measure of technical efficiency. Unlike profit function, but like cost function, distance function are appropriate when leading with public production. Also, distance function contains the same information about technology as does the cost function. There are, however, important differences in the estimation of the cost and distance functions. In input-distance function, as well as in cost function, the output levels are assumed to be exogenous, but while input quantities are endogenous and input prices are exogenous in the cost function framework, the reverse occurs in the distance function framework. In this sense distance functions do not require any assumption about the competitiveness in input prices. Thus, for example, if the input prices are the same for firms, but input quantities vary across firms or in situations where the firms have some degree of control over input prices, the distance function will be preferred to the cost function.

An example of this approach can be found in Bosco (1996), where the input-distance function is used to estimate excess-input expenditure with reference to main four European public railways over the sample period 1971-87. Thus, this study estimated inverse input-demand functions, dual to share equations, derived from a translog input-distance function and from them estimated allocative efficiency of the four European railway systems and the associated excess-input expenditures over time.

3.4.2.3. Panel data models

When panel data are available a number of restrictive assumptions can be relaxed. In particular, with panel data, researchers no longer have to impose a particular distribution for the inefficiency terms, because these restrictions are testable rather than imposed. Another characteristic of panel data models is the possibility of relaxing the assumption imposing the independence of the level of inefficiency and regressors, as is required for maximum likelihood estimation.

Schmidt and Sickles (1984) consider the estimation of stochastic frontier production function with panel data, using the model:

$$y_{it} = \alpha + X'_{it}\beta + v_{it} - u_i, \quad i=1,\ldots,N, \quad t=1,\ldots,T, \tag{3.54}$$

where y is the output, X the vector of inputs, v the statistical noise and u (> 0) is a firm effect representing technical inefficiency. The index i identifies firms and the index t identifies time periods. Being inefficiency assumed time time-invariant, this model can obviously be put in the form:

$$y_{it} = \alpha_i + X'_{it}\beta + v_{it}, \quad \text{where } \alpha_i = \alpha - u_i, \quad i=1,\ldots,N, \quad t=1,\ldots,T. \tag{3.55}$$

This model is of the standard form found in the panel data literature, and β can be estimated by standard methods such as 'Within', GLS, or the Hausman and Taylor instrumental variables estimator.

The frontier intercept α and the firm-specific level of inefficiency for firm i are estimated, respectively, as $\hat{\alpha} = \max_i(\hat{\alpha}_i)$ and $\hat{u}_i = \hat{\alpha} - \hat{\alpha}_i$, where $\hat{\alpha}_i = \bar{y}_i - \bar{x}_i\hat{\beta}$ and the symbols (¯) and (^) indicate, respectively, mean values within groups and estimated values.

The benefits of this panel data model come at the cost of the assumption that the firm effects are constant over time. This is a very strong assumption, and probably would be unrealistic in many potential applications. In order to relax the this assumption of time-invariant effects, but in such way that the advantages of panel data are preserved, it is possible to replace the firm effect (α_i) by a flexible parameterised function of time, with parameters that vary over firms. In Cornwell et al. (1990) study of US airlines is developed an approach where the intercept as well as the slope coefficients are allowed to vary over firm and time, allowing the levels of efficiency to vary over time by firm. Their generalisation implies that the firm specific effects u_i will be replaced by:

$$u_{it} = \theta_{i1} + \theta_{i2}t + \theta_{i3}t^2, \qquad (3.56)$$

where θ_{i1}, θ_{i2}, and θ_{i3} are coefficients to be estimated.

Analogously to Schmidt and Sickles (1984) procedure, estimation of the frontier intercept at time t and the firm-specific level of technical inefficiency of firm *i* at time *t* are given by:

$$\alpha_t = \max_i(\hat{\alpha}_{it}) \qquad (3.57)$$

and

$$u_{it} = \alpha_t - \hat{\alpha}_{it}. \qquad (3.58)$$

This approach can also be seen as an extension of the Hausman-Taylor estimator in that it allows for the cross-sectional variation in the slopes as well as the intercepts in a panel data model. As in the Schmidt and Sickles (1984) model, this model can be estimated by 'Within', GLS, Hausman and Taylor or MLE, depending on the number of assumptions the researcher is willing to make about the independence and distribution of the firm effects.

This approach can be extended to the cost frontier approaches to predict cost inefficiency, an example of this application is Kumbhakar (1997).

Examples of application of panel data model to railway industry can be found for example in Gathon and Perelman (1992) and Bosco (1996).

In Gathon and Perelman (1992) a panel data model is used to estimate a log-linear factor (labour) requirement frontier for nineteen European railways over the period 1961-1988, in which technical efficiency is assumed to be endogenously determined. With a comparison purpose the model is estimated by 'Within', GLS, Hausman and Taylor and MLE. By using the factor requirement frontier, the study implicitly assumes the existence of complementarity, fixed proportions, between all the main inputs in rail production. Net measures of inefficiency are estimated after correcting for the effects of a number of explanatory variables, including a managerial autonomy index variable.

3.4.3. The railway frontier method studies

Table 3.3 summarises the railway studies reviewed above in the context of parametric frontier methods. The main result to stress looking at this table is that except for the particular case of Kumbhakar works, focuses on the U.S. railway industry, all the remains works are applications to European railway either industry or companies.

This phenomenon is, in parallel with what was pointed out in section 3.2 about the non-parametric approaches, efficiency studies appear to be more appealing to European railway industry researchers than to American railway industry researchers. In fact, due to its heterogeneity, such as different physical conditions, different political regulations, different transport market competitions, different state interventions by country (firm); European companies are more susceptible to have its productivity influenced by characteristic factors, reflected in different efficiency levels, than American companies operating in a more homogeneous environment.

Looking at the table 3.3 one can verifying that there is no consensus about the appropriate methodological procedure to measure efficiency. The myriad of employed models confirms the evidence against the existence of uniform and conclusive approach to frontier application models. This variety of option analyses is present not only on the estimation technique choice but also on the required assumptions and functional form that characterise the production technology.

The main conclusion is that since not all companies are successful in reaching the efficient frontier it is important to recognise and try to measure sources and level of inefficiency to improve specification of production function, therefore frontier estimation techniques is an important development for this purpose. Despite its importance these techniques are relatively novel as far as railway applications are concerned, but, as pointed out by Oum et al. (1999), they are the direction for future research on rail cost/production estimation and efficiency measurement.

Table 3.3 - Railway Productivity, Sources of Productivity and Efficiency Estimates with Parametric Frontier Methods

Study	Methods	Sample	Aims
Deprins and Simar (1988)	Deterministic Frontier Method (DOLS, NLIN and ML - Cobb-Douglas production function)	Europe and Japan: 1970-1983	Technical inefficiency
Gathon and Perelman (1988)	Deterministic Frontier Method (DOLS - Translog Cost Function)	Europe and Japan: 1962-1984	Technical inefficiency
Perelman and Pestieau (1988)	Deterministic Frontier Method (DOLS - Loglinear Production Function)	Europe and Japan: 1970-1983	Technical inefficiency
Kumbhakar (1988a)	Stochastic Frontier Model (Maximum Likelihood Estimation - Cobb-Douglas Production - Cost-minimising framework)	US: 1951-1975	Input-Specific Technical inefficiency Allocative inneficiency
Kumbhakar (1988b)	Stochastic Frontier Model (Maximum Likelihood Estimation - Generalised Production Function - Cost-minimising framework)	US: 1951-1975	Allocative inneficiency (Input- and firm-specific) Technical inneficiency
Kumbhakar (1989)	Stochastic Frontier Model (Maximum Likelihood Estimation - Input and Output Cobb-Douglas Function - Cost-minimising framework)	US: 1951-1975	Technical inneficiency Allocative inneficiency Cost of technical and allocative inneficiency
Grabowski and Mehdian (1990)	Production Frontier Method (DOLS - Ray Homothetic Function)	US: 1951-1981	Revenue efficiency
Gathon nad Perelman(1992)	Stochastic Frontier Model (Panel Data Model - Log-Linear Factor Requirement Function)	Euriope: 1961-1988	Technical Efficiency
Filippini and Maggi (1993)	Cost Function Frontier Method (DOLS - Translog Cost Function)	Switzerland: 1985-1988	Cost efficiency
Gathon and Pestieau (1995)	Stochatic Frontier Model (Maximum Likelihood Estimation - Translog Production Function)	Europe: 1961-1988	Decomposition of technical efficiency into managerial and regulatory components
Bosco (1996)	Stochastic Frontier Model (Panel Data Model - Translog Input Distance Function)	Europe: 1971-1987	Allocative inefficiency Excess-input expenditure
Cowie and Riddington (1996)	Frontier Methods (DEA and parametric approaches - Cobb-Douglas production function)	Europe: 1992	Definition and measurement of efficiency
Coelli and Perelman (1999)	Frontier Methods (DEA and DOLS - Translog Distance Function)	Europe: 1988-93	Technical inefficiency
Parisio (1999)	Stochastic Frontier Model (Maximum Likelihood Estimation - Translog Cost Function - Cost-minimising framework)	Europe: 1973-1989	Cost of technical and allocative inneficiency
Coelli and Perelman (2000)	Frontier Methods (DOLS - Translog Distance Functions)	Europe: 1988-1993	Technical efficiency and TFP changes
Sánchez and Villarroya (2000)	Stochastic Frontier Model (Maximum Likelihood Estimation - Translog Cost Function)	Europe: 1970-1990	Productivity growth Technical Change Cost inefficiency
Cantos and Maudos (2001)	Stochastic Frontier Model (Maximum Likelihood Estimation - Translog Cost/Revenue Function)	Europe: 1970-1990	Cost efficiency Revenue efficiency

3.5. Conclusion

In this chapter we have reviewed the main methodological techniques and models to measure sources of productivity. As discussed in chapter two, concepts and approaches to productivity measurement are intimately associated and therefore different concepts of productivity lead to different methodological technique and model applications. Gross measures of productivity usually require non-parametric models such as total factor productivity index numbers or data envelopment method. In contrast, the parametric or statistical approaches are identified as shift concepts of productivity; therefore, parametric methods are an indispensable technique when the objective is to decompose productivity into sources.

Econometric methods require the specification of a functional relationship and respective form to be statistically estimated. In railway industry studies, because most firms produce more than one output, cost function estimation has been preferred to production functions. The translog variable cost function, due to its flexibility, has emerged as the standard functional form for most researches.

Traditional econometric methods for estimating cost or production functions implicitly assume that all firms are successful in reaching the efficient frontier, thus, they have been preferred when productivity analysis is concentrated in computing technological progress and/or economies of scale. However, if the objective is to measure sources of productivity recognising that firms are not equally efficient, then frontier estimation methods would be the choice most appropriate. Depending on whether the error term in cost (production) functions is assumed to be a deterministic or stochastic value, the method is called a deterministic or stochastic frontier method.

Stochastic frontier functions, which are consistent with variable efficiency among firms, are relatively novel techniques which involve some level of computational complexity. Despite this fact, they have been preferred in recent railway studies focused on measuring cost efficiency, especially in studies concerned with the European railway industry, which confirms the stochastic frontier estimation as an important component of cost function research in transportation.

CHAPTER 4

METHODOLOGY, DATA AND COST SYSTEM ESTIMATION

4.1. Introduction

The purpose of this economic study of the European railway industry is multi-fold. It includes an empirical investigation of the operational structure of the railway system focused on the analysis of scale economies, efficiency measures and productivity growth, and a more specific analysis of the contribution of some economic, physical and technological factors to the obtained performances. To meet this objective the economic structure of European railway industry is analysed through a cost system approach. Thus, the purpose of this chapter is to present the methodology, models and data sources that are used to estimate the cost frontier function of the European railway industry.

This chapter is organised as follows. Section 4.2 considers the methodology and the theoretical specifications used to model the stochastic cost frontier functions and respective cost inefficiencies. Section 4.3 contains a description and discussion of the data set. Estimation procedures are developed in section 4.4 and a summary analysis of results is exposed in section 4.5.

4.2. Methodology and theoretical models

The choice of the theoretical approach depends, among other things, on the nature of the transport industry under investigation, the legal structure, the availability of data, and the objective of the relevant study. In this study, the choice of an econometric approach was mainly conditioned by the multiple nature of the objective that, being multi-fold, requires a variety of analysis that can be done directly and reliably through a flexible methodological approach such as the econometric approach.

4.2.1. Cost structure perspective

As mentioned in the previous chapter, the functional framework to be used in the analysis should contain all economically relevant information of the underlying technology. In an econometric approach, the duality theory allows one to choose between the estimation of a production function and the estimation of a cost function. The choice of one over the other depends on the behavioural assumption on the part of the producers and/or availability of data. Any approach has its own limitations, the question in whether to choose cost function or production function relies on the viability of the assumptions which the approach required and on the robustness of results under these set of assumptions.

The cost function approach explicitly allows for a multi-output specification, which in the railway industry with a multi-output technology is a great advantage over the production function that would involve an output aggregation criterion. Beyond this advantage, the cost function has the additional and very important advantage of better defining a more appropriate framework for the analysis of regulated or/and government ownership firms. When an industry is characterised by a restricted and regulated environment, implying that firms are constrained to operate in certain imposed production levels, then the cost minimising criterion, that considers the variable output exogenously determined, appears to be a better characterisation choice approach than profit/revenue function.

The main drawbacks related to the cost function framework are the required assumptions of competitive input market and the consequent usage of input prices as an exogenous variable in the cost function. These assumptions raise stronger criticism by some authors that argue that the presence of a monopolist environment with a significant market influence, as is the case of a railway industry, makes this assumption implausible. Other weaker criticisms sometimes referred to, are the problems related to the aggregation process required in the definition of input prices. Because input prices are usually not available in the way that appears in the cost function, implies the use of an aggregation index, which could comprise a great variety of goods and services. Despite these difficulties it seems more plausible to assume that railway firms have less control on input prices than on input quantities usage.

4.2.2. Stochastic approach

The traditional cost function formulation assumes that the producer is efficient in reaching the cost minimisation objective. The only error in this model is white noise and possible model mix-specification.

The stochastic cost function recognises that a cost-minimising firm may not be able to produce a given level of output, with given input prices, at a minimum cost possible in the cost frontier due to the existence of technical and allocative inefficiencies.

Thus, the sources of deviation to the cost frontier are the technical inefficiencies resulting from the failure to produce maximum possible output, given a set of inputs, and the allocative inefficiency arising out of the choice of wrong sub-optimal input-proportions; both types of inefficiencies represent increase in total cost. The cost frontier is made stochastic due to the white noise error, representing exogenous shocks such as luck factors which are not in control of any firm, and/or inappropriate data set, error in measuring variables, mix-specification model. White noise may increase or decrease cost.

These lead to the following specification of the cost function:

$$\ln C = \ln C^{*} - \gamma , \qquad (4.1)$$

where lnC = logarithm of total/variable cost, lnC* =logarithm of [$g(Y,W,Z,t)$], which defines the deterministic cost frontier, and $\boldsymbol{g}$ = ln C_τ + lnC_α + ν. The term ln C_τ represents increase in logarithm cost due to technical inefficiency, and lnC_α the increase due to allocative inefficiency. Thus the cost equation (4.1) can be indicated as:

$$\ln C \; ? \; \ln C^{*} - \ln C_{a} - \ln C_{v} - \boldsymbol{W}, \tag{4.1a}$$

The appearance of C_τ and C_α in log linear form is explained by recalling Farrell (1957) definitions for technical and allocative inefficiency.

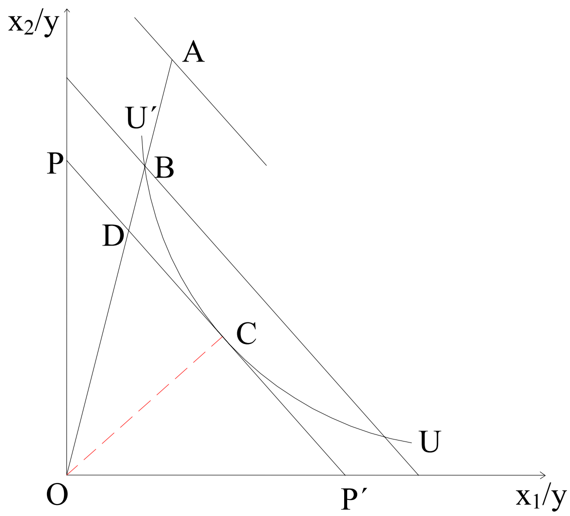

Figure 4.1 - Allocative and technical efficiency

Consider a firm using two inputs x_1 and x_2 and producing output y, and assume that the firm is characterised by constant returns to scale so that its production function frontier may be written [$1=f(x_1/y;x_2/y)$]. Let the unit isoquant be denoted UU` in figure 4.1 .

The radial definition of technical inefficiency for the input combination at point E, expressing excess use of the inputs by the same proportion, is given by the ratio OB/OA, and it is independent of input prices and, consequently, the cost of technical inefficiency (C_T), measured by comparing costs at points B and A, is proportional to the cost frontier (C*). The radial measure of allocative inefficiency is given by the ratio OD/OB; since the points C and D are in the isocost line PP` the cost at the points C and

D are the same, thus, the cost of allocative inefficiency (C_a) can be measured by comparing the costs at the points D and B on the same ray passing through origin, being the cost of allocative inefficiency also proportional to the minimum cost frontier C*.

Thus, the radial definition of inefficiencies allows one to express the actual costs (discarding white noise component) supported by firms as the product of three impendent elements: the minimum or frontier cost (C*), the cost of allocative inefficiency (C_a) and the cost of technical inefficiency (C_T). As a result of this, both $\ln C_T$ and $\ln C_\alpha$ appear in the additive form in the previous expression of actual costs.

The factor shares can be obtained by differentiating the previous expression of the logarithm cost with respect to the logarithm of each factor price, as follows:

$$S_i = \frac{\partial \ln C}{\partial \ln w_i} = \frac{\partial \ln C^*}{\partial \ln w_i} + \frac{\partial \ln C_a}{\partial \ln w_i} + \alpha_i, \qquad (4.2)$$

where α_i indicates component error term.

Since cost of technical inefficiency is, by definition, independent of input prices, there is no explicit term of technical inefficiency in cost share equations.

Brown and Walker (1995) support the view that in a model consisting of share equations and the cost function, the share residuals should not contain the additive functionally independent errors, i.e the noise component α_i. They found that the use of an additive, homoskedastic error structure, functionally independent of input prices and output level, for a complete system of equations derived from cost minimisation, either violates basic restriction from production theory or restricts the form of the underlying technology. Thus, based on this theoretical view, the share equations, as ancillary functions, only reproduce the piece of information contained in the cost function that depends on inputs prices, and, as a consequence, the deviations from each optimal share equation are exclusively due to an over or underutilisation of the input considered (the allocative inefficiency).

However, looking at the cost share equation, apart from the cost minimisation theory, the actual share observations S_i, by its own empirical nature, incorporate stochastic terms clearly independent of the argument's model, such as measurement errors, that could not be accounted for as allocative inefficiency.

The solution to the problem of modelling consistently the cost/share system attending to the heteroskedastic term in the cost function (resulting from the additive error term of share equations) is an extremely difficult task.

Due to this, Brown and Walker (1995) point out that applied researchers would do better to ignore their conclusions, if, by doing so, little harm is done in terms of the empirical viability of their models or the inferential stability of their estimates. The consideration of the presence of conditional heteroskedasticity in the errors of cost/share system could, also, be ignored if the variance of the additive error term α_i is small in relation to the remaining components (the deterministic and allocative inefficiency components), and thus this procedure corresponds to neglecting the integrated error term which would be functionally dependent of input prices in the cost function.

One attends to this dichotomy by developing alternative estimation models based in both hypotheses, with and without the stochastic noise term in the cost share equations.

Thus, generically the share equation presented above can be written in the following form:

$$S_i = \frac{\partial \ln C}{\partial \ln w_i} = \frac{\partial \ln C^*}{\partial \ln w_i} + u_i \qquad (4.3)$$

where u_i represents the random deviation term to optimal input share, that, depending on the hypothesis considered, includes or not the noise term beyond the allocative inefficiency term.

The cost function can be estimated after specifying a functional form on lnC* and making some distributional assumptions on $\ln C_{\tau}$ and $\ln C_{\alpha}$. However, since the cost of allocative inefficiency is not independent of input prices, so as, to obtain consistent parameters estimates, it is necessary, beyond the required distributional assumptions, to separate costs of technical and allocative inefficiencies through some additional assumptions, linking allocative inefficiency (indirectly measured by the cost share equation residuals u_i) and the cost of allocative inefficiency, $\ln C_\alpha$, in the cost function.

4.2.2.1. Deterministic cost function component specification

The deterministic component of the cost function, characterising the cost structure of the railroad industry, is modelled by a translogarithmic functional form (generally known as translog cost function). As it was referred to in the previous chapter, this is, due to its flexibility, the most favoured choice in recent econometric researches of productivity functions.

Thus, the lnC* cost term will be specified as follows:

$$\ln C^* = \boldsymbol{c}_0 + \boldsymbol{i}'\ln y + \boldsymbol{c}'\ln w + \boldsymbol{j}'\ln q + \ln y\mathbf{Y}\ln w + \ln w\mathbf{H}\ln q + \ln y\,[\,\ln q$$

$$+\frac{1}{2}\ln y\mathbf{R}\ln y + \frac{1}{2}\ln w\mathbf{D}\ln w + \frac{1}{2}\ln q\mathbf{F}\ln q, \qquad (4.4)$$

where y is the vector of outputs, w is the vector o input prices, and q is a vector of exogenous variables. In this formulation, the designed vector q contains multiple exogenous variables with distinct characterisation effects, including variables such as the time trend, the firm's specific technical characteristics, the operational environment characteristics and the quasi-fixed factor.

The dependent variable lnC* is defined as the firms' variable cost. As referred to in previous chapter, the short-run perspective is justified by the fact that the railways operate in a heavy regulated environment, where decisions of economic adjustment of "way and structures" capital factor cannot be based on static cost minimisation criteria. For this reason, a quasi-fixed capital factor is introduced in the model as an exogenous variable.

In addition to the symmetry restrictions on the parameter matrices Β, … and &, one imposes the following restrictions: $\alpha' l = 1$, $\mathrm{B}' l = 0$, $\Omega' l = 0$, $\Phi' l = 0$ where l is a vector of ones. These restrictions on parameter vectors make the cost function in (4.4) linear homogeneous in input prices.

By applying Shephard's lemma to (4.4) one gets the deterministic part of cost shares equations, given by:

$$S_i^* = c_i + \sum_{j=1} d_{ij} \ln w_j + \sum_{k=1} y_{ik} \ln y_k + \sum_{l=1} l_{il} \ln q_l \text{, i=1,....,n.} \qquad (4.5)$$

4.2.2.2. The likelihood function

For estimation of the model in (4.1) and (4.3) it is required a specification of distributional assumptions on ln C‡ and $\ln C_\alpha$ and u_i To avoid problems of singularity, the last shares equation will be dropped.

Regarding distribution of the composite error vector **g** [equation (4.1)] one assumes:

(i) u_i is distributed independently and identically through firms as multivariate normal with zero mean and constant covariance Σ,

(ii) $\ln C_v$ is independently and identically distributed following a Half-Normal distribution N(0, $\mathbf{u}_v$) - corresponding to the absolute value of a normally distributed variable with mean zero and standard deviation $\mathbf{u}_v$, hereafter indicated with q_v ,

(iii) the random noise, ν, is independently and identically distributed according to a normal distribution - $q_w \equiv$ N(0, $\mathbf{u}_w$),

(iv) the error components $\ln C_v$, u_i, and ν are assumed to be mutually independent over years and across firms.

With these distributional assumptions, the joint probability density function (pdf) of (ε,u), $f(\varepsilon,u)$ is :

$$f(g,u) = f(u) f(g \mid u), \qquad (4.6)$$

where $f(u)$ is the marginal pdf of u and $f(\varepsilon|u)$ is the conditional pdf of ε given u. The pdf of u, $f(u)$ is :

$$f(u) = \frac{1}{(2\pi)^{(n-1/2)}\,|\Sigma|^{1/2}}\exp\left(-\frac{1}{2}u'\Sigma^{-1}u\right) \tag{4.7}$$

Since, $\ln C_a$ becomes known given u, then $f(\varepsilon|\, u) = g(\ln C_T+\omega)$. Using the assumptions in (ii) and (iii), the conditional density $g(.)$ in this equation for a single observation can be obtained as the convolution of a normal and a half-normal random variable, as follows:

$$g(\ln C_v + \omega) = \int_0^\infty q_\omega(\varepsilon - v).q_v(v)\,dv = \int_0^\infty \frac{2}{2\pi\sigma_v\sigma_\omega}\exp\left(-\frac{(\varepsilon - v)^2}{2\sigma_\omega} - \frac{v^2}{2\sigma_v^2}\right)dv, \tag{4.8}$$

where $\varepsilon = (\gamma - \ln C_a)$ and $v = \ln C_v$. Some algebraic manipulation allows the rewriting of the joint density in equation (4.8) in the same form as followed by Aigner et al. (1977), who were the first to propose the half-normal distribution for the one-sided technical efficiency term, resulting in:

$$g(\ln C_v + \omega) = \frac{2}{\sigma}\left(\frac{1}{(2\pi)^{1/2}}\exp\left(-\frac{\varepsilon^2}{2\sigma^2}\right)\right)\left(1 - \Phi\left(-\frac{\lambda\varepsilon}{\sigma}\right)\right), \tag{4.9}$$

where, $\sigma^2 = (\sigma_\omega^2 + \sigma_v^2)$, $\lambda = \sigma_v/\sigma_\omega$ that indicates the ratio of the standard error of ($\ln C_v$) and ω, and $\Phi(.)$ is the standard normal distribution function.

Given assumption (iv) and equation (4.9), the log-likelihood to be maximised, for each observation can be written as:

$$L = \ln f(u) + \ln f(\gamma\,|\,u) = const. - \frac{1}{2}\ln|\Sigma| - \frac{1}{2}\left(u'\Sigma^{-1}u\right) - \ln\sigma - \frac{\varepsilon^2}{2\sigma^2} + \ln\left(1 - \Phi\left(-\frac{\lambda\varepsilon}{\sigma}\right)\right), \tag{4.10}$$

The log-likelihood function for a sample of F firms and T years can be obtained from (4.10) by summing it up over the firms for all the years. Since the ML estimate of σ_{ij} , the (i,j) element of Ω, is:

$$\sigma_{ij} = \frac{1}{FT}\sum_{f}\sum_{t} u_{ift}u_{jft} = \frac{1}{FT}\sum_{f}\sum_{t}(S_{ift} - S^{*}_{ift})(S_{jft} - S^{*}_{jft}) \quad , \qquad (4.11)$$

where f and t index firm and time (f=1,…F,t=1,….T), the log-likelihood L can be concentrated with respect to Ω . Hence, the concentrated log-likelihood function L for a sample of F firms observed over T years is given by :

$$L_c = const. - \frac{1}{2}FT\ln|\Omega| - FT\ln\sigma - \frac{\sum_{f=1}^{F}\sum_{t=1}^{T}\varepsilon_{ft}^{2}}{2\sigma^{2}} + \sum_{f=1}^{F}\sum_{t=1}^{T}\ln\left[1 - \Phi\left(-\frac{\lambda\varepsilon_{ft}}{\sigma}\right)\right] . \qquad (4.12)$$

Known the relationship among the random terms in (4.3) and the allocative inefficiency cost $\ln C_a$, the maximum likelihood estimates of the parameters in equations (4.4) and (4.5) can be obtained by maximising the log-likelihood function L_c where the elements of Ω are given by relation (4.11).

4.2.2.3. Allocative efficiency calculation

The relationship among the allocative inefficiency component in the cost equation and the deviations to optimal cost shares in equation (4.3) can be explicitly modelled for the translog cost system by means of alternative specifications taking into account the differentiability condition and the fact that $\ln C_a(u) \geq 0$. The specification choice depends on the restrictive assumptions made about the structure of the error terms u_i and the level of flexibility imposed on the system, i.e., it depends on a possible pre-violation of the regularity and of the integrability conditions which one is willing to tolerate in order to gain in terms of the empirical viability of the model that comes from a more flexible estimation technique.

In this context, three alternative models based on distinct specifications have been developed. The first two models are what could be called approximate solutions, since the relationship is established through an *ad hoc* approximating function imposing all the structure one knows *a priori*. These models are based on the Schmidt and Sickles (1984) proposed specification where $\ln C_a$ is formulated as :

$$\ln C_a = U'KU \,, \tag{4.13}$$

where K is a pre-specified positive matrix and $U=(u_1, u_2, \ldots u_{n-1})'$. In this specification, the cost of allocative inefficiency is a weighted average of squared cost share errors. With such specification, the cost is increased as the magnitude of the absolute cost share errors increases, always being positive if at least one u_i is different from zero. The pre-specific matrix K suffers, in this study, a simplification in relation to Schmidt's specification to obtain a more tractable maximum-likelihood procedure. Thus, one follows the suggestion proposed by Bauer (1990) setting the matrix K to be a symmetric matrix where its elements are separate parameters to be estimated.

In this specification, no regularity conditions are imposed *a priori* and, moreover, the integrability condition associated with the application of Shepard's Lemma to the allocative cost term and the equation (4.2) [or (4.3)] is not satisfied in these models.

The third model, here identified as the analytic solution, is derived from an exact relationship proposed by Kumbhakar (1997). In this paper Kumbhakar models allocative inefficiency, following Schmidt and Lovell (1979), and derives the exact relationship between allocative inefficiency and cost there from using a translog cost function. This exact relationship is established assuming that the errors term in the cost share equations (u_i) are exclusively originated from allocative inefficiencies and consequently not including any random noise term.

In the next sub-sections one will describe in detail these three models used to estimate the allocative inefficiency.

4.4.2.3.1. Model I – approximate solution with cost share error term exclusively indexed to allocative errors

In this model the allocative inefficiency is calculated from the relation (4.3), where the matrix K is assumed to be a diagonal matrix and the parameters of this diagonal matrix are to be jointly estimated with the remaining parameters of the cost function. In this approximation method, allocative inefficiency of cost term appears in the cost function as a linear function of the error terms u_i of the cost share equation and can be expressed as:

$$\ln C_a = \sum_{i=1}^{n-1} C_i (u_i^2) \quad , \tag{4.14}$$

where C_i are the parameters to be estimated and u_i is the error term of the i^{th} input cost share equation.

4.2.2.3.2. Model II – approximate solution with cost share term including allocative and noise errors

The second approximate solution model has been formulated on the basis that the error term in the cost share equations is composed as a functionally dependent error term, the χ_i^a, and the noise term χ_i. The allocative error term, χ_i^a, is considered to be a linearly dependent function of the input prices, a time trend variable and a firm specific effect variable. Thus, as in the first model, assuming the cost of allocative inefficiency given by the relation (4.13), where the matrix K was pre-specified as a symmetric matrix, the term $\ln C_a$ would be given by the following formulation:

$$\ln C_a = \sum_{i=1}^{n-1} \sum_{j=1}^{n-1} k_{ij} \chi_i^a \chi_j^a \quad , \tag{4.15}$$

where k_{ij} are the elements of matrix K to be estimated with $k_{ij}=k_{ji}$; χ_i^a is given by:

$$\chi_i^a(w_j, t, D_f) = \sum_{j=1} \psi_{ij} w_j - \sum_{f} \xi_{if} D_f (1 - \log t)^{-1} - \sum_{f=1}^{F} \phi_{if} D_f \tag{4.16}$$

where the parameters ψ_{ij} , ξ_{if} and ϕ_{if} are parameters to be estimated. The time trend formulation $[1+\log(t)]^{\wedge(-1)}$ was used, instead of a linear one, to better represent the time inefficiency evolution; since efficiency gains are not a continuous source of productivity, gains from correcting allocative inefficiency (implying decreasing inefficiency over time) become increasingly more difficult after previous years corrections, and consequently a constant marginal efficiency gain over time would not characterise this effect. The D_f variables are firm dummy variables to capture allocative inefficiency firm effects.

4.2.2.3.3. Model III – exact analytic solution

The third model follows an exact relationship, proposed by Kumbhakar (1997), in a translog cost function model. This relationship is developed taking into account the integrability conditions from the cost shares equations to the cost functions and assume that the error term in the input cost share equation are exclusively originated from allocative errors.

Using a cost minimisation objective to the production technology, Kumbhakar (1997) invoked Shepard's lemma to derive the cost share functions, where the deterministic part of the cost function is a translog cost function assumed to be linear homogeneous and concave in input prices.

From its derivation the translog cost system can be expressed as:

$$\ln C = \ln C^* + \ln C_a + v + \tau,$$

$$S_i = S_i^* + u_i \text{, i=1, …, n-1} \tag{4.17}$$

where lnC* is given by expression (4.4)and S_i* is defined in the same way as in (4.5). The random noise, v, is independently and identically distributed according to a normal distribution and the technical inefficiency random term (τ≥0) is assumed to be independently and identically distributed according to a half-normal distribution, the allocative cost share error, u_i, is defined by the following expression:

$$u_i = (S_i^*(1 - G\exp(\xi_i)) + a_i)/G\exp(\xi_i)\,, \tag{4.18}$$

where $\xi_i \neq 0$ represents allocative inefficiency for the input pair (i,1), where the input denominated as one is the input of reference (ξ_1=0), that for practical reasons could be associated with the correspondent to the cost share equation deleted; $a_i = \sum_{j \neq 1} \delta_{ij} \ln \zeta_j$ and $G = \sum_{i \neq 1} \frac{(S_i^* - a_i)}{\exp(\zeta_i)}$.

The cost of allocative inefficiency, $\ln C_a$ is, according to Kumbhakar specification, defined as:

$$\ln C_a = \ln G - \sum_i \chi_i \zeta_i - \sum_k \sum_i \psi_{ik} \zeta_i \ln y_k - \sum_l \sum_i \lambda_{il} \zeta_i \ln q_l - \sum_i \sum_j \delta_{ij} \zeta_i \ln w_j$$
$$- \frac{1}{2} \sum_i \sum_j \delta_{ij} \zeta_i \zeta_j \qquad (4.19)$$

where the parameters χ_i, ψ_{ik}, λ_{il} and δ_{ij} are that appear in the cost and cost share equations (4.4) and (4.5). As referred to in Kumbhakar (1997), it should be noted that the cost of allocative inefficiency, $\ln C_a$, and the error terms in the share equations, u_i's, are well-defined functions of allocative inefficiency (ζ), input prices (w), outputs (y) and attribute exogenous variables (q). Thus, the expressions for u_i and $\ln C_a$ show exactly how allocative inefficiency (ζ) appears in the cost function and the cost share equations.

4.2.2.4. Technical efficiency calculation

The random term characterising the cost of technical inefficiency (V) in the cost system (4.17), since the cost of technical inefficiency is independent of input prices in a cost minimisation framework, gives the maximum rate at which the use of all the input can be reduced without reducing output, thus V (≥ 0) measures input-saving technical inefficiency. Ideally, one would like to estimate V for each firm in the sample to compare them on the basis of their productivity inefficiency. Unfortunately, this is not directly estimable since, with parameters estimates in hand, one is only able to compute a direct estimate of (V+W). Jowdrow et al. (1982), however, have derived a useful approximation that is now the standard measure in these settings, and which will be applied here. Thus, using the maximum likelihood estimates of the structural parameters in the model and the assumed half-normal distribution for the random variable (V), the proposed approximation for technical inefficiency measure is given by:

$$E[v|\varepsilon] = \frac{\sigma\lambda}{1+\lambda^2}\left[\frac{\phi(z)}{1-\Phi(z)} - z\right], \text{ with } z = \frac{\varepsilon\lambda}{\sigma}, \quad (4.20)$$

where $\varepsilon = (\gamma - \ln C_a)$, $\phi(.)$ and $\Phi(.)$ are respectively the standard normal density and distribution function, $\sigma^2 = (\sigma_w^2 + \sigma_v^2)$ and $\lambda = \sigma_v/\sigma_w$ as were previously defined in 4.2.2.2..

As Bauer (1990) noted, unfortunately, these estimates cannot be shown to be consistent estimates of v, since the variability of the conditional distribution v given ε is independent of the sample size (i.e., ε contains only imperfect information about v).

4.3. Data

The cost system that has been referred to is composed in its deterministic part by three different types of exogenous variables: the output, the input prices and the operational attribute variables where one had included the time trend variable. Before getting into a detailed data description, one should previously analyse the variable choice which compound and describe this cost equation system.

4.3.1. Variables data choice

As referred to previously, the chosen dependent variable was the short run variable cost, this choice follows a common practice on railways studies that attends to the heavily regulated environmental nature of the European railway industry and the difficulty that this industry, often operating with an excess of capacity, faces in adequately to implement capital stock adjustments.

For this reason way and structures capital stock appears in this function as exogenous and fixed (in a short-run perspective) quantity factor instead of way and structure capital stock price, as it would appear in the cost function if it was admitted that railway firms were able to adjust their high level of sunk infrastructural costs instantaneously.

The variables input prices used in this study are labour, services rendered by third parts, which include energy and materials consumption, and equipment capital stock. The usage of these aggregated inputs, as a choice, was substantially conditioned by the availability of measured homogeneous disaggregate input data.

For the vector of aggregated output representing the production of the passenger and freight services, either passenger-kilometres and ton-kilometres or passenger train-kilometres and freight train-kilometres could be used; the choice depends on the objectives of analysis. The purpose of such alternative output vectors is to allow a comparison of productive efficiency results depending on whether the aim includes public policy analysis or not. Thus, two alternative objective group models have been developed, where one uses passenger-kilometres and ton-kilometres as output and, in this sense, the inefficiency results include, apart from that which can arise from managerial inefficiency, the inefficiency that arises through effects such as subsidies, governmental and/or regulatory control; in these cases the demand behaviour assumes crucial importance in the analysis results. The other model group uses passenger train-kilometres and freight train-kilometres and consequently the empirical inefficiency results can be interpreted exclusively as firm managerial efficiency effects.

The variables, in the system of equations (4.4) and (4.5), denoted as operational attribute variables (q) include a variety of exogenous variables that go from geographic firm environment to technological factor characterisation.

The variables that characterise the physical environment where the firms operate are: the length of network; the population density of the country; the number of metropolitan cities, potentially served by the firm network, with more than one million of inhabitants; the number of days per year that in average have snowed in each country; the weighted average of the elevation level that characterises the differences in terrain in each country.

In the majority of empirical studies concerning the transport sector, a time trend is inserted, as here, into the cost (production) function. Adding the trend variable to the explanatory variables of cost functions is probably a good approach to technical progress in its formal sense. However, this procedure has a shortcoming, since being the time trend a proxy variable it explains only marginally this phenomenon. Some authors, therefore, show a certain level of criticism to this assumption that the passage of time itself improves productivity and consequently it is a good proxy to explain technical progress. In this sense, indicators of the main technological innovations observed in the analysed sector and/or estimates of the spending on research and development should be used.

This dichotomy leads to the distinction of two alternative concepts of technological progress; embodied and disembodied technological progress. Disembodied technological progress encloses the idea that if capital input is assumed to be homogeneous such any one unit of capital is exactly like any other and is equally well suited to any task, then technological progress will affect all existing process making use of existing labour and existing capital to produce more of the same product. If, for example, a new way of producing an output was discovered, then all existing output producers would increase their input combinations efficiency immediately, with a minimum cost and equally.

An alternative view is that new technological progress requires some adaptation of existing process. Existing labour is assumed to be adjusted to new production process, but capital, having been constructed to perform particular type of operations, simply cannot adapt. Therefore, the introduction of a new production process requires the introduction of new capital, which means that this technological progress is embodied in capital stock. Consequently, embodied technological progress implies relaxing the assumption of homogeneous capital, becoming necessary to index it in some relevant way.

Despite some authors, such as Nelson (1984) and Hunter (1992), have provided evidence that the time trend appears to capture the effects of both disembodied and embodied technical change, seeking to provide a more reliable specification of these two phenomena, we have included in cost function a set variables (technical and operational indexes) as a proxy for embodied technological progress. Additionally, the time trend variable is used as a proxy for disembodied technological progress capturing the effects of technological factors, such as learning by doing, or other organisational/environmental changes not captured by the disembodied technological progress proxy variables.

Thus, the variables that characterise the technological differences among firms and over time are: a linear time trend allowing further estimation of technical progress measured by the shifts in the cost function over time; dummy variables capturing the effects of introduction and exploration of high speed lines (trains of high velocity and tilting trains are separated through the use of distinct dummy variables for each case) and finally a proxy index number variable quantifying the operational quality level provided by firms, this variable mainly takes into account factors related to the potential network velocity and works out as a complement velocity effect not captured by high speed dummy variables.

The inclusion of these additional exogenous variables (rarely and some of them never used in previous works) has as a primordial effect capturing external or firm quasi-fixed effects not over the control of firms, that, if they were omitted, could be interpreted as sources of firm productivity/(in)efficiency.

4.3.2. Data description

The theoretical model described in section 4.2 above was estimated for twenty seven firms of European countries (BC-Belarus, SNCB/NMBS-Belgium, BDZ-Bulgaria, CD-Check Republic, BR-United Kingdom, SBB/CFF/FFS-Switzerland, DSB/BS-Denmark, SJ/BV-Sweden, CFL-Luxembourg, CFR-Romania, CH-Greece, CIE-Ireland, CP/REFER-Portugal, DB AG-Germany, EVR-Estonia, FS SpA-Italy, NSB/JBV-Norway, MÀV Rt.-Hungry, NS(B.V./N.V.) - Netherlands, ÖBB-Austria, PKP-Poland, RENFE-Spain, SNCF/RFF-France, SZ-Slovenia, TCDD-Turkey, VR/RHK-Finland, and ZSR-Slovak Republic) over a period of time going from 1972 to 1999.

Data collection was obtained from the International Union of Railways (UIC). UIC institution collects, since the year of 1925, information on the about sixty networks which form part of it, according to a very precise and detailed classification which covers as the technical as the financial aspects of their activities. Among these companies the nineteen European networks which compose our data were retained according to the availability of data for the period 1972-1999. The UIC (1972-1999) collected data is shown in appendix A in Tables A1.1, A1.2 and A1.3. Additionally, this data collection was supplemented with information from Jane's (1995), ECIS (1996), Uden (2001) and firm annual reports.

Due to a lack of quality data over the whole period and firms, cross-section data is unbalanced with yearly observations covering the whole period for some firms but other firms with reduced number of observations, mainly those from the Eastern countries. Table 3.1 shows the time period observations available for each firm.

Table 4.1 – Cross-Section Data Periods

FIRMS	DATA PERIOD	FIRMS	DATA PERIOD
SBB/CFF/FFS	1972-1999	NSB	1972-1993
CFL	1972-1999	BR	1972-1994
CH	1972-1999	DSB	1972-1996
CIE	1972-1999	CD/CSD	1990-1999
CP/REFER	1972-1999	PKP	1991-1999
DB/DBAG	1972-1999	MAV	1991-1999
FS SpA	1972-1999	BC	1992-1999
NS	1972-1999	BDZ	1992-1999
OBB	1972-1999	CFR	1992-1999
RENFE	1972-1999	EVR	1992-1999
SJ/BV	1972-1999	SZ	1992-1999
SNCB/NMBS	1972-1999	ZSR	1993-1999
SNCF/RFF	1972-1999		
TCDD	1972-1999		
VR/RHK	1972-1999		

In the next sub-sections, the construction process of each variable intervening in the cost function and the sources from which they were obtained will be described. In spite of the effort to find an appropriate and reliable process of variables characterisation, due to the difficulty in finding more disaggregated data, almost all of the measures defined for the variables have a high level of aggregation. The resulting variable figures forming the cross-section data set observations are contained in appendix A in Tables A2.

4.3.2.1. Labour Input Prices and Costs

The labour input price variable is measured, as usual in the literature, as the ratio of staff charges over the annual mean staff. The staff charges is the sum of expenses from staff salary plus pensions and various social charges, defined according UIC rules. The final measurement of staff charges is obtained after a proportionally weighted part of the "contra account of expenditure charged to other accounts" rubric, which includes the fixed asset own construction expenses, being deducted from sum. This deducted parcel is estimated assuming that the global value of "contra account of expenditure charged to other accounts" is proportionally distributed through staff charges, materials and services rendered by third parties, taxes and financial charges according to their respective weights in the total costs. The annual mean staff is taken as the total railway staff belonging to railway operation (not accounting for staff allocated to other operation services produced by the firms and to new work and reconstructions).

Real costs and prices of labour have been converted to constant 1995 year US dollar prices through the use of the World Bank Group country's GDP implicit price deflators and the correspondent OECD (Organisation for Economic Co-operation and Development) country's PPP coefficients (Purchasing Power Parity). The former convert the current years' monetary variable in constant (1995 year=100) local prices and the latter convert these in constant US dollar currency. GDP deflators and PPP's used in this study are shown in Tables A3 in appendix. Variable labour inputs are given in Tables A2.2.

4.3.2.2. "Materials & Energy" Input Prices and Costs

The most widely practiced measurement of "Materials and Energy" inputs is the separation of the same into two distinct variables. This procedure gives a better disaggregate level input identification with the consequent advantages in cost structure estimation. However, to use this procedure, the availability of data in both inputs would be required, which in this case is not possible. UCI data only have available input separation of "Materials and Services Rendered by Third Parties" into "Energy consumption" and "Other Materials and services provided by third parties" through the years from 1972 to 1990; after 1990 there is only provided disaggregate measurement of "Material purchases" input and "External charges and other operating expenditure" input. Even though the energy consumption shows, for the years which are known, significant and systematic lower expense values than material and services expenses, these values do not have a systematic trend; i.e. the ratio of "energy consumption" expenses over "materials and services" expenses, is significantly different from a constant value either over time or among firms. Thus, one has opted for the aggregation value in all data set, instead of estimate separate values in the last ten years, due to not having this information to work with.

Following this procedure, only an aggregate variable was introduced, addressed hereafter as “Materials and Energy” input, which correspond to the global specific costs in “Materials and Services provided by Third Parties” that include the specific cost related with energy consumption.

As well as in staff cost measurement, the final measure of materials and energy costs is obtained after a proportionally weighted part of the “contra account of expenditure charged to other accounts” have been deducted to the original UIC measurement.

Materials and energy input prices were fixed as the ratio of materials and energy costs over the total train-kilometres supplied by each company. This approximation of the prices of material and energy inputs is similar to that proposed by Preston (1994) and followed by others authors such as Sánchez and Villarroya (2000). This procedure is justified due to the impossibility of obtaining any more rigorous indices and to the empirical proportionality evidenced between material and energy consumption and train-kilometres supplied.

Costs and prices of materials and energy inputs have been converted in constant dollars of 1995, by means of GDP deflators and PPP’s using the same procedure as used in labour inputs conversion. Variable materials and energy inputs are given in Tables A2.3.

4.3.2.3. Equipment Capital Stock Input Prices and Costs

Capital stock equipment in this study includes the transport stock and other equipment fixed assets of UIC defined data.

The cost of capital was estimated as a user cost, defined as the sum of depreciation and interest costs. It should be noted that most railways only depreciate at historic cost in their accounts, and age and assumed lives of assets vary. Due to the variability introduced for different measurement criterion of capital stock variable and respective depreciations rates, in a cross-section from different country origins, it is believed that this mix-specification could provoke substantial deviations in estimated results. Thus, to overcome this probable source of bias, independent measures of capital stock and correspondent depreciation rates from implicit investments subjacent to balance sheet table of UIC (1972-1999) publications have been calculated.

This calculation followed the criterions defined in OECD-Statistics (March-2001) and OECD-Statistics (2001a).

As a user cost, the cost of capital in real term (constant prices) was calculated by the following expression:

$$U_t = K_t.(d_t - r_t)\,, \tag{4.21}$$

where U_t designates the cost of capital of the year t, K_t is the productive capital stock, d_t is the rate of depreciation and r_t is a measure of the real cost of financial capital.

The productive capital stock K_t is the stock of a particular asset, in this case equipment input, after assets of different ages have been converted into standard efficiency units, thus adjusting the older assets in the stock to account for their reduced efficiency in producing capital services. Productive capital stock is a proxy to quantity of capital services produced by the asset, not directly observable, and thus assumed to be in proportion to the stock of assets after each vintage has been converted into standard efficiency units.

4.3.2.3.1. Productive capital stock measurement

The productive stock for a particular, assumed homogenous, asset is constructed with the perpetual inventory method (PIM), which consists of cumulating past investments expenditures. The alternative way of applying the PIM, that was applied here, is attending to the decline in productive efficiency and its effect in the value of the asset price. To reflect the decline in productive efficiency, and the retirements of investments cohorts, weights that follow an assumed pattern are attached to each vintage investment. Thus, productive capital stock is given by the following expression:

$$K_t = \sum_{\tau=0}^{T} h_\tau . F_\tau \frac{IN_{t-\tau}}{q_{t-\tau,0}}, \tag{4.22}$$

where, IN is the nominal investment expenditure on the asset at time t, $q_{t,0}$ is the price index deflator for the asset of age zero (a new asset) in year t, F_τ is a retirement function that spells out the share of asset of age τ that is still in service, T is the maximum service life of asset, and h_τ is an age-efficiency profile, tracing the loss in productive efficiency as an asset ages. This expression implicitly assumes that the capital is measured at the beginning of a year period.

The basic requirements needed to apply the perpetual inventory method to estimate the productive capital stock are:

- an initial benchmark estimate of capital stock,
- statistics on investment expenditures extending back to the benchmark,
- price index deflator,
- assumption on the average service lives of different assets,
- assumption on how assets are retired around the average service life (retirement pattern),
- assumption on how assets decline their productive capacity as it ages (age-efficiency profile).

Due to the inexistence of re-evaluated benchmark in capital stock for the initial year of 1972, one has chosen, for the initial value of productive capital stock, the unique value available for the year of 1972 (the year "zero") without any correction for erratic accumulated past depreciations. This is the value that comes from the sum of reported net capital stock at the end year, plus the reported depreciation correspondent to the current year (1972). In spite of this evaluation, incorporating a measurement error originated by the fact of capital stocks being measured in their accounts at historical prices, this distortion effect becomes progressively less relevant in the following years.

It should be noted that for countries which only have available data for recent years, the procedure described above was applied for the first year of available data.

Investments expenditures were obtained by first differencing the reported un-depreciated value of stocks between each year. Due to the lack of data or misleading capital stock observations reported in UIC data, investment expenditures for these years were obtained from figures reported in ECIS (1996) and firm annual reports.

Since the reported values of capital stock in the UIC data are discounted of the old asset discarded from services, these estimates of investments expenditures are not the real value of investment, but investments less asset disposals, the real value of investments is expected to be slightly superior.

Other relevant inconveniences are the frequent revaluation or modification of the accounting system that have taken place for some firms in data set. This fact led to a special treatment of UIC reported capital stock to conform these occurrences to the remained observations in the data set. Thus, in every case where in the original data it was detected a revaluation of capital stock one has formulated two alternative ways to conform the value of capital stock revaluation with that of previous years. These alternative interventions in capital stock measurement have consequently implied two alternative data sets to be used for estimation.

One way of dealing with reported revaluations of capital stock was to recalculate investments and associated end-year capital stock of observations before revaluation, having as starting base observations on the capital stock figure of the revaluation year. This means that, since investments values, excluding those of the first data year and of the revaluation year, can be determined from original data, one has recalculated capital stock back to the starting data year through an inverse cumulative process sustained in determined investments of the years before revaluation and the capital stock reported in the revaluation year.

This process implied the difficult task of finding the appropriate investment figure for the unknown investment of the revaluation year. When it was not possible to have information on this figure, a value which implied a reliable capital stock in the first year of firm data set was chosen. It should be noted that this practice does not affect the reliability of the remained data values whose investments are estimated from reported capital stocks. In spite of the linearity of this treatment process there are countries with frequent revaluations over the years or/and with high levels of inflations that made the reconstruction of capital stock variables impossible, with evident incompatibilities among different revaluation figures over time; in these cases observations related with these periods were excluded from the data set. Thus, this capital stock recalculation process implied discarding a certain number of observations from the original data set. Being the described process constructed in a more conceptually realistic base, restricted data set (labelled hereafter as Data_P) that originated from it, was preferentially used in econometric estimation of the cost function.

A second alternative treatment measure option for the end of year capital stock measurement is what could be called an absent option. Here the treatment procedure was to consider the reported revaluation of firm's capital stock as it was independent of previous year observations, consequently implying the loss of one observation in data set for each revaluation detected. Thus, in this procedure, the firm's revaluation capital stock and the following year observations were interpreted as "new firm" observations. Data set (labelled hereafter as Data_T) emerging from this alternative process was used only with comparison proposes, i.e. estimations with this data set were made as confirmation criterion to validate the estimation process in use. This option had, as support, the point of view that estimated results from latter referred data could be misleading, mainly those related to efficiency results that could come highly distorted by measurement discrepancies affecting exclusively one variable.

With respect to changes in firm's accounting system, an identical procedure as the one described above has been adopted, i.e. when a firm adopted a new accounting system, figures from this system were interpreted as belonging to a new firm, independent of previous year reported figures. Unlike what it was referred to when revaluations occur, in this case the impact on results due to this procedure is quite reduced. This because, when there are changes in the accounting system, the remaining operational expenditure variables, besides those of capital stock, in the cost function are in conformity with the changes affecting capital stock measurement and consequently the estimation results are less sensitive to these changes.

Every time firms suffer a system restructure, as was the case of vertical separation of railway infrastructure and railway operation, this new system as a new firm was considered. In this special case of firm separation, input costs of separated firms were grouped, for each input, through the sum of both firm costs. With respect to capital stock and investment, this procedure has the inconvenience of causing slight measurement distortions, mainly in respect to the calculation of depreciation rates. However, due to input aggregation capital stock being significantly indexed to one of the firms, i.e. equipment capital stock expenses are preponderantly associated with the “operating” company and way and structure capital stock expenses with “infrastructure” company, the impact of this procedure was very reduced and has the advantage of being very simplistic in terms of tractability.

Detailed information on capital stock and on investment expenditure calculation described above is reported in Appendix A-Tables A2.4.1.and A2.4.2..

With respect to the required price index deflator, the GDP deflator to convert the nominal investments in transport equipment and other equipment asset in investment expenditure at constant local prices was used. An attempt was made to find a more accurate and specific price index for transport equipment but it was abandoned due to the lack of extensive price index over all the years and countries in data set.

The average service lives of different assets were fixed attending to the average age of transport and powered stock fleet reported in UIC (1997-1998) and in the services lives used by the US Bureau of Economic Analysis, the Statistics Canada and Netherlands Statistics reported in OECD-Statistics (2001b).

Despite the country’s variability of age transport stock reported in UIC (1997-1998), it could be said that in 1990, around 50% of transport stock was more than 20 years old, but this value fell drastically to less then 10% for stock with more than 30 years.

Thus, the average life service for railway transport equipment considered in this study was twenty five years, taking into account that transport equipment asset definition used here includes, besides transport stock, other equipment stock with possibly lower service lives. Comparing this value with those used by US Bureau of Economics Analysis (rail equipment service life of 28 years), Statistics Canada and Statistics of

Netherlands (rail equipment service life around 20 years), one can confirm the plausibility of the choice.

Since the calculation of investment expenditures is given by real investments expenditures deducted of scrapped transport equipment, productive capital stock should not be corrected by retirement pattern; however, inclusion of retirement's patterns, F_T, as it appears in expression (4.22) has been made. This option was based on the fact that, unlike the current practice in firm's account systems, it is expected that not all assets are retired from capital stock service at the moment that they reach the average service life, but that discards occur over some period around the average. This way, it is expected that some assets of the same type are discarded before reaching its service life and others of the same age remain in use more than its service life. Another occurrence that supports this point of view is the certain level of heterogeneity which an asset can incorporate, as is the case in which capital stock equipment includes other equipment with distinct physical characteristics besides transport stock. By introducing retirement patters into expression (4.22) one has the advantage of taking into account the referred effects. Due to its simplicity, a delayed linear retirement pattern was used as the distribution function characterising discards occurrences. Thus, it is assumed that that retirements begin when assets reach the age of twenty, and equal parts of 10% are discarded until the entire vintage has disappeared, meaning that discards occur over a period of 10 years.

The last issue to conclude productive capital stock estimation is related to the assumption of how assets decline its efficiency as it ages; the age-efficiency profile. Efficiency in this context refers to the asset's ability to produce a quantity of capital services for a given amount of inputs. Thus, age–efficiency profile, h_T in expression (4.22), represents the rate at which the physical contributions of capital good to production decline over time, as result of wear and tear.

A variety of possible age-efficiency profiles goes from one assuming no loss in efficiency to the geometric decline, that assumes efficiency falls at constant rates or to the hyperbolic decline where efficiency falls at an increasing rate with age. The age-efficiency profile chosen here was the hyperbolic pattern due to its higher plausibility. The hyperbolic profile is currently used by the Australian Bureau of Statistics (ABS) for calculating stocks, consumption of fixed capital and an index of capital services and by the U.S. Bureau of Labor Statistics(BLS) in its capital service index.

The hyperbolic age-efficiency profile has been calculated by a function of the form:

$$h_{\tau} = \frac{T-(\tau-1)}{T-\beta(\tau-1)}, \tag{4.23}$$

where, T is the time duration of the asset until its complete retirement, here assumed to be 30 years, τ is the asset age at the year in which productive capital stock is being calculated, and β is the slope-coefficient which for transport equipment has been set at 0.5, the value used by ABS and BLS for most types of machinery and equipment. The hyperbolic age-efficiency proposed above has identical formulation of that suggested in OECD-Statistics (2001b). In table A4.1 in appendix are shown the age-efficiency profile used for transport equipment stock.

Productive capital stocks were converted, after application of expression (4.22), in constant 1995 US$ through out the use of PPP's 1995 deflators. In appendix, on tables A2.4.3.1. and A2.4.3.2. are shown productive capital stock values used for applications.

4.3.2.3.2. Depreciation and discount rates

The traditional application of the perpetual inventory method requires the direct estimation of depreciation from which the net capital stock is obtained indirectly. The alternative approach, which was used in this study, is to use the age price profiles to directly estimate the net capital stock from which depreciation is obtained indirectly. This alternative method has the advantage of all stock data being necessarily consistent with each other because the age-efficiency profiles (used to estimate the productive capital stock) determine the age-price profiles (used to estimate the net capital stock and depreciation).

Depreciation measures the loss in value of a capital good as it ages. It is therefore associated with the net capital stock and has to be distinguished from decay or efficiency decline associated with the productive capital stock and which reflects the loss of productive services that can be drawn from a capital good. Patterns of depreciation pertain to age-price profile of an asset, and patterns of efficiency decline to its age-efficiency profile. Thus, the loss in value of a capital good as it ages is shown in its age-price profile or the pattern of relative prices for different vintages of the same capital good.

A relatively straightforward way to obtain age-prices profiles is to infer it from the age-efficiency profile. Following this relationship and the formulation proposed in OECD-Statistics (March-2001), age–price profile, by definition equal to $[q_{(t,\tau)}/q_{(t,0)}]$, was calculated from the expression:

$$z_s = \frac{\sum_{v} h_{v-s} F_{v-s} \left(\frac{1+r}{1+\delta}\right)^{-(1+v)}}{\sum_{v} h_v F_v \left(\frac{1+r}{1+\delta}\right)^{-(1+v)}}, \tag{4.24}$$

where s is the age of asset at the time t, τ is the periods ahead of asset life, r is the discount rate and β is the rate of growth of nominal future income of a new asset, the remaining terms have the same meaning of previous expressions used for productive capital stock.

Rather than setting individual parameters for r and β, it is common, in empirical applications, to choose a "real discount rate", $[(1+r)/(1+\beta)]$, which is usually set at 4%. Thus, given the assumption about the age-efficiency profile and the retirement profile previously made for the calculation of productive capital stock and the real discount rate set at 4%, age-price profile z_s was derived from (4.24) and it is shown in table A.4.1. in appendix.

The rate of depreciation was calculated as the change of the net capital stock at constant prices. The change in the net capital stock at constant prices of year t is then given by:

$$K_t^N - K_{t-1}^N \frac{q_{t,0}}{q_{t-1,0}} = IN_{t,0} + q_{t,0} D_t, \tag{4.25}$$

where, K_t^N is the net capital stock of the year t, $IN_{t,0}$ is the nominal investment expenditure on the asset at time t, $q_{t,0}$ is the price index deflator for the asset of age zero (a new asset) in year t and D_t is the real depreciation term, which is given by:

$$D_t = \sum_v (z_v F_v - z_{v-1} F_{v-1}) \frac{IN_{t-v-1}}{q_{t-v-1}}. \tag{4.26}$$

This change in net capital stock has two components: the value of a new investment during t, $IN_{t,0}$, and the real depreciation D_t.

The rate of depreciation, which forms part of the user cost expression (4.21), was then calculated as the ratio between the real depreciation and the real net capital stock (at constant prices):

$$d_t = \frac{D_t}{K_t^N}. \tag{4.27}$$

The rates of depreciation referent to transport equipment capital stock and the associated net transport equipment capital stocks for data set, Data_P and Data_T, are shown in tables A2.4.4.1. and A2.4.4.2. in appendix.

The discount rate, r, comprises the interest payment if a loan was taken out to acquire the asset or the opportunity cost rate of employing capital elsewhere than in production if the acquisition of the asset was financed from equity capital. Theory provides no specific guidance as to the measurement of this interest rate. Depending on a firm's financing pattern, r could be measured as the interest rate at which a firm can raise funds or it could be measured as a return on government bonds. The first hypothesis requires estimating the internal interest costs faced by each firm with the help of an accounting identity, which in the face of inadequate financing data, was not possible to find reliable interest rate values. Thus the approach preferred was the use of an exogenous value for the discount rate r given by the long term real interest rates for government bonds reported in IMF (2001), WorldBank (2002) and OECD (2002).

4.3.2.3.3. Costs and prices

The cost of capital in real terms was calculated by the expression (4.21), however, every time the user cost (r_t+d_t) has a negative figure, due to values of real interest rates highly negatives, a minimum user cost of 0.001 was assumed. The final values of transport equipment capital stock costs, together with respective prices used in application are shown in table A2.4.5.1. in appendix A.

4.3.2.4. Quasi-Fixed Input" Way and Structures" Capital Stock –Prices and Costs

Capital stock way & structures includes the "land and fixed installations" as defined in reported UIC data.

The cost, prices and productive capital stock of way & structures was estimated following the same procedures and principles as those defined for transport equipment capital stock. Thus, the cost of capital stock way & structures, given by expression (4.21), was calculated as user cost.

4.3.2.4.1. Productive capital stock measurement

Productive capital stock was estimated based on the similar expression of that set for transport equipment, the unique basic difference is in respect to the retirement pattern that was vanished from the expression (4.22), becoming this expression:

$$K_t = \sum_{v=0}^{T} h_v . \frac{IN_{t/v}}{q_{t/v,0}}, \qquad (4.28)$$

for the case of way & structure capital stock. This modification is due to the fact that the function assumed for retirement patterns was the simultaneous exit function, which means that any investment produced at a certain point in time will be completely discarded at a certain point ahead in time. Railway infrastructures have as a physical characteristic their long life duration which means that infrastructures have the capacity of being able to produce until they reach their service life and being discarded/abandoned of service, which usually happens in block, i.e. there is a reduced number of infrastructures which have the ability of being partially discarded and still continuing in service; nevertheless, even in the cases where this is possible, due to its long life duration, this would occur far from the period in study, more than 30 years.

In respect to the average service life, a period of 50 years it was chosen. This period is in accordance with the service life pointed out by almost all country institutions, like for example: the US Bureau of Economics Analysis which suggests a service life between 38 years for railway replacement tracks and 54 years for railway structures, the Statistics Canada, which suggests a service life of 33 years for buildings and 52 years for railway engineering construction and the Statistics Netherlands, which suggests 60 years for railway buildings and 35 years for other constructions. Since way & structures capital stock includes land fixed asset that do not depreciate, this led to a setting of a high period that conform to this effect. Thus, the age-efficiency profile h_T was calculated using the expression (4.23), where T was set at 50 years and 〈 was set 0.75 according what is suggested in OECD-Statistics (2001b) for infrastructure assets. In table A4.2, in appendix, the age-efficiency profile used for way & structures capital stock is shown.

In appendix on Tables A2.4.3.3. and A2.4.3.4. productive capital stock values used for applications are shown.

4.3.2.4.2. Depreciation and discount rates

As referred to for transport equipment, following the formulation proposed in OECD-Statistics (March-2001), the age–price profile was calculated from the expression (4.24) corrected for the non existence of retirement patterns term:

$$z_s = \frac{\sum_{\nu} h_{\nu-s}\left(\frac{1-r}{1-\delta}\right)^{/(1-\nu)}}{\sum_{\nu} h_{\nu}\left(\frac{1-r}{1-\delta}\right)^{/(1-\nu)}}, \qquad (4.29)$$

where the term $[(1+r)/(1+\beta)]$ was set as well at 1.04. The age-price profile for way & structures assets is given in Table A4.2 in appendix.

With the age-price profile in hands, the calculation of depreciation rates followed the same path process described above, with the subjacent retirement pattern term elimination. The final values of the depreciation rates and the necessary intermediary paths to their calculation are given in Table A2.4.4.3 in appendix A.

4.3.2.4.3. Costs, prices and productive capital stock

The cost of capital in real term was calculated by the expression (4.21). Productive way & structures capital stock at constant 1995 US dollars and the final values of way & structures capital stock prices (user costs) used for application are shown in table A2.4.5.2. in appendix A.

4.3.2.5. Variable Costs (VC) and Input Cost Shares (SH)

The variable costs were calculated as the sum of labour costs, material & energy costs and transport equipment costs. Due to of being a quasi-fixed input, way & structures does not enter in variable costs.

Input cost shares were calculated through the quotient between each input cost and the variable cost.

In Table A2.5.1 the values of variable costs and input cost shares are shown.

4.3.2.6. Outputs: passenger and freight: PKM and TKM

The outputs considered in these applications were defined into two alternative application hypotheses:

a) Passenger-kilometres (PASSKM) for passenger service and tonne-kilometres (TONKM) for freight service;

b) Passenger train-kilometres (TKMPASS) for passenger service and freight train-kilometres (TKMFRG) for freight service.

These two alternative ways of measurement and characterisation of outputs have, as their main appeal, the possibility of analysing the implication for the structure of costs of railway industry of such alternatives and also allowing two distinct interpretations of productivity efficiency, the first alternative focused in the scope of public intervention and the second focused in the scope of firm management. If the outputs considered are PASSKM and TONKM productivity inefficiency will take into account factors such as those, under control of regulator transport authorities, which oblige companies to supply over the desirable level, thus beyond internal management inefficiencies, results obtained from these outputs definitions. When outputs considered are TKMPASS and TKMFRG, since excess of capacity resultant from running empty trains or having in service unprofitable branches are not accounted for, productivity efficiency results are more linked with good or bad internal management performances.

The values of outputs used are those published by UIC and they are shown in appendix A on Table A2.6.1.

4.3.2.7. Network length: NET

Variable network length is sometimes introduced in the econometric production function as a substitution of quasi-fixed capital stock, thus trying to capture the similar effect of which would be captured by way & structures capital stock if it was available. However, even with the quasi-fixed measure of capital stock available, beyond this contribution, the variable network length has special importance in analysing the return to scale effect, therefore, it is usually introduced in cost function jointly with the quasi-fixed capital stock variable. Some authors argue against this point of view on the basis that the usage of these two variables in the cost function could be the cause of multicollinearity, this subject would be discussed latter in next section relative to estimation methods.

Network length values used are those published by UIC, and reported as “Length of Lines worked at end of year”. This variable values are shown in Table A2.7.1 in appendix.

4.3.2.8. Quality of service variable: Qvmax

This attribute of service quality has particular importance when analysing firm efficiencies, however, there are few works that incorporate explicitly this quality of service in cost function. The main reason comes from the fact of it being difficult to find an accurate measure of this feature.

The first step in looking for accurate measures of the service quality attribute was to identify, with the available data, attributes that could, even indirectly, characterise this phenomenon. Unfortunately, there is no data available with significant time series information values on direct factors such as service regularity, punctuality and reliability or any inquiry results on costumer’s satisfaction. Thus, the choice was to collect information on indirect variable measures of quality of service from UIC data and other sources. The four variables chosen were: a “potential maximum velocity” of tractive stock, the frequency of service, the percentage of electrified network, and the percentage of double track.

Potential maximum velocity of tractive stock was estimated through information on tractive stock (locomotives, shunters, train sets and motor cars) technical data collected from UIC (1972-1999), Jane's (1995) and Uden (2001). Thus, based on the acquisition and discarded year of each tractive stock belonging to firms, and on its reported maximum speed, for every year and firm, tractive stock was grouped, according to its speed limits, in five speed intervals (km/h): <120 km/h, [120, 159], [160,199], [200,250] and >250 km/h; for each interval, the velocity of reference considered was respectively: 80, 140, 180, 225 and 280 km/h. Thus, for all firms throughout the period in study, the number of vehicles in service belonging to each interval of velocities was counted. With this in hands, and taking into account the velocities of reference for each interval, potential maximum velocity was calculated as the weighted (considering the number of tractive stock existent in each interval) average of the reference velocities.

The frequency of service was calculated as the quotient: train movements / kilometres of line. For train movements, the total of train-kilometres reported in UIC data for all types of traction were considered. The kilometres of line are given by the length of lines worked at the end of the year reported in UIC (1972-1999).

The percentage of electrified network and of double track were calculated respectively as the length of electrified lines and the length of line with double track (or more) over the total length of lines worked at the end of the year.

The main drawback of this approach to service quality measurement is that implied an excessive number of variables incurring in a potentially high problem of multicollinearity.

Thus, to overcome this tractability problem, the second step was to concentrate these four variables in a unique variable that was representative of the intended phenomenon. This was done by using principal component extracted from the correlation matrices of observed variables. The variable chosen as a quality service variable was that which associated with the first principal component. This, by definition, is the linear function of the variables that yields a weighted sum whose total squared correlations is the largest possible. With this methodology we obtained a unique variable, but which contains the relevant information provided in the original set of the previous four variables. Since the first principal component was a linear combination of the four original variables after they have been standardised to have unit variance, this principal component used as service quality variable must be seen as an index without units of measurement.

In Table A2.8.1 in appendix, the variable values used in application are shown, and there is also a brief explanation of the process involved in building the variable.

4.3.2.9. High speed technology dummy variables

To capture the effect of introduction of high speed technology on the costs of the railway operation dummy variables were introduced into the variable cost functions.

There are two main types of high speed technology that have been used in European railway systems, the first type of technology is that which uses tractive transport equipment with capacity to run with speeds above 250 Km/h in lines specially built to allow commercial speeds above 200 km/h. These high speed lines are new lines specially built to dedicate track geometry and support infrastructure with characteristics for running high speed trains.

The other alternative to high speed technology is the tilting train technology. This technology allows higher speeds than the conventional, but below that allowed by high speed lines. In this technology, trains are specially built to run at high speeds on existing lines. Due to the ability of tilting the body of the passenger rail vehicle while traversing a curve in the track at a speed above the balance speed, it is possible to achieve an acceptable ride quality with respect to the lateral force perceived by the passenger, without being forced to have large investments so as to build a dedicated passenger track. By tilting the body of a passenger train vehicle, existing curves can be traversed at higher speeds without compromising passenger ride quality and without risking instability during freight operations. Thus, in essence, the tilting train technology represents a potentially effective approach for improving achievable service speed for passenger equipment on existing tracks, without altering the geometry of curves and thus affecting the cost and safe operation of freight equipment, and without requiring very expensive investments in new dedicated high speed infrastructure.

Since these alternative options to increase passenger rail traffic velocity are very distinct in technology as well as in the magnitude of investment expenses, two distinct dummy variables were introduced, one which detects the presence of high-speed technology which allows running vehicles with maximum speed above 220 KM/h, labelled DUMMYHS, and the other dummy variable which assumes the value one when firms own titling trains vehicles and the value zero otherwise, this dummy variable was labelled DUMMYTT.

To capture the effect on costs of expanding investment on high speed technology besides the dummy variables described above, two more variables DHS220 and DTT were introduced, which were defined as the product of initial dummy variables by the respective logarithm of the number of vehicles existent in each technology. This way it is possible to analyse the effect of the increment in this type of technologies in costs and consequently in productivity. The option of taking as a measure of technology increment the number of acquired vehicles instead of other more accurate measures such as the extension of lines served by these technologies was mainly due to the non-existence of reliable information on these extensions, mainly with respect to tilting train technology.

The values that compose these four variables are shown in table A2.9.1. in appendix.

4.3.2.10. External physical environment variables: weather (SNOW) and terrain (SURVEY)

There is a significant number of physical factors that are external to the firm which could be responsible for comparatively lower firm levels of productivity performance but which are completely beyond the control of firms. One of these factors is the climate which, when it is characterised by very low temperatures for long periods of time, provoking consequently long periods of snow, could increase the operational costs significantly. Another factor with an elevate influence in the operational costs is the topographic country condition in which firms operate. If a firm operates in very irregular terrain there is a high probability of the infrastructure investments being drastically increased due to the needs of building more expensive infrastructures such as bridges, tunnels, etc., but there is also an increase due to higher operational costs caused by higher levels of consumption of materials and energy inputs associated with the fact of the tractive rolling stock yielding higher tractive efforts to face higher vertical alignment grades.

To take into consideration these two cost influent factors, two variables, which characterise these conditions, were introduced in the cost function. Thus, a variable denominated “snow” was created, which worked as an index for bad weather conditions associated with annual duration of snow cover across countries and a variable denominated “survey” which worked as an index for irregular condition terrain.

Both variables were considered invariant over time. This is an obvious assumption for the case of survey variable but, in the case of the snow variable, this assumption was exclusively originated by the difficulty in finding accurate time-series data on this subject; since the principal objective of these variables were not to explain a micro effect but to capture external inter-firm adverse effects which were a quasi-invariant characteristic of firm environment, this option, if not realistic, can be seen as acceptable.

The variable “snow” was estimated based on the NationalGeographic and ESRI (2002), whose maps give information on snow cover days by country. From these maps, taking into account the snow covered area and the associated number of snow days represented, the weighted average snow cover was calculated; this weighted average gives the index values considered for the variable “snow”.

The calculation of the variable “survey” was based on Maps.com (1999), whose maps give information of altitude country zones delimited according to altitude levels; thus, for each interval of altitudes, a middle altitude value of reference was assumed, and based on the six classes of altitude and its associated delimited areas a weighted average was calculated, which was used as the index variable value for “survey” variable.

The weighted average value calculation and the final values assumed for the “survey” and “snow” variables are shown in Table A2.10.1. in appendix.

4.3.2.11. External population environment variables: population density (DENS) and number of principal city agglomerations (AGM)

Beyond external physical effects, which may have implications for firm costs and productivity, there are other external effects of a different nature that could also be influential, even if indirectly. In this category one can consider the external effects related to geographic population distribution across the country which have a special impact on demand aspects and, consequently, on costs and productivity.

In this context two variables were developed focused on country population, which have as objective the capture of effects that population localisation could have in production capacity.

The first variable chosen with this objective was the country population density. The relevant figures for each country measured by people per sq km were collected from WorldBank (2002).

The second variable chosen was an indicator for the number of principal city agglomerations concentrated around the neighboured area of railway network. This indicator, besides giving additional information about population urban concentration, works as an indicator of the potential ability of the network for specific oriented travel demand, specially the appetency for long distance and commuter sub-urban trips. Data information about principal agglomeration in Europe was extracted from Brinkhoff (2002). It was assumed that only agglomerations with more than one million inhabitants and localised in the inner circle with a ray of 600 Km, centred in the principal agglomeration country city, are potentially served by correspondent country networks. The final indicator figures were obtained through the sum of the number of inhabitants (in millions) of agglomerations in the conditions described above.

These two variables are shown in the Table A2.11.1. in appendix.

Table A2.12. in appendix lists the values of all variables described in the last items which were used in variable cost and input cost share estimation. In this table, besides the variables described above, the time trend variable (TIME) to capture the effect of disembodied technological progress with particular importance in productivity estimation referred to above is also included.

In the sub-section 4.3.2.8 it was pointed out the difficulty of finding adequate measures and data available with significant time series information values on direct quality of service factors such as service regularity, punctuality and reliability or any inquiry results on costumer’s satisfaction, the same problem is found for characterisation of institutional factors which could influence significantly firm efficiencies but which are beyond their control.

As it is known, European firms which compose our sample are not free to operate on purely commercial terms, governments through various regulatory practices, dictate a large proportion of the type and price of services to be provided. Despite this fact there is some variety among firm regulatory constrains, for example as it can be observed in Gathon and Pestieau (1995), BR, SJ and NS enjoy greater autonomy from government intervention when making financial and operational decisions. In contrast, VR, ÖBB, NSB and CH are example of centralised systems. As it was referred to, Gathon and Pestieau (1995) constructed an index of the institutional autonomy which evaluates the relations between public authorities and railways' management. Since this index is time invariant and was investigated only for nineteen European companies, it was not possible to adapt it for this study.

Another proxy for institutional regulatory policy, which could be used as representing the cost of departing from purely commercial policies, is the level of payments which railway firm receive from governments for particular obligations regarding fares and specific services. Due to the difficulty in separating this type of subsidies from those specifically to cover financial debts, this hypothesis of proxy variable was excluded. Therefore, due to the difficulties in finding adequate variable to characterise institutional regulatory policies, our option was not include any variable to capture this effect. Since the models used for estimation are stochastic, it is our believe that this omission will not produce any loss in results robustness, being the institutional regulatory policies effects captured by the stochastic terms of cost and cost share equations, and consequently measured as productive inefficiencies.

Another factor that is taken into account in efficiency studies is the public versus private nature of the companies. However, since our sample is composed only by public companies makes this type of analysis impossible.

4.3.3. Basic characteristics of European railway systems

In previous sub-sections we have described the variables to be used in cost function estimation, to finalise this section of data analysis it is listed in table 4.2 some basic characteristics of the companies which compose our sample of European railways determined from the main variables described above.

From this table it is possible to offer some insights into operational behaviour of European companies. The first point worth noting is that the firms which compose the sample are substantially differentiated in terms of size, being the size of CFL, EVR, SZ and CIE less than 3% of the highest size firms such as DB and SNCF. With the exception of firms which have expanded the networks to accommodate high speed lines, globally all firms show in the period slight reductions in network over time.

Table 4.2 – Basic characteristics of the European railway systems

	Basic Network Characteristics (Mean value during sample period)								Basic Cost Characteristics (Mean value during sample period)				
Firms	NET	APTD	AFTD	PTRD	FTRD	ALT	ALH	Qvmax	VC_TK	SHLB	SHEM	SHEQ	TK_S
	(km)			(*1000)	(*1000)	(km)	(km)	(Index)	(US$/km)	(%)	(%)	(%)	(km/empl.)
BR	17 303	20.0	4.4	1 802.4	1 036.7	42.7	121.6	4.2	19.3	56.73	36.74	6.52	2.52
CD *	9 417	10.6	5.0	818.6	2 181.2	37.6	203.3	1.5	23.9	37.73	44.53	17.75	1.51
CFF	2 951	26.9	9.4	3 409.8	2 456.9	42.1	159.3	5.1	24.4	61.09	23.32	15.59	3.00
CFL	272	13.9	5.3	900.3	2 366.0	22.2	37.8	4.2	51.5	78.14	14.73	7.14	1.59
CH	2 467	5.6	1.1	686.3	259.1	144.0	195.8	0.4	30.9	59.70	20.77	19.53	1.40
CIE	1 984	4.5	2.1	552.1	293.5	55.2	176.3	1.5	45.8	57.19	32.57	10.24	2.13
CP	3 393	8.4	2.0	1 513.3	407.4	26.7	237.5	1.1	22.2	58.81	25.22	15.97	1.70
CP/REFER *	2 821	13.8	2.8	1 594.6	889.9	26.0	238.5	2.2	16.8	44.44	41.24	14.32	3.61
DB *	27 988	14.4	7.0	1 456.7	2 135.2	39.1	206.7	3.0	31.3	72.66	21.15	6.19	2.09
DB AG	39 674	16.8	5.2	1 571.4	1 790.4	43.9	241.7	3.6	15.5	49.40	46.66	3.94	3.38
DSB	2 223	18.9	3.5	1 832.0	809.7	33.9	234.8	2.6	22.3	48.31	31.31	20.38	3.00
EVR *	1 001	4.7	3.5	454.9	4 468.8	45.1	158.3	0.4	24.0	37.74	56.53	5.73	1.16
FS	16 114	14.5	3.8	2 601.9	1 211.1	102.5	325.1	3.2	39.1	60.74	27.89	11.38	1.66
MAV *	7 665	9.4	2.6	856.6	1 072.8	51.1	173.2	1.4	21.2	41.71	34.58	23.72	1.44
NS	2 832	35.6	4.5	3 624.8	1 078.0	44.9	157.1	5.6	14.8	54.21	29.26	16.53	4.19
NS (B.V./N.V.) *	2 807	41.0	2.3	5 220.7	1 279.9	46.0	151.2	6.9	24.9	32.66	57.58	9.76	4.65
NSB	4 187	5.5	2.5	506.1	642.0	61.0	110.2	1.0	19.6	63.83	23.90	12.27	2.49
OBB	5 740	12.4	6.6	1 352.8	2 041.8	44.9	203.0	2.8	29.7	51.65	27.09	21.26	1.71
PKP *	24 131	7.5	4.2	1 014.3	2 620.5	59.2	301.3	2.3	29.6	34.20	30.25	35.55	1.22
RENFE	12 997	8.3	3.4	1 212.7	898.2	68.0	363.8	2.2	24.0	51.12	30.20	18.69	2.85
SJ	11 389	5.3	3.6	515.3	1 407.7	83.7	305.7	1.6	17.1	65.03	22.12	12.86	3.07
SJ/BV	10 230	6.0	3.6	603.9	1 733.6	67.2	394.9	2.5	18.7	40.68	47.99	11.33	4.84
SNCB	3 711	19.1	5.6	1 865.6	2 250.4	43.9	114.9	5.0	37.9	60.96	25.13	13.91	1.97
SNCF	33 958	8.8	5.4	1 659.6	1 737.3	77.2	336.7	3.2	26.5	55.58	27.54	16.88	2.19
SNCF/RFF *	31 715	11.1	4.9	2 018.8	1 934.5	78.1	384.8	4.1	29.3	43.52	50.51	5.97	3.03
SZ *	1 201	9.3	6.0	499.0	2 207.4	45.1	196.4	2.1	25.7	45.59	36.61	17.80	1.86
TCDD	8 297	2.8	2.2	715.9	877.9	49.0	509.2	0.6	35.7	54.56	33.10	12.33	0.93
VR	5 961	4.2	3.1	517.7	1 285.1	78.4	264.8	1.2	18.4	69.77	21.54	8.56	1.98
VR/RHK *	5 857	4.5	2.9	572.9	1 634.9	66.7	241.1	1.7	16.2	45.88	47.31	6.81	4.43
ZSR *	3 666	10.3	6.3	1 023.2	3 345.5	46.5	210.6	2.0	24.1	41.44	46.96	11.60	1.24

* mean firm values from a sample with less then ten years observations

Note:

NET:	Network length (kms)	VC_TK :	Variable costs per train kilometres
APTD:	Average passenger train density (passenger train-kms per route kms)	SHLB:	Average labour cost shares (%)
AFTD:	Average freight train density (freight train-kms per route kms)	SHEM:	Average energy&materials cost share (%)
PTRD:	Passenger traffic density (passenger-kms per route kms)	SHEQ:	Average equipment cost share (%)
FTRD:	Freight traffic density (tonne-kms per route kms)	TK_S:	Train-kilometres per number of employees
ALT:	Average passenger trip length (passenger-kms per passenger)		
ALH:	Average freight length of haul (tonne-kms per tonne)		
Qvmax:	Quality of service index		

In operational terms, passenger (freight) average train density APTD (AFTD) varies from the extremely high density of the NS and CFF (CFF and DB), down to the very low densities of TCDD (CH). In terms of changes, railways have generically enjoyed some increases in average passenger trains density, not exclusively due to train kilometrage growth as well as due to network reduction size, but have shown reduction over time in freight train density. The NS and CFF have both the highest passenger traffic density (PTRD) and EVR and ZRS the highest freight traffic density (FTRD), the lowest values of traffic density are EVR, NSB, SJ and SZ for passenger traffic and CH and CIE for freight traffic. However, it should be stressed that train densities are not closely associated with overall traffic volumes, for example SNCF has relatively high passenger traffic density but low train density, in contrast CFL and SZ have relatively high passenger train density but low traffic density. From comparison of the average values of passenger traffic density with those of passenger train density it can be seen that the high percentage of train usage are shown for TCDD, SNCF, FS and CP and the lowest percentage of train usage for CD, CFL and SZ.

Greek, Italian and Swedish railways serve relatively long-distance passenger traffic while most other railways have a high percentage of their passenger services for medium intercity trips, especially CFL and CP. As regards the freight sector, TCDD, SJ, SNCF, RENFE, FS and PKP do have far long lengths of haul than all the other countries examined. This is generally at an advantage in international traffic where there are no geographic link constrains to other rail system, which does not apply in United Kingdom, Greece, Ireland or Norway.

Comparison among firms of the average of quality of service variable, which incorporates factors such as level of electrification, frequencies, percentage of double tracks and maximum trains velocities, show that CFF, NS, and SNCB take advantage of higher levels of this variable index, in contrast, CH, EVR, TCDD and to a lesser extend NSB, CD, VR, CP, and MAV suffer the disadvantage of low levels of this service quality variable.

Looking at the cost characteristic, firms facing higher operational costs (variable costs per train-kilometres) are CFL, FS and SNCB, firms with the lowest level of operational costs are NS, DBAG, SJ, VR(RHK) and CP(REFER) with values around 16 US$ per train-kilometre. All companies show a decrease in labour cost shares over time which reveals an intension in increasing labour productivity. Firms with the lowest levels of labour cost shares are those of Eastern countries, however this fact is more associated with low labour prices than high labour productivity, this can be confirmed by looking at the average values of train-kilometres per employee, firms with the lowest values of this indicator of labour productivity are TCDD, EVR, PKP, ZSR and CH, in contrast, firms with the highest levels of train-kilometres per employee are SJ/BV, NS(N.V./B.V.), VR/RHK, CP/REFER and DBAG. Equally interesting are the decreases in train-kilometres per employee evidenced by firms which have separated operational services from infrastructures management.

4.4. Methods of estimation

Before describing the three alternative methods involved in the estimation of the cost and the input share function parameters, one may rewrite the deterministic part of cost function, equation (4.4) as:

$$\ln C^{*} = \chi_0 + \iota'\ln y + \chi'\ln w + \varphi'\ln q + \ln y\,\Psi\ln w + \ln w\,\mathrm{H}\ln q + \ln y\,[\,\ln q$$

$$+\frac{1}{2}\ln y\,\mathrm{P}\ln y + \frac{1}{2}\ln w\,\Delta\ln w + \frac{1}{2}\ln q\,\Phi\ln q + \mu'\ln z + \phi' D\,. \qquad (4.30)$$

The main difference in relation to the equation (4.4) is the additive log-linear terms $\mu'\ln z$ which corresponds to the terms related with external effects and dummy variables, thus z is the four variables: DENS, AGM, SNOW and SURVEY; and D is the high speed dummy variables: DHS220, DUMMYHS, DTT and DUMMYTT. These terms enter in the cost function respectively in a simple log-linear and linear form to avoid an extremely high number of variables which would contribute for multicollinearity occurrences. Since almost all of these variables are time invariant, it is believed that this simplification would yield any loss of the efficiency of the parameters estimation.

However, for the simplification described above it was verified a persistent number excessive of variables that were causing significant multicollinearity problems. The main symptoms of multicollinearity observed were that, for some of the models to be described below, iterative process did not converge. For the models with convergence, parameter estimates from data set P were substantially different from those using data set T, additionally some coefficients denoted unexpected (wrong) signs associated with very high standard errors and low significance levels, despite the high level, close to one, of the R^2.

Before describing the strategy used to deal with the presence of multicollinearity, it must be stressed that multicollinearity is a property of the data not of the models being estimated, detecting multicollinearity reveals a prior opinion that the data seem to be in conflict. Since non-experimental data will never be orthogonal, to some extent multicollinearity will always be present, so as long as the collinearity is not perfect there is no violation of the classical assumptions.

Several strategies have been proposed for coping with multicollinearity. If multicollinearity arose because of a shortage of information, which was not the case, one suggestion would be to obtain more data. Principal components approach has been sometimes used, this approach constructs a small number of principal components from the original variables; here the problem is that it is unclear what one is estimating from this small set of linear combinations of the original variables (how do we interpret the elasticity of a principal component ?). Another approach is the ridge regression estimator proposed by Hoerl and kennard (1970), this biased estimators for the coefficients have a covariance matrix unambiguously smaller, but still remains a biased estimator, so this approach has seen little practical use. The obvious practical remedy, and surely the most frequently used, is to drop variables suspected of causing the problem from the regression. However, it must be said, if the variable that is dropped actually represents an important role in the model, then estimates of the remaining coefficients will be biased, on the other hand, overfitting is a common error, and dropping variables from an excessively specified model might have some virtue.

Therefore, with the objective of removing multicollinearity problems, the correlation matrix of all terms intervening in the determinist cost function (4.30) was calculated, and the variable terms with high levels of correlation were excluded from the cost function. Thus, following Klein (1962) suggestion that when the correlation among variables exceeds the overall R^2 for the regression, multicollinearity is severe, all second order terms that were found to have levels of correlation, with any of the remained terms in the equation, higher than .975, were excluded from equation (4.30). This procedure is basically defensible by the fact that if two variables have a correlation higher than 0.975, little additional information will be gained with the inclusion of these two variables in the regression model. Additionally it is verified that exclusion of these variables did not imply severe restrictions neither in the flexibility of the function (allowing variable elasticity of substitution) nor in the theoretical properties of the cost function.

Thus, the final system, compose of variable cost and input cost share equations, which was estimated can be rewritten as:

$$
\begin{aligned}
\ln\left(\frac{VC}{PEM}\right) = {} & \chi_0 + \chi_{LB}\ln\left(\frac{PLB}{PEM}\right) + \chi_{EQ}\ln\left(\frac{PEQ}{PEM}\right) + \iota_{PKM}\ln(PKM) + \iota_{TKM}\ln(TKM) + \varphi_{QV\max}\ln(Qv\max) \\
& + \varphi_{Net}\ln(NET) + \varphi_{KQ}\ln\left(KQ'\right) + \varphi_{Time}(TIME) + \psi_{LBPKM}\ln\left(\frac{PLB}{PEM}\right).\ln(PKM) + \psi_{EQPKM}\ln\left(\frac{PEQ}{PEM}\right).\ln(PKM) \\
& + \psi_{EQTKM}\ln\left(\frac{PEQ}{PEM}\right).\ln(TKM) + \eta_{LBTime}\ln\left(\frac{PLB}{PEM}\right).(TIME) + \eta_{LBQV\max}\ln\left(\frac{PLB}{PEM}\right).\ln(Qv\max) \\
& + \eta_{EQKQ}\ln\left(\frac{PEQ}{PEM}\right).\ln\left(KQ'\right) + \zeta_{PKMKQ}\ln(PKM).\ln\left(KQ'\right) + \zeta_{YKMKQ}.\ln(TKM).\ln\left(KQ'\right) \\
& + \frac{1}{2}\delta_{LBLB}\left[\ln\left(\frac{PLB}{PEM}\right)\right]^2 + \delta_{LBEQ}\ln\left(\frac{PLB}{PEM}\right)\left(\frac{PEQ}{PEM}\right) + \frac{1}{2}\nu_{QVQV}\left[\ln(Qv\max)\right]^2 + \nu_{QVTime}\ln(Qv\max).(TIME) \\
& + \nu_{KQKQ}\left[\ln\left(\frac{KQ'}{NET}\right)\right]^2 + \mu_{Snow}\ln(SNOW) + \mu_{Survey}\ln(SURVEY) + \mu_{DENS}\ln(DENS) + \mu_{AGM}\ln(AGM) \\
& + \phi_{HS220}(DHS220) + \phi_{TT}(DTT) + \phi_{DHS}(DUMMYHS) + \phi_{DTT}(DUMMYTT) + v + w
\end{aligned}
$$

(4.31)

$$
\begin{aligned}
SHLB = {} & \chi_{LB} + \delta_{LBLB}.\ln\left(\frac{PLB}{PEM}\right) + \delta_{LBEQ}.\ln\left(\frac{PEQ}{PEM}\right) + \psi_{LBPKM}.\ln(PKM) \\
& + \eta_{LBTime}(TIME) + \eta_{LBQV\max}.\ln(Qv\max) + u_{LB}
\end{aligned}
$$

(4.32)

$$
\begin{aligned}
SHEQ = {} & \chi_{EQ} + \delta_{LBEQ}.\ln\left(\frac{PLB}{PEM}\right) + \psi_{EQPKM}.\ln(PKM) + \psi_{EQTKM}.\ln(TKM) \\
& + \eta_{EQKQ}.\ln\left(KQ'\right) + u_{EQ}
\end{aligned}
$$

(4.33)

where:

- VC is the variable costs,

- PEM, PLB and PEQ are the unit prices for materials & energy, labour and transport equipment capital stock,

- PKM and TKM are the outputs that could be expressed alternatively as Passenger-Kilometres (PASSKM) and Tonne-Kilometres (TONKM), respectively, or as Passenger Train-Kilometres (TKMPASS) and Freight Train-Kilometres (TKMFRG), respectively.

- Qvmax is the quality of service variable,

- TIME is the time trend variable,

- NET is the network length,

- KQ is the productive capital stock of way & structures,

- KQ* is the service flow from capital way & structures input given by CUK*KQ, where CUK is a variable proxy to the rate of quasi-fixed capital stock utilisation,

- SNOW, SURVEY, DENS and AGM are external environment variables which characterise the country differences in weather, terrain, population density and city agglomerations, respectively,

- DHS220, DTT, DUMMYHS and DUMMYTT are the high speed technological dummy variables,

- SHLB and SHEQ are the input cost shares for labour and transport equipment capital stock, respectively.

The restriction of linear homogeneity in the input prices was imposed by normalising variable cost and the other prices by the price of materials & energy input (PEM). To avoid singularity in the disturbance variances/covariance matrix, the materials & energy input cost share equation was dropped from estimation. It is well known that the maximum likelihood estimates are invariant to the choice of the equation dropped.

Before description of estimation methods, there are some observations that should be done about the functional form treatment used for quasi-fixed way & structures productive capital stock.

Preliminary estimation results for the system specification using the standard way & structures productive capital stock, KQ, have shown frequent violations of curvature conditions, with positive estimates for the parameter associated to the second order quadratic KQ term, directly contradicting cost theory.

As observed in Oum and Zhang (1991), the cost of the quasi-fixed capital stock increases linearly at the combined rate of depreciation *d* and the opportunity cost of capital *r* until its level reaches the current utilised capital, after which the user cost of capital changes to the opportunity cost of capital (r) only because the unutilised portion of the capital stock does not depreciate. Thus, in presence of firms with excess of quasi-fixed capital stock there is a kinked point in the variable cost function and short-run to cost function. This fact makes impossible to accurately estimate these cost functions by using approximation functions since it is impossible to make a direct second order approximation to a variable cost function with no continuous partial derivative with respect to capital stock level.

To solve this problem, quasi-fixed capital stock, KQ, was replaced by a measure of the service flow from capital as the argument in the variable cost function, as suggested by Oum and Zhang (1991). Thus way and structures capital stock service flow, KQ*, was computed by multiplying the W&S productive capital stock (KQ) by its utilisation rate.

Since the utilisation rate of W&S productive capital stock is not directly observable some proxy for it must be used. Therefore the utilisation rate (CUK) was defined as the ratio of total train-kilometres run (per year) per kilometre of line to the maximum value of total train-kilometres run (per year) per kilometre of line observed in the present sample. The values found to CUK are shown on the Table A.2.12. in appendix.

Even after utilisation of service flow instead of productive capital stock, some of the sign of the first order terms of capital stock remain positive, implying that the shadow value of capital input is negative. This fact is explained not by a mis-specification of the variable cost function but by the presence of the quality of service variable in this function. Indeed, the variable quality of service capture part of the effects associated with new investments in capital stock which allow operational cost reductions. Thus, since shadow prices are calculated assuming implausibly that quality of service is constant it is expected that, for firms already with excess of capital stock capacity, the shadow prices become negative.

Another point to be stressed is the fact of the quadratic term of W&S capital service flow argument appears in the variable cost function flow divided by the net length. The choice of this form was made to overcome potential multicollinearity problems. Since, the quadratic term for net length and W&S capital service flow showed correlations higher than 0.975 with the respective first order terms, and being these quadratic terms of crucial importance for efficient estimation of variable cost function, the solution found to overcome this difficulty was to include a single quadratic term relative to capital service flow per kilometre of line which, not showing correlation with the remain terms in equation, allows an efficient estimation preserving the must relevant information in W&S capital capacity.

For estimation of the maximum likelihood estimates of the parameters, which compose the stochastic frontier cost function and associated input cost share equations written above, following the theoretical specification described in sub-section 4.2.2 it was developed an iterative technique procedure, through computation of standard LIMDED's estimation programs and LIMDEP's programming language features, using maximum likelihood estimation of the single equation of the stochastic cost frontier model and the associated variance-covariance matrix of the input cost share error terms.

Thus, for each of the three alternative models described in sub-section 4.2.2.3., it was carried out a specific estimation procedure. Next it is described the steps that compose the iterative procedures developed for each of the proposed model.

4.4.1. Model I estimation procedure

This model I, which assumes an approximate solution for allocative inefficiency cost term in the cost function as a linear function of the error terms u_i (exclusively originated by allocative inefficiency), was estimated by following multi-step procedure:

1. Estimate parameters cost function by computing maximum likelihood estimator for the stochastic cost frontier model, without account for allocative cost inefficiencies.

2. Compute the input cost share error (u_i) and the elements ($\mathbf{u}_{ij}$) of respective covariance matrix (¬) using the estimated parameter results of step 1 .

3. Using the (n-1) terms $(ui)^2$ as new variables, representing allocative inefficiency cost arguments, in the variable cost function, re-compute the maximum likelihood estimator for the stochastic cost frontier model.

4. Compute the input cost share error (u_i) and the elements ($\mathbf{u}_{ij}$) of respective covariance matrix (¬) using the estimated parameter results of the step 3.

5. Compare the new estimated elements ($\mathbf{u}_{ij}$) with the previous results, if they converge, exit; otherwise, go to step 3.

6. Allocative and technical inefficiency costs are obtained using the final results and the equations (4.14) and (4.20) respectively.

4.4.2. Model II estimation procedure

This model II, which assumes that the error term in the cost share equations is composed as a functionally dependent error term, the $\boldsymbol{c}_i^a$, and the noise term $\mathbf{c}_i$., was estimated by following multi-step procedure:

1. Estimate parameters cost function by computing maximum likelihood estimator for the stochastic cost frontier model, without account for allocative cost inefficiencies.

2. Compute the input cost share error (u_i) using the estimated parameter results of step1.

3. According formulation given by equation (4.16), regress each of the (n-1) error terms u_i on firm dummy variables, time trend variables and logarithm of input prices $[\log(w_i/w_0)]$, where w_0 is the price of input whose cost share equation was dropped from the system. For each of these regressions calculate the associated disturbance variance $\mathbf{u}_i$ and the predicted values for the dependent variable $\boldsymbol{c}_i^a$

4. Using the cross product ($\boldsymbol{c}_i^a . \boldsymbol{c}_j^a$), of predicted $\boldsymbol{c}_i^a$ from regression (4.16), as new variables representing allocative inefficiency cost arguments in the variable cost function, re-compute the maximum likelihood estimator for the stochastic cost frontier model.

5. With the new maximum likelihood parameter estimates in hand, re-compute the input cost share error (u_i) and repeat step 3.

6. Compare the new estimated elements ($\mathbf{u}_i$) with those previous obtained, if they converge, exit; otherwise, go to step 4.

7. Allocative and technical inefficiency costs are obtained using the final results and the equations (4.15) and (4.20) respectively.

4.4.3. Model III estimation procedure

This model III, based on the exact relationship, proposed in Kumbhakar (1997), between the errors in the cost share equation and the allocative cost inefficiency in the cost function, was estimated by the following multi-step procedure:

1. Estimate parameters cost function by computing maximum likelihood estimator for the stochastic cost frontier model, without account for allocative cost inefficiencies.

2. Compute the input cost share error (u_i) and the elements ($\mathbf{u}_{ij}$) of respective covariance matrix (¬) using the estimated parameter results of step 1.

3. Using the computed u_i and the maximum likelihood estimated parameters of cost function, from equation (4.18) calculate the values $\mathbf{z}_i$ which compose the vectors representing the allocative inefficiency for the input pair (i,1).

4. Calculate the G from the expressions: $a_i ? \sum_{j?1} \boldsymbol{d}_{ij} \ln \boldsymbol{z}_j$ and $G ? \sum_{i?1} \frac{(S_i^* - a_i)}{\exp(\boldsymbol{z}_i)}$.

5. Using as dependent variable the variable costs less the allocative cost inefficiency given by expression (4.19), re-compute the maximum likelihood estimator for the stochastic cost frontier model.

6. Compute the input cost share error (u_i) and the elements ($\mathbf{u}_{ij}$) of respective covariance matrix (¬) using the estimated parameter results of the step 5.

7 Compare the new estimated elements ($\mathbf{u}_i$) with those previous obtained, if they converge, exit; otherwise, go to step 3.

8. Technical inefficiency costs are obtained using the final results and the equation (4.20).

The programs used to compute the estimation procedures described above for each of specified models were developed through LIMDEP's programming language. These programs are listed in appendix B.

These three model specifications were applied to both sample data set, denominated Data_P and Data_T, and they were run for the two alternative output specifications Y_I and Y_{II}: Y_I composed by the number of passenger-kilometres and tonne-kilometres, and Y_{II} composed by passenger train-kilometres and freight train-kilometres.

Preliminary estimation of some models aborted after Limdep program checked the skewness of initial ordinary least square (OLS) residuals, indicating that the OLS residuals were positively skewed. This fact was caused by the presence of heteroscedastic error in the cost function. Analysis of the squared residuals showed that, when Y_I outputs were used, they were essentially correlated with input prices and for Y_{II}, they were mainly correlated with a measure of firm size such output level and network length. Thus, to take into account the occurrence of heteroscedasticity, stochastic cost frontier models were computed using a weighting variable ($Wp=1/[\ln(PEQ/PEM)]^2$ when Y_I are used and $Wt=1/[\ln(NET)]^2$ when Y_{II} are used). This means that, to remove heteroscedascity, both sides of cost equation were divided through by the square of the logarithm of (PEQ/PEM) in the model where outputs are $Y_{I,}$ and the square of the logarithm of (NET) in the model where outputs are Y_{II}.

A simple test of autocorrelation was carried out using the Durbin-Watson test, which was applied to the cost function residuals. Since the values of the test statistic (d) which were found were in the interval between 1.5 and 2, and do not differ significantly from two, there is no statistically significant evidence of autocorrelation of the disturbances in cost function.

4.5. Summary of results analysis

Using the model specifications described above, twelve alternative models were run. Parameter estimated results from these models are shown in Tables C.1 to C.12. in appendix C. The final results shown, for each model run, on these tables are: (1) the initial OLS estimates used to obtain starting parameter values for maximum likelihood estimation; (2) the maximum likelihood estimates of the frontier cost function parameters.

Overall, the figures in these tables indicate that the estimated cost function performs fairly well in all models in question. This is suggested by the following facts: the majority of estimates are statistically significant; by observing the initial OLS estimates we can see that the adjusted R^2s are significantly high (around .99); the values of the log-likelihood function are significantly high; the majority of parameter estimates have the intuitively expected signs, and most importantly, economic regularity conditions requiring global concavity of the cost function were confirmed by the estimation of the Hicks-Allen own partial elasticities of substitution, given by the expression (3.41), which were all negative at the mean sample and practically negative at all points in the twelve alternative models. To ensure that the cost functions are monotonically increasing in prices, the fitted shares were checked and confirmed to be all positive for all models. Additionally, it is also found to be increasing in Y. Thus, all the theoretical properties of the cost function are satisfied by the estimated cost functions.

CHAPTER 5

ECONOMETRIC COST STRUCTURE RESULTS

5.1. Introduction

In the last chapter twelve alternative stochastic models were developed to estimate the frontier cost function of railway industry. This chapter is dedicated to the analysis of the relevant economic aspects that can be inferred from the obtained estimated cost functions. Before going into the cost structure analysis in section 5.2 a brief resume of parameter results estimates is given. Section 5.3 is dedicated to the analysis of the elasticities of input substitution and the cost elasticities with respect to environmental factors. In section 5.4 cost structure results are analysed with respect to the following components: allocative and technical inefficiencies, scale economies and productivity growth. Section 5.5 gives a general conclusion of results and relates theses results to existing literature in the context of European railway industry.

5.2. Parameter estimates

Table 5.1 displays the estimates of parameters that compose the cost frontier functions of the models I, II and III where output is measured by passenger-kilometres and tonne-kilometres. From this table it can be seen that the estimated coefficients have in the majority of cases the expected sign and, with exceptions of the coefficients δ_{TT}, δ_{DHS}, β_{LBLB}, β_{LBEQ}, λ_{QVtime} and κ_{AGM}, all are statistically significant at the 5% level in the three estimated models. The same applies to the estimates of λ and σ which are positive and significant. Additionally it can be seen that all the statistically significant estimates are quite similar in value for all the three models and comparing these estimates with those from model II (displayed in the last column of this table) applied to the data set T, it is possible to confirm the same evidence. The exceptions are the parameters estimates related to the cross product terms involving capital stock factors, however this was an expected result due to the distinct measurement procedure used for capital stock in data set T construction.

In Table 5.2 are displayed the estimates of parameters that compose the cost frontier functions of the models I, II and III where output is measured by passenger train-kilometres and freight train-kilometres. From this table it can be seen that the estimated coefficients have in the majority of cases the expected sign and, with exceptions of the coefficients δ_{HS220}, δ_{TT}, δ_{DHS}, κ_{Snow}, β_{LBEQ}, λ_{KQKQ}, ω_{EQPKM}, ω_{EQTKM}, φ_{LBTime} and the coefficients related to the variable QVmax, all are statistically significant at the 1% level in the three estimated models. The same applies to the estimates of λ and σ which are positive and significant. Additionally it can be seen that all the statistically significant estimates are quite similar in value for all the three models and comparing these estimates with those from model II (displayed in the last column of this table) applied to the data set T, it is possible to confirm the same evidence.

Table 5.1. - Parameters estimates using output set Y_I: Model I, II and III (data set P) and model II (data set T)

	Model I		Model II		Model III		Model II	
	Data set P (b)						Data set T (c)	
Parameters (a)	Coeff.	Std.Err.	Coeff.	Std.Err.	Coeff.	Std.Err.	Coeff.	Std.Err.
α_{0}	-4.63169	0.5898 ***	-4.844440	0.525708 ***	-2.91018	0.87989 ***	-4.1475	0.5485 ***
α_{LB}	1.65855	0.1278 ***	1.702300	0.119958 ***	1.39708	0.15619 ***	1.9689	0.1378 ***
α_{EQ}	-0.56083	0.0361 ***	-0.540094	0.034551 ***	-0.42458	0.05997 ***	-0.4777	0.0416 ***
j_{KQ}	0.675204	0.0522 ***	0.683179	0.045825 ***	0.56262	0.08870 ***	0.4373	0.0409 ***
j_{QVmax}	0.117955	0.0291 ***	0.110436	0.027362 ***	0.12703	0.05627 **	0.0663	0.0259 **
γ_{PKM}	-0.21287	0.0994 **	-0.197686	0.093003 **	-0.36697	0.14807 **	0.3869	0.1057 ***
γ_{TKM}	0.786782	0.0902 ***	0.812507	0.086550 ***	0.71819	0.13800 ***	0.488	0.0819 ***
f_{HS220}	-0.03621	0.0094 ***	-0.044664	0.009298 ***	-0.04383	0.01880 **	-0.0415	0.0111 ***
f_{TT}	0.033768	0.0113 ***	0.023206	0.010346 **	0.01581	0.02813	0.0248	0.0114 **
f_{DHS}	0.038389	0.0341	0.053490	0.034433	0.02337	0.05739	0.0334	0.0387
f_{DTT}	-0.22956	0.0333 ***	-0.194635	0.026556 ***	-0.21621	0.07465 ***	-0.202	0.0294 ***
κ_{Snow}	0.041655	0.0057 ***	0.056098	0.004609 ***	0.04713	0.01209 ***	0.0482	0.0049 ***
κ_{Survey}	0.075432	0.009 ***	0.065464	0.007650 ***	0.09114	0.01811 ***	0.0689	0.0076 ***
j_{Time}	-0.00375	0.0022 *	-0.005065	0.001984 **	-0.02191	0.00428 ***	-0.009	0.002 ***
β_{LBLB}	0.011116	0.0305	-0.004376	0.027623	0.01606	0.04536	-0.0414	0.0283
β_{LBEQ}	0.012529	0.0079	0.019656	0.006883 ***	-0.00406	0.01349	0.0543	0.0067 ***
ω_{LBPKM}	-0.12606	0.0107 ***	-0.124200	0.009847 ***	-0.10671	0.01316 ***	-0.1385	0.0113 ***
ω_{EQPKM}	-0.0396	0.0055 ***	-0.047478	0.005234 ***	-0.05363	0.00782 ***	0.0231	0.0066 ***
ω_{EQTKM}	0.009174	0.0054 *	0.019473	0.004737 ***	0.03368	0.01017 ***	-0.0002	0.0045
Ψ_{PKMKQ}	0.026149	0.0059 ***	0.020716	0.005365 ***	0.03266	0.00926 ***	0.0044	0.0059
Ψ_{TKMKQ}	-0.04241	0.006 ***	-0.042111	0.005864 ***	-0.03542	0.00915 ***	-0.025	0.0056 ***
ϕ_{EQKQ}	0.069316	0.0041 ***	0.064134	0.004034 ***	0.05084	0.00661 ***	0.0283	0.0034 ***
ϕ_{LBTime}	-0.00669	0.0016 ***	-0.007364	0.001440 ***	-0.00006	0.00350	-0.0046	0.0013 ***
$\phi_{LBQVmax}$	-0.08528	0.0154 ***	-0.092689	0.013980 ***	-0.12436	0.03426 ***	-0.0813	0.0125 ***
λ_{QVTime}	0.000265	0.0011	0.002664	0.001110 **	0.00871	0.00243 ***	0.0042	0.0011 ***
λ_{QVQV}	-0.06586	0.0095 ***	-0.095414	0.011989 ***	-0.06585	0.01893 ***	-0.1097	0.0104 ***
κ_{DENS}	0.362203	0.0236 ***	0.310573	0.022072 ***	0.38435	0.03929 ***	0.3363	0.0187 ***
κ_{AGM}	-0.0475	0.0123 ***	0.002379	0.011734	-0.06017	0.02278 ***	-0.0259	0.0104 **
j_{Net}	0.34565	0.0469 ***	0.374673	0.044781 ***	0.35470	0.09426 ***	0.402	0.0453 ***
n_{KQKQ}	-0.02657	0.0062 ***	-0.022529	0.006035 ***	-0.03627	0.01377 ***	-0.0108	0.0064 *
$\lambda = \sigma_u / \sigma_w$	2.04182	0.253 ***	1.146890	0.197689 ***	1.81178	0.03563 ***	1.9808	0.1977 ***
$\sigma=(\sigma_u^2+\sigma_w^2)^{1/2}$	0.145822	0.0084 ***	0.109170	0.009191 ***	0.23593	0.00406 ***	0.1338	0.0077 ***
Log-likelihood	473.629		546.605		-546.129		537.74	

(a) Paramters are defined according the expression (3.31) of Chapter 3.
(b) Number of observations: 534.
(c) Number of observations: 558.
*** significant at the level of 1%; ** significant at the level of 5%; * significant at the level of 10%.

Table 5.2. - Parameters estimates using output set Y_{II}: Model I, II and III (data set P) and model II (data set T)

	Model I		Model II		Model III		Model II	
	Data set P (b)						Data set T (c)	
Parameters (a)	Coeff.	Std.Err.	Coeff.	Std.Err.	Coeff.	Std.Err.	Coeff.	Std.Err.
α_{0}	3.19616	0.4017 ***	5.239590	0.363599 ***	3.88753	0.35521 ***	5.5246	0.3957 ***
α_{LB}	0.82500	0.0937 ***	0.773276	0.080305 ***	0.47587	0.07377 ***	0.7638	0.0788 ***
α_{EQ}	-0.378212	0.0369 ***	-0.214595	0.030771 ***	-0.33648	0.03137 ***	-0.1739	0.0384 ***
j_{KQ}	0.28364	0.0527 ***	0.180675	0.046927 ***	0.30076	0.03597 ***	0.1106	0.0519 **
j_{QVmax}	0.058019	0.0363	0.044138	0.035539	0.06838	0.02978	0.0182	0.0348
γ_{PKM}	-0.37727	0.1532 **	-0.517170	0.163849 ***	-1.09611	0.13172 ***	-0.3987	0.1622 **
γ_{TKM}	0.956365	0.1545 ***	1.051800	0.153613 ***	1.19578	0.13860 ***	0.9463	0.1612 ***
f_{HS220}	-0.021871	0.0097 **	-0.007025	0.010554	-0.03171	0.01215 ***	-0.0207	0.0124 *
f_{TT}	0.013218	0.0093	0.014572	0.009394	0.01772	0.00727 **	0.0066	0.0089
f_{DHS}	0.000722	0.0379	-0.026912	0.039429	-0.01815	0.04063	0.031	0.043
f_{DTT}	-0.144623	0.0279 ***	-0.113963	0.023740 ***	-0.21349	0.00823 ***	-0.1292	0.022 ***
κ_{Snow}	0.007909	0.0059	0.007905	0.004894	0.02134	0.00491 ***	0.0082	0.0056
κ_{Survey}	0.065796	0.0092 ***	0.059189	0.008297 ***	0.07251	0.00826 ***	0.0666	0.008 ***
j_{Time}	-0.008059	0.0025 ***	-0.007672	0.001988 ***	-0.00798	0.00150 ***	-0.0082	0.002 ***
β_{LBLB}	0.106963	0.0321 ***	0.083330	0.029121 ***	0.19169	0.03146 ***	0.1248	0.0279 ***
β_{LBEQ}	0.028569	0.0068 ***	0.041006	0.005729 ***	0.00562	0.00492	0.039	0.0053 ***
ω_{LBPKM}	-0.116246	0.0093 ***	-0.069951	0.010422 ***	-0.06412	0.00831 ***	-0.072	0.0095 ***
ω_{EQPKM}	-0.007066	0.0103	-0.026919	0.008001 ***	-0.05560	0.00580 ***	-0.0069	0.0097
ω_{EQTKM}	0.016561	0.0087 *	0.032142	0.006497 ***	0.03074	0.00601 ***	0.0219	0.0071 ***
Ψ_{PKMKQ}	0.057275	0.0098 ***	0.059461	0.010168 ***	0.08875	0.00863 ***	0.0608	0.0105 ***
Ψ_{TKMKQ}	-0.055671	0.0097 ***	-0.052318	0.009626 ***	-0.06494	0.00853 ***	-0.0466	0.0103 ***
ϕ_{EQKQ}	0.032968	0.004 ***	0.025254	0.003103 ***	0.03846	0.00290 ***	0.0159	0.0041 ***
ϕ_{LBTime}	-0.002549	0.0018	-0.002763	0.001463 *	0.00257	0.00131 **	-0.0006	0.0015
$\phi_{LBQVmax}$	-0.000473	0.0199	-0.025189	0.021106	-0.04810	0.01746 ***	-0.0445	0.0211 **
λ_{QVTime}	-0.001585	0.0013	-0.000779	0.001055	-0.00206	0.00101 **	-0.0004	0.0012
λ_{QVQV}	-0.01457	0.0117	-0.025230	0.010638 **	-0.04916	0.00844 ***	-0.0589	0.0103 ***
κ_{DENS}	0.085646	0.0233 ***	0.068347	0.020415 ***	0.17267	0.01734 ***	0.1227	0.0206 ***
κ_{AGM}	0.034162	0.0112 ***	0.050963	0.011255 ***	0.05519	0.00957 ***	0.0465	0.0107 ***
j_{Net}	0.270502	0.0523 ***	0.207331	0.049414 ***	0.21149	0.04138 ***	0.1875	0.0531 ***
n_{KQKQ}	-0.014341	0.0075 *	-0.010060	0.007511	-0.03394	0.00586 ***	-0.0119	0.0081
$\lambda = \sigma_u / \sigma_w$	2.96542	0.3539 ***	1.184720	0.182204 ***	1.66550	0.03073 ***	2.6254	0.2752 ***
$\sigma=(\sigma_u^2+\sigma_w^2)^{1/2}$	0.158192	0.0083 ***	0.110817	0.010076 ***	0.15625	0.00244 ***	0.1479	0.0074 ***
Log-likelihood	474.803		542.795		-425.704		519.54	

(a) Paramters are defined according the expression (3.31) of Chapter 3.
(b) Number of observations: 534.
(c) Number of observations: 558.
*** significant at the level of 1%; ** significant at the level of 5%; * significant at the level of 10%.

5.3. Elasticities

When analysing inherent properties of translog cost functions a direct interpretation of the parameter estimates of the model is not possible. Therefore, besides the usual analysis of estimated cost function coefficients, special attention should be focused on the associated elasticities which are functions of the parameter estimates and which have standard interpretations. Therefore, next the partial elasticities of input substitution and the cost elasticities in relation to external factors and the quality of service variables are analysed. The standard structure of cost used to measure the usual sources of productivity will be analysed in the subsequent section 5.4.

5.3.1. Elasticities of input substitution

The estimates of the twelve models were used to compute the partial elasticities of substitution.

The model that provided the elasticities of substitutions values with less variability were model III using the output set Y_I and model II using the output set Y_{II} (all models gave elasticities of substitution with similar values for the majority of observations, however, in some models for a restricted number of data points the figures of these elasticities are extremely high in comparison with the remaining observations, which consequently yielded, for these models, higher values of standard deviations).

The sample mean values of the own partial elasticities of substitution for the model III, using as outputs passenger-kilometres and tonne-kilometres, are for labour $\mathbf{u}_{LBLB}$ = -2.09, for transport equipment $\mathbf{u}_{EQEQ}$ = -8.65 and for materials & energy $\mathbf{u}_{EMEM}$ = -0.29. Input-substitutability, with cross-partial elasticities positive, prevails in all models. As expected all own-partial elasticities are negative which satisfies the postulates of the cost-minimising factor demand theory. However, these values show to be not statistically significant at a probability level of 5% , this is especially true for the high mean value of $\mathbf{u}_{EQEQ}$ with a standard deviation value of (37.92). The sample mean values of the cross partial elasticities of substitution for model III are $\mathbf{u}_{LBEQ}$ = 0.90, $\mathbf{u}_{LBEM}$ = 0.91 and $\mathbf{u}_{EMEQ}$ = 1.15. With the exception of $\mathbf{u}_{EMEQ}$, these values show to be statistically significant at a probability level of 5%. So these mean sample values reveal that there is no input-complementarity between any pair of inputs and consequently input-substitutability prevails. Additionally, these mean values, around one, show that a 1 % change in relative factor prices in any pair of inputs will bring about 1% change in its factor proportions.

The sample mean values of the own partial elasticities of substitution for model II, using as outputs passenger train-kilometres and freight train-kilometres, are for labour $\mathbf{u}_{LBLB}$ = -1.10, for transport equipment $\mathbf{u}_{EQEQ}$ = -4.91 and for materials & energy $\mathbf{u}_{EMEM}$ = -0.32 and the cross partial elasticities of substitution are $\mathbf{u}_{LBEQ}$ = 1.78, $\mathbf{u}_{EQEM}$ = 0.41 and $\mathbf{u}_{EMLB}$ = 0.11. As in the previous case all the own-partial elasticities mean values are negative but not statistically significant. The cross partial elasticities of substitution mean values, with the exception of $\mathbf{u}_{LBEQ}$, are not significantly different from zero by the t test at a probability level of 5%. So these mean sample values show that input-substitutability prevails among inputs but only labour and transport equipment inputs appear to be significantly substitutes. Thus, the mean value of $\mathbf{u}_{LBEQ}$, around 1.8, shows that a 1 % change in relative factor prices in the pair labour-transport equipment inputs will bring about 1.8% change in their factor proportions.

5.3.2. Elasticities of cost with respect to the external factor variables

The external factor parameters estimates, such as weather and terrain, have, as expected, positive signs and were statistically significant at the 1% probability level for the majority of models.

For the variable snow, all models except models I and II with output set $Y_{II,}$ respective parameters were statistically significant at the 1% probability level, and with values around 0.05 in the case of output set Y_I and 0.002 in the case of output set Y_{II} .This means that with worse weather conditions, here characterised by snow covered days, there is an increase of operational costs; thus, according to models using Y_I as output, if there was an increase of 1% in the number of snow days, the variable costs would be increased by 0.05%.

For the variable survey, parameter estimates were, in all models, statistically significant at the 1% probability level, and with values around 0.07. This means that countries with worse terrain conditions, here characterised by elevation levels, have an increase in operational costs, and, thus, countries with altitudes 1% higher have 0.07 % higher variable costs.

Parameters related to the variable population density (DENS) are all significant at the 1% probability level for all models. However, the elasticity of this variable is very dependent of the output chosen. For the first set of outputs Y_I the elasticity is around 0.35 whereas for the output set Y_{II} varies between 0.068 and 0.172. When analysing specific variable cost elasticity we must have present that remainder variables in cost function held constant. Thus, when elasticity of cost with respect to population density is analysed output variables remain constant, this means that if output set considered is measured by Y_I the elasticity of population density corresponds to an increase of costs originated by an increase of density but with passenger-kilometres and tonne-kilometres constant, which means that the increase of population density in demand, and consequently in costs, is constrained to allow only changes in the characteristics of traffic flows. In other words, the increase in population density is associated with an increase in short or medium distance traffic and a reduction in long distance traffic, maintaining a constant output response. In contrast, if output is measured by train-kilometres, an increase in population density is allowed to be associated with a revenue increase in all type of services, since the only constraint is on the output available not on the output revenue. Since short and medium distance services are a more expensive service than long distance services, this implies that when the output used in the cost function is output revenue, due to the increase of short and long run trips associated with the increase of population density, variable cost will increase more than if the output used is the output available, in this case an increase in population density can be associated with an increase in any kind of services, and thus, an increase in cost due to more demand for short run trips will be compensated by the costless increase of long-run trips. These arguments explain our results, that is, why the elasticity of population density has a higher impact on cost if the output considered is revenue-output than if the output is measured by the available-output.

Parameters related to the number of agglomeration cities (AGM), even in almost all of the models, are significant at the 1% probability level, however, they vary considerably from model to model. For the models using outputs Y_I in the model I and III the elasticities are (-0.048) and (-0.0601) respectively, and in the model II the parameter is not significant. For models using the output Y_{II} the elasticity varies around a value of

0.05. Even if at first glance these antagonist model results could be interpreted as misleading, they are, however, easily explained by the fact that this variable preponderantly affects the outputs that take into account market demand, the influence in cost being an indirect phenomenon. Thus, it is not surprising that this variable has an increasing effect on costs if they are estimated using train-kilometres as output and, when costs are estimated using passenger-kilometres as output the impact on costs is precisely the opposite.

5.3.3. Elasticities of cost with respect to the quality of service variable

The quality of service cost elasticities have a special relevance either in the interpretation of cost functions and in the analysis of productivity. There are two types of variables which were introduced in cost functions to explicitly characterise the quality of service effects: the variable denoted as QVmax and the set of high speed dummy variables. In this sub-section we are going to focus on the cost elasticity of QVmax, elasticities related to the high speed variables will be analysed in depth in the next chapter dedicated to the impact of high speed technology in costs and demand.

The mean values of the cost elasticity of the quality of service for each of the firms in the sample are shown in tables 5.3 and 5.4.

The analysis of these tables shows that there is a substantial variability among models and firm's elasticities. The Wald test (applied to the whole sample and shown, for each model, in the bottom of tables) for the hypothesis that the set of estimates are jointly zero does not allow the hypothesis of null elasticities to be rejected. However, almost of the estimates of mean firm's elasticities are statistically significant at 5% probability level, this means that there are firms which show significant positive elasticities whereas others reveal significant negative elasticities.

Considering outputs measured by "revenue output set" (Y_I), almost of the mean firm's elasticities are significant and with equal sign in all models; firms in this situation and with positive values are: CD, MAV, EVR, TCDD and ZSR. Firms with significant and negative elasticities in all models are: CFF, DB and NS.

Considering outputs measured by “available output set” (Y_{II}), only three firms show significant mean elasticity values with equal sign in all models; these firms are the NS (BV/NV) and SNCF/RFF with negative values and EVR with positive values.

Table 5.3. - Mean elasticities cost with respect to the quality of service variable: Output set Y_I

Firms	OUTPUT YI							
	Data_P						Data_T	
	Model I		Model II		Model III		Model II	
	Estimate	S.D.	Estimate	S.D.	Estimate	S.D.	Estimate	S.D.
BR	-0.091166	0.02225	-0.123872	0.02164	-0.03876913	0.048166447	-0.15571977	0.02296029
CD	0.0755392	0.03501	0.1154079	0.03364	0.28934526	0.038449884	0.104633957	0.024761825
CFF	-0.159992	0.01339	-0.19607	0.01315	-0.10846142	0.056276375	-0.21849344	0.022586583
CFL	-0.165881	0.04016	-0.19748	0.04991	-0.12337056	0.105743434	-0.21428104	0.050208619
CH	0.0844433	0.07789	0.1388298	0.09121	0.160308227	0.05134721	0.15094503	0.092873596
CIE	-0.012918	0.02566	-0.007125	0.02346	0.069166257	0.05629093	-0.02094342	0.023924077
CP	0.0076805	0.01849	0.0208722	0.01563	0.07510843	0.055885617	0.010884467	0.013396481
CP/REFER	-0.043383	0.00377	-0.019789	0.00456	0.14043692	0.009938831	-0.01921497	0.004439904
DB	-0.11823	0.0131	-0.145253	0.01107	-0.08841735	0.04464539	-0.16570329	0.015767775
DB AG	-0.066604	0.01334	-0.059851	0.01511	0.108359094	0.028571939	-0.06941347	0.013607859
DSB	-0.070281	0.02802	-0.085663	0.01984	-0.01096689	0.034365297	-0.10639646	0.013763669
EVR	0.2051648	0.01319	0.2840479	0.01221	0.431897246	0.01019852	0.286062927	0.011040275
FS	-0.061413	0.04179	-0.07751	0.03333	0.020837694	0.040888538	-0.10200404	0.023390515
MAV	0.0571179	0.0178	0.0930547	0.0147	0.248441958	0.012649574	0.086013842	0.009967107
NS	-0.167577	0.03172	-0.209995	0.04703	-0.12931643	0.102471236	-0.23577789	0.051212973
NS BV/ NV	-0.084615	0.00048	-0.092703	0.00026	0.110241544	0.003960898	-0.11349717	0.000711249
NSB	-0.042175	0.0173	-0.03666	0.02771	-0.01035087	0.075615257	-0.04210879	0.031395458
OBB	-0.043113	0.04779	-0.05396	0.04689	0.04288829	0.071889865	-0.07734406	0.040253953
PKP	0.0376239	0.03447	0.0606237	0.03282	0.234256565	0.027199403	0.045280674	0.025684916
RENFE	-0.055635	0.0365	-0.061714	0.02906	0.017209175	0.027926028	-0.07856841	0.02123726
SJ	-0.098674	0.02079	-0.11464	0.02928	-0.10007175	0.070516842	-0.12672773	0.030414137
SJBV	-0.055858	0.02729	-0.045929	0.02693	0.092869806	0.037148151	-0.05285223	0.022073805
SNCB	-0.117517	0.03672	-0.149279	0.03149	-0.04731013	0.050223061	-0.1767566	0.025943862
SNCF	-0.080124	0.0127	-0.101473	0.00785	-0.01884672	0.048478928	-0.12584944	0.014552592
SNCF/RFF	-0.0489	0.00515	-0.040142	0.00391	0.150577695	0.001776114	-0.05274985	0.002213766
SZ	0.004346	0.00679	0.0272156	0.00951	0.18789238	0.022149888	0.018604682	0.011414534
TCDD	0.129037	0.051	0.1703608	0.04814	0.246797895	0.041383107	0.160112595	0.040071765
VR	-0.041807	0.03453	-0.037154	0.0335	-0.00662323	0.032077543	-0.04365497	0.030089
VR/RHK	-0.034249	0.00871	-0.004771	0.00778	0.141644393	0.003054814	-9.9321E-05	0.005836385
ZSR	0.0726145	0.01186	0.1044892	0.00906	0.289220982	0.009256601	0.089380568	0.005826855
Mean	-0.047384	0.09179	-0.05061	0.11824	0.032519349	0.135909479	-0.05536617	0.132197219
e^2	0.2664987		0.1832101		0.057251146		0.175405974	
P-value	0.6056902		0.6686289		0.810894585		0.675351368	

Table 5.4. - Mean elasticities cost with respect to the quality of service variable Output set Y_{II}

Firms	OUTPUT YII							
	Data_P						Data_T	
	Model I		Model II		Model III		Model II	
	Estimate	S.D.	Estimate	S.D.	Estimate	S.D.	Estimate	S.D.
BR	0.0181556	0.01073	-0.035808	0.01053	-0.09232451	0.023273345	-0.13260799	0.014407277
CD	0.0116731	0.00258	0.0074529	0.01161	-0.01675411	0.023096294	-0.02776925	0.017210427
CFF	0.0103231	0.01363	-0.059803	0.01047	-0.14006042	0.024556935	-0.17482442	0.012144579
CFL	0.0132645	0.01503	-0.060333	0.01202	-0.1408679	0.025077924	-0.17275608	0.01960221
CH	0.0529352	0.02625	0.0291762	0.03449	0.032694447	0.071017402	0.023981289	0.067730978
CIE	0.0284767	0.01535	-0.00931	0.01408	-0.04244368	0.031296201	-0.0681425	0.020789614
CP	0.0364364	0.0164	0.0002829	0.01251	-0.02288524	0.028182563	-0.04711967	0.020271826
CP/REFER	0.0029697	0.0019	-0.031262	0.00145	-0.09194171	0.003109955	-0.10048416	0.002620117
DB	0.0227945	0.0112	-0.041854	0.00894	-0.10354221	0.02063339	-0.13844846	0.011140762
DB AG	-0.00149	0.00405	-0.039565	0.00402	-0.10739394	0.008052392	-0.123363	0.007101426
DSB	0.0230116	0.01366	-0.028029	0.01485	-0.0778438	0.032506286	-0.11024029	0.0216956
EVR	0.0319329	0.00509	0.0539003	0.00621	0.073754251	0.013197364	0.071369852	0.010480084
FS	0.0176729	0.0149	-0.027919	0.01915	-0.07870417	0.041063509	-0.11164607	0.02840062
MAV	0.0146845	0.00463	0.003596	0.00743	-0.02320565	0.015625418	-0.03533936	0.011180757
NS	0.0113977	0.01254	-0.061272	0.00604	-0.14208741	0.011952591	-0.18013173	0.012500075
NS BV/ NV	-0.012505	0.00103	-0.049536	0.00067	-0.12765164	0.001580316	-0.14943439	0.000941028
NSB	0.038669	0.01208	-0.013104	0.00503	-0.04757857	0.012284612	-0.07206948	0.0073373
OBB	0.0199557	0.0159	-0.021627	0.01949	-0.06653769	0.041097835	-0.09833042	0.031009342
PKP	0.0078758	0.00517	-0.004887	0.01274	-0.03986604	0.025863649	-0.05708849	0.020904455
RENFE	0.0233764	0.01795	-0.023905	0.01959	-0.07065022	0.042379202	-0.09976438	0.033571538
SJ	0.0359842	0.00967	-0.030227	0.0041	-0.07927393	0.008660286	-0.11110739	0.007438684
SJBV	0.0074104	0.00649	-0.032265	0.00994	-0.09167982	0.020384971	-0.10794602	0.016136387
SNCB	0.0109312	0.01517	-0.047106	0.01735	-0.11578646	0.037503823	-0.15202462	0.026034893
SNCF	0.019911	0.01298	-0.032175	0.01016	-0.0859711	0.023582162	-0.12063925	0.012657236
SNCF/RFF	-0.005617	0.00146	-0.036372	0.00226	-0.10228642	0.004792354	-0.11814887	0.003341824
SZ	0.007836	0.00369	-0.014764	0.00274	-0.05895047	0.006201735	-0.0731031	0.003810208
TCDD	0.043088	0.01818	0.0382418	0.02328	0.04931498	0.049155927	0.029796054	0.039195179
VR	0.037593	0.01575	-0.013473	0.01745	-0.04844088	0.037270292	-0.07334314	0.030337596
VR/RHK	0.0075552	0.00237	-0.026614	0.00374	-0.08252024	0.007823884	-0.0889759	0.006102817
ZSR	0.0085451	0.00328	0.0054292	0.00505	-0.02059866	0.010742306	-0.03582796	0.00716076
Mean	0.0231093	0.01957	-0.021707	0.03217	-0.06672079	0.063431953	-0.0892603	0.068839259
e^2	1.3948686		0.4553413		1.106384686		1.681296419	
P-value	0.2375848		0.4998093		0.292869423		0.194752386	

Additionally it can be seen that country firms which are currently associated with worse service quality are those which preponderantly show positive elasticities, meaning that an increase of the quality of service provokes, in these cases, slight increases on operational costs. In the opposite side are the countries which having higher service quality, showing negative cost elasticities for this variable.

In a certain way this evidence goes against the intuitive prognostic that an increase of the quality of service would yield an increase of variable costs. However, it should be noted that the variable quality of service was mainly quantified through measures of network and equipment characteristics, which, in a certain way, are embodied in capital stock variables; thus, the effect on operational costs that was captured by this variable was the surplus effect on costs proportioned by improvements of service quality not counted by capital stock variables. This means that, in the presence of excessive capital stock capacity, as is the case of European railway firms, the variable QVmax captures the effect that was expected to be captured by capital stock, and in this sense the quality of service variable quantifies the effect of improving the quality of service through new technology besides the improvements on traffic flow.

Another important aspect to take into account in this analysis is the fact that the quality of service improvements has an impact on both the costs and the demand revenue. This bi-directional effect is expected, apart from an increment in costs, to produce an increment on demand, therefore, it is not surprising that estimates of firm's elasticities being more significant when output set is measured by Y_I than measure by Y_{II}. This point of view is re-forced attending on the fact of the coefficient estimates associated with the quality of service variable being statistically significant (0.00% probability level) for the models applied using the revenue outputs and non-statistically significant (with significance at probability levels >0.1) for the cases where outputs were measured by train-kilometres.

5.4. Cost structure results

In the next sub-sections productivity sources will be analysed according the cost structure results obtained. To avoid excessive and repetitive analysis we are going to concentrate our discussion on the model that yields the most reliable measures for the railway cost structure. Thus, among the twelve models developed the model chosen as the analysis base model is that which best conforms the following criteria:

- the highest number of observations in the sample with correct (negative) estimated own elasticities of substitution signs;

- non-negative measures of technical and allocative cost inefficiencies for all observations in the sample;

- the highest maximum likelihood function estimate.

The model which best conforms these criterions, for both possible aggregate output measures Y_I and $Y_{II,}$ is the model denominated as model II. Thus, hereafter almost of the analysis will be primordially concentrated in the cost structure estimates associated with the frontier cost function estimated from model II.

5.4.1 Technical and allocative inefficiencies

The estimates of the logarithm inefficiency cost for the European countries considered was obtained according to each model's specification (developed in the previous chapter) as a function of the maximum likelihood estimates of parameters and of the share residuals.

5.4.1.1 Allocative inefficiencies

Tables 5.5 reports the mean values of the logarithm of allocative inefficiency cost estimates together with their standard errors, the Wald test for the hypothesis that the set of parameters are jointly zero and respective probability value.

The European railways considered do appear to have a significant cost increase due to allocative inefficiency behaviour. This fact is more evident when looking towards the significant standard error of the groups mean and the probabilities values for the Wald test, showing, in opposition to the basic assumption reported in other studies such Gathon and Perelman (1992) or the results found in Bosco (1996) and Parisio (1999), that there is substantial different behaviours among firms in which concerns to the usage of correct input proportion.

Thus, by looking at the results we can say that the mean increase in variable costs due to allocative inefficiency is around 20% with output express as output revenue (Y_I), with the lowest mean firm value of 1.9% obtained for VR/RHK firm and the highest value of 67% for DB; and if output is measured as available output (Y_{II}) the mean increase in variable costs due to allocative inefficiency is around 27% with the lowest mean firm value of 3.5% obtained for SJ/BV and the highest value of 93% for PKP.

Table 5.5. - Mean values of (log) allocative inefficiency cost: Model II, data set P

Firms	Data_P							
	OUTPUT YI				OUTPUT YII			
	Model II							
	Estimate	S.D.	e^2	P-value	Estimate	S.D.	e^2	P-value
BR	0.393868086	0.078179119	25.38166127	0.0000	0.430753641	0.213667341	4.064261323	0.0438
CD	0.027762835	0.009342173	8.831445664	0.0030	0.182784794	0.018080534	102.2015827	0.0000
CFF	0.224571497	0.028226589	63.29836205	0.0000	0.150210365	0.105220518	2.037975387	0.1534
CFL	0.03741541	0.038337331	0.952483066	0.3291	0.110470706	0.143347536	0.593900641	0.4409
CH	0.103479971	0.131141135	0.622636706	0.4301	0.150812136	0.059319658	6.463612349	0.0110
CIE	0.131278089	0.04159653	9.960250837	0.0016	0.131086869	0.162325488	0.65214617	0.4193
CP	0.190304419	0.07032212	7.323418232	0.0068	0.311441692	0.170919332	3.320252602	0.0684
CP/REFER	0.041512918	0.00292295	201.7082963	0.0000	0.042749344	0.007693918	30.87192977	0.0000
DB	0.514471393	0.037940647	183.8708946	0.0000	0.510897431	0.075325145	46.00314091	0.0000
DB AG	0.424645849	0.044579063	90.73856422	0.0000	0.328615341	0.018222153	325.2192717	0.0000
DSB	0.094977496	0.046221206	4.222395296	0.0399	0.09591406	0.022714178	17.83078673	0.0000
EVR	0.242790496	0.046088199	27.7513361	0.0000	0.152234496	0.022846037	44.4021886	0.0000
FS	0.487863253	0.15323347	10.1365214	0.0015	0.600107993	0.247851059	5.86242455	0.0155
MAV	0.06068407	0.019150749	10.04102096	0.0015	0.326278234	0.011889054	753.1502624	0.0000
NS	0.180707933	0.041459779	18.99767626	0.0000	0.087577624	0.044781747	3.824584373	0.0505
NS BV/ NV	0.118626599	0.001954386	3684.200692	0.0000	0.056770154	0.003070141	341.9192914	0.0000
NSB	0.04110017	0.027821088	2.182423483	0.1396	0.057150318	0.048474421	1.389991167	0.2384
OBB	0.083699528	0.05573615	2.255132602	0.1332	0.172077181	0.039659918	18.82534488	0.0000
PKP	0.29537948	0.096702236	9.330128218	0.0023	0.656738446	0.028773724	520.9460475	0.0000
RENFE	0.18764063	0.059062741	10.0931465	0.0015	0.193220038	0.153597302	1.582476062	0.2084
SJ	0.106359931	0.0610719	3.033005737	0.0816	0.116870857	0.15016731	0.605705692	0.4364
SJBV	0.02906373	0.015754245	3.403357245	0.0651	0.03472259	0.012219997	8.073875404	0.0045
SNCB	0.182209955	0.055478055	10.78702646	0.0010	0.258484372	0.075887027	11.60201716	0.0007
SNCF	0.389607759	0.036183562	115.9398061	0.0000	0.274633511	0.078765747	12.15716371	0.0005
SNCF/RFF	0.39546652	0.011052422	1280.278815	0.0000	0.256294033	0.004947506	2683.517062	0.0000
SZ	0.11680691	0.08548284	1.867149922	0.1718	0.044545587	0.081839823	0.296264769	0.5862
TCDD	0.137370651	0.108189835	1.612185429	0.2042	0.596610514	0.164127367	13.21355878	0.0003
VR	0.079592692	0.029188148	7.435895847	0.0064	0.143300232	0.14629736	0.959446606	0.3273
VR/RHK	0.018400674	0.005647465	10.61598734	0.0011	0.065533996	0.006504555	101.5075079	0.0000
ZSR	0.044101907	0.09438116	0.218345439	0.6403	0.189912018	0.18727708	1.02833741	0.3105
MEAN	0.189361339	0.158247166	1.431893602	0.2315	0.241828137	0.215225876	1.262480543	0.2612

In both cases, with output set Y_I and output set Y_{II}, almost of the mean firm values are significant at a probability level of 5%. This results support the view that European railways bear additional cost because of the usage of inputs in a wrong proportion.

Figure 5.1 and 5.2 show, for each firm, the behaviour in successive periods of five years (1972-75, 1976-80, 1981-85, 1986-90, 1991-95, 1996-99) of the mean percentage cost increase due to allocative inefficiency.

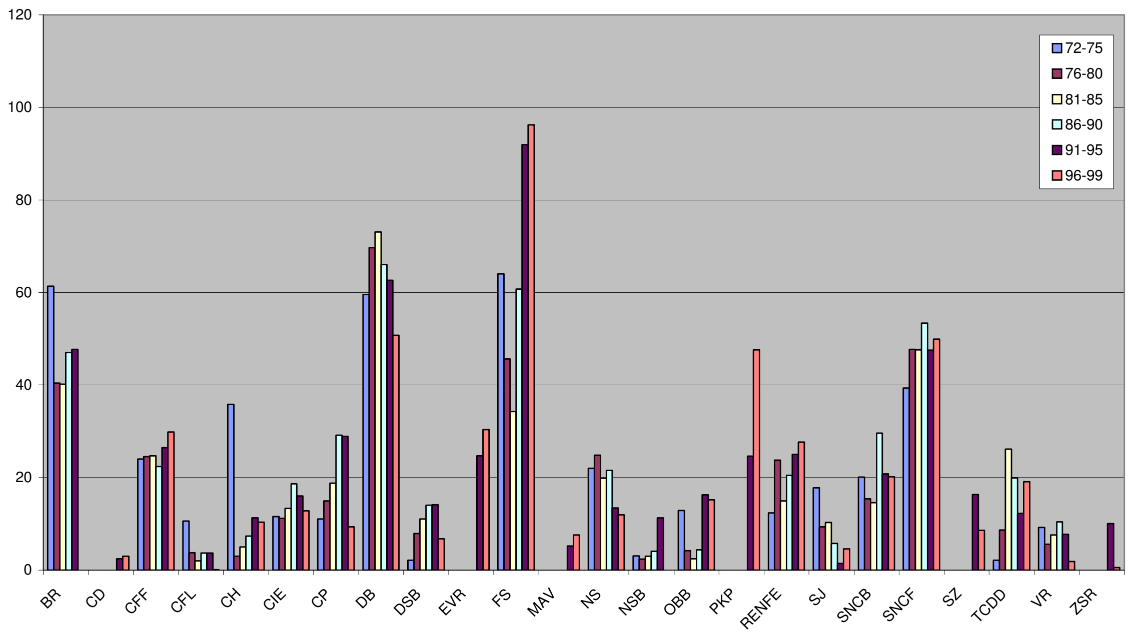

Figure 5.1 – Mean cost of allocative efficiency (%): Model II, data set P and output Y_I

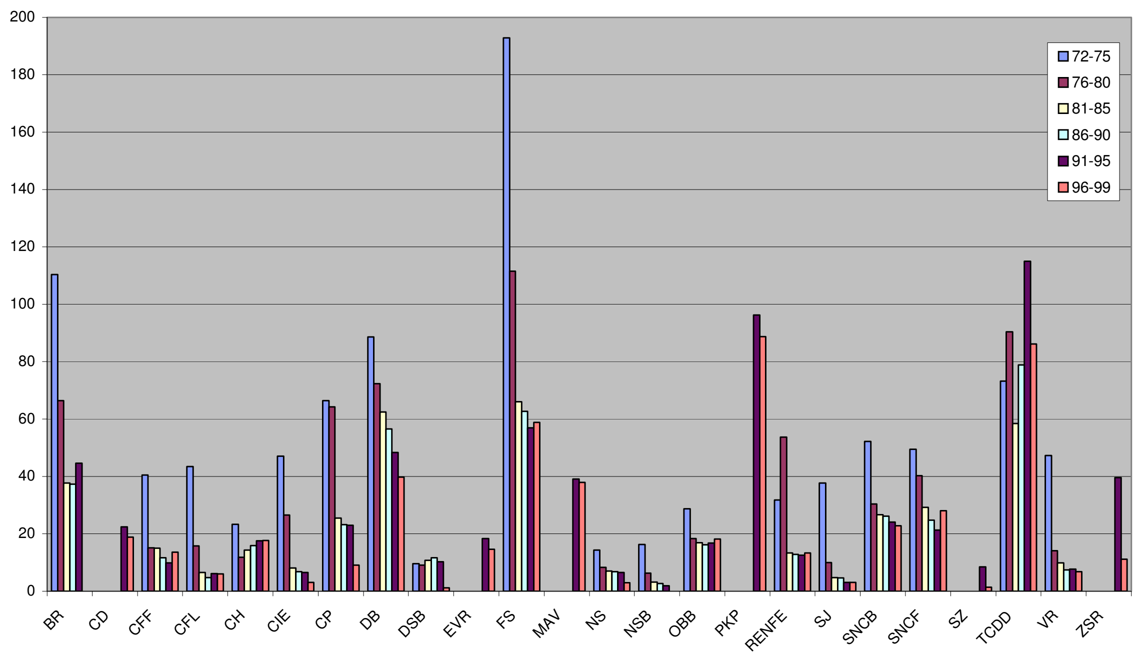

Figure 5.2 – Mean cost of allocative efficiency (%): Model II, data set P and output Y_{II}

From these graphs it is possible to conclude that when taking into account the effect of demand in output, firms such as BR, DB, FS and SNCF are those, by far, which show higher increase of costs due to allocative inefficiency, and if output is measure as the available output, firms such as BR, DB, FS and TCDD are those which show higher increase.

When output is characterised by train-kilometres (Figure 5.2), with the exception of TCDD, all firms have decreased allocative inefficiency during the sample period. This could mean that, under the pressure of large budget deficit, firms have implemented internal management policy changes, specially those relate with staff reduction (during the sample period the only firm which did not implement significant staff reduction was NS), which culminated in significant efficiency improvement. However, if demand effect is taking into account as output produced, this policy did not show similar trend implications, particular examples are the case of FS, SNCF, RENFE, NSB and CP. Thus, FS which in the first half of the period in observation has experimented a substantial reduction of allocative inefficiency in both analysis situations, in the subsequent decade suffered drastic increase of allocative inefficiency which takes into account the demand effect; SNCF, RENFE, NSB and CP are a good example of firms which show significant reduction of allocative inefficiency exclusively from internal political management but when demand response is taking into account in estimation, for the same period, allocative inefficiency reveals an opposite behaviour, showing significant increases.

Thus, the main conclusions to take from these graphs is that policies involving only changes from internal firm operational reorganisation do not produce allocative inefficiency reductions for the whole system incorporating demand response analysis, and in this sense policy options beyond managerial control appear to have the most important role on "global" allocative inefficiency. In a certain way these results confirm the point of view of some researchers who consider that the important social benefits which the railway transport comports are not compatible with objectives based exclusively on inefficiency reductions. This point of view becomes especially relevant given the fact that railway firms appear to have significant excess of capital capacity and, from our results, the firms which show the higher levels of inefficiencies are those of high size and those which in the last decades have invested more in new technology.

In table 5.6 the ranking in terms of allocative inefficiency is shown for each of the models run for data set P.

Table 5.6. - Ranking in terms of allocative inefficiency: data set P

OUTPUT YI						OUTPUT YII					
Model I		Model II		Model III		Model I		Model II		Model III	
Ranking	Estimate	Ranking	Estimate	Ranking	Estimate	Ranking	Estimate	Ranking	Estimate	Ranking	Estimate
CFL	0.008567	VR/RHK	0.018401	CIE	-0.14902	CFL	0.010584	SJBV	0.034723	NSB	-0.00348
VR/RHK	0.010752	CD	0.027763	CP/REFER	3.81E-05	VR/RHK	0.012224	CP/REFER	0.042749	CD	-0.00196
NSB	0.011691	SJBV	0.029064	VR/RHK	4.56E-05	CP/REFER	0.023106	SZ	0.044546	CH	-0.00119
DSB	0.013629	CFL	0.037415	SJBV	6.75E-05	SJBV	0.023486	NS BV/ NV	0.05677	CFL	-0.00028
ZSR	0.015755	NSB	0.0411	ZSR	0.00046	SZ	0.032062	NSB	0.05715	NS BV/ NV	2.66E-05
CIE	0.016768	CP/REFER	0.041513	CD	0.000562	DSB	0.038942	VR/RHK	0.065534	SNCF/RFF	6.47E-05
MAV	0.01828	ZSR	0.044102	VR	0.001	CIE	0.042907	NS	0.087578	ZSR	9.97E-05
SJBV	0.019977	MAV	0.060684	CFL	0.001132	NSB	0.051216	DSB	0.095914	CP/REFER	0.001195
CP/REFER	0.022292	VR	0.079593	NSB	0.001224	EVR	0.054883	CFL	0.110471	CIE	0.001406
CD	0.02326	OBB	0.0837	MAV	0.001404	NS BV/NV	0.062266	SJ	0.116871	SJBV	0.001539
CH	0.030629	DSB	0.094977	NS BV/ NV	0.002446	NS	0.067054	CIE	0.131087	SNCF	0.0018
SZ	0.031077	CH	0.10348	DSB	0.004073	CH	0.06818	VR	0.1433	EVR	0.001839
VR	0.031803	SJ	0.10636	SJ	0.006394	VR	0.087806	CFF	0.15021	VR	0.002081
CP	0.03862	SZ	0.116807	OBB	0.007174	ZSR	0.103333	CH	0.150812	SZ	0.002147
SJ	0.050763	NS BV/ NV	0.118627	RENFE	0.007863	OBB	0.104024	EVR	0.152234	OBB	0.002289
OBB	0.059281	CIE	0.131278	PKP	0.008193	SJ	0.104059	OBB	0.172077	DB AG	0.002828
RENFE	0.085401	TCDD	0.137371	CP	0.009637	CFF	0.120949	CD	0.182785	CFF	0.002905
PKP	0.085528	NS	0.180708	SZ	0.018677	MAV	0.129347	ZSR	0.189912	NS	0.003267
NS BV/NV	0.09232	SNCB	0.18221	NS	0.026265	CD	0.134824	RENFE	0.19322	VR/RHK	0.003367
TCDD	0.093677	RENFE	0.187641	SNCB	0.027897	CP	0.148975	SNCF/RFF	0.256294	SJ	0.003942
NS	0.09481	CP1	0.190304	CFF	0.0437	SNCB	0.158649	SNCB	0.258484	MAV	0.004343
SNCB	0.123155	CFF	0.224571	SNCF/RFF	0.083496	RENFE	0.159733	SNCF	0.274634	RENFE	0.00588
EVR	0.123174	EVR	0.24279	BR	0.101274	PKP	0.259821	CP	0.311442	PKP	0.012746
CFF	0.158985	PKP	0.295379	DB AG	0.106284	SNCF	0.315458	MAV	0.326278	DSB	0.013556
BR	0.218737	SNCF	0.389608	SNCF	0.121684	TCDD	0.351477	DB AG	0.328615	CP	0.016313
SNCF	0.256529	BR	0.393868	FS	0.125179	SNCF/RFF	0.370482	BR	0.430754	SNCB	0.026418
SNCF/RFF	0.300165	SNCF/RFF	0.395467	CH	0.149906	BR	0.400909	DB	0.510897	TCDD	0.120043
FS	0.301143	DB AG	0.424646	DB	0.280457	FS	0.458272	TCDD	0.596611	BR	0.268141
DB AG	0.323386	FS	0.487863	TCDD	0.430053	DB AG	0.51001	FS	0.600108	DB	0.341125
DB	0.395371	DB	0.514471	EVR	1.692277	DB	0.618698	PKP	0.656738	FS	0.423035

Despite there being substantial differences among models, it can be said that CFL, VR/RHK, NSB, ZSR and SJ/BV are the most efficient considering the output given by Y_I and CFL, CP/REFER, SJ/BV, CIE, NSB, and NS-BV/NV are the most efficient considering the output given by Y_{II}.

The least efficient in the sample, considering the output Y_I, are: DB, FS, SNCF, BR and EVR; TCDD it is shown to be very inefficient for the model III but it performs relatively well with the other models. The least efficient in terms of allocative efficiency, using Y_{II} as output set, are: DB, FS, BR, PKP and TDCC.

The main conclusion from these results is that there are firms that perform quite well, regardless of which output is considered, as is the case of CFL, NSB and SJ/BV. VR/RHK and ZSR perform quite well if market demand is taken into account, but not so well when only internal management it is taken into account. In contrast are CP/REFER, CIE and NS-BV/NV, which perform quite well in terms of internal management, but if market demand is taken into account they show to reveal some inefficiencies.

Relatively to the worst performances, it can be said that larger firms show more difficulties in finding correct input proportion than the small ones, either in a general analysis including public restrictions or in an internal management analysis. The exception is SNCF which performs well in the latter.

Comparison of our results with those obtained in Parisio (1999) (also from a cost frontier approach), at a first glance it seems that our levels of allocative inefficiency costs are substantially higher. However, even given that our conclusions are in contrast with conclusions formulated by Parisio that European railways are absent of allocative inefficiency, the variations of allocative inefficiency in the first two decades (the period of study in Parisio (1999)) for each firm followed quite similar behaviour. Thus, the main differences in results are related with the higher amplitudes of allocative inefficiency costs observed for the countries in our study: DB, BR, FS and SNCF. However, Parisio in her study has introduced in cost function firm dummy variables for these four firms with associated parameters implying, for these countries, increases on cost around of 57%. Considering this increase in costs imputed to allocative inefficiency it can be observed an extremely high similarity between this study results and those of Parisio.

Further comparisons with other study results are not possible due to the scarceness of analogous studies based on the same data set, the exception is Bosco (1996), but due to the substantial differences, both in methodology and in the models employed, any comparison is potentially misleading.

5.4.1.2 Technical inefficiencies

With respect to technical inefficiency results, table 5.7 reports the mean values of these estimates together with their standard errors, the Wald test for the hypothesis that the set of parameters are jointly zero and respective probability value.

Table 5.7. - Mean values of (log) technical inefficiency cost: Model II, data set P

Firms	Data_P							
	OUTPUT YI				OUTPUT YII			
	Model II							
	Estimate	S.D.	e^2	P-value	Estimate	S.D.	e^2	P-value
BR	0.029744859	0.006454969	21.23418217	0.0000	0.034361803	0.008305063	17.11851018	0.0000
CD	0.019320121	0.000942617	420.0962098	0.0000	0.032558191	0.011190865	8.464342928	0.0036
CFF	0.035684185	0.007597408	22.06076856	0.0000	0.035810289	0.007331311	23.8590091	0.0000
CFL	0.033993376	0.011306987	9.038468317	0.0026	0.033847498	0.008492315	15.88550363	0.0001
CH	0.037661252	0.011816756	10.1576446	0.0014	0.037266375	0.013290228	7.862658724	0.0050
CIE	0.042772454	0.01509624	8.027692644	0.0046	0.039252123	0.01550628	6.407831486	0.0114
CP	0.028888422	0.013199651	4.789859147	0.0286	0.033022619	0.010944883	9.103339769	0.0026
CP/REFER	0.019041606	0.003630513	27.50877438	0.0000	0.029930008	0.005141849	33.88247012	0.0000
DB	0.033715792	0.012351768	7.450895105	0.0063	0.045010537	0.018852915	5.699954411	0.0170
DB AG	0.03431378	0.009954653	11.8818713	0.0006	0.040554748	0.013496089	9.029579759	0.0027
DSB	0.031667471	0.00767789	17.01151706	0.0000	0.028690138	0.006002853	22.84282839	0.0000
EVR	0.023341633	0.021005213	1.234833231	0.2665	0.023717108	0.004144606	32.74590154	0.0000
FS	0.034528322	0.012628758	7.47531789	0.0063	0.030832893	0.012934513	5.682355836	0.0171
MAV	0.024073826	0.006184519	15.15229165	0.0001	0.03662451	0.00836905	19.15099181	0.0000
NS	0.038062554	0.007253511	27.53590208	0.0000	0.044462242	0.010182	19.06850187	0.0000
NS BV/NV	0.055132523	0.001159996	2258.930598	0.0000	0.022862232	0.001377962	275.2723304	0.0000
NSB	0.029392441	0.008631022	11.59703146	0.0007	0.045062472	0.022551453	3.992831265	0.0457
OBB	0.024272098	0.004040622	36.08429123	0.0000	0.026221527	0.006929461	14.31914336	0.0002
PKP	0.041014638	0.023190142	3.128030301	0.0770	0.059793089	0.047532075	1.582444326	0.2084
RENFE	0.03742974	0.019824082	3.564901044	0.0590	0.03189786	0.010183145	9.812038804	0.0017
SJ	0.041083809	0.008161468	25.33989546	0.0000	0.033310903	0.006725229	24.53344907	0.0000
SJBV	0.045413805	0.009489662	22.9020472	0.0000	0.045197932	0.01090451	17.18006724	0.0000
SNCB	0.035286213	0.013823486	6.515907979	0.0107	0.030380787	0.009188269	10.93278114	0.0009
SNCF	0.036512289	0.008912082	16.78494027	0.0000	0.031356642	0.012118055	6.695658092	0.0097
SNCF/RFF	0.054873162	0.00772741	50.42571674	0.0000	0.031307505	0.003071637	103.8859957	0.0000
SZ	0.074679382	0.026615734	7.872715103	0.0050	0.050393248	0.013054385	14.90156561	0.0001
TCDD	0.050117512	0.03226009	2.413503137	0.1203	0.040324913	0.019383445	4.327976981	0.0375
VR	0.029988148	0.011611525	6.669921747	0.0098	0.024807226	0.009809928	6.394767003	0.0114
VR/RHK	0.068298503	0.00504547	183.2394891	0.0000	0.082548077	0.004106615	404.0601466	0.0000
ZSR	0.032041453	0.007318842	19.16636367	0.0000	0.026000067	0.003071377	71.66096109	0.0000
MEAN	0.03580851	0.016314285	4.817662794	0.0282	0.035619201	0.015696503	5.149469842	0.0233

The estimated (log of) cost of technical inefficiency appears to be of an order of magnitude quite below the one recorded for the (log of) allocative cost.

Looking at the results, we can say that the mean increase in variable costs due to technical inefficiency is around 3.6 % (in both output set alternatives). The lowest mean values are of 1.9% and 2.3% respectively for CP/REFER considering the output set measured by Y_I and NS (BV/NV) considering the output set measured by Y_{II}; the highest mean values are of 7.8% and 8.6% respectively for SZ considering the output set measured by Y_I and VR/RHK considering the output set measured by Y_{II}. In both cases, with output set Y_I and output set Y_{II}, almost of the mean firm values are significant at a probability level of 5%, as well as the mean values considering the whole data set.

This result supports the view that European railways bear additional costs due to inefficiencies; however, these inefficiencies in magnitude are more a result of wrong input proportions than equiproportionate input waste.

Figure 5.3 and 5.4 show for each firm the behaviour for successive periods of five years time (1972-75, 1976-80, 1981-85, 1986-90, 1991-95, 1996-99) of the mean percentage cost increase due to technical inefficiency.

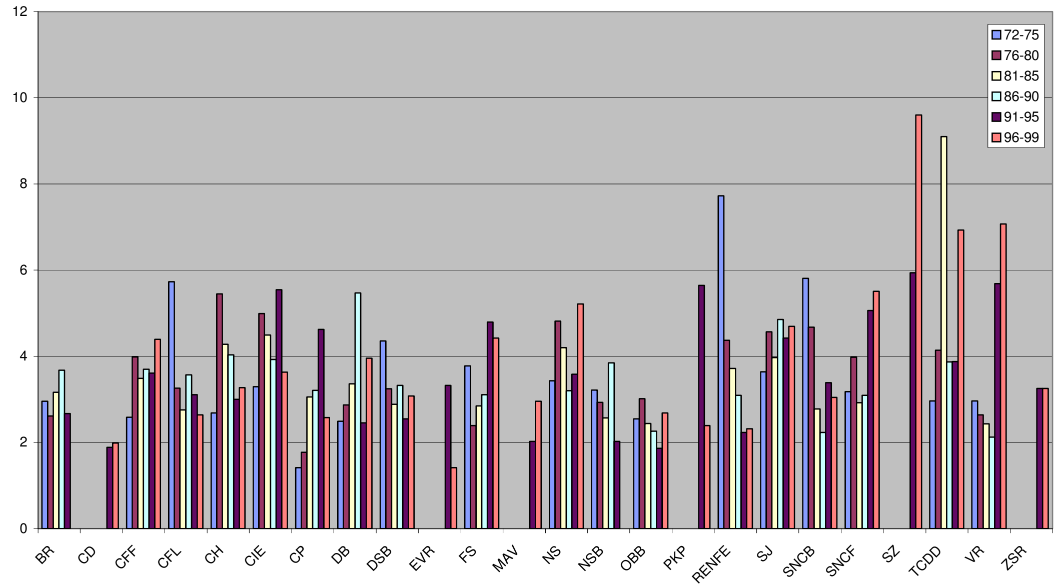

Figure 5.3 – Mean cost of technical efficiency (%): Model II, data set P and output Y_I

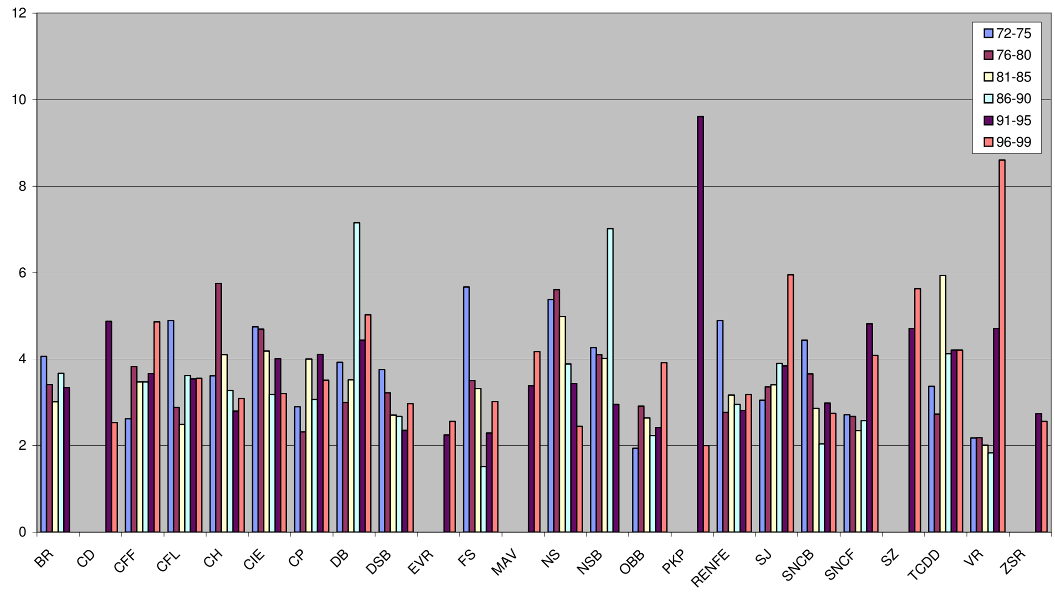

Figure 5.4 – Mean cost of technical efficiency (%): Model II, data set P and output Y_{II}

From these graphs it is possible to observe that even with substantial smaller magnitudes of technical inefficiency when compared with allocative inefficiency there is a significant variability in the technical efficiency levels of firms over time, this can be confirmed by the parameter σ_u (Tables 5.1 and 5.2) which represents the estimated standard deviation of the truncated normal error component u, which was found to be statistically significant. However, despite this variability there is any trend in this variability over time, with some firms having continuous decreasing/increasing variations of technical efficiency values and others with irregular variations over time. Examples of this last situation are TDCC, DB and NSB with a pick of technical inefficiency in the eighty decade. RENFE, PKP and SNCB are good examples of firms which have significantly decreased their technical efficiency over the sample period and in the opposite situation are VR, SZ, SNCF, SJ and CFF, which have increased their levels of technical inefficiency during the sample period, this phenomenon is especially true for the last decade, which in the case of VR, SJ and SNCF include the years of vertical separation reform.

In table 5.8, the ranking in terms of technical inefficiency is shown for each of the models run for data set P.

Table 5.8. - Ranking in terms of technical inefficiency: data set P

OUTPUT YI						OUTPUT YII					
Model I		Model II		Model III		Model I		Model II		Model III	
Ranking	Estimate	Ranking	Estimate	Ranking	Estimate	Ranking	Estimate	Ranking	Estimate	Ranking	Estimate
EVR	0.015278	CP/REFER	0.019042	CD	0.026401	PKP	-0.04404	NS BV/NV	0.022862	PKP	0.019583
SZ	0.016259	CD	0.01932	MAV	0.031037	VR	0.010972	EVR	0.023717	VR	0.021786
CD	0.017485	EVR	0.023342	ZSR	0.031243	OBB	0.012533	VR	0.024807	EVR	0.021836
BR	0.019457	MAV	0.024074	VR	0.036275	EVR	0.012595	ZSR	0.026	CP	0.022805
CP	0.02089	OBB	0.024272	PKP	0.038146	ZSR	0.01285	OBB	0.026222	MAV	0.024479
MAV	0.021357	CP	0.028888	BR	0.04234	FS	0.013255	DSB	0.02869	OBB	0.024984
DSB	0.021612	NSB	0.029392	SZ	0.042426	MAV	0.013396	CP/REFER	0.02993	ZSR	0.026713
OBB	0.022335	BR	0.029745	DB AG	0.042493	CP	0.014539	SNCB	0.030381	DSB	0.028403
VR	0.022417	VR	0.029988	NSB	0.045551	DSB	0.014561	FS	0.030833	SNCF	0.030595
NSB	0.02301	DSB	0.031667	CFL	0.047692	SJ	0.015395	SNCF/RFF	0.031308	SJ	0.032402
CP/REFER	0.024225	ZSR	0.032041	VR/RHK	0.050138	SNCB	0.01548	SNCF	0.031357	RENFE	0.035224
FS	0.025784	DB	0.033716	OBB	0.05188	BR	0.018012	RENFE	0.031898	SNCB	0.036202
CFF	0.027344	CFL	0.033993	CP/REFER	0.05222	TCDD	0.019815	CD	0.032558	NSB	0.036238
CFL	0.02836	DB AG	0.034314	DSB	0.05324	CFL	0.020123	CP	0.033023	CFF	0.03729
SNCF	0.032067	FS	0.034528	CP	0.053923	SNCF	0.021151	SJ	0.033311	CH	0.038779
DB	0.032153	SNCB	0.035286	SJ	0.054135	CFF	0.022976	CFL	0.033847	DB AG	0.039976
ZSR	0.033313	CFF	0.035684	CFF	0.0581	CH	0.024499	BR	0.034362	SNCF/RFF	0.040038
SNCB	0.034193	SNCF	0.036512	SNCB	0.05861	NS BV/NV	0.025288	CFF	0.03581	CFL	0.041312
PKP	0.034841	RENFE	0.03743	CIE	0.061504	CP/REFER	0.025455	MAV	0.036625	CIE	0.044184
TCDD	0.034925	CH	0.037661	SNCF	0.062824	RENFE	0.026871	CH	0.037266	CP/REFER	0.047054
DB AG	0.036423	NS	0.038063	SJBV	0.064189	CIE	0.028462	CIE	0.039252	NS	0.047863
CH	0.037563	PKP	0.041015	DB	0.065849	NSB	0.03063	TCDD	0.040325	CD	0.047939
RENFE	0.038311	SJ	0.041084	SNCF/RFF	0.065856	DB	0.031072	DB AG	0.040555	SZ	0.048054
SJ	0.038363	CIE	0.042772	NS	0.066174	SJBV	0.031395	NS	0.044462	NS BV/NV	0.049387
NS	0.038841	SJBV	0.045414	FS	0.06846	NS	0.031594	DB	0.045011	SJBV	0.051712
CIE	0.04217	TCDD	0.050118	RENFE	0.076463	CD	0.035121	NSB	0.045062	TCDD	0.053865
NS BV/NV	0.048518	SNCF/RFF	0.054873	NS BV/NV	0.148075	SNCF/RFF	0.035868	SJBV	0.045198	VR/RHK	0.070433
SNCF/RFF	0.055156	NS BV/NV	0.055133	CH	0.157952	SZ	0.042466	SZ	0.050393	BR	0.104842
VR/RHK	0.05529	VR/RHK	0.068299	TCDD	0.307358	DB AG	0.045436	PKP	0.059793	DB	0.227484
SJBV	0.057422	SZ	0.074679	EVR	0.660463	VR/RHK	0.051603	VR/RHK	0.082548	FS	0.24824

Despite there being substantial ranking differences among models, there is a reasonable correlation of the mean estimated firm inefficiencies among models. Considering the output set measure by Y_I the smallest correlation is of 0.69 (between model I and model III) and the highest is of 0.96 (between model I and model II); considering the output set measure by Y_{II} the smallest correlation is of 0.62 (between model I and model III) and the highest is of 0.91 (between model II and model III).

Overall, we can say that, considering the output given by Y_I, CD, BR, VR, MAV and NSB are the most efficient, EVR and SZ perform very well in model I but have the worst results in model II and III, which makes it impossible to make any conclusion about these firms in terms of technical inefficiency. VR, ÖBB, EVR and ZSR are the most technically efficient considering the output given by Y_{II}, PKP although the most efficient in model III, is the least efficient if model II is considered instead, thus, it is not possible to formalise for this firm any conclusion about technical efficiency level.

The least efficient in the sample, considering the output Y_I, are: SJ/BV, VR/RHK, SNCF/RFF, NS (BV/NV), NS, CH and TCDD. The least efficient in terms of technical efficiency using Y_{II} as output set, are: VR/RHK, SZ, DB, SJBV and NS.

The main conclusion from these results is that there are firms that, regardless of which output is considered, perform quite well, as is the case of VR and in a certain way ÖBB and MAV. CD performs quite well if market demand is taken into account but not so well when only internal management is taken into account.

Relatively the worst performances are of the firms which have separated infrastructure from operational services which show higher technical inefficiency after the separation has taken place. The best example of this case is VR and VR/RHK, which performed very well until the separation and was reduced to the least efficient in the sample after separation.

Further comparisons among these results and the ones obtained in analogous studies based on the same data set are potentially misleading due to differences in models employed, specially with those estimated from estimate production functions which not take into account allocative inefficiency effects; however, as an attempt, it was made a comparison of the ranking in terms of technical inefficiency obtained in different studies. On table 5.9 are displayed the rankings obtained in different studies.

As it can be seen from this table there is any convergence of ranking results among studies which confirms our previous expectations. Correlations among ranking results are quite low (the exception is the raking results of model II (Y_{II}) and of Parisio which show a correlation of 0.70) with our results and those of Parisio showing negative correlations with respect to other study results.

Despite this substantial difference on the technical efficiency rankings it should be stressed that the most relevant finding of our results is the magnitude of the contribution of technical and allocative inefficiency in the global inefficiency results.

Table 5.9. - Ranking in terms of technical inefficiency in distinct studies

Firms	Gathon and Perelman (1992)	Perelman and Pestieau (1988)	Coelli and Perelman (1999)	Coelli and Perelman (2000)	Gathon and Pestieau (1995)	Deprins and Simar (1988)	Parisio (1999)	Present study Model II (Y_I)	Present study Model II (Y_{II})
BR	15	13	5	6	4	16	6	4	11
CFF	14	10	2	14	3	3	7	11	12
CFL	17	15	10	8	16	14		8	10
CH	12	18	11	17	15	7		14	13
CIE	16	1	4	2	6	2		17	14
CP	6	6	16	10	7	10		2	8
DB	11	14	8	5	13	13	8	7	17
DSB	4	3	15	11	18	9		6	3
FS	19	17	17	7	9	12	1	9	5
NS	2	2	1	1	1	1	4	15	16
NSB	7	4	5	3	17	17		3	18
OBB	18	11	9	16	14	6	2	1	2
RENFE	13	12	13	13	11	11		13	7
SJ	5	8	14	16	8	8		16	9
SNCB	9	16	12	4	12	18	5	10	4
SNCF	2	7	3	9	5	4	3	12	6
TCDD	7	19			2	15		18	15
VR	1	9	7	2	10	5		5	1

Thus, it could be said that on the whole the main difference of this study in relation to similar studies is that allocative inefficiency plays a more significant rule in cost increase than technical inefficiency, suggesting that firms have more difficulty in finding correct input proportion than equiproportionate excess input usage.

Our technical inefficiency results are in magnitude above of those of previous studies mainly due to differences in models employed, especially with those estimated from production functions which not take into account allocative inefficiency effects.

Allocative inefficiency results are very sensitive to the methodology and the models employed, this is especially relevant in the Kumbhakar studies of US railways: Kumbhakar (1988a), Kumbhakar (1988b) and Kumbhakar (1989), which explains the differences among our and previous results in terms of the magnitude of allocative inefficiencies. However, as referred to above, analysing Bosco (1996) and Parisio (1999) results and interpreting firm specific dummy variables in their functions (input-distance and cost functions respectively) as increments in costs imputed to allocative inefficiency, it can be observed an extremely high similarity between our allocative inefficiency magnitude results and those of Parisio and Bosco, which consequently confirms our conclusion.

5.4.1.3 Determinants of cost inefficiency

In order to explain the differences in the cost efficiency levels of different companies and to quantify hypothetical impact of high speed technology on efficiency, a further regression, introducing the variables that could potentially be considered explanatory, was undertook.

The variable introduced, beyond dummy high speed variables (DUMMYHS and DUMMYTT) and a dummy variable identifying the organisational implementation of vertical separation policy reform (DSEP), were similar to those habitually introduced by the literature. These variables are:

- The average passenger load per train (PLOAD) and the average freight load per train (FLOAD), as indices of the utilisation of trains.

- The index variable for quality of service (QVmax) characterising operational improvements either through higher traffic flows or transport infrastructure and equipment improvements (such as the percentage of double track and of electrified lines, frequency and average maximum velocity of tractive stock).

- The policy subsidy variable (SUB_VC) measured by the ratio of subsidy to operating costs. Subsidy policy should ideally be examined according to the types of subsidies and the way in which they are provided, however, due to limited information it was examined the effects of subsidisation with respect to the level of aggregate subsidy only.

- The network length (NET), used here as a proxy of firm capacity and degree of firm autonomy. Firms with higher autonomy are expect to be able to adjust their network length more easily than firms conditioned to conserve lines considered socially desirable but economically unprofitable.

- The percentage of passenger train-kilometres in total train-kilometres (PERCP). As well as network length this variable could work as an indicator of management operational autonomy. Firms with higher autonomy are more able to adjust their supply of passenger services than firms with higher government control.

- The number of employees per train-kilometres (STAFF). This variable try to characterise firms with over-employment and, such as the last two variables, could represent a proxy to the power of union forces and government control.

The explanatory equation of cost inefficiency (with dependent variable given by the sum of logarithm of the cost of technical inefficiency and the logarithm of the cost of allocative inefficiency) was estimated using the three step “Generalised Least Square”(GLS) estimator for “Time Series/Cross Section”(TSCS) data included in Limdep software. Since the test hypotheses of no-autocorrelation and homoscedastic regression, as well as the test against cross group correlation, were rejected at the 1% of probability level, the computation was modelled so allowing for groupwise heteroscedasticity, cross group correlation and within group autocorrelation. Since the basic command for TSCD in Limdep programming demands for balanced panel with contiguous group data, all firms without complete data set (twenty eight observations) were excluded from regression; thus the number of observations in this groupwise regression models were reduced to 364 observations. To make it easier to interpret the results, the variables were expressed in logarithmic terms. As in the cost function estimation two alternative regression models were run, one model considering the dependent variable given by the values of inefficiency results extracted from the model II of cost function estimation and the output measured by the revenue output (Y_I); and the other model with the dependent variable expressed by the inefficiency costs extracted from the model II with output expressed by train-kilometres (Y_{II}). The results appear in table 5.10.

Table 5.10. - Determinants of inefficiency: regression results

Dependent Variable: $\ln C_k + \ln C_a$								
Independent Variables:	Passenger-KM and Tonne-KM as Outputs				Passenger and Freight Train--KM as Output			
	Coeff.	Std.Err.	t-ratio	P-value	Coeff.	Std.Err.	t-ratio	P-value
ONE	-0.47447	0.09434	-5.02951	0.0000	-0.433349	0.10222	-4.23954	0.0000
DSEP	-0.051649	0.01141	-4.5255	0.0000	-0.0056051	0.0107	-0.52395	0.6003
LSUB_VC	-0.006034	0.00561	-1.07553	0.2821	0.012891	0.00598	2.15655	0.0310
DUMMYHS	0.0302919	0.00969	3.12661	0.0018	-0.0198861	0.00822	-2.41993	0.0155
DUMMYTT	-0.035558	0.00991	-3.58691	0.0003	0.0080892	0.01238	0.65358	0.5134
LNET	0.0640627	0.00662	9.67078	0.0000	0.0581334	0.00654	8.89428	0.0000
LQVMAX	0.0926551	0.01269	7.3002	0.0000	0.0638768	0.00594	10.7495	0.0000
LPERCP	0.164863	0.04942	3.33619	0.0008	0.0492973	0.0454	1.08581	0.2776
LSTAFF	0.0179109	0.00936	1.91453	0.0556	0.231891	0.01304	17.777	0.0000
LPLOAD	0.110184	0.018	6.12032	0.0000	0.0481699	0.01677	2.87233	0.0041
LFLOAD	-0.067083	0.01209	-5.55095	0.0000	0.0073246	0.01184	0.61873	0.5361
Number of observations	364				364			
Within group autocorrelation between	0.255 - .990				0.099 - .990			
Log-likelihood	674.15523				571.63423			

From regression results it is observed that almost of the estimates have the expected sign and they are statistically significant at 5% of probability level.

The ratio of subsidy to the total operating expenses has a statistically significant positive coefficient in the case of output given by Y_{II} but it is not statistically significant when output is given by Y_I. Thus, it seems that subsidisation of a particular firm has little incentive to improve their productivities or minimise costs, making the firm less efficient; however, if demand response is taking into account this effect disappears or has the opposite reaction. This could means that the impact of subsidies on efficiency is dependent of the types of subsidy and the way in which they are provided. Thus, as hypothetical explanation it can be said that when the output is given by train-kilometres the efficiency is highly correlated for example with loss/balancing subsidies but if output is measured attending to demand response this loss of efficiency is balanced by other types of subsidies such as ticket price conditional subsidies, potentially provoking demand increases.

The policy option of vertical division of the traditional system in two systems, one for infrastructures and one for operational services, shows to have an increase effect on efficiency. However, this increase is only statistically significant in the first model which uses as output the revenue output. Thus, this policy shows to allow for efficiency cost savings (5%) mainly through an improved adjustment of inputs used and revenue outputs, but the gains in cost efficiency from internal production process are quite reduced. Overall, despite the increase in cost due to technical inefficiency provoked by vertical separation, as referred to in sub-section 5.4.1.2, from this analysis it can be concluded that the gains in terms of allocative efficiency provided by this structural reform overcome the loss in terms of technical efficiency.

The variables characterising potential firm's capacity to production, such as NET and QVmax, have a statistically significant positive coefficient in both models (Y_I) and (Y_{II}). If for network variable, due to the existence of significant number of network branches with low demand, it was expected this result expressing the excess of capacity, however, for the variable QVmax it was expected that quality of services improvements (implying a reduction on energy consumption and on the amount of labour usage as well as a increase on demand) could contribute to a cost inefficiency reduction, specially for the model using Y_I as output. Despite these inherent benefit effects of the variable QVmax on cost efficiency, the positive coefficient results reveal that they are not enough to overcome the effect on efficiency due to an excess of the capacity of transport capital stock.

Considering the results from the first model (using Y_I), the variables PERCP and PLOAD have statistically significant and positive coefficients, whose high values indicate that a substantial increase of cost inefficiency arises due to a heavier concentration in passenger services. Additionally, it can be seen that the coefficient of FLOAD is also statistically significant but with a negative value. Thus, this result could be explained by the fact of passenger services, which have a more visible social implications than freight services, are more protected against traffic reduction by government policies or transport authority regulators than freight service, and therefore, inefficiencies provoked by excess of service capacity arise more from passenger service than freight service which have suffered more significant adjustments over time. In relation to staff usage coefficient, despite being positive (revealing an over-employment) its contribution to inefficiency costs seems to be of little importance when compared with the variables referred to above, additionally, this coefficient is statically significant at only at 10% probability level.

In this first model (using Y_I), cost inefficiencies can be described as “global” inefficiencies since beyond managerial inefficiencies it includes inefficiencies which come from public policy imposing levels of capacity supplied and involving substantial low levels of output consumed by users. Because in the second model (using Y_{II}) this excess of capacity which comes from operating low demand network branches it is not taking into account in the measurement of cost inefficiencies, it is expected that the determinants of cost efficiencies have different implications of those showing for the first model.

Thus, considering the second model results, as expected, variables related with excess of capacity, such as NET and QVmax, have statistically significant coefficients but representing a lower effect on inefficiency cost increase. However, the most important difference is shown by variables related to operational behaviour. As expected the percentage of passenger train-kms in total train-kms as well as the average freight load per train show not be statistically significant and lose, in comparison with first model, their importance on contribution to cost inefficiency increase. The average passenger load per train even being statistically significant its contribution to inefficiency cost increase is less than a half of that shown in the first model using Y_I as output. The average staff per train-km variable has a statistically significant positive coefficient and its elasticity show to be of significant importance in inefficiency cost increase (1% increase in staff usage per train-kilometre implies an increase in cost inefficiency of 0.23%). Thus, when demand factors are not taking into account in inefficiency measurement, inefficiency costs are particularly sensitive to over-employment, with factors such as intensive train occupation and heavier concentration in passenger services having a lower impact.

In which refers to the effect of high speed technology on efficiency, in the first model using Y_I as output, both traditional high speed and tilting train technology coefficients are statistically significant; however, traditional high speed technology contributes to an increase in inefficiency costs and tilting train technology to a reduction of inefficiency costs. If at first glance these are surprising results, they are in conformity with what have been said in relation to other variable impacts. Since the traditional high speed technology involves a substantially higher investment in capital stock than tilting train technology, it is not surprising that in presence of networks with excess of capacity the former option which demands for new lines contributes to inefficiency cost increases and that tilting train technology which uses the existent network contributes to a reduction of cost inefficiency. However, it is our point of view that traditional high speed actually is not *per se* the cause of inefficiency cost increase but the inherent excess of capacity increase provoked by its introduction. In relation to tilting train technology it seems that its introduction allows to a decrease in cost inefficiencies around 3.5%.

In the case in which cost inefficiencies are measured taking into account only the available output, tilting train technology coefficient is not statistically significant, which means that the type of service supplied by this technology does not differ significantly in its operational characteristics from usual railway transport services and thus, it does not have additional impact on cost inefficiencies. In the case of traditional high speed technology it can be seen that, being its coefficient statistically significant, its introduction allows to a reduction of inefficiency costs around of 2 %. This confirms our expectations that if excess of capacity supplied it is not taking into account, high speed technology, by nature, improves efficiency.

Overall, it can be said that inefficiencies are essentially explained by the excess of capacity supplied in almost all firms and by the discrepancies resulting from an over-employment of labour with respect to the best practice level, a fact that is clearly indicated by the high and positive residuals of the labour and equipment shares. This explanation is reinforced by the fact that larger firms localised in developed countries, where union labour forces are more successful for demanding better salaries and where there is a conjugation of large networks with higher investment in capital stock improvements, to be those showing high levels of allocative inefficiency.

5.4.2 Scale economies

In this section, economies of scale and density are analysed according to the definitions given in section 3.3.5 of chapter 3. Thus, scale economies are calculated from the expression:

$$RTS = \frac{1 - \sum_{k} \gamma^{VC}_{K_k}}{\sum_{j} \gamma^{VC}_{Y_j} + \gamma^{VC}_{N}} \qquad (5.1)$$

and economies of density by:

$$RTD = \frac{1 - \sum_k \varepsilon^{VC}_{K_k}}{\sum_j \varepsilon^{VC}_{Y_j}} \tag{5.2}$$

where ε^{VC}_{Yj} is the elasticity of variable costs with respect to output j and ε^{VC}_{N} is the elasticity of variable cost with respect to network size variable and ε_K^{VC} is the elasticity of variable cost with respect to quasi-fixed capital stock, calculated for the long-run equilibrium values of quasi-fixed. These optimal levels of the fixed factors could be derived from the long-run envelope function of the short-run total cost functions, as referred in subsection 3.3.2.1.

Thus, before executing the calculation of economies of scale and density, the optimal levels of productive capital stock associated with the long-run equilibrium total cost function and obtained from expressions (3.21) and (3.22) of chapter 3 were calculated. With optimum level of productive capital stock in hands and the formulations referred to above, the values of economies of scale and density were calculated. The mean firm values of economies of scale estimates together with their standard errors, the Wald test for the hypothesis that there are firm's constant returns to scale and respective probability value are shown in Table 5.11.

From table 5.11, the main conclusions are that the European railways which make up the sample show slight increasing returns to scale. The Wald test for the hypothesis that firms exhibit constant returns to scale is statistically rejected at the 1 % of probability level for almost all firms, mainly in the model where output is measured by Y_{II}. The hypothesis that the sample mean exhibits constant return to scale can not be statistically rejected at the 5 % of probability level for both models. However, only CH and ZSR do not statistically allow rejecting the hypothesis of constant returns to scale at the 5% of probability level in both models. Additionally, apart from CD, MAV and NS (BV/NV) which broadly show constant returns to scale in both models (figures of return to scale around 1.0), the other firms show slight increase returns to scale (figures greater than 1.1). The firms CH, CIE, EVR, SZ, TCDD and ZSR have the characteristic of showing constant returns to scale using Y_I as output set and increase returns to scale using Y_{II} as output set.

Table 5.11. - Mean values of returns to scale economies: Model II, data set P

Firms	Data_P							
	OUTPUT YI				OUTPUT YII			
	Model II							
	Estimate	S.D.	e^2	P-value	Estimate	S.D.	e^2	P-value
BR	1.208157354	0.046024058	20.45566937	0.0000	1.119725887	0.05902686	4.114118147	0.0425
CD	1.059686714	0.045809995	1.697597943	0.1926	1.089548037	0.02031698	19.42646786	0.0000
CFF	1.285925972	0.030840369	85.95439573	0.0000	1.232945585	0.063724708	13.36267034	0.0003
CFL	1.257776276	0.09005131	8.194185989	0.0042	1.338098395	0.133526737	6.411353798	0.0113
CH	1.053312613	0.052968113	1.013050143	0.3142	1.148634395	0.076937268	3.732201832	0.0534
CIE	1.08320265	0.042639584	3.807574515	0.0510	1.257985996	0.103064564	6.265756614	0.0123
CP	1.077463935	0.048633154	2.537080468	0.1112	1.19000566	0.095660638	3.945177333	0.0470
CP/REFER	1.120142214	0.006107079	387.0118134	0.0000	1.15837756	0.001589976	9922.164546	0.0000
DB	1.411453729	0.029259534	197.7457726	0.0000	1.210541604	0.016910606	155.0092108	0.0000
DB AG	1.253888576	0.038669609	43.10689563	0.0000	1.111522546	0.017813432	39.19495459	0.0000
DSB	1.119418166	0.029352174	16.55237226	0.0000	1.131948148	0.014668409	80.91715014	0.0000
EVR	1.042554682	0.070141747	0.368079419	0.5441	1.281774289	0.118263868	5.6767343	0.0172
FS	1.199157681	0.073776765	7.287102862	0.0069	1.157869043	0.061938188	6.496462795	0.0108
MAV	1.035620824	0.016158609	4.859594067	0.0275	1.064348985	0.011160237	33.2457846	0.0000
NS	1.225574783	0.079608655	8.02898261	0.0046	1.132213551	0.057481215	5.290540726	0.0214
NS BV/NV	1.073882566	0.002855886	669.2713268	0.0000	1.0233889	0.022449601	1.085431288	0.2975
NSB	1.225152931	0.05944012	14.34814817	0.0002	1.244457934	0.051024635	22.95347589	0.0000
OBB	1.158621461	0.086137334	3.391103473	0.0655	1.163830198	0.047888152	11.70393126	0.0006
PKP	1.101229439	0.044314984	5.218100793	0.0224	1.093720872	0.019166854	23.9095254	0.0000
RENFE	1.214072596	0.033842305	40.01310651	0.0000	1.204704803	0.070541331	8.421098859	0.0037
SJ	1.409737094	0.091189944	20.18908635	0.0000	1.311102419	0.087622141	12.60605078	0.0004
SJBV	1.236935751	0.04739033	24.99664548	0.0000	1.21064889	0.027620868	58.16258508	0.0000
SNCB	1.228714398	0.062790729	13.2677096	0.0003	1.174490751	0.034508413	25.56788747	0.0000
SNCF	1.28176072	0.02736698	106.0003117	0.0000	1.182366583	0.042960038	18.02026642	0.0000
SNCF/RFF	1.212698132	0.006691552	1010.354037	0.0000	1.142099191	0.003083461	2123.764024	0.0000
SZ	1.053634535	0.011751121	20.83197359	0.0000	1.193439705	0.068960474	7.868478595	0.0050
TCDD	1.018659553	0.079615344	0.054929917	0.8147	1.334779322	0.155172266	4.654671596	0.0310
VR	1.267695975	0.03651722	53.73883803	0.0000	1.29596719	0.078527487	14.20508191	0.0002
VR/RHK	1.215568939	0.012673507	289.3202069	0.0000	1.235020085	0.013456896	305.0142575	0.0000
ZSR	1.024827904	0.052471599	0.223888351	0.6361	1.123385396	0.08843248	1.946721867	0.1629
MEAN	1.186856267	0.119715949	2.436190858	0.1186	1.202691531	0.104885502	3.734567266	0.0533

In which concerns to economies of traffic density, table 5.12 shows, as expected, increase returns to traffic density for all firms. The Wald test for the hypothesis that firms exhibit constant returns to density is statistically rejected at the 5 % of probability level for all firms, except for TCDD and CFL in the model using Y_I as output set. In the model using as output Y_{II}, all firms reject the hypothesis of constant returns to density at the 1% of probability level. The hypothesis that the sample mean exhibits constant return to density can not be statistically rejected at the 5 % of probability level in the model using Y_I but it is statistically rejected at 1% of probability level for model using Y_{II}. The results show increase of economies of density with the mean value of 3.5 for the model using as output set the revenue outputs and with the mean value of 1.8 for the model using as output set the available outputs.

Table 5.12. - Mean values of economies of traffic density: Model II, data set P

Firms	Data_P							
	OUTPUT YI				OUTPUT YII			
	Model II							
	Estimate	S.D.	e^2	P-value	Estimate	S.D.	e^2	P-value
BR	3.381345007	0.712607561	11.16718698	0.0008	1.667372792	0.0910338	53.74420594	0.0000
CD	2.246445366	0.310838819	75489.95664	0.0000	1.557045087	0.046775503	461408.9609	0.0000
CFF	4.738074826	0.801939004	21.72767756	0.0000	1.922803355	0.088051475	109.8360878	0.0000
CFL	5.523979812	2.349823133	3.706559419	0.0542	2.165169221	0.224445412	26.94986187	0.0000
CH	3.000791662	0.860930613	5.400916161	0.0201	1.730304577	0.114257699	40.85423613	0.0000
CIE	2.69003867	0.367893105	21.10328126	0.0000	1.882445443	0.119190199	54.81439665	0.0000
CP	2.639756479	0.357096856	21.08563377	0.0000	1.781945668	0.153742175	25.86825393	0.0000
CP/REFER	2.846775367	0.131641107	196.8090648	0.0000	1.74107771	0.002388573	96261.01004	0.0000
DB	5.225110715	0.641535374	43.37454894	0.0000	1.838593766	0.029332808	817.3272333	0.0000
DB AG	3.320632122	0.348343626	44.38097729	0.0000	1.634421133	0.03463928	335.4421072	0.0000
DSB	3.354896484	0.454091714	26.8940674	0.0000	1.724421801	0.028522588	645.067491	0.0000
EVR	1.87004645	0.091856521	89.71496553	0.0000	1.755726695	0.121736221	38.53806409	0.0000
FS	3.125149078	0.942271072	5.086594127	0.0241	1.718005078	0.100611184	50.92869115	0.0000
MAV	2.330412566	0.166410904	63.91593066	0.0000	1.53013697	0.010064215	2774.702392	0.0000
NS	4.966809446	1.095449297	13.11288087	0.0003	1.773213999	0.117962398	42.96474455	0.0000
NS BV/NV	2.555031238	0.009625688	26098.44747	0.0000	1.52629677	0.032193325	267.2573967	0.0000
NSB	4.00074218	0.514248538	34.04953885	0.0000	1.908769926	0.096595872	88.50967811	0.0000
OBB	3.179370029	0.732083161	8.862191151	0.0029	1.731274544	0.099324444	54.20615793	0.0000
PKP	2.395325125	0.391831279	12.68097442	0.0004	1.553095134	0.03822675	209.3461185	0.0000
RENFE	3.337239326	0.66039056	12.52577646	0.0004	1.799963258	0.095966936	69.48592237	0.0000
SJ	5.773183669	2.139837528	4.975705783	0.0257	2.021576992	0.160753745	40.38499268	0.0000
SJBV	3.359036916	0.429377589	30.18496862	0.0000	1.799085629	0.059276798	181.7260415	0.0000
SNCB	3.857526216	1.065878498	7.187287947	0.0073	1.790411079	0.066492199	141.307317	0.0000
SNCF	3.745345999	0.335494553	66.96119968	0.0000	1.750728555	0.057270189	171.8338157	0.0000
SNCF/RFF	2.882006808	0.074171649	643.8230352	0.0000	1.662660217	0.005922798	12517.79668	0.0000
SZ	2.386634282	0.257156684	29.07556957	0.0000	1.759348083	0.100168474	57.46715303	0.0000
TCDD	1.678457785	0.384769092	3.10917597	0.0779	1.850225197	0.199812864	18.105939	0.0000
VR	3.939705737	0.914173206	10.34071916	0.0013	1.968436797	0.105368232	84.47402265	0.0000
VR/RHK	3.215357549	0.053818071	1694.460322	0.0000	1.849320346	0.024890752	1164.305654	0.0000
ZSR	2.089452091	0.123149454	78.26206336	0.0000	1.59292698	0.100228213	34.99632563	0.0000
MEAN	3.559184537	1.409734079	3.295556858	0.0695	1.807432373	0.17598713	21.04992238	0.0000

5.4.3. Productivity growth: PGX and PGY

The productivity growth may be viewed in two ways: as the common rate at which all outputs can grow over time with inputs held fixed (PGY); or as the common rate at which all input can be decreased over time with outputs held fixed (PGX).

According referred to in section 3.3.4. of chapter 3, PGX and PGY are given by:

$$PGX = -\left(\partial \ln g^{V} / \partial t\right) \Big/ \left[1 - \sum_{k} \left(\partial \ln g^{V} / \partial \ln K_{k}\right)\right], \qquad (5.3)$$

$$PGY = -\left(\partial \ln g^{V} / \partial t\right) \Big/ \left[\sum_{j} \left(\partial \ln g^{V} / \partial \ln y_{j}\right) \right], \tag{5.4}$$

where K denotes the quasi-fixed factors, g^{V} the variable cost function and y_i the outputs.

Following Morrison (1986), Morrison (1985) and Oum et al. (1991), the values of PGX and PGY were calculated using the long-run equilibrium values of quasi-fixed inputs, obtained from expressions (3.21) and (3.22) of chapter 3 into formula.

In table 5.13, values of PGX estimated from model II using data set P are shown. Results from these specifications are quite similar in both scenarios of output set (using Y_I or Y_{II}), with sample mean values of 0.0156 and 0.0136 respectively for output Y_I and Y_{II}. The Wald test for the hypothesis that the set of firm's PGX estimates are jointly zero is statistically rejected at the 1 % of probability level for all firms, except for CD and PKP in the model using Y_I as output set. The Wald test for the hypothesis that the sample set's PGX estimates are jointly zero is rejected at the 1% of probability level for both models.

For model II , considering outputs given by Y_I, we can say that Eastern European country firms together with TDCC and SNCF/RFF are those that show the worst performances with values less than 1%, firms with values higher than 2% are CFL, CH, VR and SJ. When train-kilometres are used as output, productivity growth (PGX) shows more homogeneous values among firms and only CD, EVR, TCDD and ZSR show values below 1%, NS shows the highest mean productivity growth with a value of 1.78%.

In figures 5.5 and 5.6 are displayed, for each firm, the behaviour of PGX over time, respectively measured using the output set Y_I and Y_{II}. Thus, theses figures show for successive periods of five years time (1972-75, 1976-80, 1981-85, 1986-90, 1991-95, 1996-99) the means of productivity growth (%) measured by PGX indices.

As it can be seen from these figures, firms show great variation of productivity growth if output is measured by revenue output, however it should be stressed that almost of firms which in the last periods suffered expressive decreases of PGX are those which in the same period experimented significant organisational reforms, which could clearly explain these decreases. Thus, firms with higher decreases are NS, SJ (which after the first period of reforms shows in last period increase of productivity), SNCF, NSB, VR, CP and CFL. Firms with higher increase of PGX are CFF, FS, CD and PKP, however, for CD and PKP only the last decade was matter of study.

Table 5.13. - Means value of productivity growth (PGX) – model II using data set P

Firms	Data_P							
	OUTPUT YI				OUTPUT YII			
	Model II							
	Estimate	S.D.	e^2	P-value	Estimate	S.D.	e^2	P-value
BR	0.012764354	0.002373202	28.92866201	0.0000	0.014690905	0.00123901	140.5877457	0.0000
CD	0.006411803	0.003616278	3.143667661	0.0762	0.00958369	0.001458058	43.20320761	0.0000
CFF	0.017941365	0.001590812	127.1959493	0.0000	0.016387156	0.000875796	350.1070913	0.0000
CFL	0.020370036	0.005225574	15.19551894	0.0001	0.016147739	0.001587494	103.4663731	0.0000
CH	0.023499114	0.00383886	37.47126738	0.0000	0.012333394	0.002127267	33.61407568	0.0000
CIE	0.014937976	0.002150503	48.25069291	0.0000	0.012164372	0.000921672	174.1914755	0.0000
CP	0.016980351	0.002150824	62.32807431	0.0000	0.012675449	0.000716264	313.1699392	0.0000
CP/REFER	0.014629986	0.000663908	485.5922384	0.0000	0.013738339	0.000156403	7715.745141	0.0000
DB	0.018184638	0.001307017	193.5739092	0.0000	0.015797746	0.00055629	806.4692732	0.0000
DB AG	0.011980052	0.001712006	48.96737847	0.0000	0.014082757	0.000591188	567.4458351	0.0000
DSB	0.016367098	0.002327917	49.43200314	0.0000	0.014639039	0.001176096	154.9313936	0.0000
EVR	0.004695185	0.000983327	22.79864996	0.0000	0.006285554	0.000393607	255.0129636	0.0000
FS	0.012299079	0.003805011	10.44800343	0.0012	0.013623567	0.001804708	56.98593743	0.0000
MAV	0.009014723	0.001779509	25.66282555	0.0000	0.010782727	0.000866701	154.7812509	0.0000
NS	0.019210389	0.00411089	21.83738767	0.0000	0.017796758	0.001342043	175.8525238	0.0000
NS BV/NV	0.007750385	0.000137988	3154.724502	0.0000	0.014480812	0.000279098	2691.978488	0.0000
NSB	0.022572092	0.002903605	60.43223447	0.0000	0.014402661	0.000738635	380.2118778	0.0000
OBB	0.012255524	0.004085913	8.996746672	0.0027	0.01283989	0.00179879	50.95207115	0.0000
PKP	0.00618576	0.00294158	4.422059783	0.0355	0.010395888	0.001357505	58.6462777	0.0000
RENFE	0.015836492	0.001730286	83.76879437	0.0000	0.013811208	0.001349107	104.8022982	0.0000
SJ	0.022664968	0.003042225	55.50443172	0.0000	0.015584754	0.000869988	320.9027785	0.0000
SJBV	0.014025745	0.002800846	25.07687851	0.0000	0.013436098	0.00112655	142.2476636	0.0000
SNCB	0.013542251	0.002995546	20.43759001	0.0000	0.014904673	0.001514229	96.8861306	0.0000
SNCF	0.014294432	0.001297744	121.3264959	0.0000	0.014110871	0.000746059	357.7350437	0.0000
SNCF/RFF	0.008707868	0.000470804	342.0918666	0.0000	0.012628806	0.000250848	2534.573164	0.0000
SZ	0.009978154	0.000425355	550.2984623	0.0000	0.011184248	0.000174377	4113.74043	0.0000
TCDD	0.009263438	0.001977044	21.95390964	0.0000	0.008367592	0.001243389	45.28837874	0.0000
VR	0.021031854	0.001702012	152.6967663	0.0000	0.013911458	0.001060311	172.1386431	0.0000
VR/RHK	0.015678712	0.00058801	710.9710437	0.0000	0.013062923	0.000256488	2593.863754	0.0000
ZSR	0.00410436	0.001336562	9.430020264	0.0021	0.009034982	0.000616842	214.5394871	0.0000
MEAN	0.015574373	0.005528775	7.935299054	0.0048	0.013617226	0.00265717	26.26265931	0.0000

When output is measured by available output, firm’s productivity growths show little variation over time. Almost all firms show to have increased their productivity growth over time. The firms with higher increases of PGX are CH, FS, RENFE and TCDD. The firms which have decreased their productivity growth are mainly NS and NSB.

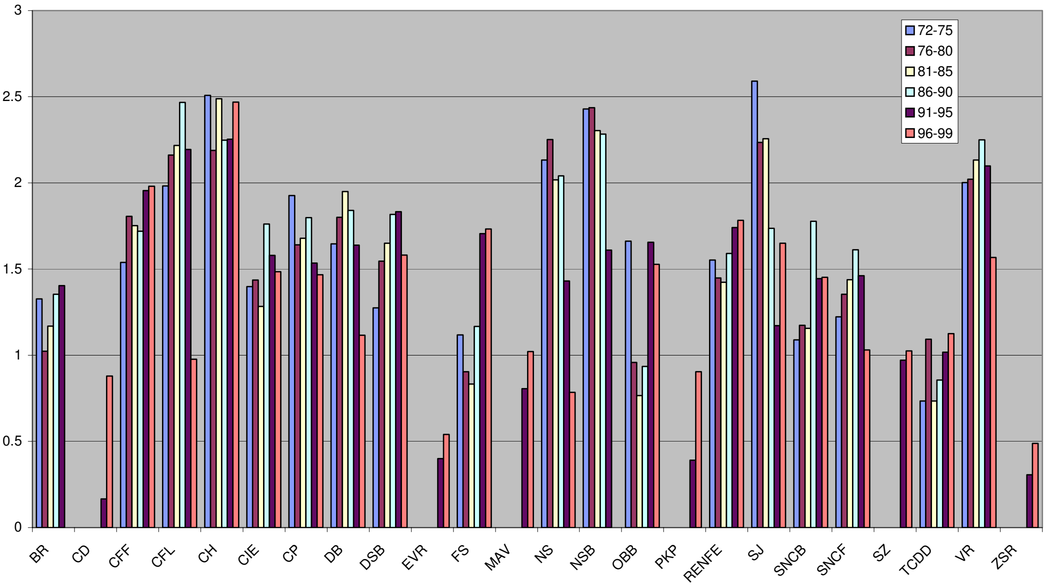

Figure 5.5 – Productivity growth-PGX (%): Model II, data set P and output Y_I

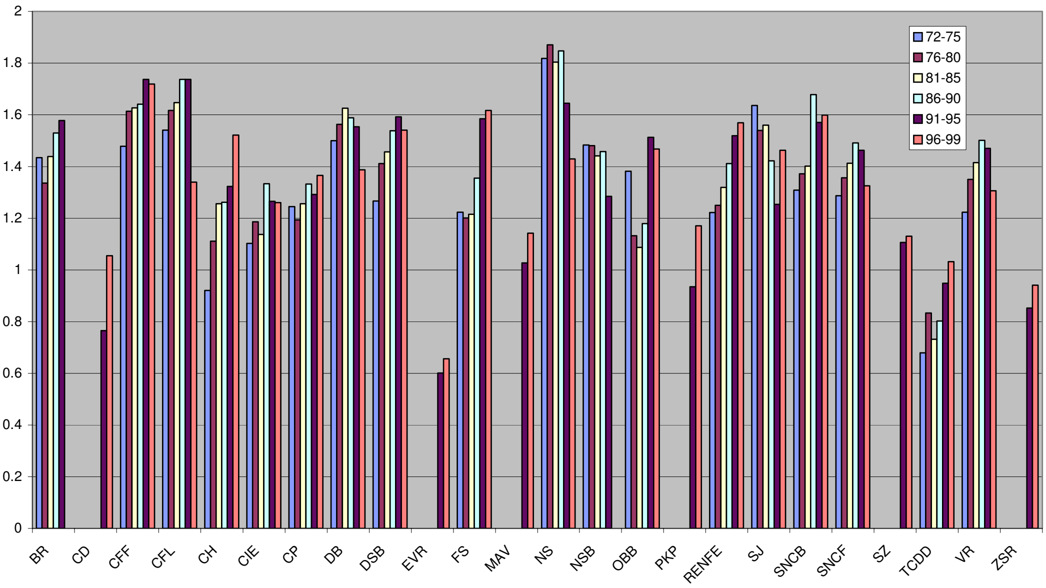

Figure 5.6 – Productivity growth-PGX (%): Model II, data set P and output Y_{II}

Due to the direct relationship, which is established through the variable RST, between PGX and PGY, as expected the values of PGY are slightly higher than those obtained for PGX but with productivity ranking firms practically identical. The estimates of PGY are shown in Tables 5.14.

Table 5.14. - Means value of productivity growth (PGY) – Model II using data set P

Firms	Data_P							
	OUTPUT YI				OUTPUT YII			
	Model II							
	Estimate	S.D.	e^2	P-value	Estimate	S.D.	e^2	P-value
BR	0.044648089	0.01813014	6.064617927	0.0138	0.024465053	0.002135933	131.194947	0.0000
CD	0.015517991	0.00971115	2.553463464	0.1101	0.014987063	0.002678892	31.29843044	0.0000
CFF	0.086156105	0.020093481	18.38491944	0.0000	0.031454783	0.00120991	675.8760398	0.0000
CFL	0.12254046	0.071289002	2.954703798	0.0856	0.035110958	0.005551196	40.00481402	0.0000
CH	0.072699315	0.034113616	4.541560792	0.0331	0.021266122	0.003560776	35.6687078	0.0000
CIE	0.040808238	0.010744563	14.42507811	0.0001	0.022867634	0.001841245	154.2478378	0.0000
CP	0.045149479	0.010991776	16.87212471	0.0000	0.022535603	0.001729547	169.7750374	0.0000
CP/REFER	0.041734683	0.003865397	116.5751552	0.0000	0.023919859	0.000302641	6246.867509	0.0000
DB	0.095791974	0.018066712	28.11253351	0.0000	0.02905392	0.001320306	484.2393524	0.0000
DB AG	0.040369017	0.010107637	15.95133488	0.0001	0.023037438	0.001460885	248.677405	0.0000
DSB	0.055902412	0.014452526	14.96144562	0.0001	0.025260876	0.002258929	125.0522907	0.0000
EVR	0.008769641	0.001875355	21.86737525	0.0000	0.01101776	0.000830446	176.0208905	0.0000
FS	0.041654084	0.025406736	2.687926773	0.1011	0.023449478	0.00369897	40.18877304	0.0000
MAV	0.02127465	0.005109198	17.33881398	0.0000	0.016497237	0.001309431	158.7292394	0.0000
NS	0.099598111	0.036793785	7.327456812	0.0068	0.031667249	0.003983284	63.20306181	0.0000
NS BV/NV	0.019803804	0.000427167	2149.319356	0.0000	0.022093032	4.01987E-05	302055.0298	0.0000
NSB	0.091650972	0.021227816	18.64075562	0.0000	0.027541821	0.002538868	117.6806803	0.0000
OBB	0.041867967	0.022159706	3.569733193	0.0588	0.022373459	0.004201998	28.35010282	0.0000
PKP	0.015944072	0.009571302	2.7749583	0.0957	0.016180817	0.002391477	45.77924109	0.0000
RENFE	0.053774382	0.015185846	12.53928708	0.0004	0.024792296	0.002060219	144.8127476	0.0000
SJ	0.136215353	0.070495412	3.733622533	0.0533	0.031564443	0.003586109	77.47281721	0.0000
SJBV	0.048254817	0.014567869	10.97208828	0.0009	0.024230505	0.002699278	80.58045969	0.0000
SNCB	0.055313179	0.028794828	3.690016049	0.0547	0.026736354	0.003384643	62.39915861	0.0000
SNCF	0.053941829	0.009409545	32.86351921	0.0000	0.024669191	0.000806555	935.4965063	0.0000
SNCF/RFF	0.025131051	0.001985835	160.1528997	0.0000	0.020998686	0.000481855	1899.117857	0.0000
SZ	0.023818429	0.002881451	68.32878251	0.0000	0.019669858	0.001013623	376.5734239	0.0000
TCDD	0.01552071	0.005084393	9.318478368	0.0023	0.015602058	0.00341516	20.87092707	0.0000
VR	0.084056965	0.024404642	11.86321904	0.0006	0.027321133	0.001734707	248.0533965	0.0000
VR/RHK	0.050426781	0.00237697	450.064818	0.0000	0.024162904	0.000767785	990.4199417	0.0000
ZSR	0.008718774	0.003424052	6.483808225	0.0109	0.014355231	0.000816624	309.0127068	0.0000
MEAN	0.060792793	0.042432247	2.052636879	0.1519	0.024747541	0.005972294	17.1704509	0.0000

In this table, values of PGY estimated from model II using data set P are shown. Results from these specifications are quite distinct depending on the scenarios chosen to measure the output set (Y_I or Y_{II}). For the model developed with output set Y_I the sample mean value is of 0.061 and with output set Y_{II} is of 0.025. The Wald test for the hypothesis that the sample set's PGX estimates are jointly zero is rejected at the 1% of probability level for model using Y_{II} but due to the variability of estimates it can be rejected for the model using Y_I as output set. However, the Wald test for the hypothesis that the set of firm's PGX estimates are jointly zero is statistically rejected at the 5 % of probability level for almost all firms, the exceptions are: CD, CFL, FS, ÖBB, PKP, SJ and SNCB in the model using Y_I as output set.

For model II, considering outputs given by Y_I, ZSR and EVR are those that show the worst performances with values less than 1%, firms with values higher than 10% are CFL, NS and SJ. When train-kilometres are used as output, productivity growth (PGY) shows lower and more homogeneous values among firms without firm showing mean values below 1%, and only CFL, CFF, NS and SJ showing mean productivity growth values higher than 3%.

In the same way as it was done for PGX, in figures 5.7 and 5.8 are displayed, for each firm, the behaviour of PGY over time, respectively measured using the output set Y_I and Y_{II}.

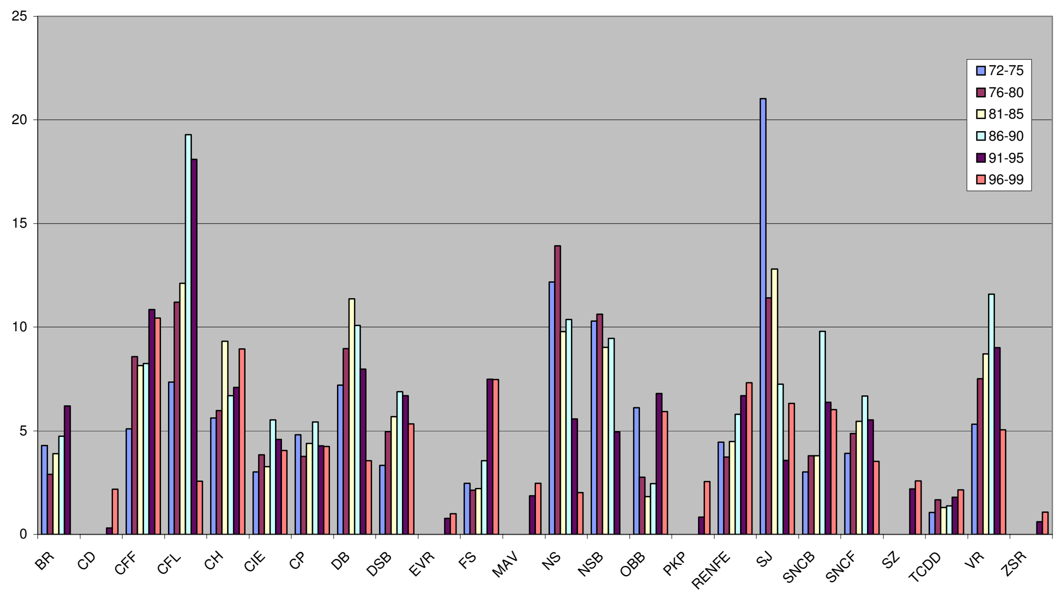

Figure 5.7 – Productivity growth-PGY (%): Model II, data set P and output Y_I

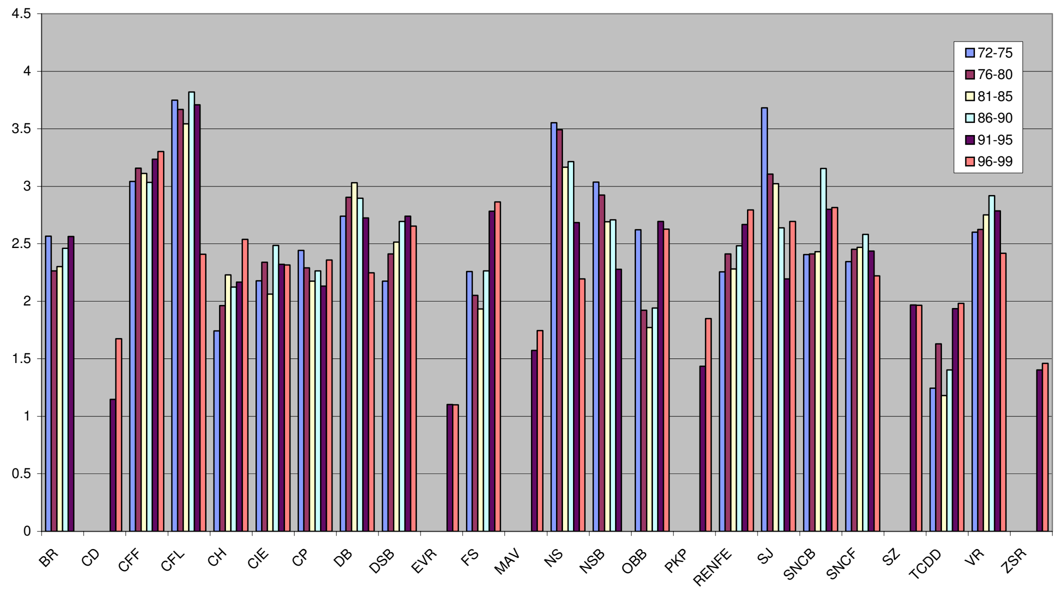

Figure 5.8 – Productivity growth-PGY (%): Model II, data set P and output Y_{II}

As can be seen from these figures, despite firms following similar trend shape of PGY as those of PGX, firms show extremely higher variations of PGY's productivity growth values than PGX measures, mainly if output is measured by revenue output. As well as for PGX, almost of firms which in the last periods suffered expressive decreases of PGY are those which in the same period experimented significant organisational reforms, which could clearly explain these decreases. Thus, firms with higher decreases are SJ, NS and NSB. Firms with higher increase of PGY are by far CFL, followed by CFF, FS and RENFE. Another interesting point to be stressed is that firms such DB, DSB, SNCB, SNCF and VR show continuous increases of PGY in the first half of the period in study followed by continuous decreases of PGY in the second half period.

When output is measured by available output (Y_{II}), firm's productivity growths (PGY), as well as for PGX, show little variation over time. Only firms such as: DSB, RENFE, CH, TCDD and FS show clearly to have increased their productivity growth in the period. The firms which have decreased their productivity growth are mainly NS, SJ and NSB; the remained firms do not show to have significant variations in the period.

As it can be seen from comparison among our own results of technical progress (PGX and/or PGY), depending on technical progress definition chosen and output set measurement used, there is a significant values variability; thus, comparison of our results with results from other authors is a very difficult task since beyond these definition differences there are additional differences which come from distinct methodologies and models employed. For example, Loizides and Tsionas (2002) and Coelli and Perelman (2000) found for almost of firms technical changes declines, however, it should be stressed that in Loizides and Tsionas (2002) productivity growth measurement included, beyond technological progress measures, technical changes due to cost inefficiencies, and in the case of Coelli and Perelman (2000) the methodology chosen (distance function approach) differ substantially from our methodology. As expected, due to the similarity of methodology used (stochastic cost frontier approach), the study showing higher results similarities is Sánchez and Villarroya (2000), which found, as well as in this study, positive values of technical progress for almost all firms in their sample, however, despite the proximity of the magnitude between our values and those of Sanchez and Villarroya, there is a substantial difference in the ranking results, this difference could mainly be explained by the fact of in our study, unlike in Sanchez and Villarroya, we have introduced explicitly capital stock variables in cost function estimation.

Until to this point productivity growth was defined through annual rates of technical change (PGX and PGY) assuming that operating characteristics such the quality of service variable and high speed technology variables held fixed, this assumption will be relaxed in next chapter after demand function analysis has been introduced, and therefore the impact of high speed technology in productivity growth will be a matter of analysis only in the next chapter.

5.5. Conclusion and results in the context of existing literature

In this chapter we have looked at the estimated results in the cost structure context. From global results it appears the European railways considered have a significant cost increase due to allocative inefficiency behaviour, with a sample mean increase in variable costs due to allocative inefficiency around 20%. The firms which show the higher levels of inefficiencies are those of high size and those which in the last decades more have invested in new technology. Comparison of our results with those obtained in Parisio (1999), also using a cost frontier approach, and considering the firm (size) specific cost effects considered in cost function of Parisio (1999) as resultant of allocative inefficiency, it can be observed an extremely high similarity between our study results and those of Parisio. Further comparisons with other study results are not possible due to the scarceness of analogous studies based on similar methodology and data.

As regards to technical inefficiency results, we can say that the mean increase in variable costs due to technical inefficiency is around 3.6 %. As it was observed for allocative inefficiency results, technical inefficiency results do not show, with the exception of Parisio (1999) study, any convergence with results from other studies.

Despite the difficulty in making comparisons in terms of allocative and technical inefficiencies among previous studies and our results, results show in global terms that firms such as NS, CFF and SJ are quite cost efficient and that considering only firms of higher size, SNCF followed by RENFE are the most efficient, which confirms general previous results. Firms such TCDD and FS, which in previous studies showed to be inefficient are confirmed by our results as quite cost inefficient, however, CH and OBB which were found to be inefficient in previous studies, in our case show reasonable score in terms of cost efficiencies. Finally another point to be stressed is that in contrast to that suggested in European railway literature, allocative inefficiency plays a more significant rule in cost increase than technical inefficiency, suggesting that firms have more difficulty in finding correct input proportion than equiproportionate excess input usage.

In which concerns to policy options for cost inefficiencies, it seems that the impact of subsidies on efficiency is very dependent of the types of subsidy and the way in which they are provided. The infrastructure and operational services separation policy seems to proportionate a betterment adjustment of inputs used and revenue outputs, which allowed for efficiency cost savings around 5%. Inefficiencies provoked by excess of service capacity arise more from passenger service than freight service revealing the higher difficulties which European railway firms have in making adjustments in passenger output supply.

Regarding the high speed technology effects on cost inefficiencies, the main conclusion is that there is little impact of this technology in firm cost efficiency, benefits in cost efficiency which come from this technology are more linked with the type of service (long distance service) associated to this technology than the technology *per se*.

Overall, it can be said that inefficiencies are essentially explained by the excess of capacity supplied and by the discrepancies resulting from an over-employment of labour input.

On the topic of scale economies, the main conclusions are that the European railways which make up the sample show slight increasing returns to scale and increasing returns to traffic density. Relatively to returns to traffic density results it can be said that they are in conformity with the existing literature, however comparisons of returns to scale results are a more difficult task. Results based on American railways show an railway industry characterised by constant returns to scale, however in respect to European railway studies there is little consensus in this finding, with some works such as Preston (1994) and Sánchez and Villarroya (2000) pointing out returns to scale quite dependent of the network size. Similar results to those found in this study are Borger (1991), Borger (1992), Filippini and Maggi (1993) and Andrikopoulos and Loizides (1998) who also found slight increases of returns to scale for European railways. Finally, it should be stressed that since in our work we have used the concept of long-run returns to scale by using optimum level of fixed capital stock instead of actual levels, it was already expected from beginning to find higher values of returns to scale than those of existing literature not accounting with this effect of excess capacity utilisation.

Results from technological progress measurement showed sample mean values of productivity growth (PGX) around 0.015. Due to the direct relationship, which is established through the variable RST, between PGX and PGY, as expected the values of PGY (>0.025) are slightly higher than those obtained for PGX but with productivity ranking firms practically identical. Additionally, our results show great variation of productivity growth if output is measured by revenue output than by available output; however, it should be stressed that almost of firms which in the last periods suffered expressive decreases of productivity growth are those which in the same period experimented significant organisational reforms.

Comparison among our results of technical progress (PGX and/or PGY) and those from other authors is a very difficult task since beyond definition differences there are additional differences which come from distinct methodologies and models employed. Thus, as expected, there are little similarities among our results and those of Loizides and Tsionas (2002) and Coelli and Perelman (2000), with both studies showing, for almost of firms, technical changes declines. European railway studies such as Perelman (1986) and Andrikopoulos and Loizides (1998), despite using distinct techniques, their productivity growth results are of identical magnitudes of those found in present study. Studies employing similar methodology (stochastic cost frontier approach) and data set such as Sánchez and Villarroya (2000), despite the proximity of the magnitude between their mean values and our values of technological progress, there is a substantial difference in the firm productivity ranking results. Finally, comparing our firm technological progress values with firm specific studies such as Borger (1991), Borger (1992) and McGeehan (1993), it can be said that technical progress values for Belgian railways in Borger studies are quite in conformity with our results, however the results of McGeehan (1993) for Irish railways are substantially higher than our values for CIE company.

CHAPTER 6

ANALYSING THE IMPACT OF HIGH SPEED TECHNOLOGY ON DEMAND AND ON PRODUCTIVITY

6.1 Introduction

Railways productivity analysis studies have concentrated on the measurement of distinct sources of productivity and on the implication of transport policy changes on productive efficiency. Despite the importance of the quantification of the productivity sources and the related implication of policy implementations changes toward the improvement of productive efficiency, there are very few studies that directly analyse the impact of specific technological innovations on productivity growth.

As is known, policy interventions are especially important in reducing allocative and technical efficiencies or in taking advantage on gains from scale economies. However, efficiency gains are not, by nature, a continuous source of productivity, once efficiency is reached there is no further gains from this source. Additionally, the railway transport industry has been faced in recent past with the problem of decreasing market share; it is expected that reorganisation and regulatory transport policy changes will imply efficiency gains, which through a more competitive pricing policy can be passed to consumers and consequently improve railway transport market share. However, studies of railway transport demand indicate a relatively low price elasticity, which means that a recover of market railway transport share coming from a more competitive pricing policy is probably an intangible target.

In contrast with what have been said above, the technological progress representing innovation and technical developments is a continuous source of productivity and could be, through the particular impact which has on the quality of service supplied (characterised by for example travel time savings, higher frequency of service, more comfortable and fashionable trains and modern stations), a crucial factor of the increase of railway transport demand. As pointed out in Button (1993) it is noticeable, for example, from empirical studies that public transport demand is sensitive to changes in service quality, especially to any reduction in the speed or frequency of services; this fact reflects the decreased importance attached to the purely monetary dimension.

European railway transport innovation has been essentially characterised by high speed technology which has contributed significantly to the increase of the quality of service supplied. Thus, it seems crucial to analyse the quality of service impact on productivity growth characterising embodied technological progress beyond the usual analysis of productivity growth characterising disembodied technological progress measured through the time trend variable.

However, as pointed out by Fowkes and Nash regarding journey time elasticity values of previous studies: "there was some sign that traffic increased by a certain amount when the high speed train was introduced regardless of the extent of time saving produced; conversely the increase in traffic was found to be less in small number of cases where a major speed improvement had been introduced without new rolling stock" (Fowkes and Nash (1991)). Thus, following this impression and being certain of the primordial importance of the quality of service on demand increase, it is appealing to analyse the impact on productivity provoked by the utilisation of high speed technology which represents, at the moment, the most relevant contribution to the quality of service improvement.

The impact of high speed technology on costs can be analysed from the elasticities results associated with the high speed variables introduced in the cost functions, and which were described in previous chapters. However, any conclusions about high speed effects on railways productivity are incomplete if only cost analysis is the object of study. To have a more accurate knowledge of this impact, the estimation of aggregate rail transport demand function is required.

Despite the importance of econometric studies involving the aggregate passenger and freight rail transport demand functions in transport policy decisions at the national level, they are scarce in comparison to studies of the rail transport demand at the micro level using detailed survey data on individuals, routes or cities; perhaps because of limited data on reliable quality attributes indispensable in the formulation of an aggregate rail transport demand function. The exception are the recent works of FitzRoy and Smith, namely FitzRoy and Smith (1995) and FitzRoy and Smith (1998). Recent surveys on aggregate demand functions and transport demand elasticities are Oum et al. (1992) and Goodwin (1992).

Following the objectives described above, this chapter is organised in the following way: the first section 6.2 is dedicated to the estimation and analysis of rail demand functions; in section 6.3 through the analysis of the high speed estimated coefficients of the cost and demand function, the impact of high speed technology on costs and demand are analysed; section 6.3 looks at the impact of high speed technologies in productivity growth and, focused in an hypothetical predictions of productivity gains from high speed technology usage, suggests the optimum level of high speed utilisation. Section 6.4 relates demand results to existing literature and resumes the main conclusions of the analysis of high speed impacts on productivity.

6.2 Passenger and freight demand function

The elementary theory of consumer demand for intermediary services such as railway transport, which are purchased to move people and goods over desired routes, generally considers that demand is influenced by the price of service (P_r), the prices of the closest substitutes (P_i) and the level of income (Y):

$$D_r ? f(P_r, P_1, P_2, ..., P_n, Y) \tag{6.1}$$

While this simple framework holds for transport, as for all goods ad services, the new microeconomics of consumer choice suggests that transport demand equations require refinements and details which need to be highlighted to a more precise understanding of the way the transport market operates. The individual terms in (6.1) above are, in fact, not simple variables but rather represent complex compounds of several interacting factors, for example, the price of rail service, P_r, should not be the simple fair paid but should be a total cost per unit distance, which embrace all the other costs (that is, time costs, waiting, insecurity, etc.) involved in the rail travel. Additionally, data constrains restrict variables to proxy variables, for example disposable income per head is usually proxied by GDP per capita and the price of substitute variables by the price of petrol or diesel.

Therefore, the lack of quality control or non–pecuniary costs influencing transport modal choices could be a major focus of model mis-specification. Particularly if the service quality variables, which can be hard to measure, are omitted from the demand equation, the resulting price elasticity estimate may be biased. Another important consideration in specifying demand functions is recognition of and controlling for competition from other modes, which implies to complement the proxy to substitute price variable with the inclusion in the demand equation of quality of service variables characterising transport service of competing modes. A third group of explanatory variables relate to factors outside of transport sector, such as geographic and social factors, which can be of crucial importance on demand characterisation; for example the amount of rail travel between two towns will be influenced by the size of the populations of the two towns or in the case of freight transport, the changing structure of the national economy from a heavy industrial base to light industry producing low weight products has a substantial impact on demand for freight rail transport.

As referred to in Button (1993), these types of problems and issues are clearly difficulties which cannot be entirely circumvented in a general discussion of the influences affecting transport demand, but they should be borne in mind as we move on to look in more detail at some of the items contained in demand function set out as equation (6.1).

Another aspect to take into account when estimating demand function is that for econometric efficiency of estimation, the demand equations for freight and passenger services related in consumption should be estimated as a multivariate system, rather than estimating each equation separately.

For the estimation of the European rail demand functions, the same railway data set (Data_P) used for the estimation of cost function in the chapter 4 was used. Additionally, quality indicators were introduced which allow for the estimate of quality adjusted demand for each country on a comparable basis, as well as a standard price and income variables.

Before going into the demand function estimation, a detailed description of the main rail factor data set is provided next.

6.2.1 Preliminary data analysis

The data characterising railway industry behaviour was collected from UIC data as was done for the cost analysis. The key features of this data are highlighted by bar charts presented in Figures 6.1 to 6.11. The figures plot the levels of each of variable by country in the years of 1972, 1980, 1990 and 1999 and summarise both cross country differences and changes over time; for countries with reduced time series data, only the first and the last year in the sample period were used.

Figures 6.1 and 6.2 show levels of rail demand, measured as total passenger-kilometres per capita and as total tonne-kilometres per capita, respectively. Scaling demand by population permits a direct comparison of small and large countries.

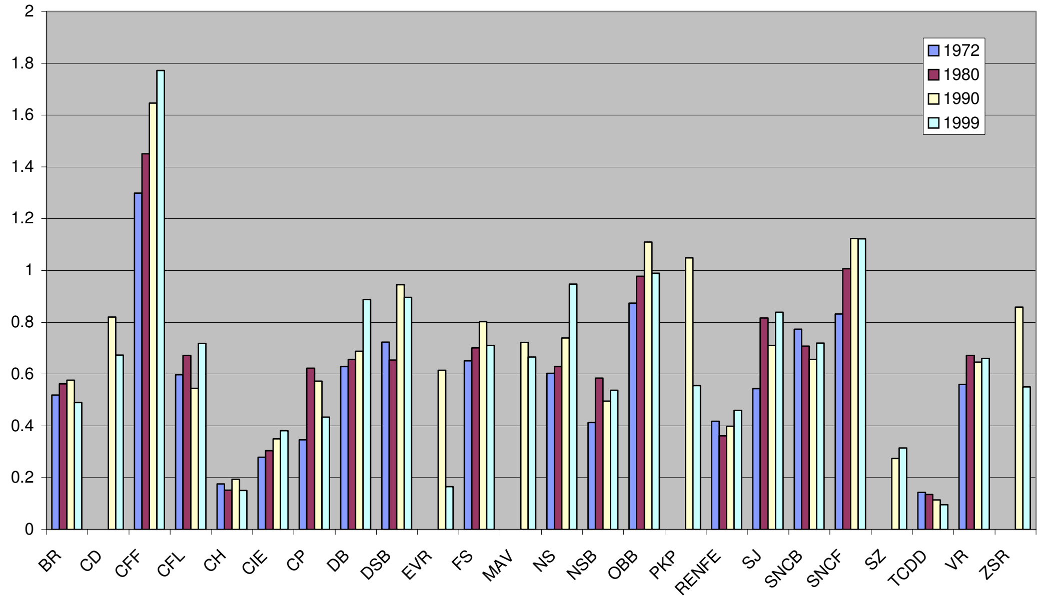

Figure 6.1 – Passenger-kilometres per capita

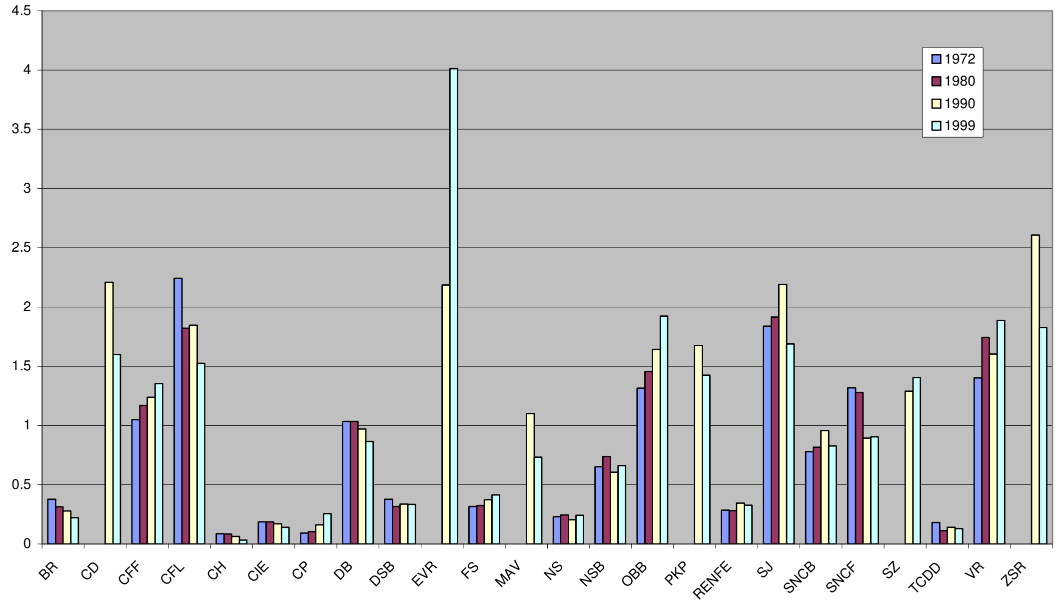

Figure 6.2 – Tonne-kilometres per capita

It is evident that levels of passenger and freight rail demand vary greatly across European countries. In almost all cases, there is a trend related to passenger demand increase in the last twenty years, with exceptions in the Eastern countries, Turkey and

Portugal. Countries such as the United Kingdom, Greece, Italy and Austria appear to show a slight decrease in the last decade of the sample period. However, it is well documented that, in terms of modal shares, passenger rail travel continues to witness a relative decline in the transport market when compared with road and air traffic. In ECMT/OECD (1996) is reported a substantial fall of market share between the 1970s and 1980s for Organisation for Economic Co-operation and Development countries which stabilised during the 1990s; with passenger rail market share at 10.4% in 1970, 8.6% in 1980 and 6.9% in 1994. Switzerland, Austria and France display the highest levels of rail use; the highest growth rates over the period are displayed by Switzerland, Netherlands, France, Sweden and Germany.

Freight rail demand shows higher variety across countries than passenger demand as expected due to its output heterogeneity characteristic. In freight demand, unlike passenger demand, there is no trend for increasing or decreasing demand over time. For example, countries such as Switzerland, Austria and Finland show an increase of demand in the sample period whereas the United Kingdom, Luxembourg, Germany and France show a decrease of demand. As for passenger demand, in terms of modal shares, the freight rail transport has been in decline when compared with road traffic. The ECMT (2002) confirms this trend, reporting that, in general, in the countries of Western Europe, freight railway market share went from a share of 22.9% in 1980 to 14.2% in 1999 and in the countries of Central and Eastern Europe from 72.3 % in 1980 to 42.6 % in 1999. The highest levels of rail use for transport of goods are yielded by Eastern countries in the sample and by Luxembourg, Austria, Sweden and Finland; the highest growth rate are shown by Slovenia and Austria.

It is important to note that Switzerland, Austria and Finland are, within the sample, those which show a demand increase for both freight and passenger rail transport during the period.

Figures 6.3 and 6.4 display average rail fares, for passenger and for freight transport respectively, by the country's firm; average rail fair are defined as total revenue per passenger kilometres. They are converted to constant prices (1995 prices) using the country's GDP deflators and to a common currency (US$) using purchasing power parities (reported in Table A.3 in appendix). An intractable problem with this revenue based on own price proxy is that it can vary, even if no actual price changes occur, due to variations in the mixed tickets purchased and/or variations on the type of market good specialisation.

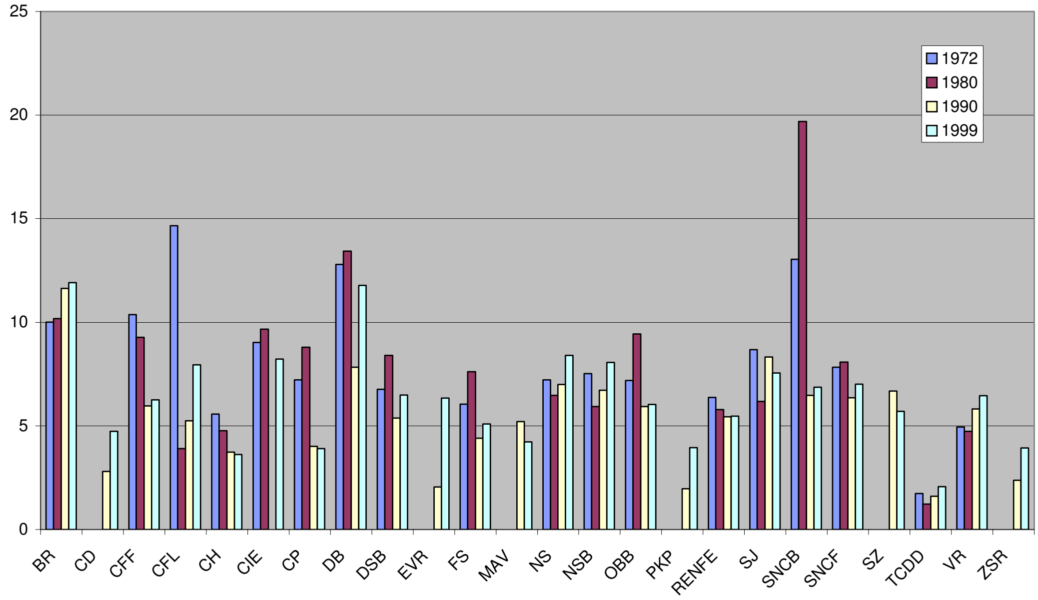

Figure 6.3 – Average passenger fare

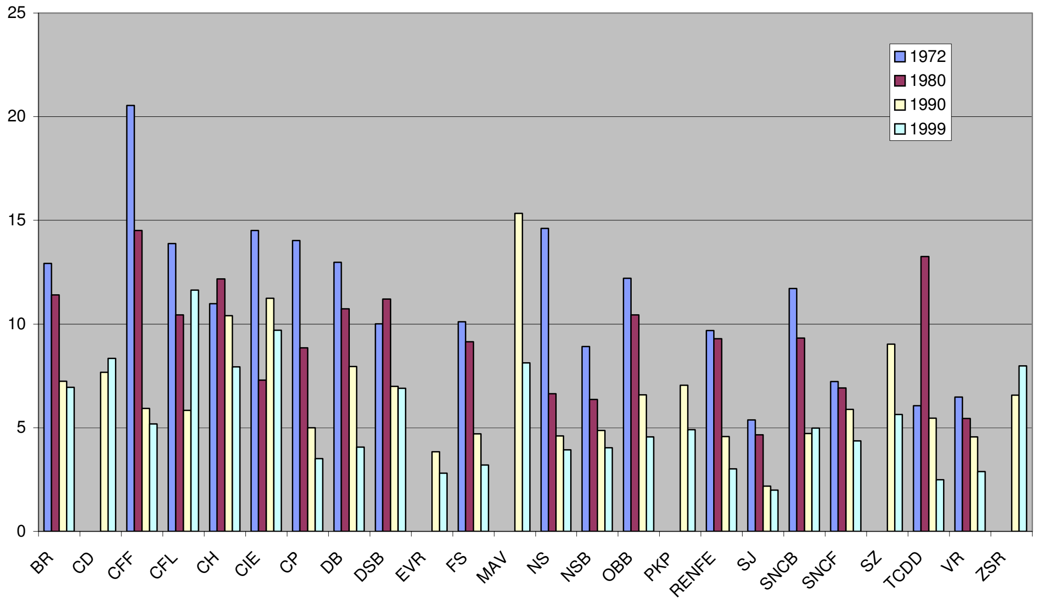

Figure 6.4 – Average freight fare

Figure 6.3 gives a misleading impression of the changes over time in fares facing travellers in a given country. However, it seems that almost all railway firms have decreased their average fare over the sample period; the exceptions are BR, NS, NSB, VR and TCDD. BR and DB stand out in the last decade as the firms with the most expensive ticket prices by a wide margin. Since traveller fares are paid in domestic currency and not international prices, as shown in Figure 6.3, to make clear country fare changes over time, in Figure 6.5 the percentage of change, between 1972 and the last year in firm sample period, of rail fares in domestic currency is shown; only firms with observations starting in the year of 1972 are shown.

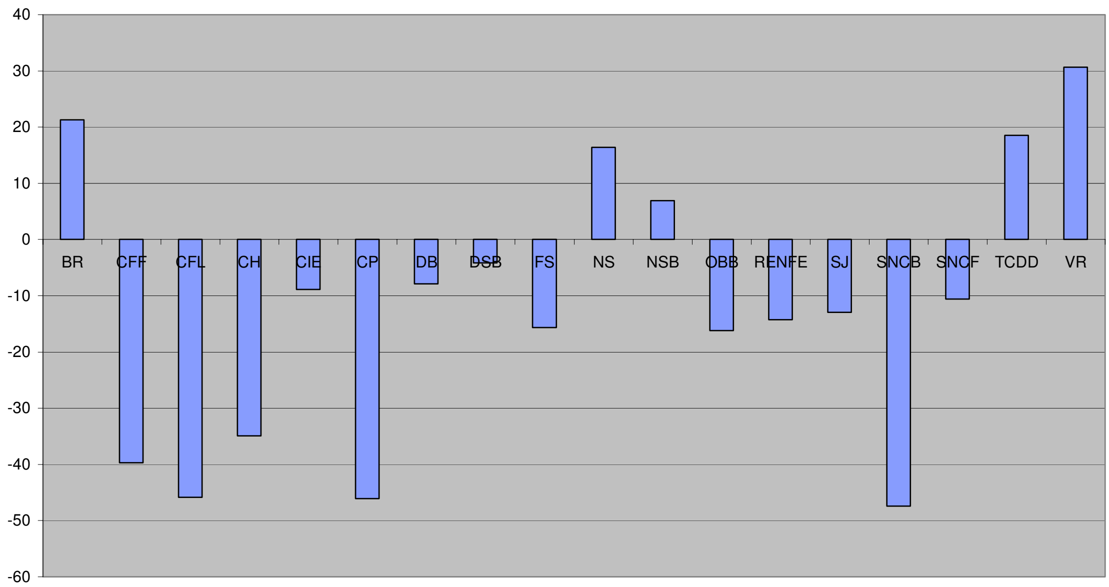

Figure 6.5 – Percentage changes in domestic price fares

This figure confirms what was suggested from the analysis of Figure 6.3, with TCDD showing a higher increase if prices are in local currency and CFF, CFL, CH, CP and SNCB showing a substantial decrease (>30%) of fares faced by travellers between 1972 and 1999.

From Figure 6.4, it could be said that the fare paid by each tonne-kilometre has shown, from 1972 to 1999, a substantial decline; however, this can not be affirmed with certainty since this decrease could also mean that there has been a greater specialisation of railway transport in heavy products.

As pointed out in FitzRoy and Smith (1998), it is well known that the opportunity cost of travel time is a major cost component in transport modal choices. The door-to-door convenience of the private car and trucks represents a substantial time saving compared with transfer and waiting times involved in station-to-station rail transportation, mainly in the case of passenger travels. The comparative disadvantage of rail mode declines as the length of the trip increases but remains substantial for most journeys in densely populated countries with highly developed road networks. In order to characterise the gains in terms of travel time and associated time cost saving offered by railway firms, the quality of service variable described in previous chapters has been used, as well as the high speed dummy variables. The network length variable together with train-kilometres supplied by firms variable could also be a representative indicator of the frequency of service.

Figure 6.6 plot the variation of the quality of service variable across firms and over time.

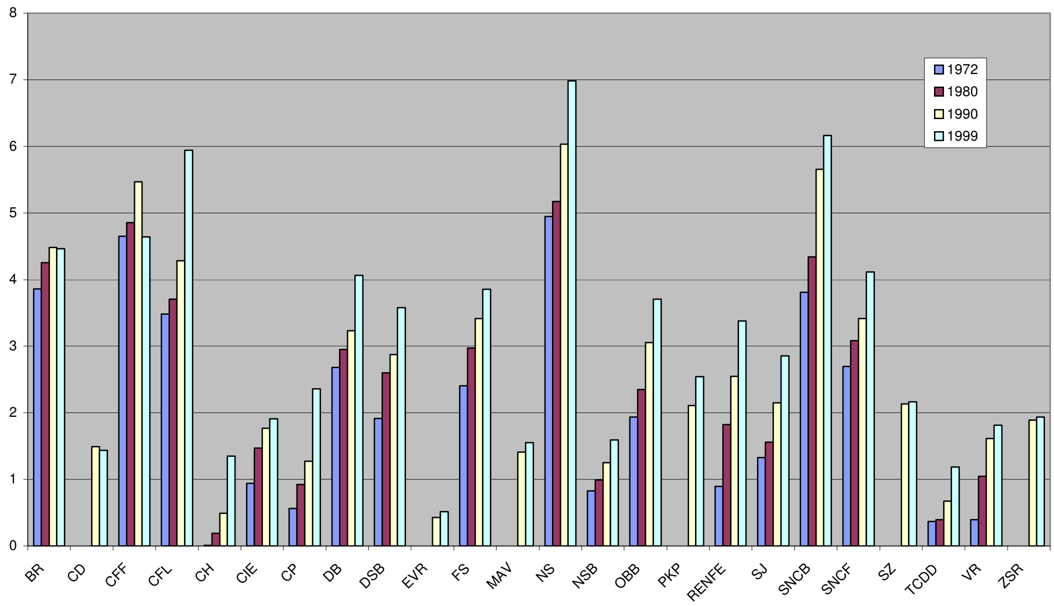

Figure 6.6 – Quality of service indicator

As can be inferred from this graph, almost all the countries have experienced increases in the quality of service (defined here as a combination of railway characteristics such as frequency, percentage of electrified lines, percentage of double tracks and average train speeds). The firms which reveal high quality factor values are BR, CFF, CFL, NS, and SNCB.

Since waiting time is generally affected by the frequency of service, in Figures 6.7 and 6.8 the ratios of total train kilometres to network length for passenger and freight services respectively are displayed.

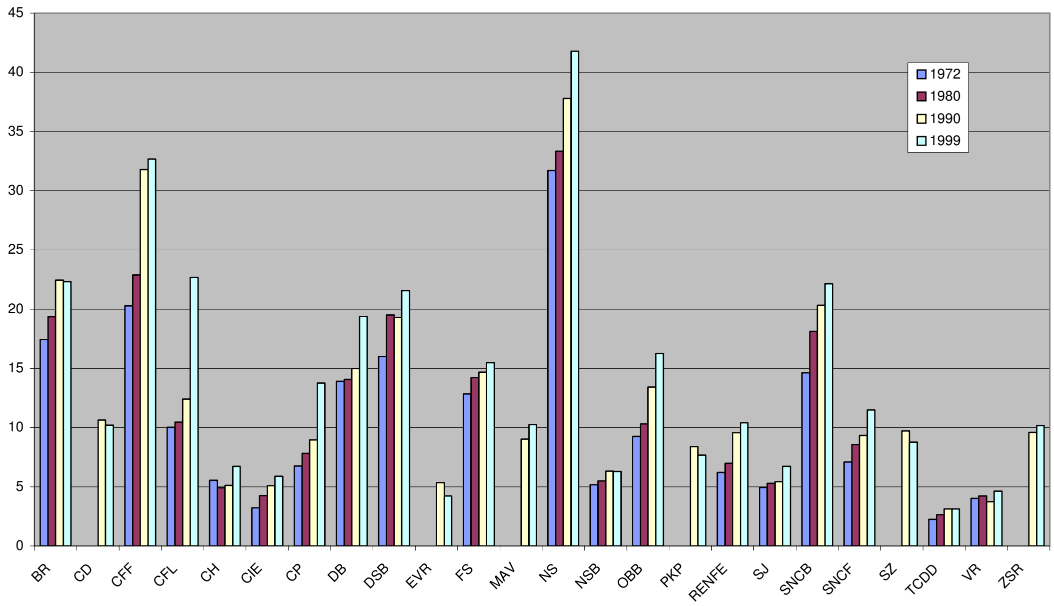

Figure 6.7 – Passenger train frequency (train-kilometres/network length)

The graph relative to figure 6.7 confirms the results shown in figure 6.6, however, with respect to the freight service frequency shown in figure 6.8, there is a slight inversion on results, with a substantial number of firms showing a decrease on the freight train frequency. It should be noted, however, that the higher decrease revealed by some firms, specially NS, in the last decade of the sample period are certainly related with the reforms implemented in these countries which originated with the privatisation of some railway sectors (with special focused on freight sector), which whose results, consequently, were not taken into account in the present data.

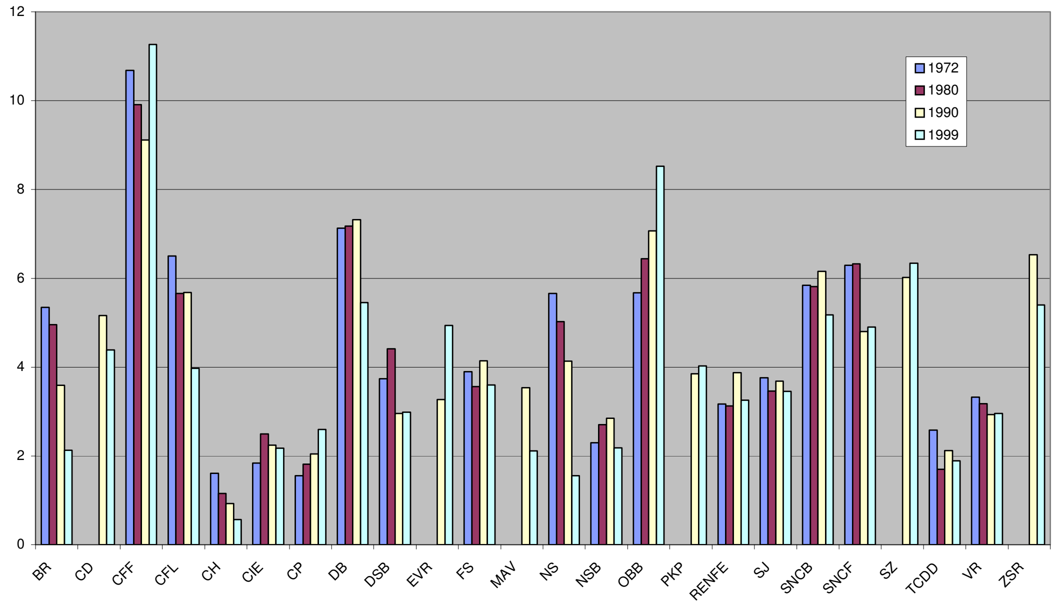

Figure 6.8 – Freight train frequency (train-kilometres/network length)

Figure 6.9 graphs another important factor which contributes to an easier geographical access to the railway network: the route density, defined as network length per square kilometre of country area. In a certain way it is possible to say that route density gives a proxy measure to railway transport accessibility.

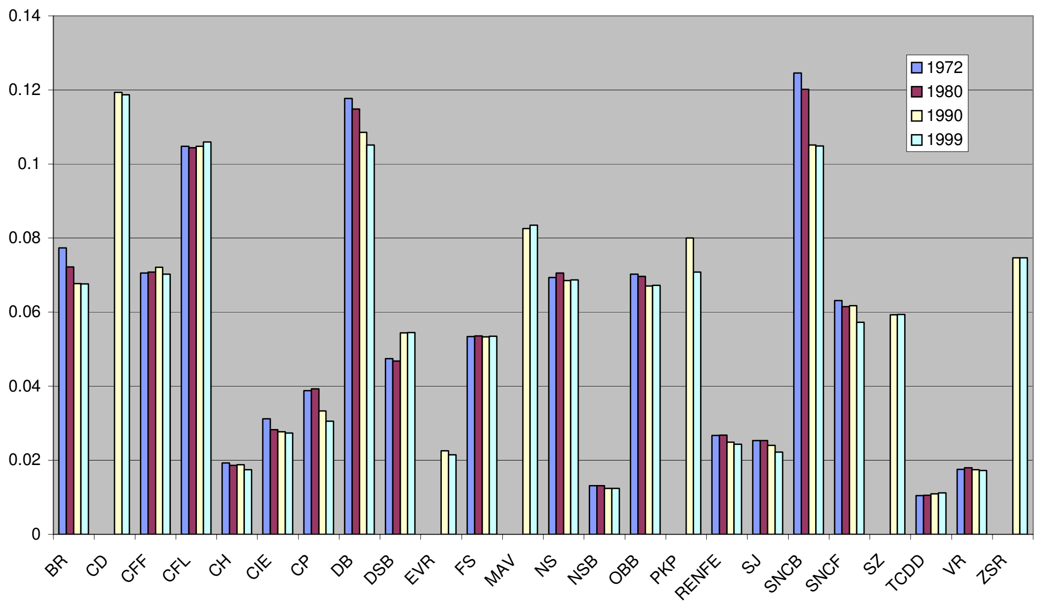

Figure 6.9 – Route density (network length/country area)

From the analysis of this graph we can concluded that there has been little change in route density, with almost all firms showing a very slight decrease in route density; only DSB, CFL and TCDD showing slight increases; CD, CFL, DB and SNCF have the highest route density, despite DB and SNCB being those which have experienced the highest absolute decrease in route density.

To capture the effect of investments in transport equipment and infrastructures on demand, the productivity capital stock variables used in cost analysis divided by the network length were introduced, which works as proxy to quality of capital investments.

Thus, figure 6.10 plots the productive transport equipment capital stock per network length for each country in the sample.

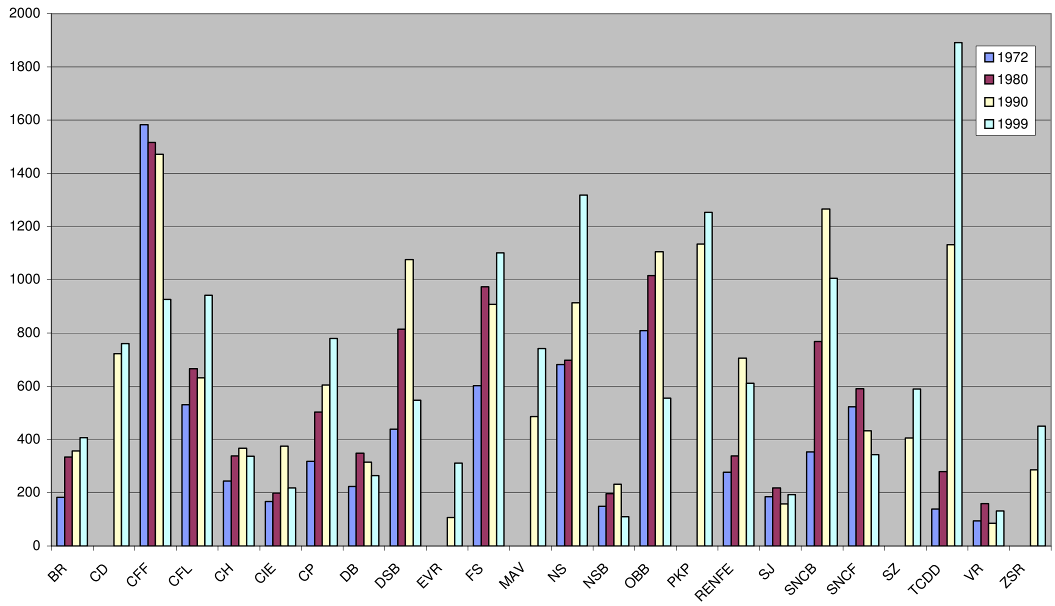

Figure 6.10 – Productive transport equipment capital stock per network length

Unlike CFF, almost all firms show an increase in transport equipment capital investments. In recent years, the firms which have shown the highest values of productive transport equipment capital stock per kilometre of network line are CFL, FS, NS, PKP, SNCB and TCDD, which is, so far, the one with the highest value.

Figure 6.11 displays an identical indicator for infrastructure capital stock. Unlike that which was observed for the transport equipment capital stock, CFF shows an increase of investments in infrastructure improvements over the sample period. CFF, FS, ÖBB, SNCB and SZ are the firms which show, in recent years, the highest values of productive infrastructure capital stock per kilometre of network line.

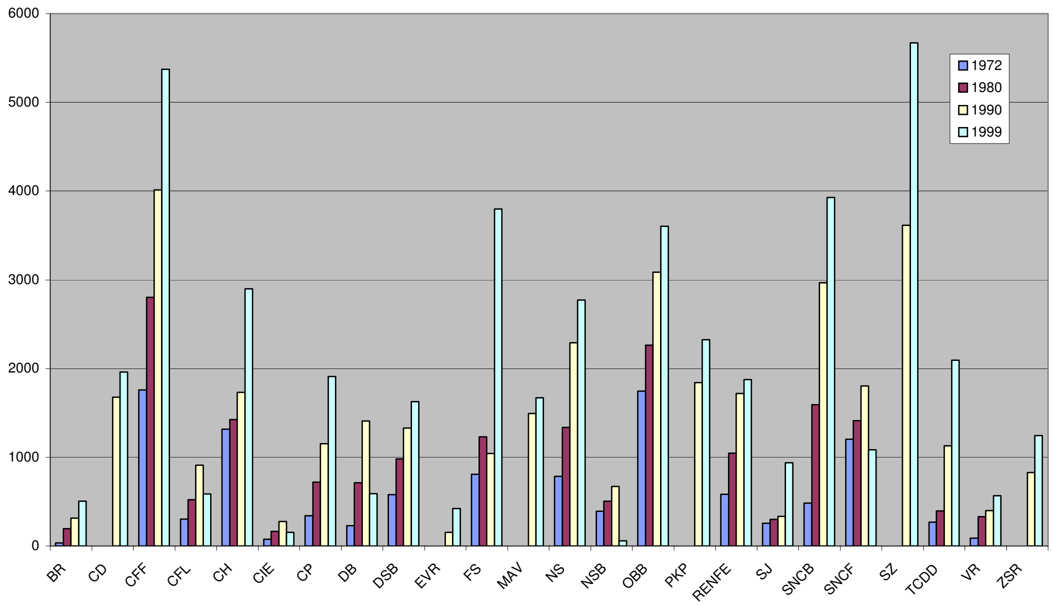

Figure 6.11 – Productive infrastructure capital stock per network length

The variable related to disposable country income per head is proxied by national measure of the gross domestic product (GDP) per capita.

Data constraints restrict the price of substitute transport mode variables to be the price of leaded petrol which acts as a proxy for the marginal costs of road transport. Thus, for the passenger demand estimate, the premium leaded gasoline (household) price extracted from data services publication, IEA (2003a), of the International Energy Agency was used; an average weighted price of the premium leaded gasoline (household), the automotive diesel (household) and the automobile diesel (industry) was used as the substitute's variable price for the estimation of freight demand function. As with fares, these variables were converted to a common currency using purchasing power parities and the US GDP deflator. Final values used in the estimation are shown in Table A3.5 in appendix.

Other proxy variables, characterising the alternative transport mode supply, which were used in demand estimation are: the number of aircraft departures by country, the number of passenger cars per capita in each country, collected from the WorldBank (2002) data in social indicators and fixed factors. In the latter, due to the lack of data between 1981 and 1989, in these years figures were interpolated, with variations between years estimated according to the country's GDP per capita.

Additional variables used in the estimation of demand function to characterise country geographic and social differences which were defined and used in cost analysis are: the country's population and population density, the number of principal city agglomerations (AGM), the variable characterising country weather (SNOW) and the variable characterising country topography (SURVEY). Three more new country characterisation variables, not used in cost functions, were introduced in demand estimate and they are: the percentage of urban population and the industrial emissions of CO2 in metric tons per capita which works as indicator to country motorisation and/or industrialisation, both variables were extracted from the WorldBank (2002) general country data publications.

Additionally the variable time trend was included in demand function to take account of the combined effect over time of all effects not explicitly considered.

Besides the variables described above on freight demand estimate, six more variables used as a proxy to country's goods mobility were introduced to describe the country's main commercial goods transactions. These country transaction variables are measured as a percentage of country's GDP and they are: ores and metals imports and exports, food exports and imports, fuel exports and imports, goods manufactured exports and imports and agricultural raw materials imports and exports. The sixth variable is the total oil country demand in thousand metric tons, reported in the IEA (2003b) database.

All the variables used for the demand estimate are reported in Table A2.13 in appendix A.

6.2.2 Demand functions estimation

Given the data described above, the log-linear form was chosen to define the demand functions. As referred to in Oum (1989), the log-linear model specifies the logarithm of traffic volume as a linear function of the logarithms of potential determinants, such as prices, income and quality variables. The main advantages of this model are: (a) the coefficients themselves are the respective elasticities of the demand; (b) the log-linear function is capable of modelling non-linear effects. The main drawback of this model is that each elasticity is invariant across all data points and not dependent on the location of the demand curve. The choice of this model instead of a more complex one, such as the translog form, is explained by the following reasons: (a) this form drastically reduces the risk of multicollinearity which could arise due to the existence of second order terms involving substantial number of country, time quasi-invariant, variables; (b) the objective itself is to find a long term demand function characterising global railway transport demand and not to analyse variations in elasticities across different specific cross-sectional routes, which would require variable elasticities across data points.

Thus, the rail demand model system (composed of the freight and the passenger demand equations) was specified, with all variables, except the variable time trend (TIME), in natural logarithms as follows:

$$
\begin{aligned}
LPKM = {} & \chi_0 + \varphi_{DHS}(DUMMYHS) + \varphi_{DTT}(DUMMYTT) + \varphi_{HS220}(DHS220) + \varphi_{TT}(DTT) \\
& + \chi_T(TIME) + \chi_{Rprice}(LPRIC\_PK) + \chi_{net}(LNET) + \chi_{QV}(LQVMAX) + \chi_{TOP}(LSURVEY) \\
& + \chi_{weather}(LSNOW) + \chi_{AGL}(LAGL) + \chi_{denst}(LDENSITY) + \chi_{Gprice}(LGASHP) \\
& + \chi_{GDP}(LGDPCAP) + \chi_{Air}(LAIRCDEP) + \chi_{CO2}(LCO2E) + \chi_{Car}(LVEHICCA) \\
& + \chi_{Urb}(LURBAND) + \chi_{Pop}(LPOP\_N) + \chi_{KQEQ}(LKQEQ\_N) + \chi_{KQ}(LKQP\_N) \\
& + \chi_{TKMF}(LTKMF) + \chi_{TKMP}(LTKMP)
\end{aligned}
\tag{6.2}
$$

$$
\begin{aligned}
& LTKM \ ? \ \boldsymbol{d}_0 \ \boldsymbol{-} \ \boldsymbol{d}_T(TIME) \ \boldsymbol{-} \ \boldsymbol{d}_{TOP}(LSURVEY) \ \boldsymbol{-} \ \boldsymbol{d}_{weather}(LSNOW) \ \boldsymbol{-} \ \boldsymbol{d}_{Rprice}(LPRIC\_PK) \\
& \boldsymbol{-} \ \boldsymbol{d}_{net}(LNET) \ \boldsymbol{-} \ \boldsymbol{d}_{QV}(LQVMAX) \ \boldsymbol{-} \ \boldsymbol{d}_{TKMF}(LTKMF) \ \boldsymbol{-} \ \boldsymbol{d}_{TKMP}(LTKMP) \ \boldsymbol{-} \ \boldsymbol{d}_{AGL}(LAGL) \\
& \boldsymbol{-} \ \boldsymbol{d}_{denst}(LDENSITY) \ \boldsymbol{-} \ \boldsymbol{d}_{oilprice}(LOILPCP) \ \boldsymbol{-} \ \boldsymbol{d}_{GDP}(LGDPCAP) \ \boldsymbol{-} \ \boldsymbol{c}_{Pop}(LPOP\_N) \\
& \boldsymbol{-} \ \boldsymbol{d}_{Air}(LAIRCDEP) \ \boldsymbol{-} \ \boldsymbol{h}_{CO2}(LCO2E) \ \boldsymbol{-} \ \boldsymbol{d}_{Car}(LVEHICCA) \ \boldsymbol{-} \ \boldsymbol{d}_{E\&Iore}\left(LOREMEI\right) \\
& \boldsymbol{-} \ \boldsymbol{d}_{E\&Ifood}\left(LFOODEI\right) \boldsymbol{-} \ \boldsymbol{d}_{E\&Ifuel}\left(LFUELEI\right) \boldsymbol{-} \ \boldsymbol{d}_{E\&\mathrm{Im}\,annuf}\left(LMANUFEI\right) \\
& \boldsymbol{-} \ \boldsymbol{d}_{E\&Iagr}\left(LAGRMEI\right) \boldsymbol{-} \ \boldsymbol{d}_{oildem}\left(LOILDEM\right) \boldsymbol{-} \ \boldsymbol{d}_{KQEQ}(LKQEQ\_N) \ \boldsymbol{-} \ \boldsymbol{d}_{KQ}(LKQP\_N)
\end{aligned}
\tag{6.3}
$$

where LPKM = Passenger demand (passenger-kilometres per kilometre of network length);

LTKM = Freight demand (tonne-kilometres per kilometre of network length);
DUMMYHS = Dummy variable for high speed usage;
DUMMYTT = Dummy variable for tilting train usage;
DHS220 = DUMMYHS * ln(NHS), with NHS = number of traditional high speed trains;
DTT = DUMMYTT * ln(NTT), with NTT = number of tilting train;
TIME = Time trend variable;
LPRIC_PK = Average passenger fare;
LPRIC_TK = Average freight fare;
LGDPCAP = GDP per capita;
LNET = Network length;
LQVMAX = Quality of service variable;
LSURVEY = Terrain country factor;
LSNOW = Weather country factor;
LAGL = City agglomeration factor;
LDENSITY = Population density;
LGASHP = Premium leaded gasoline (households) price;
LOILPCP = Average oil price;
LPOP_N = Population country per kilometre of network length;
LAIRCDEP = Number of country aircraft departures per year;
LCO2E = Emission country of CO2 in metric tons per capita;
LVEHICCA = Number of passenger cars per capita;
LURBAND = Percentage of country urban population;
LOILDEM = Total oil country demand in thousand metric tons;
LOREMEI = Ore and metal imports & exports as percentage of total GDP;

LFOODEI = Food imports & exports as percentage of total GDP;
LFUELIE = Fuel imports & exports as percentage of total GDP;
LMANUFEI = Manufactures imports & exports as percentage of total GDP;
LAGRMEI = Agricultural raw materials imports & exports as percentage of the total GDP;
LKQEQ_N = Productive transport equipment capital stock per network length;
LKQP_N = Productive infrastructure capital stock per network length;
LTKMF = Freight train-kilometres;
LTKMP = Passenger train-kilometres.

The system was estimated by a seemingly unrelated linear regression model (SURE) using feasible generalised least squares (GLS) procedure. To avoid heteroscedasticity problems, before running the GLS procedure, passenger demand equation was estimated by running a multiplicative heteroscedastic regression model. Multiplicative heteroscedastic regression models accommodate several kinds of heteroscedasticity, in this case the two main variables related with firm's dimension, TKMF and TKMP, have been used as the variables of the scedastic function. Test results from this regression rejected the hypothesis of homocedasticity. Results also confirmed that TKMF and TKMP significantly explain variation in the disturbance variances across observations. Thus, with the coefficient estimates of the scedastic function affect to TKMF and TKMP, the weighting variable ($WT1 = 1/[\exp(\mathbf{y}_1.TKMF+\mathbf{y}_2.TKMP)]^2$, where $\mathbf{y}_1$ and $\mathbf{y}_2$ are the estimated coefficients of the scedastic function) was built to be used on the FGLS estimate of the SURE model.
Tables 6.1 and 6.2 report the results of the SURE model. The signs of the coefficients estimates are what were expected to be.

From estimates of the passenger rail transport demand, we can observe that almost all are statistically significant at the 1% probability level, the exceptions, apart from some of the dummy variables, are those of LSNOW, LAGL, LDENSITY, LVEHICCA and TKMF variables. The statistical insignificancy level verified for these estimates are explained by the presence in the demand function of other proxy variables which capture the same demand effect of these variables, as an example we have the case of the number of major city agglomerations and the population density whose effects were captured, in certain way, by country population and percentage of urban population or in the case of the number of passenger cars which seems to be eclipsed by the CO2 emission variable. Unlike, in the case of weather variable, we can say that weather conditions do not have any influence on demand for railway passenger transport.

Table 6.1. The passenger rail transport demand function: parameter estimates

Dependent variable : LPKM				
Variable	Coefficient	Std. Err.	b/St.Er.	P[|Z|>z]
Constant	3.22373	0.78773	4.092	0.0000
DUMMYHS	0.07840	0.02864	2.738	0.0062
DUMMYTT	-0.06573	0.02802	-2.346	0.0190
DHS220	-0.00664	0.00759	-0.875	0.3814
DTTT	0.00803	0.00773	1.039	0.2986
TIME	-0.01478	0.00103	-14.349	0.0000
LPRIC_PK	-0.21850	0.01885	-11.590	0.0000
LNET	-0.27468	0.05330	-5.153	0.0000
LQVMAX	0.29520	0.03319	8.895	0.0000
LSURVEY	-0.07638	0.01387	-5.508	0.0000
LSNOW	0.00554	0.00955	0.580	0.5617
LAGL	0.02865	0.01626	1.762	0.0780
LDENSITY	-0.05839	0.03882	-1.504	0.1325
LGASHP	0.16292	0.02729	5.969	0.0000
LGDPCAP	0.68461	0.06235	10.980	0.0000
LAIRCDEP	-0.06206	0.02150	-2.887	0.0039
LCO2E	-0.18350	0.03515	-5.221	0.0000
LVEHICCA	-0.03218	0.04640	-0.694	0.4879
LURBAND	-0.80826	0.05589	-14.461	0.0000
LPOP_N	0.34512	0.04415	7.818	0.0000
LKQEQ_N	0.05435	0.01829	2.972	0.0030
LKQP_N	0.03134	0.01195	2.622	0.0087
LTKMF	-0.05989	0.03715	-1.612	0.1069
LTKMP	0.53006	0.04386	12.086	0.0000
Nº observations		534		
Adjusted R-squared		0.935	Log-likelihood	1084.699
Durbin-Watson Stat.		1.9516	Autocorrelation	0.0242

Table 6.2. The freight rail transport demand function: parameter estimates

Dependent variable : LTKM					
Variable	Coefficient	Std. Err.	b/St.Er.	P[|Z|>z]	
Constant	18.64463	1.02456	18.198	0.0000	
TIME	0.01582	0.00301	5.265	0.0000	
LSURVEY	0.01784	0.01841	0.969	0.3324	
LSNOW	0.10087	0.00970	10.398	0.0000	
LPRIC_TK	-0.29420	0.02527	-11.643	0.0000	
LNET	-0.91070	0.06443	-14.134	0.0000	
LQVMAX	0.15172	0.03167	4.790	0.0000	
LTKMP	-0.03968	0.04728	-0.839	0.4012	
LTKMF	0.70988	0.03266	21.735	0.0000	
LAGL	0.05582	0.01576	3.542	0.0004	
LDENSITY	0.09948	0.04550	2.186	0.0288	
LOILPCP	0.06526	0.03430	1.902	0.0571	
LGDPCAP	-0.49507	0.07207	-6.869	0.0000	
LPOP_N	-0.55892	0.07995	-6.991	0.0000	
LAIRCDEP	-0.13001	0.02190	-5.938	0.0000	
LCO2E	-0.02432	0.03515	-0.692	0.4890	
LVEHICCA	-0.09654	0.04807	-2.008	0.0446	
LOREMEI	0.13114	0.02758	4.754	0.0000	
LFOODEI	-0.09545	0.02674	-3.570	0.0004	
LFUELEI	-0.03394	0.01500	-2.263	0.0236	
LMANUFEI	-0.05120	0.04784	-1.070	0.2845	
LOILDEM	0.36795	0.04204	8.753	0.0000	
LAGRMEI	0.01556	0.02676	0.582	0.5609	
LKQEQ_N	0.03560	0.01960	1.816	0.0694	
LKQP_N	0.04498	0.01367	3.291	0.0010	
Nº observations		534			
Adjusted R-squared		0.955		Log-likelihood	1084.699
Durbin-Watson Stat.		2.0874		Autocorrelation	-0.0437

The own price variable (LPRIC_PK) elasticity appears to be statistically significant and with correct sign and a value of (-0.22), which is in conformity with the mean value estimate (-0.33) reported in FitzRoy and Smith (1998) and the mean value estimated in FitzRoy and Smith (1995) of (-0.10), but smaller than the long run rail fare elasticities surveyed in Goodwin (1992) who cites an overall average of (-0.79) and those reported in Owen and Phillips (1987) with median value of (-0.69).

The price elasticity of alternative transport mode (GASHP) appears to be statistically significant, and with an elasticity value of 0.162; this value is similar to that found in

FitzRoy and Smith (1998) of 0.19 , but lower than the value of 0.34 reported for public transport demand in Goodwin (1992) and significantly lower than the value 0.57 reported in FitzRoy and Smith (1995) estimated from a pure cross-section data. The elasticity related to a variation of alternative transport mode supply (variables AIRCDEP and LVEHICCA) have small values (-.06 and -0.03, respectively), showing that demand response is more influenced by price than be supply. However, it should be noted that the road transport mode effect can also be explained by the CO2 emission proxy variable which shows an elasticity of (-0.18), taking this phenomenon into account it is possible to confirm that the railway transport mode suffers more competitiveness from road transport than from air transport mode.

The estimated elasticity of the income attribute, the GDP per capita, has the value of 0.68. This value confirms the well known observation that trips by rail rise as economies grow but at a slower rate than the national income; this value is also specially close to the mean elasticity income value (0.65) and (0.83) reported respectively in FitzRoy and Smith (1998) and FitzRoy and Smith (1995), but lower than that reported in Owen and Phillips (1987) with median values around 0.9.

Another attribute that has a strong influence on demand is the quality of service attribute which shows an elasticity value of 0.30. This value is lower than the suggested in Wardman (1994) which refers values around 0.9, however, the value referred to in Wardman (1994) is relative to an aggregate quality of service variable, since we have introduced, besides Qvmax, other factors characterising quality of service such as high speed technologies and train traffic frequencies, our result seems to be quite reliable. Additionally, it is observed that this elasticity value is particularly higher than those related to the productive capital stock per kilometre of network length variables (0.05 for equipment and 0.03 for infrastructures). This could mean that demand is particularly sensitive to quality of service factors related with travel time (velocity and frequency), other improvements that could be captured by capital stock investments seems to be of little impact on passenger demand.

As expected, higher passenger train traffic frequency has a positive impact on demand, the elasticity of train-kilometres is of 0.53 (this value is very closed to that of 0.58, found in FitzRoy and Smith (1998) and to that reported in FitzRoy and Smith (1995) of

0.44, and higher freight train frequency does not have significant impact on passenger demand.

Network length shows a positive but low impact on demand, the elasticity of network length is of 0.29, meaning that an increase of 1% in network length would increase only by 0.29 % the passenger demand. This also means that 1% increase on network length would decrease the demand given by passenger-kilometres per network length by 0.71 %, which confirms the excess of infrastructure capacity revealed in cost function analysis.

High elasticities can be found also in variables related to social factors such as population country distribution. Country population per network length shows to have an elasticity of 0.35, however, percentage of urban population shows to have an elasticity of (-0.81). This high negative value of urban population elasticity could mean that passenger railway transport is especially attractive to a non-urban population and, consequently, more competitive in middle and long distance trips. However, since some firms on UIC data do not report passenger-kilometres figures of suburban railway services, such is the case of BR which does not report on London transport figures, we can speculate that the elasticity of this attribute is quite lower than the value found here.

The time trend variable coefficient estimate of (-0.015) has primordial importance since it reflects the well-known trend verified in last decades of natural passenger rail transport mode share decline; values reported in Owen and Phillips (1987) are substantially lower with median value of (-0.002). However, its lower value is a good sign for the future.

Freight transport demand function estimates have a more difficult interpretation than passenger transport demand function estimates. The main reason for this unreliability of estimates is linked to the measurement of the output variable. Tonne-kilometres are far from being a good characterisation of freight transport since this measure is very sensitive to heavy product transportation, this means that firms specially focused on transport of heavy goods show evidently higher demand response than those having similar revenues but from transportation of light goods. This output choice will probably cause drastic biased estimates, and thus any resulting analysis should be done with caution. Despite this problem, some conclusion about freight demand transport characterisation can be reached.

The first conclusion, which can be reached, is that, unlike passenger demand, freight demand elasticity of the time trend variable has a positive value of 0.016, which means that freight transport has natural conditions to grow. Secondly, as observed in passenger demand, network length shows a positive but higher impact on freight demand than in passenger demand, the elasticity of network length is of 0.57, meaning that an increase of 1% in network length would increase by 0.57 % the freight demand. This also means that 1% increase on network length would decrease the demand given by tonne-kilometres per network length by 0.43 %, which confirms that excess of infrastructure capacity has higher impact on passenger than freight demand.

The own price elasticity is quite similar to which is observed for passenger rail demand, with a value of (-0.29) and near to that of FitzRoy and Smith (1995) of (-0.41). The elasticity of oil price shows a value of 0.07, substantially below to that reported in FitzRoy and Smith (1995) of (0.93); despite our value appears to be quite low, the value reported in FitzRoy and Smith (1995) is estimated from a pure cross-sectional data which, as pointed out by Wardman (1994), such models tend to yield large elasticities for price and service quality relative to other models.

In respect to the quality of service attribute it seems to have less (even statistically significant) impact on freight demand than on passenger demand, which reflects the higher importance of travel time on passengers than on the traffic of goods. However, it should be noted that frequency of service has a higher impact on freight transport than on passenger transport, reflected by the higher elasticity of train-kilometres (0.71), this value has practically the same magnitude of FitzRoy and Smith (1995), reporting a frequency (freight) elasticity value of (0.72).

Other important aspects that must be focused on, is the positive elasticity value of the major city agglomerations (AGL) and density variable, and the negative value of country population per network length elasticity; this reveals that, due to the door-to-door characteristic of road transport, freight railway transport is only competitive for freight transportation among major city agglomerations.

There are two more factors whose elasticity estimates deserve a few of attention. The first is the income attribute which reveals an elasticity of (-0.50), in contrast with the value of (0.83) reported by FitzRoy and Smith (1995); the negative value of this elasticity is mainly due to the freight railway market share of Eastern European countries being significantly higher than those of the Western countries with higher national incomes. The second is the oil demand factor; the positive and statistically significant value of the elasticity of oil demand factor should be interpreted more as the elasticity of the effect of higher country industrialisation than the elasticity of oil transportation.

In relation to the elasticities of different types of goods transportation, as is expected, the higher elasticity is associated with the transaction of ore and metal products, but as it was previously said this only reflects the heavy nature of these goods. Any other conclusions about the proxy variables related with goods transaction should be considered suspicious.

6.3 Analysis of the impact of high speed technology on cost and demand

In chapter 4 the cost function was modelled using dummy high-speed technology explanatory variables, among other variables. The main aim for introducing the high speed technology dummy variables into cost function was to capture the specific and additional impact on variable costs produced by investing in high speed technology.

When using dummy variables to capture the influence of categorical variables in regression equations especial attention are required to interpret the results. This is especially true when the set of several dummy variables is employed to measure the variation in behaviour among a number of classes, as pointed out by Suits (1984) and Kennedy (1986). However, in our case, where only two classes of observation are involved, results presented in the usual way involve no special problems of interpretation (Suits (1984)). Thus, no existence of high speed technologies is established as the base and consequently the coefficients affecting high speed technology should be interpreted as increase in costs provoked exclusively by introduction of high speed technology, holding constant the remainder characteristics of production process in cost function. Therefore, high speed technology variable should be analysed as embodied technological progress.

Thus, directly introducing dummy high speed variables into cost function allowed for the measurement of the surplus contribution of the high speed technology for reducing/increasing operational cost besides the inherent contribution which, as a new investment, is produced by this technology.

Estimated results showed that the high speed train technology has, in relation to costs, distinct effects of those observed for the tilting train technology. From the analysis of the high speed coefficient estimates (related to DHS220 and DUMMYHS variables) of the models described in chapter 4, two main observations can be made; the first is that the introduction of high speed network seems not to have produced a significant effect on operational costs since the elasticity of this variable (DUMMYHS) shows not be statistically significant in any of the models developed; secondly, the dummy variable which accounts for the increment of high speed usage (DHS220) reveals to be statistically significant at the 1% probability level in almost all models. Additionally, in the models where this variable showed to be significant, its coefficient has a value of around (-0.04) (taking into consideration only the models where this estimate is statistically significant at 5% probability level, the values among models vary from -0.029 to -0.045). This means that for a 1% increase on high speed trains, with other things being equal, allows for a decrease on operational cost of 0.04%.

Tilting train technology seems to have precisely the contrary effect. The option for tilting train technology appears to have a very strong effect on operational costs; the parameters affected to the dummy variable tilting train technology (DUMMYTT) showed to be, in all models, statistically significant at the 1% probability level with values which vary between (-0.12) and (-0.23).

The estimated parameter associated with the cost elasticity of tilting train usage (DTT), in almost all the models, showed not to be statistically significant, and in the cases where they showed to be statistically significant at the 5% probability level, the obtained parameters were positive with values of around 0.025 (varying between 0.018 and 0.034, excluding the value relative to model III using Y_{II} which is (-0.017)). This means that for a 1% increase on tilting trains technology would raise the operational costs in 0.025%.

Overall, from the analysis of the frontier variable cost function in relation to high speed technology it can be said that by using conventional high speed technology operational costs could be reduced by 0.04% in each 1% increment on usage of this technology instead of similar increment in traditional technology, whereas for the tilting train technology, gains on operational cost come essentially not from the increment of traffic density of tilting trains technology but from impact of introducing into the network of this technology whose operational cost reduction has a value of around 17%.

Results of passenger demand function give additional information about the impact of high speed technology on the development of railways. The most relevant findings about the impact of high speed technology on passenger railway demand is that increments on high speed technology density show to have a reduced influence on passenger railway demand. In both cases, conventional high speed and tilting train technology parameter estimates (DHS220 and DTT), which account for an increment on these technologies, show to be not significantly different from zero, which probably means that there is no marginal demand gain in increase high speed technology density.

In relation to the dummy variables (DUMMYHS and DUMMYTT), which capture the effect on passenger demand by introducing into network these high speed technologies, the estimate related to tilting train technology is only statistically significant at the 5% probability level, and has the value of (-0.066), the estimate related to conventional high speed technology is statistically significant at the 1% probability level and has the value of 0.078. The most surprising result is that which is related to the tilting train variable, the value of -0.066 means that the introduction of the tilting train technology in the network produces an effect on passenger demand of 6.4% lower than if the investment was used in the traditional technology. The introduction of conventional high speed technology in the railway network instead of similar investments on traditional technology appears to produce a marginal gain on passenger railway demand of 7.5%.

6.4 Analysis of the impact of high speed technology on productivity growth

In chapter 5 we have measured the productivity growth of European railway industry assuming that the operating output attributes held fixed; however this assumption is quite unrealistic since there are significant complementarities among the output produced such as passenger-kilometres and the outputs characteristics such as the quality of service and the high speed technology usage. In this chapter we are going to re-evaluate the measures of productivity growth and returns to scale taking into account the influence of variations of output characteristics in these measures.

6.4.1. Re-evaluating productivity growth and returns to scale

In re-evaluating productivity growth and returns to scale two points must be considered. The first point is that re-evaluation implies to relax the assumption that output characteristics held fixed, which means that output characteristics must be interpreted as auxiliary outputs in the production process. Thus, when analysing productivities beyond to taking into account the variation in principal outputs such as the passenger and tonne-kilometres it should be included in formulation the terms ($\partial \ln C/\partial \ln Y_j$, where Y_j are the output attributes) relatives to the variation produced in the auxiliary outputs which, despite not being *per se* the focus of production, contributed to an increment in the output produced.

This approach leads to the second point that must be taken into account and which assumes primordial relevance in productivity measurement: if the output characteristics are not the main objective of production process but a way to reach higher levels of productivity through the increment which they provoke on demand, then this causal dependence should be directly included in the formulation of productivity measurement so to obtain more reliable and efficient estimates of productivity. Therefore, to do this, we have to find explicit relations among the output characteristics (the quality of service variable, the high speed technology variables and the network length) and between these attributes and each output produced (passenger-kilometres, tonne-kilometres). Having these analytical relationships, the expressions of chapter 5 which give the measurement of productivity growth and returns to scale are in this case given by:

$$PGX = \frac{-\partial \ln g^V/\partial t - \sum_j \left(\partial \ln g^V/\partial \ln y_j\right)*\left(\partial \ln \tilde{y}_j/\partial t\right)}{1 - \sum_k \left(\partial \ln g^v/\partial \ln K_k\right) - \sum_j\sum_k \left(\partial \ln g^v/\partial \ln y_j\right)*\left(\partial \ln \tilde{y}_j/\partial \ln K_k\right)}, \tag{6.4}$$

$$PGY = \frac{-\partial \ln g^V/\partial t - \sum_j \left(\partial \ln g^V/\partial \ln y_j\right)*\left(\partial \ln \tilde{y}_j/\partial t\right)}{\sum_j \partial \ln g^V/\partial \ln y_j * \tilde{C}_j + \sum_l \partial \ln g^v/\partial \ln H_l * \tilde{C}_l + \sum_m \partial \ln g^v/\partial H_m}, \tag{6.5}$$

$$RTS = \frac{1 - \sum_k \left(\partial \ln g^v/\partial \ln K_k\right) - \sum_j\sum_k \left(\partial \ln g^v/\partial \ln y_j\right)*\left(\partial \ln \tilde{y}_j/\partial \ln K_k\right)}{\sum_j\left(\partial \ln g^V/\partial \ln y_j\right)*\tilde{C}_j + \sum_l\left(\partial \ln g^v/\partial \ln H_l\right)*\tilde{C}_l + \sum_m\left(\partial \ln g^v/\partial H_m\right)}, \tag{6.6}$$

with:

$\tilde{C}_j = \left[1 - \sum_l (\partial \ln \tilde{y}_j/\partial H_l)(1 - \sum_m \partial \ln \tilde{H}_l/\partial H_m) - \sum_m \partial \ln \tilde{y}_j/\partial H_m\right]$ and

$\tilde{C}_l = \left[1 - \sum_m \partial \ln \tilde{H}_l/\partial H_m\right]$,

where: K_k (k=1) is the productive infrastructure capital stock, H_m (m=1,..,4) are the output characteristics variables (DUMMYHS, DUMMYTT, DHS200 and DTT), $\ln H_l$ (l=1,2) are the logarithmic of the quality of service variable and network length respectively, and $\ln \tilde{y}_j$ and $\ln \tilde{H}_l$ are respectively the logarithmic output demand equations given by expressions (6.1) and (6.2) and the logarithmic output characteristics equations (here assumed to be log-linear regressions) specifying the relationship among the output characteristics, Qvmax and NET, and the high speed technology variables; the remain terms in equations have the same meaning those defined in chapter 5. In Table 6.3 are displayed the elasticities of output characteristics (quality of service, QVmax, and network length, NET) in relation to high speed technologic variables (DUMMYHS, DUMMYTT, DHS220 and DTT) estimated using the following simple equations:

$$LQVMAX = \alpha_0^Q + \varphi^Q_{DHS}.(DUMMYHS) + \varphi^Q_{DTT}.(DUMMYTT) + \varphi^Q_{HS220}.(DHS220) + \varphi^Q_{TT}.(DTT) + u \tag{6.7}$$

$$LNET = \alpha_0^N + \varphi^N_{DHS}.(DUMMYHS) + \varphi^N_{HS220}.(DHS220) + v \tag{6.8}$$

where LQVMAX and LNET are respectively the logarithmic of the quality of service and network length variables, and DUMMYHS, DUMMYTT, DHS220 and DTT are the same high speed variables used in cost and demand functions.

Table 6.3. Elasticities of operating characteristics, QVmax and NET, with respect to high speed technologic variables: estimated coefficients

Dependent Variable:					
LQVmax			LNET		
	estimate	s.e.		estimate	s.e.
$g^Q{}_0$	0.57737	0.03862	$g^N{}_0$	8.44775	0.04839
$h^Q{}_{DHS}$	1.07753	0.17455	$h^N{}_{DHS}$	-0.50735	0.22779
$h^Q{}_{DTT}$	0.42077	0.20141	-	-	-
$h^Q{}_{HS220}$	-0.09425	0.04936	$h^N{}_{HS220}$	0.50142	0.06394
$h^Q{}_{TT}$	-0.07394	0.07438	-	-	-
R^2=0.12			R^2=0.17		

The relatively low R^2 of the above regressions indicates, as expected, that quality of service and network length are also explained by other exogenous variables apart from the high speed technologic variables. It is observed that, with the exception of DTT variable, the output attributes, quality of service and network length, are significantly correlated with high speed technology variables.

Before going into the re-evaluation of the productivity growth and returns to scale measured in chapter 5 it must be stressed that to have more efficient estimates of the parameters of cost and demand functions, the cost function, cost share equations, demand function and output characteristics relationships should have been jointly estimated; however, despite the loss of efficiency, due to the higher level of complexity which this computation would involve we have opted for separate equations estimation.

Replacing the output characteristics and the demand elasticities terms in equations (6.4), (6.5) and (6.6) by the respective values of the elasticities of output characteristics shown in table 6.3 and the values of freight and passenger demand elasticities shown in tables 6.1 and 6.2, and considering cost function estimated from the model II and data set P described in previous chapters and the output defined by passenger-kilometres (PKM) and tonne-kilometres (TKM), we obtain the following expressions for productivity growth:

$$PGX = \frac{-\frac{\partial \ln CV}{\partial t} + 0.01478*\left(\frac{\partial \ln CV}{\partial \ln PKM}\right) - 0.01582*\left(\frac{\partial \ln CV}{\partial \ln TKM}\right)}{1 - \left(\frac{\partial \ln CV}{\partial \ln K}\right) - 0.03134*\left(\frac{\partial \ln CV}{\partial \ln PKM}\right) - 0.04498*\left(\frac{\partial \ln CV}{\partial \ln TKM}\right)}, \tag{6.9}$$

$$PGY = \frac{-\frac{\partial \ln CV}{\partial t} + 0.01478*\left(\frac{\partial \ln CV}{\partial \ln PKM}\right) - 0.01582*\left(\frac{\partial \ln CV}{\partial \ln TKM}\right)}{\left(\frac{\partial \ln CV}{\partial \ln PKM}\right)*(\widetilde{C}_P) + \left(\frac{\partial \ln CV}{\partial \ln TKM}\right)*(\widetilde{C}_F) + \left(\frac{\partial \ln CV}{\partial \ln Q_{VMAx}}\right)*\left(\widetilde{C}_Q\right) + \left(\frac{\partial \ln CV}{\partial \ln NET}\right)*(\widetilde{C}_N) + \widetilde{C}_{HSTT}}, \tag{6.10}$$

with:

$$\begin{aligned}\widetilde{C}_P = {} & 1 - 0.29520*(1 + 0.09425*DUMMYHS + 0.07394*DUMMYTT - (\partial \ln \widetilde{Q}_{VMAX}/\partial DUMMYHS) - \\ & - (\partial \ln \widetilde{Q}_{VMAX}/\partial DUMMYTT)) - 0.29451*(1 - 0.50142*DUMMYHS - (\partial \ln \widetilde{N}_{ET}/\partial DUMMYHS)) - \\ & - ((-0.00664*DUMMYHS + 0.00803*DUMMYTT + (\partial \ln PKM/\partial DUMMYHS) + (\partial \ln PKM/\partial DUMMYTT))\end{aligned},$$

$$\widetilde{C}_F = 0.28063,$$

$$\widetilde{C}_Q = 1 + 0.09425*DUMMYHS - (\partial \ln \widetilde{Q}_{VMAX}/\partial DUMMYHS) + 0.07394*DUMMYTT - (\partial \ln \widetilde{Q}_{VMAX}/\partial DUMMYTT),$$

$$\widetilde{C}_N = 1 - 0.50142*DUMMYHS - (\partial \ln \widetilde{N}_{ET}/\partial DUMMYHS),$$

$$\widetilde{C}_{HSTT} = -0.04466*DUMMYHS + (\partial \ln CV/\partial DUMMYHS) + 0.23206*DUMMYTT + (\partial \ln CV/\partial DUMMYTT)$$

where CV is the variable cost function, Qvmax is the quality of service, NET is the network length variable, t is the time trend variable, DUMMYHS and DUMMYTT are respectively the high speed technology dummy variable and the tilting train technology dummy variable. The partial derivative involving high speed technology terms are defined in the following way:

$$\frac{\partial \ln CV}{\partial DUMMYHS} = \begin{cases} 0.053410, & \text{for the first year in service of traditional high speed technology} \\ 0, & \text{otherwise} \end{cases};$$

$$\frac{\partial \ln CV}{\partial DUMMYTT} = \begin{cases} -0.19463, & \text{for the first year in service of tilting train technology} \\ 0, & \text{otherwise} \end{cases};$$

$$\frac{\partial \ln PKM}{\partial DUMMYHS} = \begin{cases} 0.0780, & \text{for the first year in service of traditional high speed technology} \\ 0, & \text{otherwise} \end{cases};$$

$$\frac{\partial \ln PKM}{\partial DUMMYTT} = \begin{cases} -0.06573, & \text{for the first year in service of tilting train technology} \\ 0, & \text{otherwise} \end{cases};$$

$$\frac{\partial \ln \tilde{Q}_{VMAX}}{\partial DUMMYHS} = \begin{cases} 1.07753, & \text{for the first year in service of traditional high speed technology} \\ 0, & \text{otherwise} \end{cases};$$

$$\frac{\partial \ln \tilde{Q}_{VMAX}}{\partial DUMMYTT} = \begin{cases} 0.42077, & \text{for the first year in service of tilting train technology} \\ 0, & \text{otherwise} \end{cases};$$

$$\frac{\partial \ln \tilde{N}et}{\partial DUMMYHS} = \begin{cases} -0.50735, & \text{for the first year in service of traditional high speed technology} \\ 0, & \text{otherwise} \end{cases}.$$

In the case of output being defined by train-kilometres, and assumed to be exogenously given with no correlation with the remained output characteristics, productivity growth will be simply given by:

$$PGX = \frac{-\frac{\partial \ln CV}{\partial t}}{1 - \left(\frac{\partial \ln CV}{\partial \ln K} \right)}, \tag{6.11}$$

$$PGY = \frac{-\frac{\partial \ln CV}{\partial t}}{\left(\frac{\partial \ln CV}{\partial \ln PKM} \right) + \left(\frac{\partial \ln CV}{\partial \ln TKM} \right) + \left(\frac{\partial \ln CV}{\partial \ln Q_{VMAx}} \right) * \left(\tilde{C}_Q \right) + \left(\frac{\partial \ln CV}{\partial \ln NET} \right) * (\tilde{C}_N) + \tilde{C}_{HSTT}}, \tag{6.12}$$

with:

$\tilde{C}_Q = 1 + 0.09425 * DUMMYHS - (\partial \ln \tilde{Q}_{VMAX} / \partial DUMMYHS) + 0.07394 * DUMMYTT - (\partial \ln \tilde{Q}_{VMAX} / \partial DUMMYTT)$,

$\tilde{C}_N = 1 - 0.50142 * DUMMYHS - (\partial \ln \tilde{N}_{ET} / \partial DUMMYHS)$,

$\tilde{C}_{HSTT} = -0.00703 * DUMMYHS + (\partial \ln CV / \partial DUMMYHS) + 0.01457 * DUMMYTT + (\partial \ln CV / DUMMYTT)$,

where:

$$\frac{\partial \ln CV}{\partial DUMMYHS} = \begin{cases} -0.02691, & \text{for the first year in service of traditional high speed technology} \\ 0, & \text{otherwise} \end{cases};$$

$$\frac{\partial \ln CV}{\partial DUMMYTT} = \begin{cases} -0.11396, & \text{for the first year in service of tilting train technology} \\ 0, & \text{otherwise} \end{cases};$$

$$\frac{\partial \ln \tilde{Q}_{VMAX}}{\partial DUMMYHS} = \begin{cases} 1.07753, & \text{for the first year in service of traditional high speed technology} \\ 0, & \text{otherwise} \end{cases};$$

$$\frac{\partial \ln \tilde{Q}_{VMAX}}{\partial DUMMYTT} = \begin{cases} 0.42077, & \text{for the first year in service of tilting train technology} \\ 0, & \text{otherwise} \end{cases};$$

$$\frac{\partial \ln \tilde{N}et}{\partial DUMMYHS} = \begin{cases} -0.50735, & \text{for the first year in service of traditional high speed technology} \\ 0, & \text{otherwise} \end{cases}.$$

Whatever the measurement of output set (passenger-kilometres and tonne-kilometres or passenger and freight train-kilometres) returns to scale are given by the ratio: $RTS = PGY/PGX$.

In table 6.4 the mean values of firm's productivity growth obtained from expressions (6.9), (6.10) and (6.12) are shown.

From this table it is possible to observe that the firm's ranking of productivity growth is quite the same of that shown in chapter 5, with CFF, CFL, DB, NS, SJ and SNCF being the firms with higher PGY, and CFF, CFL, CH, CP, DB, NSB, SJ and VR those which show higher PGX, and TCDD and the Eastern country's firms showing the lowest productivity scores. The main aspect to retain from this productivity re-evaluation is that almost all of the firms show lower levels of productivity, the exception are EVR and SNCF (and SNCF/RFF) which show for PGY (measured using Y_I as output set) slightly higher mean values. The mean sample value of PGY (measured using Y_I as output set) is of 2.89%, being 3.2% below of that measured in the previous chapter, as well as it was observed in chapter 5 the mean value of PGY is not significant statistically significant at 5 % of probability level due to the high level of variance among estimates, and therefore it can not be rejected the hypothesis of null value. However, only DB, FS, SNCB and ZSR show mean values not statistically significant at 5% of probability level; apart from these firms, the firms with highest mean values are SJ and SNCF with values higher than 4.5% and the firms with the lowest mean value are EVR, CD and PKP with mean value around of 1%.

For PGY measured using train-kilometres as output, we found the mean value of 1.73% (being 0.75% below of that previously calculated), this value show to be statistically significant at 1% of probability level, as well as the respective mean firm's values which vary from a lowest value of 0.75% for EVR to a value of 2.4% of CFF.

In respect to PGX, the mean sample value is of 1.42% (only 0.14% below of that estimated in chapter 5) and shows to be statistically significant at 1% of the probability level, all firms mean values of PGX show to be statistically significant, with the lowest value of 0.59% for ZRS and the highest value of 2.1% for CH.

Table 6.4. Productivity growth using full elasticity estimates: data set P

FIRMS	PGY				PGX	
	Output - Y_I		Output- Y_{II}		Output - Y_I	
	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.
BR	0.02521	0.00514	0.01723	0.00152	0.01240	0.00190
CD	0.01036	0.00374	0.01040	0.00186	0.00804	0.00264
CFF	0.03717	0.00409	0.02196	0.00098	0.01514	0.00142
CFL	0.04060	0.01261	0.02375	0.00368	0.01586	0.00372
CH	0.02415	0.00404	0.01366	0.00259	0.02128	0.00297
CIE	0.02156	0.00286	0.01546	0.00133	0.01447	0.00153
CP	0.02278	0.00405	0.01504	0.00100	0.01590	0.00176
CP/REFER	0.02023	0.00144	0.01737	0.00115	0.01349	0.00049
DB	0.04733	0.02704	0.02099	0.00276	0.01680	0.00081
DB AG	0.02962	0.01603	0.01822	0.00212	0.01212	0.00133
DSB	0.02475	0.00344	0.01724	0.00168	0.01458	0.00151
EVR	0.00917	0.00280	0.00751	0.00061	0.00801	0.00196
FS	0.02726	0.02227	0.01698	0.00363	0.01232	0.00275
MAV	0.01224	0.00165	0.01143	0.00094	0.00983	0.00124
NS	0.04088	0.01317	0.02207	0.00260	0.01575	0.00266
NS (B.V./N.V.)	0.01280	0.00146	0.01563	0.00013	0.00841	0.00010
NSB	0.03282	0.00594	0.01828	0.00150	0.01941	0.00198
OBB	0.02053	0.00763	0.01551	0.00298	0.01165	0.00289
PKP	0.01077	0.00325	0.01148	0.00174	0.00754	0.00199
RENFE	0.02934	0.01724	0.01754	0.00249	0.01473	0.00144
SJ	0.04505	0.01118	0.02140	0.00217	0.01942	0.00235
SJBV	0.02013	0.00557	0.01715	0.00209	0.01311	0.00185
SNCB	0.03413	0.02949	0.01912	0.00315	0.01250	0.00181
SNCF	0.05436	0.02448	0.01969	0.00247	0.01382	0.00064
SNCF/RFF	0.03374	0.00198	0.01841	0.00050	0.01030	0.00037
SZ	0.01241	0.00061	0.01360	0.00074	0.00879	0.00083
TCDD	0.01149	0.00351	0.01075	0.00253	0.00866	0.00237
VR	0.03206	0.00306	0.01834	0.00135	0.01792	0.00139
VR/RHK	0.02275	0.00154	0.01730	0.00069	0.01428	0.00022
ZSR	0.00754	0.00194	0.01005	0.00060	0.00590	0.00118
MEAN	0.02891	0.01772	0.01727	0.00436	0.01422	0.00407

In table 6.5 the mean firm's values of returns to scale re-evaluated using full elasticity estimates are shown. As verified in Oum and Zhang (1997) and in Xu et al. (1994), returns to scale evaluated using full cost elasticity estimates, or in other words, returns to scale evaluation which takes into account the change in output as a result of a changing in network characteristics, suggests that firms face increasing returns to scale and that standard methodology, similar to that used in chapter 5, underestimates returns to scale measure. Thus, despite some of the mean firm's values of returns to scale being not statistically significant, all firm's mean values suggest increasing returns to scale for both alternative sets of output measures (Y_I and Y_{II}).

Table 6.5. Returns to scale using full elasticity estimates: data set P

FIRMS	RTS			
	Output - Y_I		Output- Y_{II}	
	Estimate	S.E.	Estimate	S.E.
BR	2.03847	0.29097	1.17382	0.05881
CD	1.27024	0.05623	1.08084	0.03296
CFF	2.46901	0.28922	1.34192	0.05962
CFL	2.50870	0.49623	1.46592	0.15277
CH	1.13615	0.11557	1.10629	0.05703
CIE	1.48957	0.11409	1.27282	0.09256
CP	1.42549	0.13835	1.18830	0.08255
CP/REFER	1.49786	0.06451	1.26424	0.08275
DB	2.81277	1.59702	1.32633	0.14739
DB AG	2.43773	1.27808	1.29264	0.13252
DSB	1.69135	0.07691	1.17596	0.02489
EVR	1.12396	0.08470	1.19678	0.09853
FS	2.13405	1.31266	1.23834	0.13833
MAV	1.24339	0.01710	1.05984	0.00843
NS	2.52220	0.46621	1.23658	0.06886
NS (B.V./N.V.)	1.52398	0.19214	1.07951	0.01172
NSB	1.67790	0.15591	1.26736	0.05009
OBB	1.70789	0.22259	1.19933	0.06780
PKP	1.41300	0.06884	1.10101	0.02998
RENFE	1.98556	1.09463	1.26892	0.10719
SJ	2.29588	0.38151	1.37123	0.09479
SJBV	1.51766	0.28559	1.27303	0.07437
SNCB	2.64870	2.02535	1.27701	0.10447
SNCF	3.90449	1.67932	1.39109	0.11753
SNCF/RFF	3.27310	0.07696	1.45717	0.01095
SZ	1.42348	0.13620	1.21633	0.07260
TCDD	1.33633	0.22047	1.27186	0.15784
VR	1.79005	0.11106	1.31990	0.06120
VR/RHK	1.59207	0.09662	1.32492	0.06051
ZSR	1.26518	0.08588	1.11569	0.08299
MEAN	1.99561	1.05127	1.25822	0.13457

6.4.2. The impact of high speed technologies in productivity growth and the "optimum" level of high speed utilisation

Up till now one has re-evaluated the levels of productivity growth, measured by the technical progress term PGY and PGX, by taking into account the network characteristics variation and the effects that this variation produces in the output produced. For evaluating the impact on productivity provoked by the utilisation of high speed technology we predict the hypothetical productivity levels which would be reached if high speed technology has not been introduced; the comparison of these values with those found in previous sub-section gives us the surplus which was obtained from the inclusion and the usage of high speed technology.

6.4.2.1. Productivity growth increments originated by high speed technologies utilisation

Productivity growth (PGY) considering the hypothesis of non existence of high speed technology was estimated from expressions (6.10) and (6.12) but removing the effects caused by high speed technologies, thus, the terms C_P, C_Q, C_N and C_{HSTT} are recalculated by the following expressions:

$$\tilde{C}_P \ ? \ 1 \,/\, 0.29520 * (1 \,/\, 0.98328 * DUMMYHS \,/\, 0.34683 * DUMMYTT) \,/\, 0.29451 * (1 - 0.00593 * DUMMYHS) \,/\, / \, (0.07136 * DUMMYHS \,/\, .05770 * DUMMYTT) ,$$

$$\tilde{C}_Q \ ? \ 1 \,/\, 0.98328 * DUMMYHS \,/\, 0.34683 * DUMMYTT ,$$

$$\tilde{C}_N \ ? \ 1 - 0.00593 * DUMMYHS ,$$

$$\tilde{C}_{HSTT} \ ? \ 0 .$$

The increments of productivity growth (**F**PGY) originated by high speed technology were calculated from the difference between the “real” estimated values of PGY of sub-section 6.3.1. and these values of PGY predicted for the hypothesis of non existence of high speed technology. The resultant mean firm values of these increments are shown in table 6.6.

The first conclusion to retain from the analysis of table 6.6 is that the contribution of high speed technology to productivity improvements is especially relevant if output is measure as output revenue, in other words, the higher levels of productivity originated by high speed technology comes essentially from the increments on passenger demand which this technology proportionate.

Table 6.6. Mean firm increments of PGY resultant from utilisation of high speed technology: data set P

FIRMS	Δ PGY			
	Output - Y_I		Output- Y_{II}	
	Estimate	S.E.	Estimate	S.E.
BR	0.01124	0.00689	0.00327	0.00130
CFF	0.01960	0.00552	0.00505	0.00115
CP/REFER	-0.00117	-	0.00257	-
DB AG	0.03112	0.04201	0.00494	0.00312
FS	0.00787	0.02285	0.00119	0.00225
NS (B.V./N.V.)	0.00285	0.00300	0.00191	0.00125
RENFE	0.00936	0.02049	0.00199	0.00236
SJBV	-0.00220	0.00366	0.00041	0.00078
SNCB	0.04313	0.05199	0.00493	0.00226
SNCF	0.04300	0.01929	0.00455	0.00104
VR/RHK	0.00035	0.00094	0.00082	0.00094
MEAN	0.01787	0.02743	0.00293	0.00256

Productivity growth gains exclusively from the technology innovation production process associated with high speed technology are relatively low with a mean value of 0.3%, corresponding to an increase of productivity growth of 18%. Additionally, it can be observed that this mean value, as well as almost of mean firm's estimates, is not statistically significant, however, despite these facts it must be stressed that all mean firms increment estimates have positive signs meaning that contributes to an increase of productivity. The firm with the lowest increase on its productivity due to high speed technology usage is SJ/BV, whose tilting train technology utilisation allowed having only 2.4% higher values of productivity. The firm with the highest increase of productivity provoked by high speed technology usage is DB, whose productivity increase in 30% exclusively due to high speed technology utilisation.

If productivity growth is measured using as output passenger (tonne)-kilometres, increments of this productivity originated from the utilisation of high speed technology having a mean value of 1.8%. Unlike productivity gains calculated using train-kilometres as output, there are some firms which appear to have lowered its potential productivity growth due to the utilisation of high speed technology, these firms are SJ/BV and CP/REFER, however their estimates are not statistically significant. Another point that can be observed is that firms which show the lowest increments on potential productivity growth due to high speed utilisation are those which opted exclusively by tilting train technology in detriment of traditional high speed technology. Firms which show the highest increase on productivity growths originated by high speed utilisation are SNCF and SNCB with increments (with predicted productivity growth considering non existence of high speed technology of 2.04% and 1.63% respectively) around of 4.3%, thus, for these firms the inclusion of high speed technology allowed for a potential increase rate in productivity above 200%.

Comparing the mean value of productivity growth, taking into account only the firms shown in table 6.6, which would be obtained if there was no high speed trains (1.94%) with the "real" mean value that was estimated in previous sub-section (3.73%) it can be observed that high speed technology contributed for a 92% average increase in productivity growth.

6.4.2.2. "Optimum" levels of high speed technologies utilisation

The last step in analysing the importance of high speed technology for the development of railway transport is to investigate which levels of high speed technology utilisation contribute to the best performances in terms of productivity growth.

Having in the last section calculated the increments of productivity growth (**F**PGY) originated by high speed technology utilisation, one can investigate the importance of some variables related to high speed utilisation levels, network characteristic and country characteristic in explaining the differences in **F**PGY. Thus, in order to explain these differences in **F**PGY, we undertook a further regression, introducing six main variables that could potentially be considered explanatory. The seven main explanatory variables used in this regression, and reported in Table A2.14 in appendix A, are:

- the country GDP per capita (GDP);

- the country population (POP)

- the number of agglomeration cities (AGM), measured according definition referred to in previous chapters

- the network length (NET);

- the electrified line length as a percentage of the total line length (P_ELECT);

- the number of tilting train as a percentage of the total number of fleet (PTT);

- the number of traditional high speed trains as a the percentage of the total number of fleet (PHS).

There are certainly other important firm specific factors that were left out in our analysis and which could explain in more detail **F**PGY variations, however, the main propose of our analysis is to find the dependences between the general indicators that should take part on decision implementation of high speed technology and the levels of productivity originated by this decision, leaving out specific determinant factors.

Since almost all of the observations of the dependent variable (**F**PGY) that compose our data sample are zero values (firms not using high speed technology in the observation year), conventional regression methods fail to account for the qualitative difference between *limit* (zero) observations and *non-limi*t (continuous) observations, consequently, an OLS regression would produce biased parameter estimates. In order to treat the limited dependent variable properly, therefore, we can use traditional Tobit regression which constrains the lower bound (at zero in our case) but frees the upper bound. Since **F**PGY observations with negative sigh are in a very reduce number and almost of them with values close to zero, it is believed that the transformation of these values to the censoring point (zero) do not originate significant bias in estimates.

Thus, the Tobit model used in regressing the dependent variable (**F**PGY) and the explanatory variables described above, took the following form:

$$\begin{aligned} \mathbf{F}PGY \; ? \; \boldsymbol{c}_0 - \boldsymbol{d}_{GDP} * (LGDP)^2 - \boldsymbol{d}_{NET} * (LNET)^2 - \boldsymbol{d}_{ELECT} * (P\_ELECT) \\ - \boldsymbol{d}_{MHS} * (MHS) - \boldsymbol{d}_{MTT} * (MTT) - \boldsymbol{d}_{PHS} * (PHS) - \boldsymbol{d}_{PTT} * (PTT) - \boldsymbol{j}, \end{aligned} \tag{6.13}$$

where:

$MHS = \left(\ln\left(\frac{AGM}{NET}\right) * PHS - \ln\left(\frac{POP}{NET}\right)\right)^2$ and $MTT = \left(\ln\left(\frac{AGM}{NET}\right) * PTT - \ln\left(\frac{POP}{NET}\right)\right)^2$,

and LGDP and LNET are respectively the logarithmic of GDP per capita and network length and η is assumed to be independently identically distributed error.

Table 6.7. Tobit regression results: data set P

Dependent Variable: **F**PGY

Variable	Coefficient	Std. Err.	b/St.Er	P[|Z|>z]
Constant	-0.34049	0.07171	-4.748	0.0000
$LGDP^2$	0.00250	0.00067	3.745	0.0002
$LNET^2$	0.00081	0.00018	4.604	0.0000
P_ELECT	0.00044	0.00013	3.505	0.0005
MHS	-0.00030	0.00004	-6.751	0.0000
MTT	-0.00006	0.00003	-1.777	0.0755
PHS	0.09144	0.01211	7.549	0.0000
PTT	0.02065	0.01082	1.908	0.0564
σ	0.02726	0.00209	13.02	0.0000

Nº observatios: 534
Log-likelihood: 141.2178
Adjusted R2 of initial OLS : 0.47614

Tobit regression results show that almost all coefficients are statistically significant at the 1% of probability level, the exceptions are those coefficients which variables are associated to tilting train technology factors, and in this case the coefficients are statistically significant only at the 10% of probability level. Confirming our expectations that GDP per capita, network size and percentage of lines electrified are of crucial importance on option decisions for high speed technology, the coefficients β_{GDP}, β_{NET} and β_{ELECT} besides to be statistically significant they are positive which means that higher values of GDP per capita, network length and percentage of lines electrified allow to take higher advantage in terms of productivity from high speed technology utilisation. As expected, the percentage of traditional high speed trains usage show to be a determinant factor contributing to significant variations on productivity growth.

With the objective of obtaining a general measure of the adequate levels of high speed technology usage contributing to the best practice in terms of productivity growth, one has optimised the function, corresponding to the deterministic part of equation (6.13), in relation to the percentage of tilting train and of traditional high speed train variables, the remainder variables were assumed to be fixed at the last year firm sample values. The values obtained, for each firm in the sample, from this function optimisation are shown in table 6.8.

Table 6.8. Optimal level of high speed technology utilisation

	Optimal Levels		Last Year Sample Levels	
FIRMS	PHS (%)	PTT (%)	PHS (%)	PHS (%)
BR *	3.20958	3.79204	0.69181	-
CD	3.82275	4.46454	-	-
CFF	6.80003	7.88929	0.063052	-
CFL **	68.3681	77.6173	-	-
CH	4.96976	5.81758	-	-
CIE	1.70504	2.04626	-	-
CP/REFER	3.47447	4.09639	-	1.60256
DB AG	2.56413	3.0385	1.04974	0.927436
DSB *	5.35224	6.23332	-	-
EVR	5.35645	6.22579	-	-
FS	1.88551	2.26763	0.585594	0.761273
MAV	2.84718	3.35125	-	-
NS (B.V./N.V.) *	8.59317	9.96421	0.192308	-
NSB *	2.0264	2.40424	-	-
OBB	4.29348	5.01009	-	-
PKP	1.97513	2.35486	-	-
RENFE	2.25914	2.69625	1.39697	1.97905
SJBV	1.52184	1.8194	-	4.16667
SNCB	7.61268	8.82257	0.678593	-
SNCF/RFF	2.60456	3.08133	4.92355	-
SZ	9.15385	10.5575	-	-
TCDD	2.81201	3.35369	-	-
VR/RHK	2.36415	2.78825	-	0.269542
ZSR	4.61093	5.37381	-	-
MEAN	3.57766	4.20097	1.197702	1.617755

* The last year in the sample for BR, DSB, NS and NSB are respectively: 1994, 1996, 1998 and 1993

** Unreliable values: CFF is an outlier due to its small size

From this simple analysis it is possible conclude that the optimal levels of high speed utilisation are very dependents of the country localisation, population distribution and network size of the firms. As can be observed, from the table above, the optimal levels of high speed technology usage (percentage of high speed trains in total working trains), vary from 3.3% of SJ/BV to 19.7% of SZ with an average value of 7.8%. Comparing this optimal value with that of the last year of the sample period (2.8%), one can conclude that there is, for some firms, the possibility of increasing their productivity performances by extending or introducing high speed technologies. However, it should be stressed that there are two firms which show to overcome the optimal level, they are SNCF and SJ, in both cases they are firms which have opted by operating only one type of high speed technology, traditional high speed in the case of SNCF and tilting train in the case of SJ.

In which concerns to traditional high speed technology, optimal levels of high speed utilisation vary from 1.5% of SJ to 9.2% of SZ with an average value of 3.6%. SNCF seems to have drastically overcome its optimal level of high speed utilisation with values 1.9% above of our predicted optimum, the remainder firms appear to have great advantages in expanding their present levels of high speed lines, including DB and RENFE which having already a significant level of high speed operation, the number of this type of train in use can be increase more than an half.

In respect to tilting train technology, with the exception of SJ all firms appear to have conditions to increase their productivity from expanding or introducing this type of technology, however since the predicted optimal values were computed from regression (6.12) where the coefficients referred to tilting train technology variables show to be only statistically significant at 10% of probability level, any additional conclusion based in these coefficients should be take with caution.

6.5. Conclusions and results in the context of existing literature

The present chapter has analysed the impact of the high speed technology on demand and productivity. Before impact analysis, the demand function for freight and passenger were estimated by a seemingly unrelated linear regression model (SURE) using feasible generalised least squares (GLS) procedure. In next section, passenger and freight main elasticity results are summarized and compared with recent existing literature results.

6.5.1. Passenger and freight demand function results

Results from these equations show that own price elasticities of (-0.22) and (-0.29) for passenger and freight services respectively. These values are similar to those estimated in FitzRoy and Smith (1995,1998) but smaller than the long run rail fare elasticities surveyed in Goodwin (1992), Owen and Phillips (1987) and Oum et al. (1992). The price elasticity of alternative transport mode (proxied by oil prices) appears to be quite low (0.162 for passenger demand ad 0.07 for freight demand), especially the freight elasticity in comparison with that reported in FitzRoy and Smith (1995), however, since we have incorporated additional variables in the demand equation accounting for alternative transport mode supply (variables AIRCDEP and VEHICCA) and the country's main commercial goods transactions, it is possible that these variables capture some effects which would be captured by oil price if they were omitted. Thus, even small these estimates appear to be plausible.

The estimated elasticity of the income attribute, GDP per capita, has the value of 0.68 and (-0.50) respectively for passenger and freight demand. The elasticity of passenger demand in respect to income confirms the well known observation that trips by rail rise as economies grow but at a slower rate than the national income; this value is also specially close to the mean elasticity income value reported by FitzRoy and Smith (1995, 1998), but lower than those reported in Owen and Phillips (1987) with recommended values around 0.9. Regarding to freight transport demand, the negative value is justified by the fact of our sample included Eastern European countries with significantly higher shares in freight services than Western countries with higher national incomes; in contrast the positive values reported in FitzRoy and Smith (1995) estimated from a cross-section data exclusively based in Western countries.

In which concerns to elasticities related to the service quality offered by the railways, the specific quality of service index shows an elasticity value of 0.30 and 0.15 respectively for passenger and freight demand. The higher elasticity value of passenger demand confirms the intuitive evidence that travel time savings is a more important factor for passengers than for the traffic of goods. The elasticity of traffic density show values of 0.53 and 0.71 respectively for passenger and freight demand, values very close to those found in FitzRoy and Smith (1995, 1998). Additionally, this range of elasticities confirms the value of the aggregated quality of service elasticity of 0.9

suggested by Wardman (1994). Network length elasticity reveals values of 0.29 and 0.57, respectively for passenger and freight demand, values which confirms the excess of infrastructure capacity shown in cost function analysis and conversely it also indicates increasing returns to density.

Demand elasticities related to social and geographical factors, such as population country distribution, show opposite effects on freight and passenger demand. The positive elasticity value of country population per network length (0.35) and the negative value of the percentage of urban population elasticity of (-0.81) highlights that passenger railway transport is especially attractive to a non-urban population and, consequently, more competitive in middle and long distance trips. Whereas, on the freight demand, the negative elasticity (-0.56) of the country population per network length elasticity and the positive elasticity of the major city agglomeration (0.06) and population density (0.1) indicate that, due to the door-to-door characteristic of road transport, freight railway transport is only competitive for freight transportation among major city agglomerations.

Finally, the time trend variable coefficient on passenger (-0.015) and freight (0.016) demand confirms the well-known trend verified in last decades of natural passenger rail transport mode share decline and that freight transport has natural conditions to grow.

6.5.2. Impact of high speed technology on demand and costs

In global terms, from the analysis of the frontier variable cost function in relation to high speed technology, two main conclusions can be made. First, the introduction of conventional high speed technology does not produce significant alteration on the operational cost structure, additionally, when using conventional high speed technology operational costs could be reduced by 0.04% in each 1% increment on usage of this technology instead of similar increment in traditional technology. Second the introduction of tilting train technology in operation allows for reduction in operational costs around 17%, whereas increments of traffic density of tilting trains technology show do not produce significant alterations operational costs.

The analysis of the demand function allows us to conclude that the introduction of the tilting train technology in the network produces an effect on passenger demand of 6.4%

lower than if the investment was used in the traditional technology. The introduction of conventional high speed technology in the railway network instead of similar investments on traditional technology appears to produce a marginal gain on passenger railway demand of 7.5%. In both cases, increase of high speed technology density show do not produce significant alteration on demand than those obtained from usual traffic density increases.

Overall, from this conclusion summary it can be said that if investments on medium and long distance are to be implemented, tilting train and conventional high speed technology can be considered as two good options, the first having a short run perspective and focused in specific network branches, and the second aiming a long run perspective associated with a restructure of network.

6.5.3. Impact of high speed technology on productivity growth

From the re-evaluation of productivity growth and returns to scale taking into account the variations of the output characteristic attributes such as the network length, technological high speed variables and the quality of service, it is possible to conclude that the firm's rankings of productivity growth are identical to those of previous chapter, however, almost all firms show lower levels of productivity and higher levels of returns to scale. Thus, the mean value found for PGY is of 2.89% and 1.73% respectively for outputs measured as output-revenue and output-available. In which concerns to PGX, the mean sample value observed is of 1.4%.

Returns to scale evaluated using full cost elasticity estimates suggests that firms face increasing returns to scale and that standard methodology, similar to that used in chapter 5, underestimates returns to scale measure.

To evaluate the impact of high speed technology, the increments of productivity growth (**F**PGY), covering all observations in the sample, originated by high speed technology were calculated from the difference between the "real" estimated values of PGY of and the values of PGY predicted for the hypothesis of non existence of high speed technology. The first conclusion to retain from increment results is that the contribution of high speed technology to productivity improvements is especially relevant if output is measured as output revenue, in other words, the higher levels of productivity originated by high speed technology comes essentially from the increments on passenger demand which this technology proportionate, with increments of this productivity growth originated from the utilisation of high speed technology showing a mean value of 1.8%

Comparison of the mean value of productivity growth for firms which have opted for high speed technology with the predict value as if there was no high speed trains, it is observed that high speed technology allowed for a 92% average increase in productivity growth.

From the results of (**F**PGY) obtained and using variables related to high speed utilisation levels, network characteristic and country characteristic potentially explaining **F**PGY differences, a Tobit model was used to regress the dependent variable (**F**PGY) and these explanatory variables. Regression results confirm that GDP per capita, network size and percentage of lines electrified are of crucial importance on option decisions for high speed technology, and that the percentage of traditional high speed trains usage show to be a determinant factor contributing to significant variations on productivity growth.

Optimisation of the determinist part of this regressed function in relation to the percentage of tilting train and to the percentage of traditional high speed train variables allowed concluding that that the optimal levels of high speed utilisation are very dependents of the country localisation, population distribution and network size of the firms.

Overall, the mean optimal levels of high speed technology utilisation appear to be in 3.5% and 4.2% of the total working trains, respectively for traditional high speed trains and titling trains. Additionally, it can be observed that there two firms that probably have exceeded they optimal levels of high speed technology usage, they are SNCF and SJ, firms which have opted for running exclusively one type of high speed technology, SNCF operating in high speed lines and SJ by running tilting trains. In summary, one can say that European railway firms appear to be able to increase their productivity by running high speed technology since almost of them are far from their optimal level of high speed utilisation.

CHAPTER 7

CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

The purpose of this research was to analyse the economic development of the European railway system in its distinct components incorporating an analysis of the cost-structure of the whole system and its periphery performances such as firm efficiencies and technological progress, as well as an analysis of the aggregate rail transport demand function. Besides political intervention on the organisational structure of the railway industry, such as vertical separation of infrastructure and operation services, reforms on system regulation by introducing internal competition and reducing subsidies with the aim to increase contestability, the railway industry has been trying to recover their market share through investment in new technologies. The most favoured has been the implementation of a high speed train system, either by building new high speed lines or through investments in tilting train technology which avoid strong infrastructure interventions. Thus, in this thesis, besides the productivity analyses referred to above, the impact of these technologies on the cost structure of the railway industry and on the demand response were also investigated.

7.1 Conclusions

7.1.1 Developed research

To analyse the cost structure of the railway industry, the stochastic frontier cost function obtained for a panel of twenty-seven European railways considered for the sample period between 1972 and 1999 was estimated. Following a frontier perspective, technical and allocative inefficiencies were considered as positive deviations from a minimum cost function whose placement is determined by some best practices in the sample. The latter may also be assumed to be influenced by exogenous factors affecting firms' performance.

The minimal cost component has been modelled by a translog cost system and the likelihood function has been specified by taking into account the three possible sources of deviation from the frontier and three alternative possible relationships between the error term in the cost share equations and the cost of allocative inefficiency in the cost equation. The separation of inefficiencies from pure noise has been obtained by means of two different sets of assumptions. Firstly, allocative inefficiency has been explicitly modelled outside the error term of cost function and estimated according the established alternative relation function of the shares' residuals. Secondly, the cost of technical inefficiency has been assumed to follow a positive half-normal distribution.

The variable translog cost function used to model the deterministic part of the stochastic frontier was composed beyond the usual input prices variables, the quasi-fixed capital stock variable and the time trend variable by other variables with particular combination forms that should be stressed.

The first point to be referred to is related to the adjustments made in traditional translog form. Given that some terms on the translog form have shown to be highly correlated, all the second order variable terms in the cost function with high correlation with other terms in cost function were dropped from equation to avoid multicollinearity problems. To avoid the exclusion of the quadratic term of capital stock due to this procedure, a quadratic term of quasi-fixed capital stock factor divide by network length was included instead. Quasi-fixed capital service flow (measured through a proxy to the utilised capital input) in place of the usual capital stock level was included in the variable cost function to avoid incorrect concavity curvature of cost function in relation to capital stock provoked by excess capital stock capacity.

Recognising that improving quality absorbs increased inputs, and that the output produced is not homogeneous with what was produced before, a quality variable based on the characteristics of network and flow service was explicitly introduced into the analysis besides dummy variables accounting for the existence of high speed and titling train technology. These latter variables allowed for the quantifying of the effect of high speed technology operation on the variable cost.

Finally, to account for the effects of the phenomenon beyond managerial control of firms, but with preponderant influence on the firm's performances, variables such as population density, major urban concentration, terrain and weather country characteristics were also introduced, which allowed for the capturing of these effects and separating them from inefficiencies.

The maximum likelihood estimates of the cost frontier model parameters allowed the measures of the percentage increase in costs due to technical and allocative inefficiency, of the economies of scale and density and of the productivity growth to be obtained for firms which constitute the sample. The estimated elasticities of the quality of service factor allowed the potential cost effect measure of an improvement on railway service to be calculated.

To understand the effect of high speed on the demand, a lo-linear demand function was estimated. For estimation of this demand function a system of freight and passenger demand function was formulated. Beyond the standard price and income variables, additional quality indicators were introduced, which allowed for the estimate of quality adjusted demand for each country on a comparable basis. To capture the high speed effects, the same high speed dummy variables used in cost function were introduced in the demand function.

Finally, the increments of productivity growth (FPGY) originated by high speed technology were calculated from the difference between the "real" estimated values of PGY and the values of PGY predicted for the hypothesis of non existence of high speed technology. Using the FPGY results and variables related to high speed utilisation levels, network characteristic and country characteristic potentially explaining FPGY differences, a Tobit model was used to model the relationship between the dependent variable (FPGY) and these explanatory variables. Optimisation of the determinist part of this function in relation to the percentage of tilting train and to the percentage of traditional high speed train variables allowed for investigating which levels of high speed technology utilisation contribute to the best performances in terms of productivity growth.

7.1.2 Research contributions

In the last decades researchers have given a substantial contribution towards a better knowledge of the railway industry through extensive productivity analysis, making use of the development of stochastic frontier approaches allowing for measurement of allocative and technical inefficiency. In this study, using similar methodology, one has developed, beyond to the usual method suggested by Bauer (1990) on the Schmidt and Sickles (1984) formulation of allocative inefficiency (here labelled model I), two additional alternative approaches for modelling allocative inefficiency.

In the first alternative model was assumed that the error term in input cost share equation was composed by a functionally dependent error term (linearly dependent function of the input prices, of the time trend variable and of the firm specific effect variables) and a homoskedastic error noise term. The second alternative model was based in the assumption that the error term is exclusively related with allocative inefficiency and thus, the system was modelled according to the exact relationship between the error term of the input cost share equations and the cost of allocative inefficiency in cost function equation, theoretically developed by Kumbhakar (1997). These two news ways of modelling allocative inefficiency cost showed to give quite similar results as those of the traditional formulation (followed in the model I). Confirming the expectations, our model formulation (model II) produced results quite balanced between the model I and that theoretically proposed by Kumbhakar (1997), here labelled as model III.

Besides these methodological aspects, our contribution to research was substantially concentrated in data treatment and variables characterisation. Thus, looking for a consistent characterisation of cost and demand function we have introduced, in the approaches, new variables with the objective of capturing the effects conditioning firm production but which are beyond firms' control. Thereby, proxy variables to external environment conditions such weather, terrain elevation and country population were included in cost and demand function. Furthermore, refusing the usual assumption that the time trend variable captures the effects of both disembodied and embodied technical change, technological variables were explicitly introduced in cost and demand function to capture the embodied technological progress effect. These variables were: high speed technology dummy variables and a quality of service variable index which accounts for differences in the quality of capital stock and in the frequency of the service supplied.

Additionally to the inclusion of the variables referred to above, data treatment has been a particularly important aspect taken into account in this study. A significant effort was made to use data sample covering a number of firms and period as large as possible. Since our main data set source (UIC data) suffered, in the sample period, two significant changes on the way as the information reported in UIC data is aggregated and classified, this implied to complement, with recourse to other data sources, and to recalculate, through estimation process, the measurement of some variables.

Moreover, because the majority of railway firms only depreciate at historic cost in their accounts, with age and assumed lives of assets varying significantly among country firms, independent measures of productive capital stock and correspondent depreciation rates from implicit investments reported in UIC publications were calculated. This calculation was based in the alternative method of applying the perpetual inventory method (PIM), proposed in OECD-Statistics (March-2001) and OECD-Statistics (2001). Thus, it is believed that this recalculation of productive capital stock reflects more accurately and with higher homogeneity among firms the decline in productive efficiency according to the asset ages.

Undoubtedly, high speed technology to be implemented involves a considerable amount of investments in building new infrastructures or/and in new rolling stocks. As a result the utilisation of this type of technologies assumes crucial relevance on firm production process. Therefore, the quantitative analysis of the effects of high speed technology utilisation on costs, on rail transport demand and consequently on productivity growth turned out to be, in substantive terms, the main focus of our research. Furthermore, this analysis allowed having an accurate knowledge of the adequate utilisation levels of these technologies and their repercussions on the productive firms' performance.

7.1.3 Limitations of the research

For the present research special attention was given to data treatment and variables characterisation; however, despite this fact being one of the main points which contributed for improvement of the quality of our study results, it was also one of the greatest limitations of our research.

Compiling a reliable and consistent data, covering the entire sample period and countries, was certainly a difficult task we have faced in this study. A significant number of firms showed to have introduced changes in their financial account procedures as well as some re-evaluations in the period, which implied in terms of productive capital stock re-evaluation to impose artificial breaks in our measurement of prices and productive capital stock. Another point related to capital stock measurement variable was the lack of precise information on rolling stock utilisation, which would have been useful in the construction of a more accurate measure of the flows of productive quasi-fixed capital stock variable. Besides this, another aspect related to capital stock measurement, which certainly caused some bias in former year firm results, was the lack of a general firm's re-evaluation of capital stock for the first year of data set, which would have allowed a more precise re-evaluation of the entire sample capital stock measurement.

Another important aspect related to the measurement of the variables was the difficulty which we have faced in finding adequate measures of the service quality variables. Quality of service in transport railway services covers undoubtedly a significant variety of distinct services. Thus, for example we can distinguish between the quality of service in terms of customer's point of view and in terms of operator's point of view. Quality of service from customer's point of view includes aspects such as the comfort and cleanliness of rolling stock, the station facilities and the quality of station and train staff; from the operator's point of view we can mention factors such as unpunctuality and unreliability/cancellations. Once we did not have reliable information on these factors, we have concentrated our attention in alternative operational factors which substantially contribute to improve the quality of service supplied: the velocity and frequency of service.

In which concerns to the frequency of the service we did not have especial difficulty in finding adequate measures, however, as regards to velocity specification there was some attempts which have failed. Having access to timetables and journeys would have been an extremely difficult task due to the high number of firms involved and the long period of study; so, our approach of creating a proxy variable to potential service velocity, based in available compilations of firms' tractive stock capacities, revealed to be a reasonable solution to this problem.

As regarding to the measurement of high speed technology utilisation we have found similar limitations to those describe for velocity of service quantification. Data containing information on timetables and journeys or network usage of high speed trains was not available, once again our approach of using the percentage of "in working" high speed trains seemed to be a reasonable approach.

Finally, our research was deliberately focused on the internal firm operation aspects, so, European railway policies were not a primordial matter of the study. One of the factors which most have contributed to this focus research limitation was, once again, the limited information data. Collected data was in terms of policy regimes and organizational structure rather homogeneous to allow accurate transport policy conclusions; in other words, firstly, all firms in the sample were, at the time, public government ownership or faced a heavy government control, and moreover, indicators of firm autonomy management were not available for almost of firms and time period; secondly, practically all firms in the sample were monopolies or suffer only slight internal competition in the railway transport system; finally, all firms in the sample operate both freight and passenger services which makes difficult the analysis of scope economies and consequently a precise evaluation of research policy implications.

7.1.4 Main research results

Analysis of the inefficiency results show that allocative inefficiency has a higher contribute towards the increase of variable costs than technical inefficiency. Even with some variation among models it can be said that allocative inefficiency is responsible for around 16% of variable cost increase, while technical inefficiency accounts for only an increase around 4%. This finding differs particularly of previous European railway study results, specially those obtained in Parisio (1999), which found technical inefficiency costs higher than allocative inefficiency costs.

Firms with higher levels of technical inefficiency are those of a larger size and from developed countries such as SNCF, FS, DB and BR. There is no evidence that vertical separation reforms had, for large firms, any impact on allocative inefficiency performance, the ranking of restructured firms in relation to the old ones diverges from model to model, which made it difficult to reach any conclusion about this reform effect.

Firms with the best performance in allocative efficiency are those of a reduced size and from developed countries such CFL, VR/RHK, NSB and SJ/BV. If outputs are measured only by taking into account the train-kilometres supplied, firms such as NS(BV/NV), CP/REFER emerge in the group of the most efficient. In this case, it appears that vertical separation reforms had improved the performance of small firms such as VR, NS, SJ and CP, mainly with respect to internal management improvement, which is better inferred if demand is not accounted (inefficiency arisen from the public policies, such as public subsidy and/or government regulatory control, is better accounted for if outputs are measured by passenger (tonne)-kilometres indicating the level of output consumed by users).

With regarding to technical inefficiency measurement, due to the variability of results observed among models and due to the low values found, there is difficulty in expressing a conclusive analysis of results. Firms in the group of those which better perform in all models are: VR, which performs quite well in the two alternative sets of output considered; BR, CD and MAV when revenue output is measured; and ÖBB, EVR and ZSR when output is measured by train-kilometres. In the group with worst results in terms of technical inefficiency are SJ/BV (for both alternative sets of outputs), NS(BV/NV), SNCF/RFF and TCDD from the analysis with revenue output measure, and DB, SZ and VR/RHK if the output is measured by train-kilometres supplied. An important remark to be made is the fact that, in opposition of what was referred to in allocative inefficiency, firms which have introduced vertical separation reforms perform worse after these reforms have been made, the peculiar example of this situation is the firm VR which before separation reform was the most efficient in the sample and, after reforms had been made, became a part of the group with the worst results in terms of technical inefficiency.

Overall, our results show in global terms that firms such as NS, CFF and SJ are quite cost efficient, and that ,considering only firms of higher size, SNCF followed by RENFE are the most efficient, which confirms general previous study results. Firms such TCDD and FS, which in previous studies showed to be inefficient are confirmed by our results as quite cost inefficient, however, CH and OBB, which were found to be inefficient in previous studies, in our case show reasonable score in terms of cost efficiencies.

Analyses of scale economies confirmed previous papers indicating a slight increase of returns to scale and evidence of an increase in return to density. The most unexpected evidence of this analysis are the large firms such as DBAG, SNCF, FS and BR showing values higher than one, which reveals, even slightly, returns to scale. However, it must be said that the values of return to scale for these firms, estimated using train-kilometres as outputs, shows constant returns to scale. Thus, in a certain way these results do not reject the “revisionists” point of view that the industry exhibits constant return to scale, it is contestable and therefore, size does not matter except to the extent that it is related to inefficiencies, here confirmed by the fact that allocative inefficiency values appear to be highly related to firm size.

However, significant different conclusions are made if in the returns to scale estimation one relaxes the hypothesis that output characteristics such the quality of service, the network length and high speed technology variables held fixed, which seems to be a more reliable hypothesis since usually output increases are associated with output characteristic improvements, particularly if output is measured as revenue output. Thus, in this case, all firms that compose the sample show increasing returns to scale and, unlike the former conclusions, it is the traditional point of view that railway industry is a natural monopoly which prevails. Similar results to those found in this study are Borger (1991), Borger (1992), Filippini and Maggi (1993) and Andrikopoulos and Loizides (1998) who also found slight increases of returns to scale for European railways. Finally, it should be stressed that since in our work we have used the concept of long-run returns to scale, by using optimum level of fixed capital stock instead of actual levels, higher values of returns to scale than those of existing literature considering short-run returns to scale concept were expected.

Additional new findings encountered in this research are related to the influence of the external effects on the structure of cost face by firms. Variables such as terrain topography, weather and population density were found to have, as expected, a significant impact on variable costs. Despite the low value of the elasticities of terrain and weather variables, they show to be statically significant. As expected, population density has a much higher value when output is measured by output demand response (with model elasticities around 0.35) than when output is measured by train-kilometres (with elasticities around 0.1). For the variable which takes into account the effect of major urban concentration a clear effect on costs was not found, with its elasticities having a negative value if revenue output is used and a positive if train-kilometres are used instead.

The variable quality of service introduced to capture the effect on variable costs of improvements on railway service appears to have an unexpected decreasing effect on costs. This effect is only significant for estimates from models applied with revenue output that incorporate the demand response. Thus, it seems that the quality of service, as used in this study, has as primordial effect an increase on demand besides the natural effect on costs; since the quality of service is, in a certain way, embodied in capital stock (with first order elasticities terms positive provoked by excess capacity) and in revenue output (with positive elasticities), the beneficial effect on cost showing in this results turns out to be an acceptable and plausible result.

The principal objective of the high speed technology dummy variables introduced in the cost function was to capture of similar effects to those described above for the quality of service. Thus, the main aim for introducing a high speed technology dummy variable into cost function was to capture the specific and additional impact of the investments in high speed technology besides the effect of which any new capital stock investment produces on costs.

The results show that the option for high speed and/or tilting train technology has distinct effects on costs. The introduction of high speed in the network seems not to have produced a significant effect on operational costs since the elasticity of this variable shows not to be statistically significant in any of the models developed. However, the dummy variable which accounts for the increment of high speed usage reveals to be statistically significant at the 1% probability level in almost all models, additionally, its coefficient, in the models in which it showed to be significant, has a value of around -.04. This means that producing a 1 % increase on high speed trains usage, holding network length and capital stock constant, allows for a decrease on cost of 0.04%.

Tilting train technology shows to have precisely the contrary effect. The option for tilting train technology seems to have a very strong effect on costs, with the correspondent dummy variable parameter showing in all models to be statistically significant at the 1% probability level and assuming values which vary between -0.12 and -0.23. However, when analysing the elasticity associated with an increment of tilting train usage, in almost all of the models, parameters show not to be statistically significant, and in the cases where they showed to have statistically significant levels the obtained parameters were positive with values of around 0.025. This means that for a 1% increase on tilting trains, instead of doing it in current technology, there is an increase on cost of 0.025%.

Estimated demand functions show to have parameters that almost all are statistically significant at the 1% probability level. The elasticities of all the variables used in the model show values lower than 1.0.

For passenger demand, the variables which contribute most to variation of demand are: the percentage of country urban population (with an elasticity of -0.81), the GDP per capita (with an elasticity of 0.68) the train frequency (with an elasticity of 0.53) and the population per network length (with an elasticity of 0.345). The income elasticity value is specially close to the mean elasticity income value reported by FitzRoy and Smith (1995, 1998), but lower than those reported in Owen and Phillips (1987).

The network length shows an elasticity of -0.70 if demand is expressed in passenger-kilometres per network length and an elasticity of 0.30 if demand is expressed in passenger-kilometres, thus, expanding network seems to have little impact on demand. Overall, these results confirm that railways are especially competitive in middle and long distance and also that, trips by rail rise as economies grow but at a slower rate than national income and mobility.

Own price elasticity and substitute price elasticities show to have similar values, of around 0.20. These values are quite coincident with those estimated in FitzRoy and Smith (1995,1998), but they are much more inelastic than those surveyed in Goodwin (1992), which cites an overall average long run rail fare elasticity of -0.80.

For freight demand, the variables which more contribute to variation of demand are: the train frequency (with an elasticity of 0.71), the population per network length (with an elasticity of -0.56), the GDP per capita (with an elasticity of -0.50) and the oil country demand (with an elasticity of 0.37) and the own price (with an elasticity of -0.29). Due to the difficulty in finding adequate and disaggregated output measurement, which allow for comparison of demand response among transport modes, any conclusion which could be done about substitutes price elasticity become misleading. The network length show an elasticity of -0.43 if demand is expressed in tonne-kilometres per network length and an elasticity of 0.57 if demand is expressed in tonne-kilometres, thus, expanding network seems to have little impact on freight rail demand but higher than on passenger rail demand.

Results of passenger demand functions gave additional information about the impact of high speed technology on the development of railways. The most relevant finding about the impact of high speed technology on passenger railway demand is that increments on high speed train traffic density show to have little influence on passenger railway demand.

First order dummy variables, which capture the effect on passenger demand of introducing high speed technologies, show to be only statistically significant at the 5% probability level for tilting train technology, and to be statistically significant at the 1% probability level for conventional high speed technology. From the analysis of the respective parameter values results that the introduction of tilting train technology in the network produces an effect on passenger demand 6.4% lower than if the investment was used in traditional technology, and that the introduction of conventional high speed technology into railway network, instead of doing similar investments on traditional technology, produces a marginal gain of passenger railway demand of 7.5%.

The main global conclusion to obtain from this analysis is that the introduction of conventional high speed technology has little impact on operational costs, the principal gain on operational costs due to this technology usage comes from increments on traffic density of high speed trains; demand response to this technology shows to be a market concentrated response, with little gains coming from increments on high speed train operation. Thus, it can be said that high speed technology are quite competitive in capturing long distance market, however, increasing passenger demand by expanding network beyond this specific market localisation or by increasing high speed traffic density shows to be an unsuccessful task; thus, the advantage of operational increment of high speed is that this increment allows for reduction in operational costs but there is no marginal demand increase from this increment.

The main conclusion which can be done about the impact on railway transport of the usage of tilting train technology is that, despite this technology produces no impact on the demand for railway transport, the option for introducing this technology allows for a substantial gain of operational costs; however this gain loses importance by increasing the usage of this technology.

Productivity growth, here measured through technological progress definition, is found to reveal values between 0.01 and 0.02 for PGX, which is the rate at which all input can be decreased over time with outputs held fixed. Models with output given by train-kilometres yielded more homogenous productivity growth among firms than outputs defined by revenue output measures. In relation to firm's performance, the firms from Western countries, together with TDCC, are those with lower performances, and in respect to the best performances, despite the variability of model ranking results especially those from model III, CFL, NS, SJ and NSB appear to have the best performances for all models, but CFF, DB, CH, CP and VR are also, for some models, in the group of the best performances. The firms that suffer vertical separation reform processes appear to have declined their productivity rates.

Productivity growth (PGY) measured as the rate at which all outputs, as well as the output characteristics, can grow over time with inputs held fixed shows a level of productivity at the sample mean of 2.9%, with output defined as the revenue output, and of 1.7%, with the output measure by train-kilometres. In relation to firm's performance, as well as it was observed for PGX, the firms from Western countries, together with

TDCC, were those with lower performances, the firms with the best performances of PGY were CFF, CFL, DB, NS, SJ and SNCF. The firms that suffer vertical separation reforms, as well as it was verified for PGX, appear to have declined their productivity rates.

Comparison among our results of technical progress (PGX and/or PGY) and those from other authors is a very difficult task since beyond definition differences there are additional differences which come from distinct methodologies and models employed. European railway studies such as Perelman (1986) and Andrikopoulos and Loizides (1998), despite of using distinct techniques, their productivity growth results are of identical magnitudes of those found in present study. Sánchez and Villarroya (2000), employing similar methodology (stochastic cost frontier approach) and data set , despite the proximity of the magnitude between their mean values and our values of technological progress, there is a substantial difference in the firm productivity ranking results, however, it should be stressed that their study is focused in total cost instead of variable costs .

From the analysis of the impact of high speed technology in productivity growth, one can conclude that in average the utilisation of high speed technology allow the productivity to have an increment of 1.8%, which corresponds to have, in average, 92% higher levels of productivity growth. SNCF and SNCB are those in which high speed technology had higher impact, with 4.3% of increments in their productivity resultant of this technology usage, meaning that productivity was more than 200% higher than those which would be obtained if high speed technology was not introduced.

The mean optimal levels of high speed technology utilisation appear to be in 3.5% and 4.2% of the total working trains, respectively for traditional high speed trains and titling trains. However these values vary substantially from firm to firm depending on geographic and population characteristics of the country in which they operate, with, for example, CIE allowing for a potential proportion of traditional high speed trains of around 1.7% and SNCB for a proportion of around 7.6%. From the analysis of these calculated optimal levels, it can be observed that there are two firms that probably have exceeded they optimal levels of high speed technology usage, they are SNCF and SJ, which have opted for running exclusively one type of high speed technology, SNCF operating in high speed lines and SJ by running tilting trains.

Overall, one can say that European railway firms appear to be able to increase their productivity by running high speed technology since almost of them are far from their optimal level of high speed utilisation.

In which concerns to European railway policy analysis, as referred to above, due to the lack of relevant data information required to an accurate research on policy decisions, there is few conclusions which can be taken, however, there are some global points that can be stressed in this field. For instance, from a global analysis of efficiency firms' performance results it can be said that firms of larger size, such FS, BR, DB and SNCF, are those which have faced the higher increase in costs due to inefficiencies originated by excess of staff and capital stock capacity. This could suggest that an hypothetical reform of these systems directed towards establishing a system based in the private and contestable market policies would allow firms, away of a restrict government control, to implement significant reduction in the excessive staff and/or to abandon unprofitable lines, and consequently improve their performance in cost efficiency terms.

However, if we concentrate our attention on returns to scale results, it can be said, in contrast, that European railway industry is characterised by increase returns to scale, which means that, in size terms, there is a trend to take advantages in a monopolist railway transport system. Moreover, looking at the productivity growth results, it can be said that firms which show to have experimented higher increase of technological progress are those which more have invested in high speed technology, mainly SNCF, DB, NS and SJ. Thereby, it can be said that technological progress, especially that related to high speed technology, requires by nature a significant sum of investments, which consequently imply sunk cost only recovered in long-run terms. So, it would be extremely difficult to smaller private firms, facing aggressive internal competition and having to be profitable, to implement this type of technology without government funds. Therefore, from the analysis of returns to scale and productivity growth, in contrast with concluded from efficiency cost analysis, it seems that a public transport railway monopolist system, regulated and supported by governmental authorities, is the system which best performs in terms of productivity growth.

Overall, from what have been said, it appears that these ambivalent conclusions about transport railway policies, in certain way, supports the decisions which have been taken by some European countries in separating infrastructure from operational services, with infrastructures management, by nature requiring significant amount of investment, remaining controlled and supported by public institutional authorities and the operation train services operating in a more constable market.

7.2 Directions for further research

There are a substantial number of possible further avenues of research that could be made following the subject developed in this thesis. Some of these possible new contributions can be implemented through the improvement of econometric methodology, mainly in which respect to the theoretical formulation of the relationship between errors terms on cost shares equations and the allocative and technical cost efficiency, more empirical results are need to clarify the ample problem of considering or not heteroskedastic structures for the input cost share errors. Additionally, it would be of great interest to develop simultaneous estimation of cost, input cost shares and demand functions which would allow for more efficient estimates.

However the majority of researchers have given special attention to the methodology employed in cost structure analysis, there are equally important aspects to be developed besides methodological aspects, which are, essentially, those related with data reliability and specification. For the present research special attention was given to data treatment and variables characterisation; however there is still a long way to go. Reliable data on quality of service characterisation and on external factor variables, which have shown to have an important role on cost function analysis, are a good example of what can be done in this field in the near future.

There is still very important research to be done related to economies of scope and effectively this is a matter of extreme importance on railway policy implications. If cost functions analysis is of primordial importance for a better knowledge of productivity of railway industry, there can be a fundamental tool, if conveniently used, for subadditive tests and scope economies predictions. This field is essential for reliable studies involving political restructure such as decisions related to market contestability or/and specialised production through firms and/or infrastructures one-output oriented.

In the last decades researchers have given a substantial contribution towards a better knowledge of the railway industry through extensive productivity analysis, however it seems clear that, even with all the reforms process that have been done on this industry, the principal problem remains: railways continue to lose their market position to other modes. Thus, if decision makers do not have a real knowledge of the costumer's behaviour and requirements, there is not much that can be done to invert this phenomenon. High speed technology which allows substantial gains on travel time have been the principal barrier to the collapse of railways; however, there is much more work to do in relation to demand. A stratification of railway services according to the desires and needs of customers is only possible if there is a precise knowledge of demand reaction. The majority of research has been concentrated on micro demand studies, but what is required to rebuild a stimulated and reliable alternative transport mode are suitable studies based on the macro demand behaviour capable of detecting the factors that could contribute to attract new users. In this research, usual and obvious indicators that could characterise demand response have been the focus, but if the aim is to re-launch the railway transport mode there is much more to be done in this field through investigation using more precise and sophisticated indicators explaining and detecting the real transport demand needs.

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Universidade do Porto
Faculdade de Engenharia
Departamento de Engenharia Civil

APPENDIX

The Impact of High Speed Technology on Demand and Productivity in European Railways: an econometric analysis

António José Fidalgo do Couto

Supervisor:

Prof. Arnaldo Humberto Pereira de Sousa Melo

Co-Supervisors:

Dr Daniel J. Graham
Prof. Andrés Lopez Pita

A Doctor's Thesis for the award of Doctor of Philosophy of the Faculty of Engineering of the Porto University

APPENDIX A – Data Sets Used in Applications

The following tables list the variables and auxiliary indicators in the data sets used in the application models. The data sets themselves are on the CD that is included at the back of the book dissertation. For each data set, the generic file name and respective tables appear as listed below. The disk includes each data set in format pdf, and files from the original Limdep format were transformed in this format.

Tables A1 – UIC Data files

Tables A1.1 – UIC Data files of the period from 1972 to 1976:

A1.1.1 - List of Companies
A1.1.2 - Lines and Track – Length
A1.1.3 - Tractive Stock - Stock and Power
A1.1.4 - Tractive Stock - Available and Out of Service
A1.1.5 - Rolling Stock -Carriages, Vans, Buses and Trailers - Stock available and out of service
A1.1.6 - Rolling Stock - Wagons, Lorries and Trailers- Stock available and out of service
A1.1.7 - Average Staff Strength
A1.1.8 - Train-Kilometres
A1.1.9 - Train Gross Tonne-Kilometres Hauled
A1.1.10 – Rolling Stock-Kilometres
A1.1.11 - Passenger Traffic
A1.1.12 - Goods Traffic
A1.1.13 - Efficiency of Rolling Stock User
A1.1.14 - Railway Operating Revenue - Passenger and Baggage Traffic Revenue
A1.1.15 - Railway Operating Revenue - Goods Traffic and Postal Traffic Revenue
A1.1.16 - Operating Revenue
A1.1.17 - Operating Charges
A1.1.18 - Charges Per Nature and Results for the Period
A1.1.19 - Balance
A1.1.20 - Fuel - Motor Fuel - Electricity and Lubricants for Motor Vehicles
A1.1.21 - Operating Accidents

A1.1.22 - Terminal Operations and Combined Transport
A1.1.23 - Miscellaneous Averages Relating To Rolling Stock-Kilometres
A1.1.24 - Rolling Stock - Carriages, Vans, Buses and Trailers - Stock available and out of service (1972/1973)

Tables A1.2 – UIC Data files of the period from 1977 to 1984:

A1.2.1 - List of Companies
A1.2.2 - Lines and Track – Length
A1.2.3 - Tractive Stock - Stock and Power
A1.2.4 - Tractive Stock - Available and Out of Service
A1.2.5 - Rolling Stock -Carriages, Vans, Buses and Trailers - Stock available and out of service
A1.2.6 - Rolling Stock - Wagons, Lorries and Trailers- Stock available and out of service
A1.2.7 - Average Staff Strength
A1.2.8 - Train -Kilometres
A1.2.9 - Train Gross Tonne -Kilometres Hauled
A1.2.10 - Rolling Stock-Kilometres
A1.2.11 - Passenger Traffic
A1.2.12 - Freight Traffic
A1.2.13 - Efficiency of Rolling Stock User
A1.2.14 - Balance Sheet
A1.2.15 - Specific Costs and Receipts - Overall general operating and financial results (in thousands)
A1.2.16 - Operating Costs according to category or destination
A1.2.17 - Operating Revenue
A1.2.18 - Railway Operating Revenue - Passenger and Baggage Traffic Revenue
A1.2.19 - Railway Operating Revenue - Goods Traffic and Postal Traffic Revenue
A1.2.20 - Fuel - Motor Fuel - Electricity and Lubricants for Motor Vehicles
A1.2.21 - Operating Accidents

Tables A1.3 – UIC Data files of the period from 1985 to 1999:

A1.3.1 - List of Companies
A1.3.2 - Lines and Track – Length

A1.3.3 - Tractive Stock - Stock and Power
A1.3.4 - Passenger Transport Stock - Available and Out of Service
A1.3.5 - Freight Transport stock
A1.3.6 - Staff
A1.3.7 - Train -Kilometres
A1.3.8 - Gross hauled Tonne - Kilometres of train
A1.3.9 - Rolling Stock-Kilometres
A1.3.10 - Revenue Earning Passenger Traffic
A1.3.11 - Freight Traffic
A1.3.12 - Balance (1991-1999)
A1.3.13 - Balance (1985-1990)
A1.3.14 - Specific Costs and Revenue (1991-1999)
A1.3.15 - Specific Costs and Revenue - Operating and general results for the financial year (1985-1990)

Tables A2 – Variables Data Set File

The following tables contain variables figures used in the estimated models:

A2.1 - Staff and "Materials and Services Rendered by Third Parties" expenses

In this table Staff and "Materials and Services Rendered by Third Parties" expenses are deducted of the correspondent part of "Counterpart of charges allocated to other accounts"

A2.2.1- Staff Input Costs
A2.2.2 - Staff Input Prices
A2.3.1 - Materials and Energy Input Costs
A2.3.2 - Materials and Energy Input Prices
A.2.4.1 - Adjustments of UIC reported fixed assets

In this table adjustments of figures reported in Tables A1.1.19, A1.2.14, A1.3.12 and A1.3.13 are done so with the aim to obtain, as much as possible, compatible number of observations for the firm's capital stock at the beginning of each year.

The first step towards this adjustment was, for the post-1991 years, the aggregation of the net "Land and Building Fixed Assets" and net "Plant Fixed Assets" figures, through the sum of both terms, into net "Land, Buildings and Fixed Installations Fixed Assets" and to report net "Machinery, Equipment and Furniture Fixed Assets" as net "Other Equipment Fixed Assets"; in respect to the "Transport Stock Fixed Assets", there was no change in either denomination or in value.

Due to the fact that, after 1991, advance payments and fixed assets in construction have been reported along with the capital stock to conform to the previous values referent to

capital stock and those after 1991, the advance payments and fixed assets in construction were allocated to capital stock through a distribution of this value over the three items: Land, Buildings and Fixed Installations Fixed Assets", "Transport Stock Fixed Assets" and "Other Equipment Fixed Assets". This distribution was done according to the weight of each item in the global capital stock.
After this aggregation, and for the same period, a more complex task was to convert the reported net fixed asset values in purchase and construction fixed asset values. Due to the fact that, in this period, the reported depreciation figures were only available as total values, and not distributed by distinct fixed asset groups, the more complex task was to estimate which part of the total deprecation figure was associated to each group of fixed assets considered. Thus, for all previous figures on depreciations of capital stock reported for each type of fixed asset, the percentage of total depreciation year which was associated with each type of fixed asset was calculated. For the years after 1991, identical percentages were extrapolated for each asset, attending additionally that in, each year, the accumulated depreciation of each type asset should, discounting possible disposals, have superior figure of those extrapolated in the previous years. This principle was applied to all data after 1991, the considered figures for percentage depreciations and respective depreciation figures are shown in this table.

At the same time in which the transformations referred above have been made it was necessary to fill in some missing capital stock values through the use of information collected from other sources.
In Box 1, additional information techniques and calculation used to cover gaps or misleading capital stock figures in companies that revealed specific problematic data or missing values are displayed.

Box 1 - Notes and relevant facts in the capital stock value adjustment process	
Companies:	Notes:
BC	BC capital stock available data only since 1992. Two distinct group sets of BC data due to lack of 1995 data and the discrepancy between adjacent 1994 and 1996 values
BDZ	BDZ capital stock data available only since 1992. Other equipment included in Transport stock assets. Provable revaluation in 1995 and 1997.
BR	Capital stock revaluations: 1975, 1981. New accounting system since 1992. Changing in the beginning and ending dates of financial year:1984. Beginning period of company vertical separation (BR plus Railtrack): 1994. Since 1995, the exclusion of data due to misleading information and intensive period reform.

Companies:	Notes:
CD (before 1993 designated CSD)	Revaluation Years:1984 and 1993. Capital stock figures of 1989 estimated as an average of 1988 and 1999 figures. CSD capital stock data available only since 1982.
CFF/SBB/FFS	Revaluation Years:1977 New accounting system since 1983. Total amortisation value of 1993 was estimated from annual cost amount allocate to depreciations. Net capital stock values and depreciations of 1999 collected from SBB-CFF-FFS (2000)-annual report.
CFL	Due to discrepancies observed in the reported UIC Way & Structure capital stocks, data from 1993 up to 1999 was rebuilt based on CFL (1994 ,1996 and 1999)-annual reports. Since 1995, reported values have been according to new accounting system.
CFR	CFR capital stock data available only since 1992. Provable revaluation in 1994 and 1999.
CH	Since 1997 UIC data does not report on “Other Equipment Fixed Assets”.
CIE	Up to 1987, the values of net “Land, Buildings and Fixed Installations Fixed Assets” presumed to be those reported as “other fixed assets” in UIC data. In the same period total amortisation estimated as a percentage of reported “Amount for depreciation or renewal”. Changing in the beginning and ending dates of financial year:1974. Provable revaluation in 1979. After 1992 UIC data does not report “Other Equipment Fixed Assets”. Values of capital stock since 1997 are those relative to the Iarnód Èireann company, collected from the CIE-Group (1998-1999)-annual reports.
CP (since the 1997 reform, CP plus Refer)	After 1997, the CP firm was vertically separated into two distinct companies : - CP for railway operation - Refer to railway infrastructures.

Companies:	Notes:
DB AG (before 1994 DB)	From 1979 to 1986 DB used method "b" of UIC Leaflet 314 R, allocating renewal costs to the operating account. Between 1987 and 1990, UIC data does not report on "Other Equipment Fixed Assets", which were presumed to be included in "Transport Stock Fixed Assets". In the same period there is no reported data on net fixed assets, thus amortisation was estimated as a percentage of reported "Annual costs amount allocated to depreciation". Revaluation Years:1991. First phase of reform process of DB: 1991-1994. The year of 1994 is the beginning of financial year for DB AG (including ex- DB and DR). Depreciation figures of 1999 collected from DBAG (2000).
DSB (since 1997 separated into DSB and BS)	Changing in beginning and ending dates of the financial year:1978. From 1994 to 1996 capital stock data collected from DSB (1994-1996)-annual reports. Due to the lack of data and the separation reform of DSB into operation and infrastructures (DS) that caused difficulties in finding appropriate data for this period, the years after separation reform (from 1997) were excluded from data set.
FS	From 1977 to 1986 FS used method "b" of UIC Leaflet 314 R, allocating renewal costs to the operating account. From 1972 to 1986 UIC data only reports net value of capital stock, depreciation allocated to each type of capital stock was extrapolated from total depreciation value according assumed fixed percentage. Provable revaluation in 1986.
EVR	Available reported figures since 1992.
MAV	Available reported figures since 1991. Figures reported in UIC data as "Plant Fixed Assets" were redistributed over "Land, Buildings and Fixed Installations Fixed Assets" and "Transport Stock Fixed Assets, following procedure and definitions reported in MAV (2000)-annual report. Provable revaluation in 1993.
NS (since 1997 separated into NS B.V. and NS N.V.)	Figures of 1995 and 1996 relative to NS Groep NV plus Government-commissioned agencies. UIC data supplemented with figures reported in NS (1995-1996)-annual reports. Due to the lack of reliable data, the year 1999 was excluded from data set.

Companies:	Notes:
NSB	Up to 1991, NSB only reports “Land, Buildings and Fixed Installations Fixed Assets” and “Transport Stock Fixed Assets”. Revaluation Years:1991. After 1994, due to the reform process that culminated in the separation of NS into NSB BA, MTAB group and JBV companies, and due to the lacking of complete data for all these companies, this data period was excluded from data set.
OBB	Net capital stock for 1993 estimated as an average of adjacent years. From 1994 to 1998, a changing in the accounting system: Materials including “value adjustment and provisions for contingencies”. Depreciations of 1999 calculated from OBB (2000)-annual report.
PKP	Data before 1991 was excluded from data set. Between 1991 and 1994 “Other Equipment Fixed Assets” ere estimated, since in UIC data they were included in “Plant Fixed Assets”. Total amortisation values, for the period from1991 and 1995, were estimated based on reported “Annual costs amount allocated to depreciation”.
RENFE	Between 1972 and 1982, UIC data does not report on “Other Equipment Fixed Assets”, which were presumed to be included in “Transport Stock Fixed Assets”. Values of capital stock of 1974 and 1980 were estimated as an average of adjacent years. For the period between 1983 and 1985, UIC data does not report on any values of capital stocks. Provable revaluation of capital stock in 1991. Depreciation figures of 1999 collected from Renfe (2000)-annual report.
SJ (since 1989 reform, SJ plus BV)	Changing in the beginning and ending dates of the financial year:1985. Total amortisation of values for the period between 1991 and 1995 was estimated based on reported “Annual costs amount allocated to depreciation”. In the year 1989, the SJ railway company was vertically separated into the SJ-operation company and the BV-infrastructure company. Depreciation figures since 1996 are those reported in SJ (1997-1999)-annual reports. For the period between 1997 and 1999 capital stock data figures were interpolated based in previous year figures and figures of the year 2000 extracted from BV (2001)-annual report.

Companies:	Notes:
SNCB	From 1972 to 1981 UIC data only reports on net value of capital stock; depreciation allocated to each type of capital stock was extrapolated from total depreciation value according to a presumed fixed percentage. From 1977 to 1981 SNCB used method "b" of UIC Leaflet 314 R, allocating renewal costs to the operating account.
SNCF (since 1997 reform, SNCF plus RFF)	Revaluation Years:1978. In the year 1997, the SNCF railway company was vertically separated into the SNCF-railway operators and the RFF-infrastructure manager company. SNCF depreciation figures of 1998 and 1999 collected from SNCF (1999)-annual report. RFF depreciation figures of 1999 collected from RFF (2000)-annual report. RFF total amortisation values were estimated based in reported "Annual costs amount allocated to depreciation".
SZ	SZ capital stock data available only since 1992. Values of capital stock of 1995 were estimated as an average of adjacent years.
VR (since 1995 reform, VR plus RHK)	Since UIC data only reports annual depreciation, accumulated depreciations were calculated based on reported figures from 1973 to 1994. In the year 1995, the VR railway company was vertically separated into the VR-railway operators and the RHK-infrastructure manager company. Due to the lack of data for the year of 1990, and due to the reform implemented in the year of 1995 that cause a difficult interpretation of data, those years were excluded from data set. Due to a misunderstanding of the interpretation of the UIC data for the period between 1991 and 1994, and the year 1996, data was collected from VR (1992-1994,1996)-annual reports. RHK data for the year of 1996 collected from RHK (1996)-annual report. For the period from 1997 to 1999 data collected from RHK (1998-2000)-annual reports
ZSR	ZSR capital stock data available only since 1993.

A2.4.2 - Investment expenditures

In this table, the investment expenditures in capital stock and the capital stock value at the beginning of first year firm's data set that were used to estimate input capital stock cost and prices are reported. These reported figures were calculated according the techniques described in the main text. Investments in capital stock relative to transport equipment were aggregated through the sum of “Transport Stock Fixed Assets” and “Other Equipment Fixed Assets” investments; investments of way and structure capital stock were obtained directly from investments relative to “Land, Buildings and Fixed Installations Fixed Assets”.

As referred to in the main text for elaboration of data set denominated P, investment expenditures considered for the revaluation year were fixed in such a way that the capital stock at the beginning of the first year of firm’s data set assumes, consequently, a plausible value. When possible, these figures were fixed according to information reported on ECIS (1996), and in this situation one can find the following values of 1991 of DB, and RENFE values for the years from 1983 to 1986. For some firms this procedure turned out to be unacceptable due to incomprehensible reported figures; when this occurred firms were excluded from data set P, and in this situation are the following companies: BC, BDZ, CFR, and CSD (and the year of 1993 for CD).

Tables A2.4.3 – Productive capital stocks

Productive capital stocks, K_t, shown in the next tables were obtained, according to the description in the main text, from the nominal investment expenditure on the asset at time t, IN, retirement patterns, F_v, and age efficiency profile, h_v, following the relationship given by expression (3.22) and transcribed below:

$$K_t = \sum_{v=0}^{T} h_v . F_v \frac{IN_{t-v}}{q_{t-v,0}}, \qquad \text{(A.2.1)}$$

where t indicates the year in observation, v is the age of the asset in analysis, T is the maximum service life of the asset, and $q_{t,0}$ is the price index deflator for the asset of age zero.

Since two distinct data sets have been formed, according to the technique used to calculate investments and capital stock in the starting year, two alternative measures of equipment capital stock price and costs are reported in this table. Data set originated from the recalculation of capital stock before any reported revaluation was labelled as P data set, in the other alternative case where no changes were introduced in previous year revaluation data, data set were labelled as T.

A2.4.3.1 – Productive transport equipment capital stocks-Data P

This table reports the value of productive capital stock of transport equipment, and the intermediary paths corresponding to formulation (A.2.1).

In the third column, the values transcribed from previous table are shown; column four and five give the GDP deflator (transcribed from table A3.1) and the correspondent figure used to convert current prices in constant prices of 1999. It should be noted that, in the special case of countries with a very high increase of inflation in the period in study, the GDP deflator used for the first year of the firm’s data set was substituted by an average of GDP deflators of the three previous years so as to reduce the effect of current year inflation on past investments.

In column six, the amount of investment at constant prices for each year in analysis are shown. In the column seven, the value assumed for the term $h_v.F_v$ (age efficiency profile x retirement pattern) according to the criterion developed in table A4.1. is shown . Since the value of capital stock assumed for the first year of the firm's data set was assumed to be the value at the beginning of the year, the year zero, 1971, was the year considered for the age-efficiency profile calculation. It should be noted that each displayed figure of $h_v.F_v$ is not associated with the correspondent year shown in the first column; they should be interpreted reflecting the age of asset and not the year of observation.
The figures in each cell of the following columns is the result of the multiplication of respective investments at constant prices shown in column six by the correspondent $h_v.F_v$ according to the age of investment asset (depending on the year in which the investment was made); thus, these figures are those given by the term [$h_v.F_v.\, IN_{t-v}/q_{t-v,0}$] in the expression (3.22).The productive capital stock for each year in analysis is shown in the last column of each firm matrix and it is given by the summation of the latter referred to the terms in each row.

A2.4.3.2 – Productive transport equipment capital stocks-Data T

This table followed the same rules and interpretation as the referred above for table A2.4.2.1 relative to the restricted data set P.

A2.4.3.3 – Productive way & structures capital stocks-Data P

This table followed the same rules and interpretation as the referred to table, however, since for way & structures, productive capital stock is given by the following expression: $K_t = \sum_{v=0}^{T} h_v.IN_{t-v}/q_{t-v,0}$.

A2.4.3.4 – Productive way & structures capital stocks-Data T

This table followed the same rules and interpretation as the above referred to, however, because $F_T = 1$ for way & structures, productive capital stock is given by:

$K_t = \sum_{v=0}^{T} h_v.IN_{t-v}/q_{t-v,0}$.

Tables A2.4.4 – Rates of depreciation

According to the description made in the main test, the rates of depreciation were calculated from the following expression:

$$d_t = \frac{D_t}{K_t^N}. \qquad \text{(A.2.2)}$$

where Dt is given by :

$$D_t = \sum_v \left(z_v F_v - z_{v-1} F_{v-1}\right) \frac{IN_{t-v-1}}{q_{t-v-1}}. \qquad \text{(A.2.3)}$$

where z_τ and F_τ are respectively the age-efficiency and retirement profile values for investments of τ years old at the time t, *IN* the previous nominal investments , *q* is the price deflator and K_t^N is the net capital stock at time t.

A2.4.4 .1– Rates of depreciation of transport equipment capital stocks - Data_P

This table reports the value of the rates of depreciation of transport equipment capital stock based in data set P estimated from equations (A2.2) and (A2.3).

A2.4.4 .2– Rates of depreciation of transport equipment capital stocks - Data_T

This table reports the value of the rates of depreciation of transport equipment capital stock based on data set T estimated from equations (A2.2) and (A2.3).

A2.4.4 .3– Rates of depreciation of way & structures capital stocks -Data_P

This table reports the value of the rates of depreciation of way & structures capital stock based on data set P estimated from equations (A2.2) and (A2.3). In this case, since F_τ=1 depreciation is given by $D_t = \sum_{v} (z_v - z_{v-1}) IN_{t-v-1}/q_{t-v-1}$.

A2.4.4 .4– Rates of depreciation of way & Structures capital stocks - Data_T

This table reports the value of the rates of depreciation of way &structures capital stock based on data set T estimated from equations (A2.2) and (A2.3). In this case, since F_τ=1 depreciation is given by $D_t = \sum_{v} (z_v - z_{v-1}) IN_{t-v-1}/q_{t-v-1}$.

A2.4.5.1 – Transport Equipment Capital Stock - Prices and Costs T

In this table, the final values, for both data set hypotheses P and T, of productive capital stock, user cost of capital (prices), and the cost of transport equipment capital stock are shown.

A2.4.5.2 – Way & Structures capital stock - Prices and Costs

In this table, the final values, for both data set hypotheses P and T, of productive capital stock, user cost of capital (prices), and the cost of way & structures capital stock are shown.

A2.5.1 – Variable costs and input cost shares

In this table, the values of the input costs, the dependent variable in the cost equation and the input cost shares are shown.

A2.6.1 – Outputs: passenger and freight services

In this table, the values, extracted from UIC data, adopted for railway traffic outputs are shown. As referred to in the main text, there are two alternative groups of outputs to be used in applications. The first group takes into account the effect of demand on output and is defined as the number of passengers x travelled kilometres for passenger traffic and tonnes carried x hauled kilometres for freight traffic; the alternative group takes into account only the supplied service and has, as measure of output, passengers trains x kilometres and freight trains x kilometres, respectively for passenger and freight traffic.

A2.7.1 – Network length

In this table, the UIC values for "Length of Lines worked at end of year" are reported.

Tables A2.8 – Quality of service

In these tables, the final values of the service quality variable and the correspondent intermediary paths used to its calculation are shown.

A2.8.1 – Potential maximum velocity of tractive stock

In this table, the values of the variable labelled "Potential maximum velocity of tractive stock" described in sub-section 3.2.1.8. of the main text are shown.

A2.8.2 – Potential maximum velocity of tractive stock, frequency of service, percentage of electrified network and of percentage of double track

In this table, the four variables used to find the correlation matrix which allowed extracting the first principal component are shown.

A2.8.3 – Quality of service variable (Qvmax): first principal component method

In this table, the variable (Qvmax) used to characterise the quality of service effect is shown.
This variable was obtained from the principal component regression of the variables shown in table 2.8.2.. Thus, according to literature on the principal component theory, Maddala (1988), McDonald (1985) and Morrison (1967), the first step was to transform these four variables (X_1,X_2, X_3, and X_4) to a standard score (x_1, x_2, x_3, and x_4) to have a unit variance. The next step was to find the correlation matrix, R, from these new standardised variables. With the matrix of correlation in hands it was computed, through

an iterative process starting from an initial vector *a(0)*, the sequence of column vectors $a(i)=R^i.a(0)$ and normalise each *a(i)* to unit length; the sequence of normalised vectors converge to the vector *a* corresponding to the greatest characteristic root, *l=a'la*. This calculation process is shown on the inferior part of this table.
The first principal component is that linear compound: Y = a.x.
Since there are some values of the first principal component that are negative, a constant value of 2,6 was added so that the values of the quality of service variable, Qvmax, were all positive. This variable Qvmax used to characterise the quality of service is shown in the last column of this table.

A2.9.1 – High speed dummy variables: DHS200, DTT, DUMMYHS and DUMMYTT

In this table, the values adopted by high speed dummy variables, DHS200, DTT, DUMMYHS and DUMMYTT are shown. Also included in this table-sheet is the list of high speed rolling stock that was the base of these variables formation.
It should be noted that, despite British railway system not having a high speed network, the value of high speed variables are assumed to have a value different from zero, this fact is explained by the existence of the IC225, which has a potential maximum speed of 225 km/h; since the adopted definition criterion of high speed technology was based on rolling stock ownership instead of network characteristics, to maintain the same criterion in all sample, all non-tilting train vehicles with potential maximum velocity superior to 220 km/h were assumed to be high speed technology.

A2.10.1 – External physical environment variables: weather (SNOW) and terrain (SURVEY)

In this table-sheet, the values used for the variables are shown: snow and survey.

For the variable snow, the information given in NationalGeographic and ESRI (2002) was used; in this map theme, the maximum mean annual duration of snow cover, in days, across the world is shown. Snow-cover duration is measured from the time that snow cover is established to the day when it has completely melted. The duration of snow cover was calculated using the observations of meteorological and snow-measuring stations and posts.
The number of snow cover days per year is grouped in the following interval classes: 0-10 days, 10-25 days, 25-50 days, 50-100 days, 100-150 days, 150-200 days, 200-250 days, 250-365 days. The index figures assumed as the reference value of each interval were respectively: 0; 12,5; 37,5; 75; 125; 175; 225 and 275. The weighted average snow cover was calculated taking into account the snow covered area and these associated number of snow day indexes. This weighted average gives the index values considered for the variable "snow".

For the variable survey, the information given in Maps.com (1999) was used; this map theme uses colour shading to show the measurement of the elevation of land above sea level.

Elevation zones are defined in these maps according to the following classes of altitude: > 3050m, 1525-3051 m, 610-1525 m, 305-610 m, 153-305 m, <153 m. To calculate the weighted average elevation variable, an index number given by the average of its altitude interval limits, which were: 76,5; 229; 457,5; 1067,5; 2287,5 and 2287,5 was indexed to each of these classes. Taking into account the elevation zone areas and the associated elevation indexes, the weighted average elevation was calculated; this weighted average gives the index values considered for the variable "survey".

A2.11.1 – External population environment variables: population density (DENS) and number of principal city agglomerations (AGM)

In the first column of this table, figures on population country density, DENS (people per sq km), which were collected from WorldBank (2002) are shown. In the case of Luxembourg, the figures were calculated through the quotient of population over country area values reported in OECD (2002).

The second variable shown in the second column is the number of principal city agglomerations, AGM. Data information about principal agglomeration in Europe was extracted from Brinkhoff (2002), where all agglomerations and cities of the world with a population of 1 million inhabitants or more are reported. Agglomerations include a central city and neighbouring communities linked to it (e.g.) by continuous built-up areas or commuters. Some agglomerations have more than one central city .

For calculation, only agglomerations localised in the inner circle with a ray of 600 Km, centred in the principal agglomeration country city were taken into account. The choice of 600 Km was chosen in the consideration of being, even with high speed lines, the distance from which railway losses competitiveness to aviation transport mode.

The final indicator figures were obtained through the sum of the number of inhabitants (in millions) of these principal agglomerations. Due to the lack of time series data, this indicator was assumed to be invariant over time. Due to the fact that before 1991 the geographic country limits were very distinct of actual limits and the across country movements in Europe were very restricted due to political reasons, these aspects were taken into account through the calculation of two distinct group values one for the period before 1991 and other for the following period that goes from 1991 to 1999.

A2.12. – Variables used in the cost and input cost share equations

This table summarise all variables that were used in the econometric estimation of cost and input cost share equations. The variable TIME included in this table is indexed to the observation year, its figures beginning with 1 for the year of 1972 and being successively unit incremented for the following years.

A2.13. – Variables used in the demand equations

This table summarise all variables that were used in the econometric estimation of demand equations. The variable TIME included in this table is indexed to the observation year, its figures beginning with 1 for the year of 1972 and being successively unit incremented for the following years.

A2.14. – Variables used in the Tobit regression

This table summarise all variables that were used in the econometric estimation of demand equations. The variable P_ELECT is given by the percentage of electrified line length in total line length, the variables PHS and PTT are respectively the percentage of high speed trains in total working trains and the percentage of tilting trains in the total working trains. $\triangle$PGY is the dependent variable in the Tobit regression model and measures the increments in the productivity growth (PGY) originated exclusively by the utilisation of high speed technology estimated in section 5.3.2.1.

Tables A3 – Economic Indicators

The following tables contain the main economic indicators used in the estimated models. The figures shown next are those proposed by WorldBank (2002) and OECD (2002) for GDP and GDP deflators, and PPP's. Before going to the referred to tables, one briefly gives the definition of the economic indicators, following their respective sources:
Gross domestic product (GDP) measures the total output of goods and services for final use occurring within the domestic territory of a given country, regardless of the allocation to domestic and foreign claims. Gross domestic product at purchaser values (market prices) is the sum of gross value added by all resident and non-resident producers in the economy plus any taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.

Implicit GDP deflator is the ratio of GDP in current local currency to GDP in constant local currency. Thus, the annual growth rate of the GDP implicit deflator shows the rate of price change in the economy as a whole

Consumer prices refer to the price index of goods and services used for private final consumption of households. It reflects the change in the cost to the average consumer of acquiring a fixed basket of goods and services. In general, a Laspeyres index formula is used.

Purchasing power parities (PPPs) are the rates of currency conversion that equalise the purchasing power of different currencies by eliminating the differences in price levels between countries. In their simplest form, PPPs are simply price relatives which show the ratio of the prices in national currencies of the same good or service in different countries.

Tables contained in this file are:

A3.1 – Implicit GDP deflator
A3.2 – PPP's
A3.3 – GDP per capita
A3.4 – Interest rates
A3.5 – Energy prices

Implicit GDP deflators in table A3.1 are those proposed by World Bank Group. It should be noted that German data prior to 1990 refers to the Federal Republic of Germany before the unification and due to the lack of data, for these years and country, the consumer price deflator instead of the implicit GDP deflator was used. It should also be stressed that the in original data set the implicit GDP deflator base year varies by country. In these cases, the necessary conversion figures to the 1995 base year of reference have been made.

PPP's (1995 year) are those published by OECD but those non-OECD members that were fixed through The World Bank PPP's data.

GDP's per capita considered are those published in OECD National Accounts. Such in the previous indicators, for the non-OECD member one uses those from The World Bank Group. Since these latter figures of GDP per capita available were at current international dollars, conversion in constant US 1995 dollars were done using the World Bank US GDP deflator (base year 1995).

Interest rates in Table A3.4 are the long term real interest rates for government bonds reported in IMF (2001), WorldBank (2002) and OECD (2002). For countries in which the figures for some required years were lacking, they were estimated through extrapolation of figures of next reported years and figures from other sources.

Fuel prices shown in table A3.5 are those extracted from International Energy Agency publications, prices prior to 1978 were obtained through extrapolation using the USA leaded regular prices (real prices) GDP deflators and PPP's the country prices of 1978. The reported prices are those which were used for demand estimation, and they are: the premium leaded gasoline (households) price here denominated GASHP, and a weighted average price of the premium leaded gasoline (households), the automotive diesel (households) and the automobile diesel (industry) denominated as OILPCP. Price values were converted in international (1995) dollar prices using GDP US deflator and PPPs.

Tables A4 – Age-efficiency, age-price profile and retirement patterns

In these tables, the age-efficiency profile, the age-price profile and retirement patterns used to calculate productive capital stock and depreciation rates are shown.

A4.1 – Age-efficiency profile, age-price profile and retirement patterns used for transport equipment

For age-efficiency profile the hyperbolic function with the following formulation was used:

$$h_v = \frac{T - (v - 1)}{T - \beta(v - 1)}, \qquad \text{(A4.1)}$$

where T is the maximum period of life for this type of asset, assumed to be 30 years, t is the age of asset of the year in observation, and β is the slope-coefficient for which transport equipment has been set at 0.5. The resulting figures are shown in the column six of this table.

The correspondent figures of the retirement patterns are shown in the next column and they are the result of assuming a delayed linear function for retirement patterns where the discards occur over a period of ten years.

The age-price profile was derived from the following formulation:

$$z_s = \frac{\sum_v h_{v-s} F_{v-s} \left(1{,}04\right)^{-(1-v)}}{\sum_v h_v F_v \, 1{,}04^{-(1-v)}} \qquad \text{(A.4.2)}$$

where the “real discount rate”, [(1+*r*)/(1+β)], was set at a rate of 4% according to the empirical recommendation made in OECD-Statistics (March-2001). Age-price profile *Zs* and the aggregated age-price and retirement profile *Zs**Fs* are shown in the last columns of this table.

A4.2 – Age-efficiency profile and age-price profile used for way & structures

The age-efficiency and age-price profiles of way and structures capital stock follow the same formulation described above for the age-efficiency and age-price profiles of transport equipment. The main differences between calculations arise from, with respect to age-efficiency profile, the assumed average life of 50 years which was set according to the empirically service life value used currently for structures and buildings and the coefficient value β, which in this case was set at .75 according to the recommendation in OECD-Statistics (2001). Due to the high service life and physical characteristics of railway infrastructure, it is expected that most of the retirements are a consequence of political decisions or obsolescence, which imply the assumption of a simultaneous exit pattern for retirement profile. This means, attending to the shorter period in study of 30

years that the retirement function in the case of way & structure capital stock was not considered in calculation.
Age-efficiency profile values are shown in this table on column six and age-price profile values are shown on the bottom of the calculation auxiliary matrix.

APPENDIX B – Limdep programs developed to estimate stochastic cost frontier and input cost share equations following the specific proposed models.

In this appendix are listed the programs developed to estimate stochastic cost frontier and input cost share equations according procedures described in the section 3.2.2. of the chapter 3 for the proposed models I, II and III.

Model I :

```
Create;LPLB_em=LPLBCP-LPEMCP$
Create;LPEQ_EM=LPEQ1P-LPEMCP$
create;LC_EM=LVCC1P-LPEMCP$
create;KQ1=EXP(LKQP_O)$
create;SKQ=KQ1*CUKQM$
create;LKQP=log(SKQ)$
Create;LKQ_N=LKQP$
create;LKQPS=LKQP-LNET$
create;LKQP2=LKQPS^2/2$
Create;PKM=LPasskm-Log(1000)$
Create;TKM=Ltonkm-log(1000)$
Create;PKM2=PKM^2/2$
Create;TKM2=TKM^2/2$
Create;LBPKM=PKM*LPLB_em$
Create;EQPKM=PKM*LPEQ_em$
Create;LBTKM=TKM*LPLB_em$
Create;EQTKM=TKM*LPEQ_em$
Create;PKMTI=PKM*time$
Create;TKMTI=TKM*time$
Create;PKMQV=PKM*LQVmax$
Create;TKMQV=TKM*LQVmax$
Create;PTKM=PKM*TKM$
Create;Time2=Time^2/2$
create;LB2=LPLB_em^2/2$
create;EQ2=LPEQ_EM^2/2$
create;LBEQ=LPLB_em*LPEQ_EM$
create;LBTIM=LPLB_em*time$
create;EQtim=LPEQ_EM*time$
create;QVTIM=LQVMAX*TIME$
create;QV2=LQVmax^2/2$
create;LBQV=lqvmax*lplb_em$
create;EQqv=lqvmax*LPeq_em$
Create;LBKQ_N=LPLB_EM*LKQ_n$
Create;PKMkq_N=PKM*(Lkq_N)$
Create;TKMkq_N=TKM*(Lkq_N)$
Create;EQKQ_N=LPEQ_EM*LKQ_N$
Create;KQTIM_N=LKQ_n*TIME$
Create;QVKQ_N=LQVmax*LKQ_n$

create;wT=(1/(Lnet)^2)$
create;wP=(1/(LPEQ_EM)^2)$

??????????????????????????????????????????????????????????????????????


Sample; 1-534$

Calc;K=534$

Namelist;SA=ONE,LPLB_EM,LPEQ_EM,LKQ_n,LQVMAX
,PKM,TKM,DHS220,DTT,DUMMYHS,DUMMYTT,LSNOW,LSURVEY,TIME,LB2,LBEQ,LBPKM,
EQPKM,EQTKM,
    ,PKMkq_n,TKMkq_n,EQKQ_n,LBTIM
    ,LBQV,QVtim,QV2,Ldens,lagm,Lnet,LKQP2$

FRONTIER;LHS=LC_EM;RHS=SA;COST$
Matrix;B1=Part(B,1,30)$
Calc;Lamb=LMDA$
Calc;SS=S$
```

```
Namelist; XSH=ONE,LPLB_EM,LPEQ_em,PKM,TKM,LKQ_n,TIME,LQVMAx$

Matrix;BLB=Init(8,1,0);
BLB(1)=b(2);blb(2)=b(15);blb(3)=b(16);BLB(4)=b(17);BLB(5)=0;BLB(6)=0;B
LB(7)=B(23);BLB(8)=B(24)$
Matrix;BEQ=Init(8,1,0);
BEQ(1)=b(3);BEQ(2)=b(16);bEQ(3)=0;BEQ(4)=b(18);BEQ(5)=b(19);BEQ(6)=B(2
2);BEQ(7)=0;BEQ(8)=0$

Create;S01=XSH'BLB$
Create;S02=XSH'BEQ$

Matrix;U1=SHLBc1P-S01$
Matrix;U2=SHEQc1p-S02$

Matrix; DXZ=Dirp(U1,U2); DXX=Dirp(U2,U2);DZZ=Dirp(U1,U1)$
Create;UU2=DXX$
Create;UU1=Dzz$
Create; UU12=DXZ$

Matrix;SGM=Init(2,2,0)$

Calc;S11=(sUM(UU1))/K;S22=(sUM(UU2))/K; S12=(SUM(UU12))/k$
Calc;T11=SGM(1,1)-S11;T12=SGM(1,2)-S12;T22=SGM(2,2)-
S22;T11=Abs(T11);T12=Abs(T12);T22=Abs(T22)$

Matrix;H(2,2)=0;H(1,1)=B(15);H(1,2)=B(16);H(2,1)=B(16)$
Matrix;H=<H>$
MATRix;H1=Cxrt(H)$
Calc;SGHH1=H1(1,1);SGHH2=H1(2,1)$

Calc;kk1=0;KK2=0$

procedure

label;30$

Namelist; SA=ONE,LPLB_EM,LPEQ_EM,LKQ_n,LQVMAX
     ,PKM,TKM,DHS220,DTT,DUMMYHS,DUMMYTT,LSNOW,LSURVEY,TIME,
     LB2,LBEQ,LBPKM,EQPKM,EQTKM,
     ,PKMkq_n,TKMkq_n,EQKQ_n,LBTIM
     ,LBQV,QVtim
     ,QV2,Ldens,lagm,Lnet,LKQP2$


Matrix;SGM=Init(2,2,0);H=Init(2,2,0);H1=Init(2,1,0)$$


Matrix;H(1,1)=b(15);H(2,2)=0;H(1,2)=B(16);H(2,1)=B(16)$

Matrix;H=<H>$

mATRIX;sgm(1,1)=S11;SGM(2,2)=S22;SGM(1,2)=S12;SGM(2,1)=S12$


FRONTIER;LHS=LC_em;RHS=SA,UU1,UU2;COST;wts=wP;STARt=B1,kk1,KK2,lamb,SS
$
Calc;Lamb=LMDA;SS=S$

Matrix;B1=Part(B,1,30)$
Calc;Kll2=B(15)-B1(15);Kll3=B(16)-B1(16)$
```

```
Namelist; XSH=ONE,LPLB_EM,LPEQ_em,PKM,TKM,LKQ_n,TIME,LQVMAx$

Matrix;BLB=Init(8,1,0);
BLB(1)=b(2);blb(2)=b(15);blb(3)=b(16);BLB(4)=b(17);BLB(5)=0;BLB(6)=0;B
LB(7)=B(23);BLB(8)=B(24)$
Matrix;BEQ=Init(8,1,0);
BEQ(1)=b(3);BEQ(2)=b(16);bEQ(3)=0;BEQ(4)=b(18);BEQ(5)=b(19);BEQ(6)=B(2
2);BEQ(7)=0;BEQ(8)=0$

Create;S01=XSH'BLB$
Create;S02=XSH'BEQ$

Matrix;U1=SHLBc1P-S01$
Matrix;U2=SHEQc1p-S02$

Matrix; DXZ=Dirp(U1,U2); DXX=Dirp(U2,U2);DZZ=Dirp(U1,U1)$
Create;UU2=DXX$
Create;UU1=Dzz$
Create; UU12=DXZ$

Calc;S11=(sUM(UU1))/K;S22=(sUM(UU2))/K; S12=(SUM(UU12))/k$
Calc;T11=SGM(1,1)-S11;T12=SGM(1,2)-S12;T22=SGM(2,2)-
S22;T11=Abs(T11);T12=Abs(T12);T22=Abs(T22)$

Matrix;H(2,2)=0;H(1,1)=B(15);H(1,2)=B(16);H(2,1)=B(16)$
Matrix;H=<H>$
MATRix;H1=Cxrt(H)$
Calc;SGHH1=H1(1,1);SGHH2=H1(2,1)$

calc;kk1=B(31)$
calc;kk2=B(32)$


Goto; 30;T11 > 0.0000001|T12 >0.0000001|T22 > .0000001|(SGHH1>0 &
SGHH2>0)$


Endprocedure
Execute
Matrix;Alloc=KK1*UU1+KK2*UU2$
calc; delete t11,t12,t22,KK1,KK2$
?????????????????????????????????????????????????????

? Technical efficiency calculation

create;CALLOC=ALLOC$
create;SAA=B1'SA$
create;Z=LC_em-SAA$

matrix;zz=z-Calloc$
matrix;TCN=INit(534,1,0)$

Proc
calc;ZI=ZZ(I)*lamb/SS;ETE=lamb*SS/(1+lamb^2)*(N01(Zi)/(1-Phi(zi))-zi)$
matrix;TCN(I)=ETE$
ENDPROC
EXECUTE;I=1,534$
Matrix;LIST;TCN$

calc; delete ete,lamb,SS,zi$

DELETE;Z$
? Total inefficiency vector
matrix;TEF=TCN+ALLOC$
```

```
????????????????????????????????????????????????????????

?Autocorrelation Test

matrix;Z2=ZZ-TCN$
create;z3=z2$
create;EIXO=Trn(1,1)$
PLOT;LHS=EIXO;RHS=z3$
matrix;dwt=INit(534,1,0)$
Proc
calc;DA=z3(I)-z3(I-1);DA=DA^2$
matrix;DWT(i)=DA$
ENDPROC
EXECUTE;I=2,534$

Matrix; Dee1=Dirp(z3,z3)$

create;DDD=Dee1$
create;DDD1=DWT$

Calc;S11=(sUM(DDD))/(SUM(DDD1))$
????????????????????????????????????????????????????????????????????????
? Shadow prices of capital stock

Namelist; SA=ONE,LPLB_EM,LPEQ_EM,LKQ_n,LQVMAX
    ,PKM,TKM,DHS220,DTT,DUMMYHS,DUMMYTT,LSNOW,LSURVEY,TIME,
    LB2,LBEQ,LBPKM,EQPKM,EQTKM,
    ,PKMkq_n,TKMkq_n,EQKQ_n,LBTIM
    ,LBQV,QVtim
    ,QV2,Ldens,lagm,Lnet,LKQP2$

create;SAA=B1'SA$
CREATE;Lvcsa=SAA+lpemcp$
create;vcsa=exp(Lvcsa)$
create;ETE1=EXP(LKQP)$
create;SP=vcsa/ETE1$

Namelist; DEV=ONE,PKM,TKM,LPEQ_EM,LKQPS$

matrix;B2=INit(5,1,0)$

matrix;B2(1)=B1(4);B2(2)=B1(20);b2(3)=b1(21);b2(4)=b1(22);B2(5)=b1(30$

create;SP1=B2'DEV$

create;SPCS=SP1*SP$

DELETE;SP1,LVCSA,ETE1$

?????????????????????????????????????????????????????????????
? OPTIMAL PRODUCTIVE CAPITAL STOCK

Namelist;
SCK=ONE,LPLB_EM,LPEQ_EM,LQVMAX,PKM,TKM,DHS220,DTT,DUMMYHS,DUMMYTT,
LSNOW,LSURVEY,TIME,LB2,LBEQ,LBPKM,EQPKM,EQTKM,LBTIM,LBQV,QVtim,QV2,
Ldens,lagm,Lnet$

matrix;BCK=INIT(25,1,0)$
matrix;BCK(1)=B1(1);
BCK(2)=B1(2);bck(3)=b1(3);bck(4)=b1(5);BCK(5)=B1(6);BCK(6)=B1(7);
bck(7)=b1(8);bck(8)=b1(9);BCK(9)=B1(10);BCK(10)=B1(11);bck(11)=b1(12);
bck(12)=b1(13);BCK(13)=B1(14);BCK(14)=B1(15);bck(15)=b1(16);
bck(16)=b1(17);BCK(17)=B1(18);BCK(18)=B1(19);bck(19)=b1(23);
bck(20)=b1(24);BCK(21)=B1(25);BCK(22)=B1(26);bck(23)=b1(27);
```

```
bck(24)=b1(28);bck(25)=b1(29)$

create;CGK=SCK'BCK$
create;cgk=cgk+lpemcp$
create;CGK=exp(CGK)$

create;CKPKM=PKM*b1(20)$
create;CKTKM=TKM*b1(21)$
create;CKEQ=LPEQ_EM*b1(22)$
create;CKPTEQ=CKPKM+CKTKM+CKEQ$
create;ckpteq=ckpteq+b1(4)$

Matrix;CSO1=INIT(534,1,0)$

Proc

calc;LNC=B1(30)$
calc;LNET1=LNET(I)$
calc;Calf=B1(30)/2$
calc;CKP=CKPTEQ(I)$
calc;CGKI=CGK(I)$
calc;PKQPI=-PKQP(I)$
sample;1$
minimize;Labels=X;start=100;Fcn=(CGKI*X^(CKP-1)*(EXP(CAlf*(log(X)-
LNET1)^2))*(LNC*(log(X)-LNET1)+CKP)-PKQPI)^2$
matrix;CSO1(I)=X$
ENDPROC
EXECUTE;I=1,534;silent$

sample;1-534$
create;CSO=CSO1$

namelist; delete SCK$
DELETE;ckpteq,cgk,CKPKM,CKTKM,CKEQ,CLNET$
calc; delete PKQPI,CGKI,CKP,CALF,LNC$
matrix; delete CSO1,BCK$

??????????????????????????????????????????????????????????????????????
? RETURNS TO SCALE CALCULATION

? dlnC/dY, Y=PASSENGER-KMS

Create;LKQO=log(CSO)$
Create;LKQO_n=LKQO-LNET$

Namelist; DEVP=ONE,LPLB_EM,LPEQ_EM,LKQO$

matrix;B3=INit(4,1,0)$

matrix;B3(1)=B1(6);B3(2)=B1(17);b3(3)=b1(18);b3(4)=b1(20)$

create;SP3=B3'DEVP$

? dlnC/dY, Y=TONNE-KMS

Namelist; DEVT=ONE,LPEQ_EM,LKQO$

matrix;B4=INit(3,1,0)$

matrix;B4(1)=B1(7);B4(2)=B1(19);b4(3)=b1(21)$

create;SP4=B4'DEVT$

create;DERY=SP3+SP4$
```

```
? dln(C)/dln(net)

Namelist; DEVnet=ONE,LKQO_n$

matrix;B5=INit(2,1,0)$

matrix;B5(1)=B1(29)$
calc;ETE=-B1(30)$
matrix;B5(2)=ETE$

create;dernet=B5'DEVnet$


? dln(C)/dln(kq)

Namelist; DEVO=ONE,PKM,TKM,LPEQ_EM,LKQO_n$

matrix;B2=INit(5,1,0)$

matrix;B2(1)=B1(4);B2(2)=B1(20);b2(3)=b1(21);b2(4)=b1(22);B2(5)=b1(30)

create;SP2=B2'DEVO$

Create;RTS=1-SP2$

create;dery1=dery+dernet$

Create;RTS=RTS/DERY1$

Create;RTD=1-SP2$

Create;RTD=RTD/DERY$

matrix; delete B2,b3$

namelist; delete DEVO,devnet$
delete; dery1,dernet$


?????????????????????????????????????????????????????????????????
? Elasticities of substitution

Calc;Kll2=B1(15)$
Calc;Kll3=B1(16)$

create;SLBEQ1=S01*S02$
create;SLBEQ=SLBEQ1+KLL3$
create;SLBEQ=SLBEQ/SLBEQ1$

create;SLB21=S01*S01$
create;SLB2=SLB21-S01$
create;SLB2=SLB2+KLL2$
create;SLB2=SLB2/SLB21$

create;SEQ21=S02*S02$
create;SEQ2=SEQ21-S02$
create;SEQ2=SEQ2/SEQ21$

Namelist; XSHEM=ONE,LPLBCP,LPEQ1P,PKM,TKM,LKQ_n,TIME,LQVMAx,LPEMCP$

Matrix;BEM=Init(9,1,0)$
calc;A4=1-b1(2)-b1(3);A5=-b1(15)-b1(16);A6=-b1(16)
```

```
;A7=-b1(17)-b1(18);A8=-b1(19);A9=-b1(22);A10=-B1(23);A11=-
B1(24);A12=b1(15)+2*B1(16)$
matrix;BEM(1)=A4;bEM(2)=A5;bEM(3)=A6;BEM(4)=A7;BEM(5)=A8;BEM(6)=A9;BEM
(7)=A10;BEM(8)=A11;BEM(9)=A12$
CALC;DELETE A4,A5,A6,A7,A8,A9,A10,A11,A12$

calc;KLL1=BEM(9)$
Create;S03=XSHEM'BEM$

create;SEM21=S03*S03$
create;SEM2=SEM21-S03$
create;SEM2=SEM2+KLL1$
create;SEM2=SEM2/SEM21$

calc;KLL2=BEM(2)$

create;SLBEM1=S01*S03$
create;SLBem=SLBem1+KLL2$
create;SLBEm=SLBem/SLBem1$

calc;KLL3=BEM(3)$

create;Seqem3=S02*S03$
create;Seqem2=Seqem3+KLL3$
create;Seqem=(Seqem2)/(Seqem3)$

delete;SEQ21,SLB21,SLBEM1,SEM21,SLBEQ1,Seqem3,seqem2$

calc; delete KLL1,KLL2,KLL3$

??????????????????????????????????????????????????????????????????????

? PGX, PGY

Namelist; SA=ONE,LPLB_EM,LPEQ_EM,LKQ_n,LQVMAX
     ,PKM,TKM,DHS220,DTT,DUMMYHS,DUMMYTT,LSNOW,LSURVEY,TIME,
     LB2,LBEQ,LBPKM,EQPKM,EQTKM,
     ,PKMkq_n,TKMkq_n,EQKQ_n,LBTIM
     ,LBQV,QVtim
     ,QV2,Ldens,lagm,Lnet,LKQP2$

Namelist;SATIME=one,LPLB_EM,LQVMAX$

matrix;B6=INit(3,1,0)$

matrix;B6(1)=B1(14);B6(2)=B1(23);b6(3)=b1(25)$

create;SP6=B6'SATIME$
create;SP6=-SP6$
create;SP7=1-SP2$
create;PGX=SP6/SP7$

create;PGY=SP6/dery$

matrix; delete B6,B4$
delete;SP6,SP7,SP2,SP3,SP4$
```

Model II :

```
Create;LPLB_em=LPLBcP-LPEMcP$
Create;LPEQ_EM=LPEQ1P-LPEMcP$
create;LC_EM=LVCc1P-LPEMcP$
Create;LPLB_em=LPLBcP-LPEMcP$
Create;LPEQ_EM=LPEQ1P-LPEMcP$
create;LC_EM=LVCc1P-LPEMcP$
create;KQ1=EXP(LKQP_O)$
create;SKQ=KQ1*CUKQm$
create;LKQP=log(SKQ)$
Create;LKQ_N=LKQP$
create;LKQPS=LKQP-LNET$
create;LKQP2=LKQPS^2/2$
Create;PKM=LPasskm-Log(1000)$
Create;TKM=Ltonkm-log(1000)$
Create;PKM2=PKM^2/2$
Create;TKM2=TKM^2/2$
Create;LBPKM=PKM*LPLB_em$
Create;EQPKM=PKM*LPEQ_em$
Create;LBTKM=TKM*LPLB_em$
Create;EQTKM=TKM*LPEQ_em$
Create;PKMTI=PKM*time$
Create;TKMTI=TKM*time$
Create;PKMQV=PKM*LQVmax$
Create;TKMQV=TKM*LQVmax$
Create;PTKM=PKM*TKM$
Create;Time2=Time^2/2$
create;LB2=LPLB_em^2/2$
create;EQ2=LPEQ_EM^2/2$
create;LBEQ=LPLB_em*LPEQ_EM$
create;LBTIM=LPLB_em*time$
create;EQtim=LPEQ_EM*time$
create;QVTIM=LQVMAX*TIME$
create;QV2=LQVmax^2/2$
create;LBQV=lqvmax*lplb_em$
create;EQqv=lqvmax*LPeq_em$
Create;PKMkq_N=PKM*(Lkq_N)$
Create;TKMkq_N=TKM*(Lkq_n)$
Create;LBKQ_N=LPLB_EM*LKQ_n$
Create;EQKQ_N=LPEQ_EM*LKQ_n$
Create;KQTIM_N=LKQ_n*TIME$
Create;QVKQ_N=LQVmax*LKQ_n$
create;wp=(1/(LPeq_em)^2)$
create;wT=(1/(Lnet)^2)$

??????????????????????????????????????????

Sample; 1-534$
CAlc;K=534$

Namelist;SA=ONE,LPLB_EM,LPEQ_EM,LKQ_n,LQVMAX
    ,PKM,TKM,DHS220,DTT,DUMMYHS,DUMMYTT,LSNOW,LSURVEY,TIME,
    LB2,LBEQ,LBPKM,EQPKM,EQTKM,
    ,PKMkq_n,TKMkq_n,EQKQ_n,LBTIM
    ,LBQV,QVtim,QV2,Ldens,lagm,Lnet,LKQP2$

FRONTIER;LHS=LC_em;RHS=SA;COST$
Matrix;BF=Part(B,1,30)$
Calc;THT=LMDA$
cALC;SGMA=S$
Matrix;U1=Init(k,1,0);U2=Init(K,1,0)$
```

```
Namelist; XSH=ONE,LPLB_EM,LPEQ_em,PKM,TKM,LKQ_n,TIME,LQVMAx$

Matrix;BLB=Init(8,1,0);
BLB(1)=b(2);blb(2)=b(15);blb(3)=b(16);BLB(4)=b(17);BLB(5)=0;BLB(6)=0;B
LB(7)=B(23);BLB(8)=B(24)$
Matrix;BEQ=Init(8,1,0);
BEQ(1)=b(3);BEQ(2)=b(16);bEQ(3)=0;BEQ(4)=b(18);BEQ(5)=b(19);BEQ(6)=B(2
2);BEQ(7)=0;BEQ(8)=0$

Matrix;BLB(1)=0$
Matrix;BEQ(1)=0$

Create;S01=XSH'BLB$
Create;S02=XSH'BEQ$

Matrix;U1=SHLBc1P-S01$
Matrix;U2=SHEQc1p-S02$

Create;SHLB_U1=U1$
Create;SHEQ_U2=U2$

Namelist;
SA1=DPZSR,DPVRRHK,DPVR2,DPVR1,DPTCDD,DPSZ,DPSNCF,DPSNCFRF,DPSNCB,DPSJB
V
,DPSJ,DPRENFE,DPPKP,DPOBB,DPNSB2,DPNSB1,DPNSBV,DPNS2,DPNS1,DPMAV,DPFS2
,DPFS1,DPEVR,DPDBS2,DPDSB1,DPDB2,DPDB1,DPBR1,DPBR2,DPBR3,DPCD,DPCFF,DP
CFL1,DPCFL2,DPCH,DPCIE1,DPCIE2,DPCP1,DPCP2$

Namelist;
SA2=ADPVR,ADPTCDD,ADPSNCF,ADPSNCB,ADPSJBV,ADPSJ,ADPRENFE,ADPOBB,ADPNSB
,ADPNS,ADPFS,ADPDSB,ADPDB,ADPBR,ADPCFF,ADPCFL,ADPCH,ADPCIE,ADPCP$

Regress;Lhs=SHLB_U1;Rhs=SA1,SA2$

Matrix;B1LB=B(1:39)$
Matrix;B2LB=B(40:58)$

Calc;S11=S$

Regress; Lhs=SHEQ_U2;Rhs=SA1,SA2$

Matrix;B1EQ=B(1:39)$
Matrix;B2EQ=B(40:58)$

cALC;s22=S$

create;SAA1LB=B1LB'SA1$
create;SAA2LB=B2LB'SA2$

create;SAA1EQ=B1EQ'SA1$
create;SAA2EQ=B2EQ'SA2$

create;CA1EQ=SAA1EQ*LPEQ_EM$

create;CA2EQ=SAA2EQ*LPEQ_EM$

create;CA1LB=SAA1LB*LPLB_EM$

create;CA2LB=SAA2LB*LPLB_EM$

create;CALLOC=CA1LB+CA2LB+CA1EQ+CA2EQ$

create;CALLOC1=Ca1lb+ca2lb$
```

```
create;CALLOC2=Ca1EQ+Ca2EQ$
create;CALLOC3=calloc2*calloc1$
create;CALLOC1=calloc1^2$

create;CALLOC2=calloc2^2$

calc;cof1=1$
calc;cof2=1$
calc;cof3=1$

procedure

label;30$

Namelist;SA=ONE,LPLB_EM,LPEQ_EM,LKQ_n,LQVMAX,PKM,TKM,DHS220,DTT,
DUMMYHS,DUMMYTT,LSNOW,LSURVEY,TIME,LB2,LBEQ,LBPKM,EQPKM,EQTKM,
,PKMkq_n,TKMkq_n,EQKQ_n,LBTIM,LBQV,QVtim,QV2,Ldens,lagm,Lnet,LKQP2$

Matrix;SGM=Init(2,2,0)$

mATRIX;sgm(1,1)=S11;SGM(2,2)=S22;SGM(1,2)=S12;SGM(2,1)=S12$

FRONTIER;LHS=LC_em;RHS=SA,Calloc1,calloc2,calloc3;COST;wts=wp
;STARt=BF,cof1,cof2,cof3,THT,SGMA$
calc;cof1=b(31);cof2=b(32);cof3=b(33);Kll2=B(15)-BF(15);Kll3=B(16)-
BF(16)$

Matrix;BF=Part(B,1,30)$
Calc;THT=LMDA$
cALC;SGMA=S$

Matrix;BLB=Init(8,1,0);
BLB(1)=b(2);blb(2)=b(15);blb(3)=b(16);BLB(4)=b(17);BLB(5)=0;BLB(6)=0;B
LB(7)=B(23);BLB(8)=B(24)$
Matrix;BEQ=Init(8,1,0);
BEQ(1)=b(3);BEQ(2)=b(16);bEQ(3)=0;BEQ(4)=b(18);BEQ(5)=b(19);BEQ(6)=B(2
2);BEQ(7)=0;BEQ(8)=0$

Matrix;U1=Init(k,1,0);U2=Init(K,1,0)$

Namelist; XSH=ONE,LPLB_EM,LPEQ_em,PKM,TKM,LKQ_n,TIME,LQVMAx$

Create;S01=XSH'BLB$
Create;S02=XSH'BEQ$

Matrix;U1=SHLBc1P-S01;U2=SHEQc1p-S02$

Create;SHLB_U1=U1$
Create;SHEQ_U2=U2$

Namelist;SA1=DPZSR,DPVRRHK,DPVR2,DPVR1,DPTCDD,DPSZ,DPSNCF,DPSNCFRF,DPS
NCB,DPSJBV,DPSJ,DPRENFE,DPPKP,DPOBB,DPNSB2,DPNSB1,DPNSBV,DPNS2,DPNS1,D
PMAV,DPFS2,DPFS1,DPEVR,DPDBS2,DPDSB1,DPDB2,DPDB1,DPBR1,DPBR2,DPBR3,DPC
D,DPCFF,DPCFL1,DPCFL2,DPCH,DPCIE1,DPCIE2,DPCP1,DPCP2$

Namelist;SA2=ADPVR,ADPTCDD,ADPSNCF,ADPSNCB,ADPSJBV,ADPSJ,ADPRENFE,ADPO
BB,ADPNSB,ADPNS,ADPFS,ADPDSB,ADPDB,ADPBR,ADPCFF,ADPCFL,ADPCH,ADPCIE,
ADPCP,LPLB_EM,LPEQ_em$

Regress; Lhs=SHLB_U1;Rhs=SA1,SA2$

Matrix;B1LB=B(1:39);B2LB=B(40:60)$
```

```
Calc;S11=S$

Regress; Lhs=SHEQ_U2;Rhs=SA1,SA2$

Matrix;B1EQ=B(1:39);B2EQ=B(40:60)$

cALC;s22=S$

create;SAA1LB=B1LB'SA1$
create;SAA2LB=B2LB'SA2$

create;SAA1EQ=B1EQ'SA1$
create;SAA2EQ=B2EQ'SA2$

create;CA1EQ=SAA1EQ$

create;CA2EQ=SAA2EQ$

create;CA1LB=SAA1LB$

create;CA2LB=SAA2LB$

create;CALLOC=CA1LB+CA2LB+CA1EQ+CA2EQ$

create;CALLOC1=Ca1lb+ca2lb$

create;CALLOC2=Ca1EQ+Ca2EQ$
create;CALLOC3=calloc2*calloc1$
create;CALLOC1=calloc1^2$

create;CALLOC2=calloc2^2$

Calc;T11=SGM(1,1)-S11;T22=SGM(2,2)-S22;T11=Abs(T11);T22=Abs(T22)$

Goto; 30;T11 > 0.0000001|T22 > .0000001$

Endprocedure
Execute
create;CALLOC=cof1*calloc1+cof2*calloc2+cof3*calloc3$

calc; delete cof1,cof2,cof3,t11,t12,t22$
DELETE;calloc1,calloc2,calloc3$
namelist; delete SA1,SA2$

DELETE;SAA1EQ,SAA2EQ,SAA1LB,SAA2LB$

DELETE;CA1EQ,CA2EQ,CA1LB,CA2LB$

Matrix;B1=Part(B,1,30)$
Matrix;B1=BF$

????????????????????????????????????????????????????? ?'

? Technical efficiency calculation

matrix;TCN=INit(534,1,0)$

Namelist;SA=ONE,LPLB_EM,LPEQ_EM,LKQ_n,LQVMAX,PKM,TKM,DHS220,DTT,
DUMMYHS,DUMMYTT,LSNOW,LSURVEY,TIME,LB2,LBEQ,LBPKM,EQPKM,EQTKM,
,PKMkq_n,TKMkq_n,EQKQ_n,LBTIM,LBQV,QVtim,QV2,Ldens,lagm,Lnet,LKQP2$

create;SAA=BF'SA$
create;Z=LC_em-SAA$
matrix;zz=z-Calloc$
```

```
Proc
calc;ZI=ZZ(I)*THT/SGMA;ETE=THT*SGMA/(1+THT^2)*(N01(Zi)/(1-Phi(zi))-
zi)$
matrix;TCN(I)=ETE$
ENDPROC
EXECUTE;I=1,534$
Matrix;LIST;TCN$

? Total inefficiency vector

Matrix;EFF=TCN+CAlloc$

calc; delete ete,tht,sgma,zi$

DELETE;Z$
?????????????????????????????????????????????????????

? Autocorrelation Test

matrix;Z2=ZZ-TCN$
create;z3=z2$
create;EIXO=Trn(1,1)$
PLOT;LHS=EIXO;RHS=z3$
matrix;dwt=INit(534,1,0)$
Proc
calc;DA=z3(I)-z3(I-1);DA=DA^2$
matrix;DWT(i)=DA$
ENDPROC
EXECUTE;I=2,534$

Matrix; Dee1=Dirp(z3,z3)$

create;DDD=Dee1$
create;DDD1=DWT$

Calc;S11=(sUM(DDD))/(SUM(DDD1))$
MATRIX;DELETE ZZ$

??????????????????????????????????????????????????????????????????????
? shadow prices of capital stock

Namelist;
SA=ONE,LPLB_EM,LPEQ_EM,LKQ_n,LQVMAX,PKM,TKM,DHS220,DTT,DUMMYHS,DUMMYTT
,LSNOW,LSURVEY,TIME,LB2,LBEQ,LBPKM,EQPKM,EQTKM,PKMkq_n,TKMkq_n,EQKQ_n,
LBTIM,LBQV,QVtim,QV2,Ldens,lagm,Lnet,LKQP2$

create;SAA=B1'SA$
CREATE;Lvcsa=SAA+lpemcp$
create;vcsa=exp(Lvcsa)$
create;ETE1=EXP(LKQP)$
create;SP=vcsa/ETE1$

Namelist; DEV=ONE,PKM,TKM,LPEQ_EM,LKQPS$

matrix;B2=INit(5,1,0)$

matrix;B2(1)=B1(4);B2(2)=B1(20);b2(3)=b1(21);b2(4)=b1(22);B2(5)=b1(30)
$

create;SP1=B2'DEV$

create;SPCS=SP1*SP$
```

```
DELETE;SP1,LVCSA,ETE1$

??????????????????????????????????????????????????????????
? OPTIMAL W&S PRODUCTIVE CAPITAL STOCK

Namelist;
SCK=ONE,LPLB_EM,LPEQ_EM,LQVMAX,PKM,TKM,DHS220,DTT,DUMMYHS,DUMMYTT,LSNO
W,LSURVEY,TIME,LB2,LBEQ,LBPKM,EQPKM,EQTKM,LBTIM,LBQV,QVtim,QV2,Ldens,
lagm,Lnet$

matrix;BCK=INIT(25,1,0)$
matrix;BCK(1)=B1(1);BCK(2)=B1(2);bck(3)=b1(3);bck(4)=b1(5);
BCK(5)=B1(6);BCK(6)=B1(7);bck(7)=b1(8);bck(8)=b1(9);BCK(9)=B1(10);
BCK(10)=B1(11);bck(11)=b1(12);bck(12)=b1(13);BCK(13)=B1(14);
BCK(14)=B1(15);bck(15)=b1(16);bck(16)=b1(17);BCK(17)=B1(18);
BCK(18)=B1(19);bck(19)=b1(23);bck(20)=b1(24);BCK(21)=B1(25);
BCK(22)=B1(26);bck(23)=b1(27);bck(24)=b1(28);bck(25)=b1(29)$

create;CGK=SCK'BCK$
create;cgk=cgk+lpemcp$
create;CGK=exp(CGK)$

create;CKPKM=PKM*b1(20)$
create;CKTKM=TKM*b1(21)$
create;CKEQ=LPEQ_EM*b1(22)$
create;CKPTEQ=CKPKM+CKTKM+CKEQ$
create;ckpteq=ckpteq+b1(4)$

Matrix;CSO1=INIT(534,1,0)$

Proc

calc;LNC=B1(30)$
calc;LNET1=LNET(I)$
calc;Calf=B1(30)/2$
calc;CKP=CKPTEQ(I)$
calc;CGKI=CGK(I)$
calc;PKQPI=-PKQP(I)$
sample;1$
minimize;Labels=X;start=100;Fcn=(CGKI*X^(CKP-1)*(EXP(CAlf*(log(X)-
LNET1)^2))*(LNC*(log(X)-LNET1)+CKP)-PKQPI)^2$
matrix;CSO1(I)=X$
ENDPROC
EXECUTE;I=1,534;silent$

sample;1-534$
create;CSO=CSO1$

namelist; delete SCK$
DELETE;ckpteq,cgk,CKPKM,CKTKM,CKQE$
calc; delete PKQPI,CGKI,CKP,CALF,LNC$
matrix; delete CSO1,BCK$

?????????????????????????????????????????????????????????????????????

? RETURNS TO SCALE

? dlnC/dY, Y=PASSENGER-KMS

Create;LKQO=log(CSO)$
Create;LKQO_n=LKQO-LNET$

Namelist; DEVP=ONE,LPLB_EM,LPEQ_EM,LKQO$
```

```
matrix;B3=INit(4,1,0)$

matrix;B3(1)=B1(6);B3(2)=B1(17);b3(3)=b1(18);b3(4)=b1(20)$

create;SP3=B3'DEVP$


? dlnC/dY,  Y=TONNE-KMS

Namelist; DEVT=ONE,LPEQ_EM,LKQO$

matrix;B4=INit(3,1,0)$

matrix;B4(1)=B1(7);B4(2)=B1(19);b4(3)=b1(21)$

create;SP4=B4'DEVT$

create;DERY=SP3+SP4$

? dln(C)/dln(net)

Namelist; DEVnet=ONE,LKQO_n$

matrix;B5=INit(2,1,0)$

matrix;B5(1)=B1(29)$
calc;ETE=-B1(30)$
matrix;B5(2)=ETE$

create;dernet=B5'DEVnet$

? dln(C)/dln(kq)

Namelist; DEVO=ONE,PKM,TKM,LPEQ_EM,LKQO_n$

matrix;B2=INit(5,1,0)$

matrix;B2(1)=B1(4);B2(2)=B1(20);b2(3)=b1(21);b2(4)=b1(22);B2(5)=b1(30)
$
create;SP2=B2'DEVO$

Create;RTS=1-SP2$

create;dery1=dery+dernet$

Create;RTS=RTS/DERY1$

Create;RTD=1-SP2$

Create;RTD=RTD/DERY$

matrix; delete B2,b3$

namelist; delete DEVO,devnet$
delete; dery1,dernet$

???????????????????????????????????????????????????????????????????????
? Elasticities of substitution

Calc;Kll2=B1(15)$
Calc;Kll3=B1(16)$

create;SLBEQ1=S01*S02$
```

```
create;SLBEQ=SLBEQ1+KLL3$
create;SLBEQ=SLBEQ/SLBEQ1$

create;SLB21=S01*S01$
create;SLB2=SLB21-S01$
create;SLB2=SLB2+KLL2$
create;SLB2=SLB2/SLB21$

create;SEQ21=S02*S02$
create;SEQ2=SEQ21-S02$
create;SEQ2=SEQ2/SEQ21$

Namelist; XSHEM=ONE,LPLBCP,LPEQ1P,PKM,TKM,LKQ_n,TIME,LQVMAx,LPEMCP$

Matrix;BEM=Init(9,1,0)$
calc;A4=1-b1(2)-b1(3);A5=-b1(15)-b1(16);A6=-b1(16)
;A7=-b1(17)-b1(18);A8=-b1(19);A9=-b1(22);A10=-B1(23);A11=-
B1(24);A12=b1(15)+2*B1(16)$
matrix;BEM(1)=A4;bEM(2)=A5;bEM(3)=A6;BEM(4)=A7;BEM(5)=A8;BEM(6)=A9;BEM
(7)=A10;BEM(8)=A11;BEM(9)=A12$
CALC;DELETE A4,A5,A6,A7,A8,A9,A10,A11,A12$

calc;KLL1=BEM(9)$
Create;S03=XSHEM'BEM$

create;SEM21=S03*S03$
create;SEM2=SEM21-S03$
create;SEM2=SEM2+KLL1$
create;SEM2=SEM2/SEM21$

calc;KLL2=BEM(2)$

create;SLBEM1=S01*S03$
create;SLBem=SLBem1+KLL2$
create;SLBEm=SLBem/SLBem1$

calc;KLL3=BEM(3)$

create;Seqem3=S02*S03$
create;Seqem2=Seqem3+KLL3$
create;Seqem=(Seqem2)/(Seqem3)$

delete;SEQ21,SLB21,SLBEM1,SEM21,SLBEQ1,Seqem3,seqem2$

calc; delete KLL1,KLL2,KLL3$

??????????????????????????????????????????????????????????????????????

? PGX, PGY

Namelist;
SA=ONE,LPLB_EM,LPEQ_EM,LKQ_n,LQVMAX,PKM,TKM,DHS220,DTT,DUMMYHS,DUMMYTT
,LSNOW,LSURVEY,TIME,LB2,LBEQ,LBPKM,EQPKM,EQTKM,PKMkq_n,TKMkq_n,EQKQ_n,
LBTIM,LBQV,QVtim,QV2,Ldens,lagm,Lnet,LKQP2$

Namelist;SATIME=one,LPLB_EM,LQVMAX$

matrix;B6=INit(3,1,0)$

matrix;B6(1)=B1(14);B6(2)=B1(23);b6(3)=b1(25)$

create;SP6=B6'SATIME$
create;SP6=-SP6$
create;SP7=1-SP2$
```

```
create;PGX=SP6/SP7$

create;PGY=SP6/dery$

matrix; delete B6,B4$
delete;SP6,SP7,SP2,SP3,SP4$
```

Model III :

```
Create;LPLB_em=LPLBcP-LPEMcP$
Create;LPEQ_EM=LPEQ1P-LPEMcP$
create;LC_EM=LVCc1P-LPEMcP$
create;KQ1=EXP(LKQP_O)$
create;SKQ=KQ1*CUKQM$
create;LKQP=log(SKQ)$
Create;LKQ_N=LKQP$
create;LKQPS=LKQP-LNET$
create;LKQP2=LKQPS^2/2$
Create;PKM=LPasskm-Log(1000)$
Create;TKM=Ltonkm-log(1000)$
Create;PKM2=PKM^2/2$
Create;TKM2=TKM^2/2$
Create;LBPKM=PKM*LPLB_em$
Create;EQPKM=PKM*LPEQ_em$
Create;LBTKM=TKM*LPLB_em$
Create;EQTKM=TKM*LPEQ_em$
Create;PKMTI=PKM*time$
Create;TKMTI=TKM*time$
Create;PKMQV=PKM*LQVmax$
Create;TKMQV=TKM*LQVmax$
Create;PTKM=PKM*TKM$
Create;Time2=Time^2/2$
create;LB2=LPLB_em^2/2$
create;EQ2=LPEQ_EM^2/2$
create;LBEQ=LPLB_em*LPEQ_EM$
create;LBTIM=LPLB_em*time$
create;EQtim=LPEQ_EM*time$
create;QVTIM=LQVMAX*TIME$
create;QV2=LQVmax^2/2$
create;LBQV=lqvmax*lplb_em$
create;EQqv=lqvmax*LPeq_em$
Create;PKMkq_N=PKM*(Lkq_N)$
Create;TKMkq_N=TKM*(Lkq_n)$
Create;LBKQ_N=LPLB_EM*LKQ_n$
Create;EQKQ_N=LPEQ_EM*LKQ_n$
Create;KQTIM_N=LKQ_n*TIME$
Create;QVKQ_N=LQVmax*LKQ_n$
create;wT=(1/(Lnet)^2)$
create;wP=(1/(LPEQ_EM)^2)$

??????????????????????????????????????????????????????????????????????
Sample;1-534$
calc;K=534$

Namelist;SA=ONE,LPLB_EM,LPEQ_EM,LKQ_n,LQVMAX,PKM,TKM,DHS220,DTT,DUMMYH
S,DUMMYTT,LSNOW,LSURVEY,TIME,LB2,LBEQ,LBPKM,EQPKM,EQTKM,PKMkq_n,
TKMkq_n,EQKQ_n,LBTIM,LBQV,QVtim,QV2,Ldens,lagm,Lnet,LKQP2$

Namelist; XSH=ONE,LPLB_EM,LPEQ_em,PKM,TKM,LKQ_n,TIME,LQVMAx$
Namelist; XSHEM=ONE,LPLBCP,LPEQ1P,PKM,TKM,LKQ_n,TIME,LQVMAx,LPEMCP$

Matrix;SGM=Init(2,2,0)$


FRONTIER;LHS=LC_EM;RHS=SA;COST$

Matrix;B1=Part(B,1,30)$

Calc;Te=lmda;Sv=S$
```

```
Matrix;Beq=Init(8,1,0);Blb=Init(8,1,0)$
Matrix;BLB(1)=b1(2);blb(2)=b1(15);blb(3)=b1(16)
;BLB(4)=b1(17);BLB(5)=0;BLB(6)=0;BLB(7)=B1(23)
;BLB(8)=B1(24);BEQ(1)=b1(3);BEQ(2)=b1(16);bEQ(3)=0
;BEQ(4)=b1(18);BEQ(5)=b1(19);BEQ(6)=B1(22);BEQ(7)=0;BEQ(8)=0$

Matrix;BEM=Init(9,1,0)$
calc;A4=1-b1(2)-b1(3);A5=-b1(15)-b1(16);A6=-b1(16)
;A7=-b1(17)-b1(18);A8=-b1(19);A9=-b1(22);A10=-B1(23);A11=-
B1(24);A12=b1(15)+2*B1(16)$
matrix;BEM(1)=A4;bEM(2)=A5;bEM(3)=A6;BEM(4)=A7;BEM(5)=A8;BEM(6)=A9;BEM
(7)=A10;
BEM(8)=A11;BEM(9)=A12$
CALC;DELETE A4,A5,A6,A7,A8,A9,A10,A11,A12$

Create;S01=XSH'BLB$
Create;S02=XSH'BEQ$
Create;S03=XSHEM'BEM$

Matrix;U1=Init(k,1,0)$

Matrix;U2=Init(K,1,0)$

Matrix;U1=SHLBc1P-S01;U2=SHEQc1P-S02$

Matrix; DXZ=Dirp(U1,U2); DXX=Dirp(U2,U2);DZZ=Dirp(U1,U1)$
Create;UU2=DXX$
Create;UU1=Dzz$
Create; UU12=DXZ$


Calc;S11=(sUM(UU1))/K;S22=(sUM(UU2))/K;
S12=(SUM(UU12))/k;T11=SGM(1,1)-S11;T12=SGM(1,2)-S12;
T22=SGM(2,2)-S22;T11=Abs(T11);T12=Abs(T12);T22=Abs(T22)$

????????????????????????????????????????????????????????????????????????

Matrix;SGM=Init(2,2,0)$

Matrix;epl1=init(k,1,0)$

Matrix;epl2=init(k,1,0)$

Matrix;Alloc=Init(k,1,0)$

Matrix;LG1=Init(k,1,0)$

Procedure

Label; 100$

Namelist; XSH=ONE,LPLB_EM,LPEQ_em,PKM,TKM,LKQ_n,TIME,LQVMAx$
Namelist; XSHEM=ONE,LPLBCP,LPEQ1P,PKM,TKM,LKQ_n,TIME,LQVMAx,LPEMCP$

Calc;BEM2=BEM(2);BEM3=BEM(3);BLB2=BlB(2);BLB3=BLB(3);BEQ2=BEQ(2);BEQ3=
BEQ(3)$

DO FOR;CICL;I=1,534$
Calc;S0LB=S01(I);S0EQ=S02(I);S0EM=S03(I);UEQ=UU2(I);ULB=UU1(I)$
Sample;1$
minimize;start=0,0;labels=X,Y;Fcn=A1=BLB2*X+blb3*Y|A2=beq2*X+beq3*Y|
A3=beM2*X+bem3*Y|G0=((S0LB+A1)/exp(X)+(S0EQ+A2)/exp(Y)+(S0EM+A3))|
(ULB-((S0LB*(1-G0*(exp(X)))+A1)/g0/exp(X)))^2+(UEQ-((S0EQ*(1-
G0*(exp(Y)))+A2)/g0/exp(Y)))^2$
```

```
Sample;1-534$
calc;EPLB=b(1);EPEQ=B(2);ALB=BLB2*EPLB+blb3*EPEQ;AEQ=beq2*EPLB+beq3*EP
EQ
;AEM=beM2*EPLB+bem3*EPEQ;G1=((S0LB+ALB)/exp(EPLB)+(S0EQ+AEQ)/exp(EPEQ)
+(S0EM+AEM))$
matrix;EPL1(I)=EPLB;EPL2(I)=EPEQ;LG1(I)=G1$
calc;delete ALB,AEM,AEQ,EPLB,EPEQ,G1$

ENDDO;CICL$

Sample;1-534$

create;LG2=LG1$
create;LG=log(LG2)$
delete;LG2$

matrix;alloc=LG+epl1+{b1(3)}*epl2+{b1(17)}*dirp(pkm,epl1)+{b1(18)}*dir
p(pkm,epl2)
+{b1(19)}*dirp(tkm,epl2)+{b1(22)}*dirp(lkq_n,epl2)
+{b1(15)}*dirp(lplb_em,epl1)+{b1(16)}*dirp(lplb_em,epl2)
+{b1(16)}*dirp(lpeq_em,epl1)+{b1(16)}*dirp(epl1,epl2)
+{b1(15)/2}*dirp(epl1,epl1)+{b1(23)}*dirp(time,epl1)+{b1(24)}*dirp(lqv
max,epl1)$

create;Calloc=alloc$

mATRIX;sgm(1,1)=S11;SGM(2,2)=S22;SGM(1,2)=S12;SGM(2,1)=S12$

FRONTIER;LHS=LC_EM;RHS=SA,Calloc;COST;wts=wp;STARt=B1,1,te,Sv;RST=30_E
,1_1,2_M$

Matrix;B1=Part(B,1,30)$

Calc;Te=lmda;Sv=S$

Matrix;Beq=Init(8,1,0);Blb=Init(8,1,0)$
Matrix;BLB(1)=b1(2);blb(2)=b1(15);blb(3)=b1(16);BLB(4)=b1(17);BLB(5)=0
;BLB(6)=0;BLB(7)=B1(23);
BLB(8)=B1(24);BEQ(1)=b1(3);BEQ(2)=b1(16);bEQ(3)=0;BEQ(4)=b1(18);BEQ(5)
=b1(19);BEQ(6)=B1(22);
BEQ(7)=0;BEQ(8)=0$

Matrix;BEM=Init(9,1,0)$
calc;A4=1-b1(2)-b1(3);A5=-b1(15)-b1(16);A6=-b1(16);A7=-b1(17)-
b1(18);A8=-b1(19);A9=-b1(22);
A10=-B1(23);A11=-B1(24);A12=b1(15)+2*B1(16)$
matrix;BEM(1)=A4;bEM(2)=A5;bEM(3)=A6;BEM(4)=A7;BEM(5)=A8;BEM(6)=A9;BEM
(7)=A10;BEM(8)=A11;BEM(9)=A12$
CALC;DELETE A4,A5,A6,A7,A8,A9,A10,A11,A12$

Create;S01=XSH'BLB$
Create;S02=XSH'BEQ$
Create;S03=XSHEM'BEM$

Matrix;U1=SHLBc1P-S01;U2=SHEQc1P-S02$

Matrix; DXZ=Dirp(U1,U2); DXX=Dirp(U2,U2);DZZ=Dirp(U1,U1)$
Create;UU2=DXX$
Create;UU1=Dzz$
Create; UU12=DXZ$

Calc;S11=(sUM(UU1))/K;S22=(sUM(UU2))/K;
S12=(SUM(UU12))/k;T11=SGM(1,1)-S11;T12=SGM(1,2)-S12;
T22=SGM(2,2)-S22;T11=Abs(T11);T12=Abs(T12);T22=Abs(T22)$
```

```
Goto; 100;T11 > 0.00001|T12 >0.00001|T22 > .00001$

endprocedure
EXECUTE;SILENT$
calc;list;T11;T22;T12$
calc;delete T11,T12,T22,S11,S22,S12$
?????????????????????????????????????????????????????????????????????''

? Technical efficiency calculation

matrix;TCN=INit(534,1,0)$
Namelist;SA=ONE,LPLB_EM,LPEQ_EM,LKQ_n,LQVMAX,PKM,TKM,DHS220,DTT,
DUMMYHS,DUMMYTT,LSNOW,LSURVEY,TIME,LB2,LBEQ,LBPKM,EQPKM,EQTKM,
,PKMkq_n,TKMkq_n,EQKQ_n,LBTIM,LBQV,QVtim,QV2,Ldens,lagm,Lnet,LKQP2$

create;SAA=B1'SA$
create;Z=LC_em-SAA$
matrix;zz=z-Calloc$

Proc
calc;ZI=ZZ(I)*Te/Sv;ETE=Te*Sv/(1+Te^2)*(N01(Zi)/(1-Phi(zi))-zi)$
matrix;TCN(I)=ETE$
ENDPROC
EXECUTE;I=1,534$
Matrix;LIST;TCN$

? Total inefficiency vector

matrix;TEF=TCN+ALLOC$

calc; delete ete,te,Sv,zi$
DELETE;Z$
??????????????????????????????????????????????????????

? Autocorrelation Test

matrix;Z2=ZZ-TCN$
create;z3=z2$
create;EIXO=Trn(1,1)$
PLOT;LHS=EIXO;RHS=z3$
matrix;dwt=INit(534,1,0)$
Proc
calc;DA=z3(I)-z3(I-1);DA=DA^2$
matrix;DWT(i)=DA$
ENDPROC
EXECUTE;I=2,534$
Matrix; Dee1=Dirp(z3,z3)$
create;DDD=Dee1$
create;DDD1=DWT$

Calc;S11=(sUM(DDD))/(SUM(DDD1))$
???????????????????????????????????????????????????????????????????????
? shadow prices of capital stock

Namelist;
SA=ONE,LPLB_EM,LPEQ_EM,LKQ_n,LQVMAX,PKM,TKM,DHS220,DTT,DUMMYHS,DUMMYTT
,LSNOW,LSURVEY,TIME,LB2,LBEQ,LBPKM,EQPKM,EQTKM,,PKMkq_n,TKMkq_n,EQKQ_n
,LBTIM,LBQV,QVtim,QV2,Ldens,lagm,Lnet,LKQP2$

create;SAA=B1'SA$
CREATE;Lvcsa=SAA+lpemcp$
create;vcsa=exp(Lvcsa)$
create;ETE1=EXP(LKQP)$
```

```
create;SP=vcsa/ETE1$

Namelist; DEV=ONE,PKM,TKM,LPEQ_EM,LKQPS$

matrix;B2=INit(5,1,0)$

matrix;B2(1)=B1(4);B2(2)=B1(20);b2(3)=b1(21);b2(4)=b1(22);B2(5)=b1(30)
$

create;SP1=B2'DEV$

create;SPCS=SP1*SP$

DELETE;SP1,LVCSA,ETE1$

???????????????????????????????????????????????????????????
? OPTIMAL W&S PRODUCTIVE CAPITAL STOCK

Namelist;
SCK=ONE,LPLB_EM,LPEQ_EM,LQVMAX,PKM,TKM,DHS220,DTT,DUMMYHS,DUMMYTT,
LSNOW,LSURVEY,TIME,LB2,LBEQ,LBPKM,EQPKM,EQTKM,LBTIM,LBQV,QVtim
,QV2,Ldens,lagm,Lnet$

matrix;BCK=INIT(25,1,0)$
matrix;BCK(1)=B1(1);BCK(2)=B1(2);bck(3)=b1(3);bck(4)=b1(5);
BCK(5)=B1(6);BCK(6)=B1(7);bck(7)=b1(8);bck(8)=b1(9);BCK(9)=B1(10);
BCK(10)=B1(11);bck(11)=b1(12);bck(12)=b1(13);BCK(13)=B1(14);
BCK(14)=B1(15);bck(15)=b1(16);bck(16)=b1(17);BCK(17)=B1(18);
BCK(18)=B1(19);bck(19)=b1(23);bck(20)=b1(24);BCK(21)=B1(25);
BCK(22)=B1(26);bck(23)=b1(27);bck(24)=b1(28);bck(25)=b1(29)$

create;CGK=SCK'BCK$
create;cgk=cgk+lpemcp$
create;CGK=exp(CGK)$

create;CKPKM=PKM*b1(20)$
create;CKTKM=TKM*b1(21)$
create;CKEQ=LPEQ_EM*b1(22)$
create;CKPTEQ=CKPKM+CKTKM+CKEQ$
create;ckpteq=ckpteq+b1(4)$

Matrix;CSO1=INIT(534,1,0)$

Proc

calc;LNC=B1(30)$
calc;LNET1=LNET(I)$
calc;Calf=B1(30)/2$
calc;CKP=CKPTEQ(I)$
calc;CGKI=CGK(I)$
calc;PKQPI=-PKQP(I)$
sample;1$
minimize;Labels=X;start=100;
Fcn=(CGKI*X^(CKP-1)*(EXP(CAlf*(log(X)-LNET1)^2))*(LNC*(log(X)-
LNET1)+CKP)-PKQPI)^2$
matrix;CSO1(I)=X$
ENDPROC
EXECUTE;I=1,534;silent$

sample;1-534$
create;CSO=CSO1$

namelist; delete SCK$
DELETE;ckpteq,cgk,CKPKM,CKTKM,CKEQ,CLNET$
```

```
calc; delete PKQPI,CGKI,CKP,CALF,LNC$
matrix; delete CSO1,BCK$

??????????????????????????????????????????????????????????????????????
? RETURNS TO SCALE

? dlnC/dY, Y=PASSENGER-KMS

Create;LKQO=log(CSO)$
Create;LKQO_n=LKQO-LNET$

Namelist; DEVP=ONE,LPLB_EM,LPEQ_EM,LKQO$

matrix;B3=INit(4,1,0)$

matrix;B3(1)=B1(6);B3(2)=B1(17);b3(3)=b1(18);b3(4)=b1(20)$


create;SP3=B3'DEVP$

? dlnC/dY,  Y=TONNE-KMS

Namelist; DEVT=ONE,LPEQ_EM,LKQO$

matrix;B4=INit(3,1,0)$

matrix;B4(1)=B1(7);B4(2)=B1(19);b4(3)=b1(21)$

create;SP4=B4'DEVT$

create;DERY=SP3+SP4$

? dln(C)/dln(net)

Namelist; DEVnet=ONE,LKQO_n$

matrix;B5=INit(2,1,0)$

matrix;B5(1)=B1(29)$
calc;ETE=-B1(30)$
matrix;B5(2)=ETE$

create;dernet=B5'DEVnet$

? dln(C)/dln(kq)

Namelist; DEVO=ONE,PKM,TKM,LPEQ_EM,LKQO_n$

matrix;B2=INit(5,1,0)$

matrix;B2(1)=B1(4);B2(2)=B1(20);b2(3)=b1(21);b2(4)=b1(22);B2(5)=b1(30)
$

create;SP2=B2'DEVO$

Create;RTS=1-SP2$

create;dery1=dery+dernet$

Create;RTS=RTS/DERY1$

Create;RTD=1-SP2$

Create;RTD=RTD/DERY$
```

```
matrix; delete B2,b3$

namelist; delete DEVO,devnet$
delete; dery1,dernet$

??????????????????????????????????????????????????????????????????????
? Elasticities of substitution

Calc;Kll2=B1(15)$
Calc;Kll3=B1(16)$

create;SLBEQ1=S01*S02$
create;SLBEQ=SLBEQ1+KLL3$
create;SLBEQ=SLBEQ/SLBEQ1$

create;SLB21=S01*S01$
create;SLB2=SLB21-S01$
create;SLB2=SLB2+KLL2$
create;SLB2=SLB2/SLB21$

create;SEQ21=S02*S02$
create;SEQ2=SEQ21-S02$
create;SEQ2=SEQ2/SEQ21$

Namelist; XSHEM=ONE,LPLBCP,LPEQ1P,PKM,TKM,LKQ_n,TIME,LQVMAx,LPEMCP$

Matrix;BEM=Init(9,1,0)$
calc;A4=1-b1(2)-b1(3);A5=-b1(15)-b1(16);A6=-b1(16)
;A7=-b1(17)-b1(18);A8=-b1(19);A9=-b1(22);A10=-B1(23);A11=-
B1(24);A12=b1(15)+2*B1(16)$
matrix;BEM(1)=A4;bEM(2)=A5;bEM(3)=A6;BEM(4)=A7;BEM(5)=A8;BEM(6)=A9;BEM
(7)=A10;BEM(8)=A11;BEM(9)=A12$
CALC;DELETE A4,A5,A6,A7,A8,A9,A10,A11,A12$

calc;KLL1=BEM(9)$
Create;S03=XSHEM'BEM$

create;SEM21=S03*S03$
create;SEM2=SEM21-S03$
create;SEM2=SEM2+KLL1$
create;SEM2=SEM2/SEM21$

calc;KLL2=BEM(2)$

create;SLBEM1=S01*S03$
create;SLBem=SLBem1+KLL2$
create;SLBEm=SLBem/SLBem1$

calc;KLL3=BEM(3)$

create;Seqem3=S02*S03$
create;Seqem2=Seqem3+KLL3$
create;Seqem=(Seqem2)/(Seqem3)$

delete;SEQ21,SLB21,SLBEM1,SEM21,SLBEQ1,Seqem3,seqem2$

calc; delete KLL1,KLL2,KLL3$

??????????????????????????????????????????????????????????????????????

? PGX and PGY
```

```
Namelist;
SA=ONE,LPLB_EM,LPEQ_EM,LKQ_n,LQVMAX,PKM,TKM,DHS220,DTT,DUMMYHS,DUMMYTT
,LSNOW,LSURVEY,TIME,LB2,LBEQ,LBPKM,EQPKM,EQTKM,PKMkq_n,TKMkq_n,EQKQ_n,
LBTIM,LBQV,QVtim,QV2,Ldens,lagm,Lnet,LKQP2$

Namelist;SATIME=one,LPLB_EM,LQVMAX$

matrix;B6=INit(3,1,0)$

matrix;B6(1)=B1(14);B6(2)=B1(23);b6(3)=b1(25)$

create;SP6=B6'SATIME$
create;SP6=-SP6$
create;SP7=1-SP2$
create;PGX=SP6/SP7$

create;PGY=SP6/dery$

matrix; delete B6,B4$
delete;SP6,SP7,SP2,SP3,SP4$
```

APPENDIX C: Econometric cost structure results

Using the model specifications described in chapter 3, twelve alternative models were run. Parameter estimated results from these models are shown in Tables C.1 to C.12. The final results shown, for each model run, on these tables are: (1) the initial OLS estimates used to obtain starting parameter values for maximum likelihood estimation; (2) the maximum likelihood estimates of the frontier cost function parameters.

The variables which are displayed in these tables are:

LPLB_EM = Log (labour price / materials & energy price);

LPEQ_EM = Log (transport equipment price/material & energy price);

LKQ_N = Log (utilisation rate x productive way & structure capital stock);

LQVMAX = Log (quality of service factor);

PKM = Log (passenger-kilometres/1000) or Log (passenger train-kilometres/1000) ;

TKM = Log (tonne-kilometres/1000) or Log (freight train-kilometres/1000);

DHS220 = DUMMYHS*Log (number of high speed tractive vehicles);

DTT = DUMMYTT*Log (number of tilting train tractive vehicles);

DUMMYHS = dummy for high speed trains;

DUMMYTT = dummy for tilting trains;

LSNOW = Log (weather factor);

LSURVEY = Log (terrain factor);

TIME = time trend;

LB2 = 1/2*(LPLB_EM)^2;

LBEQ = (LPEQ_EM)*(LPLB_EM);

LBPKM = (LPLB_EM)*(PKM);

EQPKM = (LPEQ_EM)*(PKM);

EQTKM = (LPEQ_EM)*(TKM);

PKMKQ_N = (PKM)*(LKQ_N);

TKMKQ_N = (TKM)*(LKQ_N);

EQKQ_N = (LPEQ_EM)*(LKQ_N);

LBTIM = (LPLB_EM)*(TIME);

LBQV = (LPLB_EM)*(LQVMAX);

QVTIM = (LQVMAX)*(TIME);

QV2 = 1/2*(LQVMAX)^2;

LDENS = Log (population density);

LAGM = Log (city agglomeration factor);

LNET = Log (net length);

LKQT2 = 1/2*((LKQ_N - LNET))^2;

CALLOC = Log (cost of allocative inefficiency) used in model III, given by expression (3.19);

CALLOC 1,2,3 = allocative inefficiency terms c_i^a used in model II, given by (3.16);

UU 1,2 = allocative inefficiency terms $(u_i)^2$, used in model I, where the term u_i is the error term of the i^{th} input cost share equation.

Table C.1 The translog stochastic frontier cost function: maximum likelihood parameter estimates – model I using data set P and output set Y_I

```
+----------------------------------------------------------------------+
| Limited Dependent Variable Model - FRONTIER   Regression             |
| Ordinary    least squares regression    Weighting variable = WP      |
| Dep. var. = LC_EM    Mean=   12.64288406    , S.D.=   1.172516342    |
| Model size: Observations =     534, Parameters =  32, Deg.Fr.=    502 |
| Residuals:  Sum of squares= 5.500046216    , Std.Dev.=         .10467 |
| Fit:        R-squared=  .992494, Adjusted R-squared =          .99203 |
| Model test: F[ 31,    502] = 2141.26,    Prob value =          .00000 |
| Diagnostic: Log-L =    463.9825, Restricted(b=0) Log-L =    -842.2000 |
|             LogAmemiyaPrCrt.=   -4.456, Akaike Info. Crt.=     -1.618 |
+----------------------------------------------------------------------+
+---------+--------------+----------------+--------+---------+----------+
|Variable | Coefficient  | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+---------+--------------+----------------+--------+---------+----------+
 Constant -4.097915433      .64434385       -6.360   .0000
 LPLB_EM   1.553585026      .14366864       10.814   .0000  1.5758036
 LPEQ_EM  -.5428663107      .60549401E-01   -8.966   .0000 -4.1441589
 LKQ_N     .6319780961      .63522398E-01    9.949   .0000  14.370610
 LQVMAX    .1007953166      .34668500E-01    2.907   .0036  .81581688
 PKM      -.2598287387      .11513663       -2.257   .0240  8.7499347
 TKM       .7980481482      .96725264E-01    8.251   .0000  8.7026703
 DHS220   -.3303200553E-01  .90495291E-02   -3.650   .0003  .46197577
 DTT       .3185239832E-01  .12641303E-01    2.520   .0117  .31062563
 DUMMYHS   .2446178720E-01  .29186861E-01     .838   .4020  .16160615
 DUMMYTT  -.2283227284      .37333715E-01   -6.116   .0000  .11888035
 LSNOW     .4191844136E-01  .51212932E-02    8.185   .0000  3.6284781
 LSURVEY   .7092563450E-01  .88280243E-02    8.034   .0000  5.7863012
 TIME     -.3802535752E-02  .22289962E-02   -1.706   .0880  16.005210
 LB2       .1679187440E-01  .35705580E-01     .470   .6381  1.4226169
 LBEQ      .9385033985E-02  .98697225E-02     .951   .3417 -6.2657788
 LBPKM    -.1154290235      .11113176E-01  -10.387   .0000  13.677641
 EQPKM    -.4240490598E-01  .97241150E-02   -4.361   .0000 -36.261041
 EQTKM     .1182688064E-01  .75967951E-02    1.557   .1195 -36.106744
 PKMKQ_N   .2772694323E-01  .63582234E-02    4.361   .0000  127.74954
 TKMKQ_N  -.4147401387E-01  .61325504E-02   -6.763   .0000  126.81585
 EQKQ_N    .6730222807E-01  .68442417E-02    9.833   .0000 -59.303903
 LBTIM    -.5865237231E-02  .15415879E-02   -3.805   .0001  24.342546
 LBQV     -.8604734942E-01  .17772296E-01   -4.842   .0000  1.4440746
 QVTIM     .3755062713E-03  .12761384E-02     .294   .7686  14.107837
 QV2      -.6029561489E-01  .12250246E-01   -4.922   .0000  .65186139
 LDENS     .3712341426      .23469053E-01   15.818   .0000  4.5842721
 LAGM     -.4719683207E-01  .12688234E-01   -3.720   .0002  2.9486725
 LNET      .3551777785      .51714884E-01    6.868   .0000  8.5453426
 LKQP2    -.2468389994E-01  .72575287E-02   -3.401   .0007  17.809855
 UU1       .8052154075      .15753586        5.111   .0000  .94350019E-01
 UU2       1.032218208      .25511641        4.046   .0001  .12382065E-01
```

Table C.1(cont.)

```
+--------------------------------------------+
| Limited Dependent Variable Model - FRONTIER |
| Maximum Likelihood Estimates                |
| Dependent variable                LC_EM     |
| Weighting variable                   WP     |
| Number of observations              534     |
| Iterations completed                 34     |
| Log likelihood function       473.6292     |
| Variances: Sigma-squared(v)=       .00411   |
|            Sigma-squared(u)=       .01715   |
+--------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Primary Index Equation for Model					
Constant	-4.631686565	.58981437	-7.853	.0000	
LPLB_EM	1.658547517	.12781164	12.976	.0000	1.5758036
LPEQ_EM	-.5608323300	.36138743E-01	-15.519	.0000	-4.1441589
LKQ_N	.6752041638	.52192140E-01	12.937	.0000	14.370610
LQVMAX	.1179545536	.29061002E-01	4.059	.0000	.81581688
PKM	-.2128651078	.99436866E-01	-2.141	.0323	8.7499347
TKM	.7867826883	.90158757E-01	8.727	.0000	8.7026703
DHS220	-.3621116667E-01	.94223385E-02	-3.843	.0001	.46197577
DTT	.3376819842E-01	.11298894E-01	2.989	.0028	.31062563
DUMMYHS	.3838939789E-01	.34145824E-01	1.124	.2609	.16160615
DUMMYTT	-.2295605740	.33254361E-01	-6.903	.0000	.11888035
LSNOW	.4165448612E-01	.56885388E-02	7.323	.0000	3.6284781
LSURVEY	.7543219869E-01	.90197832E-02	8.363	.0000	5.7863012
TIME	-.3750328332E-02	.22405889E-02	-1.674	.0942	16.005210
LB2	.1111656577E-01	.30529034E-01	.364	.7158	1.4226169
LBEQ	.1252868660E-01	.79407918E-02	1.578	.1146	-6.2657788
LBPKM	-.1260631278	.10721374E-01	-11.758	.0000	13.677641
EQPKM	-.3959912567E-01	.54861217E-02	-7.218	.0000	-36.261041
EQTKM	.9174492427E-02	.53584652E-02	1.712	.0869	-36.106744
PKMKQ_N	.2614918925E-01	.58886462E-02	4.441	.0000	127.74954
TKMKQ_N	-.4240663575E-01	.59950384E-02	-7.074	.0000	126.81585
EQKQ_N	.6931592132E-01	.41300698E-02	16.783	.0000	-59.303903
LBTIM	-.6690602088E-02	.16201303E-02	-4.130	.0000	24.342546
LBQV	-.8527808104E-01	.15365234E-01	-5.550	.0000	1.4440746
QVTIM	.2650621640E-03	.11265808E-02	.235	.8140	14.107837
QV2	-.6585661638E-01	.95237041E-02	-6.915	.0000	.65186139
LDENS	.3622032630	.23625014E-01	15.331	.0000	4.5842721
LAGM	-.4750331031E-01	.12273983E-01	-3.870	.0001	2.9486725
LNET	.3456503422	.46865171E-01	7.375	.0000	8.5453426
LKQP2	-.2657217546E-01	.62002213E-02	-4.286	.0000	17.809855
UU1	.9734767130	.15328930	6.351	.0000	.94350019E-01
UU2	.9626109554	.37880924	2.541	.0110	.12382065E-01
Variance parameters for compound error					
Lambda	2.041815129	.25304172	8.069	.0000	
Sigma	.1458216446	.84146469E-02	17.330	.0000	

Table C.2 The translog stochastic frontier cost function: maximum likelihood parameter estimates – model II using data set P and output set Y_I

```
+-----------------------------------------------------------------------+
| Limited Dependent Variable Model - FRONTIER   Regression              |
| Ordinary    least squares regression    Weighting variable = WP       |
| Dep. var. = LC_EM    Mean=   12.64288406    , S.D.=   1.172516342     |
| Model size: Observations =     534, Parameters =  33, Deg.Fr.=    501 |
| Residuals:  Sum of squares= 4.053035657    , Std.Dev.=         .08994 |
| Fit:        R-squared=  .994469, Adjusted R-squared =          .99412 |
| Model test: F[ 32,    501] = 2814.90,    Prob value =          .00000 |
| Diagnostic: Log-L =    545.4950, Restricted(b=0) Log-L =    -842.2000 |
|             LogAmemiyaPrCrt.=   -4.757, Akaike Info. Crt.=     -1.919 |
+-----------------------------------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Constant	-4.743233382	.59291797	-8.000	.0000	
LPLB_EM	1.682416499	.13392247	12.563	.0000	1.5758036
LPEQ_EM	-.5436972194	.54608569E-01	-9.956	.0000	-4.1441589
LKQ_N	.6594991912	.53973471E-01	12.219	.0000	14.370610
LQVMAX	.1103272650	.29537494E-01	3.735	.0002	.81581688
PKM	-.2054864908	.10366840	-1.982	.0475	8.7499347
TKM	.8314101954	.88663837E-01	9.377	.0000	8.7026703
DHS220	-.4211636334E-01	.78471563E-02	-5.367	.0000	.46197577
DTT	.2170466529E-01	.10560536E-01	2.055	.0399	.31062563
DUMMYHS	.4590047344E-01	.25209065E-01	1.821	.0686	.16160615
DUMMYTT	-.1847729225	.31922014E-01	-5.788	.0000	.11888035
LSNOW	.5471854435E-01	.45532617E-02	12.017	.0000	3.6284781
LSURVEY	.6334800434E-01	.75171562E-02	8.427	.0000	5.7863012
TIME	-.5029564241E-02	.19180353E-02	-2.622	.0087	16.005210
LB2	.2926965291E-03	.31247275E-01	.009	.9925	1.4226169
LBEQ	.2103110782E-01	.90034123E-02	2.336	.0195	-6.2657788
LBPKM	-.1221345703	.10391471E-01	-11.753	.0000	13.677641
EQPKM	-.4765404290E-01	.87914780E-02	-5.420	.0000	-36.261041
EQTKM	.2276737538E-01	.67805551E-02	3.358	.0008	-36.106744
PKMKQ_N	.2041073530E-01	.55753615E-02	3.661	.0003	127.74954
TKMKQ_N	-.4234620491E-01	.55443827E-02	-7.638	.0000	126.81585
EQKQ_N	.6204092319E-01	.58316462E-02	10.639	.0000	-59.303903
LBTIM	-.7268189222E-02	.13287851E-02	-5.470	.0000	24.342546
LBQV	-.9316366141E-01	.15120208E-01	-6.162	.0000	1.4440746
QVTIM	.2554487470E-02	.11078648E-02	2.306	.0211	14.107837
QV2	-.9801040393E-01	.11282377E-01	-8.687	.0000	.65186139
LDENS	.3062034116	.20697908E-01	14.794	.0000	4.5842721
LAGM	.7199414467E-02	.11572576E-01	.622	.5339	2.9486725
LNET	.3984960690	.44637196E-01	8.927	.0000	8.5453426
LKQP2	-.1850544666E-01	.62768791E-02	-2.948	.0032	17.809855
CALLOC1	2.013416198	.15562965	12.937	.0000	.99576580E-01
CALLOC2	7.391721524	.69053166	10.704	.0000	.83301871E-02
CALLOC3	4.338907913	.39581007	10.962	.0000	-.15196392E-01

Table C.2 (cont.)

```
+---------------------------------------------+
| Limited Dependent Variable Model - FRONTIER |
| Maximum Likelihood Estimates                |
| Dependent variable                LC_EM     |
| Weighting variable                   WP     |
| Number of observations              534     |
| Iterations completed                 37     |
| Log likelihood function        546.6050     |
| Variances: Sigma-squared(v)=       .00515   |
|            Sigma-squared(u)=       .00677   |
+---------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
	Primary Index Equation for Model				
Constant	-4.844438606	.52570813	-9.215	.0000	
LPLB_EM	1.702299226	.11995765	14.191	.0000	1.5758036
LPEQ_EM	-.5400935795	.34550895E-01	-15.632	.0000	-4.1441589
LKQ_N	.6831786023	.45824473E-01	14.909	.0000	14.370610
LQVMAX	.1104358568	.27362161E-01	4.036	.0001	.81581688
PKM	-.1976859865	.93002977E-01	-2.126	.0335	8.7499347
TKM	.8125068758	.86549590E-01	9.388	.0000	8.7026703
DHS220	-.4466389357E-01	.92984539E-02	-4.803	.0000	.46197577
DTT	.2320626955E-01	.10345756E-01	2.243	.0249	.31062563
DUMMYHS	.5348974160E-01	.34432822E-01	1.553	.1203	.16160615
DUMMYTT	-.1946347124	.26556116E-01	-7.329	.0000	.11888035
LSNOW	.5609782503E-01	.46085549E-02	12.173	.0000	3.6284781
LSURVEY	.6546407101E-01	.76503730E-02	8.557	.0000	5.7863012
TIME	-.5065029086E-02	.19839483E-02	-2.553	.0107	16.005210
LB2	-.4376426900E-02	.27623309E-01	-.158	.8741	1.4226169
LBEQ	.1965596853E-01	.68830493E-02	2.856	.0043	-6.2657788
LBPKM	-.1241997824	.98472950E-02	-12.613	.0000	13.677641
EQPKM	-.4747767046E-01	.52335346E-02	-9.072	.0000	-36.261041
EQTKM	.1947311369E-01	.47367435E-02	4.111	.0000	-36.106744
PKMKQ_N	.2071640626E-01	.53647248E-02	3.862	.0001	127.74954
TKMKQ_N	-.4211107020E-01	.58637451E-02	-7.182	.0000	126.81585
EQKQ_N	.6413393805E-01	.40338483E-02	15.899	.0000	-59.303903
LBTIM	-.7364351015E-02	.14396046E-02	-5.116	.0000	24.342546
LBQV	-.9268894721E-01	.13979555E-01	-6.630	.0000	1.4440746
QVTIM	.2663812662E-02	.11101365E-02	2.400	.0164	14.107837
QV2	-.9541409456E-01	.11989156E-01	-7.958	.0000	.65186139
LDENS	.3105733191	.22072341E-01	14.071	.0000	4.5842721
LAGM	.2379226095E-02	.11733503E-01	.203	.8393	2.9486725
LNET	.3746727172	.44780529E-01	8.367	.0000	8.5453426
LKQP2	-.2252850179E-01	.60351994E-02	-3.733	.0002	17.809855
CALLOC1	1.977432181	.15435941	12.811	.0000	.99576580E-01
CALLOC2	7.169409032	.57448145	12.480	.0000	.83301871E-02
CALLOC3	4.239529243	.37166014	11.407	.0000	-.15196392E-01
	Variance parameters for compound error				
Lambda	1.146889597	.19768860	5.801	.0000	
Sigma	.1091696000	.91914192E-02	11.877	.0000	

Table C.3 The translog stochastic frontier cost function: maximum likelihood parameter estimates – model III using data set P and output set Y_I

```
+----------------------------------------------------------------------+
| Limited Dependent Variable Model - FRONTIER   Regression             |
| Ordinary    least squares regression    Weighting variable = WP      |
| Dep. var. = LC_EM    Mean=   12.64288406    , S.D.=   1.172516342    |
| Model size: Observations =     534, Parameters =  31, Deg.Fr.=    503 |
| Residuals:  Sum of squares= 5.854819146    , Std.Dev.=         .10789 |
| Fit:        R-squared=  .992010, Adjusted R-squared =          .99153 |
| Model test: F[ 30,    503] = 2081.68,    Prob value =          .00000 |
| Diagnostic: Log-L =    447.2927, Restricted(b=0) Log-L =    -842.2000 |
|             LogAmemiyaPrCrt.=   -4.397, Akaike Info. Crt.=     -1.559 |
+----------------------------------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Constant	-1.942916649	.57375079	-3.386	.0007	
LPLB_EM	1.082941248	.12457861	8.693	.0000	1.5758036
LPEQ_EM	-.3525122771	.55931942E-01	-6.303	.0000	-4.1441589
LKQ_N	.4921746988	.61735247E-01	7.972	.0000	14.370610
LQVMAX	.6745993656E-01	.34921092E-01	1.932	.0534	.81581688
PKM	-.4676471208	.10445879	-4.477	.0000	8.7499347
TKM	.7876699389	.96584046E-01	8.155	.0000	8.7026703
DHS220	-.2924326187E-01	.92531565E-02	-3.160	.0016	.46197577
DTT	.1302520980E-01	.12510177E-01	1.041	.2978	.31062563
DUMMYHS	.1218157816E-01	.29962365E-01	.407	.6843	.16160615
DUMMYTT	-.2072598828	.38052732E-01	-5.447	.0000	.11888035
LSNOW	.5102721649E-01	.49741532E-02	10.258	.0000	3.6284781
LSURVEY	.8765306925E-01	.85319852E-02	10.273	.0000	5.7863012
TIME	-.4926478387E-02	.22823032E-02	-2.159	.0309	16.005210
LB2	.5364903372E-01	.36225497E-01	1.481	.1386	1.4226169
LBEQ	-.1131592819E-01	.95342755E-02	-1.187	.2353	-6.2657788
LBPKM	-.7376621322E-01	.83611071E-02	-8.823	.0000	13.677641
EQPKM	-.4939675345E-01	.98186464E-02	-5.031	.0000	-36.261041
EQTKM	.9171608138E-02	.77989429E-02	1.176	.2396	-36.106744
PKMKQ_N	.3853102850E-01	.58318147E-02	6.607	.0000	127.74954
TKMKQ_N	-.3970297194E-01	.61736256E-02	-6.431	.0000	126.81585
EQKQ_N	.6021155378E-01	.69374833E-02	8.679	.0000	-59.303903
LBTIM	-.3266458252E-02	.15182050E-02	-2.152	.0314	24.342546
LBQV	-.8478784319E-01	.17800388E-01	-4.763	.0000	1.4440746
QVTIM	.4471438832E-03	.13152793E-02	.340	.7339	14.107837
QV2	-.5726216922E-01	.12483881E-01	-4.587	.0000	.65186139
LDENS	.4382105323	.20571588E-01	21.302	.0000	4.5842721
LAGM	-.5608197788E-01	.13015889E-01	-4.309	.0000	2.9486725
LNET	.3428981977	.53133922E-01	6.453	.0000	8.5453426
LKQP2	-.2877699951E-01	.74046937E-02	-3.886	.0001	17.809855
CALLOC	.4471703135E-01	.12197381E-01	3.666	.0002	.70730229E-01

Table C.3 (cont.)

```
              +-----------------------------------------------+
              | Limited Dependent Variable Model - FRONTIER |
              | Maximum Likelihood Estimates                  |
              | Dependent variable                LC_EM      |
              | Weighting variable                   WP      |
              | Number of observations              534      |
              | Iterations completed                  1      |
              | Log likelihood function      -546.1288      |
              | Variances: Sigma-squared(v)=       .01300    |
              |            Sigma-squared(u)=       .04266    |
              +-----------------------------------------------+
+---------+--------------+----------------+--------+---------+----------+
|Variable | Coefficient  | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+---------+--------------+----------------+--------+---------+----------+
          Primary Index Equation for Model
 Constant -2.910178254      .87989322       -3.307   .0009
 LPLB_EM   1.397078741      .15619340        8.945   .0000  1.5758036
 LPEQ_EM  -.4245748881      .59966660E-01   -7.080   .0000 -4.1441589
 LKQ_N     .5626156954      .88698102E-01    6.343   .0000  14.370610
 LQVMAX    .1270335551      .56266449E-01    2.258   .0240  .81581688
 PKM      -.3669661747      .14807236       -2.478   .0132  8.7499347
 TKM       .7181877975      .13800271        5.204   .0000  8.7026703
 DHS220   -.4383177565E-01  .18802370E-01   -2.331   .0197  .46197577
 DTT       .1581042443E-01  .28126472E-01     .562   .5740  .31062563
 DUMMYHS   .2337328712E-01  .57385478E-01     .407   .6838  .16160615
 DUMMYTT  -.2162116299      .74647233E-01   -2.896   .0038  .11888035
 LSNOW     .4713034679E-01  .12085681E-01    3.900   .0001  3.6284781
 LSURVEY   .9114392289E-01  .18105846E-01    5.034   .0000  5.7863012
 TIME     -.2190591661E-01  .42772742E-02   -5.121   .0000  16.005210
 LB2       .1606288825E-01  .45354973E-01     .354   .7232  1.4226169
 LBEQ     -.4055270089E-02  .13486905E-01    -.301   .7637 -6.2657788
 LBPKM    -.1067054317      .13159293E-01   -8.109   .0000  13.677641
 EQPKM    -.5363270432E-01  .78211452E-02   -6.857   .0000 -36.261041
 EQTKM     .3367817847E-01  .10165689E-01    3.313   .0009 -36.106744
 PKMKQ_N   .3266386483E-01  .92603076E-02    3.527   .0004  127.74954
 TKMKQ_N  -.3541892556E-01  .91483929E-02   -3.872   .0001  126.81585
 EQKQ_N    .5083548047E-01  .66126490E-02    7.688   .0000 -59.303903
 LBTIM    -.6005241677E-04  .35038184E-02    -.017   .9863  24.342546
 LBQV     -.1243622824      .34257730E-01   -3.630   .0003  1.4440746
 QVTIM     .8705056089E-02  .24312359E-02    3.581   .0003  14.107837
 QV2      -.6584506945E-01  .18929011E-01   -3.479   .0005  .65186139
 LDENS     .3843511772      .39293686E-01    9.781   .0000  4.5842721
 LAGM     -.6016622985E-01  .22776431E-01   -2.642   .0083  2.9486725
 LNET      .3546992116      .94261406E-01    3.763   .0002  8.5453426
 LKQP2    -.3626944664E-01  .13769276E-01   -2.634   .0084  17.809855
 CALLOC    1.000000000    ........(Fixed Parameter)........ .70730229E-01
          Variance parameters for compound error
 Lambda    1.811776575      .35628599E-01   50.852   .0000
 Sigma     .2359262726      .40621065E-02   58.080   .0000
```

Table C.4. The translog stochastic frontier cost function: maximum likelihood parameter estimates – model I using data set P and output set Y_{II}

```
+----------------------------------------------------------------------+
| Limited Dependent Variable Model - FRONTIER   Regression              |
| Ordinary    least squares regression    Weighting variable = WT       |
| Dep. var. = LC_EM    Mean=   12.23204897    , S.D.=    1.236960555    |
| Model size: Observations =     534, Parameters =  32, Deg.Fr.=    502 |
| Residuals:  Sum of squares= 5.496143982    , Std.Dev.=         .10464 |
| Fit:        R-squared=  .993261, Adjusted R-squared =          .99284 |
| Model test: F[ 31,    502] = 2386.64,    Prob value =          .00000 |
| Diagnostic: Log-L =    464.1720, Restricted(b=0) Log-L =    -870.7717 |
|             LogAmemiyaPrCrt.=   -4.456, Akaike Info. Crt.=     -1.619 |
+----------------------------------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Constant	2.890280945	.45046153	6.416	.0000	
LPLB_EM	.8073364912	.80006747E-01	10.091	.0000	1.4844280
LPEQ_EM	-.4387352165	.43099429E-01	-10.180	.0000	-4.6706768
LKQ_N	.3215576393	.50642464E-01	6.350	.0000	13.843602
LQVMAX	.3261379493E-01	.34571303E-01	.943	.3455	.72439927
PKM	-.4460136984	.14822781	-3.009	.0026	3.6182753
TKM	.9523510229	.13711346	6.946	.0000	2.6106171
DHS220	-.1608569578E-01	.97039083E-02	-1.658	.0974	.26718538
DTT	.1289893198E-01	.12765006E-01	1.010	.3123	.22482638
DUMMYHS	-.1723765411E-01	.31533716E-01	-.547	.5846	.10808309
DUMMYTT	-.1264287776	.35276160E-01	-3.584	.0003	.95405184E-01
LSNOW	.9506426885E-02	.49831976E-02	1.908	.0564	3.5555969
LSURVEY	.5004556485E-01	.93668171E-02	5.343	.0000	5.7875127
TIME	-.5760450806E-02	.19093918E-02	-3.017	.0026	15.098739
LB2	.1242371369	.31472563E-01	3.947	.0001	1.3325064
LBEQ	.2308528399E-01	.56253228E-02	4.104	.0000	-6.4402844
LBPKM	-.1129960107	.88074641E-02	-12.830	.0000	5.2920493
EQPKM	-.2328785713E-01	.10110955E-01	-2.303	.0213	-16.565545
EQTKM	.1759644318E-01	.83874792E-02	2.098	.0359	-12.095540
PKMKQ_N	.5444012457E-01	.91955231E-02	5.920	.0000	52.319367
TKMKQ_N	-.5288284722E-01	.84297135E-02	-6.273	.0000	38.126478
EQKQ_N	.4124176985E-01	.44123684E-02	9.347	.0000	-63.952081
LBTIM	-.3466676787E-02	.14867552E-02	-2.332	.0197	21.230557
LBQV	-.6398639923E-02	.19394042E-01	-.330	.7415	1.3284442
QVTIM	-.7572646240E-03	.10598753E-02	-.714	.4749	12.211841
QV2	-.2485452763E-01	.12261868E-01	-2.027	.0427	.64941324
LDENS	.1028660827	.21442803E-01	4.797	.0000	4.5761127
LAGM	.3054386894E-01	.10170075E-01	3.003	.0027	2.9078777
LNET	.2856744109	.50264712E-01	5.683	.0000	8.2081816
LKQP2	-.1169688869E-01	.75244041E-02	-1.555	.1201	16.785778
UU1	1.782649401	.21218085	8.402	.0000	.62868437E-01
UU2	2.466398048	.25980134	9.493	.0000	.10710217E-01

Table C.4 (cont.)

```
+--------------------------------------------+
| Limited Dependent Variable Model - FRONTIER |
| Maximum Likelihood Estimates               |
| Dependent variable              LC_EM      |
| Weighting variable                 WT      |
| Number of observations            534      |
| Iterations completed               20      |
| Log likelihood function      474.8030      |
| Variances: Sigma-squared(v)=      .00256   |
|            Sigma-squared(u)=      .02247   |
+--------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
	Primary Index Equation for Model				
Constant	3.196158964	.40172756	7.956	.0000	
LPLB_EM	.8250018452	.93716208E-01	8.803	.0000	1.4844280
LPEQ_EM	-.3782120853	.36891445E-01	-10.252	.0000	-4.6706768
LKQ_N	.2836399153	.52701168E-01	5.382	.0000	13.843602
LQVMAX	.5801943345E-01	.36289699E-01	1.599	.1099	.72439927
PKM	-.3772702514	.15324670	-2.462	.0138	3.6182753
TKM	.9563654136	.15451029	6.190	.0000	2.6106171
DHS220	-.2187142144E-01	.96723716E-02	-2.261	.0237	.26718538
DTT	.1321815396E-01	.93127062E-02	1.419	.1558	.22482638
DUMMYHS	.7219208810E-03	.37929296E-01	.019	.9848	.10808309
DUMMYTT	-.1446233395	.27859643E-01	-5.191	.0000	.95405184E-01
LSNOW	.7909192694E-02	.58845985E-02	1.344	.1789	3.5555969
LSURVEY	.6579551258E-01	.91569847E-02	7.185	.0000	5.7875127
TIME	-.8059203176E-02	.25313792E-02	-3.184	.0015	15.098739
LB2	.1069628878	.32141442E-01	3.328	.0009	1.3325064
LBEQ	.2856872023E-01	.68408357E-02	4.176	.0000	-6.4402844
LBPKM	-.1162460114	.93440568E-02	-12.441	.0000	5.2920493
EQPKM	-.7065792783E-02	.10292284E-01	-.687	.4924	-16.565545
EQTKM	.1656053730E-01	.87076905E-02	1.902	.0572	-12.095540
PKMKQ_N	.5727519577E-01	.98321194E-02	5.825	.0000	52.319367
TKMKQ_N	-.5567113989E-01	.96619703E-02	-5.762	.0000	38.126478
EQKQ_N	.3296790951E-01	.40203106E-02	8.200	.0000	-63.952081
LBTIM	-.2548994356E-02	.17876699E-02	-1.426	.1539	21.230557
LBQV	-.4733831500E-03	.19875827E-01	-.024	.9810	1.3284442
QVTIM	-.1584591764E-02	.12650842E-02	-1.253	.2104	12.211841
QV2	-.1457043711E-01	.11706716E-01	-1.245	.2133	.64941324
LDENS	.8564597767E-01	.23251525E-01	3.683	.0002	4.5761127
LAGM	.3416187464E-01	.11234438E-01	3.041	.0024	2.9078777
LNET	.2705018288	.52288099E-01	5.173	.0000	8.2081816
LKQP2	-.1434120405E-01	.75388466E-02	-1.902	.0571	16.785778
UU1	1.857538670	.18816072	9.872	.0000	.62868437E-01
UU2	2.365471145	.30489462	7.758	.0000	.10710217E-01
	Variance parameters for compound error				
Lambda	2.965419023	.35393967	8.378	.0000	
Sigma	.1581919040	.82828496E-02	19.099	.0000	

Table C.5. The translog stochastic frontier cost function: maximum likelihood parameter estimates – model II using data set P and output set Y_{II}

```
+-----------------------------------------------------------------------+
| Limited Dependent Variable Model - FRONTIER   Regression              |
| Ordinary    least squares regression    Weighting variable = WT       |
| Dep. var. = LC_EM    Mean=   12.23204897    , S.D.=    1.236960555    |
| Model size: Observations =     534, Parameters =  33, Deg.Fr.=    501 |
| Residuals:  Sum of squares= 4.107728076    , Std.Dev.=         .09055 |
| Fit:        R-squared=  .994963, Adjusted R-squared =          .99464 |
| Model test: F[ 32,    501] = 3092.66,    Prob value =          .00000 |
| Diagnostic: Log-L =    541.9162, Restricted(b=0) Log-L =    -870.7717 |
|             LogAmemiyaPrCrt.=   -4.744, Akaike Info. Crt.=     -1.906 |
+-----------------------------------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Constant	5.195097968	.41247882	12.595	.0000	
LPLB_EM	.7889285869	.76963106E-01	10.251	.0000	1.4844280
LPEQ_EM	-.2241583281	.39408999E-01	-5.688	.0000	-4.6706768
LKQ_N	.1819663100	.44993811E-01	4.044	.0001	13.843602
LQVMAX	.4303681479E-01	.30720407E-01	1.401	.1612	.72439927
PKM	-.5405857117	.13708670	-3.943	.0001	3.6182753
TKM	1.081451206	.12745547	8.485	.0000	2.6106171
DHS220	-.4900764324E-02	.85697097E-02	-.572	.5674	.26718538
DTT	.1042081789E-01	.10666010E-01	.977	.3286	.22482638
DUMMYHS	-.3410769777E-01	.27564666E-01	-1.237	.2159	.10808309
DUMMYTT	-.9953655541E-01	.30118856E-01	-3.305	.0010	.95405184E-01
LSNOW	.9099086307E-02	.42527980E-02	2.140	.0324	3.5555969
LSURVEY	.5838407422E-01	.81155852E-02	7.194	.0000	5.7875127
TIME	-.7384886671E-02	.16843962E-02	-4.384	.0000	15.098739
LB2	.7946598114E-01	.28787470E-01	2.760	.0058	1.3325064
LBEQ	.4217550284E-01	.62063442E-02	6.796	.0000	-6.4402844
LBPKM	-.6889983787E-01	.80617890E-02	-8.546	.0000	5.2920493
EQPKM	-.2980251810E-01	.90028560E-02	-3.310	.0009	-16.565545
EQTKM	.3414971680E-01	.73389387E-02	4.653	.0000	-12.095540
PKMKQ_N	.5947200787E-01	.83666131E-02	7.108	.0000	52.319367
TKMKQ_N	-.5346681368E-01	.77617154E-02	-6.889	.0000	38.126478
EQKQ_N	.2605176383E-01	.40983341E-02	6.357	.0000	-63.952081
LBTIM	-.2866925828E-02	.13489331E-02	-2.125	.0336	21.230557
LBQV	-.2575648648E-01	.17512274E-01	-1.471	.1414	1.3284442
QVTIM	-.6885215675E-03	.93784830E-03	-.734	.4629	12.211841
QV2	-.2588337051E-01	.10231573E-01	-2.530	.0114	.64941324
LDENS	.7032687808E-01	.17979013E-01	3.912	.0001	4.5761127
LAGM	.5266412596E-01	.89682024E-02	5.872	.0000	2.9078777
LNET	.2163366355	.45617507E-01	4.742	.0000	8.2081816
LKQP2	-.9021106772E-02	.65445513E-02	-1.378	.1681	16.785778
CALLOC1	6.360756133	.35857413	17.739	.0000	.53794468E-01
CALLOC2	11.31017121	.92737656	12.196	.0000	.10691059E-01
CALLOC3	12.88933005	.90915290	14.177	.0000	-.18973270E-01

Table C.5 (cont.)

```
+---------------------------------------------+
| Limited Dependent Variable Model - FRONTIER |
| Maximum Likelihood Estimates                |
| Dependent variable               LC_EM      |
| Weighting variable                  WT      |
| Number of observations             534      |
| Iterations completed                37      |
| Log likelihood function       542.7947      |
| Variances: Sigma-squared(v)=       .00511   |
|            Sigma-squared(u)=       .00717   |
+---------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
	Primary Index Equation for Model				
Constant	5.239585926	.36359856	14.410	.0000	
LPLB_EM	.7732759163	.80305031E-01	9.629	.0000	1.4844280
LPEQ_EM	-.2145945510	.30770843E-01	-6.974	.0000	-4.6706768
LKQ_N	.1806745174	.46927250E-01	3.850	.0001	13.843602
LQVMAX	.4413815205E-01	.35539276E-01	1.242	.2143	.72439927
PKM	-.5171704477	.16384907	-3.156	.0016	3.6182753
TKM	1.051800705	.15361254	6.847	.0000	2.6106171
DHS220	-.7025493920E-02	.10553796E-01	-.666	.5056	.26718538
DTT	.1457240820E-01	.93939383E-02	1.551	.1208	.22482638
DUMMYHS	-.2691163482E-01	.39428946E-01	-.683	.4949	.10808309
DUMMYTT	-.1139626062	.23739503E-01	-4.801	.0000	.95405184E-01
LSNOW	.7905311398E-02	.48936290E-02	1.615	.1062	3.5555969
LSURVEY	.5918869881E-01	.82966899E-02	7.134	.0000	5.7875127
TIME	-.7671779333E-02	.19881509E-02	-3.859	.0001	15.098739
LB2	.8332980245E-01	.29121062E-01	2.861	.0042	1.3325064
LBEQ	.4100632547E-01	.57294183E-02	7.157	.0000	-6.4402844
LBPKM	-.6995050404E-01	.10422217E-01	-6.712	.0000	5.2920493
EQPKM	-.2691932207E-01	.80012867E-02	-3.364	.0008	-16.565545
EQTKM	.3214243506E-01	.64969872E-02	4.947	.0000	-12.095540
PKMKQ_N	.5946086118E-01	.10168410E-01	5.848	.0000	52.319367
TKMKQ_N	-.5231843360E-01	.96260094E-02	-5.435	.0000	38.126478
EQKQ_N	.2525429036E-01	.31028275E-02	8.139	.0000	-63.952081
LBTIM	-.2762536990E-02	.14634944E-02	-1.888	.0591	21.230557
LBQV	-.2518859695E-01	.21105511E-01	-1.193	.2327	1.3284442
QVTIM	-.7786601428E-03	.10548344E-02	-.738	.4604	12.211841
QV2	-.2522991316E-01	.10638368E-01	-2.372	.0177	.64941324
LDENS	.6834724647E-01	.20415049E-01	3.348	.0008	4.5761127
LAGM	.5096275445E-01	.11255420E-01	4.528	.0000	2.9078777
LNET	.2073305034	.49413547E-01	4.196	.0000	8.2081816
LKQP2	-.1006038756E-01	.75114888E-02	-1.339	.1805	16.785778
CALLOC1	6.193907459	.36358286	17.036	.0000	.53794468E-01
CALLOC2	10.44444836	.87545981	11.930	.0000	.10691059E-01
CALLOC3	12.18246776	.89654619	13.588	.0000	-.18973270E-01
	Variance parameters for compound error				
Lambda	1.184716813	.18220364	6.502	.0000	
Sigma	.1108173151	.10076135E-01	10.998	.0000	

Table C.6. The translog stochastic frontier cost function: maximum likelihood parameter estimates – model III using data set P and output set Y_{II}

```
+-----------------------------------------------------------------------+
| Limited Dependent Variable Model - FRONTIER   Regression              |
| Ordinary    least squares regression    Weighting variable = WT       |
| Dep. var. = LC_EM    Mean=   12.23204897    , S.D.=    1.236960555    |
| Model size: Observations =     534, Parameters =  31, Deg.Fr.=    503 |
| Residuals:  Sum of squares= 6.946121127    , Std.Dev.=         .11751 |
| Fit:        R-squared=  .991483, Adjusted R-squared =          .99097 |
| Model test: F[ 30,    503] = 1951.77,    Prob value =          .00000 |
| Diagnostic: Log-L =    401.6575, Restricted(b=0) Log-L =    -870.7717 |
|             LogAmemiyaPrCrt.=   -4.226, Akaike Info. Crt.=     -1.388 |
+-----------------------------------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Constant	2.789109966	.49821901	5.598	.0000	
LPLB_EM	.5693275838	.87054971E-01	6.540	.0000	1.4844280
LPEQ_EM	-.3913386988	.48513866E-01	-8.067	.0000	-4.6706768
LKQ_N	.3337260968	.57032948E-01	5.851	.0000	13.843602
LQVMAX	-.8077282408E-02	.38609433E-01	-.209	.8343	.72439927
PKM	-.8528603189	.15769674	-5.408	.0000	3.6182753
TKM	1.067270040	.15202131	7.021	.0000	2.6106171
DHS220	-.2960541428E-01	.10819608E-01	-2.736	.0062	.26718538
DTT	-.2130563578E-01	.13515871E-01	-1.576	.1149	.22482638
DUMMYHS	-.2240305740E-01	.35329846E-01	-.634	.5260	.10808309
DUMMYTT	-.8786594232E-01	.38759443E-01	-2.267	.0234	.95405184E-01
LSNOW	.2490828113E-01	.53521133E-02	4.654	.0000	3.5555969
LSURVEY	.7784456924E-01	.10069003E-01	7.731	.0000	5.7875127
TIME	-.6330931986E-02	.21263679E-02	-2.977	.0029	15.098739
LB2	.1637324113	.35366761E-01	4.630	.0000	1.3325064
LBEQ	.5712102253E-02	.59911767E-02	.953	.3404	-6.4402844
LBPKM	-.7286824273E-01	.87516770E-02	-8.326	.0000	5.2920493
EQPKM	-.5184952295E-01	.11018781E-01	-4.706	.0000	-16.565545
EQTKM	.2588984975E-01	.93900771E-02	2.757	.0058	-12.095540
PKMKQ_N	.7115963292E-01	.99179937E-02	7.175	.0000	52.319367
TKMKQ_N	-.5611850636E-01	.94594079E-02	-5.933	.0000	38.126478
EQKQ_N	.4177642808E-01	.50054179E-02	8.346	.0000	-63.952081
LBTIM	-.9741415137E-03	.16266244E-02	-.599	.5493	21.230557
LBQV	-.1521420212E-01	.20872338E-01	-.729	.4661	1.3284442
QVTIM	-.5111625218E-03	.11895165E-02	-.430	.6674	12.211841
QV2	-.5891278061E-01	.13069011E-01	-4.508	.0000	.64941324
LDENS	.2172750892	.20190039E-01	10.761	.0000	4.5761127
LAGM	.4843260653E-01	.11238778E-01	4.309	.0000	2.9078777
LNET	.2749611064	.56006004E-01	4.909	.0000	8.2081816
LKQP2	-.3145370693E-01	.81883586E-02	-3.841	.0001	16.785778
CALLOC	.8385393315E-01	.23916203E-01	3.506	.0005	.42829229E-01

Table C.6 (cont.)

```
+--------------------------------------------+
| Limited Dependent Variable Model - FRONTIER |
| Maximum Likelihood Estimates                |
| Dependent variable                LC_EM     |
| Weighting variable                   WT     |
| Number of observations              534     |
| Iterations completed                  1     |
| Log likelihood function       -425.7044     |
| Variances: Sigma-squared(v)=       .00647   |
|            Sigma-squared(u)=       .01795   |
+--------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
	Primary Index Equation for Model				
Constant	3.887525833	.35520748	10.944	.0000	
LPLB_EM	.4758707307	.73768016E-01	6.451	.0000	1.4844280
LPEQ_EM	-.3364835565	.31368963E-01	-10.727	.0000	-4.6706768
LKQ_N	.3007635402	.35967699E-01	8.362	.0000	13.843602
LQVMAX	.6837518652E-01	.29782315E-01	2.296	.0217	.72439927
PKM	-1.096109402	.13171583	-8.322	.0000	3.6182753
TKM	1.195783667	.13859994	8.628	.0000	2.6106171
DHS220	-.3170580468E-01	.12145279E-01	-2.611	.0090	.26718538
DTT	.1772446570E-01	.72716374E-02	2.437	.0148	.22482638
DUMMYHS	-.1815349678E-01	.40631049E-01	-.447	.6550	.10808309
DUMMYTT	-.2134884865	.82286953E-02	-25.944	.0000	.95405184E-01
LSNOW	.2134185800E-01	.49053153E-02	4.351	.0000	3.5555969
LSURVEY	.7250919216E-01	.82588854E-02	8.780	.0000	5.7875127
TIME	-.7977198516E-02	.15013689E-02	-5.313	.0000	15.098739
LB2	.1916848750	.31460791E-01	6.093	.0000	1.3325064
LBEQ	.5623215697E-02	.49177387E-02	1.143	.2528	-6.4402844
LBPKM	-.6412419628E-01	.83072782E-02	-7.719	.0000	5.2920493
EQPKM	-.5559574792E-01	.58015698E-02	-9.583	.0000	-16.565545
EQTKM	.3073712455E-01	.60059638E-02	5.118	.0000	-12.095540
PKMKQ_N	.8874545448E-01	.86291260E-02	10.284	.0000	52.319367
TKMKQ_N	-.6494220475E-01	.85273952E-02	-7.616	.0000	38.126478
EQKQ_N	.3846468599E-01	.28966454E-02	13.279	.0000	-63.952081
LBTIM	.2567978859E-02	.13083505E-02	1.963	.0497	21.230557
LBQV	-.4810315370E-01	.17454978E-01	-2.756	.0059	1.3284442
QVTIM	-.2062796407E-02	.10088033E-02	-2.045	.0409	12.211841
QV2	-.4915611046E-01	.84407327E-02	-5.824	.0000	.64941324
LDENS	.1726671064	.17341942E-01	9.957	.0000	4.5761127
LAGM	.5519105809E-01	.95665556E-02	5.769	.0000	2.9078777
LNET	.2114895103	.41384227E-01	5.110	.0000	8.2081816
LKQP2	-.3393664251E-01	.58638077E-02	-5.787	.0000	16.785778
CALLOC	1.000000000	........(Fixed Parameter)........			.42829229E-01
	Variance parameters for compound error				
Lambda	1.665500426	.30732512E-01	54.193	.0000	
Sigma	.1562515145	.24355014E-02	64.156	.0000	

Table C.7. The translog stochastic frontier cost function: maximum likelihood parameter estimates – model I using data set T and output set Y_I

```
+----------------------------------------------------------------------+
| Limited Dependent Variable Model - FRONTIER   Regression             |
| Ordinary    least squares regression    Weighting variable = WP      |
| Dep. var. = LC_EM    Mean=   12.59488316    , S.D.=    1.169479093   |
| Model size: Observations =     558, Parameters =  32, Deg.Fr.=    526 |
| Residuals:  Sum of squares= 6.092376704    , Std.Dev.=         .10762 |
| Fit:        R-squared=  .992003, Adjusted R-squared =          .99153 |
| Model test: F[ 31,    526] = 2104.70,    Prob value =          .00000 |
| Diagnostic: Log-L =    468.5648, Restricted(b=0) Log-L =    -878.6269 |
|             LogAmemiyaPrCrt.=   -4.402, Akaike Info. Crt.=     -1.565 |
+----------------------------------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Constant	-3.810357256	.64835782	-5.877	.0000	
LPLB_EM	1.774196749	.13623670	13.023	.0000	1.5357883
LPEQ_EM	-.4910655081	.60814014E-01	-8.075	.0000	-4.2449892
LKQ_N	.4540067575	.55618828E-01	8.163	.0000	14.315346
LQVMAX	.4925327391E-01	.33221514E-01	1.483	.1382	.79582401
PKM	.1865679382	.11159368	1.672	.0946	8.7198545
TKM	.5756680748	.89517630E-01	6.431	.0000	8.6894376
DHS220	-.4062593431E-01	.96415807E-02	-4.214	.0000	.41588228
DTT	.3197291885E-01	.12648843E-01	2.528	.0115	.28571632
DUMMYHS	.3811955022E-01	.31176457E-01	1.223	.2214	.14422988
DUMMYTT	-.2330457542	.37405396E-01	-6.230	.0000	.11052972
LSNOW	.4137501151E-01	.50889317E-02	8.130	.0000	3.6400479
LSURVEY	.6018165425E-01	.86097163E-02	6.990	.0000	5.7729720
TIME	-.6975096406E-02	.21720877E-02	-3.211	.0013	16.148933
LB2	.8174792368E-02	.29726532E-01	.275	.7833	1.3987148
LBEQ	.3462014707E-01	.84445459E-02	4.100	.0000	-6.1724289
LBPKM	-.1286422229	.11049682E-01	-11.642	.0000	13.265755
EQPKM	.3761670621E-02	.94177473E-02	.399	.6896	-37.117236
EQTKM	.3908282296E-02	.73089681E-02	.535	.5928	-37.047101
PKMKQ_N	.1196445645E-01	.61196093E-02	1.955	.0506	126.80816
TKMKQ_N	-.2690364807E-01	.56819006E-02	-4.735	.0000	126.15810
EQKQ_N	.3796235175E-01	.57132006E-02	6.645	.0000	-60.615199
LBTIM	-.3760647267E-02	.14758138E-02	-2.548	.0108	23.572875
LBQV	-.8025753025E-01	.17051729E-01	-4.707	.0000	1.3928694
QVTIM	.2602466442E-02	.13096122E-02	1.987	.0469	13.842010
QV2	-.7935981553E-01	.12512954E-01	-6.342	.0000	.63568617
LDENS	.3681556655	.21995535E-01	16.738	.0000	4.5744829
LAGM	-.5361076285E-01	.12427092E-01	-4.314	.0000	2.9324396
LNET	.3798914405	.50393697E-01	7.538	.0000	8.5264150
LKQT2	-.1257893785E-01	.73856847E-02	-1.703	.0885	17.592207
UU1	1.029409346	.15114160	6.811	.0000	.88810098E-01
UU2	1.182580719	.23996759	4.928	.0000	.17675877E-01

Table C.7 (cont.)

```
+----------------------------------------------+
| Limited Dependent Variable Model - FRONTIER |
| Maximum Likelihood Estimates                 |
| Dependent variable               LC_EM       |
| Weighting variable                  WP       |
| Number of observations             558       |
| Iterations completed                31       |
| Log likelihood function       489.1612       |
| Variances: Sigma-squared(v)=       .00232    |
|            Sigma-squared(u)=       .02425    |
+----------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
	Primary Index Equation for Model				
Constant	-4.448357110	.54253143	-8.199	.0000	
LPLB_EM	1.905135040	.12291512	15.500	.0000	1.5357883
LPEQ_EM	-.5878980226	.42731860E-01	-13.758	.0000	-4.2449892
LKQ_N	.4619442722	.43686686E-01	10.574	.0000	14.315346
LQVMAX	.6908763572E-01	.27030392E-01	2.556	.0106	.79582401
PKM	.2399956566	.10622743	2.259	.0239	8.7198545
TKM	.5787731525	.80200663E-01	7.217	.0000	8.6894376
DHS220	-.4076297965E-01	.11015694E-01	-3.700	.0002	.41588228
DTT	.2531062937E-01	.10929118E-01	2.316	.0206	.28571632
DUMMYHS	.4581505222E-01	.40018715E-01	1.145	.2523	.14422988
DUMMYTT	-.2013729549	.32306259E-01	-6.233	.0000	.11052972
LSNOW	.4371787919E-01	.57230099E-02	7.639	.0000	3.6400479
LSURVEY	.7077890299E-01	.82319394E-02	8.598	.0000	5.7729720
TIME	-.6827522811E-02	.20083932E-02	-3.399	.0007	16.148933
LB2	.1695186565E-02	.25547425E-01	.066	.9471	1.3987148
LBEQ	.4432944378E-01	.61122348E-02	7.253	.0000	-6.1724289
LBPKM	-.1386463828	.10559733E-01	-13.130	.0000	13.265755
EQPKM	.9270840844E-02	.69109439E-02	1.341	.1798	-37.117236
EQTKM	.8170929106E-02	.50117493E-02	1.630	.1030	-37.047101
PKMKQ_N	.1162087809E-01	.57321978E-02	2.027	.0426	126.80816
TKMKQ_N	-.2701856883E-01	.52690554E-02	-5.128	.0000	126.15810
EQKQ_N	.3980137889E-01	.33892062E-02	11.744	.0000	-60.615199
LBTIM	-.4555353928E-02	.14189778E-02	-3.210	.0013	23.572875
LBQV	-.7741680719E-01	.13037386E-01	-5.938	.0000	1.3928694
QVTIM	.2134150979E-02	.11360194E-02	1.879	.0603	13.842010
QV2	-.8573049145E-01	.94207512E-02	-9.100	.0000	.63568617
LDENS	.3575378077	.20328679E-01	17.588	.0000	4.5744829
LAGM	-.4919253428E-01	.10600179E-01	-4.641	.0000	2.9324396
LNET	.3761644752	.47277708E-01	7.956	.0000	8.5264150
LKQT2	-.1144482477E-01	.66975380E-02	-1.709	.0875	17.592207
UU1	1.155282372	.13528336	8.540	.0000	.88810098E-01
UU2	1.281472082	.33829152	3.788	.0002	.17675877E-01
	Variance parameters for compound error				
Lambda	3.230450301	.34168217	9.455	.0000	
Sigma	.1630252079	.72539445E-02	22.474	.0000	

Table C.8. The translog stochastic frontier cost function: maximum likelihood parameter estimates – model II using data set T and output set Y_I

```
+-----------------------------------------------------------------------+
| Limited Dependent Variable Model - FRONTIER   Regression             |
| Ordinary    least squares regression    Weighting variable = WP      |
| Dep. var. = LC_EM    Mean=   12.59488316    , S.D.=    1.169479093   |
| Model size: Observations =     558, Parameters =  33, Deg.Fr.=    525 |
| Residuals:  Sum of squares= 4.834837762    , Std.Dev.=         .09596 |
| Fit:        R-squared=  .993653, Adjusted R-squared =          .99327 |
| Model test: F[ 32,    525] = 2568.64,    Prob value =          .00000 |
| Diagnostic: Log-L =    533.0670, Restricted(b=0) Log-L =    -878.6269 |
|             LogAmemiyaPrCrt.=   -4.630, Akaike Info. Crt.=     -1.792 |
+-----------------------------------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Constant	-3.800292757	.61523619	-6.177	.0000	
LPLB_EM	1.863138158	.14283346	13.044	.0000	1.5357883
LPEQ_EM	-.4333199467	.56883530E-01	-7.618	.0000	-4.2449892
LKQ_N	.4053916526	.49841156E-01	8.134	.0000	14.315346
LQVMAX	.5070887710E-01	.29658736E-01	1.710	.0873	.79582401
PKM	.3899462981	.10343782	3.770	.0002	8.7198545
TKM	.4985242668	.81230473E-01	6.137	.0000	8.6894376
DHS220	-.3749869716E-01	.87315313E-02	-4.295	.0000	.41588228
DTT	.2694072510E-01	.11066026E-01	2.435	.0149	.28571632
DUMMYHS	.2092216470E-01	.27872058E-01	.751	.4529	.14422988
DUMMYTT	-.2024180225	.33101979E-01	-6.115	.0000	.11052972
LSNOW	.4657534382E-01	.45251862E-02	10.292	.0000	3.6400479
LSURVEY	.6416814783E-01	.77335508E-02	8.297	.0000	5.7729720
TIME	-.9906114643E-02	.19727187E-02	-5.022	.0000	16.148933
LB2	-.2966809401E-01	.29581562E-01	-1.003	.3159	1.3987148
LBEQ	.5136218131E-01	.85169284E-02	6.031	.0000	-6.1724289
LBPKM	-.1302850234	.11226104E-01	-11.606	.0000	13.265755
EQPKM	.2408198027E-01	.86961721E-02	2.769	.0056	-37.117236
EQTKM	.1057132695E-03	.65310496E-02	.016	.9871	-37.047101
PKMKQ_N	.3105051906E-02	.55628642E-02	.558	.5767	126.80816
TKMKQ_N	-.2507377762E-01	.51379915E-02	-4.880	.0000	126.15810
EQKQ_N	.2357312232E-01	.51001176E-02	4.622	.0000	-60.615199
LBTIM	-.3658231823E-02	.13490568E-02	-2.712	.0067	23.572875
LBQV	-.7858165507E-01	.14945886E-01	-5.258	.0000	1.3928694
QVTIM	.4131629625E-02	.11899478E-02	3.472	.0005	13.842010
QV2	-.1153183783	.11700638E-01	-9.856	.0000	.63568617
LDENS	.3347513437	.19942345E-01	16.786	.0000	4.5744829
LAGM	-.1927964528E-01	.11772885E-01	-1.638	.1015	2.9324396
LNET	.4241481581	.45041605E-01	9.417	.0000	8.5264150
LKQT2	-.6831791482E-02	.65908405E-02	-1.037	.2999	17.592207
CALLOC1	2.397796597	.18856524	12.716	.0000	.11280966
CALLOC2	5.849695731	.51802467	11.292	.0000	.14632637E-01
CALLOC3	4.733681717	.48560942	9.748	.0000	-.35185093E-01

Table C.8 (cont.)

```
+---------------------------------------------+
| Limited Dependent Variable Model - FRONTIER |
| Maximum Likelihood Estimates                |
| Dependent variable                LC_EM     |
| Weighting variable                   WP     |
| Number of observations              558     |
| Iterations completed                 38     |
| Log likelihood function        537.7385     |
| Variances: Sigma-squared(v)=       .00364   |
|            Sigma-squared(u)=       .01426   |
+---------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
	Primary Index Equation for Model				
Constant	-4.147458813	.54847198	-7.562	.0000	
LPLB_EM	1.968874245	.13782595	14.285	.0000	1.5357883
LPEQ_EM	-.4776589915	.41611265E-01	-11.479	.0000	-4.2449892
LKQ_N	.4373188688	.40916788E-01	10.688	.0000	14.315346
LQVMAX	.6625447541E-01	.25894621E-01	2.559	.0105	.79582401
PKM	.3869094540	.10572178	3.660	.0003	8.7198545
TKM	.4879864366	.81911524E-01	5.957	.0000	8.6894376
DHS220	-.4148761928E-01	.11072049E-01	-3.747	.0002	.41588228
DTT	.2475429120E-01	.11350507E-01	2.181	.0292	.28571632
DUMMYHS	.3338288211E-01	.38702883E-01	.863	.3884	.14422988
DUMMYTT	-.2020042587	.29423200E-01	-6.865	.0000	.11052972
LSNOW	.4818168732E-01	.49448470E-02	9.744	.0000	3.6400479
LSURVEY	.6886223826E-01	.76456406E-02	9.007	.0000	5.7729720
TIME	-.9028850261E-02	.20214722E-02	-4.466	.0000	16.148933
LB2	-.4138868611E-01	.28293316E-01	-1.463	.1435	1.3987148
LBEQ	.5425847725E-01	.67429407E-02	8.047	.0000	-6.1724289
LBPKM	-.1384905657	.11251415E-01	-12.309	.0000	13.265755
EQPKM	.2308645920E-01	.66172812E-02	3.489	.0005	-37.117236
EQTKM	-.2274250066E-03	.44519507E-02	-.051	.9593	-37.047101
PKMKQ_N	.4367764433E-02	.59438764E-02	.735	.4624	126.80816
TKMKQ_N	-.2496368790E-01	.55781596E-02	-4.475	.0000	126.15810
EQKQ_N	.2826363265E-01	.33611729E-02	8.409	.0000	-60.615199
LBTIM	-.4554683672E-02	.13280483E-02	-3.430	.0006	23.572875
LBQV	-.8132551897E-01	.12455519E-01	-6.529	.0000	1.3928694
QVTIM	.4172509135E-02	.10885999E-02	3.833	.0001	13.842010
QV2	-.1097457468	.10444481E-01	-10.508	.0000	.63568617
LDENS	.3362721520	.18654999E-01	18.026	.0000	4.5744829
LAGM	-.2587640603E-01	.10358798E-01	-2.498	.0125	2.9324396
LNET	.4020446343	.45252447E-01	8.884	.0000	8.5264150
LKQT2	-.1076843887E-01	.64057791E-02	-1.681	.0928	17.592207
CALLOC1	2.334696909	.18937274	12.329	.0000	.11280966
CALLOC2	5.610229161	.48534898	11.559	.0000	.14632637E-01
CALLOC3	4.465275373	.48438133	9.219	.0000	-.35185093E-01
	Variance parameters for compound error				
Lambda	1.980758964	.19774188	10.017	.0000	
Sigma	.1337885612	.77206776E-02	17.329	.0000	

Table C.9. The translog stochastic frontier cost function: maximum likelihood parameter estimates – model III using data set T and output set Y_I

```
+-----------------------------------------------------------------------+
| Limited Dependent Variable Model - FRONTIER   Regression              |
| Ordinary    least squares regression    Weighting variable = WP       |
| Dep. var. = LC_EM    Mean=   12.59488316    , S.D.=    1.169479093    |
| Model size: Observations =     558, Parameters =  31, Deg.Fr.=    527 |
| Residuals:  Sum of squares= 6.547584522    , Std.Dev.=         .11146 |
| Fit:        R-squared=  .991405, Adjusted R-squared =          .99092 |
| Model test: F[ 30,    527] = 2026.28,    Prob value =          .00000 |
| Diagnostic: Log-L =    448.4606, Restricted(b=0) Log-L =    -878.6269 |
|             LogAmemiyaPrCrt.=   -4.334, Akaike Info. Crt.=     -1.496 |
+-----------------------------------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Constant	-.9051287002	.54524236	-1.660	.0969	
LPLB_EM	1.216576466	.11581192	10.505	.0000	1.5357883
LPEQ_EM	-.2535365349	.53580661E-01	-4.732	.0000	-4.2449892
LKQ_N	.3271552399	.54984063E-01	5.950	.0000	14.315346
LQVMAX	.7907192358E-01	.34318653E-01	2.304	.0212	.79582401
PKM	-.1816295471	.95639676E-01	-1.899	.0576	8.7198545
TKM	.5642177859	.90333419E-01	6.246	.0000	8.6894376
DHS220	-.3111604335E-01	.97688403E-02	-3.185	.0014	.41588228
DTT	.1506793505E-01	.12685158E-01	1.188	.2349	.28571632
DUMMYHS	.2965994352E-01	.32118857E-01	.923	.3558	.14422988
DUMMYTT	-.2123879306	.38307228E-01	-5.544	.0000	.11052972
LSNOW	.4612117873E-01	.51994628E-02	8.870	.0000	3.6400479
LSURVEY	.7218074079E-01	.86199841E-02	8.374	.0000	5.7729720
TIME	-.6422401101E-02	.22447860E-02	-2.861	.0042	16.148933
LB2	.6333569957E-01	.29883453E-01	2.119	.0341	1.3987148
LBEQ	.1390665420E-01	.81530708E-02	1.706	.0881	-6.1724289
LBPKM	-.7636812291E-01	.83538257E-02	-9.142	.0000	13.265755
EQPKM	-.2109356759E-01	.88942745E-02	-2.372	.0177	-37.117236
EQTKM	-.5339587110E-03	.75406635E-02	-.071	.9435	-37.047101
PKMKQ_N	.2766029637E-01	.56002398E-02	4.939	.0000	126.80816
TKMKQ_N	-.2658898457E-01	.57785114E-02	-4.601	.0000	126.15810
EQKQ_N	.3787817340E-01	.58916260E-02	6.429	.0000	-60.615199
LBTIM	-.2473249690E-02	.14996771E-02	-1.649	.0991	23.572875
LBQV	-.9741043220E-01	.17298332E-01	-5.631	.0000	1.3928694
QVTIM	.9996003149E-03	.13387754E-02	.747	.4553	13.842010
QV2	-.5387979927E-01	.12626123E-01	-4.267	.0000	.63568617
LDENS	.4025660826	.21710070E-01	18.543	.0000	4.5744829
LAGM	-.5010799794E-01	.12832293E-01	-3.905	.0001	2.9324396
LNET	.3748632443	.51875955E-01	7.226	.0000	8.5264150
LKQT2	-.1727440140E-01	.75944496E-02	-2.275	.0229	17.592207
CALLOC	.9286187540	.12936818	7.178	.0000	.16179490E-01

Table C.9 (cont.)

Limited Dependent Variable Model - FRONTIER	
Maximum Likelihood Estimates	
Dependent variable	LC_EM
Weighting variable	WP
Number of observations	558
Iterations completed	38
Log likelihood function	460.4418
Variances: Sigma-squared(v)=	.00332
Sigma-squared(u)=	.02398

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
	Primary Index Equation for Model				
Constant	-.8000958082	.48030361	-1.666	.0958	
LPLB_EM	1.220101443	.10432031	11.696	.0000	1.5357883
LPEQ_EM	-.2834616163	.39025036E-01	-7.264	.0000	-4.2449892
LKQ_N	.3499295674	.45020984E-01	7.773	.0000	14.315346
LQVMAX	.1030767491	.27707367E-01	3.720	.0002	.79582401
PKM	-.2094322894	.84725555E-01	-2.472	.0134	8.7198545
TKM	.5115128249	.82836377E-01	6.175	.0000	8.6894376
DHS220	-.2874068198E-01	.11084544E-01	-2.593	.0095	.41588228
DTT	.1611801759E-01	.10773685E-01	1.496	.1346	.28571632
DUMMYHS	.4287108061E-01	.39978994E-01	1.072	.2836	.14422988
DUMMYTT	-.1918647774	.30854373E-01	-6.218	.0000	.11052972
LSNOW	.4599263651E-01	.59946061E-02	7.672	.0000	3.6400479
LSURVEY	.7941345662E-01	.82679502E-02	9.605	.0000	5.7729720
TIME	-.7167841268E-02	.21875647E-02	-3.277	.0011	16.148933
LB2	.6078240238E-01	.25258734E-01	2.406	.0161	1.3987148
LBEQ	.1716230999E-01	.65377014E-02	2.625	.0087	-6.1724289
LBPKM	-.7511948068E-01	.79658455E-02	-9.430	.0000	13.265755
EQPKM	-.2816617097E-01	.57189872E-02	-4.925	.0000	-37.117236
EQTKM	-.2722329542E-03	.53794426E-02	-.051	.9596	-37.047101
PKMKQ_N	.2710993109E-01	.52024546E-02	5.211	.0000	126.80816
TKMKQ_N	-.2364282054E-01	.54299481E-02	-4.354	.0000	126.15810
EQKQ_N	.4506772528E-01	.39962189E-02	11.278	.0000	-60.615199
LBTIM	-.3268254754E-02	.14886536E-02	-2.195	.0281	23.572875
LBQV	-.9622095366E-01	.10507730E-01	-9.157	.0000	1.3928694
QVTIM	.9172665591E-03	.12111340E-02	.757	.4488	13.842010
QV2	-.6149511253E-01	.93985460E-02	-6.543	.0000	.63568617
LDENS	.3867604665	.21356926E-01	18.109	.0000	4.5744829
LAGM	-.4525668950E-01	.12312386E-01	-3.676	.0002	2.9324396
LNET	.3664902726	.53640986E-01	6.832	.0000	8.5264150
LKQT2	-.1724946915E-01	.75578753E-02	-2.282	.0225	17.592207
CALLOC	1.000000000	........(Fixed Parameter)........			.16179490E-01
	Variance parameters for compound error				
Lambda	2.686086418	.27277565	9.847	.0000	
Sigma	.1652275389	.85766325E-02	19.265	.0000	

Table C.10. The translog stochastic frontier cost function: maximum likelihood parameter estimates – model I using data set T and output set Y_{II}

```
+-----------------------------------------------------------------------+
| Limited Dependent Variable Model - FRONTIER   Regression              |
| Ordinary    least squares regression    Weighting variable = WT       |
| Dep. var. = LC_EM    Mean=   12.20965397    , S.D.=    1.216504349    |
| Model size: Observations =     558, Parameters =  32, Deg.Fr.=    526 |
| Residuals:  Sum of squares= 5.439718251    , Std.Dev.=         .10169 |
| Fit:        R-squared=  .993401, Adjusted R-squared =          .99301 |
| Model test: F[ 31,    526] = 2554.20,    Prob value =          .00000 |
| Diagnostic: Log-L =    500.1785, Restricted(b=0) Log-L =    -900.6249 |
|             LogAmemiyaPrCrt.=   -4.516, Akaike Info. Crt.=     -1.678 |
+-----------------------------------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Constant	4.219267182	.38265116	11.026	.0000	
LPLB_EM	.7705871494	.68678982E-01	11.220	.0000	1.4036746
LPEQ_EM	-.3216486140	.35491244E-01	-9.063	.0000	-4.8487521
LKQ_N	.2045991169	.42277421E-01	4.839	.0000	13.857896
LQVMAX	-.1683228120E-01	.31980175E-01	-.526	.5987	.71039127
PKM	-.3742346452	.12815941	-2.920	.0035	3.6281852
TKM	.9272298301	.12660702	7.324	.0000	2.6322758
DHS220	-.2528936710E-01	.93458708E-02	-2.706	.0068	.25682490
DTT	.1080250155E-01	.12161262E-01	.888	.3744	.20440171
DUMMYHS	.1491068645E-01	.30370425E-01	.491	.6235	.10389202
DUMMYTT	-.1125606754	.33945669E-01	-3.316	.0009	.87573758E-01
LSNOW	.9196175799E-02	.46203392E-02	1.990	.0466	3.5900137
LSURVEY	.4170735588E-01	.85417157E-02	4.883	.0000	5.7870427
TIME	-.7019148345E-02	.17863240E-02	-3.929	.0001	15.489265
LB2	.1510778403	.24574139E-01	6.148	.0000	1.2864695
LBEQ	.2481460244E-01	.46772810E-02	5.305	.0000	-6.0806258
LBPKM	-.9660107838E-01	.75708871E-02	-12.760	.0000	4.9937826
EQPKM	-.1370135644E-01	.83454625E-02	-1.642	.1006	-17.391272
EQTKM	.2033817058E-01	.75335226E-02	2.700	.0069	-12.835036
PKMKQ_N	.5420429760E-01	.85108718E-02	6.369	.0000	52.444752
TKMKQ_N	-.4561663961E-01	.78893775E-02	-5.782	.0000	38.432435
EQKQ_N	.2842325139E-01	.35143214E-02	8.088	.0000	-66.780249
LBTIM	-.2117037832E-02	.13949805E-02	-1.518	.1291	19.898555
LBQV	-.2509344827E-01	.18072535E-01	-1.388	.1650	1.2720631
QVTIM	.8945633474E-03	.10288378E-02	.869	.3846	12.110685
QV2	-.5334993988E-01	.11180988E-01	-4.771	.0000	.62883752
LDENS	.1203792514	.19257090E-01	6.251	.0000	4.5671532
LAGM	.3562230173E-01	.95806714E-02	3.718	.0002	2.9063770
LNET	.2441428142	.46695675E-01	5.228	.0000	8.2294284
LKQT2	-.7579349605E-02	.67559021E-02	-1.122	.2619	16.725967
UU1	2.284050484	.23396501	9.762	.0000	.40773325E-01
UU2	2.469910199	.20656123	11.957	.0000	.11316225E-01

Table C.10 (cont.)

```
                +--------------------------------------------+
                | Limited Dependent Variable Model - FRONTIER |
                | Maximum Likelihood Estimates               |
                | Dependent variable              LC_EM      |
                | Weighting variable                 WT      |
                | Number of observations            558      |
                | Iterations completed               32      |
                | Log likelihood function      511.4358      |
                | Variances: Sigma-squared(v)=      .00319   |
                |            Sigma-squared(u)=      .01839   |
                +--------------------------------------------+
+---------+--------------+----------------+--------+---------+----------+
|Variable | Coefficient  | Standard Error |b/St.Er.|P[|Z|>z] | Mean of X|
+---------+--------------+----------------+--------+---------+----------+
          Primary Index Equation for Model
 Constant  4.440855164      .39273050       11.308   .0000
 LPLB_EM   .7464069337      .81059445E-01    9.208   .0000  1.4036746
 LPEQ_EM  -.2766993687      .38005242E-01   -7.281   .0000 -4.8487521
 LKQ_N     .1589230518      .52481683E-01    3.028   .0025  13.857896
 LQVMAX    .1372382961E-01  .39025837E-01     .352   .7251  .71039127
 PKM      -.3679236452      .14838243       -2.480   .0132  3.6281852
 TKM       .9232745076      .15274129        6.045   .0000  2.6322758
 DHS220   -.2571396315E-01  .11711631E-01   -2.196   .0281  .25682490
 DTT       .7269040716E-02  .89439842E-02     .813   .4164  .20440171
 DUMMYHS   .2228416877E-01  .40656721E-01     .548   .5836  .10389202
 DUMMYTT  -.1248049487      .24448457E-01   -5.105   .0000  .87573758E-01
 LSNOW     .9821620375E-02  .52876391E-02    1.857   .0632  3.5900137
 LSURVEY   .5640864100E-01  .84701304E-02    6.660   .0000  5.7870427
 TIME     -.8757855420E-02  .23664622E-02   -3.701   .0002  15.489265
 LB2       .1509246149      .27562227E-01    5.476   .0000  1.2864695
 LBEQ      .2782685045E-01  .54729596E-02    5.084   .0000 -6.0806258
 LBPKM    -.9149761278E-01  .92970946E-02   -9.842   .0000  4.9937826
 EQPKM    -.5774084001E-02  .90781602E-02    -.636   .5247 -17.391272
 EQTKM     .2121036349E-01  .77941235E-02    2.721   .0065 -12.835036
 PKMKQ_N   .5750651112E-01  .98009860E-02    5.867   .0000  52.444752
 TKMKQ_N  -.4724882333E-01  .96206635E-02   -4.911   .0000  38.432435
 EQKQ_N    .2266916376E-01  .39074340E-02    5.802   .0000 -66.780249
 LBTIM    -.1299451780E-02  .17619513E-02    -.738   .4608  19.898555
 LBQV     -.3079947204E-01  .23489400E-01   -1.311   .1898  1.2720631
 QVTIM     .3448031398E-03  .13895086E-02     .248   .8040  12.110685
 QV2      -.5229128083E-01  .10016205E-01   -5.221   .0000  .62883752
 LDENS     .1135311211      .21105909E-01    5.379   .0000  4.5671532
 LAGM      .4428602380E-01  .10254071E-01    4.319   .0000  2.9063770
 LNET      .2575682690      .54209350E-01    4.751   .0000  8.2294284
 LKQT2    -.7178402923E-02  .81457871E-02    -.881   .3782  16.725967
 UU1       2.215380030      .22066613       10.040   .0000  .40773325E-01
 UU2       2.366781672      .16610927       14.248   .0000  .11316225E-01
          Variance parameters for compound error
 Lambda    2.399439642      .22333555       10.744   .0000
 Sigma     .1469075231      .79937704E-02   18.378   .0000
```

Table C.11. The translog stochastic frontier cost function: maximum likelihood parameter estimates – model II using data set T and output set Y_{II}

```
+----------------------------------------------------------------------+
| Limited Dependent Variable Model - FRONTIER   Regression             |
| Ordinary    least squares regression    Weighting variable = WT      |
| Dep. var. = LC_EM    Mean=   12.20965397    , S.D.=    1.216504349   |
| Model size: Observations =     558, Parameters =  33, Deg.Fr.=    525 |
| Residuals:  Sum of squares= 5.398853989    , Std.Dev.=         .10141 |
| Fit:        R-squared=  .993450, Adjusted R-squared =          .99305 |
| Model test: F[ 32,    525] = 2488.49,    Prob value =          .00000 |
| Diagnostic: Log-L =    502.2823, Restricted(b=0) Log-L =    -900.6249 |
|             LogAmemiyaPrCrt.=   -4.520, Akaike Info. Crt.=     -1.682 |
+----------------------------------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Constant	5.445072289	.41423728	13.145	.0000	
LPLB_EM	.7833772267	.74380914E-01	10.532	.0000	1.4036746
LPEQ_EM	-.1736236696	.36036036E-01	-4.818	.0000	-4.8487521
LKQ_N	.1126674211	.42804454E-01	2.632	.0085	13.857896
LQVMAX	-.1136481797E-01	.32949868E-01	-.345	.7302	.71039127
PKM	-.4006078672	.13240221	-3.026	.0025	3.6281852
TKM	.9863423882	.12955012	7.614	.0000	2.6322758
DHS220	-.2034927688E-01	.94978988E-02	-2.143	.0322	.25682490
DTT	.2051685962E-02	.11998844E-01	.171	.8642	.20440171
DUMMYHS	.1871091365E-01	.30510103E-01	.613	.5397	.10389202
DUMMYTT	-.8628125231E-01	.33858829E-01	-2.548	.0108	.87573758E-01
LSNOW	.9506182438E-02	.46110609E-02	2.062	.0392	3.5900137
LSURVEY	.5447766348E-01	.85927561E-02	6.340	.0000	5.7870427
TIME	-.7464093263E-02	.17961351E-02	-4.156	.0000	15.489265
LB2	.1264075337	.26156321E-01	4.833	.0000	1.2864695
LBEQ	.3928064683E-01	.54896820E-02	7.155	.0000	-6.0806258
LBPKM	-.7368322632E-01	.81552549E-02	-9.035	.0000	4.9937826
EQPKM	-.8301122275E-02	.85968160E-02	-.966	.3342	-17.391272
EQTKM	.2322509719E-01	.75756344E-02	3.066	.0022	-12.835036
PKMKQ_N	.5848908560E-01	.86882437E-02	6.732	.0000	52.444752
TKMKQ_N	-.4762728301E-01	.80686328E-02	-5.903	.0000	38.432435
EQKQ_N	.1609937017E-01	.36572639E-02	4.402	.0000	-66.780249
LBTIM	-.8817936163E-03	.14316357E-02	-.616	.5379	19.898555
LBQV	-.3756094354E-01	.18628829E-01	-2.016	.0438	1.2720631
QVTIM	-.3551710813E-04	.10634764E-02	-.033	.9734	12.110685
QV2	-.6352724537E-01	.11204592E-01	-5.670	.0000	.62883752
LDENS	.1311522515	.19099291E-01	6.867	.0000	4.5671532
LAGM	.4701706535E-01	.96542115E-02	4.870	.0000	2.9063770
LNET	.2098682457	.47655895E-01	4.404	.0000	8.2294284
LKQT2	-.9088492764E-02	.67030209E-02	-1.356	.1751	16.725967
CALLOC1	3.923321076	.35514763	11.047	.0000	.37790954E-01
CALLOC2	6.267043701	.52500490	11.937	.0000	.91412703E-02
CALLOC3	6.115902753	.75749187	8.074	.0000	-.11592386E-01

Table C.11 (cont.)

```
+---------------------------------------------+
| Limited Dependent Variable Model - FRONTIER |
| Maximum Likelihood Estimates                |
| Dependent variable                LC_EM     |
| Weighting variable                   WT     |
| Number of observations              558     |
| Iterations completed                 38     |
| Log likelihood function        519.5419     |
| Variances: Sigma-squared(v)=       .00277   |
|            Sigma-squared(u)=       .01910   |
+---------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Primary Index Equation for Model					
Constant	5.524608087	.39572768	13.961	.0000	
LPLB_EM	.7638443885	.78804456E-01	9.693	.0000	1.4036746
LPEQ_EM	-.1738588249	.38395266E-01	-4.528	.0000	-4.8487521
LKQ_N	.1106373149	.51853406E-01	2.134	.0329	13.857896
LQVMAX	.1821184615E-01	.34841834E-01	.523	.6012	.71039127
PKM	-.3987358861	.16220010	-2.458	.0140	3.6281852
TKM	.9462667775	.16123577	5.869	.0000	2.6322758
DHS220	-.2072138691E-01	.12364858E-01	-1.676	.0938	.25682490
DTT	.6618140131E-02	.88616099E-02	.747	.4552	.20440171
DUMMYHS	.3104163788E-01	.42992818E-01	.722	.4703	.10389202
DUMMYTT	-.1292167693	.21999770E-01	-5.874	.0000	.87573758E-01
LSNOW	.8228874644E-02	.55642797E-02	1.479	.1392	3.5900137
LSURVEY	.6664684233E-01	.79912570E-02	8.340	.0000	5.7870427
TIME	-.8219047782E-02	.19837285E-02	-4.143	.0000	15.489265
LB2	.1247671456	.27934324E-01	4.466	.0000	1.2864695
LBEQ	.3901471113E-01	.53070875E-02	7.351	.0000	-6.0806258
LBPKM	-.7198226667E-01	.94715274E-02	-7.600	.0000	4.9937826
EQPKM	-.6869852284E-02	.96596414E-02	-.711	.4770	-17.391272
EQTKM	.2192630655E-01	.70900315E-02	3.093	.0020	-12.835036
PKMKQ_N	.6080089853E-01	.10520585E-01	5.779	.0000	52.444752
TKMKQ_N	-.4657084849E-01	.10262395E-01	-4.538	.0000	38.432435
EQKQ_N	.1588306447E-01	.41390853E-02	3.837	.0001	-66.780249
LBTIM	-.6333442397E-03	.14995613E-02	-.422	.6728	19.898555
LBQV	-.4448360628E-01	.21058901E-01	-2.112	.0347	1.2720631
QVTIM	-.4156367289E-03	.12464510E-02	-.333	.7388	12.110685
QV2	-.5890286149E-01	.10345633E-01	-5.693	.0000	.62883752
LDENS	.1227016543	.20555572E-01	5.969	.0000	4.5671532
LAGM	.4649977233E-01	.10731301E-01	4.333	.0000	2.9063770
LNET	.1874960844	.53071138E-01	3.533	.0004	8.2294284
LKQT2	-.1189224779E-01	.80864966E-02	-1.471	.1414	16.725967
CALLOC1	3.739031971	.29697570	12.590	.0000	.37790954E-01
CALLOC2	5.811699400	.37516181	15.491	.0000	.91412703E-02
CALLOC3	5.864764849	.57382958	10.220	.0000	-.11592386E-01
Variance parameters for compound error					
Lambda	2.625443610	.27519891	9.540	.0000	
Sigma	.1479074943	.73539650E-02	20.113	.0000	

Table C.12. The translog stochastic frontier cost function: maximum likelihood parameter estimates – model III using data set T and output set Y_{II}

```
+-----------------------------------------------------------------------+
| Limited Dependent Variable Model - FRONTIER   Regression              |
| Ordinary    least squares regression    Weighting variable = WT       |
| Dep. var. = LC_EM    Mean=   12.20965397    , S.D.=    1.216504349    |
| Model size: Observations =     558, Parameters =  31, Deg.Fr.=    527 |
| Residuals:  Sum of squares= 7.809575738    , Std.Dev.=         .12173 |
| Fit:        R-squared=  .990526, Adjusted R-squared =          .98999 |
| Model test: F[ 30,    527] = 1836.58,    Prob value =          .00000 |
| Diagnostic: Log-L =    399.2856, Restricted(b=0) Log-L =    -900.6249 |
|             LogAmemiyaPrCrt.=   -4.158, Akaike Info. Crt.=     -1.320 |
+-----------------------------------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Constant	3.599626520	.45189129	7.966	.0000	
LPLB_EM	.5701488349	.80806926E-01	7.056	.0000	1.4036746
LPEQ_EM	-.2812659321	.42390226E-01	-6.635	.0000	-4.8487521
LKQ_N	.2291177634	.50532026E-01	4.534	.0000	13.857896
LQVMAX	.6298906541E-02	.37628743E-01	.167	.8671	.71039127
PKM	-.5389522004	.14812829	-3.638	.0003	3.6281852
TKM	.7821264735	.14857764	5.264	.0000	2.6322758
DHS220	-.3115665286E-01	.11188672E-01	-2.785	.0054	.25682490
DTT	-.1618837071E-01	.13981655E-01	-1.158	.2469	.20440171
DUMMYHS	.8636831335E-02	.36241157E-01	.238	.8116	.10389202
DUMMYTT	-.9066866905E-01	.39914902E-01	-2.272	.0231	.87573758E-01
LSNOW	.1849299768E-01	.54606148E-02	3.387	.0007	3.5900137
LSURVEY	.6113726167E-01	.99758070E-02	6.129	.0000	5.7870427
TIME	-.7106365170E-02	.21216487E-02	-3.349	.0008	15.489265
LB2	.2089232496	.29043439E-01	7.193	.0000	1.2864695
LBEQ	.1189147469E-01	.53108394E-02	2.239	.0251	-6.0806258
LBPKM	-.8305795854E-01	.88128431E-02	-9.425	.0000	4.9937826
EQPKM	-.3258007786E-01	.99425335E-02	-3.277	.0010	-17.391272
EQTKM	.1499305355E-01	.90638243E-02	1.654	.0981	-12.835036
PKMKQ_N	.5718366817E-01	.98944529E-02	5.779	.0000	52.444752
TKMKQ_N	-.3935222174E-01	.92982067E-02	-4.232	.0000	38.432435
EQKQ_N	.2942676000E-01	.42233089E-02	6.968	.0000	-66.780249
LBTIM	-.7100832764E-03	.16435921E-02	-.432	.6657	19.898555
LBQV	-.2500805983E-01	.20652184E-01	-1.211	.2259	1.2720631
QVTIM	-.5776292948E-03	.12277540E-02	-.470	.6380	12.110685
QV2	-.5446499969E-01	.13374859E-01	-4.072	.0000	.62883752
LDENS	.1893787060	.21677857E-01	8.736	.0000	4.5671532
LAGM	.4217906908E-01	.11397414E-01	3.701	.0002	2.9063770
LNET	.3167111799	.55158979E-01	5.742	.0000	8.2294284
LKQT2	-.1891912819E-01	.79614668E-02	-2.376	.0175	16.725967
CALLOC	.4432414828E-01	.15278747E-01	2.901	.0037	.83325607E-01

Table C.12 (cont.)

Limited Dependent Variable Model - FRONTIER	
Maximum Likelihood Estimates	
Dependent variable	LC_EM
Weighting variable	WT
Number of observations	558
Iterations completed	1
Log likelihood function	-1135.564
Variances: Sigma-squared(v)=	.00752
Sigma-squared(u)=	.04487

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
	Primary Index Equation for Model				
Constant	6.838893432	.42285713	16.173	.0000	
LPLB_EM	.5598544829	.71428392E-01	7.838	.0000	1.4036746
LPEQ_EM	-.6279784359E-01	.28095649E-01	-2.235	.0254	-4.8487521
LKQ_N	.2235790123E-01	.52001136E-01	.430	.6672	13.857896
LQVMAX	.6316618782E-01	.27775964E-01	2.274	.0230	.71039127
PKM	-.3714581171	.15667290	-2.371	.0177	3.6281852
TKM	.4114652242	.16457465	2.500	.0124	2.6322758
DHS220	-.1746099051E-01	.18607742E-01	-.938	.3481	.25682490
DTT	-.1671836249E-01	.65828303E-02	-2.540	.0111	.20440171
DUMMYHS	.1989147749E-01	.67165343E-01	.296	.7671	.10389202
DUMMYTT	-.3473482486E-01	.89169069E-02	-3.895	.0001	.87573758E-01
LSNOW	.5927987792E-02	.60021602E-02	.988	.3233	3.5900137
LSURVEY	.2848577924E-01	.82079275E-02	3.471	.0005	5.7870427
TIME	-.1058125297E-01	.16047123E-02	-6.594	.0000	15.489265
LB2	.2129437688	.30952988E-01	6.880	.0000	1.2864695
LBEQ	.8126985946E-02	.42032265E-02	1.934	.0532	-6.0806258
LBPKM	-.9575574687E-01	.82421233E-02	-11.618	.0000	4.9937826
EQPKM	-.1156602422E-01	.61680652E-02	-1.875	.0608	-17.391272
EQTKM	.8314881285E-02	.73712826E-02	1.128	.2593	-12.835036
PKMKQ_N	.6075281189E-01	.10231570E-01	5.938	.0000	52.444752
TKMKQ_N	-.1510113965E-01	.10440213E-01	-1.446	.1481	38.432435
EQKQ_N	.1036814657E-01	.20882582E-02	4.965	.0000	-66.780249
LBTIM	.1537568124E-02	.14743302E-02	1.043	.2970	19.898555
LBQV	-.6356271349E-01	.18189593E-01	-3.494	.0005	1.2720631
QVTIM	-.3674754816E-02	.11606473E-02	-3.166	.0015	12.110685
QV2	-.4970459620E-01	.11730945E-01	-4.237	.0000	.62883752
LDENS	.9995391043E-01	.16469035E-01	6.069	.0000	4.5671532
LAGM	.2034362633E-01	.10565710E-01	1.925	.0542	2.9063770
LNET	.2220479136	.58438758E-01	3.800	.0001	8.2294284
LKQT2	-.2731512071E-02	.87789532E-02	-.311	.7557	16.725967
CALLOC	1.000000000	........(Fixed Parameter)........			.83325607E-01
	Variance parameters for compound error				
Lambda	2.443222803	.29948741E-01	81.580	.0000	
Sigma	.2288789580	.54449129E-02	42.035	.0000	

A1.2.1. Firms

BR - British Railways
CFF Swiss Federal Railways
CFL Luxembourg National Railway Company
CIE Irish Transport Company
CP Portuguese Railway Company
DB German Federal Railway
CH Hellenic Railways Organisation - Greece
DSB Danish state railways
FS Italian State Railways
NS Netherlands Railways
NSB Norwegian State Railways
OBB Austrian Federal Railways
RENFE Spanish National Railway System
SJ Swedish State Railway
SNCB Belgian National Railway Company
SNCF French National Railway Company
VR Finnish State Railways

DR German State Railway
BDZ Bulgarian State Railways
CFR Rumanian Railways
CSD Czechoslovak State Railways
JZ Yugoslav Railway Community
MAV Hungary State Railways
PKP Polish State Railway
TCDD Turkish Republic State Railways

Note:
(.) INSTEAD OF FIGURES INDICATES THAT THE FIGURE IS NOT KNOWN

A1.2.2.Lines and Track - Length

D - running generally on the right
G- running generally on the left
D-G no general running direction

		Direction	Rail	Length of Lines (end of the year)			Average Length of Lines WORKED								Length of Track (at the end of the year)					Road Traffic		Shipping Services	
							Lines not elect.		Elect. Lines			Lines Worked			Not Elect.		Electrified			Average Length of Lines Worked			
Year	Railway	of Running	Gauge	lines not electrified	elect. Lines	TOTAL	Single Track	>Double Track	S.T	> D. T.	Total	for pass. And goods traffic	for pass. Traffic	for goods traffic	Main running tracks	Other Tracks	Main Running Tracks	Other tracks	Total	Passenger	Goods	Passenger	Goods
1977	BDZ	D	N	2684	1485	4169	2389	295	1485		4169	4169			2684	1395	1485	641	6205				
1977			E	246		246	246				246	246			246	51			297				
1977			TOTAL	2930	1485	4415	2635	295	1485		4415	4415			2930	1446	1485	641	6502				
1977	BR	G	N	14206	3767	17973	5115	9124	137	3614	17990	13325	1085	3580	26674	9477	9094	744	45989			.	.
1977	CFF	G	N	15	2845	2860	16		1453	1378	2847	2819		28	15	560	4247	2260	7082				
1977			E		74	74			74		74	74				10	74	19	103				
1977			total	15	2919	2934	16		1527	1378	2921	2893		28	15	570	4321	2279	7185	58	58	53	
1977	CFL	D-G	N	137	137	274	68	69	45	92	274	229		45	213	77	217	129	636	1519	262		
1977	CFR	D	L																				
1977			N																				
1977			E																				
1977			TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	D	N	1569		1569	1470	99			1569	1569			1668	563			2231				
1977			E	892		892	868	24			892	892			916	135			1051				
1977			TOTAL	2461		2461	2338	123			2461	2461			2584	698			3282	2200			
1977	CIE	G	L	2004		2004	1517	487			2004	1757		247	1611	903			2514	.	.	.	.
1977	CP	G	L	2397	432	2829	2401	15	13	378	2807	.	.	.	2416	435	837	172	3860				
1977			E	759		759	753	6			759	.	.	.	765	72			837				
1977			TOTAL	3156	432	3588	3154	21	13	378	3566	.	.	.	3181	507	837	172	4697	134		10	10
1977	CSD	D	L	9	92	101	.	.	.	.	101			101	.	.	.	.	.				
1977			N	10239	2693	12932	.	.	.	.	12932	12932			.	.	.	.	.				
1977			E	112	45	157	.	.	.	.	157	157			.	.	.	.	.				
1977			TOTAL	10360	2830	13190	.	.	.	.	13190	13089		101	11231	5996	4861	2145	24233				
1977	DB	D	N	17986	10546	28532	14544	3543	1778	8674	28539	23090	506	4943	21810	13847	21450	9022	66129				
1977			E	25		25	25				25	4		21	25	6			31				
1977			TOTAL	18011	10546	28557	14569	3543	1778	8674	28564	23094	506	4964	21835	13853	21450	9022	66160	94721	.	164	38
1977	DR	D	N	12395	1511	13906	10193	2193	337	1172	13895	12194	414	1287	14762	9092	2694	1025	27573				
1977			E	309		309	297				297	211	40	46	383	106			489				
1977			TOTAL	12704	1511	14215	10490	2193	337	1172	14192	12405	454	1333	15145	9198	2694	1025	28062			150	150
1977	DSB	D	N	1901	103	2004	1255	646	2	101	2004	1929	58	17	2549	1848	202	54	4653	7536	.	189	208
1977	FS	G	N	7874	8413	16287	7619	144	3184	5096	16043	15445		598	8009	2745	13598	5350	29702				
1977			E	164		164	135				135	135			164	21			185				
1977			TOTAL	8038	8413	16451	7754	144	3184	5096	16178	15580		598	8173	2766	13598	5350	29887	1473	155	237	237
1977	JZ	D	N	6707	2912	9619	6703	4	2122	790	9619	9619			6711	2610	3702	1301	14324				
1977			E	348		348	348				348	348			348	66			414				
1977			TOTAL	7055	2912	9967	7051	4	2122	790	9967	9967			7059	2676	3702	1301	14738	.	.	.	.
1977	MAV	D	L	35		35	35				35	1		34	35	107			142				
1977			N	6281	1202	7483	6128	153	266	936	7483	7402	25	56	6465	2787	2108	1117	12477				
1977			E	279		279	279				279	268	11		279	38			317				
1977			TOTAL	6595	1202	7797	6442	153	266	936	7797	7671	36	90	6779	2932	2108	1117	12936				
1977	NS	D	N	1119	1731	2850	1038	81	224	1507	2850	2215	276	359	1470	1588	3239	673	6970				
1977	NSB	D	N	1801	2440	4241	1801		2349	91	4241	4147		94	1801	538	2540	595	5474	9572	4204		
1977	OBB	D-G	N	2624	2785	5409	2652	79	1271	1401	5403	5194	3	206	2671	1102	4243	1828	9844				
1977			E	363	91	454	360		91		451	447	4		363	43	92	14	512				
1977			TOTAL	2987	2876	5863	3012	79	1362	1401	5854	5641	7	206	3034	1145	4335	1842	10356	9110	10448	37	
1977	PKP	D	N	17645	6308	23953	14093	3510	1242	5066	23911	23911			21256	10357	11374	4245	47232				
1977			E	.		.	.	.			.	.			.	.			.				
1977			TOTAL	.	6308	.	.	.	1242	5066	.	.			.	.			.				
1977	RENFE	D-G	L	8661	4762	13423	8466	291	2923	1841	13521	13521			8930	2800	5506	2765	20001				
1977			E						19		19		19										
1977			TOTAL	8661	4762	13423	8466	291	2942	1841	13540	13521	19		8930	2800	5506	2765	20001	.			
1977	SJ	G	N	4236	6959	11195	4234		5807	1152	11193	10592		601	4236	2242	8111	2777	17366	.			
1977			E	182		182	182				182	182			182	409			591				
1977			TOTAL	4418	6959	11377	4416		5807	1152	11375	10774		601	4418	2651	8111	2777	17957	21572	.	56	159

A1.2.2.Lines and Track - Length

D - running generally on the right
G- running generally on the left
D-G no general running direction

Year	Railway	Direction of Running	Rail Gauge	Length of Lines (end of the year)			Average Length of Lines WORKED								Length of Track (at the end of the year)					Road Traffic		Shipping Services	
							Lines not elect.		Elect. Lines			Lines Worked			Not Elect.		Electrified			Average Length of Lines Worked			
				lines not electrified	elect. Lines	TOTAL	Single Track	>Double Track	S.T	> D. T.	Total	for pass. And goods traffic	for pass. Traffic	for goods traffic	Main running tracks	Other Tracks	Main Running Tracks	Other tracks	Total	Passenger	Goods	Passenger	Goods
1977	SNCB	G	N	2984	1302	4286	1372	1331	63	1237	4003	2913	13	1077	4357	3522	2624	787	11290	7939			
1977	SNCF	G	N	24910	9489	34399	17479	7156	1304	8077	34016	23669	296	10051	31967	.	19054	.	.				
1977			E	101	97	198	101		97		198	135	63		101	.	97	.	.				
1977			TOTAL	25011	9586	34597	17580	7156	1401	8077	34214	23804	359	10051	32068	.	19151	.	.	10410	3300	503	427
1977	VR	D	L	5548	515	6063	5417	168	155	304	6044	4605	12	1427	5666	2356	889	185	9096		3378		
1977	TCDD	D	N	7935	204	8139	7935	16		188	8139	8139			7951	1650	392	72	10065				
1978	BDZ	D	N	2542	1554	4096	2195	347	1554		4096	4096			2542	1412	1554	660	6168				
1978			E	245		245	245				245	245			245	51			296				
1978			TOTAL	2787	1554	4341	2440	347	1554		4341	4341			2787	1463	1554	660	6464				
1978	BR	G	N	14135	3766	17901	5078	9093	151	3615	17937	13297	1107	3533	26532	8904	9096	744	45276			.	.
1978	CFF	G	N	15	2845	2860	16		1438	1393	2847	2819		28	15	557	4263	2272	7107				
1978			E		74	74			74		74	74				10	74	19	103				
1978			total	15	2919	2934	16		1512	1393	2921	2893		28	15	567	4337	2291	7210	58	58	53	
1978	CFL	D-G	N	133	137	270	64	69	45	92	270	229		41	208	75	217	130	630	1519	262		
1978	CFR	D	L																				
1978			N																				
1978			E																				
1978			TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH	D	N	1569		1569	1470	99			1569	1569			1668	563			2231				
1978			E	892		892	868	24			892	892			916	135			1051				
1978			TOTAL	2461		2461	2338	123			2461	2461			2584	698			3282	2200			
1978	CIE	G	L	2007		2007	1520	487			2007	1649		358	1614	902			2516	.	.	.	.
1978	CP	G	L	2397	432	2829	2385	15	26	404	2830												
1978			E	759		759	752	6															
1978			TOTAL	3156	432	3588	3137	21	26	404													
1978	CSD	D	L	9	92	101	.	.	.	.	101			101	.	.	.	.	.				
1978			N	10145	2763	12908	.	.	.	.	12908	12908			.	.	.	.	.				
1978			E	112	45	157	.	.	.	.	157	157			.	.	.	.	.				
1978			TOTAL	10266	2900	13166	.	.	.	.	13166	13065		101	11143	5990	4932	2234	24299				
1978	DB	D	N	17865	10649	28514	14431	3480	1860	8746	28517	23047	522	4948	21669	13670	21543	9092	65974				
1978			E	25		25	25				25	4		21	25	6			31				
1978			TOTAL	17890	10649	28539	14456	3480	1860	8746	28542	23051	522	4969	21694	13676	21543	9092	66005	92821	.	164	38
1978	DR	D	N	12370	1539	13909	10129	2318	302	1168	13917	12191	427	1299	14786	8919	2706	1015	27426				
1978			E	290		290	301				301	207	40	54	348	92			440				
1978			TOTAL	12660	1539	14199	10430	2318	302	1168	14218	12398	467	1353	15134	9011	2706	1015	27866			150	150
1978	DSB	D	N	1880	124	2004	1255	625	2	122	2004	1929	58	17	2507	1848	244	54	4653	7626	.	188	203
1978	FS	G	N	7862	8429	16291	7504	134	3205	5171	16014	15446		568	7995	2790	13644	5400	29829				
1978			E	100		100	82				82	82			100	10			110				
1978			TOTAL	7962	8429	16391	7586	134	3205	5171	16096	15528		568	8095	2800	13644	5400	29939	1534	155	237	237
1978	JZ	D	N	6851	2911	9762	6846	5	2033	878	9762	9762			6856	2520	3789	1400	14565	.	.	.	.
1978			E																				
1978			TOTAL																				
1978	MAV	D	L	35		35	35				35	1		34	35	107			142				
1978			N	6188	1280	7468	6032	156	344	936	7468	7387	25	56	6389	2774	2170	1125	12458				
1978			E	231		231	231				231	220	11		231	32			263				
1978			TOTAL	6454	1280	7734	6298	156	344	936	7734	7608	36	90	6655	2913	2170	1125	12863				
1978	NS	D	N	1122	1754	2876	1048	74	240	1514	2876	2215	286	375	1440	1576	3308	696	7020				
1978	NSB	D	N	1801	2440	4241	1801		2349	91	4241	4096		145	1801	544	2540	593	5478	9544	4331		
1978	PKP	D	N	17479	6496	23975	13920	3458	1226	5270	23874	23874			20978	10061	11766	4574	47379				
1978			E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1978			TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1978	OBB	D-G	N	2582	2821	5403	2593	32	1324	1454	5403	5194	3	206	2596	955	4313	1974	9838				
1978			E	363	91	454	360		91		451	447	4		363	45	91	14	513				
1978			TOTAL	2945	2912	5857	2953	32	1415	1454	5854	5641	7	206	2959	1000	4404	1988	10351	9351	11580	42	

A1.2.2.Lines and Track - Length

D - running generally on the right
G- running generally on the left
D-G no general running direction

Year	Railway	Direction of Running	Rail Gauge	Length of Lines (end of the year)			Average Length of Lines WORKED								Length of Track (at the end of the year)					Road Traffic		Shipping Services	
							Lines not elect.		Elect. Lines			Lines Worked			Not Elect.		Electrified			Average Length of Lines Worked			
				lines not electrified	elect. Lines	TOTAL	Single Track	>Double Track	S.T	> D. T.	Total	for pass. And goods traffic	for pass. Traffic	for goods traffic	Main running tracks	Other Tracks	Main Running Tracks	Other tracks	Total	Passenger	Goods	Passenger	Goods
1978	RENFE	D-G	L	8548	4870	13418	8351	291	3023	1849	13514	13514			8795	2712	5700	2863	20070				
1978			E						19		19		19										
1978			TOTAL	8548	4870	13418	8351	291	3042	1849	13533	13514	19		8795	2712	5700	2863	20070	.			
1978	SJ	G	N	4132	7063	4179	4179		5869	1152	11200	10599		601	4132	2151	8215	2793	17291				
1978			E	182		182	182				182	182			182	409			591				
1978			TOTAL	4314	7063	11377	4361		5869	1152	11382	10781		601	4314	2560	8215	2793	17882	21312	.	56	159
1978	SNCB	G	N	2995	1307	4302	1413	1326	63	1240	4042	2919	18	1105	4365	3469	2627	788	11249				
1978	SNCF	G	N	24711	9613	34324	17424	7039	1310	8180	33953	23635	296	10022	31588	.	19273	.	.				
1978			E	101	97	198	101		97		198	135	63		101	.	97	.	.				
1978			TOTAL	24812	9710	34522	17525	7039	1407	8180	34151	23770	359	10022	31689	.	19370	.	.	10370	3315	503	427
1978	VR	D	L	5382	675	6057	5352	124	208	396	6080	4623	12	1445	5441	2399	1107	185	9132		3245		
1978	TCDD	D	N	7935	204	8139	7935	16		188	8139	8139			7951	1651	392	72	10065				
1979	BDZ	D	N	2542	1554	4096	2195	347	1554		4096	4096			2542	1412	1554	660	6168				
1979			E	245		245	245				245	245			245	51			296				
1979			TOTAL	2787	1554	4341	2440	347	1554		4341	4341			2787	1463	1554	660	6464				
1979	BR	G	N	14017	3718	17735	5005	9096	152	3565	17818	13260	1144	3414	26191	8386	9117	711	44405			.	.
1979	CFF	G	N	15	2845	2860	16		1430	1401	2847	2819		28	15	525	4272	2324	7136				
1979			E		74	74			74		74	74				10	74	19	103				
1979			total	15	2919	2934	16		1504	1401	2921	2893		28	15	535	4346	2343	7239	58	58	53	
1979	CFL	D-G	N	133	137	270	64	69	45	92	270	229		41	208	75	217	130	630	1519	262		
1979	CFR	D	L																				
1979			N																				
1979			E																				
1979			TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH	D	N	1569		1569	1470	99			1569	1569			1668	563			2231				
1979			E	892		892	868	24			892	892			916	135			1051				
1979			TOTAL	2461		2461	2338	123			2461	2461			2584	698			3282	.	.		
1979	CIE	G	L	1988		1988	1501	487			1988	1644		344	1612	885			2497	.	.	.	.
1979	CP	G	L	2397	432	2829	2385	15	26	404	2830	.	.	.	2416	435	837	172	3860				
1979			E	759		759	752	6			758	.	.	.	765	72			837				
1979			TOTAL	3156	432	3588	3137	21	26	404	3588	.	.	.	3181	507	837	172	4697	134		10	
1979	CSD	D	L	9	92	101	.	.	.	.	101			101	.	.	.	.	.				
1979			N	10034	2850	12884	.	.	.	.	12884	12884			.	.	.	.	.				
1979			E	110	47	157	.	.	.	.	157	157			.	.	.	.	.				
1979			TOTAL	10153	2989	13142	.	.	.	.	13142	13041		101	10948	5879	5100	2349	24276				
1979	DB	D	N	17661	10879	28540	14334	3414	1934	8838	28520	23018	551	4951	21551	13561	21615	9110	65837				
1979			E	25		25	25				25	4		21	25	6			31				
1979			TOTAL	17686	10879	28565	14359	3414	1934	8838	28545	23022	551	4972	21576	13567	21615	9110	65868	90955	.	164	38
1979	DR	D	N	12252	1621	13873	9930	2416	339	1215	13900	12153	447	1300	15030	8804	2839	1020	27693				
1979			E					290		290	289				289	206	40	43	340	91			431
1979			TOTAL	12542	1621	14163	10219	2416	339	1215	14189	12359	487	1343	15370	8895	2839	1020	28124			183	183
1979	DSB	D	N	1880	135	2015	1255	625	2	133	2015	1929	69	17	2507	1848	266	54	4675	7698	.	229	281
1979	FS	G	N	7707	8632	16339	7364	95	3318	5224	16001	15473		528	7782	2820	13902	5500	30004				
1979			E	100		100	71				71	71			100	10			110				
1979			TOTAL	7807	8632	16439	7435	95	3318	5224	16072	15544		528	7882	2830	13902	5500	30114	1469	155	237	237
1979	JZ	D	N	6413	2968	9381	6413		2078	890	9381	9381			6413	2366	3858	1632	14269	.	.		
1979			E																				
1979			TOTAL																				
1979	MAV	D	L	35		35	35				35	1		34	35	107			142				
1979			N	6087	1385	7472	5925	162	449	936	7472	7386	25	61	6260	2728	2310	1186	12484				
1979			E	231		231	231				231	220	11		231	32			263				
1979			TOTAL	6353	1385	7738	6191	162	449	936	7738	7607	36	95	6526	2867	2310	1186	12889				
1979	NS	D	N	1121	1759	2880	1047	74	230	1529	2880	2505		375	1440	1576	3316	696	7028				
1979	NSB	D	N	1799	2440	4239	1799		2349	91	4239	4096		143	1799	549	2540	592	5480	9558	4041		

A1.2.2.Lines and Track - Length

D - running generally on the right
G- running generally on the left
D-G no general running direction

Year	Railway	Direction of Running	Rail Gauge	Length of Lines (end of the year): lines not electrified	Length of Lines: elect. Lines	Length of Lines: TOTAL	Average Length of Lines WORKED: Lines not elect.: Single Track	Lines not elect.: >Double Track	Elect. Lines: S.T	Elect. Lines: > D. T.	Total	Lines Worked: for pass. And goods traffic	Lines Worked: for pass. Traffic	Lines Worked: for goods traffic	Length of Track (at the end of the year): Not Elect.: Main running tracks	Not Elect.: Other Tracks	Electrified: Main Running Tracks	Electrified: Other tracks	Total	Road Traffic (Average Length of Lines Worked): Passenger	Road Traffic: Goods	Shipping Services (Average Length of Lines Worked): Passenger	Shipping Services: Goods
1979	OBB	D-G	N	2525	2875	5400	2565	2	1346	1488	5401	5192	3	206	2526	784	4385	2198	9893				
1979			E	363	91	454	360		91		451	447	4		363	43	91	14	511				
1979			TOTAL	2888	2966	5854	2925	2	1437	1488	5852	5639	7	206	2889	827	4476	2212	10404	9246	12096	41	
1979	PKP	D	N	17728	6687	24415	14326	3297	1238	5449	24310	24310			21165	9926	12136	4764	47991				
1979			E	.		.	.	.			.	.			.	.			.				
1979			TOTAL	.	.	.	.	.	.	.	.	.			.	.	.	.	.				
1979	RENFE	D-G	L	7972	5448	13420	8009	53	3291	2159	13512	13512			8092	2513	6403	3062	20070				
1979			E						19		19		19										
1979			TOTAL	7972	5448	13420	8009	53	3310	2159	13531	13512	19		8092	2513	6403	3062	20070	.			
1979	SJ	G	N	4132	7063	11195	4179		5869	1152	11200	10599		601	4132	2021	8215	2793	17161				
1979			E	182		182	182				182	182			182	409			591				
1979			TOTAL	4314	7063	11377	4361		5869	1152	11382	10781		601	4314	2430	8215	2793	17752	20787	.	56	159
1979	SNCB	G	N	2944	1344	4288	1362	1292	67	1277	3998	2931	20	1047	4290	3444	2700	800	11234				
1979	SNCF	G	N	24480	9766	34246	17404	6823	1308	8343	33878	23610	292	9976	31158	1325	19579	881	52943				
1979			E	101	97	198	101		97		198	135	63		101		97		198				
1979			TOTAL	24581	9863	34444	17505	6823	1405	8343	34076	23745	355	9976	31259	1325	19676	881	53141	10350	3315	503	427
1979	VR	D	L	5345	733	6078	5340	52	265	424	6081	4657	12	1412	5389	2198	1185	377	9149		3320		
1979	TCDD	D	N	7928	204	8132	7928	16		188	8132	8132			7944	1675	392	72	10083				
1980	BDZ	D	N	2602	1494	4096	.	58	.	477	4096	4096			.	.	.		.				
1980			E	245		245					245	245			.	.			.				
1980			TOTAL	2847	1494	4341	.	58	.	477	4341	4341			.	.	282	111	393	11		49	49
1980	BR	G	N	13927	3718	17645	4953	9019	146	3572	17690	13243	1160	3287	25987	8069	9113	713	43882			.	.
1980	CFF	G	N	15	2854	2869	16		1425	1411	2852	2824		28	15	541	4302	2351	7209				
1980			E		74	74			74		74	74				9	74	20	103				
1980			total	15	2928	2943	16		1499	1411	2926	2898		28	15	550	4376	2371	7312	58	58	53	
1980	CFL	D-G	N	127	1434	270	58	69	51	92	270	229		41	208	65	217	138	628	1519	262		
1980	CFR	D	L																				
1980			N																				
1980			E																				
1980			TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH	D	N	1569		1569	1470	99			1569	1569			1668	563			2231				
1980			E	892		892	868	24			892	892			916	135			1051				
1980			TOTAL	2461		2461	2338	123			2461	2461			2584	698			3282	1602	.		
1980	CIE	G	L	1987		1987	1502	485			1987	1587		400	1610	885			2495	.	.	.	.
1980	CP	G	L	2418	432	2850	2406	15	26	404	2851	2851			2437	435	837	172	3881				
1980			E	759		759	752	6			758	758			765	72			837				
1980			TOTAL	3177	432	3609	3158	21	26	404	3609	3609			3202	507	837	172	4718	134		10	
1980	CSD	D	L	10	92	102	.	.	.	.	102			102	.	.	.	.	.				
1980			N	10022	2850	12872	.	.	.	.	12872	12872			.	.	.	.	.				
1980			E	110	47	157	.	.	.	.	157	157			.	.	.	.	.				
1980			TOTAL	10142	2989	13131	.	.	.	.	13131	13029		102	10895	5852	5170	2357	24274				
1980	DB	D	N	17321	11151	28472	14197	3270	2027	8997	28491	22809	565	5117	21034	13337	22044	9241	65656				
1980			E	25		25	25				25	4		21	25	6			31				
1980			TOTAL	17346	11151	28497	14222	3270	2027	8997	28516	22813	565	5138	21059	13343	22004	9241	65687	89599	.	164	25
1980	DR	D	N	12257	1695	13952	9713	2542	361	1298	13914	12106	491	1317	14358	6578	3007	1035	24978				
1980			E	296		296	293				293	206	44	43	294	79			373				
1980			TOTAL	12553	1695	14248	10006	2542	361	1298	14207	12312	535	1360	14652	6657	3007	1035	25351			183	150
1980	DSB	D	N	1880	135	2015	1255	625	2	133	2015	1929	69	17	2507	1848	266	54	4675	7612	.	229	259
1980	FS	G	N	7588	8792	16380	7306	75	3413	5268	16062	15562		500	7662	2840	14101	5600	30203				
1980			E	100		100	71				71	71			100	10			110				
1980			TOTAL	7688	8792	16480	7377	75	3413	5268	16133	15633		500	7762	2550	14101	5600	30313	1351	155	237	237
1980	JZ	D	N	6298	3167	9465	6294	4	2280	887	9465	9465			6301	2333	4055	1732	14421	.	.	.	.
1980			E																				
1980			TOTAL																				

A1.2.2.Lines and Track - Length

D - running generally on the right
G- running generally on the left
D-G no general running direction

		Direction	Rail	Length of Lines (end of the year)			Average Length of Lines WORKED								Length of Track (at the end of the year)					Road Traffic		Shipping Services	
							Lines not elect.		Elect. Lines			Lines Worked			Not Elect.		Electrified			Average Length of Lines Worked			
Year	Railway	of Running	Gauge	lines not electrified	elect. Lines	TOTAL	Single Track	>Double Track	S.T	> D. T.	Total	for pass. And goods traffic	for pass. Traffic	for goods traffic	Main running tracks	Other Tracks	Main Running Tracks	Other tracks	Total	Passenger	Goods	Passenger	Goods
1980	MAV	D	L	35		35	35				35	1		34	35	107			142				
1980			N	5914	1489	7403	5747	167	553	936	7403	7317	25	61	6110	2657	2396	1261	12424				
1980			E	178		178	178				178	167	11		178	25			203				
1980			TOTAL	6127	1489	7616	5960	167	553	936	7616	7485	36	95	6323	2789	2396	1261	12769				
1980	NS	D	N	1121	1759	2880	1048	74	230	1528	2880	2505		375	1440	1576	3316	696	7028				
1980	NSB	D	N	1799	2443	4242	1799		2349	93	4241	4098		143	1799	582	2547	597	5525	9111	4386		
1980	OBB	D-G	N	2523	2880	5403	2527	3	1362	1500	5392	5189	3	200	2526	781	4394	2201	9902				
1980			E	363	91	454	360		91		451	447	4		363	43	91	14	511				
1980			TOTAL	2886	2971	5857	2887	3	1453	1500	5843	5636	7	200	2889	824	4485	2215	10413	9469	13407	42	
1980	PKP	D	N	17488	6868	24356	14250	3186	1265	5603	24304	24304			20796	9734	12471	4969	47970				
1980			E	.		.	.	.			.	.			.	.			.				
1980			TOTAL	.	6868	.	.	.	1265	5603	.	.			.	.	12471	4969	.				
1980	RENFE	D-G	L	7979	5452	13431	8016	53	3236	2218	13523	13523			7983	2432	3529	3141	20085				
1980			E						19		19		19										
1980			TOTAL	7979	5442	13431	8016	53	3255	2218	13542	13523	19		7983	2432	6529	3141	20085	.			
1980	SJ	G	N	4132	7063	11195	4179		5869	152	11200	10599		601	4132	2021	8215	2793	17161				
1980			E	182		182	182				182	182			182	409			591				
1980			TOTAL	4314	7063	11377	4361		5869	1152	11382	10781		601	4314	2430	8215	2793	17752	20585	.	56	159
1980	SNCB	G	N	2852	1414	4266	1348	1255	67	1308	3978	2935	20	1023	4104	3360	2837	818	11119				
1980	SNCF	G	N	24187	9977	34164	17260	6591	1316	8541	33708	23290	238	10180	30661	14185	19993	8015	72854				
1980			E	101	97	198	101		97		198	135	63		101		97		198				
1980			TOTAL	24288	10074	34362	17361	6591	1413	8541	33906	23425	301	10180	30762	14185	20090	8015	73052	10890	3315	498	563
1980	VR	D	L	5153	922	6075	5289	37	311	438	6075	4653	12	1410	5190	2128	1380	459	9157		3609		
1980	TCDD	D	N	7989	204	8193	7989		16	188	8193	8193			8005	1675	392	72	10144				
1981	BDZ	D	N	2602	1494	4096	2544	58	1017	477	4096	4096			.	.	.	.	.				
1981			E	245		245	245				245	245			.	.			.				
1981			TOTAL	2847	1494	4341	2789	58	1017	477	4341	4341			.	.			6493				
1981	BR	G	N	13702	3729	17431	4894	8920	147	2577	17538	13243	1151	3144	25482	7373	9223	682	42760			.	.
1981	CFF	G	N	15	2863	2878	16		1418	1426	2860	2830		30	15	538	4319	2368	7240				
1981			E		74	74			74		74	74				9	74	20	103				
1981			total	15	2937	2952	16		1492	1426	2934	2904		30	15	547	4393	2388	7343	58	58	53	
1981	CFL	D-G	N	108	162	270	39	69	70	92	270	229		41	182	85	270	119	656	1519	262		
1981	CFR	D	L																				
1981			N																				
1981			E																				
1981			TOTAL	.	.	10596	.	.	.	.	.	.	.	.	.	.	.	.	.				
1981	CH	D	N	1569		1569	1470	99			1569	1569			1668	563			2231				
1981			E	892		892	868	24			892	892			916	135			1051				
1981			TOTAL	2461		2461	2338	123			2461	2461			2584	698			3282	1602	.		
1981	CIE	G	L	1987		1987	1505	482			1987	1642		345	1611	884			2495	.	.	.	.
1981	CP	G	L	2426	432	2858	2411	15	28	404	2858	2858			2441	435	836	172	3884				
1981			E	758		758	752	6			758	758			764	72			836				
1981			TOTAL	3184	432	3616	3163	21	28	404	3616	3616			3205	507	836	172	4720	134		10	
1981	CSD	D	L	10	92	102	.	.	.	.	102			102	.	.	.	.	.				
1981			N	9929	2942	12871	.	.	.	.	12871	12871			.	.	.	.	.				
1981			E	110	47	157	.	.	.	.	157	157			.	.	.	.	.				
1981			TOTAL	10049	3081	13130	.	.	.	.	13130	13028		102	10849	5734	5218	2494	24295				
1981	DB	D	N	17180	11170	28350	14039	3184	2087	9082	28392	22354	572	5466	20673	13193	22338	9264	65468				
1981			E	25		25	25				25	4		21	25	6			31				
1981			TOTAL	17205	11170	28375	14064	3184	2087	9082	28417	22358	572	5487	20698	13199	22338	9264	65499	88153	.	164	25
1981	DR	D	N	12127	1808	13935	9578	2616	378	1373	13945	12071	535	1349	14180	6580	3242	1067	25069				
1981			E	296		296	296				296	199	55	42	290	72			362				
1981			TOTAL	12423	1808	14231	9874	2616	378	1373	14241	12270	590	1381	14470	6652	3242	1067	25431			183	150
1981	DSB	D	N	1880	135	2015	1255	625	2	133	2015	1929	69	17	2507	1848	266	54	4675	6891	.	229	244

A1.2.2.Lines and Track - Length

D - running generally on the right
G- running generally on the left
D-G no general running direction

Year	Railway	Direction of Running	Rail Gauge	Length of Lines (end of the year)			Average Length of Lines WORKED								Length of Track (at the end of the year)					Road Traffic		Shipping Services	
							Lines not elect.		Elect. Lines			Lines Worked			Not Elect.		Electrified			Average Length of Lines Worked			
				lines not electrified	elect. Lines	TOTAL	Single Track	>Double Track	S.T	> D. T.	Total	for pass. And goods traffic	for pass. Traffic	for goods traffic	Main running tracks	Other Tracks	Main Running Tracks	Other tracks	Total	Passenger	Goods	Passenger	Goods
1981	FS	G	N	7596	8807	16403	7259	75	3466	5286	16086	15548		538	7670	2840	14133	5800	30443				
1981			E	100		100	71				71	71			100	10			110				
1981			TOTAL	7696	8807	16503	7330	75	3466	5286	16157	15619		538	7770	2850	14133	5800	30553	1308	155	237	237
1981	JZ	D	N	6073	3320	9393	6068	5	2434	886	9393	9393			6078	2243	4206	1845	14372	.	.		
1981			E																				
1981			TOTAL																				
1981	MAV	D	L	35		35	35				35	1		34	35	107			142				
1981			N	5890	1516	7406	5723	167	580	936	7406	7245		61	6046	2545	2460	1406	12457				
1981			E	176		176	176				176	165	11		176	25			201				
1981			TOTAL	6101	1516	7617	5934	167	580	936	7617	7511	11	95	6257	2677	2460	1406	12800				
1981	NS	D	N	1157	1799	2956	1075	82	224	1575	2956	2546		410	1440	1576	3436	696	7148				
1981	NSB	D	N	1799	2443	4242	1799		2349	94	4242	4099		143	1799	582	2547	597	5525	8911	4588		
1981	OBB	D-G	N	2477	2926	5403	2492	6	1382	1509	5389	5185	3	201	2484	796	4453	2226	9959				
1981			E	363	91	454	331		91		422	418	4		363	42	91	14	510				
1981			TOTAL	2840	3017	5857	2823	6	1473	1509	5811	5603	7	201	2847	838	4544	2240	10469	9497	14206	39	
1981	PKP	D	N	17269	7091	24360	14031	3183	1447	5644	24305	24305			20572	9596	12735	5158	48061				
1981			E	.		.	.	.			.	.			.	.			.				
1981			TOTAL	.	7091	.	.	.	1447	5644	.	.			.	.	13735	5158	.				
1981	RENFE	D-G	L	7299	6133	13432	7381	6	3848	2289	13524	13524			.	.	.	.	.				
1981			E						19		19		19										
1981			TOTAL	7299	6133	13432	7381	6	3867	2289	13543	13524	19		.	.	.	.	.	.			
1981	SJ	G	N	4059	7094	11153	4124		5882	1152	11158	10530		628	4090	2019	8215	2793	17117				
1981			E	182		182	182				182	182			182	409			591				
1981			TOTAL	4241	7094	11335	4306		5882	1152	11340	10712		628	4272	2428	8215	2793	17708	20641	.	56	159
1981	SNCB	G	N	2598	1662	4260	1329	1078	68	1479	3954	2927	26	1001	3620	3305	3316	842	11083				
1981	SNCF	G	N	24018	10380	34398	17626	6485	1366	8709	34186	22838	315	11033	30455	14426	20748	8324	73953				
1981			E	101	97	198	101		97		198	101	97		101		97		198				
1981			TOTAL	24119	10477	34596	17727	6485	1463	8709	34384	22939	412	11033	30556	14426	20845	8324	74151	11480	3315	498	563
1981	VR	D	L	5011	1057	6068	5121	37	496	438	6092	4528	3	1561	5048	2082	1524	488	9142		3686		
1981	TCDD	D	N	7989	204	8193	7989	16		188	8193	8193			8005	1675	392	72	10144				
1982	BDZ	D	N	2602	1494	4096	2544	58	1017	477	4096	4096			.	.	.	.	.				
1982			E	245		245	245				245	245			.	.			.				
1982			TOTAL	2847	1494	4341	2789	58	1017	477	4341	4341			.	.	.	.	6493				
1982	BR	G	N	13477	3753	17230	4757	8832	146	3595	17330	13228	1154	2948	25027	6387	9262	668	41344			.	.
1982	CFF	G	N	15	2867	2882	16		1417	1434	2867	2837		30	15	542	4327	2371	7255				
1982			E		74	74			74		74	74				9	74	20	103				
1982			total	15	2941	2956	16		1491	1434	2941	2911		30	15	551	4401	2391	7358	58	58	53	
1982	CFL	D-G	N	108	162	270	39	69	70	92	270	232		38	182	85	270	119	656	395	262		
1982	CFR	D	L																				
1982			N																				
1982			E																				
1982			TOTAL	.	.	10506	.	.	.	.	.	.	.	.	.	.	.	.	.				
1982	CH	D	N	1569		1569	1470	99			1569	1569			1668	563			2231				
1982			E	892		892	868	24			892	892			916	135			1051				
1982			TOTAL	2461		2461	2338	123			2461	2461			2584	698			3282	1602	.		
1982	CIE	G	L	1987		1987	1504	483			1987	1643		344	1609	884			2493	.	.	.	.
1982	CP	G	L	2400	458	2858	2385	15	54	404	2858	2858			2416	428	861	179	3884				
1982			E	758		758	752	6			758	758			761	72			833				
1982			TOTAL	3158	458	3616	3137	21	54	404	3616	3616			3177	500	861	179	4717	134		10	
1982	CSD	D	L	10	92	102	.	.	.	.	102			102	.	.	.	.	.				
1982			N	9852	3031	12883	.	.	.	.	12883	12883			.	.	.	.	.				
1982			E	110	47	157	.	.	.	.	157	157			.	.	.	.	.				
1982			TOTAL	9972	3170	13142	.	.	.	.	13142	13040		102	10766	5783	5324	2440	24313				
1982	DB	D	N	17073	11172	28245	13917	3178	2086	9093	28274	22022	576	5676	20495	12851	22456	9219	65021				

A1.2.2.Lines and Track - Length

D - running generally on the right
G- running generally on the left
D-G no general running direction

Year	Railway	Direction of Running	Rail Gauge	Length of Lines (end of the year)			Average Length of Lines WORKED								Length of Track (at the end of the year)					Road Traffic		Shipping Services	
							Lines not elect.		Elect. Lines			Lines Worked			Not Elect.		Electrified			Average Length of Lines Worked			
				lines not electrified	elect. Lines	TOTAL	Single Track	>Double Track	S.T	> D. T.	Total	for pass. And goods traffic	for pass. Traffic	for goods traffic	Main running tracks	Other Tracks	Main Running Tracks	Other tracks	Total	Passenger	Goods	Passenger	Goods
1982			E	25		25	25				25	4		21	25	6			31				
1982			TOTAL	17098	11172	28270	13942	3178	2086	9093	28299	22026	576	5697	20520	12857	22456	9219	65052	90140	.	164	25
1982	DR	D	N	12006	1930	13936	9525	2542	370	1499	13936	12064	532	1340	13885	6539	3495	1136	25055				
1982			E	295		295	295				295	197	55	43	289	74			363				
1982			TOTAL	12301	1930	14231	9820	2542	370	1499	14231	12261	587	1383	14174	6613	3495	1136	25418			183	150
1982	DSB	D	N	1880	135	2015	1255	625	2	133	2015	1929	69	17	2507	1848	266	54	4675	6663	.	229	244
1982	FS	G	N	7593	8809	16402	7240	75	3462	5298	16075	15554		521	7668	2890	14142	6000	30700				
1982			E	71		71	71				71	71			71	10			81				
1982			TOTAL	7664	8809	16473	7311	75	3462	5298	16146	15625		521	7739	2900	14142	6000	30781	864	50	237	237
1982	JZ	D	N	5958	3431	9389	5954	4	2545	886	9389	9389			5962	2233	4317	1901	14413	.	.		
1982			E																				
1982			TOTAL																				
1982	MAV	D	L	35		35	35				35	1		34	35	106			141				
1982			N	5796	1604	7400	5641	155	640	964	7400	7339		61	5751	2539	2768	1419	12477				
1982			E	176		176	176				176	165	11		176	24			200				
1982			TOTAL	6007	1604	7611	5852	155	640	964	7611	7505	11	95	5962	2669	2768	1419	12818				
1982	NS	D	N	1050	1800	2850	969	81	224	1576	2850	2544		306	1300	1782	3050	664	6796				
1982	NSB	D	N	1799	2443	4242	1799		2349	94	4242	4099		143	1799	583	2547	598	5527	9033	3968		
1982	OBB	D-G	N	2442	2958	5400	2464	3	1396	1522	5385	5182	3	200	2449	813	4497	2251	10010				
1982			E	363	91	454	297		91		388	384	4		363	42	91	14	510				
1982			TOTAL	2805	3049	5854	2761	3	1487	1522	5773	5566	7	200	2812	855	4588	2265	10520	9310	15202	41	
1982	PKP	D	N	16938	7410	24348	13881	3008	1547	5863	24299	24299			20079	9592	13273	5197	48141				
1982			E	.		.	.	.			.	.			.	.			.				
1982			TOTAL	.	7410	.	.	.	1547	5863	.	.			.	.	13273	5197	.				
1982	RENFE	D-G	L	7299	6162	13461	7381	6	3764	2402	13553	13553			7505	2191	7186	3382	20264				
1982			E						19		19		19										
1982			TOTAL	7299	6162	13461	7381	6	3783	2402	13572	13553	19		7505	2191	7186	3382	20264	.			
1982	SJ	G	N	4325	7099	11424	4335		5947	1152	11434	10446		988	4325	2252	8251	2795	17623				
1982			E	326		326	326				326	182		144	326	734			1060				
1982			TOTAL	4651	7099	11750	4661		5947	1152	11760	10628		1132	4651	2986	8251	2795	18683	20758	.	56	159
1982	SNCB	G	N	2477	1763	4240	1290	913	79	1646	3928	2929	26	973	3414	3275	3510	876	11075				
1982	SNCF	G	N	23838	10563	34401	17588	6324	1413	9072	34397	23017	538	10842	30118	13993	21018	8405	73534				
1982			E	101	97	198	101		97		198	101	97		101		97		198				
1982			TOTAL	23939	10660	34599	17689	6324	1510	9072	34595	23118	635	10842	30219	13993	21115	8405	73732	10680	3315	498	563
1982	VR	D	L	5013	1056	6069	4997	37	618	438	6090	4535	3	1552	5051	2053	1522	489	9115		3889		
1982	TCDD	D	N	7952	204	8156	7952		16	188	8156	.	.	.	7968	1731	392	77	10168				
1983	BDZ	D	N	2602	1494	4096	2544	58	1017	477	4096	4096			.	.	.	0	0				
1983			E	245		245	245				245	245			.	.			.				
1983			TOTAL	2847	1494	4341	2789	58	1017	477	4341	4341			.	.	.	.	6493				
1983	BR	G	N	13214	3750	16964	4702	8651	155	3589	17097	13201	1173	2723	24526	6856	9252	668	41302			.	.
1983	CFF	G	N	15	2872	2887	16		1410	1446	2872	2841		31	15	458	4345	2368	7186				
1983			E		74	74			74		74	74				9	74	20	103				
1983			total	15	2946	2961	16		1484	1446	2946	2915		31	15	467	4419	2388	7289	58	58	53	
1983	CFL	D-G	N	108	162	270	38	70	70	92	270	232		38	182	82	270	120	654	395	262		
1983	CFR	D	L																				
1983			N																				
1983			E																				
1983			TOTAL	.	.	10506	.	.	.	.	.	.	.	.	.	.	.	.	.				
1983	CH	D	N	1569		1569	1470	99			1569	1569			1668	563			2231				
1983			E	892		892	868	24			892	892			916	135			1051				
1983			TOTAL	2461		2461	2338	123			2461	2461			2584	698			3282	1602	.		
1983	CIE	G	L	1907	37	1944	1424	483		37	1944	1644		300	1527	883	37		2447	.	.	.	.
1983	CP	G	L	2400	458	2858	2385	15	54	404	2858	2858			2416	428	861	179	3884				
1983			E	755		755	749	6			755	755			761	72			833				

A1.2.2.Lines and Track - Length

D - running generally on the right
G- running generally on the left
D-G no general running direction

Year	Railway	Direction of Running	Rail Gauge	Length of Lines (end of the year)			Average Length of Lines WORKED								Length of Track (at the end of the year)					Road Traffic		Shipping Services	
							Lines not elect.		Elect. Lines			Lines Worked			Not Elect.		Electrified			Average Length of Lines Worked			
				lines not electrified	elect. Lines	TOTAL	Single Track	>Double Track	S.T	> D. T.	Total	for pass. And goods traffic	for pass. Traffic	for goods traffic	Main running tracks	Other Tracks	Main Running Tracks	Other tracks	Total	Passenger	Goods	Passenger	Goods
1983			TOTAL	3155	458	3613	3134	21	54	404	3613	3613			3177	500	861	179	4717	134		10	
1983	CSD	D	L	10	92	102	.	.	.	.	102			102	.	.	.	.	.				
1983			N	9801	3082	12883	.	.	.	.	12883	12883			.	.	.	.	.				
1983			E	110	47	157	.	.	.	.	157	157			.	.	.	.	.				
1983			TOTAL	9921	3221	13142	.	.	.	.	13142	13040		102	10692	5749	5396	2498	24335				
1983	DB	D	N	16835	11204	28039	13759	3160	2083	9113	28115	21733	577	5805	20274	12548	22522	9170	64514				
1983			E	6		6	15				15	4		11	6	3			9				
1983			TOTAL	16841	11204	28045	13774	3160	2083	9113	28130	21737	577	5816	20280	12551	22522	9170	64523	101800	.	164	25
1983	DR	D	N	11837	2096	13933	9430	2491	395	1618	13934	12076	520	1338	13712	6491	3768	1211	25182				
1983			E	294		294	294				294	196	56	42	287	72			359				
1983			TOTAL	12131	2096	14227	9724	2491	395	1618	14228	12272	576	1380	13999	6563	3768	1211	25541			183	150
1983	DSB	D	N	2306	142	2448	1667	639		142	2448	1918	81	449	2497	1946	285		4728	6709	.	265	295
1983	FS	G	N	7593	8811	16404	7240	75	3459	5303	16077	15556		521	7668	2890	14144	6100	30802				
1983			E	71		71	71				71	71			71	10			81				
1983			TOTAL	7664	8811	16475	7311	75	3459	5303	16148	15627		521	7739	2900	14144	6100	30883	864	50	237	237
1983	JZ	D	N	5958	3451	9409	5954	4	2565	886	9409	9409			5962	2242	4337	1882	14423	.	.		
1983			E																				
1983			TOTAL																				
1983	MAV	D	L	35		35	35				35	1		34	35	106			141				
1983			N	5698	1704	7402	5582	116	701	1003	7402	7341		61	5813	2506	2707	1462	12488				
1983			E	176		176	176				176	165	11		176	24			200				
1983			TOTAL	5909	1704	7613	5793	116	701	1003	7613	7507	11	95	6024	2636	2707	1462	12829				
1983	NS	D	N	1056	1796	2852	970	86	204	1592	2852	2230	311	311	1232	1577	3388	740	6937				
1983	NSB	D	N	1799	2443	4242	1799		2349	94	4242	4099		143	1799	585	2547	600	5531	8994	3900		
1983	OBB	D-G	N	2399	2986	5385	2419	6	1416	1531	5372	5177	2	193	2402	803	4537	2295	10037				
1983			E	363	91	454	285		91		376	370	5	1	363	42	91	14	510				
1983			TOTAL	2762	3077	5839	2704	6	1507	1531	5748	5547	7	194	2765	845	4628	2309	10547	9424	15288	43	
1983	PKP	D	N	16501	7828	24329	13756	2630	1602	6226	24214	24214			19302	9054	14054	5489	47899				
1983			E	.		.	.	.			.	.			.	.			.				
1983			TOTAL	.	7828	.	.	.	1602	6226	.	.			.	.	14054	5489	.				
1983	RENFE	D-G	L	7302	6162	13464	7352	6	3764	2432	13554	13554			7508	2191	7212	3382	20293				
1983			E						19		19		19										
1983			TOTAL	7302	6162	13464	7352	6	3783	2432	13573	13554	19		7508	2191	7212	3382	20293	.			
1983	SJ	G	N	4293	7088	11381	4297		5942	1152	11391	10451		940	4293	2236	8240	2764	17533				
1983			E	326		326	326				326	182		144	326	734			1060				
1983			TOTAL	4619	7088	11707	4623		5942	1152	11717	10633		1084	4619	2970	8240	2764	18593	20822	.	56	159
1983	SNCB	G	N	2386	1843	4229	1213	836	75	1736	3860	2926	26	908	3261	3247	3674	893	11075				
1983	SNCF	G	N	23521	10991	34512	17544	6175	1448	9262	34429	23034	569	10826	29514	13510	21863	8528	73415				
1983			E	101	97	198	101		97		198	101	97		101		97		198				
1983			TOTAL	23622	11088	34710	17645	6175	1545	9262	34627	23135	666	10826	29615	13510	21960	8528	73613	7235	3315	498	563
1983	VR	D	L	4812	1257	6069	4875	40		737	5652	6090	4448	3	1639	4853	1990	1724	549	9116		3889	
1983	TCDD	D	N	7965	204	8169	7965		16	188	8169	.	.	.	7981	738	392	77	10188				
1984	BDZ	D	N	2602	1494	4096	2544	58	1017	477	4096	4096			.	.	.	.	.				
1984			E	245		245	245				245	245			.	.			.				
1984			TOTAL	2847	1494	4341	2789	58	1017	477	4341	4341			.	.	.	.	6493				
1984	BR	G	N	13005	3798	16803	4731	8386	169	3597	16883	13065	1299	2519	23854	5832	9421	641	39748			.	.
1984	CFF	G	N	15	2895	2910	16		1401	1478	2895	2855		40	15	505	4401	2338	7259				
1984			E		74	74			74		74	74				9	74	20	103				
1984			total	15	2969	2984	16		1475	1478	2969	2929		40	15	514	4475	2358	7362	58	58	53	
1984	CFL	D-G	N	108	162	270	38	70	70	92	270	231		39	182	83	270	120	655	395	262		
1984	CFR	D	L																				
1984			N																				
1984			E																				
1984			TOTAL	.	.	10509	.	.	.	.	.	.	.	.	.	.	.	.	.				

A1.2.2.Lines and Track - Length

D - running generally on the right
G- running generally on the left
D-G no general running direction

Year	Railway	Direction of Running	Rail Gauge	Length of Lines (end of the year)			Average Length of Lines WORKED								Length of Track (at the end of the year)					Road Traffic		Shipping Services	
							Lines not elect.		Elect. Lines			Lines Worked			Not Elect.		Electrified			Average Length of Lines Worked			
				lines not electrified	elect. Lines	TOTAL	Single Track	>Double Track	S.T	> D. T.	Total	for pass. And goods traffic	for pass. Traffic	for goods traffic	Main running tracks	Other Tracks	Main Running Tracks	Other tracks	Total	Passenger	Goods	Passenger	Goods
1984	CH	D	N	1569		1569	1441	128			1569	1569			1698	563			2261				
1984			E	892		892	868	24			892	892			916	135			1051				
1984			TOTAL	2461		2461	2309	152			2461	2461			2614	698			3312	1602	.		
1984	CIE	G	L	1907	37	1944	1424	483		37	1944	1644		300	1618	794	37		2449	.	.	.	.
1984	CP	G	L	2400	458	2858	2385	15	54	404	2858	2858			2416	428	861	179	3884				
1984			E	755		755	749	6			755	755			761	72			833				
1984			TOTAL	3155	458	3613	3134	21	54	404	3613	3613			3177	500	861	179	4717	134		10	
1984	CSD	D	L	9	93	102	.	.	.	.	102			102	.	.	.	.	.				
1984			N	9698	3168	12866	.	.	.	.	12866	12866			.	.	.	.	.				
1984			E	100	46	146	.	.	.	.	146	146			.	.	.	.	.				
1984			TOTAL	9807	3307	13114	.	.	.	.	13114	13012		102	10530	5698	5535	2523	24286				
1984	DB	D	N	16529	11264	27793	13546	3109	2088	9154	27897	21263	589	6046	19907	12248	22616	9083	63854				
1984			E	6		6	6				6	4		2	6	3			9				
1984			TOTAL	16535	11264	27799	13552	3109	2088	9154	27903	21267	589	6048	19913	12251	22616	9083	63863	14946	.	164	25
1984	DR	D	N	11620	2321	13941	9330	2399	438	1771	13938	12086	499	1353	13457	6429	4191	1279	25356				
1984			E	284		284	289				289	195	55	39	287	72			359				
1984			TOTAL	11904	2321	14225	9619	2399	438	1771	14227	12281	554	1392	13744	6501	4191	1279	25715			183	150
1984	DSB	D	N	2306	142	2448	1667	639		142	2448	1918	81	449	2497	1946	285		4728	6709	.	265	295
1984	FS	G	N	7433	8916	16349	7107	75	3546	5315	16043	15579		464	7506	2890	14267	6200	30863				
1984			E	71		71	71				71	71			71	10			81				
1984			TOTAL	7504	8916	16420	7178	75	3546	5315	16114	15650		464	7577	2900	14267	6200	30944	463	50	237	237
1984	JZ	D	N	5817	3462	9279	5811	6	2575	887	9279	9279			5823	2252	4349	1712	14136	.	.		
1984			E																				
1984			TOTAL																				
1984	MAV	D	L	35		35	35				35	1		34	35	110			145				
1984			N	5604	1801	7405	5483	122	792	1008	7405	7344		61	5725	2461	2809	1530	12525				
1984			E	176		176	176				176	165	11		176	24			200				
1984			TOTAL	5815	1801	7616	5694	122	792	1008	7616	7510	11	95	5936	2595	2809	1530	12870				
1984	NS	D	N	1056	1796	2852	970	86	204	1592	2852	2230	311	311	1232	1577	3388	740	6937				
1984	NSB	D	N	1799	2443	4242	1799		2349	94	4242	4099		143	1792	580	2546	613	5531	9039	3519		
1984	OBB	D-G	N	2353	3030	5383	2389	2	1436	1544	5371	5168	3	200	2355	807	4601	2320	10083				
1984			E	323	91	414	283		91		374	369	5		324	36	91	14	465				
1984			TOTAL	2676	3121	5797	2672	2	1527	1544	5745	5537	8	200	2679	843	4692	2334	10548	9414	16342	39	
1984	PKP	D	N	16046	8307	24353	13482	2481	1774	6533	24270	24270			18649	8916	14840	5687	48092				
1984			E	.		.	.	.			.	.			.	.			.				
1984			TOTAL	.	8307	.	.	.	1774	6533	.	.			.	.	14840	5687	.				
1984	RENFE	D-G	L	7302	6164	13466	7373	6	3695	2482	13556	.		.	7508	2191	7266	3382	20347				
1984			E						19		19		19										
1984			TOTAL	7302	6164	13466	7373	6	3714	2482	13575	.	19	.	7508	2191	7266	3382	20347	.			
1984	SJ	G	N	4263	7088	11351	4286		5936	1152	11374	10363		1011	4263	2086	8240	2764	17353				
1984			E	134		134	263				263	171		92	134	301			435				
1984			TOTAL	4397	7088	11485	4549		5936	1152	11637	10534		1103	4397	2387	8240	2764	17788	20800	.	56	159
1984	SNCB	G	N	2287	1907	4194	1065	840	105	1766	3776	2897	26	853	3145	3182	3775	942	11044				
1984	SNCF	G	N	23252	11238	34490	17479	5924	1490	9603	34496	23120	569	10807	29059	12325	22320	8528	72232				
1984			E	101	97	198	101		97		198	101	97		101		97		198				
1984			TOTAL	23353	11335	34688	17580	5924	1587	9603	34694	23221	666	10807	29160	12325	22417	8528	72430	.	3315	497	555
1984	VR	D	L	4534	1445	5979	4599	40	921	438	5998	4425	1	1572	4575	1921	1912	627	9035		3889		
1984	TCDD	D	N	7878	291	8169	7878	43	291	188	8400	8400			7921	1778	479	85	10263				

A1.2.3.Tractive Stock Stock and Power

Year	Railway	Rail-Gauge	Rail Stock: Steam Locomotives: Up to (750 K.W)	(751 to 1500 KW)	above (1500KW)	Total	Total Power KW	Diesel and System Locomotives and Light Rail Motor Tractors: Light rail motor tractors (< 100 KW)	Locomotives: (111 to 750 KW)	(750-1500 KW)	>(1500 KW)	Total	Total power Kw	Total power KW. (exc. Light rail motor tractors)	Electric Locomotives and Light rail motor tractors: Light rail motor tractors(< 110 KW)	Locomotives: (111-750 KW)	(751-1500 kw)	(1501-2250 kw)	(2251-3000 Kw)	>(3000 Kw)	TOTAL	Total power KW	Total power Kw (exc. Light r.m.t.) (in 1972 H.P.)	DIESEL AND SPECIAL SYSTEM RAILCARS: Single Units: < (260 Kw) (inclu.)	> (260 kw)	Total	Total power Kw	Indivisible coach sets: Number	Total number of vehicles	Total power Kw	ELECTRIC RAILCARS: Single Units: < (inclu.) (260 Kw)	>(260 kw)	Total	Total power KW	Indivisible coach sets: Number	Total number of vehicles	Total power Kw	ROAD STOCK: MOTOR VEHICLES: Rail Owned: Motor coaches	Lorries	Tractors	Privately-owned: Motor coaches	Lorries	Tractors
			Number					Number							NUMBER									Number							Number							Number					
1977	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.						
1977	BR	N							1226	1262	878	3366	6637565	6637565			93		227		320	1301823	1301823		12	12	6756	1133	3313	957383		10	10	6702	2101	7343	2342279						
1977	CFF	N						117	135	14	6	272	77184	69478	85	348	129	54	130	405	1151	2552522	2545015									149	149	210734	30	96	62420						
1977		E						3				3	210		2	3	2				7	3964	3773									16	16	12960									
1977		TOTAL																																							.	.	.
1977	CFL	N						4	36	24		64	50802	50387					19		19	48617	48617	3		3	573	8	16	1882					6	12	3690	48	66				
1977	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	N						3	42	31	72	148	216595	216462										9	54	63	31176																
1977		E							21	22		43	47280	47280										10	14	24	8264	33	92	15306													
1977		TOTAL																																				54			90		
1977	CIE	L							136	59	18	213	171975	171975																								2449	308	398			
1977	CP	L						18	95	102	10	225	148015	146070				34	12		46	102753	102753	16	24	40	9173	21	46	9232					93	276	108464						
1977		E	41			41	20235		12			12	5918	5918										22		22	2994	22	44	6145													
1977		TOTAL																																				25	17				
1977	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.						
1977	DB	N						1039	2402	1229	49	4719	2408138	2343804	4	5	13	132	505	2033	2692	9840884	9840748	612	134	746	156642				237	20	257	54591	1214	1440	1104891						
1977		E						4	2			6	744	460																													
1977		TOTAL																																				2116	4443	432	3898	.	
1977	DR	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	DSB	N	3	5		8	5898	93	137	104	46	380	247318	238618											94	94	29018	11	43	7115		279	279	162582				472	246	11			
1977	FS	N	166	184		350	244773	333	565	402		1300	517175	495754		70	158	875	240	491	1834	4160715	4160715	1049	19	1068	192599	8	16	3945		516	516	289934	24	105	31228						
1977		E	6			6	2096	2				2	133											19		19	2781																
1977		TOTAL																																					.	.	.	.	
1977	JZ	N	28	325		353	206699		419	279	92	790	754508	754508				49	57	283	389	1400790	1400790	1	2	3	2449	337	745	70026					50	168	58575						
1977		E	16			16	4941		10			10	4412	4412														3	24	1643													
1977		TOTAL																																				87	1162	95			
1977	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	NIR	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	NS	N						127	341			468	154127	148892				6	83	23	112	286554	286554		30	30	7949	87	216	40362		33	33	22345	554	1414	488854						
1977	NSB	N						69	164	35		268	85572	79701		20		64	37	40	161	398052	398052	6	40	46	12350					87	87	37260	49	98	48608	541	179				
1977	OBB	N	14	8		22	15152		296	173		469	259499	259499		31	130	107	48	327	643	1728021	1728021	34	39	73	19952	16	32	5568					101	202	131780						
1977		E	24			24	5429	9	26			35	8096	7329		16					16	5120	5120		2	2	560																
1977		TOTAL																																				799	106	2	49		
1977	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.						
1977	RENFE	L						46	327	186	213	772	818068	818068		6	6	248	56	102	418	1029655	1029655		11	11	4246	247	495	76644					379	1019	333260						
1977		E																														6	6	2433									
1977		TOTAL																																				.		.			
1977	SJ	N						152	303	160		615	274474	252639		133	67	279	31	247	757	1719459	1719459	166	6	172	29891				25	17	42	11731	129	267	126432						
1977		E						22	4			26	4627	2207										8		8	912																
1977		TOTAL																																				1293	6	1			
1977	SNCB	N							457	478	1	936	651268	651268			12	158	48	29	247	587163	587163	80		80	15556	7	21	3374					465	994	319890		528	26	1269	394	
1977	SNCF	N						1382	1104	682	435	3603	2014798	1877800		62	249	553	898	632	2394	6735959	6735959	219	256	475	189930	474	1109	208850		141	141	126640	528	1654	447805						
1977		E																														23	23	5040	4	12	3520						
1977		TOTAL																																							.	.	.
1977	VR	L						105	256	232	50	643	444959	435773						51	51	158100	158100	167		167	22094	48	72	17818					80	160	61600		97				
1977	TCDD	N	31	486	86	603	749033		79	7	256	342	481410	481410				3	15		18	48984	48984		23	23	4589	27	81	16490					30	120	30450						
1978	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	BR	N							1204	1247	926	3377	6869238	6869238			88		224		312	1276032	1276032		12	12	6756	1128	3293	953147		10	10	6702	2101	7341	2347181						
1978	CFF	N						114	135	14	6	269	88099	80398	85	348	123	53	129	418	1156	2675379	2667729									147	147	209340	30	96	65935						
1978		E						3				3	210		2	3	2				7	3970	3780									16	16	13440									
1978		total																																							.	.	.
1978	CFL	N						4	36	24		64	50802	50387					19		19	48617	48617					8	16	1882					6	12	3690	49	67				
1978	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH	N						3	42	30	72	147	215160	215027										9	54	63	31176																
1978		E							21	22		43	47280	47208										10	14	24	8264	33	92	15306													
1978		TOTAL																																				54			90		
1978	CIE	L							136	59	18	213	171975	171975																								2448	318	377			
1978	CP	L						18	95	102	10	225	148529	146584		3		34	12		49	103493	103493	15	24	39	8996	21	46	9232	31		31	5060	99	295	116137						
1978		E	36			36	17853		17			17	8645	8645										21		21	2941	22	44	6145													
1978		TOTAL																																				38					
1978	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	DB	N						957	2388	1250	49	4644	2432646	2373340	4	4	9	109	497	2069	2692	9903104	99029668	548	129	677	146396				237	1	238	39455	1373	1590	1177900						
1978		E						4	2			6	744	460																													
1978		TOTAL																																				2109	4563	424	4156	.	
1978	DR	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	DSB	N	3	5		8	5898	93	137	104	47	381	249628	240943											78	78	24102	11	43	7117		287	287	167976				470	289	289			
1978	FS	N	155	182		337	238173	443	597	420		1460	546392	518213		70	158	873	240	553	1894	4402332	4402332	1050	19	1069	204236	8	16	3945		552	552	321579	24	105	31228						
1978		E	6			6	2096	2				2	133											19		19	2781																
1978		TOTAL																																					.	.	.	.	
1978	JZ	N	184	119		303	159988		411	277	67	755	705014	705014			1	76	85	247	409	1454064	1454064					321	714	49578					69	241	59865	86	1327	573			
1978		E																																									
1978		TOTAL																																									
1978	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	NS	N						127	340			467	153612	148378				6	83	23	112	286554	286554		30	30	7949	86	214	40097		33	33	22345	549	1387	483671						
1978	NSB	N						69	164	35		268	85572	79701		20		64	37	43	164	411541	411372	6	39	45	12054					84	84	36120	49	98	48608	531	184				
1978	OBB	N	10			10	5050		294	173		467	258808	258802		30	121	97	48	351	647	1817418	1817418	32	39	71	19512	16	32	5568					105	210	141780						
1978		E	24			24	5429	9	26			35	8096	7329		16					16	5120	5120	0	2	2	560																
1978		TOTAL																																				814	106	2	54		
1978	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.					
1978	RENFE	L						46	327	185	211	769	812206	807790		6	5	241	56	128	436	1095856	1095856		8	8	3088	224	452	70736					422	1140	379866						
1978		E																														6	6	2433									
1978		TOTAL																																				.			.		
1978	SJ	N						146	298	157		601	270484	220510		131	64	261	26	273	755	1766340	1766340	151	5	156	26772				25	17	42	11731	127	263	125314						
1978		E						18	4			22	4193	2207										8		8	912																
1978		TOTAL																																				1257	5				
1978	SNCB	N							457	478	1	936	651558	651558			12	163	43	31	249	565375	565375	80		80	15556	7	21	3374					466	998	321254		529	28		394	
1978	SNCF	N						1410	1089	680	435	3614	2019821	1873880		62	176	553	898	773	2462	7053249	7053249	204	257	461	186780	490	1141	215890		141	141	126640	481	1588	431490						
1978		E																														23	23	5040	4	12	3520						
1978		TOTAL																																							.	.	.
1978	VR	L						97	268	241	50	656	455228	446686						62	62	192200	192200	148		148	19580	48	72	17818					86	172	65320		99				
1978	TCDD	N	16	452	73	541	721800		78	27	284	389	551056	551056				3	15		18	48613	48613		23	23	4555	27	80	16465					30	120	30450						
1979	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	BR	N							1189	1241	967	3397	3933970	3933970			88		227		315	734601	734601		11	11	3536	1124	3284	532265		10	10	3730	2169	7458	1336965						
1979	CFF	N						113	135	14	6	268	88219	80398	84	346	118	53	128	429	1158	2750945	2743385									147	147	209278	28	92	60772						
1979		E						3				3	210		2	3	2				7	3970	3780									16	16	12960									
1979		total																																							.	.	.
1979	CFL	N						4	36	24		64	50802	50387					19		19	48617	48617					8	16	1882					6	12	3690	49	67				
1979	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH	N						3	48	31	72	154	220455	220322										9	54	63	31176																
1979		E							21	22		42	47280	47280										10	13	23	7978	33	92	15306													
1979		TOTAL																																				54	208	2	.	.	.
1979	CIE	L							115	59	18	192	162889	162889																								2465	308	340			
1979	CP	L						18	95	100	23	236	169047	167102			3	34	12		49	104931	104931	28	29	57	13102	32	64	15082		31	31	15512	99	294	116137						
1979		E	31			31	15406		17			17	8645	8645										21		21	2941	22	44	6145													
1979		TOTAL																																				38					
1979	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	DB	N						800	2378	1296		4474	2417514	2367914	4	3	6	95	497	2076	2681	9905057	9904921	510	127	637	115732				237	1	238	39455	1513	1700	1235560						
1979		E						4	2			6	744	460																													
1979		TOTAL																																				2109	4563	424	4389	.	
1979	DR	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.						
1979	DSB	N	3	3		6	4039	93	136	104	61	394	282048	273363										62	60	122	33482	10	43	6470		278	278	163464				518	306				
1979	FS	N	103	134		237	170274	470	611	426		1507	556948	526819		70	158	867	237	604	1936	4586403	4586403	1067	19	1086	201481	8	16	3945		582	582	346314	24	105	30852						
1979		E	6			6	2096	2				2	133											19		19	2781																
1979		TOTAL																																							.	.	
1979	JZ	N	160	99		259	149982		412	166	179	757	724163	724163			1	47	114	266	428	1597192	1597192					323	729	74870					86	288	98000	78	1421	106			
1979		E																																									
1979		TOTAL																																									
1979	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	NS	N						127	338			465	152582	147257				6	83	23	112	286554	286554		28	28	7419	86	214	40097		33	33	22345	564	1405	508950						
1979	NSB	N						69	175	35		279	89202	83337		20		64	37	43	164	411372	411372	6	39	45	12054					83	83	35740	49	98	48608	551	174				
1979	OBB	N	2			2	1140		295	173		468	258931	258931		29	120	92	48	374	663	1921330	1921330	31	39	70	19280	16	32	5568					132	264	174180						

A1.2.3.Tractive Stock Stock and Power

Rail Stock — Steam Locomotives; Diesel and System Locomotives and Light Rail Motor Tractors; Electric Locomotives and Light rail motor tractors

Year	Railway	Rail-Gauge	Steam: Up to (750 K.W)	Steam: (751 to 1500 KW)	Steam: above (1500KW)	Steam: Total	Steam: Total Power KW	Diesel: Light rail motor tractors (< 100 KW)	Diesel Locomotives: (111 to 750 KW)	Diesel Locomotives: (750-1500 KW)	Diesel Locomotives: >(1500 KW)	Diesel: Total	Diesel: Total power Kw	Diesel: Total power KW. (exc. Light rail motor tractors)	Electric: Light rail motor tractors (< 110 KW)	Electric Locomotives: (111-750 KW)	Electric Locomotives: (751-1500 kw)	Electric Locomotives: (1501-2250 kw)	Electric Locomotives: (2251-3000 Kw)	Electric Locomotives: >(3000 Kw)	Electric: TOTAL	Electric: Total power KW	Electric: Total power Kw (exc. Light r.m.t.) (in 1972 H.P.)
			Number					Number							NUMBER								
1979		E	24			24	5429	9	26			35	8096	7329		16					16	5120	5120
1979		TOTAL																					
1979	PKP	N.E.																					
1979	RENFE	L						46	325	184	211	766	809942	805526		6	5	239	56	130	436	1097644	1097644
1979		E																					
1979		TOTAL																					
1979	SJ	N						143	300	157		600	270178	219848		131	61	249	20	291	752	1769782	1769782
1979		E						18	4			22	4193	2207									
1979		TOTAL																					
1979	SNCB	N							455	477	1	933	649623	649623			12	163	43	31	249	565375	565375
1979	SNCF	N						1398	1077	679	435	3589	2019380	1869985		57	170	540	894	812	2473	7155609	7155609
1979		E																					
1979		TOTAL																					
1979	VR	L						88	274	243	50	655	456756	449038						74	74	229400	229400
1979	TCDD	N	28	436	73	537	677695		79	33	308	420	607121	607121				3	15		18	48971	48971
1980	BDZ	N.E.																					
1980	BR	N							1125	1143	952	3220	3806139	3806139			82		225		307	725718	725718
1980	CFF	N						111	135	14	6	266	78433	69478	84	358	113	52	127	441	1175	2783881	2776321
1980		E						3				3	210		2	3	2				7	3970	3780
1980		TOTAL																					
1980	CFL	N						4	35	24		63	50472	50057					19		19	48617	48617
1980	CFR	L.N.E.																					
1980	CH	N						3	48	31	72	154	220455	220322									
1980		E							24	19		43	45755	45755									
1980		TOTAL																					
1980	CIE	L							115	59	18	192	162889	162889									
1980	CP	L						18	95	100	23	236	169046	167102		1	1	34	12		48	104241	104241
1980		E	28			28	14123		17			17	8645	8645									
1980		TOTAL																					
1980	CSD	L.N.E.																					
1980	DB	N						708	2390	1227	48	4373	2428442	2384546	4	3	6	102	495	2106	2716	10021303	10021167
1980		E						4	2			6	744	460									
1980		TOTAL																					
1980	DR	N.E.																					
1980	DSB	N	3	3		6	4039	86	135	104	61	386	280711	273117									
1980	FS	N	86	104		190	136176	529	622	426		1577	564368	529657		70	158	858	235	629	1950	4666340	4666340
1980		E	5			5	1743	2				2	133										
1980		TOTAL																					
1980	JZ	N	131	100		231	128277		399	219	134	752	719717	719717			1	47	84	316	448	1538375	1538375
1980		E																					
1980		TOTAL																					
1980	MAV	N.E.																					
1980	NIR	L																					
1980	NS	N						128	334			462	151741	146465				6	83	23	112	286554	286554
1980	NSB	N						65	175	35		275	88791	83337		20		64	37	47	168	429132	429132
1980	OBB	N	1			1	570		295	171		466	256629	256629		29	117	86	48	395	675	2012126	2012126
1980		E	24			24	5429	9	26			35	8096	7329		16					16	5120	5120
1980		TOTAL																					
1980	PKP	N.E.																					
1980	RENFE	L						46	321	183	211	761	807164	802748		6	5	239	56	139	445	1125544	1125544
1980		E																					
1980		TOTAL																					
1980	SJ	N						142	289	172		603	282995	233878		129	60	243	14	305	751	1810996	1810996
1980		E						17	4			21	4083	2207									
1980		TOTAL																					
1980	SNCB	N							451	478		929	646835	646835			12	163	43	31	249	565375	565375
1980	SNCF	N						1417	1065	679	435	3596	2022568	1867818		55	147	552	892	818	2464	7235839	7235839
1980		E																					
1980		TOTAL																					
1980	VR	L						85	272	245	48	650	453553	355832						84	84	260400	260400
1980	TCDD	N	28	436	73	537	667695		79	40	335	454	658873	658873				3	15		18	48613	48613
1981	BDZ	N.E.																					
1981	BR	N							1013	927	1105	3045	3488663	3488663			48		225		273	618000	618000
1981	CFF	N						111	135	14	6	266	90167	82358	84	354	107	52	125	452	1174	2857711	2850151
1981		E						3				3	210		2	3	2				7	3970	3780
1981		total																					
1981	CFL	N						4	35	24		63	50472	50057					19		19	48617	48617
1981	CFR	L.N.E.																					
1981	CH	N						3	48	31	71	153	219022	218889									
1981		E							24	19		43	45755	45755									
1981		TOTAL																					
1981	CIE	L							115	59	18	192	162889	162889									
1981	CP	L						18	93	100	47	258	206355	204411		1	1	34	12		48	105741	105741
1981		E	22			22	11087		17			17	8645	8645									
1981		TOTAL																					
1981	CSD	L.N.E.																					
1981	DB	N						708	2384	1221	48	4361	2434018	2390122	4	2	6	98	493	2122	2725	10064748	1064612
1981		E						4	2			6	744	460									
1981		TOTAL																					
1981	DR	N.E.																					
1981	DSB	N	3	3		6	4039	86	135	104	65	390	290415	282821									
1981	FS	N	83	102		185	132708	596	637	426		1659	573360	533425		70	158	853	235	648	1964	4733354	4733354
1981		E	4			4	1412	2	2			4	553										
1981		TOTAL																					
1981	JZ	N	128	85		213	116383		406	240	129	775	769864	769864			1	40	88	326	455	1586075	1586075
1981		E																					
1981		TOTAL																					
1981	MAV	N.E.																					
1981	NS	N						127	332			459	150668	145434				89	21	21	131	253740	253740
1981	NSB	N						63	174	35	5	277	100550	95253		20		63	40	47	170	436292	436292
1981	OBB	N	1			1	570		295	171		466	256629	256629		29	115	84	48	401	677	2035858	2035858
1981		E	24			24	5429	9	26			35	8096	7329		15					15	4800	4800
1981		TOTAL																					
1981	PKP	N.E.																					
1981	RENFE	L						46	319	183	210	758	802750	798334		5	5	239	56	153	458	1168209	1168209
1981		E																					
1981		TOTAL																					
1981	SJ	N						66	299	171		536	276136	268855		116	60	237	5	322	740	1816119	1816119
1981		E						14	4			18	3752	1545									
1981		TOTAL																					
1981	SNCB	N							449	472		921	640135	640135			12	163	43	31	249	565375	565375
1981	SNCF	N						1422	1043	674	434	3573	2017347	1857830		49	131	551	884	867	2482	7384609	7384609
1981		E																					
1981		TOTAL																					
1981	VR	L						92	250	243	48	633	443389	434134						91	91	282100	282100
1981	TCDD	N	28	429	73	530	675984		78	57	335	470	698288	698288				3	15		18	48613	48613
1982	BDZ	N.E.																					
1982	BR	N							956	898	1093	2947	3412578	3412578			47		189	36	272	655400	655400
1982	CFF	N						110	135	14	6	265	90272	82358	84	353	95	51	123	469	1175	2926222	2918662
1982		E						3	1			4	375		2	3	2				7	3970	3780
1982		TOTAL																					
1982	CFL	N						4	39	24		67	51060	50645					19		19	48617	48617
1982	CFR	L.N.E.																					
1982	CH	N						3	48	31	81	163	249022	248889									
1982		E							24	19		43	45755	45755									
1982		TOTAL																					
1982	CIE	L							115	59	18	192	162889	162889									
1982	CP	L						18	93	100	53	264	210215	208627		1	1	33	12		47	103569	103569
1982		E	22			22	11238		17			17	8383	8383									
1982		TOTAL																					
1982	CSD	L.N.E.																					

Diesel and Special System Railcars; Electric Railcars; Road Stock — Motor Vehicles

Year	Railway	Rail-Gauge	Diesel railcars Single Units: < (260 Kw) (inclu.)	Diesel railcars Single Units: > (260 kw)	Diesel railcars Single Units: Total	Diesel railcars Single Units: Total power Kw	Diesel railcars Indivisible coach sets: Number	Diesel railcars Indivisible coach sets: Total number of vehicles	Diesel railcars Indivisible coach sets: Total power Kw	Electric railcars Single Units: < (inclu.) (260 Kw)	Electric railcars Single Units: >(260 kw)	Electric railcars Single Units: Total	Electric railcars Single Units: Total power KW	Electric railcars Indivisible coach sets: Number	Electric railcars Indivisible coach sets: Total number of vehicles	Electric railcars Indivisible coach sets: Total power Kw	Road Rail Owned: Motor coaches	Road Rail Owned: Lorries	Road Rail Owned: Tractors	Road Privately-owned: Motor coaches	Road Privately-owned: Lorries	Road Privately-owned: Tractors
			Number							Number							Number					
1979		E		2	2	560																
1979		TOTAL															837	111	7	54		
1979	PKP	N.E.																				
1979	RENFE	L		7	7	2702	192	390	62674					434	1210	392819						
1979		E									6	6	2433									
1979		TOTAL																				
1979	SJ	N	149	15	164	29832				24	16	40	11121	127	263	125314	1291	3				
1979		E	8		8	912																
1979		TOTAL																1291	3			
1979	SNCB	N	80		80	15556	7	21	3374					488	1064	343760						
1979	SNCF	N	200	256	456	185774	492	1145	216660		141	141	126640	445	1546	518285						
1979		E									22	22	4755	4	12	3520						
1979		TOTAL																				
1979	VR	L	141		141	18654	48	72	17818					90	180	67800		110				
1979	TCDD	N	23		23	4588	24	72	14059					35	138	35541						
1980	BDZ	N.E.																				
1980	BR	N		10	10	3215	1120	3257	524007		10	10	3730	2210	7558	1364391						
1980	CFF	N									147	147	209280	28	92	60772						
1980		E									16	16	12960									
1980		TOTAL																				
1980	CFL	N					8	16	1882					6	12	3690	49	68				
1980	CFR	L.N.E.																				
1980	CH	N	9	54	63	31176																
1980		E	10	13	23	7874	33	92	15306													
1980		TOTAL															54	208	2			
1980	CIE	L															2393	266	275			
1980	CP	L	15	29	44	10408	53	106	21894		31	31	12860	99	294	116137						
1980		E	21		21	2941	24	52	7068													
1980		TOTAL															38					
1980	CSD	L.N.E.																				
1980	DB	N	443	128	571	142342				237	1	238	39455	1595	1777	1343100						
1980		E																				
1980		TOTAL															2135	4747	477	4455		
1980	DR	N.E.																				
1980	DSB	N	62	60	122	33482	11	43	6470		277	277	162876				543	289				
1980	FS	N	1132	19	1151	213443	7	14	3452		582	582	349696	24	105	30852						
1980		E	18		18	2682																
1980		TOTAL																				
1980	JZ	N					316	694	66612					92	308	110360	87	1120	68			
1980		E																				
1980		TOTAL																				
1980	MAV	N.E.																				
1980	NIR	L																				
1980	NS	N		27	27	7154	84	210	39567		33	33	22345	580	1425	530500						
1980	NSB	N	6	39	45	12054					83	83	35740	49	98	48608	527	178				
1980	OBB	N	31	39	70	19280	16	32	5568					145	290	189780						
1980		E		2	2	560																
1980		TOTAL															864	119	10	70		
1980	PKP	N.E.																				
1980	RENFE	L		2	2	772	175	354	58568					471	1291	436495						
1980		E									6	6	2433									
1980		TOTAL																				
1980	SJ	N	143	67	210	46389				24	14	38	10238	127	263	125314						
1980		E	8		8	912																
1980		TOTAL															1372	3				
1980	SNCB	N	80		80	15556	7	21	3374					529	1146	371714						
1980	SNCF	N	171	260	431	180871	492	1145	216660		131	131	118120	471	1755	645765						
1980		E								9	13	22	4569	4	12	3520						
1980		TOTAL																				
1980	VR	L	135		135	17820	47	70	17437					96	192	71520		113				
1980	TCDD	N	18		18	3562	24	72	13956					50	180	50614						
1981	BDZ	N.E.																				
1981	BR	N		8	8	2745	1044	3096	499430		10	10	3730	2089	7306	1294164						
1981	CFF	N									147	147	209280	28	92	60772						
1981		E									16	16	12960									
1981		total																				
1981	CFL	N					8	16	1882					7	15	4305	49	79				
1981	CFR	L.N.E.																				
1981	CH	N	9	45	54	29191																
1981		E	10	13	23	7874	33	92	15306													
1981		TOTAL															128	208	2			
1981	CIE	L															2474	239	241			
1981	CP	L	14	28	42	9949	52	104	21687					142	446	136438						
1981		E	13		13	2518	27	64	8452													
1981		TOTAL															38					
1981	CSD	L.N.E.																				
1981	DB	N	436	126	562	139762				237	1	238	39455	1626	1806	1367580						
1981		E																				
1981		TOTAL															2183	4819	418	4601		
1981	DR	N.E.																				
1981	DSB	N	64	37	101	26757	11	43	7117		285	285	169852				586	257				
1981	FS	N	1135	19	1154	220386	7	14	3452		585	585	351914	24	105	30852						
1981		E	16		16	2484																
1981		TOTAL																				
1981	JZ	N					307	675	65622					92	308	110296	90	1112	5			
1981		E																				
1981		TOTAL																				
1981	MAV	N.E.																				
1981	NS	N		22	22	5829	84	210	39567		33	33	22345	573	1403	523125						
1981	NSB	N	3	39	42	11979					83	83	35740	49	98	48608	569	164				
1981	OBB	N	31	36	67	18410	16	32	5568					161	322	208980						
1981		E		2	2	560																
1981		TOTAL															885	129	16	71		
1981	PKP	N.E.																				
1981	RENFE	L					170	344	57114					501	1372	473267						
1981		E									6	6	2433									
1981		TOTAL																				
1981	SJ	N	113	105	218	54712				24	11	35	8914	127	263	124976						
1981		E	11		11	1254																
1981		TOTAL															1418	3				
1981	SNCB	N	78		78	15074	7	21	3374					529	1146	371714						
1981	SNCF	N	129	275	404	177789	499	1159	219740		107	107	97770	531	1967	854830						
1981		E								9	13	22	4569	4	12	3520						
1981		TOTAL																				
1981	VR	L	119		119	15470	45	67	16650					100	200	74000		117				
1981	TCDD	N	14		14	3066	24	72	13956					59	210	59790						
1982	BDZ	N.E.																				
1982	BR	N		6	6	1939	996	2917	476964		10	10	3720	2002	7276	1271106						
1982	CFF	N									145	145	207824	28	92	60772						
1982		E									16	16	12960									
1982		TOTAL																				
1982	CFL	N					8	16	1882					7	15	4305	49	78				
1982	CFR	L.N.E.																				
1982	CH	N	9	43	52	28307																
1982		E	10	13	23	7874	33	92	15306													
1982		TOTAL															128	208	2			
1982	CIE	L															2442	223	226			
1982	CP	L	14	27	41	9684	52	106	21687					142	445	136438						
1982		E	12		12	2477	31	80	10299													
1982		TOTAL															38					
1982	CSD	L.N.E.																				

Year	Railway	Rail-Gauge	Rail Stock – Steam Locomotives: Up to (750 K.W) (Number)	Steam: (751 to 1500 KW) (Number)	Steam: above (1500KW) (Number)	Steam: Total (Number)	Steam: Total Power KW	Diesel and System Locomotives and Light Rail Motor Tractors: Light rail motor tractors (< 100 KW) (Number)	Diesel Locomotives: (111 to 750 KW) (Number)	Diesel Locomotives: (750-1500 KW) (Number)	Diesel Locomotives: >(1500 KW) (Number)	Diesel: Total (Number)	Diesel: Total power Kw	Diesel: Total power KW. (exc. Light motor tractors)	Electric Locomotives and Light rail motor tractors: Light rail motor tractors(< 110 KW) (NUMBER)	Electric Locomotives: (111-750 KW)	Electric Locomotives: (751-1500 kw)	Electric Locomotives: (1501-2250 kw)	Electric Locomotives: (2251-3000 Kw)	Electric Locomotives: >(3000 Kw)	Electric: TOTAL	Electric: Total power KW	Electric: Total power Kw (exc. Light r.m.t.) (in 1972 H.P.)	DIESEL AND SPECIAL SYSTEM RAILCARS – Single Units: < (260 Kw) (inclu.) (Number)	Single Units: > (260 kw) (Number)	Single Units: Total (Number)	Single Units: Total power Kw	Indivisible coach sets: Number	Indivisible coach sets: Total number of vehicles	Indivisible coach sets: Total power Kw	ELECTRIC RAILCARS – Single Units: < (inclu.) (260 Kw) (Number)	Single Units: >(260 kw) (Number)	Single Units: Total (Number)	Single Units: Total power KW	Indivisible coach sets: Number	Indivisible coach sets: Total number of vehicles	Indivisible coach sets: Total power Kw	ROAD STOCK – MOTOR VEHICLES – Rail Owned: Motor coaches (Number)	Rail Owned: Lorries	Rail Owned: Tractors	Privately-owned: Motor coaches	Privately-owned: Lorries	Privately-owned: Tractors
1982	DB	N						656	2382	1212	48	4298	2417944	2377272	3		5	80	491	2136	2715	10079474	10079372	409	123	532	132645				228	1	229	38630	1615	1789	1345820						
1982		E						4	2			6	744	460																													
1982		TOTAL																																				2490	5106	378	5108		
1982	DR	N.E.																																									
1982	DSB	N						84	135	104	77	400	319329	311933										105	36	141	31179	11	43	7117		284	284	169264				599	259				
1982	FS	N	80	101		181	130641	572	647	443		1662	578365	539482		70	158	841	233	685	1987	4857426	4857426	1112	19	1131	221388	7	14	3452		580	580	350315	24	105	30852						
1982		E	4			4	1412	2	2			4	553	420										16		16	2484																
1982		TOTAL																																									
1982	JZ	N	103	74		177	95204		415	243	120	778	762935	762935			1	40	85	339	465	1632555	1632555					310	669	66170					97	327	115896	78	1206	5			
1982		E																																									
1982		TOTAL																																									
1982	MAV	N.E.																																									
1982	NIR	L																																									
1982	NS	N						127	330			457	149637	144403				89	15	52	156	400659	400659		9	9	2385	115	272	52711		33	33	22345	554	1361	508904						
1982	NSB	N						52	175	35	5	267	99472	95428		20		61	43	47	171	441612	441612	3	39	42	11779					82	82	35360	49	98	48608	586	161				
1982	OBB	N							295	171		466	256629	256629		29	114	81	48	408	680	2064898	2064898	31	35	66	18120	16	32	5568					172	344	222260						
1982		E	18			18	4369	8	26			34	8020	7329		15					15	4800	4800		2	2	560																
1982		TOTAL																																				895	136	18	74		
1982	PKP	N.E.																																									
1982	RENFE	L						46	317	183	210	756	801683	797267		5	5	235	56	176	477	1264285	1364285					223	514	108364					494	1343	470392						
1982		E																														6	6	3144									
1982		TOTAL																																									
1982	SJ	N						63	298	171		532	275217	268267		116	60	229	3	334	742	1839802	1839802	91	105	196	51485				23	8	31	7421	127	263	124976						
1982		E						14	4			18	3752	1545										9		9	1026																
1982		TOTAL																																				1575	3				
1982	SNCB	N							447	464		911	631791	631791			12	163	43	60	278	686885	686885	76		76	14874	7	21	3374					563	1214	415118						
1982	SNCF	N						1442	1016	669	432	3559	2004465	1839070		35	116	541	884	901	2477	7481821	7481821	92	290	382	175625	499	1159	219740		84	84	77080	590	2291	1080490						
1982		E																													7	13	20	4377	4	12	3520						
1982		TOTAL																																									
1982	VR	L						84	253	242	48	627	441123	432645						98	98		303800	99		99	12870	45	67	16650					100	200	74000		102				
1982	TCDD	N	28	425	73	526	661396		78	40	351	469	692173	692173				3	15		18	48613	48613	14		14	3708	14	42	5928					66	228	67007						
1983	BDZ	N.E.																																									
1983	BR	N							891	845	1064	2800	3336435	3336435			47		170	36	253	617586	617586		5	5	1715	932	2703	443587		10	10	3730	2012	7306	1177050						
1983	CFF	N						110	136	14	6	266	88684	80770	82	350	68	51	120	480	1151	2933138	2925758									145	145	207478	28	92	61453						
1983		E						3	1			4	375		2	3	2				7	3970	3780									16	16	13440									
1983		TOTAL																																									
1983	CFL	N						4	39	24		67	51060	50645					19		19	48617	48617					8	16	1882					7	15	4305	48	80				
1983	CFR	L.N.E.																																									
1983	CH	N						3	48	41	81	173	277972	277839										9	43	52	28307																
1983		E							24	19		43	45755	45755										10	13	23	7874	33	92	15306													
1983		TOTAL																																				128	208	2			
1983	CIE	L							97	58	18	173	154832	154832																								2412	212	212			
1983	CP	L						18	92	100	53	263	209465	207877		1	1	33	12		47	103569	103569	14	23	37	8555	52	106	21687					142	445	136438						
1983		E	19			19	9705		17			17	8383	8383										11		11	2411	32	84	10761													
1983		TOTAL																																				38					
1983	CSD	L.N.E.																																									
1983	DB	N						556	2381	1202	48	4187	2398984	2364512	2			26	480	2154	2662	10000402	10000334	371	114	485	120023				215	1	216	35825	1654	1815	1343550						
1983		E						4				4	284																														
1983		TOTAL																																				3381	5259	329	7753		
1983	DR	N.E.																																									
1983	DSB	N						84	134	104	91	413	353047	345651										146	13	159	31752	11	43	7117		283	283	168676				586	250				
1983	FS	N	19	34		53	40109	501	675	443		1619	608116	571895		70	158	835	230	742	2035	5096551	5096551	1120	19	1139	226601	7	14	3452		621	621	386947	24	105	30852						
1983		E	1			1	353	2	2			4	553	420										16		16	2484																
1983		TOTAL																																									
1983	JZ	N	96	71		167	89307		417	244	118	779	761739	761739			1	40	85	342	468	1642755	1642755					320	688	70930					102	347	122696	76	1195	3			
1983		E																																									
1983		TOTAL																																									
1983	MAV	N.E.																																									
1983	NIR	L																																									
1983	NS	N						127	300			427	134181	128947				89	15	58	162	421659	421659		8	8	2120	130	283	55676		33	33	22345	519	1290	478436						
1983	NSB	N						51	173	35	5	264	98976	94763		19		59	43	47	168	437512	437512	3	38	41	11683					82	82	35360	63	126	62496	597	159				
1983	OBB	N							295	171		466	256800	256800		29	110	76	47	419	681	2099785	2099785	30	34	64	17622	16	32	5568					183	366	235460						
1983		E	18			18	4369	7	26			33	7944	7329		15					15	4800	4800		2	2	560																
1983		TOTAL																																				902	140	19	74		
1983	PKP	N.E.																																									
1983	RENFE	L						46	317	183	212	758	825087	820671		5	5	235	56	238	539	1494835	1494835					228	576	146609					505	1394	491029						
1983		E																														6	6	3144									
1983		TOTAL																																									
1983	SJ	N						54	298	177		529	280601	274643		116	60	211		357	744	1881872	1881872	59	100	159	42217	3	12	2736	22	4	26	5487	143	293	144202						
1983		E						14	4			18	3752	1545										8		8	912																
1983		TOTAL																																				1660	3				
1983	SNCB	N							444	444		888	613306	613306			12	163	43	83	301	783255	783255	71		71	13669	7	21	3374					597	1282	457278						
1983	SNCF	N						1449	972	665	430	3516	1990015	1819669		26	95	533	884	931	2469	7560474	7560474	88	281	369	171072	499	1159	219740		65	65	59070	660	2573	1303885						
1983		E																													7	13	20	4377	4	12	3520						
1983		TOTAL																																									
1983	VR	L						69	266	247	48	630	445808	439371						103	103	319300	319300	83		83	10790	45	67	16650					100	200	74000		100				
1983	TCDD	N	21	394	73	488	619929		79	55	351	485	704217					3	15		18	48613	48613	13		13	2978	14	42	5928					70	240	77664						
1984	BDZ	N.E.																																									
1984	BR	N							849	803	1012	2664	3226390	3226390		47			167	36	250	610200	610200		5	5	1715	902	2617	437601		10	10	3730	1944	7078	125845						
1984	CFF	N						110	136	14	6	266	88699	80746	81	350	47	52	115	496	1141	2965594	2958304									141	141	209984	28	92	64287						
1984		E						3	1			4	375	165	2	3	2				7	3970	3780									16	16	13440									
1984		TOTAL																																									
1984	CFL	N						4	37	24		65	50067	49237					19		19	48617	48617					8	16	1882					7	15	4305	50	82				
1984	CFR	L.N.E.																																									
1984	CH	N						3	48	42	81	174	277972	277839										9	43	52	28307																
1984		E							24	19		43	45755	45755										10	13	23	7874	33	92	15306													
1984		TOTAL																																				128	208	2			
1984	CIE	L							93	48	18	159	141609	141609																		37	37	37000	37	74	37000	2415	206	195			
1984	CP	L						17	82	105	53	257	206260	204761		1	1	33	12		47	103569	103569	12	23	35	8203	42	84	19614					153	480	150690						
1984		E	11			11	5780		17			17	8383	8383										10		10	2176	32	83	10645													
1984		TOTAL																																				38					
1984	CSD	L.N.E.																																									
1984	DB	N						516	2311	1175	48	4050	2337654	2305662	2			2	457	2163	2624	9918236	9918168	308	106	414	103018				193	1	194	32195	1623	1753	1281960						
1984		E						4				4	284																														
1984		TOTAL																																				3241	5646	330	7808		
1984	DR	N.E.																																									
1984	DSB	N						84	134	104	91	413	353047	345651						2	2	8000	8000	166	7	173	33554	11	43	7117		283	283	168676				581	248				
1984	FS	N	17	34		51	39259	514	677	439		1630	612513	575351		70	158	831	334	672	2065	5155826	5155826	1116	19	1135	228720	7	14	3452		645	645	412055	24	105	30852						
1984		E	1			1	353	2	2			4	553	420										16		16	2484																
1984		TOTAL																																									
1984	JZ	N	85	66		151	79466		410	242	136	788	785615	785615			1	40	86	350	477	1672595	1672595					339	734	82356					114	394	138536	76	1205	10			
1984		E																																									
1984		TOTAL																																									
1984	MAV	N.E.																																									
1984	NIR	L																																									
1984	NS	N						127	297			424	133519	128384				88	15	58	161	411893	411893		6	6	1590	127	276	54716		33	33	22345	540	1371	504441						
1984	NSB	N						39	171	35	5	250	97422	94101		15		52	43	54	164	453788	453788	3	36	39	11091	8	16	5712		75	75	32700	74	148	73408	589	127				
1984	OBB	N							294	171		465	255793	255793		29	106	76	46	430	687	2148335	2148335	29	33	62	17100	16	32	5568					195	390	249860						
1984		E	18			18	4369	7	26			33	7944	7329		15					15	4800	4800		2	2	560																
1984		TOTAL																																				908	143	21	79		
1984	PKP	N.E.																																									
1984	RENFE	L						46	317	183	215	761	841663	837247		5	3	234	56	317	615	1759931	1759931					222	575	148997					483	1350	478899						
1984		E																														6	6	3144									
1984		TOTAL																																									
1984	SJ	N						54	294	168		516	270708	262608		116	60	175		375	726	1880548	1880548	48	105	153	41923	3	12	2736	22	4	26	5487	151	309	152938						
1984		E						13	4			17	3642	1435																													
1984		TOTAL																																				1650					
1984	SNCB	N							441	417		858	587353	587353				163	43	99	305	825998	825998	66		66	12605								637	1362	507500						
1984	SNCF	N						1423	955	663	429	3470	1984688	1810845		12	77	511	884	947	2431	7555828	7555828	72	269	341	162188	502	1165	220470		42	42	39660	727	2866	1481580						
1984		E																													6	14	20	4566	4	12	3520						
1984		TOTAL																																									

A1.2.3.Tractive Stock Stock and Power

Year	Railway	Rail-Gauge	Rail Stock – Steam Locomotives: Up to(750 K.W) (Number)	Steam Locomotives: (751 to 1500 KW) (Number)	Steam Locomotives: above (1500KW) (Number)	Steam Locomotives: Total (Number)	Steam Locomotives: Total Power KW	Diesel and System Locomotives and Light Rail Motor Tractors: Light rail motor tractors (< 100 KW) (Number)	Diesel – Locomotives: (111 to 750 KW) (Number)	Diesel – Locomotives: (750-1500 KW) (Number)	Diesel – Locomotives: >(1500 KW) (Number)	Diesel: Total (Number)	Diesel: Total power Kw	Diesel: Total power KW. (exc. Light rail motor tractors)
1984	VR	L						65	262	248	48	623	445219	439017
1984	TCDD	N	17	293	119	429	551357	79		64	392	535	787813	.

Year	Railway	Rail-Gauge	Electric Locomotives and Light rail motor tractors: Light rail motor tractors(< 110 KW) (NUMBER)	Electric – Locomotives: (111-750 KW) (NUMBER)	Electric – Locomotives: (751-1500 kw) (NUMBER)	Electric – Locomotives: (1501-2250 kw) (NUMBER)	Electric – Locomotives: (2251-3000 Kw) (NUMBER)	Electric – Locomotives: >(3000 Kw) (NUMBER)	Electric: TOTAL (NUMBER)	Electric: Total power KW	Electric: Total power Kw (exc. Light r.m.t.) (in 1972 H.P.)
1984	VR	L						109	109	337900	337900
1984	TCDD	N				3	15		18	48613	48613

Year	Railway	Rail-Gauge	DIESEL AND SPECIAL SYSTEM RAILCARS – Single Units: < (260 Kw) (inclu.) (Number)	Single Units: > (260 kw) (Number)	Single Units: Total (Number)	Single Units: Total power Kw	Indivisible coach sets: Number	Indivisible coach sets: Total number of vehicles	Indivisible coach sets: Total power Kw	ELECTRIC RAILCARS – Single Units: < (inclu.) (260 Kw) (Number)	Single Units: >(260 kw) (Number)	Single Units: Total (Number)	Single Units: Total power KW	Indivisible coach sets: Number	Indivisible coach sets: Total number of vehicles	Indivisible coach sets: Total power Kw	ROAD STOCK – MOTOR VEHICLES – Rail Owned: Motor coaches (Number)	Rail Owned: Lorries (Number)	Rail Owned: Tractors (Number)	Privately-owned: Motor coaches (Number)	Privately-owned: Lorries (Number)	Privately-owned: Tractors (Number)
1984	VR	L	70		70	9100	43	65	15910					100	200	74000		94				
1984	TCDD	N	13		13	2978	14	42	5928					70	210	71094						

A.1.2.4.Tractive Stock

Available and Out of Service

YEAR	Railway	rail gauge	LOCOMOTIVES AVAILABLE FOR OPERATING PURPOSES																		RAILCARS AVAILABLE FOR OPERATING PURPOSES											
			Steam Locomotives						Diesel and Special System Locomotives (excluding Light r. m. t.)						Electric Locomotives (excluding light r. m. t.)						Diesel and Special System						Electric					
			Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios	
			Total	Out of service for maintenance and repair	In working order	Locomotives used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service maint. and repair	In working order	Railcar Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nº in working order/Total	Nº loc. used/working order
1977	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	BR	N							2279	517	1762	.	0,77	.	327	75	252	.	0,77	.	1970	362	1608	.	0,82	.	2463	299	2164	.	0,88	.
1977	CFF	N							109	13	96	60	0,88	0,63	885	66	819	604	0,93	0,74							179	22	157	125	0,88	0,8
1977		E													2	0	2	2	1	1							16	1	15	11	0,94	0,73
1977		TOTAL																														
1977	CFL	N							51	6	45	41	0,88	0,91	19	2	17	15	0,89	0,88	11	2	9	7	0,81	0,77	6	0	6	4	1	0,67
1977	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	N							145	52	93	93	0,64	1							63	18	45	45	0,71	1						
1977		E							43	9	34	33	0,79	0,97							57	17	40	40	0,7	1						
1977		TOTAL																														
1977	CIE	L							213	59	154	152	0,72	0,99																		
1977	CP	L							207	30	177	177	0,86	1	46	12	34	34	0,74	1	61	14	47	47	0,77	1	93	16	77	77	0,83	1
1977		E	41	4	37	37	0,9	1	12	1	11	11	0,92	1							35	1	34	34	0,97	1						
1977		TOTAL																														
1977	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	DB	N	27	5	22	9	0,81	0,41	3115	182	2933	2537	0,94	0,86	2686	154	2532	2313	0,94	0,91	790	49	741	623	0,94	0,84	1392	110	1282	1120	0,92	0,87
1977		E							2		2	2	1	1																		
1977		TOTAL																														
1977	DR	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	DSB	N							281	16	265	252	0,94	0,95							105	6	99	85	0,94	0,86	.	.	.	240	.	
1977	FS	N	326	52	274	130	0,84	0,47	936	201	735	735	0,79	1	1815	275	1540	1517	0,85	0,98	1080	186	894	776	0,83	0,87	522	119	403	385	0,77	0,96
1977		E	5	2	3	3	0,6	1													19	5	14	14	0,74	1						
1977		TOTAL																														
1977	JZ	N	353	99	254	198	0,72	0,78	790	194	596	565	0,75	0,95	389	86	303	283	0,78	0,93	336	68	268	260	0,8	0,97	50	7	43	37	0,86	0,86
1977		E	16	8	8	6	0,5	0,75	10		10	10	1	1							3		3	3	1	1						
1977		TOTAL																														
1977	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	NS	N							346	22	324	220	0,94	0,68	112	9	103	88	0,92	0,85	117	6	111	98	0,95	0,88	551	15	536	454	0,97	0,85
1977	NSB	N							89	12	77	70	0,87	0,91	158	19	139	118	0,88	0,85	46	6	40	32	0,87	0,8	136	16	120	106	0,88	0,88
1977	OBB	N	36	4	32	4	0,89	0,13	459	35	424	379	0,92	0,89	634	60	574	567	0,91	0,99	93	10	83	80	0,89	0,96	99	9	90	87	0,91	0,97
1977		E	24	9	15	10	0,63	0,67	26	3	23	21	0,88	0,91	16	3	13	11	0,81	0,85	2	1	1	1	0,5	1						
1977		TOTAL																														
1977	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	RENFE	L							723	121	602	584	0,83	0,97	407	68	339	339	0,83	1	266	41	225	223	0,85	0,99	367	50	317	314	0,86	0,99
1977		E																									6	1	5	5	0,83	1
1977		TOTAL																														
1977	SJ	N							332	76	256	.	0,77	.	656	122	534	.	0,81	.	138	22	116	.	0,84	.	149	29	120	.	0,81	.
1977		E							2	0	2	.	1	.							7	2	5	.	0,71	.						
1977		TOTAL																														
1977	SNCB	N							901	37	864	568	0,96	0,66	227	4	223	168	0,98	0,75	77	4	73	55	0,95	0,75	466	10	456	382	0,98	0,84
1977	SNCF	N							2223	133	2090	1688	0,94	0,81	2386	145	1953	0,94	0,87	949	59	890	793	0,94	0,89	684	36	648	.	0,95	.	
1977		E																									31	.	.	.	.	.
1977		TOTAL																														
1977	VR	L							384	40	344	344	0,9	1	46	5	41	41	0,89	1	215	28	187	187	0,87	1	77	7	70	70	0,91	1
1977	TCDD	N	631	321	310	300	0,49	0,97	319	125	194	190	0,61	0,98	18	2	16	15	0,89	0,94	50	16	34	32	0,68	0,94	30	4	26	26	0,87	1
1978	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	BR	N							2282	572	1710	.	0,75	.	313	72	241	.	0,77	.	2473	321	2152	.	0,87	.	1967	401	1566	.	0,8	.
1978	CFF	N							109	12	97	63	0,89	0,65	890	60	830	611	0,93	0,74	177	22	155	128	0,88	0,83						
1978		E													2	0	2	2	1	1	16	1	15	11	0,94	0,73						
1978		total																														
1978	CFL	N							51	5	46	42	0,9	0,91	19	2	17	15	0,89	0,88	6	0	6	5	1	0,83	8	0	8	6	1	0,75
1978	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH	N							144	51	93	93	0,65	1													63	18	45	45	0,71	1
1978		E							43	9	34	33	0,79	0,97													57	17	40	40	0,7	1
1978		TOTAL																														
1978	CIE	L							213	64	149	146	0,7	0,98																		
1978	CP	L							207	32	175	175	0,85	1	49	10	39	39	0,8	1	130	19	111	111	0,85	1	63	19	44	44	0,7	1
1978		E	36	7	29	29	0,81	1	17	2	15	15	0,88	1													43	6	37	37	0,86	1
1978		TOTAL																														
1978	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	DB	N							3123	187	2936	2521	0,94	0,86	2690	149	2541	2333	0,94	0,92	1544	116	1428	1247	0,92	0,97	715	45	670	570	0,94	0,85
1978		E							2		2	2	1	1																		
1978		TOTAL																														
1978	DR	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	DSB	N							287	18	269	255	0,94	0,95							.	.	.	249	.	.	91	5	86	68	0,95	0,79
1978	FS	N	277	42	235	97	0,85	0,41	995	209	786	786	0,79	1	1867	286	1581	1558	0,85	0,99	560	116	444	424	0,79	0,95	1072	165	907	782	0,85	0,86
1978		E	5	3	2	2	0,4	1																			19	8	11	11	0,58	1
1978		TOTAL																														
1978	JZ	N	303	132	171	158	0,56	0,92	755	135	620	556	0,82	0,9	409	106	303	298	0,74	0,98	69	19	50	44	0,72	0,88	321	53	268	247	0,83	0,92
1978		E																														
1978		TOTAL																														
1978	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	NS	N							340	22	318	207	0,94	0,65	112	11	101	89	0,9	0,88	550	16	534	437	0,97	0,82	117	6	111	94	0,95	0,85
1978	NSB	N							89	12	77	70	0,87	0,91	164	19	145	121	0,88	0,83	134	15	119	105	0,89	0,88	44	5	39	31	0,89	0,79
1978	OBB	N	15	1	14	1	0,93	0,07	469	36	433	379	0,92	0,88	649	55	594	583	0,92	0,98	103	9	94	91	0,91	0,97	86	11	75	72	0,87	0,96
1978		E	24	10	14	11	0,58	0,79	26	3	23	20	0,88	0,87	16	4	12	11	0,75	0,92							2	1	1	1	0,5	1
1978		TOTAL																														
1978	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	RENFE	L							725	130	595	577	0,82	0,97	426	77	349	349	0,82	1	401	60	341	334	0,85	0,98	252	71	181	176	0,72	0,97
1978		E																			6	1	5	5	0,83	1						
1978		TOTAL																														
1978	SJ	N							388	69	319	.	0,82	.	646	114	532	.	0,82	.	142	27	115	.	0,81	.	144	23	121	.	0,84	.
1978		E							3	0	3	.	1	.													7	2	5	.	0,71	.
1978		TOTAL																														
1978	SNCB	N							902	37	865	579	0,96	0,67	235	6	229	170	0,97	0,74	465	10	455	384	0,98	0,84	78	4	74	56	0,95	0,76

A.1.2.4.Tractive Stock

Available and Out of Service

			LOCOMOTIVES AVAILABLE FOR OPERATING PURPOSES																		RAILCARS AVAILABLE FOR OPERATING PURPOSES											
			Steam Locomotives						Diesel and Special System Locomotives (excluding Light r. m. t.)						Electric Locomotives (excluding light r. m. t.)						Diesel and Special System						Electric					
			Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios	
YEAR	Railway	rail gauge	Total	Out of service for maintenance and repair	In working order	Locomotives used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nº in working order/Total	Nº loc. used/working order
1978	SNCF	N							2210	139	2071	1677	0,94	0,81	2434	156	2278	1979	0,94	0,87	653	36	617	436	0,94	0,71	953	54	899	803	0,94	0,89
1978		E																			30	.	.	16	.	.						
1978		TOTAL																														
1978	VR	L							390	37	353	353	0,91	1	57	6	51	51	0,89	1	82	7	75	75	0,91	1	202	27	175	175	0,87	1
1978	TCDD	N	541	179	362	228	0,67	0,63	389	184	205	201	0,53	0,98	18	3																
1979	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	BR	N							2282	650	1632	.	0,72	.	311	78	233	.	0,75	.	1962	444	1518	.	0,77	.	2475	367	2108	.	0,85	.
1979	CFF	N							109	12	97	64	0,89	0,66	893	64	829	613	0,93	0,74							175	27	148	126	0,85	0,85
1979		E													2	0	2	2	1	1							16	1	15	11	0,94	0,73
1979		total																														
1979	CFL	N							51	5	46	43	0,9	0,93	19	2	17	16	0,89	0,94	8	0	8	7	1	0,88	6	1	5	4	0,83	0,8
1979	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH	N							151	64	87	87	0,58	1							63	28	35	35	0,56	1						
1979		E							43	11	32	32	0,74	1							56	18	38	38	0,68	1						
1979		TOTAL																														
1979	CIE	L							210	68	142	140	0,68	0,99																		
1979	CP	L							218	33	185	185	0,85	1	49	10	39	39	0,8	1	89	28	61	61	0,69	1	130	11	119	119	0,92	1
1979		E	31	6	25	25	0,81	1	17	2	15	15	0,88	1							43	5	38	38	0,88	1						
1979		TOTAL																														
1979	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	DB	N							3118	199	2919	2548	0,94	0,87	2678	143	2535	2376	0,95	0,94	663	46	617	529	0,93	0,86	1682	139	1543	1346	0,92	0,87
1979		E							2		2	2	1	1																		
1979		TOTAL																														
1979	DR	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	DSB	N							290	22	268	242	0,92	0,9							71	3	68	59	0,96	0,87	.	.	.	250	.	.
1979	FS	N	243	42	201	71	0,83	0,35	1028	219	809	809	0,79	1	1919	292	1627	1603	0,85	0,99	1072	178	894	768	0,83	0,86	594	138	456	435	0,77	0,95
1979		E	5	3	2	2	0,4	1													19	6	13	13	0,68	1						
1979		TOTAL																														
1979	JZ	N	259	97	162	123	0,63	0,76	757	171	586	560	0,77	0,96	428	113	315	310	0,74	0,98	323	60	263	258	0,81	0,98	86	15	71	65	0,83	0,92
1979		E																														
1979		TOTAL																														
1979	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	NS	N							339	24	315	192	0,93	0,61	112	13	99	84	0,88	0,85	116	7	109	89	0,94	0,82	555	19	536	429	0,97	0,8
1979	NSB	N							89	13	76	69	0,85	0,91	163	19	144	125	0,88	0,87	44	5	39	30	0,89	0,77	132	16	116	105	0,88	0,91
1979	OBB	N	5		5	1	1	0,2	467	36	431	381	0,92	0,88	656	61	595	586	0,91	0,98	86	11	75	72	0,87	0,96	116	11	105	102	0,91	0,97
1979		E	24	9	15	10	0,63	0,67	26	3	23	21	0,88	0,91	16	3	13	10	0,81	0,77	2	1	1	1	0,5	1						
1979		TOTAL																														
1979	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	RENFE	L							722	151	571	554	0,79	0,97	435	70	365	365	0,84	1	216	54	162	160	0,75	0,99	427	73	354	350	0,83	0,99
1979		E																									6	1	5	5	0,83	1
1979		TOTAL																														
1979	SJ	N													752	75	677	612	0,9	0,9												
1979		E																														
1979		TOTAL							460	80	380	342	0,83	0,9							168	20	148	130	0,88	0,88	167	18	149	134	0,89	0,9
1979	SNCB	N							904	33	871	595	0,96	0,68	237	7	230	175	0,97	0,76	80	3	77	56	0,96	0,73	475	18	457	383	0,96	0,84
1979	SNCF	N							2199	138	2061	1635	0,94	0,79	2475	143	2332	2016	0,94	0,86	949	46	903	782	0,95	0,88	599	26	573	432	0,96	0,75
1979		E																									29	.	.	15	.	.
1979		TOTAL																														
1979	VR	L							393	37	356	356	0,91	1	69	9	60	60	0,87	1	194	29	165	165	0,85	1	90	9	81	81	0,9	1
1979	TCDD	N	537	210	327	232	0,61	0,71	439	150	289	270	0,66	0,93	18	7	11	10	0,61	0,91	47	17	30	30	0,64	1	35	8	27	27	0,77	1
1980	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	BR	N							2257	569	1688	.	0,75	.	309	75	234	.	0,76	.	1949	420	1529	.	0,78	.	2536	397	2139	.	0,84	.
1980	CFF	N							109	12	97	68	0,89	0,7	903	66	837	672	0,93	0,8							175	23	152	130	0,87	0,86
1980		E													2	0	2	2	1	1							16	2	14	11	0,88	0,79
1980		TOTAL																														
1980	CFL	N							51	6	45	41	0,88	0,91	19	2	17	16	0,89	0,94	8	1	7	6	0,88	0,86	6	1	5	4	0,83	0,8
1980	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH	N							151	74	77	77	0,51	1							63	36	27	27	0,43	1						
1980		E							43	13	3030	0,7	1								56	29	27	27	0,48	1						
1980		TOTAL																														
1980	CIE	L							192	50	142	140	0,74	0,99																		
1980	CP	L							218	38	180	180	0,83	1	48	10	38	38	0,79	1	97	34	63	63	0,65	1	130	15	115	115	0,88	1
1980		E	28	4	24	24	0,86	1	17	1	16	16	0,94	1							45	12	33	33	0,73	1						
1980		TOTAL																														
1980	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	DB	N							3100	189	2911	2529	0,94	0,87	2695	144	2551	2390	0,95	0,94	598	45	553	478	0,92	0,86	1793	142	1651	1429	0,92	0,87
1980		E							2		2	2	1	1																		
1980		TOTAL																														
1980	DR	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	DSB	N							300	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	FS	N	207	29	178	53	0,86	0,3	1043	239	804	804	0,77	1	1940	322	1618	1602	0,83	0,99	1099	189	910	789	0,83	0,87	606	144	462	441	0,76	0,95
1980		E	3	1	2	2	0,67	1													18	5	13	13	0,72	1						
1980		TOTAL																														
1980	JZ	N	231	80	151	98	0,65	0,65	752	156	596	568	0,79	0,95	448	94	354	344	0,79	0,97	316	65	251	244	0,79	0,97	92	31	61	59	0,66	0,97
1980		E																														
1980		TOTAL																														
1980	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	NS	N							335	24	311	164	0,93	0,53	112	12	100	85	0,89	0,85	113	5	108	88	0,96	0,82	572	21	551	443	0,96	0,8
1980	NSB	N							89	12	77	69	0,87	0,9	165	24	141	122	0,85	0,87	44	5	39	29	0,89	0,74	132	16	116	105	0,88	0,91
1980	OBB	N	1		1	1	1	1	466	40	426	376	0,91	0,88	666	63	603	594	0,91	0,99	86	8	78	73	0,91	0,94	141	18	123	119	0,87	0,97
1980		E	24	9	15	10	0,63	0,67	26	4	22	19	0,85	0,86	16	3	13	10	0,81	0,77	2	1	1	1	0,5	1						
1980		TOTAL																														
1980	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	RENFE	L							717	122	595	577	0,83	0,97	437	66	371	371	0,85	1	182	24	158	156	0,87	0,99	449	76	373	369	0,83	0,99
1980		E																									6	1	5	5	0,83	1

A.1.2.4.Tractive Stock

Available and Out of Service

YEAR	Railway	rail gauge	LOCOMOTIVES AVAILABLE FOR OPERATING PURPOSES																		RAILCARS AVAILABLE FOR OPERATING PURPOSES											
			Steam Locomotives						Diesel and Special System Locomotives (excluding Light r. m. t.)						Electric Locomotives (excluding light r. m. t.)						Diesel and Special System						Electric					
			Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios	
			Total	Out of service for maintenance and repair	In working order	Locomotives used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nº in working order/Total	Nº loc. used/working order
1980		TOTAL																														
1980	SJ	N																														
1980		E																														
1980		TOTAL							463	81	382	.	0,83	.	752	85	667	.	0,89	.	195	26	169	.	0,87	.	166	19	147	.	0,89	.
1980	SNCB	N							907	39	868	594	0,96	0,68	240	10	230	173	0,96	0,75	81	3	78	56	0,96	0,72	512	20	492	400	0,96	0,81
1980	SNCF	N							2187	151	2036	1620	0,93	0,8	2461	154	2307	2043	0,94	0,89	936	46	890	793	0,95	0,89	590	31	559	457	0,95	0,82
1980		E																									30	.	.	17	.	.
1980		TOTAL																														
1980	VR	L							396	42	354	354	0,89	1	80	10	70	70	0,87	1	184	24	160	160	0,87	1	92	8	84	84	0,91	1
1980	TCDD	N	537	85	452	234	0,84	0,52	454	174	280	280	0,61	1	18	8	10	10	0,56	1	42	14	28	28	0,67	1	50	8	42	42	0,84	1
1981	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	BR	N							2099	516	1583	.	0,75	.	278	70	208	.	0,75	.	1888	400	1488	.	0,79	.	1955	308	1647	.	0,84	.
1981	CFF	N							109	12	97	72	0,89	0,74	908	72	836	723	0,92	0,86							175	22	153	131	0,87	0,86
1981		E													2	0	2	2	1	1							16	1	15	12	0,94	0,8
1981		total																														
1981	CFL	N							51	7	44	41	0,86	0,93	19	3	16	16	0,84	1	8	1	7	6	0,88	0,86	7	1	6	5	0,86	0,83
1981	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	CH	N							150	70	80	80	0,53	1							54	34	20	20	0,37	1						
1981		E							43	17	26	26	0,6	1							56	19	37	37	0,66	1						
1981		TOTAL																														
1981	CIE	L							192	50	142	140	0,74	0,99																		
1981	CP	L							240	34	206	200	0,86	0,97	48	8	40	40	0,83	1	94	29	65	65	0,69	1	142	15	127	127	0,89	1
1981		E	22	4	18	18	0,82	1	17	1	16	16	0,94	1							40	5	35	35	0,88	1						
1981		TOTAL																														
1981	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	DB	N							3081	212	2869	2453	0,93	0,86	2710	159	2551	2379	0,94	0,93	558	43	515	433	0,92	0,84	1850	143	1707	1483	0,92	0,87
1981		E							2		2	2	1	1																		
1981		TOTAL																														
1981	DR	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	DSB	N							304	.	.	.	.	.							.	.	.	.	.	.	.	.	.	.	.	.
1981	FS	N	163	11	152	29	0,93	0,19	1058	265	793	793	0,75	1	1955	388	1567	1542	0,8	0,98	1122	202	920	806	0,82	0,88	608	138	470	449	0,77	0,96
1981		E	3	1	2	2	0,67	1													17	8	9	9	0,53	1						
1981		TOTAL																														
1981	JZ	N	213	97	116	74	0,54	0,64	775	178	597	581	0,77	0,97	455	116	339	339	0,75	1	307	81	226	225	0,74	1	92	39	53	53	0,58	1
1981		E																														
1981		TOTAL																														
1981	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	NS	N							333	24	309	222	0,93	0,72	122	15	107	95	0,88	0,89	111	4	107	94	0,96	0,88	577	27	550	457	0,95	0,83
1981	NSB	N							91	13	78	69	0,86	0,88	167	28	139	120	0,83	0,86	44	5	39	30	0,89	0,77	131	17	114	102	0,87	0,89
1981	OBB	N	1		1	0	1		465	39	426	376	0,92	0,88	672	71	601	592	0,89	0,99	85	11	74	70	0,87	0,95	151	14	137	130	0,91	0,95
1981		E	24	10	14	9	0,58	0,64	26	3	23	20	0,88	0,87	15	3	12	11	0,8	0,92	2	1	1	1	0,5	1						
1981		TOTAL																														
1981	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	RENFE	L							712	114	598	574	0,84	0,96	449	67	382	382	0,85	1	172	21	151	148	0,88	0,98	489	73	416	404	0,85	0,97
1981		E																									6	1	5	5	0,83	1
1981		TOTAL																														
1981	SJ	N																														
1981		E																														
1981		TOTAL							471	85	386	.	0,82	.	746	91	655	.	0,88	.	224	42	182	.	0,81	.	164	20	144	.	0,88	.
1981	SNCB	N							910	34	876	584	0,96	0,67	244	12	232	172	0,95	0,74	81	4	77	56	0,95	0,73	529	13	516	428	0,98	0,83
1981	SNCF	N							2165	130	2035	1577	0,94	0,77	2477	145	2332	2015	0,94	0,86	918	47	871	784	0,95	0,9	615	33	582	491	0,95	0,84
1981		E																									30	.	.	16	.	.
1981		TOTAL																														
1981	VR	L							379	40	339	339	0,89	1	88	11	77	77	0,87	1	177	21	156	156	0,88	1	98	11	87	87	0,89	1
1981	TCDD	N	530	234	296	216	0,56	0,73	470	183	287	279	0,61	0,97	18	7	11	10	0,61	0,91	38	15	23	23	0,61	1	59	5	54	51	0,92	0,94
1982	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	BR	N							2004	523	1481	.	0,74	.	253	55	198	.	0,78	.	1690	351	1339	.	0,79	.	1872	310	1562	.	0,83	.
1982	CFF	N							109	13	96	72	0,88	0,75	910	80	830	731	0,91	0,88							174	21	153	129	0,88	0,84
1982		E													2		2	2	1,00	1,00							16	1	15	12	0,94	0,80
1982		TOTAL																														
1982	CFL	N							51	9	42	38	0,82	0,90	19	2	17	16	0,89	0,94	8	1	7	6	0,88	0,86	7	1	6	6	0,86	1,00
1982	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	CH	N							160	73	87	87	0,54	1,00							52	35	17	17	0,32	1,00						
1982		E							43	17	26	26	0,60	1,00							56	25	31	31	0,55	1,00						
1982		TOTAL																														
1982	CIE	L							192	60	132	127	0,69	0,96																		
1982	CP	L							246	45	201	201	0,82	1,00	47	9	38	38	0,81	1,00	93	33	60	60	0,65	1,00	142	18	124	124	0,87	1,00
1982		E	22	4	18	18	0,82	1	17	1	16	16	0,94	1,00							43	4	39	39	0,91	1,00						
1982		TOTAL																														
1982	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	DB	N							3076	227	2849	2375	0,93	0,83	2710	165	2545	2319	0,94	0,91	563	55	508	403	0,90	0,79	1843	143	1700	1462	0,92	0,86
1982		E							2		2	2	1,00	1,00																		
1982		TOTAL																														
1982	DR	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	DSB	N							316	.	.	.	.	.							152	.	.	.	.	.	284	.	.	.	.	.
1982	FS	N	135	5	130	29	0,96	0,22	1075	272	803	803	0,75	1,00	1975	393	1582	1557	0,80	0,98	1123	203	920	810	0,82	0,88	605	156	449	428	0,74	0,95
1982		E	2	1	1	1	0,50	1,00													16	7	9	9	0,56	1,00						
1982		TOTAL																														
1982	JZ	N	177	90	87	81	0,49	0,93	778	143	635	565	0,82	0,89	465	72	393	356	0,85	0,91	310	72	238	222	0,77	0,93	97	28	69	66	0,71	0,96
1982		E																														
1982		TOTAL																														
1982	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.						
1982	NS	N							331	25	306	199	0,92	0,65	145	11	134	113	0,92	0,84	122	5	117	82	0,96	0,70	564	22	542	451	0,96	0,83
1982	NSB	N							92	13	79	70	0,86	0,89	169	28	141	116	0,83	0,82	39	5	34	29	0,87	0,85	130	16	114	101	0,88	0,89
1982	OBB	N							466	40	426	372	0,91	0,87	676	67	609	600	0,90	0,99	83	11	72	67	0,87	0,93	166	16	150	142	0,90	0,95

A.1.2.4.Tractive Stock

Available and Out of Service

			LOCOMOTIVES AVAILABLE FOR OPERATING PURPOSES																		RAILCARS AVAILABLE FOR OPERATING PURPOSES											
			Steam Locomotives						Diesel and Special System Locomotives (excluding Light r. m. t.)						Electric Locomotives (excluding light r. m. t.)						Diesel and Special System						Electric					
			Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios	
YEAR	Railway	rail gauge	Total	Out of service for maintenance and repair	In working order	Locomotives used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nº in working order/Total	Nº loc. used/working order
1982		E	23	8	15	7	0,65	0,47	25	4	21	20	0,84	0,95	15	2	13	12	0,87	0,92	2	1	1	1	0,50	1,00						
1982		TOTAL																														
1982	PKP	N.E.	.	.	.	1132	.	.	.	.	.	2576	.	.	.	.	.	1486	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	RENFE	L							711	114	597	591	0,84	0,99	463	75	388	388	0,84	1,00	173	24	149	142	0,86	0,95	498	73	425	421	0,85	0,99
1982		E																									4	1	3	3	0,75	1,00
1982		TOTAL																														
1982	SJ	N													741	72	669	.	0,90	.							160	.	.	.	.	.
1982		E																														
1982		TOTAL							473	.	.	.	.	.							217	.	.	.	.	.						
1982	SNCB	N							899	32	867	561	0,96	0,65	256	10	246	177	0,96	0,72	76	3	73	51	0,96	0,70	541	15	526	440	0,97	0,84
1982	SNCF	N							2134	128	2006	1531	0,94	0,76	2473	151	2322	2010	0,94	0,87	898	44	854	778	0,95	0,91	660	40	620	539	0,94	0,87
1982		E																									28	.	.	17	.	.
1982		TOTAL																														
1982	VR	L							378	33	345	345	0,91	1,00	95	13	82	82	0,86	1,00	157	19	138	138	0,88	1,00	100	11	89	89	0,89	1,00
1982	TCDD	N	526	244	282	214	0,54	0,76	469	172	297	288	0,63	0,97	18	6	12	11	0,67	0,92	28	10	18	14	0,64	0,78	66	11	55	52	0,83	0,95
1983	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	BR	N							1914	510	1404	.	0,73	.	244	48	196	.	0,80	.	1605	329	1276	.	0,79	.	1798	286	1512	.	0,84	.
1983	CFF	N							109	12	97	72	0,89	0,74	903	78	825	729	0,91	0,88							171	24	147	125	0,86	0,85
1983		E													2	0	2	2	1,00	1,00							16	1	15	12	0,94	0,80
1983		TOTAL																														
1983	CFL	N							51	10	41	36	0,80	0,88	19	4	15	14	0,79	0,93	8	1	7	6	0,88	0,86	7	1	6	6	0,86	1,00
1983	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	CH	N							170	56	114	114	0,67	1,00							52	21	31	31	0,59	1,00						
1983		E							43	23	20	20	0,47	1,00							56	29	27	27	0,48	1,00						
1983		TOTAL																														
1983	CIE	L							173	55	118	116	0,68	0,98																		
1983	CP	L							245	45	200	200	0,82	1,00	47	10	37	37	0,79	1,00	89	29	60	60	0,67	1,00	142	18	124	124	0,87	1,00
1983		E	19	4	15	15	0,79	1	17	2	15	15	0,88	1,00							43	6	37	37	0,86	1,00						
1983		TOTAL																														
1983	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	DB	N							3005	224	2781	2306	0,93	0,83	2660	155	2505	2280	0,94	0,91	472	7	465	371	0,99	0,80	1827	139	1688	1424	0,92	0,84
1983		E																														
1983		TOTAL																														
1983	DR	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	DSB	N							329	.	.	.	.	.							170	.	.	.	.	.	283	.	.	.	.	.
1983	FS	N	78	2	76	21	0,97	0,28	1106	283	823	823	0,74	1,00	2011	394	1617	1592	0,80	0,98	1108	178	930	815	0,84	0,88	622	148	474	452	0,76	0,95
1983		E	1	1																	16	7	9	9	0,56	1,00						
1983		TOTAL																														
1983	JZ	N	167	81	86	64	0,51	0,74	779	217	562	532	0,72	0,95	468	104	364	364	0,78	1,00	320	98	222	218	0,69	0,98	102	33	69	69	0,68	1,00
1983		E																														
1983		TOTAL																														
1983	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	NS	N							307	12	295	199	0,96	0,67	161	12	149	123	0,93	0,83	135	4	131	100	0,97	0,76	535	19	519	422	0,96	0,82
1983	NSB	N							93	11	82	71	0,88	0,87	170	26	144	115	0,85	0,80	40	4	36	30	0,90	0,83	137	14	123	104	0,90	0,85
1983	OBB	N							466	39	427	367	0,92	0,86	681	63	618	603	0,91	0,98	81	9	72	67	0,89	0,93	176	15	161	151	0,91	0,94
1983		E	18	8	10	6	0,56	0,60	26	4	22	19	0,85	0,86	15	2	13	12	0,87	0,92	2	1	1	1	0,50	1,00						
1983		TOTAL																														
1983	PKP	N.E.	.	.	.	1043	.	.	.	.	.	2556	.	.	.	.	.	1572	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	RENFE	L							711	92	619	607	0,87	0,98	508	71	437	433	0,86	0,99	226	29	197	189	0,87	0,96	500	55	445	432	0,89	0,97
1983		E																									6	1	5	5	0,83	1,00
1983		TOTAL																														
1983	SJ	N													743	72	671	.	0,90	.	178	.	.	.	.	.	163	.	.	.	.	.
1983		E																			9	.	.	.	.	.						
1983		TOTAL							476	.	.	.	.	.																		
1983	SNCB	N							878	26	852	537	0,97	0,63	276	10	266	184	0,96	0,69	72	2	70	47	0,97	0,67	576	12	564	445	0,98	0,79
1983	SNCF	N							2094	125	1969	1506	0,94	0,76	2476	150	2326	2005	0,94	0,86	873	45	828	760	0,95	0,92	699	36	663	591	0,95	0,89
1983		E																									29	.	.	16	.	.
1983		TOTAL																														
1983	VR	L							380	35	345	345	0,91	1,00	100	13	87	87	0,87	1,00	140	21	119	119	0,85	1,00	100	13	87	87	0,87	1,00
1983	TCDD	N	488	213	275	234	0,56	0,85	485	105	380	343	0,78	0,90	18	2	16	13	0,89	0,81	27	9	18	15	0,67	0,83	70	8	62	58	0,89	0,94
1984	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	BR	N							1866	513	1353	.	0,73	.	245	50	195	.	0,80	.	1638	322	1316	.	0,8	.	1954	303	1651	.	0,84	.
1984	CFF	N							109	13	96	72	0,88	0,75	886	68	818	734	0,92	0,90							167	23	144	125	0,86	0,87
1984		E													2	0	2	2	1,00	1,00							16	2	14	11	0,88	0,79
1984		TOTAL																														
1984	CFL	N							51	10	41	37	0,80	0,90	19	4	15	14	0,79	0,93	8	1	7	6	0,88	0,86	7	1	6	6	0,86	1,00
1984	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	CH	N							171	84	87	87	0,51	1,00							52	33	19	19	0,36	1,00						
1984		E							43	14	29	29	0,67	1,00							56	32	24	24	0,43	1,00						
1984		TOTAL																														
1984	CIE	L							159	54	105	105	0,66	1,00													74		74	74	1,00	1,00
1984	CP	L							240	47	193	193	0,80	1,00	47	8	39	39	0,83	1,00	77	16	61	61	0,79	1,00	153	24	129	129	0,84	1,00
1984		E	11	5	6	6	0,55	1	17	2	15	15	0,88	1,00							42	7	35	35	0,83	1,00						
1984		TOTAL																														
1984	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	DB	N							2941	189	2752	2285	0,94	0,83	2619	132	2487	2292	0,95	0,92	408	3	405	339	0,99	0,84	1774	97	1677	1398	0,95	0,83
1984		E																														
1984		TOTAL																														
1984	DR	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	DSB	N							329	.	.	.	.	.	2	.	.	.	.	.	184	.	.	.	.	.	283	.	.	.	.	.
1984	FS	N	56	4	52	7	0,93	0,13	1117	268	849	849	0,76	1,00	2042	408	1634	1630	0,80	1,00	1094	179	915	793	0,84	0,87	659	146	513	504	0,78	0,98
1984		E	1	1																	16	8	8	8	0,50	1,00						
1984		TOTAL																														
1984	JZ	N	151	70	81	58	0,54	0,72	788	209	579	537	0,73	0,93	477	96	381	380	0,80	1,00	339	102	237	221	0,70	0,93	114	32	82	80	0,72	0,98
1984		E																														

A.1.2.4.Tractive Stock

Available and Out of Service

YEAR	Railway	rail gauge	LOCOMOTIVES AVAILABLE FOR OPERATING PURPOSES																	
			Steam Locomotives						Diesel and Special System Locomotives (excluding Light r. m. t.)						Electric Locomotives (excluding light r. m. t.)					
			Average number				Ratios		Average number				Ratios		Average number				Ratios	
			Total	Out of service for maintenance and repair	In working order	Locomotives used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nº in working order/Total	Nº loc. used/working order
1984		TOTAL																		
1984	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	NS	N							298	15	283	181	0,95	0,64	162	13	149	113	0,92	0,76
1984	NSB	N							91	12	79	68	0,87	0,86	169	27	142	115	0,84	0,81
1984	OBB	N							465	36	429	366	0,92	0,85	682	61	621	607	0,91	0,98
1984		E	18	8	10	6	0,56	0,60	26	2	24	19	0,92	0,79	15	2	13	11	0,87	0,85
1984		TOTAL																		
1984	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	RENFE	L							712	78	634	621	0,89	0,98	577	69	508	503	0,88	0,99
1984		E																		
1984		TOTAL																		
1984	SJ	N							469	.	.	.	.	.	735	90	645	.	0,87	.
1984		E							4	.	.	.	.	.						
1984		TOTAL																		
1984	SNCB	N							845	23	822	535	0,97	0,65	296	8	288	209	0,97	0,73
1984	SNCF	N							2057	106	1951	1470	0,95	0,75	2439	129	2310	1966	0,95	0,85
1984		E																		
1984		TOTAL																		
1984	VR	L							385	36	349	349	0,91	1,00	106	15	91	91	0,86	1,00
1984	TCDD	N	429	172	257	220	0,59	0,86	532	97	435	376	0,82	0,86	18	1	17	15	0,94	0,88

YEAR	Railway	rail gauge	RAILCARS AVAILABLE FOR OPERATING PURPOSES											
			Diesel and Special System						Electric					
			Average number				Ratios		Average number				Ratios	
			Total	Out of service for maint. and repair	In working order	Railcar Used	Nº in working order/Total	Nº loc. used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nº in working order/Total	Nº loc. used/working order
1984		TOTAL												
1984	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.
1984	NS	N	135	2	133	98	0,99	0,74	529	27	502	397	0,95	0,79
1984	NSB	N	40	5	35	30	0,88	0,86	147	16	131	105	0,89	0,80
1984	OBB	N	79	7	72	65	0,91	0,90	189	17	172	158	0,91	0,92
1984		E	2	1	1	1	0,50	1,00						
1984		TOTAL												
1984	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.
1984	RENFE	L	225	20	205	197	0,91	0,96	494	49	445	436	0,90	0,98
1984		E							6	1	5	5	0,83	1,00
1984		TOTAL												
1984	SJ	N	54	.	.	.	.	.	173	.	.	.	.	.
1984		E												
1984		TOTAL												
1984	SNCB	N	61	1	60	34	0,98	0,57	611	13	598	476	0,98	0,80
1984	SNCF	N	855	40	815	743	0,95	0,91	748	39	709	591	0,95	0,83
1984		E							28	.	.	16	.	.
1984		TOTAL												
1984	VR	L	125	15	110	110	0,88	1,00	100	12	88	88	0,88	1,00
1984	TCDD	N	27	8	19	14	0,70	0,74	70	4	66	60	0,94	0,91

A1.2.5. Rolling Stock : Carriages, Vans, Buses and Trailers - Stock available and out of service

YEAR	Railway	rail gauge	STOCK AT THE END OF THE YEAR – Rail STOCK – RAILWAY - OWNED VEHICLES – Carriages, Railcar and trailers – STOCK: Carriages	Railcars	Railcar trailers	Total stock	Including RIC: carriages	RIC: railcars and trailers	air-conditioned: carriages	air-conditioned: railcars and trailers	Restaurant cars	Couchette coaches	Sleeping cars	Standing Room: carriages	Standing Room: Railcars and trailers	Carrying Capacity – Seats: 1º class	Seats: 2ºclass	Sleeping accomodation – Couchettes: 1º class	Couchettes: 2ºclass	Sleeping cars 1 & 2nd class	Saeting & sleeping accom.: Total	Average no. per carriage	Standing room	LUGGAGE AND OTHER VANS: Total Stock	including mail-vans	PRIVATE OWNERS VEHICLES – CARRIAGES: Total Stock	Luggage and Vans: Total Stock	including mail-vans	Average Number of Carriages, Railcars and Trailers available for Operating purposes: TOTAL	Out of service for maintenance or repair	In working	Ratio between Stock in Working order and Total Stock	STOCK AT THE END OF THE YEAR – ROAD STOCK – RAILWAY - OWNED – Motor Coaches and Trailers: Total Stock	Total Carrying capacity	Contractor´s vehicles: TOTAL stock	Total Carrying capacity
1977	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1977	BR	N	6388	4684	5972	17044	.	.	.	.	561		365	.	.	101593	964961			6363	1072917	65,1	.	4838	.	16			16968	1559	15409	0,91				
1977	CFF	N	3558	160	66	3784	700	30	122	25	57	80	23	.	.	37256	212933		4620	803	255612	68,6	.	544			585	585	3761	149	3612	0,96				
1977		E	115			115								.	.	860	5816				6676	58,1	.	29			6	6	115	7	108	0,94				
1977		total																																	.	.
1977	CFL	N	77	17	17	111	17		3							504	9200				9704	87,4		7					111	9	102	0,92	48	2453		
1977	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	N	329	63	48	440	201				6	28	6	300	80	2162	23951		1800	147	28060	64,7	5450	104	11		4	4	440	55	385	0,88				
1977		E	159	57	36	252								159	77	1205	13198				14403	57,2	2125	46	5				252	29	223	0,88				
1977		TOTAL																															54	2024	100	3600
1977	CIE	L	362			362			62		35					674	20829				21503	65,8		129	10				368	49	319	0,87	2449	137083		
1977	CP	L	456	157	228	841	293			8	5				339	14176	52807				66983	80,1	19687	138			28	28	841	76	765	0,91				
1977		E	103	44	29	176									73	1518	6950				8468	48,1	1045	24					176	18	158	0,9				
1977		TOTAL																															25	668		
1977	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	DB	N	15937	2226	1497	19660	.	.	597		129	768	177	.	.	160025	1131171		46080	5631	1343447	68,8	.	1024		231	881	881	20274	1540	18734	0,92				
1977		E	15			15											720				720	48		2					15		15	1				
1977		TOTAL																															2116	215430	3898	307435
1977	DR	N	.	.	.	10423	.	.			.	.	.	.	.	.	.		.	.	.	.	.	585			.	.	.	.	.	.				
1977		E	.			277											.				.	.		28					.		.	.				
1977		TOTAL																																		
1977	DSB	N	969	384	309	1662	91		2	43		13	2	.	556	5210	97978		585	68	103841	62,5	30024	109	64			.	.	.	.	.	472	24235		
1977	FS	N	11009	1619	698	13326	3393		958	117	47	662	44	418	2292	138941	753191	2784	34026	1584	930526	70,1	144296	2283	449				13046	2499	10547	0,81				
1977		E		19	5	24									24		1300				1300	54,2	420	1					24	6	18	0,75				
1977		TOTAL																																		
1977	JZ	N	2337	448	487	3272	1027				2	86	52	.	.	27411	189141		6002	1611	224165	68,6		360					3272	196	3076	0,94				
1977		E	44	5	33	82								.	.	324	2852				3176	38,7		5					82	10	72	0,88				
1977		TOTAL																															87	3546		
1977	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	NS	N	309	671	989	1969	54				36		3	255	1660	22087	98998			104	121189	62,7	63914	92	61				1974	59	1915	0,97				
1977	NSB	N	547	182	245	974			11		16		82	.	.	850	53480			2649	56979	59,5	.	98	10				993	52	941	0,95	549	26021		
1977	OBB	N	2998	165	598	3761	526		111		54	71	8	2		10471	201804		4353	278	216906	57,9	176	715			146	146	3717	359	3358	0,9				
1977		E	178	2		180										96	7496				7592	42,2		25			3	3	180	9	171	0,95				
1977		TOTAL																															799	38881	49	2156
1977	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				.	.	.	.				
1977	RENFE	L	1921	637	888	3446		540	297	194	20	131	73		1325	18324	212347		7770	2128	240569	70,2	139223	588		225	259	259	3668	476	3192	0,87				
1977		E		6	6	12									12		714				714	59,5	903						11	2	9	0,82				
1977		TOTAL																															.	.	.	.
1977	SJ	N	1324	343	421	2088	6				36	68	204		540	9678	95416		3264	7073	115431	56,3	21027	228					2131							
1977		E		8	5	13									13		546				546	42	394						13							
1977		TOTAL																												86	2058	0,96	1293	92765		
1977	SNCB	N	2327	552	549	3428	384					85	6	1133	1101	40574	250004		4860	216	295654	86,2	79596	366		23	46	46	3435	230	3205	0,93			1269	101520
1977	SNCF	N	11718	1736	2456	15910	5709		1970	195	128	1588	270	1627	2410	187215	947087	8606	73106	8598	1224612	77,6	358802	2067	583				15924	1364	14560	0,91				
1977		E		31	18	49									17	294	1917				2211	45,1	484	6					49	.	.	.				
1977		TOTAL																															.	.	.	.
1977	VR	L	604	293	207	1104			6		26	8	96		487	1994	68774		360	2793	73921	68,6	23085	72			60	60	1100	85	1015	0,92				
1977	TCDD	N	1065	80	180	1325	80				10	94	40		120	12960	52002	6204		818	71984	54,7	10260	486			31	31	1324	140	1184	0,89				
1978	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	BR	N	6388	4695	5939	17022	.	.	.	.	550		364	.	.	100416	979365				14223	67,7		4430	.	15			16915	1677	15238	0,9				
1978	CFF	N	3570	165	66	3801	739	30	122	25	57	78	23	.	.	37152	214034		4500	803	256489	68,5	.	522			582	582	3793	189	3604	0,95				
1978		E	115			115								.	.	860	5816				6676	58,1	.	29			6	6	115	6	109	0,95				
1978		total																																	.	.
1978	CFL	N	74	14	14	102	14		3							504	8492				8996	88,2		1					102	7	95	0,93	49	2510		
1978	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH	N	302	63	48	413	201				6	28	6	300	80	.	.		1800	147	29181	71,7	5450	104	11		4	4	413	55	358	0,87				
1978		E	146	57	37	240								170	77	.	.				14037	58,5	2125	46	5				240	29	211	0,88				
1978		TOTAL																															54	2024	90	3240
1978	CIE	L	362			362			62		35					674	20829				21503	65,8		122	10				362	49	313	0,86	2448	136610		
1978	CP	L	535	193	241	969	293			8	5		10		357	14736	62851			184	77771	80,7	20809	137			28	28	969	120	849	0,88				
1978		E	85	43	29	157									72	1482	6286				7768	49,5	1025	24					157	31	126	0,8				
1978		TOTAL																															38	1874		
1978	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	DB	N	15365	2315	1401	19081	.	.	633		142	773	177	.	.	159123	1149600		46380	5631	1360734	71,8	.	954		176	827	827	19472	1588	17884	0,92				
1978		E	15			15								.	.		720				720	48	.	2					15		15	1				
1978		TOTAL																															2109	214717	4156	327784
1978	DR	N	.	.	.	10325	.	.			.	.	.		.	.	.		.	.	.	.	.	547			.	.	.	.	.	.				
1978		E	.			271											.				.	.		69					.	.	.	.				
1978		TOTAL																																		
1978	DSB	N	947	376	317	1640	81		2	43		13	2	.	572	4754	93347		585	68	98754	60,2	30888	105	60				.	.	.	.	470	24372		
1978	FS	N	11134	1653	725	13512	3598		1032	113	47	697	44	630	2273	138720	757300	2896	36258	1584	936758	69,6	169227	2243	473				13349	2576	10773	0,81				
1978		E		19	5	24									24		1300				1300	54,2	420	1					24	9	15	0,62				
1978		TOTAL																																	.	.
1978	JZ	N	2108	447	508	3063	949				3	84	69			33124	166993		5580	1995	207692	67,9		277					3063	153	2910	0,95	86	3563		
1978		E																																		
1978		TOTAL																																		
1978	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	NS	N	297	665	966	1928	42				36		3	255	1631	21560	97446			104	119110	63	59349	92	60				1948	66	1882	0,97				
1978	NSB	N	523	178	229	930			11		16		82	.	.	850	50704			2649	54203	59,3	.	91	10				953	53	900	0,94	538	26036		
1978	OBB	N	2998	163	605	3766	589		190	190	58	71	8	2		11552	202279		4353	278	218462	58,3	176	706			148	148	3763	370	3393	0,9				
1978		E	178	2		180										96	7496				7592	42,2		24			3	3	180	9	171	0,95				
1978		TOTAL																															814	40425	54	2376
1978	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1978	RENFE	L	1926	654	946	3526		631	297	187	20	131	85		1413	17851	218484		7770	2552	246657	70,4	155642	579		226	261	261	3712	511	3201	0,86				
1978		E		6	6	12									12		714				714	59,5	903						12	2	10	0,83				
1978		TOTAL																															.	.	.	.
1978	SJ	N	1354	325	281	1960	6				36	74	194		516	9634	92145		3552	6776	112107	58,3	20153	201					1986							
1978		E		8	5	13									13		546				546	42	394						13							
1978		TOTAL																												93	1906	0,95	1277	91611		
1978	SNCB	N	2325	553	552	3430	391		103			85	6	1128	1105	39810	250072		4860	216	294958	86	79586	368		25	46	46	3462	195	3267	0,94				
1978	SNCF	N	11989	1709	2488	16186	5288		2606	195	123	1671	265	1798	1904	173248	884548	9594	78210	8448	1154048	71,8	370991	1942	605				15992	1779	14213	0,89				
1978		E		31	18	49									18	294	1917				2211	45,1	484	6					49	.	.	.				

A1.2.5. Rolling Stock : Carriages, Vans, Buses and Trailers - Stock available and out of service

YEAR	Railway	rail gauge	STOCK AT THE END OF THE YEAR – Rail STOCK – RAILWAY - OWNED VEHICLES – Carriages, Railcar and trailers – STOCK: Carriages	Railcars	Railcar trailers	Total stock	Including RIC: carriages	Including RIC: railcars and trailers	Including air-conditioned: carriages	Including air-conditioned: railcars and trailers	Restaurant cars	Couchette coaches	Sleeping cars	Standing Room: carriages	Standing Room: Railcars and trailers	Carrying Capacity – Seats: 1º class	Seats: 2ºclass	Sleeping accomodation – Couchettes: 1º class	Couchettes: 2ºclass	Sleeping cars 1 & 2nd class	Saeting & sleeping accom.: Total	Saeting & sleeping accom.: Average no. per carriage	Standing room	LUGGAGE AND OTHER VANS: Total Stock	LUGGAGE AND OTHER VANS: including mail-vans	PRIVATE OWNERS VEHICLES – CARRIAGES: Total Stock	PRIVATE OWNERS VEHICLES – Luggage and Vans: Total Stock	Luggage and Vans: including mail-vans	Average Number of Carriages, Railcars and Trailers available for Operating purposes: TOTAL	Out of service for maintenance or repair	In working	Ratio between Stock in Working order and Total Stock	STOCK AT THE END OF THE YEAR – ROAD STOCK – RAILWAY - OWNED – Motor Coaches and Trailers: Total Stock	Total Carrying capacity	Contractor´s vehicles: TOTAL stock	Total Carrying capacity
1978		TOTAL																																		
1978	VR	L	618	279	213	1110			6		26	5	98		479	2218	69944		225	2863	75250	69,4	23600	80			60	60	1107	76	1031	0,93				
1978	TCDD	N	1066	80	127	1273	50				12	111	39		207	12833	51194	6204	1020	788	72039	57,1	10260	482			31	31	1273		1273	1				
1979	BDZ	N.E.																																		
1979	BR	N	6433	4753	5989	17175					556		339			99723	985723			5850	1091296	65,7		4336		15			17184	1926	15258	0,89				
1979	CFF	N	3563	165	62	3790	753	30	142	25	57	98	23			36739	212226		5700	803	255468	68,4		517			575	575	3796	189	3607	0,95				
1979		E	115			115										860	5816				6676	58,1		29			6	6	115	5	110	0,96				
1979		total																																		
1979	CFL	N	74	14	14	102	14		3							504	8492				8996	88,2		3					102	6	96	0,94	49	2510		
1979	CFR	L.N.E.																																		
1979	CH	N	308	63	48	419	201				6	28	12	300	80	2162	23951		1800	303	28216	68,3	5450	104	11		4	4	419	92	327	0,78				
1979		E	148	56	37	241								148	77	1205	13198				14403	59,8	2125	46	5				241	32	209	0,87				
1979		TOTAL																															54	2024		
1979	CIE	L	354			354			62		34					632	20481				21113	66		116	10				354	48	306	0,86	2465	137492		
1979	CP	L	461	219	320	1000	293			7	7		10			14826	65172			184	80182	80,7		134			28	28	1000	131	869	0,87				
1979		E	62	43	29	134										1186	5647				6833	51		13					134	12	122	0,91				
1979		TOTAL																															38	1874		
1979	CSD	L.N.E.																																		
1979	DB	N	14895	2399	1316	18610			673		153	773	177			156680	1078533		46380	5631	1287224	69,7	881		131	824	824	18909	1615	17294	0,92					
1979		E	15			15											720				720	48	2					15		15	1					
1979		TOTAL																															2109	214717	4389	346160
1979	DR	N				10613																		513												
1979		E	282			282																		67												
1979		TOTAL																																		
1979	DSB	N	866	411	308	1585	81		2	43		13	2		554	4284	94509		585	68	99446	62,7	29916	103	58								518	26867		
1979	FS	N	11113	1700	740	13553	3706		1039	113	46	696	44	692	2335	136355	772626	2896	36198	1584	949659	70,3	180094	2209	517				13445	2637	10808	0,8				
1979		E		19	4	23									23		1268				1268	55,1	412	1					23	6	17	0,74				
1979		TOTAL																																		
1979	JZ	N	2146	477	542	3165	1008	60			11	101	78			29183	172336		6402	2290	210211	66,6		391					3165	125	3040	0,96	78	3253		
1979		E																																		
1979		TOTAL																																		
1979	MAV	N.E.																																		
1979	NS	N	297	678	969	1944	42				36		3	255	1647	21960	99147			104	121211	63,5	65569	61	43				1931	72	1859	0,96				
1979	NSB	N	512	177	226	915			11		16		76			778	36891			2483	40152	44,7		84	10				923	54	869	0,94	556	26454		
1979	OBB	N	2962	189	662	3813	638		228		23	71	8	2		12436	213239		4353	278	230306	60,8	176	692			148	148	3786	391	3395	0,9				
1979		E	178	2		180										96	7496				7592	42,2		24			3	3	180	9	171	0,95				
1979		TOTAL																															837	41950	54	2376
1979	PKP	N.E.																																		
1979	RENFE	L	1860	633	974	3467		634	308	180	20	129	87		1427	16725	215613		7548	2276	242162	70,3	158795	566		229	265	265	3724	596	3128	0,84				
1979		E		6	6	12									12		714				714	59,5	903						12	2	10	0,83				
1979		TOTAL																																		
1979	SJ	N	1354	332	277	1963	6				31	62	193		512	9478	92541		2976	6645	111640	57,8	20049	196					1962							
1979		E		8	5	13									13		546				546	42	394						13							
1979		TOTAL																															1291	92577		
1979	SNCB	N	2340	575	596	3511	391		103			85	6	1125	1171	42120	254583		4860	216	301779	86	82612	336		25	46	46	3486	208	3278	0,94				
1979	SNCF	N	11987	1679	2515	16181	4067		3020	195	116	1657	262	1940	1859	170554	895382	9690	77718	8349	1161693	72,3	379719	1097			622	622	16172	1776	14396	0,89				
1979		E		30	18	48									17	294	1877				2171	45,2	484	3					48							
1979		TOTAL																						68			45	33	1108	28	1080	0,97				
1979	VR	L	636	276	194	1106			6		26		131		458	2530	66218			4022	72770	67,4	23500													
1979	TCDD	N	1043	82	141	1266	50				20	117	39		223	12820	64727	6138	1020	788	85493	68,6	11740	476			30	30	1266		1266	1				
1980	BDZ	N.E.																																		
1980	BR	N	6227	4790	6025	17042					491		332			98440	986276			5701	1090417	65,9		4026					16970	1611	15359	0,91				
1980	CFF	N	3590	163	64	3817	782	30	169	25	57	98	23			35747	214230		2700	803	257480	68,5		512			574	574	3804	208	3596	0,95				
1980		E	115			115										860	5816				6676	58,1		29			6	6	115	7	108	0,94				
1980		total																																		
1980	CFL	N	74	14	14	102	14		3							504	8492				8996	88,2		3					102	5	97	0,95	49	2510		
1980	CFR	L.N.E.																																		
1980	CH	N	308	63	48	419	201				6	28	12	258	80	2162	23951		1800	303	28216	68,3	5460	107	11		4	4	419	100	319	0,76				
1980		E	148	56	37	241								148	77	1205	13198				14403	59,8	2125	56	5				241	66	175	0,73				
1980		TOTAL																															54	2024		
1980	CIE	L	343			343			62		31					582	19909				20491	65,7		109	10				348	46	302	0,87	2393	133459		
1980	CP	L	460	227	322	1009	293			7	7		10			15137	66165			184	81486	81,3		130			28	28	1009	133	876	0,87				
1980		E	54	51	29	134										1126	5241				6367	47,5		12					128	16	112	0,88				
1980		TOTAL																															38	1874		
1980	CSD	L.N.E.																																		
1980	DB	N	14718	2404	12222	18344			672		147	773	177			154636	1047430		46380	5631	1254077	68,9		875		158	810	810	18612	1546	17066	0,92				
1980		E	13			13											624				624	48		2					13		13	1				
1980		TOTAL																															2135	217364	4455	351366
1980	DR	N				10584																		496												
1980		E	277			277																		67												
1980		TOTAL																																		
1980	DSB	N	894	410	309	1613	81		2	43		13	2		554	4266	96795		585	68	101714	63,1	29916	103	58								543	28000		
1980	FS	N	11081	1764	744	13589	3889		1085	113	52	693	43	846	2403	136282	779992	2880	35478	1548	956180	70,6	202317	2090	508				13422	2822	10600	0,79				
1980		E		18	4	22									22		1208				1208	54,9	392	1					22	5	17	0,77				
1980		TOTAL																																		
1980	JZ	N	2139	484	549	3172	1002	66			11	119	166			30500	175674	128	5243	5193	216738	68,6		291					3172	132	3040	0,96	87	3561		
1980		E																																		
1980		TOTAL																																		
1980	MAV	N.E.																																		
1980	NS	N	324	691	971	1986	38				35		3	286	1662	23147	102250			104	125501	64,3	67453	54	37				1958	79	1879	0,96				
1980	NSB	N	515	177	220	912			11		16		75			778	37243			2450	40471	45,2		78	10				908	58	850	0,94	534	26359		
1980	OBB	N	2994	202	679	3875	631		258		23	71	8	2		11441	222501		4353	278	238573	61,9	176	680			147	147	3845	390	2455	0,9				
1980		E	178	2		180										96	7496				7592	42,2		24			3	3	180	9	171	0,95				
1980		TOTAL																															864	42787	70	3150
1980	PKP	N.E.																																		
1980	RENFE	L	1847	648	999	3494		696	316	213	19	129	89		1434	17197	217500		7548	2342	244587	70,4	161662	506		227	259	259	3709	593	3116	0,84				
1980		E		6	6	12									12		714				714	59,5	903						12	2	10	0,83				
1980		TOTAL																																		
1980	SJ	N	1378	375	255	2008	6				30	66	192		497	10057	98171		3168	6615	118011	59,7	19548	196					1985							
1980		E		8	5	13									13		546				546	42	394						13							
1980		TOTAL																												120	1878	0,94	1372	96627		

A1.2.5. Rolling Stock : Carriages, Vans, Buses and Trailers - Stock available and out of service

YEAR	Railway	rail gauge	STOCK AT THE END OF THE YEAR – Rail STOCK – RAILWAY - OWNED VEHICLES – Carriages, Railcar and trailers – STOCK: Carriages	Railcars	Railcar trailers	Total stock	Including RIC: carriages	RIC: railcars and trailers	air-conditioned: carriages	air-conditioned: railcars and trailers	Restaurant cars	Couchette coaches	Sleeping cars	Standing Room: carriages	Standing Room: Railcars and trailers	Carrying Capacity – Seats: 1º class	Seats: 2ºclass	Sleeping accomodation – Couchettes: 1º class	Couchettes: 2ºclass	Sleeping cars 1 & 2nd class	Saeting & sleeping accom.: Total	Average no. per carriage	Standing room	LUGGAGE AND OTHER VANS: Total Stock	including mail-vans	PRIVATE OWNERS VEHICLES – CARRIAGES: Total Stock	Luggage and Vans: Total Stock	including mail-vans	Average Number of Carriages, Railcars and Trailers available for Operating purposes: TOTAL	Out of service for maintenance or repair	In working	Ratio between Stock in Working order and Total Stock	STOCK AT THE END OF THE YEAR – ROAD STOCK – Motor Coaches and Trailers – RAILWAY - OWNED: Total Stock	Total Carrying capacity	Contractor´s vehicles: TOTAL stock	Total Carrying capacity
1980	SNCB	N	2388	616	637	3641	366		103			85	6	1299	1253	43162	267282		4860	216	315520	86,7	91628	281		25	46	46	3609	232	3377	0,94				
1980	SNCF	N	11649	1646	2579	15874	3689		3294	355	110	1635	242	1922	1859	169295	883235	9282	77322	7998	1147132	72,8	382071	987			620	620	15984	1602	14382	0,9				
1980		E		30	18	48									17	294	1877				2171	45,2	484	3					48							
1980		TOTAL																																		
1980	VR	L	625	275	195	1095			6		26		114		458	2448	66896			3791	73135	68,4	24100	75			41	29	1100	25	1075	0,98				
1980	TCDD	N	1043	92	216	1351	50				20	110	39		308	13477	65882	6138	1020	788	87305	65,6	16320	472			30	30	1351		1351	1				
1981	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1981	BR	N	5764	4600	5802	16166					432		293			94605	943950			5120	1043675	66,3		2796					15905	2614	13291	0,84				
1981	CFF	N	3681	163	64	3908	781	30	183	14	58	98	23			37309	214162		5700	803	257794	67		509			573	573	3904	199	3705	0,95				
1981		E	115			115										860	5816				6676	58,1		29			6	6	115	7	108	0,94				
1981		total																																		
1981	CFL	N	75	15	16	106	15		7							468	8929				9397	88,7		3					106	8	98	0,92	49	2510		
1981	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1981	CH	N	335	54	48	437	219				6	28	12	320	70	2254	24257		1800	303	28614	66,4	5685	107	11		4	4	437	95	342	0,78				
1981		E	148	56	37	241								148	77	1205	13126				14331	59,5	2125	56	5				238	63	175	0,73				
1981		TOTAL																															128	5576		
1981	CIE	L	340			340			62		31					588	19695				20283	65,6		108	10				342	45	297	0,87	2474	136223		
1981	CP	L	458	236	380	1074	291			6	7		10		556	14921	69483			184	84588	79,3	41684	129			28	28	1074	142	932	0,87				
1981		E	42	40	44	126									84	1049	5480				6529	51,8	3160	8					126	11	115	0,91				
1981		TOTAL																															38	1874		
1981	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1981	DB	N	14488	2427	1201	18116			678		136	771	177			125597	907632		46260	5886	1085375	60,4		857		150	810	810	18364							
1981		E	17			17											816				816	48		3					17							
1981		TOTAL																															2183	222317	4601	395594
1981	DR	N				10567																		462												
1981		E	278			278																		66												
1981		TOTAL																																		
1981	DSB	N	901	397	317	1615	81		2	43		13	2		570	4160	97938		585	68	102751	63,6	30492	106	73								586	30471		
1981	FS	N	11120	1770	745	13635	3914		1008	113	66	713	45	1121	2410	135350	795183	2864	36462	1620	971479	71,6	233481	2028	495				13498	3008	10490	0,77				
1981		E		16	4	20									20		1088				1088	54,4	352	1					21	9	12	0,57				
1981		TOTAL																																		
1981	JZ	N	2114	476	540	3130	975	66			11	110	166			28079	176688	128	5443	5097	215435	69,1		300					3140	157	2983	0,95	90	3648		
1981		E																																		
1981		TOTAL																																		
1981	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1981	NS	N	406	688	964	2058	28				38		3	378	1652	23553	105969			104	129626	64,2	72772	35	35	11			2019	85	1934	0,96				
1981	NSB	N	506	174	216	896			8		13		74			778	36855			2417	40050	45,4		70	10				901	153	748	0,83	574	29179		
1981	OBB	N	2959	215	697	3871	719		273		28	125	8	2		11085	215862		7269	278	234494	61	176	652			151	151	3889	383	3506	0,9				
1981		E	178	2		180										96	7496				7592	42,2		24			3	3	180	8	172	0,96				
1981		TOTAL																															885	44643	71	3195
1981	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1981	RENFE	L	1905	673	1043	3621		779	385	212	19	128	88		1504									525		227	259	259	3784	530	3254	0,86				
1981		E		6	6	12									12		714				714	59,5	903						12	2	10	0,83				
1981		TOTAL																																		
1981	SJ	N	1407	380	240	2027	6				31	71	190		506	10694	100489		3408	6557	121148	60,7	22120	194	49				2017							
1981		E		11	5	16									16		672				672	42	508						14							
1981		TOTAL																												140	1891	0,93	1418	99827		
1981	SNCB	N	2373	614	637	3624	364		104			85	6	1403	1251	43924	266952		4860	216	315952	87,2	94963	194		27	36	36	3662	261	3401	0,93				
1981	SNCF	N	11473	1627	2767	15867	3008		3444	515	108	1595	238	2019	1785	171449	896159	8514	76566	7866	1160554	73,6	401767	871			594	594	15797	1420	14377	0,91				
1981		E		28	18	46									17	278	1807				2085	45,3	484	3					46							
1981		TOTAL																																		
1981	VR	L	649	264	191	1104			6		26		113		443	2426	68156			3737	74319	68,9	24067	67			33	24	1099	110	989	0,9				
1981	TCDD	N	1048	98	172	1318	50				21	97	40		270	14578	48674	5892	1020	818	70982	54,7	13610	449			30	30	1318	241	1077	0,82				
1982	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1982	BR	N	5207	4444	5749	15400					364		298			90341	906792			5858	1002991	66,7		2228					15681	2742	12939	0,83				
1982	CFF	N	3730	163	64	3957	776	30	242	25	58	98	23			40639	213826		5700	803	260968	66,9		503			573	573	3933	186	3747	0,95				
1982		E	115			115										860	5816				6676	58,1		29			6	6	115	6	109	0,95				
1982		total																																		
1982	CFL	N	75	15	16	106	15		12							448	8949				9397	88,7							106	6	100	0,94	49	2510		
1982	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1982	CH	N	335	52	47	434	219				6	28	12	320	70	2222	24049		1800	303	28374	43,1	5685	112	11		4	4	437	120	317	0,72				
1982		E	148	56	37	241								148	77	1205	13126				14331	59,5	2125	56	5				241	51	190	0,79				
1982		TOTAL																															128	5576		
1982	CIE	L	327			327			62		29					588	19141				19729	66,2		106	10				335	43	292	0,87	2442	135555		
1982	CP	L	477	235	357	1069	291				7		10		592	15112	68981			184	84277	79,4	41116	128			28	28	1069	143	926	0,87				
1982		E	49	43	49	141									92	893	5777				6670	47,3	2918	8					141	17	124	0,88				
1982		TOTAL																															38	1874		
1982	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1982	DB	N	14195	2376	1099	17670			796		131	766	177			150245	1033292		45960	5886	1235383	70,4		795		160	718	718	17994							
1982		E	17			17											816				816	48,0		1					17							
1982		TOTAL																															2490	250818	5108	436223
1982	DR	N				10453																		433												
1982		E				275																		66												
1982		TOTAL																																		
1982	DSB	N	960	436	285	1681	81		44	11		12	2		569	4280	102465		540	68	107353	63,8	30438	106	75								599	31700		
1982	FS	N	11423	1742	771	13936	4030		988	113	66	728	84	1370	2408	133325	824821	2848	37682	3024	1001700	72,2	259382	1934	479				13620	2846	10774	0,79				
1982		E		16	4	20									20		1088				1088	54,4	352	1					21	8	13	0,62				
1982		TOTAL																																		
1982	JZ	N	2082	489	555	3126	1296	66			14	120	166			27761	176721	128	5987	5097	215694	69,3		325					3200	250	2950	0,92	78	3300		
1982		E																																		
1982		TOTAL																																		
1982	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1982	NS	N	501	678	964	2143	15				38		3	446	1642	24850	112306			104	137260	65,2	101006	35	35	7			2101	81	2020	0,96				
1982	NSB	N	511	173	225	909			8		13		73			868	37690			2381	40939	45,7		58	9				901	150	751	0,83	593	30576		
1982	OBB	N	2782	225	698	3705	741		288		27	130	8	2		13391	216649		7527	278	237845	64,7	176	671			150	150	3811	385	3426	0,90				
1982		E	179	2		181										80	7444				7524	41,6	132	24			3	3	181	6	175	0,97				
1982		TOTAL																															895	45147	74	3335
1982	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1982	RENFE	L	1951	782	1075	3808		968	536	404	17	128	133		1453	18794	231010		7680	2440	259924	68,6	201661	494		227	244	244	3942	552	3390	0,86				
1982		E		6	6	12									12		528				528	44,0	1368						12	2	10	0,83				
1982		TOTAL																																		

A1.2.5. Rolling Stock : Carriages, Vans, Buses and Trailers - Stock available and out of service

YEAR	Railway	rail gauge	Rail stock – Railway-owned – Stock: Carriages	Railcars	Railcar trailers	Total stock	Including RIC: carriages	Including RIC: railcars and trailers	Including air-conditioned: carriages	Including air-conditioned: railcars and trailers	Restaurant cars	Couchette coaches	Sleeping cars	Standing Room: carriages	Standing Room: Railcars and trailers	Carrying Capacity – Seats: 1º class	Seats: 2ºclass	Sleeping accomodation – Couchettes: 1º class	Couchettes: 2ºclass	Sleeping cars 1 & 2nd class	Saeting & sleeping accom.: Total	Average no. per carriage	Standing room	LUGGAGE AND OTHER VANS: Total Stock	including mail-vans	PRIVATE OWNERS VEHICLES – CARRIAGES: Total Stock	Luggage and Vans: Total Stock	including mail-vans	Average Number of Carriages, Railcars and Trailers available for Operating purposes: TOTAL	Out of service for maintenance or repair	In working	Ratio between Stock in Working order and Total Stock	ROAD STOCK – RAILWAY - OWNED Motor Coaches and Trailers: Total Stock	Total Carrying capacity	Contractor´s vehicles: TOTAL stock	Total Carrying capacity
1982	SJ	N	1449	354	233	2036	6				31	71	190		474	11043	100476		3408	6557	121484	60,6	20380	194	48				2032							
1982		E		9	4	13									13		546				546	42,0	416						14							
1982		TOTAL																												123	1923	0,93	1575	110860		
1982	SNCB	N	2375	646	671	3692	362		104			85	6	1311	1317	46560	270020		4860	216	321656	87,1	97316	186		27	34	34	3675	232	3443	0,94				
1982	SNCF	N	11184	1655	3009	15848	3131		3621	739	107	1561	232	1995	1855	171844	899426	7726	76176	7668	1162840	73,9	410063	794			583	583	15878	1412	14466	0,91				
1982		E		28	18	46									17	278	1807				2085	45,3	484	3					46							
1982		TOTAL																																		
1982	VR	L	684	244	181	1109			6		36		113		413	2438	68830			3737	75005	70,2	23222	66			24	22	1106	111	995	0,90				
1982	TCDD	N	1054	152	174	1380	185				21	106	40		326	16178	66316	5892	1020	818	90224	66,4	21308	420			28	28	1380	337	1043	0,76				
1983	BDZ	N.E.																																		
1983	BR	N	4798	4299	5710	14807					351		212			86381	879335			5209	970925	67,2		2156					15009	2544	12465	0,83				
1983	CFF	N	3717	161	64	3942	763	30	332	20	58	98	23			40933	216343		5700	803	263779	67,9		490			573	573	3950	189	3761	0,95				
1983		E	115			115										860	5816				6676	58,1		29			6	6	115	7	108	0,94				
1983		total																																		
1983	CFL	N	75	15	16	106	15		12							448	8949				9397	88,7							106	6	100	0,94	48	2567		
1983	CFR	L.N.E.																																		
1983	CH	N	327	52	47	426	229				6	28	12	327	70	2214	23830		2040	75	28159	42,6	4310	110	8		4	4	426	91	335	0,79				
1983		E	143	56	37	236								143	77	1205	12652				13857	58,7	1609	56	5				236	26	210	0,89				
1983		TOTAL																															128	5576		
1983	CIE	L	294			294			62		26					588	17015				17603	65,7		97	10				312	40	272	0,87	2412	132460		
1983	CP	L	477	231	357	1065	291				7		9		588	15062	69333			164	84559	79,9	46517	128			23	23	1065	153	912	0,86				
1983		E	48	43	52	143									95	881	6314				7195	50,3	3574	9					143	16	127	0,89				
1983		TOTAL																															38	1874		
1983	CSD	L.N.E.																																		
1983	DB	N	14160	2355	967	17482			878		131	756	177			149265	1028322		45360	5886	1228833	70,8		743		163	706	706	17648							
1983		E	16			16											768				768	48,0		1					16							
1983		TOTAL																															3381	342698	7753	684978
1983	DR	N				10311																		424												
1983		E				275																		66												
1983		TOTAL																																		
1983	DSB	N	898	453	285	1636	81		12	43		14	2		568	4280	100584		882	68	105814	64,7	30384	102	78								586	30354		
1983	FS	N	11645	1791	831	14267	4036		1116	113	66	769	121	1548	2517	136401	848472	2848	39942	4356	1032019	72,7	267290	1881	468				13974	3076	10898	0,78				
1983		E		16	3	19									19		1056				1056	55,6	344	1					20	10	10	0,50				
1983		TOTAL																																		
1983	JZ	N	2400	513	581	3494	1236	254			9	120	178			30437	177174	184	5911	5316	219022	62,8		423					3286	208	3078	0,94	76	3162		
1983		E																																		
1983		TOTAL																																		
1983	MAV	N.E.																																		
1983	NS	N	499	659	922	2080	24				38		3	445	1580	23864	111004			104	134972	65,7	99622	37	33	7			2159	90	2069	0,96				
1983	NSB	N	502	186	221	909			8		13		73			868	37423			2381	40672	45,4		58	9				907	146	761	0,84	604	31718		
1983	OBB	N	2672	234	692	3598	722		280		27	130	8	3		13659	204999		7527	278	226463	63,4	264	681			152	152	3636	379	3257	0,90				
1983		E	178	2		180								2		80	7410				7490	41,6	132	23			3	3	180	6	174	0,97				
1983		TOTAL																															902	45500	74	3335
1983	PKP	N.E.																																		
1983	RENFE	L	1923	858	1112	3893		1174	600	583	27	128	181		1387	17836	237954		7680	3214	266684	69,0	197765	501		146	239	239	4037	444	3593	0,89				
1983		E		6	6	12									12		528				528	44,0	1368						12	2	10	0,83				
1983		TOTAL																																		
1983	SJ	N	1486	328	211	2025					31	71	189		449	11277	100134		3408	6521	121340	60,9		191	48				2031							
1983		E		8	2	10									10		426				426	42,6							12							
1983		TOTAL																												116	1927	0,94	1660	116830		
1983	SNCB	N	2403	675	704	3782	360		103			85	6	1525	1379	47576	277284		4860	216	329936	87,2	101237	167		24	34	34	3748	250	3498	0,93				
1983	SNCF	N	11027	1701	3207	15935	3087		3691	891	106	1528	229	2018	1942	165712	924211	7350	75102	7582	1179957	74,5	430530	801		18	583	583	15875	1336	14539	0,92				
1983		E		28	18	46									17	278	1807				2085	45,3	484	3					46	5	41	0,89				
1983		TOTAL																																		
1983	VR	L	691	228	165	84			6		36		119		381	2438	67227			3947	73612	70,5	22374	72			29	25	1096	112	984	0,90				
1983	TCDD	N	1054	141	179	1374	220				20	105	49		320	18843	70237	4584	1020	1034	95718	70,7	20920	343			33	33	1374	257	1117	0,81				
1984	BDZ	N.E.																																		
1984	BR	N	4608	4166	5529	14303					333		204			83684	851158			5018	939860	67,3		2130					14608	2443	12165	0,83				
1984	CFF	N	3729	169	57	3955	745	30	413	25	52	98	23			40213	219396		5700	803	266112	68,2		480			569	569	3949	172	3777	0,96				
1984		E	115			115										860	5816				6676	58,1		29			6	6	115	7	108	0,94				
1984		total																																		
1984	CFL	N	75	15	16	106	15		12							448	8949				9397	88,7							106	7	99	0,93	50	2660		
1984	CFR	L.N.E.																																		
1984	CH	N	326	52	47	425	229				6	28	12	326	99	2214	23750		2040	75	28079	67,0	4310	120	8		4	4	425	139	286	0,67				
1984		E	143	56	37	236								143	93	1205	12652				13857	58,7	1609	56	5				236	95	141	0,60				
1984		TOTAL																															128	5576		
1984	CIE	L	249	74		323			87		23					796	19631				20427	68,1	13172	87	10				308	32	276	0,90	2415	131567		
1984	CP	L	474	230	369	1073	291				7		9		599	15478	69774			164	85416	80,1	66150	123			23	23	1073	140	933	0,87				
1984		E	41	42	51	134									93	814	6118				6932	51,7	3638	8					134	13	121	0,90				
1984		TOTAL																															38	1874		
1984	CSD	L.N.E.																																		
1984	DB	N	13903	2231	783	16917			1817		123	730	166			146978	999548		43800	5493	1195819	71,2		697		159	693	693	17284							
1984		E	16			16											768				768	48,0		1					16							
1984		TOTAL																															3241	329707	7808	677344
1984	DR	N				10267																		414												
1984		E				275																		66												
1984		TOTAL																																		
1984	DSB	N	860	467	284	1611	81		12	43		13	2		567	4202	99729		837	68	104836	65,1	30330	87	68								581	30095		
1984	FS	N	12194	1811	882	14887	4333		1076	113	66	847	156	1516	2588	141666	881774	2864	44730	5616	1076650	72,9	287632	1908	465				14626	3020	11606	0,79				
1984		E		16	3	19									19		1056				1056	55,6	344	1					19	10	9	0,47				
1984		TOTAL																																		
1984	JZ	N	2586	553	628	3767	1349	119			10	145	195			31418	190082	600	7314	5855	235269	62,6		382					3660	527	3133	0,86	76	4140		
1984		E																																		
1984		TOTAL																																		
1984	MAV	N.E.																																		
1984	NS	N	463	673	980	2116	24				38		3	427	1652	24026	113627			104	137757	66,3	94499	37	33	7			2113	81	2032	0,96				
1984	NSB	N	493	196	239	928			8		13		73			820	38400			2381	41601	45,5		54	9				919	135	784	0,85	594	31803		
1984	OBB	N	2588	244	693	3525	740		281		26	129	8	2		13641	206615		7482	278	228016	65,2	176	663			157	157	3560	376	3184	0,89				
1984		E	178	2		180								2		80	7490				7410	41,6	132	23			3	3	180	6	174	0,97				
1984		TOTAL																															908	45800	79	3555
1984	PKP	N.E.																																		

A1.2.5. Rolling Stock : Carriages, Vans, Buses and Trailers - Stock available and out of service

YEAR	Railway	rail gauge	STOCK AT THE END OF THE YEAR – Rail STOCK – RAILWAY - OWNED VEHICLES – Carriages, Railcar and trailers – STOCK: Carriages	Railcars	Railcar trailers	Total stock	Including – RIC: carriages	RIC: railcars and trailers	air-conditioned: carriages	air-conditioned: railcars and trailers	Restaurant cars	Couchette coaches	Sleeping cars	Standing Room: carriages	Standing Room: Railcars and trailers	Carrying Capacity – Seats: 1º class	Seats: 2ºclass	Sleeping accomodation – Couchettes: 1º class	Couchettes: 2ºclass	Sleeping cars 1 & 2nd class	Saeting & sleeping accom.: Total	Saeting & sleeping accom.: Average no. per carriage	Standing room	LUGGAGE AND OTHER VANS: Total Stock	LUGGAGE AND OTHER VANS: including mail-vans	PRIVATE OWNERS VEHICLES – CARRIAGES: Total Stock	Luggage and Vans: Total Stock	Luggage and Vans: including mail-vans	Average Number of Carriages, Railcars and Trailers available for Operating purposes: TOTAL	Out of service for maintenance or repair	In working	Ratio between Stock in Working order and Total Stock	STOCK AT THE END OF THE YEAR – ROAD STOCK – RAILWAY - OWNED – Motor Coaches and Trailers: Total Stock	Total Carrying capacity	Contractor´s vehicles: TOTAL stock	Total Carrying capacity
1984	RENFE	L	1997	837	1090	3924		1186	633	601	30	178	181		1324	18116	234842		10590	3850	267398	68,7	178796	515		145	228	228	4054	365	3689	0,91				
1984		E		6	6	12									12		528				528	44,0	1368						12	2	10	0,83				
1984		TOTAL																															.	.	.	.
1984	SJ	N	1499	330	217	2046			29		31	94	176		220	11047	104022		4413	6040	125522	62,3	.	206	65				2036							
1984		E																					.						5							
1984		TOTAL																												120	1921	0,94	1650	118110		
1984	SNCB	N	2328	703	735	3766	352		103			85	6	1520	1438	48030	273966		4860	216	327072	86,8	101778	152		24	34	34	3816	245	3571	0,94				
1984	SNCF	N	10787	1736	3271	15794	3120		3910	971	105	1514	227	1977	1977	162479	923879	7140	74820	7525	1175843	74,9	436009	750		18	583	583	15916	1294	14622	0,92				
1984		E		28	18	46									17	262	1821				2083	45,3	484	3					46	5	41	0,89				
1984		TOTAL																															.	.	.	.
1984	VR	L	682	215	161	1058			6		36		125		381	2438	65112			4212	71762	71,1	22204	79			25	19	1071	69	1002	0,94				
1984	TCDD	N	1086	141	179	1406	267				17	103	49		320	20148	71031	5796	972	1034	98981	71,3	20920	314			33	33	1406	238	1168	0,83				

A1.2.6. Rolling Stock : Wagons, Lorries and Trailers- Stock available and out of service

YEAR	Railway	rail gauge	Stock at the end of the year – Railway-owned Vehicles – Rail Stock – Covered Wagons of Ordinary Type: STOCK	Covered Wagons: Total capacity (tonnes)	Covered Wagons: Average Capacity per wagon	HIGH-SIDED OPEN WAGONS: Stock	HIGH-SIDED OPEN WAGONS: Total capacity (tonnes)	HIGH-SIDED OPEN WAGONS: Average Capacity per wagon	FLAT WAGONS: Stock	FLAT WAGONS: Total capacity (tonnes)	FLAT WAGONS: Average Capacity per wagon	OTHER WAGONS: Stock	OTHER WAGONS: Total capacity (tonnes)	OTHER WAGONS: Average Capacity per wagon	ALL WAGONS: Stock	ALL WAGONS: Including RIV, EUROP and POOL wagons	ALL WAGONS: Total capacity (tonnes)	ALL WAGONS: Average Capacity per wagon	STOCK at the END of the YEAR – Railway-Owned Vehicles – ROAD STOCK – LORRIES AND TRAILERS: Stock	ROAD STOCK: Total Capacity (tonnes)	PRIVATE OWNERS VEHICLES – RAIL STOCK – WAGONS: Stock	PRIVATE OWNERS: Total Capacity (tonnes)	PRIVATE OWNERS: Average capac. Per wagons	VEHICLES BELONGING TO PRIVATE UNDERTAKING – RAIL STOCK – LORRIES AND TRAILERS: Stock	VEHICLES BELONGING TO PRIVATE UNDERTAKING: Total Capacity (tonnes)	AVERAGE NUMBER OF WAGONS AVAILABLE FOR OPERATING PURPOSES: TOTAL	OUT of service for maint. and repair	In working order	Average daily balance of RIV, EUROP and Pool wagons	Average daily balance of wagons exchanged with the secondary system in the country	Available	RATIO: Between the stock in working order and total stock	RATIO: Between the total stock available and the stock in working order	Average stock of wagons used exclusively for departmental traffic
1977	BDZ	N.E.																																
1977	BR	N	18881	295596	15,7	127631	2649361	20,8	19735	594855	30,1	688	23514	34,2	166935	513	3563326	21,3			18527	632808	34,2			201900	2100	180800				0,9		28379
1977	CFF	N	9851	217893	22,1	3610	103064	28,5	3812	136537	35,8	8109	228394	28,2	25382	23272	685888	27			7089	269344	38			32746	484	32262	1823		34085	0,99	1,06	3537
1977		E	90	1240	13,8	29	479	16,5	25	440	17,6	59	2604	44,1	203		4763	23,5			4	48	12			213	4	209			209	0,98	1	43
1977		total																																
1977	CFL	N	707	17700	25	616	18510	30	1414	61399	43,4	682	23213	34	3419	3293	120822	35,3	11	120	466	22418	48,1			3885	176	3709	-315		3394	0,95	0,92	282
1977	CFR	L.N.E.																																
1977	CH	N	4465	107160	24	644	16242	25,2	714	20523	28,7	2785	72375	26	8608	5889	216300	25,1			2	50	25			8608	572	8036	102		8138	0,93	1,01	219
1977		E	1290	17616	13,7	280	3204	11,4	171	1864	10,9	211	4069	19,3	1952		26753	13,7								1952	82	1870			1870	0,96	1	29
1977		TOTAL																																
1977	CIE	L	1810	22418	12,4	1924	23429	12,2	1113	24925	22,4	692	16175	23,4	5539		86947	15,7	1414	16394	96	1587	16,5			6049	490	5559			5559	0,92	1	457
1977	CP	L	2442	43745	17,9	1428	39785	27,9	583	9693	16,6	733	24619	33,6	5186		117842	22,7			229	4295	18,8			5280	276	5004	33		5037	0,95	1,01	644
1977		E	182	2083	11,4	333	3566	10,7	78	1275	16,3	34	478	14,1	627		7402	11,8	17							627	11	616			616	0,98	1	74
1977		TOTAL																																
1977	CSD	N																																
1977		E																																
1977		TOTAL																																
1977	DB	N	74703	1940291	26	77461	2225267	28,7	52945	1906049	36	82812	2736523	33,9	285921	269838	8808130	30,8	6501		50537	2027485	40,1			333805	18174	315631	-17679		297952	0,95	0,94	13773
1977		E										42	606	14,4	42		606	14,4								42		42			42	1	1	
1977		TOTAL																																
1977	DR	N													141580																134459			
1977		E													527																471			
1977		TOTAL																																
1977	DSB	N	3804	95895	25,2	1479	36967	25	969	32696	33,7	2846	70412	24,7	9098	6723	235970	25,9	449	3010	622	15382	24,7			9849	390	9459	870	-52	10277	0,96	1,09	
1977	FS	N	41061	982000	23,9	35228	1023000	29	14867	638000	42,9	14114	374000	26,5	105270	89196	3017000	28,7			15093	378000	25			121829	10542	111287	19234		130521	0,91	1,17	6920
1977		E	39	430	11	35	410	11,7	35	500	14,3				109		1340	12,3								130	18	112			112	0,86	1	16
1977		TOTAL																																
1977	JZ	N	18227	678905	37,2	22424	854841	38,1	3805	148603	39,1	3300	124925	37,9	47756	33182	1807274	37,8								45461	3050	42411	1422		43833	0,93	1,03	
1977		E	535	8000	15	905	13515	15	43	714	16,6	26	420	16,2	1509		22649	15																
1977		TOTAL																	1637	18841														
1977	MAV	N.E.																																
1977	NS	N	4448	116414	26,2	2923	84303	28,8	1049	30671	29,2	4400	132117	30	12820	11914	363505	28,4			1081	41355	38,3			13261	425	12836	-1708		11128	0,97	0,87	2148
1977	NSB	N	2538	54114	21,3	293	6184	21,1	3851	109344	28,4	2064	53172	25,8	8746	6997	222814	25,4	248	1980	423	12001	28,4			9153	374	8779	1219	-87	9911	0,96	1,13	
1977	OBB	N	12680	319099	25,2	8370	231412	27,6	3364	134288	39,9	9231	267802	29	33645	30520	952601	28,3			3631	112193	30,9			37882	2871	35011	-3652	-76	31283	0,92	0,89	2905
1977		E	156	1961	12,6	300	3388	11,3	235	2708	11,5	186	4618	24,8	877		12675	14,5								879	15	864			864	0,98	1	63
1977		TOTAL																	199	1360														
1977	PKP	N.E.																																
1977	RENFE	L	11779	269470	22,9	8659	228960	26,4	6306	194360	30,8	3590	162239	45,2	30334		855029	28,2			11282	400700	35,5			41662	2084	39578			39578	0,95	1	2965
1977		E																																
1977		TOTAL																																
1977	SJ	N	10016	250000	25	663	31066	46,9	20473	580134	28,3	13585	475275	35	44737	32333	1336475	29,9			3582	109264	30,5			48951								
1977		E	14	172	12,3				24	353	14,7	220	6732	30,6	258		7257	28,1								298								
1977		TOTAL																	174	320							2462	46787	-748	-68	45971	0,95	0,98	
1977	SNCB	N	10218	232612	22,8	15667	489554	31,2	11327	501516	44,3	11004	438214	39,8	48216	46994	1661896	34,5			4344	189000	43,5			44421	2976	41445	-1005		40440	0,93	0,98	4345
1977	SNCF	N.E.	66613	2219262	33,3	35596	1364187	38,3	49609	2162619	43,6	29694	1138562	38,3	181512	178762	6884630	37,9			83766	3358931	40,1			257500	18400	239100	-3900		235200	0,93	0,98	12500
1977	VR	L	6464	166270	25,7	574	13741	23,9	10148	295554	29,1	4544	157219	34,6	21730		632784	29,1	140	1583	506	14531	28,7			22303	866	21437			21437	0,96	1	2796
1977	TCDD	N	7335	153793	21	6252	173929	27,8	1945	66598	34,2	2249	111382	49,5	17781	6227	505702	28,4			1270	46379	36,5			18972	1621	17351	2930		20281	0,91	1,17	
1978	BDZ	N.E.																																
1978	BR	N	15895	260053	16,4	115442	2466756	21,4	18405	566468	30,8	629	21480	34,1	150371	514	3314757	22			18438	634336	34,4			182200	18100	164100				0,9		27812
1978	CFF	N	14134	331585	23,5	4765	138264	29	4216	152473	36,2	1785	66053	37	24900	22439	688375	27,6			6968	268268	38,5			32170	455	31715	2050		33767	0,99	1,06	3618
1978		E	90	1240	13,8	20	380	19	25	440	17,6	59	2604	44,1	194		4664	24			4	48	12			203	4	199			199	0,98	1	44
1978		total																																
1978	CFL	N	1167	30741	26,3	591	20012	33,9	1448	64451	44,5	1	52	52	3207	2963	115255	35,9	11	120	399	21258	53,3	11	120	3606	219	3387	18		3369	0,94	1	268
1978	CFR	L.N.E.																																
1978	CH	N	4464	107160	24	644	16242	25,2	734	21153	28,8	2790	72450	26	8632	5909	217005	25,1			2	50	25			8632	640	7992	350		8342	0,93	1,04	219
1978		E	1290	17616	13,7	280	3204	11,4	171	1864	10,9	211	4069	19,3	1952		26753	13,7								1952	90	1862			1862	0,95	1	29
1978		TOTAL																	213	1405														
1978	CIE	L	1567	19459	124	1898	23112	12,2	1102	26876	24,4	770	17823	23,1	5337		87270	16,4	1357	15871	96	1587	165			5438	497	4941			4941	0,91	1	456
1978	CP	L	2905	65041	22,4	1341	41557	31	782	18666	23,9	135	4211	31,2	5163		129475	25,1			193	3802	19,7			5356	405	4951	137		5088	0,92	1,03	921
1978		E	180	2058	11,4	301	3266	10,9	78	1275	16,3	33	468	14,2	592		7067	11,9								592	55	537			537	0,91	1	58
1978		TOTAL																																
1978	CSD	N																																
1978		E																																
1978		TOTAL																																
1978	DB	N	119858	3285230	27,4	86447	2715156	31,4	73030	2732842	37,4	2168	68860	31,8	281503	265257	8802088	31,3			49813	2035135	40,9			323867	18514	305353	16214		289139	0,94	0,95	13209
1978		E										42	606	14,4	42		606	14,4								42		42			42	1	1	
1978		TOTAL																	6751															
1978	DR	N													141702																129536			
1978		E													500																450			
1978		TOTAL																																
1978	DSB	N	5187	134819	26	1262	32466	25,7	1063	37533	35,3	796	18625	23,4	8308	6658	223443	26,9	490	3686	566	14133	25			9269	378	8891	539	49	9381	0,96	1,06	
1978	FS	N	50892	1211500	23,8	34981	1012500	28,9	16446	741400	45,1	2746	66300	24,1	105065	79195	3031700	28,9			15139	382000	25,2			121033	9592	111441	19399		130840	0,92	1,17	6870
1978		E	39	430	11	33	390	11,8	37	520	14,1				109		1340	12,3								111	18	93			93	0,84	1	16
1978		TOTAL																																
1978	JZ	N	17809	678564	38,1	22532	862047	38,6	3980	159490	40,1	3207	122961	38,3	47328	35395	1823062	38,5	1903	20817						45053	3020	42033	1424		43457	0,93	1,03	
1978		E																																
1978		TOTAL																																
1978	MAV	N.E.																																
1978	NS	N	4182	110800	26,5	2759	79620	28,9	965	28628	29,7	4298	129536	30,1	12204	11301	348585	28,6			1102	42579	38,6			12524	438	12086	1687		10399	0,97	0,86	2296
1978	NSB	N	3848	80483	20,9	627	14249	22,7	4073	105237	25,8	210	5452	26	8758	6721	205421	23,5	260	2117	415	11685	28,2			9168	433	8735	1368	77	10026	0,95	1,15	
1978	OBB	N	20027	516458	25,8	8589	249918	29,1	3984	155573	39	897	37435	41,7	33497	31282	959384	28,6			3520	109820	31,2			37169	2667	34502	2589	74	31839	0,93	0,92	2897
1978		E	155	1956	12,6	295	3311	11,2	237	2749	11,6	186	4618	24,8	873		12634	14,5								875	15	860			860	0,98	1	62
1978		TOTAL																	199	1360														
1978	PKP	N.E.																																
1978	RENFE	L	13498	341322	25,3	7136	174094	24,4	8189	303055	37	1102	57232	51,9	29925		875703	29,3			10840	391676	36,1			40981	2378	38603			38603	0,94	1	2970
1978		E																																
1978		TOTAL																																
1978	SJ	N	13740	344796	25,1	636	29744	46,8	20140	577633	28,7	9808	385305	39,3	44324	32400	1337478	30,2			3050	93086	30,5			47847	2393	45454	2190	53	43211	0,95	0,95	
1978		E							4	59	14,7				4		59	14,7								21								
1978		TOTAL																	174	320														
1978	SNCB	N	16370	456480	27,9	16145	539668	33,4	13702	615738	44,9	873	39317	45	47090	45082	1651203	35,1			4227	183782	43,5			42957	3142	39815	36		39851	0,93	1	4541
1978	SNCF	N.E.	77002	2620230	34	36642	1408967	38,5	59663	2686981	45	644	26987	41,9	173951	171528	6743165	38,8			83067	3342361	40,2			249900	17300	232600	4543		228057	0,93	0,98	12725
1978	VR	L	6026	158996	26,4	644	17801	27,6	10222	306743	30	4128	149579	36,2	21020		633119	30,1	141	1556	390	11826	30,3			21823	890	20933			20933	0,96	1	2773
1978	TCDD	N	8304	179579	21,6	38,5	296573	33,5	2164	69602	32,2	613	20815	34	19944	5514	566570	28,4			3671367	49220	36			19944	1846	18098	912		19010	0,91	1,05	
1979	BDZ	N.E.																																
1979	BR	N	14415	240496	16,7	105804	2298440	21,7	16863	538441	31,9	507	17871	35,2	137589	500	3095248	22,5			18676	648920	34,7			162100	16750	145350				0,9		28206
1979	CFF	N	13751	324665	23,6	4705	144792	30,8	4183	153482	36,7	1780	65792	37	24419	22315	688731	28,2			6880	272232	39,6			31584	371	31213	2416		33629	0,99	1,08	3659
1979		E	90	1240	13,8	20	380	19	25	440	17,6	59	2604	44,1	194		4664	24			4	48	12			198	4	194			194	0,98	1	45
1979		total																																
1979	CFL	N	1158	30546	26,4	614	20735	33,8	1539	70112	45,6	1	52	52	3312	3232	121445	36,7	10	110	458	23343	51			3726	255	3471	-61		3410	0,93	0,98	249
1979	CFR	L.N.E.																																
1979	CH	N	4753	114558	24,1	754	22622	30	789	24233	30,7	2820	77280	27,4	9116	6397	238693	26,2			2	50	25			9116	968	8148	250		8398	0,89	1,03	219
1979		E	1290	17616	13,7	280	3204	11,4	171	1864	10,9	211	4069	19,3	1952		26753	13,7								1952	112	1840			1840	0,94	1	29
1979		TOTAL																	208	1372														
1979	CIE	L	1005	12490	12,4	1742	21212	12,2	1111	27872	25,1	724	18231	25,2	4582		79805	17,4	1186	13911	102	1719	16,9			4730	423	4307			4307	0,91	1	425
1979	CP	L	3008	68126	22,6	1314	40992	31,2	800	18851	23,6	135	4269	31,6	5257		132238	25,2			146	2634	18			5403	692	4711	44		4755	0,87	1,01	974
1979		E	157	1866	11,9	292	3178	10,9	78	1275	16,3	33	468	14,2	560		6787	12,1								560	17	543			543	0,97	1	57
1979		TOTAL																																
1979	CSD	N																																
1979		E																																
1979		TOTAL																																
1979	DB	N	119744	3293658	27,5	84562	2693270	31,9	73839	2794483	37,8	2145	69594	32,4	280290	264063	8851005	31,6			49199	2019293	41			322931	19538	303393	-23025		280368	0,94	0,92	4845
1979		E										44	634	14,4	44		634	14,4								44		44			44	1	1	
1979		TOTAL																	7231															
1979	DR	N													145612																132488			
1979		E													438																422			
1979		TOTAL																																
1979	DSB	N	4694	120951	25,8	1512	40672	26,9	1248	45427	36,4	421	9641	22,9	7875	6455	216691	27,5	514	3866	602	14147	25,2			8621	380	8241	814	-45	9010	0,96	1,09	
1979	FS	N	48431	1164100	24	33663	980300	29,1	16573	749000	45,2	2701	65300	24,2	101368	79592	2958700	29,2			15086	410000	27,2			119653	9870	109783	24694		134477	0,92	1,22	6672
1979		E	39	430	11	33	390	11,8	37	520	14,1				109		1340	12,3								110	13	97			97	0,88	1	16
1979		TOTAL																																
1979	JZ	N	17870	674047	37,7	22009	843986	38,3	4369	178220	40,8	3267	124639	38,2	47515	37548	1820892	38,3	1892	23819						45245	3009	42236	1267		43503	0,93	1,03	
1979		E																																
1979		TOTAL																																
1979	MAV	N.E.																																
1979	NS	N	3932	105344	26,8	2433	70161	28,8	876	26469	30,2	4279	128758	30,1	11520	10641	330732	28,7			1103	43485	39,4			11905	442	11463	-239		11224	0,96	0,98	2304

A1.2.6. Rolling Stock : Wagons, Lorries and Trailers- Stock available and out of service

YEAR	Railway	rail gauge	Stock at the end of the year – Railway-owned Vehicles – Rail Stock – Covered Wagons of Ordinary Type: STOCK	Covered Wagons: Total capacity (tonnes)	Covered Wagons: Average Capacity per wagon	HIGH-SIDED OPEN WAGONS: Stock	HIGH-SIDED OPEN WAGONS: Total capacity (tonnes)	HIGH-SIDED OPEN WAGONS: Average Capacity per wagon	FLAT WAGONS: Stock	FLAT WAGONS: Total capacity (tonnes)	FLAT WAGONS: Average Capacity per wagon	OTHER WAGONS: Stock	OTHER WAGONS: Total capacity (tonnes)	OTHER WAGONS: Average Capacity per wagon	ALL WAGONS: Stock	ALL WAGONS: Including RIV, EUROP and POOL wagons	ALL WAGONS: Total capacity (tonnes)	ALL WAGONS: Average Capacity per wagon	STOCK at the END of the YEAR – Railway-Owned Vehicles – ROAD STOCK – LORRIES AND TRAILERS: Stock	Railway-Owned Vehicles: Total Capacity (tonnes)	PRIVATE OWNERS VEHICLES – RAIL STOCK – WAGONS: Stock	PRIVATE OWNERS VEHICLES: Total Capacity (tonnes)	PRIVATE OWNERS VEHICLES: Average capac. Per wagons	VEHICLES BELONGING TO PRIVATE UNDERTAKING – RAIL STOCK – LORRIES AND TRAILERS: Stock	VEHICLES BELONGING TO PRIVATE UNDERTAKING: Total Capacity (tonnes)	AVERAGE NUMBER OF WAGONS AVAILABLE FOR OPERATING PURPOSES: TOTAL	OUT of service for maint. and repair	In working order	Average daily balance of RIV, EUROP and Pool wagons	Average daily balance of wagons exchanged with the secondary system in the country	Available	RATIO: Between the stock in working order and total stock	RATIO: Between the total stock available and the stock in working order	Average stock of wagons used exclusively for departmental traffic
1979	NSB	N	3683	77856	21,1	573	13186	23	4163	108745	26,1	213	5556	26,1	8632	6460	205343	23,8	233	1981	391	11317	28,9			9146	430	8716	1554	-73	10197	0,95	1,17	
1979	OBB	N	20619	540941	26,2	8307	247364	29,8	4361	165121	37,9	887	38827	43,8	34174	32232	992253	29			3516	109196	31,1			37320	3171	34149	-1846	-71	32232	0,92	0,94	2883
1979		E	155	1956	12,6	294	3295	11,2	236	2741	11,6	186	4618	24,8	871		12610	14,5								872	15	857			857	0,98	1	61
1979		TOTAL																	240	2008														
1979	PKP	N.E.																																
1979	RENFE	L	13380	342555	25,6	6737	168012	24,9	8356	316494	37,9	1278	66929	52,4	29751		893990	30			10688	390343	36,5			40529	2107	38422			38422	0,95	1	2860
1979		E																																
1979		TOTAL																																
1979	SJ	N	13917	352295	25,3	561	26194	46,7	19292	557478	28,9	9890	384822	38,9	43660	32742	1320789	30,3			2764	84302	30,5			46900								
1979		E							4	59	14,7				4		59	14,7								4								
1979		TOTAL																	95	175							2345	44559	-3102	-135	41322	0,95	0,93	
1979	SNCB	N	16109	450953	28	14915	507226	34	13432	606856	45,2	859	38976	45,4	45315	42526	1604011	35,4			3943	174282	44,2			43438	3798	39640	170		39810	0,91	1	4715
1979	SNCF	N.E.	73908	2550934	34,5	37335	1450148	38,8	59393	2675043	45	614	26096	42,5	171250	169208	6702221	39,1			81207	3287504	40,5			239900	16700	223200	-8065		215135	0,93	0,96	15573
1979	VR	L	6073	160433	26,4	647	18016	27,8	10028	301740	30,1	4321	160513	37,1	21069		640702	30,4	128	1352	389	11829	30,4			21434	121	21313			21313	0,99	1	2768
1979	TCDD	N	8029	168588	21	9069	308346	34	3275	108075	33	471	16014	34	20843	6702	601023	28,8			1528	58889	38,5			22371	1728	20643	1899		22542	0,92	1,09	3350
1980	BDZ	N.E.																																
1980	BR	N	11083	197940	17,9	92230	2055395	22,3	15837	502871	31,8	357	12934	36,2	119507	466	2769140	23,2			18752	653209	34,8			141170	11490	129680				0,92		28334
1980	CFF	N	13719	324355	23,6	4631	149656	32,3	4156	156467	37,6	1771	65571	37	24277	22365	696049	28,7			6945	278158	40,1			31261	258	31003	2341		33344	0,99	1,08	3762
1980		E	90	1240	13,8	20	380	19	25	440	17,6	59	1604	44,1	194		4664	24			3	36	12			198	4	194			194	0,98	1	50
1980		total																																
1980	CFL	N	975	26419	27,1	678	22533	33,2	1646	69892	42,5	1	52	52	3300	3254	118896	36	10	110	350	18684	53,4			3610	317	3293	-147		3146	0,91	0,96	224
1980	CFR	L.N.E.																																
1980	CH	N	6553	157927	24,1	1361	40830	30	773	23963	31	177	4849	27,4	8864	6400	227569	25,7			2	50	25			8864	307	8557	-61		8496	0,97	0,99	219
1980		E	1345	18414	13,7	280	3204	11,4	171	1864	10,9	211	4069	19,3	2007		27551	13,7								2007	44	1963			1963	0,98	1	29
1980		TOTAL																	208	1372														
1980	CIE	L	486	6038	12,4	1670	20334	12,2	1112	28217	25,4	722	18288	25,3	3990		72877	18,3	1036	12150	53	1046	19,7			4417	494	3923			3923	0,89	1	415
1980	CP	L	2988	67913	22,7	1299	40721	31,3	792	18724	23,6	100	4473	44,7	5179		131831	25,5			146	2634	18			5325	430	4895	67		4962	0,92	1,01	1102
1980		E	151	1818	12	275	3006	10,9	96	1450	15,1	13	247	19	535		6521	12,2								535	12	523			523	0,98	1	48
1980		TOTAL																																
1980	CSD	N																																
1980		E																																
1980		TOTAL																																
1980	DB	N	119357	3286314	27,5	84638	2745633	32,4	76890	2952049	38,4	2127	68371	32,1	283012	273049	9052367	32			50060	2069663	41,3			313592	19382	294210	-22030		272180	0,94	0,93	4750
1980		E										44	634	14,4	44		634	14,4								44		44			44	1	1	
1980		TOTAL																	7534															
1980	DR	N													139814																136191			
1980		E													442																396			
1980		TOTAL																																
1980	DSB	N	4454	119065	26,7	611	18078	29,6	1128	40679	36,1	105	2795	26,6	6298	6227	180617	28,7	474	3560	585	14600	25						393	-40				
1980	FS	N	47473	1171600	24,7	32074	950400	29,6	16072	766300	47,7	2636	63400	24,1	98255	72961	2951700	30			15017	413000	27,5			115118	8467	106651	26420		133071	0,93	1,25	6763
1980		E	39	430	11	33	390	11,8	37	520	14,1				109		1340	12,3								110	16	94			94	0,85	1	16
1980		TOTAL																																
1980	JZ	N	17751	702213	39,6	22175	889617	40,1	4576	191770	41,9	2981	119336	40	47483	38606	1902936	40,1	1406	18966						45199	5500	39699	3404		43103	0,88	1,09	
1980		E																																
1980		TOTAL																																
1980	MAV	N.E.																																
1980	NS	N	6144	163776	26,7	2680	87154	32,5	1896	57870	30,5	486	13870	28,5	11206	10148	322670	28,7			1110	44097	39,7			11355	586	10769	-390		10379	0,95	0,96	2323
1980	NSB	N	3588	76204	21,2	522	12191	23,4	4281	112096	26,2	214	5630	26,3	8605	6182	206121	24	241	2014	387	11240	29			9001	380	8621	1483	-82	10022	0,96	1,16	
1980	OBB	N	21096	563172	26,7	7965	243691	30,6	4508	174610	38,7	876	38624	44,1	34445	33030	1020097	29,6			3502	110919	31,7											
1980		E	155	1956	12,6	290	3259	11,2	234	2714	11,6	186	4618	24,8	865		12547	14,5								37821	3442	34379	-810	-89	33480	0,91	0,97	2899
1980		TOTAL																	260	2317						868	15	853			853	0,98	1	62
1980	PKP	N.E.																																
1980	RENFE	L	13758	366211	26,6	6534	164094	25,1	8621	333860	38,7	1450	76614	52,8	30363		940779	31			10644	390635	36,7			40773	2405	38368			38368	0,94	1	2873
1980		E																																
1980		TOTAL																																
1980	SJ	N	14201	360137	25,4	1563	52210	33,4	21702	643126	29,6	5500	247106	44,9	42966	32811	1302579	30,3			2390	72895	30,5			45890	2295	43595	-2570	-109	40916	0,95	0,94	
1980		E																																
1980		TOTAL																	95	175														
1980	SNCB	N	15867	445304	28,1	13347	465947	34,9	13318	605224	45,4	894	41115	46	43426	40144	1557590	35,9			3978	179533	45,1			42962	3914	39048	-1245		37803	0,91	0,97	5095
1980	SNCF	N.E.	72605	2518742	34,7	37757	1476122	39,1	59379	2683166	45,2	370	12831	34,7	170111	168291	6690861	39,3			82997	3425680	41,3			239800	17400	222400	-7841		214559	0,93	0,96	14165
1980	VR	L	7437	195506	26,3	2055	61842	30,1	10311	314856	30,5	1289	70541	54,7	21092		642745	30,5	160	1548	394	12703	32,2			21472	121	21351			21351	0,99	1	2759
1980	TCDD	N	8300	179728	21,7	9239	310139	33,6	3746	117589	31,4	377	12759	33,9	21662	8964	620215	28,6			1566	60985	38,9			23228	2580	20648	240		20888	0,89	1,01	3516
1981	BDZ	N.E.																																
1981	BR	N	8314	153761	18,5	68106	1598534	23,5	11329	348435	34,3	206	8125	39,4	87955	424	2148855	24,4			17244	627540	36,4			120420	10700	109720				0,91		28474
1981	CFF	N	14264	347976	24,4	4552	154862	34	4074	151767	37,3	1077	39229	36,4	23967	22253	693834	28,9			6990	283162	40,5			31047	250	30797	2079		32876	0,99	1,07	3860
1981		E	90	1240	13,8	20	380	19	25	440	17,6	59	2604	44,1	194		4664	24			3	36	12			197	7	190			190	0,96	1	50
1981		total																																
1981	CFL	N	933	25169	27	612	20724	33,9	1566	71955	45,9	2	98	49,2	3113	2906	117946	37,9	10	118	236	12266	52			3188	227	2961	-37		2924	0,93	0,99	261
1981	CFR	L.N.E.																																
1981	CH	N	4915	118451	24,1	740	22200	30	643	19933	31	2561	70171	27,4	8859	6574	230755	26			2	50	25			8859	136	8723	-19		8704	0,98	1	219
1981		E	1345	18414	13,7	280	3204	11,4	171	1864	10,9	211	4069	19,3	2007		27551	13,7								2007	39	1968			1968	0,98	1	29
1981		TOTAL																	208	1372														
1981	CIE	L	383	4754	12,4	1536	18700	12,2	1107	28116	25,4	721	18268	25,3	3747		69838	18,6	898	6176	53	1046	19,7			3907	373	3534			3534	0,9	1	384
1981	CP	L	2933	67176	22,9	1220	39266	32,2	719	17481	24,3	152	7353	48,4	5024		131276	26,1			173	4154	24			5197	560	4637	69		4709	0,89	1,01	1122
1981		E	144	1755	12,2	242	2676	11,1	94	1430	15,2	13	268	20,6	493		6129	12,4								493	14	479			479	0,97	1	39
1981		TOTAL																																
1981	CSD	N																																
1981		E																																
1981		TOTAL																																
1981	DB	N	119290	3307980	27,7	85846	2883842	33,6	75957	2949596	38,8	2122	66959	31,6	283215	266170	9208377	32,5			50765	2139059	42,1			312790	19026	293764	-17150		276614	0,94	0,94	4674
1981		E										50	720	14,4	50		720	14,4								50		50			50	1	1	
1981		TOTAL																	7628															
1981	DR	N													149217																136440			
1981		E													439																396			
1981		TOTAL																																
1981	DSB	N	4326	116506	26,9	588	17398	29,6	1174	43479	37	105	2795	26,6	6193	6079	180178	29,1	430	5226	584	14750	25,3						411	-38				
1981	FS	N	47695	1197850	25,1	31890	947250	29,7	16689	810500	48,6	2578	61450	23,8	98852	77611	3017050	30,5			14836	409000	27,6			113911	10576	103335	22298		125633	0,91	1,22	7489
1981		E	39	430	11	33	390	11,8	37	520	14,1				109		1340	12,3								110	20	90			90	0,82	1	15
1981		TOTAL																																
1981	JZ	N	17929	705393	39,3	22365	918263	41,1	4704	194405	41,3	2647	107670	40,7	47645	41122	1925731	40,4	1372	19160						45665	3800	41865	1512		43377	0,92	1,04	
1981		E																																
1981		TOTAL																																
1981	MAV	N.E.																																
1981	NS	N	6124	165846	27,1	2611	85194	32,6	1803	55689	30,9	476	13585	28,5	11014	9967	320312	29			1195	44776	37,4			11104	579	10525	-554		9971	0,95	0,95	2374
1981	NSB	N	3476	74273	21,4	484	11398	23,5	4349	114003	26,2	209	5534	26,5	8518	5958	205208	24,1	214	2254	393	11809	30			8952	373	8579	3892	-78	12393	0,96	1,44	
1981	OBB	N	21735	586837	27	7322	225816	30,8	4637	183686	39,6	875	38464	44	34569	32364	1034803	29,9			3578	116031	32,4			38164	1929	36235	-2312	-83	33840	0,95	0,93	2936
1981		E	153	1943	12,7	290	3259	11,2	234	2714	11,6	186	4618	24,8	863		12534	14,5								864	10	854			854	0,99	1	63
1981		TOTAL																	269	2422														
1981	PKP	N.E.																																
1981	RENFE	L	13964	379313	27,2	6314	161781	25,6	9173	369877	40,3	1560	81726	52,4	31011		992697	32			10559	395874	37,4			41336	2976	38360			38360	0,93	1	2885
1981		E																																
1981		TOTAL																																
1981	SJ	N	14626	375032	25,6	1538	51100	33,2	21546	640100	29,7	5173	233535	45,1	42883	32946	1299767	30,3			2240	68320	30,5			45239	2490	42749	-1957	-87	40705	0,94	0,95	
1981		E																																
1981		TOTAL																	95	175														
1981	SNCB	N	15627	440469	28,2	12302	446251	36,3	13251	601681	45,4	856	38779	45,3	42036	38169	1527180	36,3			3910	176837	45,2			43223	3672	39551	-1162		38389	0,92	0,97	5425
1981	SNCF	N.E.	71014	2478446	34,9	36043	1427579	39,6	59803	2710822	45,3	372	12970	34,9	167232	165465	6629817	39,6			83264	3488602	41,9			238800	16700	222100	-5172		216928	0,93	0,98	14121
1981	VR	L	7493	198868	26,5	2523	92073	36,5	9995	314711	31,5	806	44581	55,3	20817		650233	31,2	160	1587	390	12666	32,5			21346	1000	20346			20346	0,95	1	2742
1981	TCDD	N	7716	164393	21,3	8454	292349	34,6	3411	112014	32,8	374	12682	33,9	19955	9154	581438	29,1			1633	64670	39,7			21588	2267	19321	-3198		22519	0,89	1,17	3400
1982	BDZ	N.E.																																
1982	BR	N	3841	68992	18,0	56399	1313235	23,3	9322	406133	43,6	1890	43140	22,8	71452	152	1831500	25,6			16408	611407	37,3			97720	8680	89040				0,91		28250
1982	CFF	N	14219	348519	24,5	4571	159315	34,9	3907	154064	39,4	1086	39693	36,5	23783	22301	701591	29,5			6983	280499	40,2			30862	288	30574	1648		32222	0,99	1,05	4265
1982		E	89	1229	13,8	20	380	19,0	25	440	17,6	59	2604	44,1	193		4653	24,1			3	36	12,0			196	7	189			189	0,96	1,00	49
1982		total																																
1982	CFL	N	858	23594	27,5	570	19636	34,5	1485	68644	46,2	3	83	27,7	2916	2754	111957	38,4	9	99	209	11642	55,7			3019	137	2882	91		2973	0,95	1,03	283
1982	CFR	L.N.E.																																
1982	CH	N	4913	118403	24,1	740	22200	30,0	643	19933	31,0	2561	70171	27,4	8857	6574	230707	26,1			2	50	25,0			8857	920	7934	330		8264	0,90	1,04	219
1982		E	1345	18414	13,7	280	3204	11,4	171	1864	10,9	211	4069	19,3	2007		27551	13,7								2007	21	1986			1986	0,99	1,00	45
1982		TOTAL																	208	1372														
1982	CIE	L	240	2975	12,4	1414	17221	12,2	1107	28116	25,4	743	19023	25,6	3504		67335	19,2	859	5839	53	1046	19,7			3664	305	3359			3359	0,92	1,00	362
1982	CP	L	2907	68652	23,6	1157	38087	32,9	706	17124	24,3	222	10954	49,3	4992		134817	27,0			217	6879	31,7			5209	500	4709	63		4772	0,90	1,01	1363
1982		E	122	1546	12,7	205	2316	11,3	91	1395	15,3	13	268	20,6	431		5525	12,8								431	13	418			418	0,97	1,00	42
1982		TOTAL																																
1982	CSD	N																																
1982		E																																
1982		TOTAL																																

A1.2.6. Rolling Stock : Wagons, Lorries and Trailers- Stock available and out of service

Stock at the end of the year – Railway-owned Vehicles – Rail Stock

YEAR	Railway	rail gauge	Covered Wagons of Ordinary Type			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			ALL WAGONS			
			STOCK	Total capacity (tonnes)	Average Capacity per wagon	Stock	Total capacity (tonnes)	Average Capacity per wagon	Stock	Total capacity (tonnes)	Average Capacity per wagon	Stock	Total capacity (tonnes)	Average Capacity per wagon	Stock	Including RIV, EUROP and POOL wagons	Total capacity (tonnes)	Average Capacity per wagon
1982	DB	N	117493	3280592	27,9	82594	2815951	34,1	73982	2938084	39,7	2118	66065	31,2	276187	259783	9100692	33,0
1982		E										50	720	14,4	50		720	14,4
1982		TOTAL																
1982	DR	N													151714			
1982		E													439			
1982		TOTAL																
1982	DSB	N	4091	110489	27,0	587	17370	29,5	1161	43140	37,2	105	2795	26,6	5944	5786	173794	29,3
1982	FS	N	47485	1206350	25,4	30953	920450	29,7	17251	843800	48,9	2284	54900	24,0	97973	77390	3025500	30,9
1982		E	39	430	11,0	33	390	11,8	37	520	14,1				109		1340	12,3
1982		TOTAL																
1982	JZ	N	18431	727890	39,5	22460	924219	41,1	4712	195000	41,4	2578	99908	38,8	48181	42879	1947017	40,4
1982		E																
1982		TOTAL																
1982	MAV	N.E.																
1982	NS	N	5594	152281	27,2	2497	81899	32,7	1852	55440	29,9	450	12838	28,5	10393	9393	302459	29,1
1982	NSB	N	3312	71388	21,6	391	9442	24,1	4203	111523	26,5	207	5504	26,6	8113	5347	197857	24,4
1982	OBB	N	21871	596409	27,3	7265	223841	30,8	4986	198254	39,8	876	38490	43,9	34998	30934	1056994	30,2
1982		E	145	1871	12,9	240	2879	12,0	227	2421	10,7	186	4618	24,8	798		11789	14,8
1982		TOTAL																
1982	PKP	N.E.																
1982	RENFE	L	13703	365061	26,6	8343	273194	32,7	9440	382647	40,5	118	5325	45,1	31604		1026227	32,5
1982		E																
1982		TOTAL																
1982	SJ	N	14699	381298	25,9	1412	45988	32,6	20461	622082	30,4	4899	224890	45,9	41471	30214	1274257	30,7
1982		E																
1982		TOTAL																
1982	SNCB	N	15245	432065	28,3	11978	450297	37,6	13160	599034	45,5	814	36337	44,6	41197	36348	1517733	36,8
1982	SNCF	N.E.	70613	2468906	35,0	33041	1343000	40,6	59463	2698710	45,4	495	15995	32,3	163612	162010	6526611	39,9
1982	VR	L	7623	203269	26,7	2702	100430	37,2	9614	311996	32,5	820	45284	55,2	20759		660979	31,8
1982	TCDD	N	8180	177627	21,7	8560	300839	35,1	3383	111848	33,1	369	12577	34,1	20492	9705	602891	29,4
1983	BDZ	N.E.																
1983	BR	N	2518	51158	20,3	42673	1041773	24,4	7916	361308	45,6	1403	33822	24,1	54510		1488061	27,3
1983	CFF	N	14375	353418	24,6	4442	156850	35,3	4012	160028	39,9	1086	39693	36,5	23915	22195	709989	29,7
1983		E	89	1229	13,8	20	380	19,0	25	440	17,6	59	2604	44,1	193		4653	24,1
1983		total																
1983	CFL	N	809	22502	27,8	522	18154	34,8	1442	66901	46,4	1	52	52,0	2774	2622	107609	38,8
1983	CFR	L.N.E.																
1983	CH	N	6483	156240	24,1	1361	40830	30,0	773	23963	31,0	203	5562	27,4	8820	6461	226595	25,7
1983		E	1194	16318	13,7	250	2840	11,4	155	1672	10,8	88	1319	15,0	1687		22149	13,1
1983		TOTAL																
1983	CIE	L	238	2951	12,4	1389	16916	12,2	1139	29533	25,9	743	19023	25,6	3509		68423	19,5
1983	CP	L	2910	68690	23,6	1077	36560	33,9	743	19046	25,6	219	10840	49,5	4949		135136	27,3
1983		E	123	1566	12,7	199	2251	11,3	94	1420	15,1	14	299	21,4	430		5536	12,9
1983		TOTAL																
1983	CSD	N																
1983		E																
1983		TOTAL																
1983	DB	N	111233	3135945	28,2	79319	2749607	34,7	72397	2933887	40,5	2140	65251	30,5	265089	248770	8884690	33,5
1983		E										48	691	14,4	48		691	14,4
1983		TOTAL																
1983	DR	N													157386			
1983		E													415			
1983		TOTAL																
1983	DSB	N	3696	99767	27,0	587	17370	29,6	1160	43113	37,2	105	2795	26,6	5584	5380	163045	29,4
1983	FS	N	46873	1209300	25,8	30284	920750	30,4	18203	904250	49,7	2229	53300	23,9	97589	79832	3087600	31,6
1983		E	39	500	12,8	33	400	12,1	37	600	16,2				109		1500	13,8
1983		TOTAL																
1983	JZ	N	18822	748794	39,8	23178	982134	42,4	4828	201383	41,7	2351	95592	40,7	49179	44979	2027903	41,2
1983		E																
1983		TOTAL																
1983	MAV	N.E.																
1983	NS	N	4408	120526	27,3	2307	76408	33,1	1864	61465	33,9	435	12411	28,5	9014	11913	270809	30,0
1983	NSB	N	3112	67775	21,8	344	8444	24,5	3892	105229	27,0	198	5349	27,0	7546	4850	186797	24,8
1983	OBB	N	20694	570985	27,6	7496	247753	33,1	5223	210339	40,3	865	38033	44,0	34278	31135	1067110	31,1
1983		E	126	1660	13,2	225	2726	12,1	221	2363	10,7	186	4618	24,8	758		11367	15,0
1983		TOTAL																
1983	PKP	N.E.																
1983	RENFE	L	13512	360959	26,7	8620	290305	33,7	9696	388274	40,0	118	5348	45,3	31946		1044886	32,7
1983		E																
1983		TOTAL																
1983	SJ	N	14047	356766	25,4	1320	42379	32,1	19442	598127	30,8	4434	206379	46,5	39243	29058	1203651	30,7
1983		E																
1983		TOTAL																
1983	SNCB	N	14101	420006	29,8	11479	441587	38,5	13255	601323	45,4	777	33590	43,2	39612	34747	1496506	37,8
1983	SNCF	N.E.	69630	2449478	35,2	30064	1250568	41,6	59325	2677051	45,1	530	16735	31,6	159549	158094	6393832	40,1
1983	VR	L	7406	198089	26,7	2714	104261	38,4	9452	313077	33,1	820	45295	55,2	20392		660722	32,4
1983	TCDD	N	8505	194731	22,9	8537	303546	35,6	3526	121251	34,4	363	12439	34,3	20931	10787	631967	30,2
1984	BDZ	N.E.																
1984	BR	N	2184	44922	20,6	34488	885420	25,7	7253	343426	47,3	1249	30370	24,3	45174		1304138	28,9
1984	CFF	N	13822	342981	24,8	4306	153053	35,5	3805	158462	41,7	1083	39573	36,5	23016	21662	694069	30,2
1984		E	89	1229	13,8	20	380	19,0	25	440	17,6	59	2604	44,1	193		4653	24,1
1984		total																
1984	CFL	N	807	22438	27,8	522	18158	34,8	1419	65974	46,5	1	52	52,0	2749	2541	106622	38,8
1984	CFR	L.N.E.																
1984	CH	N	6482	156216	24,1	1361	40830	30,0	773	23963	31,0	293	10151	34,6	8909	6551	231160	25,9
1984		E	1194	16318	13,7	250	2840	11,4	155	1672	10,8	88	1319	15,0	1687		22149	13,1
1984		TOTAL																
1984	CIE	L	76	951	12,5	1308	15929	12,2	1138	29513	25,9	757	19616	25,9	3279		66009	20,1
1984	CP	L	2972	70793	23,8	1063	36361	34,2	802	20216	25,2	244	11772	48,2	5081		139142	27,4
1984		E	122	1548	12,7	181	2066	11,4	93	1405	15,1	14	299	21,4	410		5318	13,0
1984		TOTAL																
1984	CSD	N																
1984		E																
1984		TOTAL																
1984	DB	N	108059	3061709	28,3	76398	2677328	35,0	72959	2977160	40,8	2122	63734	30,0	259538	241111	8779931	33,8
1984		E										45	648	14,4	45		648	14,4
1984		TOTAL																
1984	DR	N													159313			
1984		E													415			
1984		TOTAL																
1984	DSB	N	3513	94864	27,0	578	17108	29,6	1132	43042	38,0	105	2795	26,6	5328	5160	157809	29,6
1984	FS	N	44971	1181300	26,3	27750	860650	31,0	19586	983200	50,2	2220	52750	23,8	94527	83297	3077900	32,6
1984		E	27	350	12,9	14	170	12,1	25	420	16,8				66		940	14,2
1984		TOTAL																
1984	JZ	N	20280	807305	39,8	23836	1024912	43,0	4805	200674	41,8	2071	90325	43,6	50992	46944	2123216	41,6
1984		E																
1984		TOTAL																
1984	MAV	N.E.																
1984	NS	N	4146	112997	27,2	1883	64112	34,0	1844	60762	32,9	424	12096	28,5	8297	11182	249967	30,1
1984	NSB	N	2885	63410	22,0	316	7812	24,7	3699	102032	27,6	191	5225	27,4	7091	4366	178479	25,2
1984	OBB	N	19933	557590	28,0	7288	253487	34,8	5716	237831	41,6	862	38129	44,2	33799	31196	1087037	32,2
1984		E	102	1479	14,5	199	2424	12,2	216	2582	12,0	216	5988	27,7	733		12473	17,0
1984		TOTAL																
1984	PKP	N.E.																
1984	RENFE	L	13573	362589	26,7	8534	286823	33,6	9783	392065	40,1	116	5251	45,3	32006		1046728	32,7
1984		E																
1984		TOTAL																
1984	SJ	N	12726	349145	27,4	1250	39167	31,3	19571	602732	30,8	4069	193625	47,6	37616	28505	1184669	31,5
1984		E																
1984		TOTAL																
1984	SNCB	N	13117	401077	30,6	11192	444015	39,7	13226	599470	45,3	766	33123	43,2	38301	33425	1477685	38,6
1984	SNCF	N.E.	69707	2459306	35,3	28277	1202863	42,5	58023	2637123	45,4	531	17123	32,2	156538	155134	6316416	40,4
1984	VR	L	6417	175121	27,3	2636	105174	39,9	8558	300280	35,1	820	45295	55,2	18431		625870	34,0
1984	TCDD	N	8391	198145	23,6	8468	306645	36,2	3783	137222	36,3	352	12265	34,8	20994		654277	31,2

STOCK at the END of the YEAR (continued) – AVERAGE NUMBER OF WAGONS AVAILABLE FOR OPERATING PURPOSES – RATIO

YEAR	Railway	rail gauge	Railway-Owned Vehicles ROAD STOCK LORRIES AND TRAILERS		PRIVATE OWNERS VEHICLES RAIL STOCK WAGONS			VEHICLES BELONGING TO PRIVATE UNDERTAKING RAIL STOCK LORRIES AND TRAILERS		AVERAGE NUMBER OF WAGONS AVAILABLE FOR OPERATING PURPOSES						RATIO		Average stock of wagons used exclusively for departmental traffic
			Stock	Total Capacity (tonnes)	Stock	Total Capacity (tonnes)	Average capac. Per wagons	Stock	Total Capacity (tonnes)	TOTAL	OUT of service for maint. and repair	In working order	Average daily balance of RIV, EUROP and Pool wagons	Average daily balance of wagons exchanged with the secondary system in the country	Available	Between the stock in working order and total stock	Between the total stock available and the stock in working order	
1982	DB	N			50766	2156241	42,5			327309	16128	311181	-12054		299127	0,95	0,96	4505
1982		E								50		50			50	1,00	1,00	
1982		TOTAL	7541															
1982	DR	N													136765			
1982		E													395			
1982		TOTAL																
1982	DSB	N	442	4634	590	15280	25,8						849	-32				
1982	FS	N			14603	404116	27,7			113555	10347	103208	16387		119595	0,91	1,16	7376
1982		E								110	20	90			90	0,82	1,00	15
1982		TOTAL																
1982	JZ	N	1495	19877						46173	3842	42331	1693		44024	0,92	1,04	
1982		E																
1982		TOTAL																
1982	MAV	N.E.																
1982	NS	N			1218	45935	37,7			10754	607	10147	-495		9652	0,94	0,95	2308
1982	NSB	N	228	2011	382	11603	30,4			8936	366	8570	759	-84	9245	0,96	1,08	
1982	OBB	N			3606	118958	33,0			38409	1587	36822	-1422	-75	35325	0,96	0,96	2964
1982		E								831	10	821			821	0,99	1,00	64
1982		TOTAL	283	2643														
1982	PKP	N.E.													168663			
1982	RENFE	L			10495	401571	38,3			41940	2558	39382			39382	0,94	1,00	2938
1982		E																
1982		TOTAL																
1982	SJ	N			2225	67863	30,5			44410	2800	41610	-2130	-88	39392	0,94	0,95	
1982		E																
1982		TOTAL	68	126														
1982	SNCB	N			3681	168637	45,8			43317	2971	40346	-1033		39313	0,93	0,97	5670
1982	SNCF	N.E.			82278	3479364	42,3			238800	17000	221800	55		221855	0,93	1,00	14060
1982	VR	L	147	1352	376	12463	33,1			21171	1200	19971			19971	0,94	1,00	2682
1982	TCDD	N			1582	63771	40,3			22074	3081	18993	1198		20191	0,86	1,06	3249
1983	BDZ	N.E.																
1983	BR	N			15902	602826	37,9			80535	7798	72737				0,90		27889
1983	CFF	N			6898	279452	40,5			30778	312	30466	1889		32355	0,99	1,06	4259
1983		E			3	36	12,0			196	6	190			190	0,97	1,00	54
1983		total																
1983	CFL	N	8	90	186	10345	55,6			2960	119	2841	-33		2808	0,96	0,99	303
1983	CFR	L.N.E.																
1983	CH	N			2	50	25,0			8820	1032	7788	431		8219	0,88	1,06	222
1983		E								1687	15	1672			1672	0,99	1,00	30
1983		TOTAL	208	1372														
1983	CIE	L	840	5184	53	1046	19,7			3506	290	3216			3216	0,92	1,00	359
1983	CP	L			133	5468	41,1			5082	360	4722	82		4804	0,93	1,02	1339
1983		E								430	22	408			408	0,95	1,00	44
1983		TOTAL																
1983	CSD	N																
1983		E																
1983		TOTAL																
1983	DB	N								316460	13741	302719	-10474		292245	0,96	0,97	4317
1983		E								48		48			48	1,00	1,00	
1983		TOTAL	7717		50400	2159129	42,8											
1983	DR	N													134780			
1983		E													384			
1983		TOTAL																
1983	DSB	N	424	3361	567	13707	24,2						930	-29				
1983	FS	N								112237	9247	102990	14169		117159	0,92	1,14	7110
1983		E								110	20	90			90	0,82	1,00	15
1983		TOTAL			14391	399221	27,7											
1983	JZ	N	1469	20370						49179	5410	43769	1487		45256	0,89	1,03	
1983		E																
1983		TOTAL																
1983	MAV	N.E.																
1983	NS	N			1155	48106	41,6			9920	579	9341	-491		8850	0,94	0,95	2315
1983	NSB	N	221	1991	400	12396	31,0			8172	321	7851	643	-84	8410	0,96	1,07	
1983	OBB	N			3478	116198	33,4			38221	1586	36635	-790	-76	35769	0,96	0,98	2991
1983		E								778	10	768			768	0,99	1,00	63
1983		TOTAL	300	2903														
1983	PKP	N.E.													172148			
1983	RENFE	L			10342	405439	39,2			42303	2538	39765			39765	0,94	1,00	3062
1983		E																
1983		TOTAL																
1983	SJ	N			2056	62710	30,5			42498	2766	39732	-2356	-86	37290	0,93	0,94	
1983		E																
1983		TOTAL	68	126														
1983	SNCB	N			3461	158025	45,7			40878	3001	37877	-582		37295	0,93	0,98	5747
1983	SNCF	N.E.			80298	3425021	42,7			233700	16100	217600	577		218177	0,93	1,00	14097
1983	VR	L	150	1630	371	12417	33,5			20949	1100	19849			19849	0,95	1,00	2678
1983	TCDD	N			1640	70029	42,7			22571	1725	20846	569		21415	0,92	1,03	3138
1984	BDZ	N.E.																
1984	BR	N			14842	571956	38,5			65857	6322	59535				0,90		29218
1984	CFF	N			6846	281048	41,1			30551	287	30264	1407		31671	0,99	1,05	4299
1984		E			3	36	12,0			196	5	191			191	0,97	1,00	54
1984		total																
1984	CFL	N	8	107	156	8983	57,6			2905	136	2769	186		2955	0,95	1,07	289
1984	CFR	L.N.E.																
1984	CH	N			2	50	25,0			8909	1819	7090	208		7298	0,80	1,03	222
1984		E								1687	200	1487			1487	0,88	1,00	
1984		TOTAL	208	1372														
1984	CIE	L	777	4696	53	1046	19,7			3447	255	3192			3192	0,93	1,00	350
1984	CP	L			134	5521	41,2			5215	371	4844	343		5187	0,93	1,07	1337
1984		E								410	12	398			398	0,97	1,00	42
1984		TOTAL																
1984	CSD	N																
1984		E																
1984		TOTAL																
1984	DB	N			49931	2160508	43,3			307956	16618	291338	-10236		281102	0,95	0,96	4212
1984		E								48		48			48	1,00	1,00	
1984		TOTAL	8104															
1984	DR	N													137683			
1984		E													384			
1984		TOTAL																
1984	DSB	N	421	3478	566	14779	26,1						1111	-26				
1984	FS	N								111063	12312	98751	15264		114015	0,89	1,15	7105
1984		E								93	14	79			79	0,85	1,00	11
1984		TOTAL			14001	390030	27,9											
1984	JZ	N	1205	16175						52292	4080	48212	1446		49658	0,92	1,03	
1984		E																
1984		TOTAL																
1984	MAV	N.E.																
1984	NS	N			1156	49196	42,5			8694	497	8197	-366		7831	0,94	0,96	2350
1984	NSB	N	209	1937	402	12444	31,0			7720	302	7418	812	-73	8157	0,96	1,10	
1984	OBB	N			3399	116090	34,2			37480	1903	35577	-186	-81	35310	0,95	0,99	3045
1984		E								746	10	736			736	0,99	1,00	63
1984		TOTAL	313	3352														
1984	PKP	N.E.																
1984	RENFE	L			10190	403842	39,6			42242	2366	39876			39876	0,94	1,00	3039
1984		E																
1984		TOTAL																
1984	SJ	N			1982	60451	30,5			38430	2520	35910	-2125	-121	33664	0,93	0,94	
1984		E																
1984		TOTAL																
1984	SNCB	N			3278	152580	46,5			40045	3448	36597	-362		36235	0,91	0,99	5553
1984	SNCF	N.E.			77268	3334393	43,2			227500	15600	211900	-40		211860	0,93	1,00	13800
1984	VR	L	152	1780	367	12329	33,6			19780	972	18808			18808	0,95	1,00	2719
1984	TCDD	N			1581	69987	44,3			22575	1790	20785	441		21226	0,92	1,02	3113

A.1.2.7. Average Staff Strength

YEAR	Railway	RAILWAY'S STAFF – RAILWAY OPERATION – GENERAL MANAGEMENTS – General manager's Office	Regional Manager's Offices	Total	OPERATION AND TRAFFIC – Headquarter Offices	Regional Offices	Total	Stations	Train Services	Total	ROLLING STOCK AND MOTIVE POWER – Headquarter Offices	Regional Offices	Total	Driving staff of motor vehicles	Main workshops	Other Staff	Total	Renewal	Total	WAY AND WORKS – Headquarter Offices	Regional Offices	Total	Maintenance and supervision of way	Renewal	Total	Total	OTHER OPERATIONS – Road transport services	Shipping services	Various	New works, reconstruction	Total staff belonging to the Railway	Amount for – Headquarter Offices	Regional Offices	Division of staff – Permanent Staff	Temporary Staff	Contractual Staff	Staff supplied by private firms	Total strength	Percentage of unavailability of Railway's staff due to sickness and injury
1977	BDZ																																					62986	
1977	BR	2852	10335	13187						72242				26610	35568	24337	86515		86515						44091	216035		10162	15577		241774								
1977	CFF	1934	210	2144		541	541	17538	2952	21031		378	378	4762	2757	663	8182		8560		1031	1031	4247		5278	37013		24	219	1284	38540	1934	2160	36925	1615		493	39033	4,26
1977	CFL	283		283	63		63	1288	156	1507	40		40	307	436	371	1114	4	1158	88		88	768	50	906	3854	219		48	39	4160	474		3863	283	14	51	4211	3,15
1977	CFR																																						
1977	CH	832	743	1575	24	1438	1462	909	813	3184	18	429	447	774	2133	140	3047		3494	96	255	351	4381		4732	12985	314				13299	970	2865	11118		2181		13299	2,92
1977	CIE	266	138	404	114	35	149	3285		3434	150	5	155	594	1156	372	2122		2277	68	16	84	1749		1833	7948	9226	14	791		17979	598	194	15857	2122			17979	
1977	CP	1987	251	2238	303	300	603	7070	1868	9541	101	85	186	1913	5018	496	7427		7613	316	114	430	5789	1040	7259	26651	66	197			26914	2707	750	26914				26914	7,27
1977	CSD																														178568							178568	
1977	DB	386	16367	16753	1169	6922	8091	118537	17009	143637	2084	2612	4696	29780	20070	51451	101301	7780	113777	824	5991	6815	66139	7024	80158	354325	10895	495			365715	4497	32359	365589		126		365715	8,73
1977	DR	1970	12266	14236	213	4936	5149	74798	4454	84401	1007	512	1519	16746	34574	36098	87418		88937	493	982	1475	27593	21072	50140	237714		576	2239		240529	3683	18696	237892	2637				6,76
1977	DSB	1116	286	1402				6806	1075	7881				1765	2673	775	5213		5213				2856	856	3712	18208	1035	1928	235		21406	1116	286	16333	5073				
1977	FS	3098	4755	7853	1903	3257	5160	65722	20122	91004	1383	2986	4369	27462	10385	25224	63071		67440	1873	5500	7373	44993		52366	218663		2575	3805		225043	8257	16498	221031		4012	19798	244841	5,45
1977	JZ	1000	2388	3388			3218	46316	6697	56231			4429	9366	6101	9323	24790		29219			2542	27076		29618	118456	2648		2261	14577	137942						162	138104	
1977	MAV																														142882						142882		
1977	NS	2227		2227	502	185	687	8410	1973	11070	220	23	243	3277	2076	2105	7458		7701	1108	372	1480	3787		5267	26265					26265	4057	580	25130	1135			26265	9,6
1977	NSB	933	701	1634				5266	879	6145				1866	1969	1395	5230		5230				3476		3476	16485	1194			768	18447	933	701	17520	927				
1977	OBB	2619	685	3304	318	549	867	24080	5771	30718	125	93	218	5090	6846	7589	19525	168	19911	171	267	438	15137	783	16358	70291	2660	62	361		73374	3233	1594	53232	18220	1922	2280	75654	4,99
1977	PKP			13766					27493					40555		37081	77636							1348		345727			11431	3629	360787							360787	5,05
1977	RENFE	3277	3342	6619	447	768	1215	16757	2848	20820	282	136	418	7740	4768	9894	22402		22820	759	331	1090	16742		17832	68091	208		4177	817	73293	4765	4577	73210	79	4		73293	5,32
1977	SJ	1187	260	1447	159	435	594	13053	1125	14772	175	141	316	4658	2946	4162	11766			387	589	976	5153			34430	2375	248	321	1286	38660	1908	1425	37593	1042	25		38660	
1977	SNCB	1433	1302	2735	824		824	18063	2195	21082	777		777	5448	4737	7176	17361	456	18594	12		12	8617	4254	12883	55294	67		1569	1838	58768	3046	1302	55794	486	2488		58768	4,74
1977	SNCF	15980	5958	21938	4286	5121	9407	88462	9389	107258	1284	859	2143	26469	29405	13434	69308		71451	1927	4832	6759	46741	4558	58058	258705		189	200	9737	268831	23477	16770						3,04
1977	VR	1066		1066		360	360	8091	2705	11156				3092	1892	3250	8234		8234		294	294	3117		3411	23867	181		638	4647	29333	1066	654	17362	1324	10647	744	30077	3,42
1977	TCDD																									70178					70178			58919	11259			70178	
1978	BDZ																																					63473	
1978	BR	2845	9728	12573						70832				26288	35660	24020	85968		85968						44463	213836		10733	16897		241466								
1978	CFF	1904	206	2110		532	532	17237	2968	20737		371	371	4744	2706	669	8119		8490		1022	1022	4148		5170	36507		25	215	1256	38003	1904	2131	36290	1713		481	38484	4,44
1978	CFL	283		283	64		64	1266	152	1482	38		38	296	432	380	1108	3	1149	90		90	769	49	908	3822	222		45	32	4121	475		3862	236	23	38	4159	2,75
1978	CFR																																						
1978	CH	902	679	1581	27	1466	1493	981	802	3276	18	429	447	864	2204	147	3215		3662	105	240	345	3819		4164	12683	300				12983	1052	2814	11313		1670		12983	2,75
1978	CIE	273	139	412	101	36	137	3197	3197	3334	151	5	156	582	1143	381	2106		2262	70	22	92	1662	1662	1754	7762	9549	14	756		18081	595	202	15765	2316			18081	
1978	CP	1942	253	2195	290	443	733	7038	1907	9678	97	79	176	1812	5266	425	7503		7679	287	105	392	5661	1030	7083	26635	71	192			26898	2616	880	26898				26898	7,52
1978	CSD																														177732							177732	
1978	DB	403	16458	16861	1204	6609	7813	113239	15794	136846	2033	2450	4483	27893	21823	46108	95824	7383	107690	802	5700	6502	66068	5444	78014	339411	10526	497			35434	4472	31648	350342		92		350434	9
1978	DR	1936	12098	14034	217	4904	5121	73813	4599	83533	975	548	1523	16951	34214	35778	86943		88466	497	994	1491	27330	20850	49671	235704		607	1923		238234	3625	18544	235252	3082				6,94
1978	DSB	1095	286	1381				6704	1020	7724				1741	2594	747	5082		5082				2747	825	3572	17759	1042	2001	233		21035	1095	286	16058	4977				
1978	FS	3122	4812	7934	1913	3210	5123	64901	19861	89885	1355	3100	4455	27210	10186	24542	61938		66393	1851	5644	7495	44450		51945	216157		2416	3857		222430	8241	16766	218326		4104	19639	242066	4,95
1978	JZ	1005	2407	3412						55265									28755						28067	115499	4257			16509	136265						178	136443	
1978	MAV																														141719							141719	
1978	NS	2204		2204	504	114	618	8265	2010	10893	215	7	222	3427	2036	2098	7561		7783	1098	506	1604	3608		5212	26092					26092	4021	627	24958	1134			26092	10
1978	NSB	931	691	1622				5105	895	6000				1883	1967	1407	5257		5257				3506		3506	16385	1178			760	18323	931	691	17422	901				
1978	OBB	2601	663	3274	321	567	888	23845	5470	30203	126	94	220	5105	6804	7527	19436	173	19829	175	270	445	14925	967	16337	69643	2687	74	353		72757	3223	1604	53732	17227	1798	2478	75235	5,37
1978	PKP			14036					26493					40679		38405	79084									346237			9943	7251	363431							363431	5,18
1978	RENFE	3309	3404	6713	471	761	1232	16818	2875	20925	285	137	422	8370	4230	9850	22450		22862	778	332	1110	16497		17607	68117	202		4209	819	73347	4843	4634	73288	55	4		73397	5,84
1978	SJ	1218	260	1478	150	434	584	12498	1075	14177	168	141	309	4449	2801	3976	11226			373	575	948	588			33206	2374	217	221	1272	37390	1909	1410	36412	953	25		37390	9,56
1978	SNCB	1441	1271	2712	811		811	17905	2197	20913	761		761	5649	4522	7379	17550	486	18797	15		15	8425	4785	13225	55647			1677	2006	59330	3028	1271	56185	446	2699		55330	5,23
1978	SNCF	15625	5895	21520	4042	5356	9398	85962	9790	105150	1266	830	2096	26200	28792	12753	67745		69841	1907	4739	6646	45191	4484	56321	252832		202	213	9764	263011	22840	16820					263011	3,09
1978	VR	1059		1059		367	367	8188	2541	11096				3240	1747	3086	8073		8073		313	313	3260		3573	23801	183		991	3849	28824	1059	680	17391	1183	10250	830	29654	3,37
1978	TCDD																														63208			59150	4058			63208	
1979	BDZ																																					63473	
1979	BR	2991	9432	12423						70247				26259	35940	23999	86198		86198						45086	213954		11074	18646		243674								
1979	CFF	1872	209	2081		553	553	17247	2999	20799		364	364	4801	2738	675	8214		8578		1026	1026	4084		5110	36568		26	218	1301	38113	1872	2152	36074	2039			38113	4,45
1979	CFL	279		279	66		66	1283	150	1499	37		37	296	450	377	1123	1	1161	90		90	770	63	923	3862	225		36	42	4165	472		3918	229	18	44	4209	2,97
1979	CFR																																						
1979	CH	706	805	1511	25	1318	1343	900	791	3034	9	329	338	796	2072	134	3002		3340	124	223	347	3905		4252	12137	335				12472	864	2675	11105		1367		12472	2,55
1979	CIE	270	129	399	86	32	118	3033		3151	159	5	164	555	1132	365	2052		2216	71	25	96	1647		1743	7509	9635	9	772		17925	568	191	15601	2324			17925	
1979	CP	1893	227	2120	276	451	727	6664	1737	9128	91	76	167	1734	5090	408	7232		7399	285	124	409	5434	1009	6852	25499	68	189			25756	2545	878	25756				25756	8,1
1979	CSD																														177607							177607	
1979	DB	425	16200	16625	1580	6169	7749	108557	14949	131255	2043	2361	4404	26713	20895	45412	93020	7300	104724	884	5633	6517	63330	3815	73662	326266	10155	502			336923	5003	30745	336844		79		336923	9,23
1979	DR	2100	12027	14127	184	4953	5137	73539	4571	83247	287	579	866	17418	34256	35727	87401		88267	314	978	1292	27473	20751	49516	235157		632	1922		237711	2885	18537	234491	3220				5,63
1979	DSB	728		728																											21200			18854	2346				
1979	FS	3591	4225	7816	1865	2650	4515	66197	18910	89622	1267	2473	3740	26882	9929	25458	62269		66009	1983	5299	7282	44158		51440	214887		2077	3471		220435	8706	14647	216500		3935	19749	240184	5,68
1979	JZ	979																													136410								
1979	MAV																														139243								
1979	NS	2209		2209	540	101	641	8223	2032	10896	231	7	238	3521	2053	2143	7717		7955	1110	471	1581	3642		5223	26283					26283	4090	579	25135	1148			26283	9,9
1979	NSB	925	698	1623				4929	894	5823				1882	1987	1418	5287		5287				3433		3433	16166	1143			829	18138	925	698	17317	821				5,05
1979	OBB	2591	668	3259	327	594	921	23676	5276	29873	124	94	218	5121	6964	7519	19604		19822	178	277	455	15896		16351	69305	2718	70	350		72443	3220	1633	53597	17083	1763	3056	75499	5,15
1979	PKP			13788					25815					40957		38193	79150									344562			10006	8499	363067							363067	5,06
1979	RENFE	3260	3713	6973	452	746	1198	16649	2929	20776	274	136	410	8372	4112	9295	21779		22189	772	311	1083	16004		17087	67025	202		4107	822	72156	4758	4906	72094	58	4		72156	5,83
1979	SJ	1246	251	1497	161	417	578	12402	1063	14043	167	136	303	4400	2776	3932	11108			376	594	970	5060		6030	32981	2420	199	323	1262	37185	1950	1398	36236	928	21		37185	8,66
1979	SNCB	1453	1316	2769	810		810	18189	2413	21412	741		741	7070	4354	7256	18680	699	20120	18		18	8256	5220	13494	57795			1678	2448	61921	3022	1316	57501	815	3605		61921	5,2
1979	SNCF	15360	5849	21209	3921	5423	9344	84036	10191	103571	1266	813	2079	26371	27641	13003	67015		69094	1860	4774	6634	43768	4479	54881	248755		214	211	9724	258904	22407	16859					258904	2,89
1979	VR	1065		1065		387	387	8170	2514	11071				3314	1713	3005	8032		8032		330	330	3770		4100	24268	190		519	3784	28761	1065	717	17472	1091	10198	696	29457	3,56
1979	TCDD																														56362			49711	6651		11718	68080	
1980	BDZ																																					73200	
1980	BR	2971	9370	12341						68673				26111	36417	23819	86347		86347						44987	212348		11042	18492		241882								
1980	CFF	1889	209	2098		556	556	17382	3050	20988		375	375	4887	2749	681	8317		8692		1032	1032	3966		4998	36776		27	224	1340	38367	1889	2172	36116	2251			38367	4,64
1980	CFL	276		276	64		64	1282	150	1496	40		40	312	464	396	1172		1213	92		92	782	45	919	3904	222		36	54	4216	472		3985	219	12	32	4248	2,95
1980	CFR																																						
1980	CH	751	811	1562	23	1310	1333	867	686	2886	8	300	308	761	1951	112	2824		3132	111	185	296	4021		4317	11897	243				12140	893	2606	10803		1337		12140	3,64
1980	CIE	272	132	404	72	37	109	3020		3129	155	6	161	535	1116	364	2015		2176	79	26	105	1753		1858	7567	9769	15	701		18052	578	201	15847	2205			18052	
1980	CP	1820	223	2043	271	465	736	6253	1714	8703	89	313	402	1649	4727	263	6639		7041	239	265	504	5214	944	6662	24449	65	190			24704	2419	1266	24704				24704	8,34
1980	CSD																														176777							176777	
1980	DB	414	16451	16865	1557	5509	7066	105979	14174	127219	2032	2406	4438	26534	20629	44641	91804	6590	102832	911	5778	6689	60933	3412	71034	317950	10529	501			328980	4984	30493	328909		71		328980	8,79
1980	DR	2023	11820	13843	184	5001	5185	73250	4530	82965	289	575	864	18388	34201	35160	87749		88613	316	980	1296	27691	20968	49955	235376		637	1934		237947	2812	18376	234465	3482			237947	5,74
1980	DSB	753		753																											21623			19443	2180				
1980	FS	3537	4447	7984	1766	2374	4140	66557	19417	90114	916	2266	3182	27281	9912	25679	62872		66054	2015	5194	7209	44544		51753	215905		2060	2690		220655	8234	14281	216556		4099	19943	240598	6,13
1980	JZ	947	2830	3777						49243									23090						36638	112748												142928	
1980	MAV																														136247							136247	
1980	NS	2241		2241	574	104	678	8463	2062	11203	244	8	252	3639	2122	2167	7928		8180	1148	516	1664	3588		5252	26876					26876	4207	628	25680	1196			26876	9,2
1980	NSB	914	708	1622				4755	871	5626				1885	1998	1409	5292		5292				3312		3312	15852	1131			835	17818	914	708	17048	770				5,12
1980	OBB	2579	656	3235	333	605	938	23719	5237	29894	123	93	216	5098	6954	7533	19585		19801	177	283	460	15956		16416	69346	2750	71	355		75522	3212	1637	53358	17393	1771	2867	75389	5,49
1980	PKP			13409					25574					40909		39653	80562									346344			10101	6912	363357							363357	5,2
1980	RENFE	3213	3736	6949	435	717	1152	16644	2884	20680	309	128	437	8826	3958	9108	21892		22329	823	305	1128	15779		16907	66865	201		3637	844	71547	4780	4886	71448	80	19		71547	4,81
1980	SJ	2027	1329	3356				13258	1205	14463				4070	2785	3400	10255		10255				4692		4692	32766	2499	204	323	1752	37544	2027	1329	36672	855	17		37544	8,41
1980	SNCB	1515	1362	2877	807		807	18893	2764	22464	733		733	7715	4416	7651	19782	752	21267	12		12	8472	6008	14492	61100			1790	2762	65652	3067	1362	60881	1001	3770		65652	4,7
1980	SNCF	15153	5755	20908	3849	5474	9323	82414	10391	102128	1249	805	2054	26224	27166	12736	66126		68180	1803	4725	6528	42113	4494	53135	244351		218	213	9618	254400	22054	16759					254400	2,84
1980	VR	1069		1069		382	382	8056	2572	11010				3524	1843	3003	8370		8370		340	340	3687		4027	24476	195		567	3488	28726	1069	722	17376	1380	9970	564	29290	3,83
1980	TCDD																														45205			48822	3050			45205	
1981	BDZ																														73200							73200	
1981	BR	5634	6270	11904						65337				25226	35643	23232	84101		84101						44625	205967		10896	17342		234205								
1981	CFF	1922	215	2137		565	565	17560	3142	21267		384	384	4995	2767	687	8449		8833		1062	1062	3921		4983	37220		27	236	1308	38791	1922	2226	36292	2499		953	39744	4,62
1981	CFL	263		263	64		64	1243	150	1457	39		39	321	470	382	1173	2	1214	95		95	778	28	901	3835	215		36	72	4158	461		3953	200	5	32	4190	3,15
1981	CFR																																						
1981	CH	750	808	1558	22	1309	1331	866	683	2880	6	294	300	755	1979	95	2829		3129	110	183	293	4017		4310	11877	241				12118	888	2594	10602		1516		12118	
1981	CIE	271	120	391	78	39	117	2813		2930	162	5	167	528	1202	354	2084		2251	85	37	122	1785		1907	7479	9828	15	718		18040	596	201	15757	2283			18040	
1981	CP	1775	287	2062	274	379	653	5940	1657	8250	98	318	416	1636	4622	258	6516		6932	243	302	545	5076	878	6499	23743	61	190			23994	2390	1286	23994				23994	7,25
1981	CSD																														206458							206458	

A.1.2.7. Average Staff Strength

YEAR	Railway	RAILWAY'S STAFF – GENERAL MANAGEMENTS – General manager's Office	GENERAL MANAGEMENTS – Regional Manager's Offices	GENERAL MANAGEMENTS – Total	RAILWAY OPERATION – OPERATION AND TRAFFIC – Headquarter Offices	OPERATION AND TRAFFIC – Regional Offices	OPERATION AND TRAFFIC – Total	OPERATION AND TRAFFIC – Stations	OPERATION AND TRAFFIC – Train Services	OPERATION AND TRAFFIC – Total	ROLLING STOCK AND MOTIVE POWER – Headquarter Offices	ROLLING STOCK AND MOTIVE POWER – Regional Offices	ROLLING STOCK AND MOTIVE POWER – Total	ROLLING STOCK AND MOTIVE POWER – Driving staff of motor vehicles	ROLLING STOCK AND MOTIVE POWER – Main workshops	ROLLING STOCK AND MOTIVE POWER – Other Staff	ROLLING STOCK AND MOTIVE POWER – Total	ROLLING STOCK AND MOTIVE POWER – Renewal	ROLLING STOCK AND MOTIVE POWER – Total	WAY AND WORKS – Headquarter Offices	WAY AND WORKS – Regional Offices	WAY AND WORKS – Total	WAY AND WORKS – Maintenance and supervision of way	WAY AND WORKS – Renewal	WAY AND WORKS – Total	Total	OTHER OPERATIONS – Road transport services	OTHER OPERATIONS – Shipping services	OTHER OPERATIONS – Various	New works, reconstruction	Total staff belonging to the Railway	Amount for – Headquarter Offices	Amount for – Regional Offices	Division of staff – Permanent Staff	Division of staff – Temporary Staff	Division of staff – Contractual Staff	Staff supplied by private firms	Total strength	Percentage of unavailability of Railway's staff due to sickness and injury
1981	DB	793	13851	14644	990	8291	9281	103745	13840	126866	1858	2582	4440	26804	19991	36057	82852	6943	94235	615	6352	6967	68130	3518	78615	314360	10028	483			324871	4256	31076	324811		60		324871	8,41
1981	DR	2003	11762	13765	193	5093	5286	72651	4458	82395	284	574	858	17040	34584	36407	88031		88889	320	935	1255	27561	21034	49850	234899		639	2198		237736	2800	18364	234537	3199			237736	5,53
1981	DSB	882		882	288	82	370	6875	1140	8385	118	175	293	2069	2507	891	5467		5760	956	1003	1959	2028		3987	19014	1329	2247	136		22726	2244	1260	20959	1744	23	181	22907	19,5
1981	FS	3416	5030	8446	958	2983	3941	67598	20351	91890	836	2051	2887	28855	10225	25786	64866		67753	1459	5175	6634	44748		51382	219471		2129	2936		224536	6669	15239	220673		3863	20317	244853	6,01
1981	JZ																																						
1981	MAV																																						
1981	NS	2287		2287	605	95	700	8718	2180	11598	273	7	280	3801	2241	2212	8254		8534	1161	509	1670	3694		5364	27783					27783	4326	611	26562	1221			27783	8,7
1981	NSB	914	707	1621				4656	882	5538				1906	2033	1437	5376		5376				3398		3398	15933	1204			716	17853	914	707	17169	684				5,33
1981	OBB	2578	649	3227	336	606	942	23695	5163	29800	123	93	216	5114	6934	7647	19695		19911	177	273	450	16151		16601	69539	2806	74	358		72777	3214	1621	52924	18080	1773	2409	75186	5,2
1981	PKP			12847					26220					40849		42657	83506														372232							372232	4,97
1981	RENFE	3466	3742	7208	445	693	1138	17515	2646	21299	307	135	442	9729	3977	8798	22504		22946	848	368	1216	15302		16518	67971	197		2771	848	71787	5066	4938	71610	83	94		71787	4,59
1981	SJ	2085	1333	3418				13339	1220	14559				4090	2842	3426	10358		10358				4739		4739	33074	2669	211	333	1712	37999	2085	1333	37178	812	9		37999	7,75
1981	SNCB	1551	892	2443	831	400	1231	19129	2996	23356	792	91	883	7319	4775	7805	19899	748	21530	429	343	772	9220	5447	15439	62768			1821	2944	67533	3603	1726	63392	4141			67533	4,63
1981	SNCF	14625	5722	20347	3654	5470	9124	80817	10513	100454	1231	776	2007	25280	26464	12559	64303		66310	1789	4640	6429	41058	4329	51816	238927		212	209	9149	248497	21299	16608					248497	2,96
1981	VR	1083		1083		380	380	8130	2682	11192				3512	2109	3061	8682		8682		330	330	3515		3845	24802	183		491	3229	28705	1083	710	17328	1597	9780	641	29346	3,75
1981	TCDD																															47691			41818	5873			47691	
1982	BDZ																															73200							73200	
1982	BR	5079	5760	10839						61369				23728	33185	22293	79206		79206						43868	195282		9712	15376		220370								
1982	CFF	1909	209	2118		545	545	17723	3204	21472		388	388	5166	2760	692	8618		9006		1057	1057	3903		4960	37556		27	237	1393	39213	1909	2199	36619	2594		986	40199	4,56
1982	CFL	253		253	61		61	1241	138	1440	36		36	322	455	345	1122	2	1160	81		81	759	38	878	3731	208		36	56	4031	431		3837	191	3	31	4062	3,25
1982	CFR																																						
1982	CH	749	807	1556	24	1413	1437	870	672	2979	6	304	310	814	2061	103	2978		3288	111	184	295	4762		5057	12880	238				13118	890	2708	10466		2652		13118	
1982	CIE	237	120	357	78	39	117	2642		2759	174	5	179	528	1210	331	2069		2248	81	30	111	1769		1880	7244	9846	12	707		17809	570	194	15658	2151			17809	
1982	CP	1826	272	2098	266	338	604	5636	1630	7870	78	320	398	1635	4684	293	6612		7010	260	242	502	4903	865	6270	23248	64	192			23504	2430	1172	23504				23504	6,24
1982	CSD																															207307							207307	
1982	DB	830	14040	14870	983	8125	9108	99869	13285	122262	1848	2500	4348	26432	19176	35381	80989	6680	92017	616	6362	6978	67584	3173	77735	306884	10120	471			317475	4277	31027	317425		50		317475	8,40
1982	DR	2115	11700	13815	189	5064	5253	73668	4548	83469	456	577	1033	17212	34741	37408	89361		90394	319	984	1303	28529	21261	51093	238771		645	2227		241643	3079	18325	238440	3203			241643	5,38
1982	DSB	911		911	299	85	384	6759	1214	8357	167	177	344	2103	2226	933	5262		5606	981	971	1952	2037		3989	18863	1544	2289	136		22832	2358	1233	21139	1671	22	178	23010	19,30
1982	FS	2973	4428	7401	941	3088	4029	72083	20871	96983	804	2081	2885	29801	9918	25170	64889		67774	1393	4980	6373	39126		45499	217657		2469	3560		223686	6111	14577	220521		3165	19759	243445	4,52
1982	JZ																															145392							145392	
1982	MAV																															131095							131095	
1982	NS	2163		2163	666		666	8570	2156	11392	304		304	3798	2247	2255	8300		8604	1218	415	1633	3834		5467	27626					27626	4351	415	26443	1183			27626	8,60
1982	NSB	902	702	1604				4529	890	5419				1885	2009	1417	5311		5311				3342		3342	15676	1212			651	17539	902	702	16959	580				5,17
1982	OBB	2602	644	3246	337	602	939	23638	5178	29755	123	93	216	5290	6938	7488	19716		19932	176	276	452	16226		16678	69611	2836	68	352		72867	3238	1615	52902	18191	1774	2667	75534	5,01
1982	PKP			15822					25686					38370		43051	81421														364591							364591	5,23
1982	RENFE	3759	3957	7716	426	670	1096	18759	2500	22355	290	139	429	10480	4243	8500	23223		23652	893	447	1340	14734		16074	69797	131		2748	822	73498	5368	5213	73455		43		73498	3,81
1982	SJ	2250	1380	3630				12116	1424	13540				4166	2449	3765	10381		10381				5186		5186	32737	2955	242	320	1952	38206	2250	1380	37433	765	8		38206	7,47
1982	SNCB	1564	925	2489	902	403	1305	19028	2983	23316	821	94	915	7073	4868	7963	19904		20819	712	568	1280	9736		11016	57640			1650	7056	66346	3999	1990	62439	3907			66346	4,57
1982	SNCF	16815	6274	23089	3633	5270	8903	82209	10952	102064	1206	758	1964	25365	26582	12530	64477		66441	1808	4672	6480	40800	4417	51697	243291		209	209	8712	252421	23462	16974					252421	2,77
1982	VR	1077		1077		377	377	7998	2809	11184				3514	2109	3053	8676		8676		312	312	3346		3658	24595	200		461	3204	28460	1077	689	17338	1573	9549	671	29131	3,86
1982	TCDD																															52348			41075	11273			52348	
1983	BDZ																															73200							73200	
1983	BR	4706	4883	9589						58711				22404	29417	21005	72826		72826						43405	184531		9419	13147		207097								
1983	CFF	1903	213	2116		502	502	17945	3269	21716		146	146	4768	3120	1201	9089		9235		723	723	4925		5648	38715		55	185	144	39099	1903	1584	36062	3037			39099	4,70
1983	CFL	265		265	62		62	1143	138	1343	38		38	343	421	362	1126		1164	90		90	731	42	863	3635	198		36	59	3928	454		3752	172	4	8	3936	3,62
1983	CFR																																						
1983	CH	549	597	1146	21	1363	1384	840	649	2873	6	171	177	1139	2608	71	3818		3995	78	134	212	4562		4774	12788	238				13026	654	2265	10476		2550		13026	
1983	CIE	251	106	357	77	36	113	2534		2647	163		163	519	1196	342	2057		2220	83	29	112	1688		1780	7004	9695	14	217		16930	574	171	15000	1930			16930	
1983	CP	1830	261	2091	287	368	655	5307	1640	7602	73	323	396	1638	4693	304	6635		7031	269	312	581	4876	909	6366	23090	70	200			23360	2459	1264	23360				23360	6,42
1983	CSD																															207611							207611	
1983	DB	866	14118	14984	1016	7643	8659	94948	12767	116374	1815	2523	4338	25044	17624	33422	76090	6081	86509	607	6349	6956	67425	3405	77786	295653	11123	470			307246	4304	30633	307210		36		307246	8,40
1983	DR	2199	11616	13815	195	5016	5211	75071	4649	84931	460	576	1036	17460	34985	38563	91008		92044	318	976	1294	29581	21452	52327	243117		630	2269		246016	3172	18184	243025	2991			246016	5,35
1983	DSB	790		790	329	86	415	6728	1191	8334	162	198	360	1086	2415	1021	5522		5882	953	966	1919	1923		3842	18848	1374	2222	97		22541	2234	1250	21253	1266	22	173	22714	20,10
1983	FS	3130	4687	7817	954	2859	3813	74432	21270	99515	893	2136	3029	29501	10120	25545	65116		68195	1458	5786	7244	37043		44287	219814		2198	1927		223939	6435	15468	221472		2467	15002	238941	4,60
1983	JZ																															150419							150419	
1983	MAV																															132229							132229	
1983	NS	2117		2117	678		678	8288	2149	11115	343		343	3664	2199	2278	8141		8484	1244	425	1669	3851		5520	27236					27236	4382	425	26108	1128			27236	8,90
1983	NSB	895	704	1599				4326	839	5165				1823	1922	1373	5118		5118				3221		3221	15103	1189			677	16969	895	704	16472	497				5,39
1983	OBB	2609	641	3250	322	612	934	23287	4977	29198	123	91	214	5305	6898	7391	19594		19808	175	278	453	16244		16697	68953	2849	67	345		72214	3229	1622	52189	18298	1727	2668	74882	5,28
1983	PKP			14243					24344					39021		43251	82272														369235						8145	377380	5,08
1983	RENFE	4010	3674	7684	400	681	1081	19791	2433	23305	283	137	420	10808	4501	8652	23961		24381	948	483	1431	14626		16057	71427	128		2955	812	75322	5641	4975	75250		72		75322	3,70
1983	SJ	2179	1350	3529				12741	1392	14133				4046	5557		9603		9603				5248		5248	32513	3054	242	334	1442	37585	2179	1350	36838	739	8		37585	7,73
1983	SNCB	1529	906	2435	943	448	1391	18169	2901	22461	814	92	906	6916	4974	7522	19412		20318	677	534	1211	9014		10225	55439			1600	6621	63660	3963	1980	60424	3236			63660	4,71
1983	SNCF	16562	6232	22794	3644	5384	9028	82869	11367	103264	1203	706	1909	25189	26570	12397	64156		66065	1765	4706	6471	40464	4041	50976	243099		226	211	8664	252200	23174	17028					252200	2,87
1983	VR	1059		1059		363	363	7755	2669	10787				3560	2070	2984	8614		8614		295	295	3163		3458	23918	244		626	3064	27852	1059	658	17184	1481	9187	450	28302	4,27
1983	TCDD	3645	3777	7422			12255			12255	135	12763	12898						12763			18481			18481	50921					50921			42840	8081			50921	
1984	BDZ																															73200							73200	
1984	BR	5019	3913	8932						55648				21335	26145	19700	67180		67180						42171	173931		4343	11772		190046								
1984	CFF	1844	212	2056		504	504	17321	3265	21090		145	145	4684	3062	1190	8936		9081		700	700	4736		5436	37663		52	185	259	38159	1844	1561	35660	2499			38159	4,87
1984	CFL	260		260	55		55	1118	133	1306	38		38	334	411	348	1093		1131	89		89	684	58	831	3528	201		36	62	3827	442		3661	162	4	11	3838	3,64
1984	CFR																																						
1984	CH	549	654	1203	21	1363	1384	840	649	2873	6	171	177	1139	2608	71	3818		3995	78	134	212	4562		4774	12845	571				13416	654	2322	10342		3074		13416	
1984	CIE	236	114	350	78	34	112	2425		2537	177		177	489	1157	345	1991		2168	75	26	101	1604		1705	6760	9325	14	186		16285	566	174	14417	1868			16285	
1984	CP	1828	235	2063	210	405	615	5048	1702	7365	69	360	429	1626	4409	265	6300		6729	217	258	475	4500	991	5966	22123	68	197			22388	2324	1258	22388				22388	5,92
1984	CSD																															210383							210383	
1984	DB	902	13514	14416	1045	6979	8024	96242	12367	116633	1767	2444	4211	23898	20817	42683	87398		91609	553	6206	6759	54516		61275	283933	11145	476			295554	4267	29143	295524		30		295554	8,80
1984	DR	2372	11850	14222	198	5039	5237	74901	4724	84862	454	520	974	17523	34991	39124	91638		92612	323	831	1154	29949	21542	52645	244341		594	2326		247261	3347	18240	244557	2704			247261	5,04
1984	DSB	745		745	326	83	409	6976	1228	8613	153	187	340	1970	2190	927	5087		5427	796	952	1748	1876		3624	18409	1362	2279	8		22058	2020	1222	20718	1318	22		22058	6,11
1984	FS	4119	4886	9005	932	2640	3572	72864	20911	97347	881	2413	3294	28239	12177	22703	63119		66413	1380	5914	7294	36077		43371	216136		2664	1793		220593	7312	15853	218493		2100	14781	235374	3,70
1984	JZ																															150810							150810	
1984	MAV																															131923							131923	
1984	NS	2035		2035	683		683	8117	2138	10938	356		356	3429	2161	2312	7902		8258	1251	419	1670	3749		5419	26650					26650	4325	419	25492	1158			26650	9,30
1984	NSB	872	688	1560				4098	798	4896				1755	2375	893	5023		5023				3106		3106	14585	1166			689	16440	872	688	15977	463				4,68
1984	OBB	2598	625	3223	303	616	919	23043	4677	28639	122	93	215	5269	6762	7320	19351		19566	175	276	451	16153		16604	68032	2851	68	340		71291	3198	1610	52021	17673	1597	2396	73687	5,19
1984	PKP			14674					24380					39205		43001	82206														374315						7537	381852	5,03
1984	RENFE																										163			796	72076			71944		132		72076	3,32
1984	SJ	2146	1418	3564				12844	1395	14239				3980	5318		9298		9298				4758		4758	31859	3200	242	329	1549	37179	2146	1418	36324	848	7		37179	8,00
1984	SNCB	1352	817	2169	833	477	1310	16963	2811	21084	714	84	798	6728	4805	7176	18709		19507	577	465	1042	8463		9505	52265			1821	6847	60933	3476	1843	58027	2906			60933	4,86
1984	SNCF	15550	5991	21541	3635	5463	9098	82032	11507	102637	1197	679	1876	24509	26352	12247	63108		64984	1747	4642	6389	41318	2819	50526	239688		308	204	8149	248349	22129	16775					248349	2,88
1984	VR	1037		1037		357	357	7426	2643	10426				3510	1928	2979	8417		8417		324	324	3089		3413	23293	247		658	2855	27053	1037	681	16935	1432	8686	404	27457	4,29
1984	TCDD	3809	3679	7488			9694		81	9775	139	8943	9082						13176			17686			17686	48125					48125			42612	5513			48125	

A1.2.8 Train -Kilometres

			TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
YEAR	Railway	rail gauge	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1977	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	BR	N					71875	84882	16946	173703	26974	14844	905	42723	98333	1183	1278	100794	126879	685	1315	128879	324060	101594	20444	446099
1977	CFF	N	0			0	6	148	16	170	43628	28517	562	72707	71		0	71	19219	150	253	19622	62924	28815	831	92570
1977		E									73	13	0	86					927	141	3	1071	1000	154	3	1157
1977		total																								
1977	CFL	N					517	821	9	1347	638	533	0	1171	874			874	780	12		792	2809	1366	9	4184
1977	CFR	L																								
1977		N																								
1977		E																								
1977		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	N					4494	3247	238	7979					3652		1	3653					8146	3247	239	11632
1977		E					1603	638	33	2274					3470		4	3474					5073	638	37	5748
1977		TOTAL																								
1977	CIE	L					6754	3968	347	11069													6754	3968	347	11069
1977	CP	L	3	0	1	4	8910	3910	682	13502	3045	1879	217	5141	3986	27	145	4158	5551	23	204	5778	21495	5839	1249	28583
1977		E	550	105	16	671	528	28	16	572					2274	0	51	2325					3352	133	83	3568
1977		TOTAL																								
1977	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	132976	122967	355	256298
1977	DB	N.E.	8	326	13	347	81255	44140	1916	127311	204950	140567	2239	347756	44403	21	652	45076	48872	5	324	49201	379488	185059	5144	569691
1977	DR	N	7437	18843	220	26500	97327	82272	1516	181115	22440	18280	156	40876	9963		257	10220	23892		36	23928	161059	119395	2185	282639
1977		E	980	412	2	1394	2	3		5													982	415	2	1399
1977		TOTAL																								
1977	DSB	N					21172	7271	18	28461					7645	46	13	7704	8296		3	8299	37113	7317	34	44464
1977	FS	N	38	81	32	151	18084	5339	754	24177	177865	52715	8361	178941	52880		2160	55040	33230		1930	35160	222097	58135	13237	293469
1977		E		31	6	37									467		1	468					467	31	7	505
1977		TOTAL																								
1977	JZ	N	3317	4151		7468	15283	19463		34746	16712	27362		44074	33801			33801	4761			4761	73874	50976		124850
1977		E	1	153		154	362	296		658					1591			1591					1954	449		2403
1977		TOTAL																								
1977	MAV	N	10964	4861	217	16042	20462	20808	468	41738	18827	19051	1	37879	11065	16		11081					61318	44736	686	106740
1977		E					1228	221	0	1449													1228	221	0	1449
1977		total																								
1977	NS	N					345	4353		4698	13166	6333		19499	15713			15713	64944	2985		67929	94168	13671		107839
1977	NSB	N					2176	2409	723	5308	7560	8634	308	16502	2649		20	2669	10727	20	39	10786	23112	11063	1090	35265
1977	OBB	N	1	20	2	23	7668	4562	309	12539	30838	30036	513	61387	7082	25	502	7609	10150	2	192	10344	55739	34645	1518	91902
1977		E	170	96	9	275	890	199	10	1099	417	120	20	557	18	1	1	20					1495	416	40	1951
1977		TOTAL																								
1977	PKP	N	40305	45131	3209	88645	46791	69051	6435	122277	38921	102341	1545	142807	15351	145	1990	17486	45992		3955	49947	187360	216668	17134	421162
1977		E	930	2200	7	3137	1345	1999	23	3367					1482	18	5	1505					3757	4217	35	8009
1977		Total																								
1977	RENFE	L					19586	18979	1486	40051	14912	25270	2083	42265	21358		2	21360	35292		1	35293	91148	44249	3572	138969
1977		E																	79			79	79			79
1977		TOTAL																								
1977	SJ	N					397	4884	66	5347	36282	35945	199	72426	9424	22	88	9534	11913	27	48	11988	58016	40878	401	99295
1977		E						21		21					514			514					514	21		535
1977		TOTAL																								
1977	SNCB	N					20903	13332	1430	35665	11700	7576	71	19347	5464		148	5612	28564		162	28726	66631	20908	1811	89350
1977	SNCF	N					34921	59166	2953	97040	126345	148628	729	275702	76293		1023	77316	41534	39	634	42207	279093	207833	5339	492265
1977		E																	466	0	0	474	466	0	8	474
1977		TOTAL																								
1977	VR	L					8482	14535	159	23176	2736	1659		4395	10444	138		10582	4409			4409	26071	16332	159	42562
1977	TCDD	N	2857	6713	405	9975	8263	12703	61	21027	1756	83	1	1840	3927		4	3931	1985		0	1985	18788	19499	471	38758
1978	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	BR	N							60	60	3480	1027	124	4631					1730		15	1745	5210	1027	199	6436
1978	CFF	N	0			0	4	153	12	169	43394	28303	526	72223	61		0	61	20211	66	310	20587	63670	28522	848	93040
1978		E									71	16	0	87					946	137	11	1094	1017	153	11	1181
1978		total																								
1978	CFL	N					542	898	15	1455	689	588	1	1278	810			810	793	12		805	2834	1498	16	4348
1978	CFR	L																								
1978		N																								
1978		E																								
1978		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

A1.2.8 Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
			Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1978	CH	N					4360	2931	159	7450					4097		2	4099					8457	2931	161	11549
1978		E					1586	543	92	2161					3237		3	3240					4823	543	45	5411
1978		TOTAL																								
1978	CIE	L					8323	4676	424	13423													8323	4676	424	13423
1978	CP	L	0			0	9087	3609	671	13367	2819	2047	195	5061	3426	1	137	3564	6424		126	6550	21756	5657	1129	28542
1978		E	185	117	19	321	658	129	14	801					2575	33	30	2638					3418	279	63	3760
1978		TOTAL																								
1978	CSD	L.N.E.	621	4804	12	5437	41225	55504	134	96863	28173	61635	49	89857	52797	256	139	53201	9366	.	.	9366	132182	122208	334	254794
1978	DB	N.E.					81715	43359	1986	127060	207550	149692	2376	359618	40954	22	596	41572	51633		411	52044	381852	193070	5369	580294
1978	DR	N	5657	16290	145	22092	99061	84165	1572	184798	22773	18416	192	41381	9707		245	9952	24339		60	24399	161537	118871	2214	282622
1978		E	986	381	3	1370	1	3	0	4													987	384	3	1364
1978		TOTAL																								
1978	DSB	N					21991	7056	12	29059					6978	53	10	7041	8578		2	8580	37547	7109	24	44689
1978	FS	N	31	22	11	64	18010	5389	798	24197	120273	51080	8421	179774	52415		2323	54738	34332		1881	36213	225061	56491	13434	294986
1978		E		29	4	33									374		6	380					374	29	10	412
1978		TOTAL																								
1978	JZ	N	2735	3818	3818	6553	13473	20028		33501	17493	28293		45786	31383			31383	6983			6983	72067	52139		124206
1978		E																								
1978		TOTAL																								
1978	MAV	N	10597	4566	161	15324	20644	21048	494	42186	18980	19376	5	38361	11229	17	2	11248					61450	45007	662	107119
1978		E					1089	180	4	1273													1089	180	4	1273
1978		total																								
1978	NS	N					336	4233	4233	4569	12901	6505	6505	19406	15461			15461	65390	2964		68354	94088	13702	13702	107790
1978	NSB	N					2198	2341	831	5370	7777	8769	333	16879	2359		18	2557	10378	20	33	10431	22892	11130	1215	35237
1978	OBB	N	2	3	1	6	7737	4210	208	12155	31917	29873	494	62284	5971	23	442	6436	10757	2	214	10973	56384	34111	1359	91854
1978		E	171	84	10	265	894	201	7	1102	417	100	20	537	18	1	1	20					1500	386	38	1924
1978		TOTAL																								
1978	PKP	N	33335	37177	2703	73215	51483	73325	7186	131994	40652	106599	1621	148872	14862	166	1961	16989	47304		4191	51495	187636	217267	17662	422565
1978		E	769	1854	13	2636	1409	2337	26	3772					1415	13	3	1431					3593	4204	42	7839
1978		Total																								
1978	RENFE	L					20850	17994	858	39702	15589	25552	2060	43201	18514		1	18515	37739		2	37741	92692	43546	2921	139159
1978		E																	89			89	89			89
1978		TOTAL																								
1978	SJ	N					335	4340	89	4764	37770	34765	168	72703	9090	21	79	9190	11440	30	56	11526	58635	39156	392	98183
1978		E						18		18					498		1	499					498	18	1	517
1978		TOTAL																								
1978	SNCB	N					21936	13855	1345	37136	11541	7922	93	19557	6014		139	6153	29578		152	29730	69069	21777	1729	92575
1978	SNCF	N					35956	57862	3187	97005	130164	150834	807	281805	76681		942	77623	39964		434	40398	282765	208696	5370	496831
1978		E																	473		12	485	473		12	485
1978		TOTAL																								
1978	VR	L					7550	13447	116	21113	3856	2304		6160	9701	53		9754	4577			4577	25684	15804	116	41604
1978	TCDD	N	2206	4114	269	6589	10068	13590	102	23760	1821	108	0	1929	3492		0	3492	2116			2116	19703	17812	371	37886
1979	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	BR	N					65442	80330	16240	162012	28323	14322	431	43076	107609	1003	930	109542	129000	648	1241	130889	330374	96303	18842	445519
1979	CFF	N					18	167	84	269	44402	28616	418	73436	45	0	0	45	19690	65	365	20120	64155	28848	867	93870
1979		E					0			0	71	14	0	85					960	133	7	1100	1031	147	7	1185
1979		total																								
1979	CFL	N					540	913	14	1467	716	713	1	1430	819			819	764	12		776	2839	1638	15	4492
1979	CFR	L																								
1979		N																								
1979		E																								
1979		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH	N					4059	2781	197	7037					4278		1	4279					8337	2781	198	11316
1979		E					1598	566	29	2193					3103		3	3106					4701	566	32	5299
1979		TOTAL																								
1979	CIE	L					8728	4917	407	14052													8728	4917	407	14052
1979	CP	L					9549	3680	654	13883	3077	2161	93	5331	3091	5	183	3279	7646		185	7831	23363	5846	1115	30324
1979		E	55	67	13	135	859	190	22	1071					2504	1	30	2535					3418	258	65	3741
1979		TOTAL																								
1979	CSD	L.N.E.	147	2036	2	2185	41937	58034	151	100122	27828	62563	55	90446	52004	234	142	52380	9721			9721	131637	122867	350	254854
1979	DB	N.E.					83522	44569	1949	130040	218373	160717	2257	381347	37801	14	456	38271	52549	1	291	52841	392245	205301	4953	602499
1979	DR	N	3645	14184	146	17975	97812	86006	1615	185433	23627	19515	216	43358	9139		251	9390	24186		24	24210	158409	119705	2252	280366

A1.2.8 Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
			Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1979		E	1002	378	4	1384	1	2	0	3													1003	380	4	1387
1979		TOTAL																								
1979	DSB	N					21700	.		21700					7600	.		7600	9327			9327	38627	6972		45599
1979	FS	N	19	8	6	33	17854	5198	745	23797	123386	51127	8693	183206	51360		2176	53536	33733		1822	35555	226352	56333	13442	296127
1979		E		27	6	33									339		8	347					339	27	14	380
1979		TOTAL																								
1979	JZ	N	2032	2989		5021	14068	21533		35601	19438	30687		49125	27510			27510	7765			7765	69813	55209		125022
1979		E																								
1979		TOTAL																								
1979	MAV	N	7750	3514	101	11365	22731	21923	489	45143	19621	19654	4	39279	11711	26	2	11739					61813	45117	596	107526
1979		E					1071	158	0	1229													1071	158	0	1229
1979		total																								
1979	NS	N					281	4707		4988	12864	6539		19403	15309			15309	65277	2908		68185	93731	14154		107885
1979	NSB	N					2191	2300	888	5379	7872	8965	295	17132	2506	1	20	2527	10243	20	27	10290	22812	11286	1230	35328
1979	OBB	N	3	0	0	3	7989	4457	206	12652	32382	31703	478	64563	5487	20	455	5962	11606	1	274	11881	57467	36181	1413	95061
1979		E	190	97	10	297	890	198	9	1097	415	98	21	534	19	0	1	20					1514	393	41	1948
1979		TOTAL																								
1979	PKP	N	31159	30333	2812	64304	48843	75159	8424	132426	39477	106299	1895	147671	13903	174	1778	15855	46365		4317	50682	179747	211965	19226	410938
1979		E	690	935	374	1999	1403	1749	969	4121					1150	8	2	1160					3243	2692	1345	7280
1979		Total																								
1979	RENFE	L					20550	15849	843	37242	16324	25648	2075	44047	7062		1	17063	38162		2	38164	92098	41497	2921	136516
1979		E																	91			91	91			91
1979		TOTAL																								
1979	SJ	N					371	4137	78	4586	39115	35268	217	74600	8680	25	116	8821	10839	35	212	11086	59005	39465	623	99093
1979		E						14		14					486		0	486					486	14		500
1979		TOTAL																								
1979	SNCB	N					22231	14852	1277	38360	11858	8602	72	20532	5823		125	5948	30871		122	30993	70783	23454	1596	95833
1979	SNCF	N					36806	55134	3238	95178	134022	157933	748	292703	76391		867	77258	39032		605	39637	286251	213607	5458	504776
1979		E																								
1979		TOTAL																								
1979	VR	L					7660	13856	141	21657	4612	3550		8162	8592		1	8593	4719			4719	25583	17406	142	43131
1979	TCDD	N	2220	3677	192	6089	11402	13270	73	24745	1555	84	1	1640	2961		2	2963	2242			2242	20380	17031	268	37679
1980	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30300	27200	.	.
1980	BR	N					64004	72282	16552	152838	28345	13858	636	43439	113822	842	891	115555	135820	700	1396	137916	342591	87682	19475	449748
1980	CFF	N					8	162	168	338	45887	28622	79	74588	60			60	19942	58	116	20116	65897	28842	363	95102
1980		E					0	0	0	0	75	13	1	89					960	135	2	1097	1035	148	3	1186
1980		total																								
1980	CFL	N					570	875	10	1455	716	642	0	1358	765			765	771	11		782	2822	1528	10	4360
1980	CFR	L																								
1980		N																								
1980		E																								
1980		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH	N					4190	2354	177	6721					3733		8	3741					7923	2354	185	10462
1980		E					1700	501	30	2231					2464		5	2469					4164	501	35	4700
1980		TOTAL																								
1980	CIE	L					8467	4966	389	13822													8467	4966	389	13822
1980	CP	L					9175	3930	615	13720	3378	2409	93	5880	3727		200	3927	8672		246	8918	24952	6339	1154	32445
1980		E	11	33	8	52	841	181	19	1041					2414		26	2440					3266	214	53	3533
1980		TOTAL																								
1980	CSD	L.N.E.	29	507		536	42163	57723	143	100029	28752	63648	56	92456	50783	221	144	51148	10011			10011	131738	122099	343	254180
1980	DB	N.E.					84423	42938	1658	129019	227832	161607	2096	391535	34968	8	429	35405	54229	1	328	54558	401452	204554	4511	601517
1980	DR	N	2170	13197	122	15489	99258	86577	1535	187370	25405	21349	252	47006	9187		163	9350	22570		22	22592	158590	121123	2094	281807
1980		E	1006	378	2	1386		0	0	0													1006	378	2	1386
1980		TOTAL																								
1980	DSB	N					18640	8890	.	27530					10680		.	10680	9960		.	9960	39280	8890	.	48170
1980	FS	N	18	2	5	25	17273	5471	977	23721	126083	51961	8389	186433	52044		2079	54123	33450		1907	35357	228868	57434	13357	299659
1980		E		22	4	26									338		5	343					338	22	9	369
1980		TOTAL																								
1980	JZ	N	1702	2537		4239	13976	20564		34540	20563	30742		51305	25597			25597	10723			10723	72561	53843		126404
1980		E																								
1980		TOTAL																								
1980	MAV	N	4103	2564	79	6746	22461	22276	399	45136	21309	20012	1	41322	16103	9	0	16112					63976	44861	479	109316

A1.2.8 Train -Kilometres

			TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
YEAR	Railway	rail gauge	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1980		E					1034	148		1182													1034	148		1182
1980		total																								
1980	NS	N					253	5197		5450	13247	6465		19712	15478			15478	67021	2806		69827	95999	14468		110467
1980	NSB	N					2263	2322	925	5510	8040	9112	280	17432	2435	4	37	2476	10536	20	33	10589	23274	11458	1275	36007
1980	OBB	N	2		0	2	7888	4538	179	12605	32702	32666	417	65785	5430	18	479	5927	12791	3	316	13110	58813	37225	1391	97429
1980		E	149	100	8	257	849	181	10	1040	415	106	22	543	18	1	0	19					1431	388	40	1859
1980		TOTAL																								
1980	PKP	N	32893	24126	2494	59513	48100	74367	9005	131472	43709	110834	2009	156552	13607	186	1853	15646	48817		4502	53319	187126	209513	19863	416502
1980		E	855	662	367	1884	1334	1558	975	3867					1319	5	1	1325					3508	2225	1343	7076
1980		Total																								
1980	RENFE	L					18716	15913	798	35427	17122	26398	2185	45705	16702		1	16703	42055		4	42059	94595	42311	2988	139894
1980		E																	90			90	90			90
1980		TOTAL																								
1980	SJ	N					397	4248	103	4749	39998	35098	185	75280	8632	34	142	8807	10515	32	295	10843	59542	39412	725	99679
1980		E						11		11					487		0	487					487	11		498
1980		TOTAL																								
1980	SNCB	N					20894	14469	1504	36867	12267	8646	81	20994	5725		137	5862	33142		131	33273	72028	23115	1853	96996
1980	SNCF	N					36486	51936	4211	92633	138190	162663	1023	301876	75836		855	76691	39483		1697	41180	289995	214599	7786	512380
1980		E																	482		11	493	482		11	493
1980		TOTAL																								
1980	VR	L					7952	14660	.	22612	4922	4667		9589	7872			7872	4861			4861	25607	19327	.	44934
1980	TCDD	N	2727	2552	232	5511	12682	11334	144	24160	1302	58	5	1365	2186			2186	2632		0	2632	21529	13944	381	35854
1981	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30300	27200	.	.
1981	BR	N					62388	67364	17014	146766	28253	11895	674	40822	114270	607	882	115759	132681	690	937	134308	337592	80556	19507	437655
1981	CFF	N					8	151	299	458	45688	28111	148	73947	52		3	55	20178	56	164	20398	65926	28318	614	94858
1981		E					0	0	1	1	64	17	1	82					983	135	3	1121	1047	152	5	1204
1981		total																								
1981	CFL	N					561	801	5	1367	735	520	0	1255	707			707	890	14		904	2893	1335	5	4233
1981	CFR	L																								
1981		N																								
1981		E																								
1981		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	CH	N					4898	2310	144	7352					3564		1	3565					8462	2310	145	10917
1981		E					1808	411	14	2233					2293		1	2294					4101	411	15	4527
1981		TOTAL																								
1981	CIE	L					8297	5063	395	13755													8297	5063	395	13755
1981	CP	L					9694	4148	610	14452	3743	2545	121	6409	4575		223	4798	8918		220	9138	26930	6693	1174	34797
1981		E	6	34	8	48	877	213	32	1122					2435		24	2459					3318	247	64	3629
1981		TOTAL																								
1981	CSD	L.N.E.	1	53	0	54	41307	55677	157	97141	29324	64016	59	93399	49793	219	108	50120	9981			9981	130406	119965	324	250695
1981	DB	N.E.					82011	39435	1520	122966	229741	159807	1944	391492	31041	9	335	31385	56211	1	300	56512	399004	199252	4099	602355
1981	DR	N	1221	8555	83	9859	97113	85807	1604	184524	27237	22869	271	50377	8967		141	9108	17829		16	17845	152367	117231	2115	271713
1981		E	994	366	3	1363																	994	366	3	1363
1981		TOTAL																								
1981	DSB	N					20040	8800	.	28840					10710		.	10710	9880		.	9880	40630	8880	.	49430
1981	FS	N	8	1	3	12	16762	5075	1062	22899	126264	48772	7652	182688	50707		2116	52823	32809	0	1976	34785	226550	53848	12809	293207
1981		E		19	3	22									296	0	3	299					296	19	6	321
1981		TOTAL																								
1981	JZ	N	1121	1468		2589	13135	21092		34227	22560	31968		54528	27206			27206	10386			10386	74408	54528		128936
1981		E																								
1981		TOTAL																								
1981	MAV	N	2275	2461	0	4736	21047	22096	0	43143	21308	21257	0	42565	21846	66		21912					66476	45880	0	112356
1981		E					698	97	0	795													698	97	0	795
1981		total																								
1981	NS	N					261	5410		5671	14491	6163		20654	15468			15468	68181	2738		70919	98401	14311		112712
1981	NSB	N					2260	2248	958	5466	8181	8686	260	17127	2480	1	12	2493	10733	20	34	10787	23654	10955	1264	35873
1981	OBB	N	3	0	1	4	7942	4367	180	12489	32940	32309	443	65692	5316	17	488	5821	13133	3	377	13513	59334	36696	1489	97519
1981		E	140	56	8	204	811	208	10	1029	422	103	22	547	16	1	0	17					1389	368	40	1797
1981		TOTAL																								
1981	PKP	N	33544	17924	1925	53393	43358	59390	7945	110693	46088	97898	2680	146666	12297	123	1472	13892	49406		4886	54292	184693	175335	18908	378936
1981		E	794	611	477	1882	1228	1236	923	3387					1273	7	2	1282					3295	1854	1402	6551
1981		Total																								

A1.2.8 Train -Kilometres

			TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
YEAR	Railway	rail gauge	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1981	RENFE	L					17933	14865	854	33652	19178	25902	2037	47117	16369		3	16372	46519		4	46523	99999	40767	2898	143664
1981		E																	84			84	84			84
1981		TOTAL																								
1981	SJ	N					389	4094	80	4563	41397	34123	288	75808	8737	40	149	8926	10199	45	296	10540	60722	38302	813	99837
1981		E						17		17					478			478					478	17		495
1981		TOTAL																								
1981	SNCB	N					18756	14108	1586	34450	12925	8233	80	21238	5585		199	5784	37257		171	37428	74523	22341	2036	98900
1981	SNCF	N					35700	48251	4014	87965	139634	156633	1156	297423	74737		842	75579	41618	0	2345	43963	291689	204884	8357	504930
1981		E																	492		11	503	492		11	503
1981		TOTAL																								
1981	VR	L					7843	14303	.	22146	5567	5759		11326	6673			6673	5346			5346	25429	20062	.	45491
1981	TCDD	N	2551	3780	193	6524	13369	14308	63	27740	1340	97	2	1439	2122		0	2122	2879			2879	22261	18185	258	40704
1982	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30300	27200	.	
1982	BR	N					52356	59470	14014	125840	24581	9960	798	35339	105244	531	1010	106785	118431	719	1096	120246	300612	70680	16918	388210
1982	CFF	N					10	164	324	498	52155	27268	175	79598	39	0	2	41	20714	67	190	20971	72918	27499	691	101108
1982		E						0	2	2	69	9	3	81					1070	141	2	1214	1139	150	7	1296
1982		total																								
1982	CFL	N					553	769	4	1326	700	478		1178	677			677	984	20		1004	2914	1267	4	4185
1982	CFR	L																								
1982		N																								
1982		E																								
1982		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	CH	N					5184	2275	151	7610					3828		0	3828					9012	2275	151	11438
1982		E					1922	385	34	2341					2311			2311					4233	385	34	4652
1982		TOTAL																								
1982	CIE	L					7805	4384	386	12575													7805	4384	386	12575
1982	CP	L					9821	4039	590	14450	3768	2433	118	6319	4184		268	4452	9152		179	9331	26925	6472	1155	34552
1982		E	3	30	5	38	769	175	20	964					2379		34	2413					3151	205	59	3415
1982		TOTAL																								
1982	CSD	L.N.E.	1	8	0	9	38737	53419	140	92296	30905	63499	61	94465	51431	156	69	51656	10038			10038	131111	117082	271	248464
1982	DB	N.E.					80861	37253	1404	119518	227740	153253	1720	382713	28252	5	348	28605	58851		216	54067	390704	190511	3688	584903
1982	DR	N	1216	6980	78	8274	93459	82206	1496	177161	30946	26039	291	57276	8602		132	8734	18025		11	18036	152248	115225	2008	269481
1982		E	980	360	2	1342																	980	360	2	1342
1982		TOTAL																								
1982	DSB	N					20570	8800	.	29370					10860		.	10860	9900		.	9900	41330	8800	.	50130
1982	FS	N	1	2	1	4	17045	4965	941	22951	129909	50488	8037	188434	51669		2234	53903	31359		1932	33291	229983	55455	13145	298583
1982		E		1	0	1									244		3	247					244	1	3	248
1982		TOTAL																								
1982	JZ	N	667	1063		1730	13545	21155		34700	23690	33583		57273	26256			26256	10758			10758	74916	55801		130717
1982		E																								
1982		TOTAL																								
1982	MAV	N	1192	1481	0	2673	23418	20764	0	44182	23722	21764	0	45486	21609	62		21671					69941	44071	0	114012
1982		E					727	88		815													727	88		815
1982		total																								
1982	NS	N					264	4367		4631	19562	6557		26119	15711			15711	64755	2697		67451	100292	13621		113913
1982	NSB	N					2234	2383	973	5590	8266	8258	289	16813	2486	1	8	2495	10558	20	38	10616	23544	10662	1308	35514
1982	OBB	N	2		0	2	7887	4154	195	12236	34089	31792	498	66379	5075	27	447	5549	14369	2	439	14810	61422	35975	1579	98976
1982		E	67	38	10	115	822	215	6	1043	427	105	18	550	18	0	0	18					1334	358	34	1726
1982		TOTAL																								
1982	PKP	N	34212	15203	1294	50709	41992	57679	7250	106921	47230	106625	2973	156828	9541	103	1085	10729	51034		4978	56012	184009	179610	17580	381199
1982		E	697	521	447	1665	1026	1242	1023	3291					1227	2	2	1231					2950	1765	1472	6187
1982		Total																								
1982	RENFE	L					16502	14185	930	31617	20945	26714	2143	49802	16840		3	16843	48814		3	48817	103101	40899	3079	147079
1982		E																	90			90	90			90
1982		TOTAL																								
1982	SJ	N					458	4261	107	4826	43323	33810	400	77533	8840	51	183	9074	9769	23	316	10108	62390	38145	1005	101541
1982		E						49		49					492			492					492	49		540
1982		TOTAL																								
1982	SNCB	N					16836	13349	1402	31587	13975	7745	79	21799	4695		123	4818	37868		160	38028	73374	21094	1764	96232
1982	SNCF	N					35938	45617	3612	85167	141221	151075	1334	293630	73948		794	74742	48651		673	49324	299758	196692	6413	502863
1982		E																	501		8	509	501		8	509
1982		TOTAL																								

A1.2.8 Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
			Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1982	VR	L					7747	13547	.	21294	5891	5896		11787	5706			5706	5706			5706	25050	19443	.	44493
1982	TCDD	N	2486	3542	198	6226	12318	13597	112	26027	1383	50	0	1433	1579	0	0	1579	3489			3489	21255	17189	310	38754
1983	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30300	27200	.	.
1983	BR	N					54309	63018	16645	133972	24913	11043	1006	36962	115772	614	833	117219	131118	893	1405	133416	326112	75568	19889	421569
1983	CFF	N					14	147	335	496	57055	26281	186	83522	36		1	37	20992	33	191	21216	78097	26461	713	105271
1983		E							1	1	75	7	3	85					1129	138	2	1269	1204	145	6	1355
1983		total																								
1983	CFL	N					576	712	4	1292	692	443	0	1135	630			630	960	10		970	2858	1165	4	4027
1983	CFR	L																								
1983		N																								
1983		E																								
1983		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	CH	N					5950	2347	144	8441					3321			3321					9271	2347	144	11762
1983		E					1983	419	35	2437					2280		0	2280					4263	419	35	4717
1983		TOTAL																								
1983	CIE	L					7805	4250	314	12369													7805	4250	314	12369
1983	CP	L					9089	4370	587	14046	3606	2225	131	5962	4072		318	4390	8810		137	8947	25577	6595	1173	33345
1983		E	2	27	5	34	693	146	10	849					2342		37	2379					3037	173	52	3262
1983		TOTAL																								
1983	CSD	L.N.E.	0	2	0	2	36367	53376	149	89892	32915	66336	73	99324	53084	134	57	53275	9894	0		9894	132260	119848	279	252387
1983	DB	N.E.					80791	35985	1255	118031	229106	149880	1946	380932	26029	15	293	26337	49440		158	49598	385366	185880	3652	574898
1983	DR	N	1162	6726	72	7960	91343	80954	1418	173715	32449	29449	304	62202	8570		133	8703	18049		14	18063	151573	117129	1941	270643
1983		E	981	369	4	1354																	981	369	4	1354
1983		TOTAL																								
1983	DSB	N					20500	8900	.	29400					10970		.	10970	10140		.	10140	41610	8900	.	50510
1983	FS	N	1	2	1	4	17709	4751	891	23351	132970	49478	7880	190328	51677		2171	53848	30366		1788	32154	232723	54231	12731	299685
1983		E						17	2	19					279		2	281					279	17	4	300
1983		TOTAL																								
1983	JZ	N	557	1124		1681	14174	20775		34949	23884	34308		58192	25167			25167	13673			13673	77455	56207		133662
1983		E																								
1983		TOTAL																								
1983	MAV	N	613	858	20	1491	23869	19497	0	43366	24524	20992	0	45516	20544	55		20599					69550	41402	20	110972
1983		E					720	99		819													720	99		819
1983		total																								
1983	NS	N					178	3834		4012	22568	6434		29002	15125			15125	61667	2611		64278	99538	12879		112417
1983	NSB	N					2204	2391	901	5496	8284	7830	278	16392	2427		7	2434	10122	14	55	10191	23037	10235	1241	34513
1983	OBB	N	3		0	3	7519	3980	204	11703	34776	30766	475	66017	4735	28	450	5213	15230	2	434	15666	62263	34776	1563	98602
1983		E	51	38	10	99	792	201	8	1001	427	102	17	546	19	0	0	19					1289	341	35	1665
1983		TOTAL																								
1983	PKP	N	32400	13400	1145	46945	43034	57439	6622	107095	4961	112144	3051	165156	9526	91	904	10521	54735		5146	59881	189656	183074	16868	389598
1983		E	659	465	397	1521	1061	1316	1164	3541					1141	1	1	1143					2861	1782	1562	6205
1983		Total																								
1983	RENFE	L					14155	13006	1002	28163	20998	28938	2215	52151	19812		19	19831	48036		6	48042	103001	41944	3242	148187
1983		E																106	106			106				
1983		TOTAL																								
1983	SJ	N					533	4303	67	4904	44912	34419	480	79811	8707	19	203	8930	10286	10	380	10675	64438	38751	1130	104320
1983		E						54		54					484			484					484	54		538
1983		TOTAL																								
1983	SNCB	N					15077	12445	1311	28833	13688	7735	85	21508	4292		66	4358	37500		83	37583	70557	20180	1545	92282
1983	SNCF	N					36194	43044	3465	82703	141374	147919	1077	290370	72379		783	73162	56014		803	56817	305961	190963	6128	503052
1983		E																	493		8	501	493		8	501
1983		TOTAL																								
1983	VR	L					7203	12722	.	19925	6859	6252		13111	5069			5069	5682			5682	24813	18974	.	43787
1983	TCDD	N	2296	3177	226	5699	13836	13393	134	27363	1411	191	1	1603	1335	0		1335	3771	0		3771	22649	16761	361	39771
1984	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30300	27200	.	.
1984	BR	N					65848	64831	20967	151646	32589	13360	1062	47011	143444	753	903	145100	162056	1305	1223	164584	403937	80249	24155	508341
1984	CFF	N					12	153	343	508	56972	26481	205	83658	29		0	29	21297	10	171	21478	78310	26644	719	105673
1984		E					0		1	1	84	7	1	92					1121	139	1	1261	1205	146	3	1354
1984		total																								
1984	CFL	N					696	801	7	1504	716	483	0	1199	542			542	930	19		949	2884	1303	7	4194
1984	CFR	L																								
1984		N																								

A1.2.8 Train -Kilometres

			TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
YEAR	Railway	rail gauge	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1984		E																								
1984		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	CH	N					6189	2492	170	8851					3181			3181					9370	2492	170	12032
1984		E					1992	373	13	2378					2307			2307					4299	373	13	4685
1984		TOTAL																								
1984	CIE	L					7421	4211	327	11959									724			724	8145	4211	327	12683
1984	CP	L					9250	4730	654	14634	3855	2456	135	6446	4762		352	5114	9437		160	9597	27304	7186	1301	35791
1984		E	2	24	5	31	596	123	20	739					2379		26	2405					2977	147	51	3175
1984		TOTAL																								
1984	CSD	L.N.E.	0	0		0	35896	52668	135	88669	34348	68243	60	102651	53882	131	66	54079	9741			9741	133867	121042	261	255170
1984	DB	N.E.					81439	36618	1345	119402	230613	160124	1752	392489	23473	19	235	23727	46728		120	46848	382253	196761	3452	582466
1984	DR	N	1244	7407	79	8730	88311	77577	1509	167397	36013	34289	300	70602	8564		157	8721	14851		5	14856	148983	119273	2050	270306
1984		E	1000	349	8	1357																	1000	349	8	1357
1984		TOTAL																								
1984	DSB	N					19150	8800	.	27950					11600		.	11600	10600		.	10600	41350	8800	.	50150
1984	FS	N	2	1		3	17955	4975	864	23794	135158	51737	8286	195181	50897		2054	52951	30554		1822	32376	234566	56713	13026	304305
1984		E						15	2	17					332		4	336					332	15	6	353
1984		TOTAL																								
1984	JZ	N	407	970		1377	14304	20575		34879	24098	34961		59059	26023			26023	14760			14760	79592	56506		136098
1984		E																								
1984		TOTAL																								
1984	MAV	N	122	506	262	890	23440	19265	1	42706	26381	21771	34	48186	20866	712	1	21579					70809	42254	298	113361
1984		E					727	100		827													727	100		827
1984		total																								
1984	NS	N					121	3369	.	3490	22256	6734	.	28990	14987			14987	64097	2684		66781	101461	12787	.	114248
1984	NSB	N					2200	2426	839	5465	8663	7649	301	16613	2393	1	24	2418	9496	24	65	9585	22752	10100	1229	34081
1984	OBB	N	4	1	0	5	7365	4039	212	11616	34551	31745	484	66780	4597	28	404	5029	16027	3	437	16467	62544	35816	1537	99897
1984		E	47	28	9	84	795	202	12	1009	421	100	14	535	17	0	1	18					1280	330	36	1646
1984		TOTAL																								
1984	PKP	N	28575	12069	1054	41698	44301	56329	6549	107179	52491	121109	3095	176695	9166	64	775	10005	58743		5092	63835	193276	189571	16565	399412
1984		E	518	401	218	1137	1273	1283	1285	3841					962		1	963					2753	1684	1504	5941
1984		Total																								
1984	RENFE	L					11271	11816	611	23698	21911	34790	2367	59068	22042		46	22088	48803		10	48813	104027	46606	3034	153667
1984		E																	105			105	105			105
1984		TOTAL																								
1984	SJ	N					545	4483	102	5130	45577	36031	591	82199	8451	6	185	8642	10408	3	456	10867	64981	40523	1334	106838
1984		E						43		43					307		0	307					307	43	0	350
1984		TOTAL																								
1984	SNCB	N					14980	12116	715	27811	13642	9621	151	23414	3000		80	3080	40939		126	41065	72561	21737	1072	95370
1984	SNCF	N					34105	38737	3309	76151	139518	145040	1091	285649	69718		727	70445	63089		916	64005	306430	183777	6043	496250
1984		E																	468		9	477	468		9	477
1984		TOTAL																								
1984	VR	L					6645	11784	4	18433	7896	7113		15009	4203			4203	5681			5681	24425	18897	4	43326
1984	TCDD	N	2106	2712	285	5103	15816	16378	261	32455	1206	305	1	1512	1301	0		1301	4552	0		4552	24980	19395	547	44922

A.1.2.9. Train Gross Tonne -Kilometres Hauled

YEAR	Railway	railgauge	TRAIN GROSS TONNE-KILOMETRES HAULED BY TYPE OF TRACTION (IN THOUSANDS OF TONNE-KILOMETRES) Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
			Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1977	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	BR	N					31401300	50193600	13896000	95490900	12854400	8058100	716300	21628800	11926600	72100	191900	12189800	33307300	41800	280800	33629900	89489600	58365600	15084200	162939400
1977	CFF	N	0			0	800	33900	2400	37100	13610700	16789400	87900	30488000	9000		100	9100	3380200	28500	34600	3443300	17000700	16851800	125000	33977500
1977		E									6300	900	0	7200					84300	17100	300	101700	90600	18000	300	108900
1977		total																								
1977	CFL	N					97412	681769	1871	781052	151867	497785	5	649657	77109			77109	116268	734		117002	442656	1180288	1876	1624820
1977	CFR	L																								
1977		N																								
1977		E																								
1977		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	N					1465481	1927261	58684	3451426					468988		106	469094					1934469	1927261	58790	3920520
1977		E					253233	176160	4358	433751					281763		333	282096					534996	176160	4691	715847
1977		TOTAL																								
1977	CIE	L					.	.	.	.													.	.	.	.
1977	CP	L	606	82	74	762	2003910	1411323	105011	3520244	1123920	839774	88532	2052226	432475	1968	12219	446662	1504307	3773	40996	1549076	5065218	2256920	246832	7568970
1977		E	48215	12939	965	62119	53746	3205	1057	58008					145876	182	3822	149880					247837	16326	5844	270007
1977		TOTAL																								
1977	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	DB	N.E.	3181	504736	5711	513628	14694941	24983446	460111	40138498	58764108	123050514	927503	182742125	3990308	1142	30738	4022188	8767571	897	46487	8814955	86220109	148540735	1470550	236231394
1977	DR	N	2087092	16804050	77326	18968468	24082216	77860745	412226	102355187	6297861	18912030	42694	25252585	745232		11163	756395	5424913		6595	5431508	38637314	113576825	550004	152764143
1977		E	94088	45653	107	139848	234	358	12	604													94322	46011	119	140452
1977		TOTAL																								
1977	DSB	N					4235741	4484516		8720257					1094128	12627		1106755	.		.	1943440	.	.	.	11770452
1977	FS	N	7586	17297	4686	29569	4352354	2253341	187679	6793374	51210798	37810883	4027064	90048745	3973943		117756	4091699	5910197		246508	6156705	65454878	40081521	4583693	110120092
1977		E	2	2186	290	2478									19763		43	19806					19765	2186	333	22284
1977		TOTAL																								
1977	JZ	N	515982	2591286		3107268	4786089	16917300		21703389	7596636	25156192		32752828	2018822			2018822	1086714			1086714	16004243	44664778		60669021
1977		E	127	30190		30317	41360	45943		87303					39858			39858					81345	76133		157478
1977		TOTAL																								
1977	MAV	N	2320391	2839186	64226	5223803	6580827	21607247	189631	28377705	7674365	25301814	1081	32977260	1615609	3567		1619176					18191192	49751814	254938	68197944
1977		E					104178	24084		128982													104178	24804		128982
1977		total																								
1977	NS	N					69349	2183765		2253114	3762573	5032447		8795020	1720915			1720915	11380533	288274		11668807	16933370	7504486		24437856
1977	NSB	N					.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	OBB	N	300	6451	106	6857	986890	1919418	47920	2954228	8164912	20398428	114472	28677812	616601	2382	28174	647157	2389997	375	33562	2423934	12158700	22327054	224234	34709988
1977		E	5829	7685	190	13704	39937	15630	496	56063	32934	11044	1363	45341	607	26	4	637					79307	34385	2053	115745
1977		TOTAL																								
1977	PKP	N	8664095	38067515	914565	47646175	13837876	83859656	1431324	99128856	15887363	150574086	535325	166996774	2695663	39447	145281	2880391	15427957		872674	16300631	56512954	272540704	3899169	332952827
1977		E	90467	188754		279221	77411	364689		442100					46597	232		46829					214475	553675		768150
1977		Total																								
1977	RENFE	L					6021018	10909835	511335	17442188	6908534	15795296	760289	23464119	2709966		110	2710076	7183217		300	7183517	22822735	26705131	1272034	50799900
1977		E																	5936			5936	5936			5936
1977		TOTAL																								
1977	SJ	N					71581	1838161	28082	1937824	10346895	28108534	90236	38545665	365726	492	2103	368321	1426649	2208	4483	1433340	12210851	29949395	124904	42285150
1977		E						2299		2299					7915			7915					7915	2299		10124
1977		TOTAL																								
1977	SNCB	N					4394577	10441667	66391	14902635	4384679	6139676	12078	10536433	344815		6277	351092	7267338		36111	7303449	16391409	16581343	120857	33093609
1977	SNCF	N					14178837	36139827	646341	50965005	63175452	126863434	342308	190381194	8837657	87	74702	8912446	9895667	21607	87716	10004990	96087613	163024955	1151067	260263635
1977		E																	33401	2	710	34113	33401	2	710	34113
1977		TOTAL																								
1977	VR	L					2743000	12898300	61700	15703000	1102500	1766700		2869200	312400	5400		317800	246600			246600	4404500	14670400	61700	19136600
1977	TCDD	N	911649	3703050	91713	4706412	3887291	10339835	14278	14241404	526504	47058	311	573873	400768		488	401256	575589		1	575590	6301801	14089943	106791	20498535
1978	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.												
1978	BR	N					30586300	46065500	14202400	90854200	12866600	7402500	407900	20677000	13393500	67600	81800	13542900	34467700	44000	346000	34857700	91314100	53579600	15038100	159931800
1978	CFF	N	0			0	500	42100	2000	44600	13318500	16888700	80200	30287400	7200		0	7200	3519500	11100	41400	3572000	16845700	16941900	123600	33911200
1978		E									6000	1100	0	7100					85600	17900	1100	104600	91600	19000	1100	111700
1978		total																								
1978	CFL	N					103231	797053	4292	904576	160357	572326	768	733451	76714			76714	118452	768		119220	458754	1370147	5060	1833961
1978	CFR	L																								
1978		N																								
1978		E																								
1978		total	.	.	.	.	.	.	.	.	.	.	.	.												
1978	CH	N					1428977	1864825	34051	3327853					513775		138	513913					1942752	1864825	34189	3841766
1978		E					252319	151571	5802	409692					277350		122	277472					529669	151571	5924	687164
1978		TOTAL																								

A.1.2.9. Train Gross Tonne -Kilometres Hauled

YEAR	Railway	railgauge	TRAIN GROSS TONNE-KILOMETRES HAULED BY TYPE OF TRACTION (IN THOUSANDS OF TONNE-KILOMETRES)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
			Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1978	CIE	L					.	.	.	.													.	.	.	.
1978	CP	L	121		7	128	1994529	1278496	117570	3390595	1074098	934258	86471	2094827	368781	208	11780	380769	1693025		28192	1721217	5130554	2212962	244020	7587536
1978		E	13239	13562	1176	27977	61675	13553	876	76104					201532	15716	2593	219841					276446	42831	4645	323922
1978		TOTAL																								
1978	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.												
1978	DB	N.E.					14500849	24286317	493361	39280527	60324801	128490744	1081006	189896551	3713177	1031	29699	3743907	9425895	10	59999	9485904	87964722	152778102	1664065	242406889
1978	DR	N	1524208	14642827	49147	16216182	24927721	80187547	415211	105530479	6502228	19342612	58402	25903242	601614		10604	612218	5563211		5433	5568644	39118982	114172986	538797	153830765
1978		E	92164	43075	126	135365	144	271	18	433													92308	43346	144	135798
1978		TOTAL																								
1978	DSB	N					4283655	4193123	4193123	8476778					966345	10877	10877	977222	.		.	2016000	.	.	.	11470000
1978	FS	N	7316	6577	2105	15998	4801329	2537028	227757	7566114	53419333	37268049	4128730	94816112	4648497		145210	4793707	6260514		251396	6511910	69136989	39811654	4755198	113703841
1978		E	8	3431	345	3784									22771		195	22966					22779	3431	540	26750
1978		TOTAL																								
1978	JZ	N	401973	2454916	2454916	2856889	2989026	17305778		21294804	7638619	26786804		34425423	1904762			1904762	1519652			1519652	15454032	46547498		62001530
1978		E																								
1978		TOTAL																								
1978	MAV	N	2179405	2685594	50581	4915580	6662646	21826206	206467	28695319	7776512	26075852	4806	33857170	1621684	3663		1625347					18240247	50591315	261854	69093416
1978		E					94051	21077	21077	115128													94051	21077	21077	115128
1978		total																								
1978	NS	N					67644	2076561	2076561	2144205	3740971	5389814	5389814	9130785	1633246			1633246	11083574	276817		11360391	16525435	7743192	7743192	24168627
1978	NSB	N						.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	OBB	N	256	852	188	1296	960090	1658951	22864	2641905	8469931	19845284	110688	28425903	520480	1929	25555	547964	2617686	439	35988	2654113	12568443	21507455	195283	34271181
1978		E	6103	6657	176	12936	39138	15209	344	54691	33268	10290	1405	44963	608	15	19	642					79117	32171	1944	113232
1978		TOTAL																								
1978	PKP	N	6831785	29725958	708521	37266264	14309716	88672866	1711393	104693975	16591245	158075136	582955	175249336	2626925	47099	142174	2816198	16186064		930608	17116672	56545735	276521059	4075651	337142445
1978		E	72134	167910	167910	240044	84770	381697	381697	466467					44806	111	111	44917					201710	549718	549718	751428
1978		Total																								
1978	RENFE	L					5921285	10082381	294787	16298453	7027549	15565331	743690	23336570	2399667		40	2399707	7679683		350	7680033	23028184	25647712	1038867	49714763
1978		E																	6327			6327	6327			6327
1978		TOTAL																								
1978	SJ	N					65660	1717678	40331	1823669	10462048	27078190	69214	37609452	349289	521	1897	351707	1394226	2444	4484	1401154	12271223	28798833	115926	41185982
1978		E						1701		1701					8196		14	8210					8196	1701	14	9911
1978		TOTAL																								
1978	SNCB	N					4561762	11318096	67393	15947251	4294518	6492418	14214	10801150	380425		5857	386282	7516986		29816	7546802	16753691	17810514	117280	34681485
1978	SNCF	N					14389990	35765380	792567	50947937	64251481	129444112	375716	194071309	8832031		63029	8895060	9599839		79147	9678986	97073341	165209492	1310459	263593292
1978		E																	35796		997	36793	35796		997	36793
1978		TOTAL																								
1978	VR	L					2469900	11908500	54700	14433100	1504400	2354600		3859000	272100	2000	200	274300	248000			248000	4494400	14265100	54900	18814400
1978	TCDD	N	572836	2009808	64532	2647176	3940639	10734771	22450	14697860	521876	45444	56	567376	344978		80	345058	630634			630634	6010963	12790023	87118	18888104
1979	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	BR	N					28519300	45556800	13316800	87392900	13494900	7720400	341400	21556700	16192500	61100	86500	16340100	33858200	39500	270400	34168100	92064900	53377800	14015100	159457800
1979	CFF	N					2600	38800	4400	45800	13305200	17078500	85700	30469400	5300	0	0	5300	3411600	12200	34400	3458200	16724700	17129500	124500	33978700
1979		E									5800	700	0	6500					80600	14600	400	95600	86400	15300	400	102100
1979		total																								
1979	CFL	N					105699	849397	3113	958209	164499	647386	805	812690	78052			78052	109145	733		109878	457595	1497516	3918	1959029
1979	CFR	L																								
1979		N																								
1979		E																								
1979		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH	N					1336050	1795638	51217	3182905					494942		186	495128					1830992	1795638	51402	3678033
1979		E					244145	160633	3494	408272					248174		132	248306					492319	160633	3626	656578
1979		TOTAL																								
1979	CIE	L					.	.	.	.													.	.	.	.
1979	CP	L					2080671	1420917	112826	3614414	1108187	1000088	39511	2147786	312637	430	16464	329531	1991550		40506	2032056	5493045	2421435	209307	8123787
1979		E	3397	6156	669	10222	75600	21143	1801	98544					207317	53	2463	209833					286314	27352	4933	318599
1979		TOTAL																								
1979	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	DB	N.E.					14509165	26704915	478694	41692774	65061832	144848126	945770	210855728	3471813	1403	25807	3499023	9879975	168	42827	9922970	92922785	171554612	1493098	265970495
1979	DR	N	924793	13188084	43298	14156175	24420612	53676628	405689	108502929	6858273	20858908	60713	27777894	569300		10077	579467	5578611		4319	5582930	38351679	117723620	524101	156599400
1979		E	91891	42671	158	134720	173	273	20	466													92064	42944	178	135186
1979		TOTAL																								
1979	DSB	N					.	.	.	.					.	.		.	2191000			2191000	7244000	4044000		11288000
1979	FS	N	4253	2856	1382	8491	4767340	2465485	220379	7453204	55093756	38231458	4403769	97728983	4640105		139350	4779455	6096196		234644	6330840	70601650	40699799	4999524	116300973
1979		E	87	3170	491	3748									19419			19419					19506	3170	491	23167
1979		TOTAL																								

A.1.2.9. Train Gross Tonne -Kilometres Hauled

YEAR	Railway	railgauge	TRAIN GROSS TONNE-KILOMETRES HAULED BY TYPE OF TRACTION (IN THOUSANDS OF TONNE-KILOMETRES)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
			Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1979	JZ	N	307617	1922649		2203266	4160346	19160070		23320416	7886498	29758706		37645204	1626042			1626042	1673655			1673655	15654158	50841425		66495583
1979		E																								
1979		TOTAL																								
1979	MAV	N	1549147	2175864	29170	3754181	6980318	22104805	189707	29274830	7868108	26022049	3961	33894118	1666551	8514		1675065					18064124	50311232	222838	68598194
1979		E					90654	18343		108997													90654	18343		108997
1979		total																								
1979	NS	N					56725	2544772		2601497	3624159	5794625		9418784	1575222			1575222	10743170	264114		11007284	15999276	8603511		24602787
1979	NSB	N																								
1979	OBB	N	435	14	17	466	1029083	1907236	22901	2959220	8705027	22040502	109746	30855275	442924	1783	25351	470058	2908278	645	41628	2950551	13085747	23950180	199643	37235570
1979		E	6725	8064	211	15000	39248	15705	371	55324	32971	10019	1443	44433	631	4	17	652					79575	33792	2042	115409
1979		TOTAL																								
1979	PKP	N	6193227	22984976	712627	29890830	12902157	89993455	2114799	105010411	15998580	160828326	643330	177470236	2296422	44548	128226	2469196	15589873		957383	16547256	52980259	273851305	4556365	331387929
1979		E	58606	107659		166265	89586	405204		494790					36092	60		36152					184284	512923		697207
1979		Total																								
1979	RENFE	L					5636131	8895996	288116	14820243	7166427	15721712	731852	23619991	2290702		50	2290752	7771272		160	7771432	22864532	24617708	1020178	48502418
1979		E																	6592			6592	6592			6592
1979		TOTAL																								
1979	SJ	N					72053	1815787	37324	1925164	10609995	31161334	102045	41873374	326084	706	3471	330261	1342777	2717	34417	1379911	12350909	32980544	177257	45508710
1979		E						1477		1477					7987			7987					7987	1477		9464
1979		TOTAL																								
1979	SNCB	N					4607420	12894471	73181	17575072	4338926	7478976	12135	11830037	375607		4668	380275	7656315		22998	7679313	16978268	20373447	112982	37464697
1979	SNCF	N					14422971	34860383	842552	50125906	65200205	137069409	370336	202639950	8800971		52210	8853181	9501052		159843	9660895	97925199	171929792	1424941	271279932
1979		E																	39916		940	40856	39916		940	40856
1979		TOTAL																								
1979	VR	L					2420000	12567000	72500	15059500	1773500	3695600		5469100	243300		600	243900	269100			269100	4705900	16262600	73100	21041600
1979	TCDD	N	523089	1706239	44482	2273810	4262186	10792990	19570	15074746	449855	52381	137	502373	283172		720	283892	638259			638259	6156561	12551610	64909	18773080
1980	BDZ	N.E.																						33992		
1980	BR	N					26586400	40832100	13572600	80991100	13268600	7393500	503700	21165800	18248800	46300	84000	18379100	35647400	42000	320400	36009800	93751200	93313900	14480700	156545800
1980	CFF	N					1300	36300	8000	45600	13691700	18187900	8200	31887800	8400			8400	3441400	7800	200	3449400	17142800	18232000	16400	35391200
1980		E					0	0	100	100	5800	700	0	6500					80600	15000	0	95600	86400	15700	100	102200
1980		total																								
1980	CFL	N					109330	809783	3008	922121	166385	593713	144	760242	75947			75947	106451	711		107162	458113	1404207	3152	1865472
1980	CFR	L																								
1980		N																								
1980		E																								
1980		total																								
1980	CH	N					1328142	1504468	43823	2876433					378137		621	378758					1706279	1504468	44444	3255191
1980		E					238969	136118	2595	377682					211363		228	211591					450332	136118	2823	589273
1980		TOTAL																								
1980	CIE	L																								
1980	CP	L					1808636	1424334	106245	3339215	1041758	928944	33255	2003957	382542		17198	399740	2204468		52304	2256772	5437404	2353278	209002	7999684
1980		E	238	3143	406	3787	73650	17950	1553	93153					186893		2462	189355					260781	21093	4421	286295
1980		TOTAL																								
1980	CSD	L.N.E.	6096	354819	94	361009	11114989	51170705	29992	62315686	11954473	88547414	14084	100515971	3939968	11702	6582	3958252	3077412			3077412	30092938	140084640	50752	170228330
1980	DB	N.E.					14507354	25145204	438104	40090662	68456110	143165012	987084	212608206	3356299	555	24538	3381392	10570180	205	43901	10614286	96889643	168310976	1493627	266694546
1980	DR	N	523617	12428214	35911	12987742	25247083	85980055	397640	111624778	7545285	23666961	75284	31287530	582679		8170	590849	5337667		3893	5341560	39236331	122075230	520898	161832459
1980		E	92004	44383	138	136525		22	16	38													92004	44405	154	136563
1980		TOTAL																								
1980	DSB	N					3150000	4590000		7740000					1760000			1760000	2380000			2380000	7290000	4590000		11880000
1980	FS	N	3732	573	587	4892	4535704	2706188	332613	7574505	55243098	38693523	4280386	98217007	4737409		132142	4869551	5845495		232835	6078330	70365428	41400284	4978563	116744285
1980		E	23	2410	428	2861									17781		155	17936					17804	2410	583	20797
1980		TOTAL																								
1980	JZ	N	258003	1532658		1790661	4173644	18213953		22387597	8814922	29694497		38509419	1605883			1605883	1877163			1877163	16729615	49441108		66170723
1980		E																								
1980		TOTAL																								
1980	MAV	N	824634	1561331	21967	2407932	6891661	22051825	171703	29115189	8702933	26555622	681	35259306	1952779	1831	0	1954610					18372007	50170679	194351	68737037
1980		E					86984	15917		102901													86984	15917		102901
1980		total																								
1980	NS	N					52913	3015528		3068441	3790646	5498579		9289225	1632440			1632440	11456007	259064		11715071	16932006	8773171		25705177
1980	NSB	N																								
1980	OBB	N	410		28	438	1059933	2013282	21615	3094830	8905014	22856416	102309	31863739	421686	1454	27392	450532	3392790	738	50224	3443752	13779833	24871890	201568	38853291
1980		E	5313	9262	127	14702	36351	15193	424	51968	33025	10645	1478	45148	617	13	3	633					75306	35113	2032	112451
1980		TOTAL																								
1980	PKP	N	6460182	16954139	596494	24010815	12400747	88658372	2277484	103336603	17831777	167717763	717515	186267055	2267041	47044	133336	2447421	16973882		987005	17960887	55933629	273377318	4711834	334002781
1980		E	56636	89038		145674	87282	383085		470367					41474	84		41558					185392	472207		657599

A.1.2.9. Train Gross Tonne -Kilometres Hauled

YEAR	Railway	railgauge	TRAIN GROSS TONNE-KILOMETRES HAULED BY TYPE OF TRACTION (IN THOUSANDS OF TONNE-KILOMETRES)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
			Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1980		Total																								
1980	RENFE	L					5149545	9010125	296264	14455934	7432563	16565842	798743	24797148	2190944		70	2191014	8564444		700	8565144	23337496	25575967	1095777	50009240
1980		E																	7066			7066	7066			7066
1980		TOTAL																								
1980	SJ	N					76642	1863670	52603	1992915	11118026	30425410	78891	41622327	391596	1236	4797	397629	1324060	2850	48822	1375732	12910324	32293166	185113	45388603
1980		E						1161		1161					7661		2	7663					7661	1161	2	8824
1980		TOTAL																								
1980	SNCB	N					4403999	12014314	79206	16497519	4453685	7426081	15711	11895477	374938		5042	379980	8247302		23877	8271179	17479924	19440395	123836	37044155
1980	SNCF	N					13865213	32312831	1357475	4753519	65857512	137028646	528047	203414205	8858766		52221	8910987	9647007		669657	10316664	98228498	169341477	2607400	270177375
1980		E																	40072		885	40957	40072		885	40957
1980		TOTAL																								
1980	VR	L					2503100	13439700	.	15942800	1848400	4863700		6712100	212100			212100	276000			276000	4839600	18303400	.	23143000
1980	TCDD	N	582995	1473885	49617	2106497	4530499	9244900	65204	13840603	377497	31011	2550	411058	189657			189657	697579		41	697620	6378227	10749796	117412	17245435
1981	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	33992000	.	.
1981	BR	N					24760600	39039100	13951500	77751200	12444100	6809000	533800	19786900	18991300	33400	67800	19092500	34824100	41500	200100	35065700	91020100	45923000	14753200	151696300
1981	CFF	N					1200	31800	16500	49500	13803600	17745100	19600	31568300	7000		200	7200	3510300	7500	1900	3519700	17322100	17784400	38200	35144700
1981		E					0	0	0	0	4900	1200	0	6100					84100	17200	0	101300	89000	18400	0	107400
1981		total																								
1981	CFL	N					106246	741562	620	848428	180394	490807	19	671220	68574			68574	119750	887		120637	474964	1233256	639	1708859
1981	CFR	L																								
1981		N																								
1981		E																								
1981		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	CH	N					1510705	1522789	34328	3067822					367982		25	368007					1878687	1522789	34353	3435829
1981		E					246683	106372	1177	354232					198796		22	198818					445479	106372	1199	553050
1981		TOTAL																								
1981	CIE	L					.	1525092	.	.													.	1525092	.	.
1981	CP	L					2051806	1596509	97394	3745709	1208448	1165790	41758	2415996	589479		21788	611267	2283343		43906	2327249	6133076	2762299	204846	9100221
1981		E	148	3465	598	4211	68451	15215	2659	86325					198190		2458	200648					266789	18680	5715	291184
1981		TOTAL																								
1981	CSD	L.N.E.	243	53453	19	53715	11018952	49500817	33263	60553032	12202849	89946996	16124	102165969	3701909	11476	2760	3716145	3080562			3080562	30004515	139512742	52166	169569423
1981	DB	N.E.					13910106	21622862	318166	35851134	68265254	139545837	1029246	208840337	3085452	726	17054	3103232	11087822	206	38110	11126138	96348634	161169631	1402576	258920841
1981	DR	N	279360	8281995	23796	8585151	24836985	86571044	403445	111811474	8274497	26160907	75470	34510874	533062		7229	540291	4610153		2701	4612854	38534057	121013946	512641	160060644
1981		E	89898	43143	131	133172																	89898	43143	131	133172
1981		TOTAL																								
1981	DSB	N					3243000	4410000	.	7653000					1777000		.	1777000	2420000		.	2420000	7440000	4410000	.	11850000
1981	FS	N	1407	417	324	2148	4302428	2446032	385275	7133735	53981525	35912982	3864636	93759143	4601347	11	137529	4738887	5671231	3	242649	5913883	68557938	38359445	4630413	111547796
1981		E	3	1964	277	2244									16790		166	16956					16793	1964	443	19200
1981		TOTAL																								
1981	JZ	N	172854	742489		915343	3647630	18559213		22206843	9537715	31136655		40674370	1647099			1647099	2087926			2087926	17093224	50438357		67531581
1981		E																								
1981		TOTAL																								
1981	MAV	N	509492	1359770	6656	1875918	6401103	21893201	61453	28355757	8689088	28064525	261	36753874	2123202	0		2123202					17722885	51317496	68370	69108751
1981		E					56678	8477		65155													56678	8477		65155
1981		total																								
1981	NS	N					54079	3061149		3115228	4064735	5150833		9215568	1681298			1681298	12108227	258413		12366640	17908339	8470395		26378734
1981	NSB	N					.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	OBB	N	526	20	26	572	1100208	1826101	22214	2948523	9016360	22257555	114581	31388496	406070	1542	28078	435690	3535474	726	64414	3600614	14058638	24085944	229313	38373895
1981		E	5127	5037	149	10313	32351	18987	430	51768	33547	10611	1373	45531	533	16	0	549					71558	34651	1952	108161
1981		TOTAL																								
1981	PKP	N	6669288	11431890	426241	18527419	10755084	68601067	1730982	81087133	18878213	146082861	835373	165796447	1931652	25434	102657	2059743	16685579		1002809	17688388	54919816	226141252	4098062	285159130
1981		E	55594	97181		152775	77079	316934		394013					36014	126		36140					168687	414241		582928
1981		Total																								
1981	RENFE	L					5044602	8279089	326010	13649701	8048672	16312145	765066	25125883	2130555		130	2130685	9690296		770	9691066	24914125	24591234	1091976	50597335
1981		E																	6842			6842	6842			6842
1981		TOTAL																								
1981	SJ	N					69699	1789702	33424	1892825	11739798	28130778	101501	39972077	478425	1637	5946	486008	1337792	3113	50625	1391530	13625714	29925230	191496	43742440
1981		E						1523		1523					8030			8030					8030	1523		9553
1981		TOTAL																								
1981	SNCB	N					4056175	11423047	85419	15564641	4650659	7004030	12522	11667211	363949		7836	371785	9190001		30582	9220583	18260784	18427077	136359	36824220
1981	SNCF	N					13313784	28770763	1118836	43203383	65436087	129424556	616796	195477439	8917273		52605	8969878	10943684	71	910845	11854600	98610828	158195300	2699082	259505300
1981		E																	40752		808	41560	40072		808	41560
1981		TOTAL																								
1981	VR	L					2404200	12771000	.	15175200	2115000	5965800		8080800	194300			194300	306500			306500	5020000	18736800	.	23756800
1981	TCDD	N	647720	1981810	42948	2672478	4756627	11882017	21384	16660028	439055	56674	957	496686	182193		7	182200	827757			827757	6853352	13920501	65296	20839149

YEAR	Railway	railgauge	TRAIN GROSS TONNE-KILOMETRES HAULED BY TYPE OF TRACTION (IN THOUSANDS OF TONNE-KILOMETRES)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
			Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1982	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	33992000	.	.
1982	BR	N					20773000	34642400	11491500	66906900	10825600	5789900	632000	17247500	19010600	29200	126900	1916670	31087200	43100	239300	31369600	81696400	40504600	12489700	134690700
1982	CFF	N					1700	34800	16200	52700	15470100	16277900	22400	31770400	5300	0	100	5400	3659600	8500	1300	3669400	19136700	16321200	40000	35497900
1982		E						0	0	0	5400	500	200	6100					88600	13700	0	102300	94000	14200	200	108400
1982		total																								
1982	CFL	N					103175	720331	545	824051	184329	462228	13	646570	63471			63471	130323	1262		131585	481298	1183821	558	1665677
1982	CFR	L																								
1982		N																								
1982		E																								
1982		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	CH	N					1568271	1469222	37171	3074664					381123		6	381129					1949394	1469222	37177	3455793
1982		E					263469	107509	2256	373234					213091			213091					476560	107509	2256	586325
1982		TOTAL																								
1982	CIE	L					1736804	1459228	0	3196032													1736804	1459228	0	3196032
1982	CP	L					1963318	1556911	93690	3613919	1179314	1106218	38668	2324200	549558		27438	576996	2236379		35912	2272291	5928569	2663129	195708	8787406
1982		E	113	3028	357	3498	50792	10922	1449	63163					214358		3266	217624					265263	13950	5072	284285
1982		TOTAL																								
1982	CSD	L.N.E.	190	9359	0	9549	10660993	47938366	31053	58630412	12952347	90881593	16759	103850699	3733034	9264	1447	3743745	3073096			3073096	30419660	138838582	49259	169307501
1982	DB	N.E.					13757788	20251847	328277	34337912	67680094	130924348	842589	199447031	2847322	770	18159	2866251	10619090		29872	10648962	94904294	151176965	1218897	247300156
1982	DR	N	234245	5946105	23324	6203674	23737900	85129199	396902	109264001	9929826	30379131	85073	40394030	412027		7619	419646	4647962		1823	4649785	38961960	121454435	514741	160931136
1982		E	87937	45370	101	133408																	87937	45370	101	133408
1982		TOTAL																								
1982	DSB	N					3318000	4520000	.	7838000					1802000		.	1802000	2430000		.	2430000	7550000	4520000	.	12070000
1982	FS	N	110	451	243	804	4413878	2255970	339761	7009609	55892745	36449797	4017992	96360534	4667875		147509	4815384	5384048		229692	5613740	70358656	38706218	4735197	113800071
1982		E		87	16	103									13387		7	13394					13387	87	23	13497
1982		TOTAL																								
1982	JZ	N	104808	483265		588073	3650130	18260889		21911019	10063525	32651815		42715340	2085139			2085139	1615147			1615147	17518749	51395969		68914718
1982		E																								
1982		TOTAL																								
1982	MAV	N	226795	917252	5014	1149061	6723148	20259894	96558	27079600	9355732	28408569	2149	37766450	2027614	3601		2031215					18333289	49589316	103721	68026326
1982		E					58256	8846		67102													58256	8846		67102
1982		total																								
1982	NS	N					54156	2164865		2219021	4977091	5195910		10173001	1671062			1671062	11453655	256785		11710440	18155964	7617560		25773524
1982	NSB	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	OBB	N	636		6	642	1099549	1772244	27997	2899790	9491133	21891440	126638	31509211	378623	1822	25600	406045	3645250	805	74556	3720611	14615191	23666311	254797	38536299
1982		E	2094	3195	173	5462	33329	18960	239	52528	32695	10356	1248	44299	593	5	3	601					68711	32516	1663	102890
1982		TOTAL																								
1982	PKP	N	6610937	9382923	313779	16307639	10291897	64946832	1496196	76734925	19118270	157085931	917190	177121391	1242445	14692	74795	1331932	17142809	10	1010460	18153279	54406358	231430388	3812420	289649166
1982		E	51180	85661		136841	59390	321841		381231					33493	34		33527					144063	407536		551599
1982		Total																								
1982	RENFE	L					4767915	7760726	367525	12896166	8647326	16806029	828739	26282094	2448725		160	2448885	10211628		500	10212128	26075594	24566755	1196924	51839273
1982		E																	7657			7657	7657			7657
1982		TOTAL																								
1982	SJ	N					83651	1797729	52399	1933779	12241980	27302987	166302	39711269	494886	2494	8256	505636	1300512	1542	45717	1347771	14121029	29104752	272674	43498455
1982		E						4092		4092					8169			8169					8169	4092		12261
1982		TOTAL																								
1982	SNCB	N					3693837	10645081	70133	14409051	5049122	6417876	16277	11483275	308793		5194	313987	9421809		29412	9451221	18473561	17062957	121016	35657534
1982	SNCF	N					13436373	27408021	1104020	41948414	65216304	124837971	729187	190783462	9018457		51860	9070317	15962746		194355	16157101	103633880	152245992	2079422	257959294
1982		E																	40752		808	41560	40752		808	41560
1982		TOTAL																								
1982	VR	L					2216300	12000400	.	14216700	2185900	6021500		8207400	173600			173600	319300			319300	4895100	18021900	.	22917000
1982	TCDD	N	654585	1901325	39571	2595481	4228766	10899430	38423	15166619	432308	25231	71	457610	119867		0	119867	922475			922475	6358001	12825986	78065	19262052
1983	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	33992000	.	.
1983	BR	N					21542500	37019700	13648900	72211100	10972000	6475700	796800	18244500	22060100	33800	75000	22168900	34420900	53600	305600	34780100	88995500	43582800	14826300	147404600
1983	CFF	N					2400	33000	15500	50900	16529600	15832600	24700	32386900	4700		100	4800	3666700	4000	1700	3672400	20203400	15869600	42000	36115000
1983		E									5900	400	100	6400					93000	14400	0	107400	98900	14800	100	113800
1983		total																								
1983	CFL	N					102647	644565	594	747806	187147	444134	5	631286	53484			53484	121549	633		122182	464827	1089332	599	1554758
1983	CFR	L																								
1983		N																								
1983		E																								
1983		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	CH	N					1711033	1630393	40121	3381547					319957			319957					2030990	1630393	40121	3701504
1983		E					276909	120186	2319	399414					210961		3	210964					487870	120186	2322	610378
1983		TOTAL																								

A.1.2.9. Train Gross Tonne -Kilometres Hauled

YEAR	Railway	railgauge	TRAIN GROSS TONNE-KILOMETRES HAULED BY TYPE OF TRACTION (IN THOUSANDS OF TONNE-KILOMETRES)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
			Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1983	CIE	L					1740100	1262463	0	3002563													1740100	1262463	0	3002563
1983	CP	L					1844735	1826602	89216	3760553	1170161	999301	41780	2211242	542980		32297	575277	2120457		28086	2148543	5678333	2825903	191379	8695615
1983		E	87	2613	268	2968	50174	10974	790	61938					217606		3333	220939					267867	13587	4391	285845
1983		TOTAL																								
1983	CSD	L.N.E.	27	1951	0	1978	10334251	47768365	34360	58136976	13828884	94716935	18053	108563872	3857882	8217	1449	3867548	3091957	6		3091963	31113001	142495474	53862	173662337
1983	DB	N.E.					13706061	20362147	293437	34361645	67424919	129574756	1293836	198293511	2638856	887	17983	2657726	9662496		23383	9685879	93432332	149937790	1628639	244998761
1983	DR	N	241724	5632635	21256	5895615	23561727	83587622	388158	107537507	10456803	34553133	89030	45098966	406622		5933	412555	4683065		2102	4685167	39349941	123773390	506479	163629810
1983		E	88577	47764	243	136584																	88577	47764	243	136584
1983		TOTAL																								
1983	DSB	N					3300000	4560000	.	7860000					1840000		.	1840000	2400000		.	2400000	7540000	4560000	.	12100000
1983	FS	N	171	368	123	662	4604226	2173059	295332	7072619	57084875	35517123	3813614	96415612	4645522	3	139194	4784719	5157911		211785	5369696	71492707	37492707	4460048	113643308
1983		E						2		2					17598		84	17682					17598	2	84	17684
1983		TOTAL																								
1983	JZ	N	108461	575348		683809	3939682	18425966		22365648	10427155	34525190		44952345	2366606			2366606	1668379			1668379	18510283	53526504		72036787
1983		E																								
1983		TOTAL																								
1983	MAV	N	105214	506242	986	612442	6573514	19120481	86131	25780126	9230926	28418096	1892	37650914	2054421	5515		2059936					17964075	48050334	89009	66103418
1983		E					21103	35628		56731													21103	35628		56731
1983		total																								
1983	NS	N					33320	1970025		2003345	5672500	5201628		10874128	1686806			1686806	10661578	245141		10906719	18054204	7416794		25470998
1983	NSB	N					.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	OBB	N	714		16	730	1042127	1699271	29072	2770470	9714596	21946366	118190	31779152	345361	1896	26404	373661	3777831	664	71132	3849627	14880629	23648197	244814	38773640
1983		E	1533	2737	176	4446	32024	17646	374	50044	32189	10164	1233	43586	619	0	9	628					66365	30547	1792	98704
1983		TOTAL																								
1983	PKP	N	6335070	7979751	246662	14561483	10729126	64291471	1409983	76430580	20461281	166006577	949059	187416917	1283586	14239	63378	1361203	18284761		1056907	19341668	57093824	238292038	3725989	299111851
1983		E	48894	66521		115415	62466	346062	0	408528					31849	44		31893					143209	412627		555836
1983		Total																								
1983	RENFE	L					4224354	6811901	430284	11466539	8842207	17954085	859775	27656067	3432862		880	3433742	10047574		990	10048564	26546997	24765986	1291929	52604912
1983		E																	8857			8857	8857			8857
1983		TOTAL																								
1983	SJ	N					95590	1854326	31583	1981499	12239284	28486150	178829	40904263	485096	869	9142	495106	1354876	525	51271	1406671	14174846	30341869	270825	44787540
1983		E						5121		5121					8740			8740					8740	5121		13861
1983		TOTAL																								
1983	SNCB	N					3321824	10137318	63204	13522346	4917345	6480736	14955	11413036	301859		3370	305229	9440473		16578	9457051	17981501	16618054	98107	34697662
1983	SNCF	N					13351583	25830622	1009671	40191876	64697073	120690110	621957	185909140	8836649		52759	8889408	19788039		235355	20023394	106573344	146520732	1919742	255013818
1983		E																	42619		653	43272	42619		653	43272
1983		TOTAL																								
1983	VR	L					1905700	11481900	.	13387600	2497300	6448000		8945300	165100			165100	321000			321000	4889100	17929900	.	22819000
1983	TCDD	N	409643	1922877	45290	2377810	4217955	11293485	34345	15545785	401293	126012	503	527808	100749	22		100771	1116947	131		1117078	6246587	13342527	80138	19669252
1984	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	33992000	.	.
1984	BR	N					26045100	32288300	17171900	75506300	14353600	6672200	841100	21866900	27960000	41400	138600	28140000	42537000	78300	267400	42882700	110895700	39080200	18419000	168394900
1984	CFF	N					3200	36500	12800	52500	16758900	16605700	23800	33388400	3300		0	3300	3665700	1200	2800	3669700	20431100	16643400	39400	37113900
1984		E					0			0	6500	400	0	6900					89000	14300	100	103400	95500	14700	100	110300
1984		total																								
1984	CFL	N					119033	751736	700	871469	187412	466706	11	654129	50272			50272	122474	1216		123690	479191	1219658	711	1699560
1984	CFR	L																								
1984		N																								
1984		E																								
1984		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	CH	N					1732645	1769204	44577	3546426					306458			306458					2039103	1769204	44577	3852884
1984		E					262739	104543	1253	368535					194421			194421					457160	104543	1253	562956
1984		TOTAL																								
1984	CIE	L					1649286	1267794	0	2917080									81346			81346	1730632	1267794	0	2998426
1984	CP	L					1942677	2255489	108620	4306786	1299542	1162848	44656	2507046	600402		35154	635556	2136197		30283	2166480	5978818	3418337	218713	9615868
1984		E	184	2336	287	2807	47651	13097	1619	62367					212650		2316	214966					260485	15433	4222	280140
1984		TOTAL																								
1984	CSD	L.N.E.	62	248		310	10276523	47122070	31886	57430489	14274995	97274797	15081	111564873	3895203	7914	1908	3905025	3095830			3095830	31542623	144405029	48875	175996527
1984	DB	N.E.					13600314	20898130	336134	34834578	66932287	137915585	813365	205661237	2442460	827	15153	2458440	9201346		15613	9216959	92176407	158814542	1180265	252171214
1984	DR	N	215239	6254034	25526	6494799	22625164	81091638	427717	104144519	11531300	41408234	90529	53030063	407639		6552	414191	4265418		584	4266002	39044760	128753906	550908	168349574
1984		E	90800	47249	396	138445																	90800	47249	396	138445
1984		TOTAL																								
1984	DSB	N					3120000	4500000	.	7620000					1910000		.	1910000	2040000		.	2040000	7070000	4500000	.	11570000
1984	FS	N	326	347	80	753	4707333	2330356	280656	7318345	58797334	37082909	4123016	100003259	4519584	22	131408	4651014	5069163	64	211162	5280389	73093740	39413698	4746322	117253760
1984		E						0	0	0					18352		108	18460					18352		108	18460
1984		TOTAL																								

A.1.2.9. Train Gross Tonne -Kilometres Hauled

YEAR	Railway	railgauge	TRAIN GROSS TONNE-KILOMETRES HAULED BY TYPE OF TRACTION (IN THOUSANDS OF TONNE-KILOMETRES)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
			Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1984	JZ	N	84629	529234		613863	3986320	18616552		22602872	10601307	35585818		46187125	1685748			1685748	2693963			2693963	19051967	54731604		73783571
1984		E																								
1984		TOTAL																								
1984	MAV	N	18613	270627	17833	307073	6066694	17571146	715998	24353838	9672023	29340332	449279	39461634	1845199	932	41480	1887611					17602529	47183037	1224590	66010156
1984		E					2041	3480		5521													2041	3480		5521
1984		total																								
1984	NS	N					19727	1825312	.	1845039	5646043	5756642	.	11402685	1619452			1619452	10658014	252471		10910485	17943236	7834425	.	25777661
1984	NSB	N					.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	OBB	N	889	25	32	946	1011677	1802770	28271	2842718	9668455	23689105	120219	33477779	331643	1848	24470	357961	3993734	831	73263	4067828	15006398	25494579	246255	40747232
1984		E	1364	2284	123	3771	32557	19076	575	52208	31220	10261	1011	42492	562	6	17	585					65703	31627	1726	99056
1984		TOTAL																								
1984	PKP	N	5500642	6746772	227258	12474672	10667339	62277048	1471154	74415541	21961807	179054969	968906	201985682	1185612	8048	57202	1250862	19131876		1027544	20159420	58447276	248086837	3752064	310286177
1984		E	40880	40490	.	81370	72517	361071	0	433588					25820	16	.	25836					139217	401577	.	540794
1984		Total																								
1984	RENFE	L					3252124	6064378	246979	9563481	9651181	20952883	970411	31574475	4027906		2090	4029996	10111524		1840	10113364	27042735	27017261	1221320	55281316
1984		E																	8812			8812	8812			8812
1984		TOTAL																								
1984	SJ	N					98067	2173122	46509	2317698	12495703	32123900	237048	44856651	496882	240	8438	505560	1391268	148	67389	1458805	14481920	34297410	359384	49138714
1984		E						3979		3979					9431		6	9437					9431	3979	6	13416
1984		TOTAL																								
1984	SNCB	N					3414634	10826012	96754	14337400	5117248	8504718	25841	13647807	212344		4382	216726	10365745		32230	10397975	19109971	19330730	159207	38599908
1984	SNCF	N					12245391	23512454	993953	36751798	63025532	122898252	574292	186498076	8521214		50474	8571688	23712651		278532	23991183	107504788	146410706	1897251	255812745
1984		E																	40728		802	41530	40728		802	41530
1984		TOTAL																								
1984	VR	L					1649000	10470100	2500	12121600	2884300	7177800		10062100	116000			116000	330100			330100	4979400	17647900	2500	22629800
1984	TCDD	N	345072	1759658	57626	2162356	4766092	14438205	88246	19292542	295842	225742	312	521896	105919	0		105919	1323424	0		1323424	6836349	16423605	146184	23406138

A1.2.10. ROLLING STOCK-KILOMETRES

MOTIVE VEHICLE KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF KILOMETRES) – RAIL STOCK

YEAR	Railway	rail gauge	STEAM LOCOMOTIVES: Assisting required (at front or rear)	STEAM: Light or Assisting not required	STEAM: Shunting	STEAM: Total KMs Run by The Rolling Stock – of Railways over network under consideration	STEAM: Total KMs – of Railway over the network under consideration and	DIESEL AND SPECIAL SYSTEM LOCOMOTIVES AND LIGHT RAIL MOTOR TRACTORS: Assisting required (at front or rear)	DIESEL: Light or Assisting not required	DIESEL: Shunting	DIESEL: Total KMs – of Railways over the network under consideration	DIESEL: of the Railway over the network under consideration and over other networks – light rail motor tractors included	DIESEL: light rail motor tractors excluded	ELECTRIC LOCOMOTIVES AND LIGHT RAIL MOTOR TRACTORS: Assisting required (at front or rear)	ELECTRIC: Light or Assisting not required	ELECTRIC: Shunting	ELECTRIC: Total KMs – of Railways over the network under	ELECTRIC: of the Railway over the network light rail motor	ELECTRIC: light rail motor	DIESEL AND SPECIAL SYSTEM RAILCARS: Assisting required or to increase	DIESEL RAILCARS: Light or Assisting not required	DIESEL RAILCARS: Shunting	DIESEL RAILCARS: Total KMs – of Railways over network under consideration
1977	BDZ	N																					
1977		E																					
1977		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	BR	N						10750	17027		201480	201480	.	4436	2113		49272	49272	49272				.
1977	CFF	N				0		0	174	2694	3038	3164	2042	1904	6840	5977	87428	87888	85494	7	0		78
1977		E								12	12	5		2	17	44	149	149	90				
1977		total																					
1977	CFL	N						69	327	498	2241	2487	2487	26	313		1510	985	985	87	131		1092
1977	CFR	L																					
1977		N																					
1977		E																					
1977		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	N						70	158	1280	9487	9487	9487							1007	8		4668
1977		E						51	7	300	2632	2632	2632							19	2		3495
1977		TOTAL																					
1977	CIE	L						462	476	315	12322	12711	12711										
1977	CP	L	0	0	5	9	9	118	372	1460	15452	15452	13811	41	197	0	5379	5379	5379	1552	15	0	5725
1977		E	3	8	60	742	742	15	29	5	621	621	621							214	0	0	2539
1977		TOTAL																					
1977	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	DB	N.E. 257374	8	115	29	499	508	4017	24450	49419	205197	207244	189341	1971	26534	1324	377585	377294	377284	17712	2470	1509	66767
1977	DR	N	409	5363	2230	34502	34588	4244	23850	43825	253034	256808	252785	750	4946	433	47005	46986	46986	1652	258	135	12007
1977		E	6	21	394	1815	1815			43	48	48	10										
1977		TOTAL																					
1977	DSB	N	.	.	.	.	.	620	611	5928	35620	35705	.							1957		289	9950
1977	FS	N	35	196	1445	1827	1827	1006	1908	17087	44178	43505	43179	4935	7147	4326	195349	194307	194307	37005	623		92668
1977		E	1	3	1	42	42														3		471
1977		TOTAL																					
1977	JZ	N	115	645	3720	11948	11948	669	3512	16233	55160	55160	55160	408	3230	384	48096	48096	48096	3662	86		37549
1977		E	28	18	83	283	283	3	46	31	738	738	738								7	108	1706
1977		TOTAL																					
1977	MAV	N	118	1659	4936	22755	22755	332	5123	15594	62787	.	.	86	2895	308	41168	41168	41168	2420	466	10	13977
1977		E						65	7	90	1611	.	.										
1977		total																					
1977	NS	N						2633	860	2085	10276	10276	10247		880		20379	20379	20379		1459		17172
1977	NSB	N						509	158	2931	8906	8906	6990	1433	312	596	18843	18183	18183	184			2853
1977	OBB	N	13	20	8	64	63	154	2871	5808	21372	21541	21541	2388	8030	3122	74927	75010	75010	292	206	27	8134
1977		E	1	3	22	301	298	9	26	135	1269	1269	1166	3	19	39	618	618	618				20
1977		TOTAL																					
1977	PKP	N	887	11701	30413	131646	131696	1128	16013	49906	189324	189451	189451	517	11897	5896	161117	161117	161117	4870		519	22875
1977		E		18	490	3645	3645		46	713	4126	4126	.								1	16	1522
1977		Total																					
1977	RENFE	L						2019	5381	12906	60357	60357	59794	975	4597	464	48301	48301	48301	7577	1131		30068
1977		E																					
1977		TOTAL																					
1977	SJ	N						236	562	6092	12237	12307	9754	9677	1991	7628	91722	92184	92184	206	3477		13217
1977		E						3	5	62	91	92	42							1	20		535
1977		TOTAL																					
1977	SNCB	N						941	7541	5409	49556	49515	49515	2163	3782	156	25448	26763	26763	354	475		6441
1977	SNCF	N						13846	26138	29906	166930	166703	148367	11127	35012	4374	326215	326267	326267	17922	1177	334	96749
1977		E																					
1977		TOTAL																					
1977	VR	L						5011	519	6924	35630	35630	33799	321	72	55	4843	4843	4843	9843	22	51	20498
1977	TCDD	N	1384	404	4086	15849	15849	1334	448	2057	24866	24866	24866	5	14	0	1859	1859	1859		150	1	4082
1978	BDZ	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978		total																					
1978	BR	N						10757	16320		197659	197659	.	4448	2033		48693	48693	48693				.
1978	CFF	N				0		0	188	2839	3196	3267	2112	1863	6912	5845	86843	87386	84969	5	0		66
1978		E								11	11	5		1	17	48	153	154	90				
1978		total																					
1978	CFL	N						62	340	479	2336	2745	2745	30	319		1627	1018	1018	85	133		1028
1978	CFR	L																					
1978		N																					
1978		E																					
1978		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH	N						392	392	850	8692	8692	8692							1021	1021		5120
1978		E						86	86	100	2357	2357	2357										3240
1978		TOTAL																					
1978	CIE	L						1207	414	301	15345	15716	15716										
1978	CP	L	0	1		1	1	100	497	1278	15242	15242	13755	37	229	8	5335	5335	5335	1385	17	0	4966
1978		E	2	1	42	366	366	6	16	13	836	836	836							769	0	0	3407
1978		TOTAL																					
1978	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	DB	N.E.						8350	24195	48311	203930	205838	189076	2261	26510	1182	389571	389593	389590	16625	2457	1464	62118
1978	DR	N	351	4458	1676	28577	28575	4383	24344	43447	256972	259603	255976	682	4983	244	47290	47259	47259	1383	.	129	11464
1978		E	2	18	395	1785	1785			40	44	44	13										
1978		TOTAL																					
1978	DSB	N	.	.	.	.	.	778	705	5596	36138	36226	.							1897	1897	224	9162
1978	FS	N	11	94	315	484	484	1399	1826	15787	43209	42566	42457	4847	6768	3620	195009	193970	193970	36318	609		91665
1978		E	1	3	1	38	38													1			381
1978		TOTAL																					
1978	JZ	N	100	528	2803	9984	9984	704	3464	17077	54746	54746	54746	533	3261	388	49968	49968	49968	3751	175		35309
1978		E																					
1978		TOTAL																					
1978	MAV	N	96	1388	4183	20991	20991	337	5151	16087	63761	.	.	103	2820	460	41744	41744	41744	2632	496	8	14384
1978		E						72	6	88	1439	.	.										
1978		total																					
1978	NS	N						2453	803	1923	9748	9748	9727		928		20334	20334	20334		1028		16489
1978	NSB	N						482	174	2844	8870	8870	6909	1395	291	700	19265	18921	18921	183			2740
1978	OBB	N	2	3	1	12	10	350	2460	6176	21141	21315	21315	3708	5866	3799	75657	75763	75763	276	118	113	6943
1978		E	0	3	22	290	284	13	11	148	1274	1274	1174	7	18	49	611	611	611				20
1978		TOTAL																					
1978	PKP	N	692	9831	26894	110632	110853	2227	17423	54666	206310	206971	205537	537	12387	6492	168288	168338	168338	4598		506	22093
1978		E		17	410	3063	3063		37	734	4543	4543	.								1	13	1445
1978		Total																					
1978	RENFE	L						1643	5306	13220	59871	59871	59301	913	4524	669	49307	49307	49307	5477	917		24909
1978		E																					
1978		TOTAL																					
1978	SJ	N						223	521	5428	10936	10953	10440	8844	2203	7657	91407	91407	91407	164	3165		12519
1978		E						3	3	53	77	77	37							1	75		575
1978		TOTAL																					
1978	SNCB	N						1195	7656	5703	51690	51540	51540	1664	3616	176	25012	26354	26354	350	482		6985
1978	SNCF	N						14479	25699	30158	167341	167519	148953	11546	35062	4152	332565	332492	332492	18216	1229	350	97418
1978		E																					
1978		TOTAL																					
1978	VR	L						5109	625	6764	33611	33611	31951	319	208	138	6825	6825	6825	9198	39	108	19099
1978	TCDD	N	867	268	3769	11493	11493	1439	540	1769	27508	27508	27508	12	36	0	1977	1977	1977	133	4		3629
1979	BDZ	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979		total																					
1979	BR	N						10402	15242		187656	187656	187656	4259	2078		49413	49413	49413				109542
1979	CFF	N						0	208	2831	3308	3219	2024	2881	6081	6665	89063	89645	87201	0	0		45
1979		E								5	5	5		0	19	49	153	153	88				
1979		total																					
1979	CFL	N						92	410	508	2477	2935	2935	29	338		1797	1184	1184	75	134		1028
1979	CFR	L																					
1979		N																					
1979		E																					
1979		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH	N						509	174	550	8270	8270	8270							1054	4	5337	5337
1979		E						100	17	109	2419	2419	2419									3106	3106
1979		TOTAL																					
1979	CIE	L						1277	375	199	15903	16262	16262										
1979	CP	L						127	557	1371	15938	15938	14488	21	252	15	5619	5619	5619	1381	30	0	4690
1979		E		1	24	160	160	7	7	33	1118	1118	1118							766	1	0	3302
1979		TOTAL																					
1979	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	DB	N.E.						6258	24567	47232	208097	210435	195144	3379	26655	1002	412383	413172	413171	15929	782	14	54996
1979	DR	N	328	3941	1290	23534	23588	3943	25086	42851	257313	257674	256830	597	5303	225	49483	49467	49467	1185		114	10689
1979		E	3	22	415	1824	1824			29	32	32	1										
1979		TOTAL																					
1979	DSB	N						.	.	.	.	.	.							.	.	.	.
1979	FS	N	5	40	70	148	148	1340	1726	16119	42982	42507	42366	4472	6527	3353	197558	197165	197165	35660	579		89775
1979		E		3		36	36													1			348
1979		TOTAL																					
1979	JZ	N	94	390	2517	8022	8022	785	3526	17702	57614	57614	57614	667	3117	457	53366	53366	53366	3492	79		31081
1979		E																					
1979		TOTAL																					
1979	MAV	N	51	1064	2604	15084	15084	347	5673	16922	68085	68085	68085	120	2924	481	42804	42804	42804	2613	484	11	14847
1979		E						61	5	82	1377	1377	1377										
1979		total																					
1979	NS	N						3081	872	1954	10895	10895	10876		1057		20460	20460	20460		554		15863
1979	NSB	N						648	182	2787	8996	8998	7044	1563	283	736	19714	19687	19687	188			2715
1979	OBB	N		3	0	6	3	454	2601	6379	22086	22263	22263	4384	6533	3876	79358	79119	79119	152	126	95	6335
1979		E	0	3	24	324	316	12	9	148	1266	1266	1162	4	16	48	602	602	602				20
1979		TOTAL																					
1979	PKP	N	549	8385	24173	97411	97628	1550	18292	59966	212234	212810	211176	432	12764	7078	167945	167998	167998	3973		459	20287
1979		E		14	358	2371	2371		34	758	4913	4913	.								1	8	1169
1979		Total																					
1979	RENFE	L						1449	4928	13292	56911	56911	56287	973	4552	886	50458	50458	50458	4664	893	2	22622
1979		E																					
1979		TOTAL																					
1979	SJ	N						319	467	5225	10597	10624	10192	9136	2251	7857	93844	93789	93789	280	3192		12293
1979		E						3	3	41	61	61	52								83		569
1979		TOTAL																					
1979	SNCB	N						1492	7930	6098	53880	53684	53684	1761	4083	153	26529	28214	28214	393	550		6891
1979	SNCF	N						15071	25481	29732	165462	165563	146795	11197	35220	4168	343288	343125	343125	18380	1079	379	97096
1979		E																					
1979		TOTAL																					
1979	VR	L						5814	534	6897	34902	34902	33369	361	180	172	8875	8875	8875	8325	23	139	17080
1979	TCDD	N	851	237	3865	11042	11042	1425	490	1669	28329	28329	28329	6	29		1675	1675	1675	93	2	0	3058
1980	BDZ	N																					
1980		E																					
1980		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	BR	N						8081	14019		174938	174938		4244	2238		49921	49923	49923				.
1980	CFF	N						0	196	2897	3431	3268	2032	2688	6477	5396	89149	89721	87224				60
1980		E								0	5	5			17	52	158	158	91				
1980		total																					
1980	CFL	N						88	406	500	2449	2918	2918	27	352	4	1742	1173	1173	86	155		1006
1980	CFR	L																					
1980		N																					
1980		E																					
1980		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH	N						296	159	1148	8324	8324	8324							705	2		4448
1980		E						63	11	100	2405	2405	2405										2469
1980		TOTAL																					
1980	CIE	L						1378	406	150	15756	16112	16112										
1980	CP	L						108	532	1834	16194	16194	14683	5	264	14	6163	6163	6163	2592	7	11	6537
1980		E	0	0	15	67	67	3	1	35	1080	1080	1080							738		5	3183
1980		TOTAL																					

YEAR	Railway	rail gauge	DIESEL RAILCARS: Total KMs – of Railway over the network under consideration and over other networks	ELECTRIC RAILCARS: Assisting required or to increase transport capacity	ELECTRIC RAILCARS: Light or Assisting not required	ELECTRIC RAILCARS: Shunting	ELECTRIC RAILCARS: Total KMs – of Railways over network under consideration	ELECTRIC RAILCARS: of Railway over the network under consideration and over other networks	ALL TYPES OF TRACTION: Assisting required or to increase transport capacity	ALL TYPES: Light or Assisting not required	ALL TYPES: Shunting	ALL TYPES: Total KMs – of Railways over network under consideration	ALL TYPES: of Railway over the network under consideration and over other networks	Number of Kms taken for an hours shunting	ROAD MOTOR VEHICLES: Buses/Motor Coaches	ROAD MOTOR VEHICLES: Lorries	ROAD MOTOR VEHICLES: Tractors	ROAD MOTOR VEHICLES: Total	ROAD MOTOR VEHICLES: Including those operated and managed by the Railway	DISTANCES COVERED BY HAULED VEHICLES (IN THOUSANDS OF Kms) – RAIL STOCK: Carriages	Wagons: Loaded	Wagons: Empty	Wagons: Total	Vans	ROAD VEHICLES: Bus Trailers	ROAD VEHICLES: Lorry and Tractor trailers
1977	BDZ	N																		178187	.	.	1335845	.		
1977		E																		4701	.	.	11327	.		
1977		total	.	.	.	.	.	.	.	.		.	.	.												
1977	BR	N	100793				128880	128880	15186	19140		.	480425							.	1100800	.	.	.		
1977	CFF	N		1448	190	56	21316	22472	3359	7204	8727	111860	113524							430921	448669	211628	660297	81369		
1977		E		35	27	30	1163	1052	37	44	86	1324	1206							4607	727	271	998	21739		
1977		total												6	.	.	.	.	.						.	.
1977	CFL	N	1096	142	65		999	736	324	836	498	5842	5303	6	3848	592		4440	4440	7996	21916	15559	37475	402		
1977	CFR	L																								
1977		N																								
1977		E																								
1977		total	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	N	4668						1077	166	1280	14155	14155							39276	51262	34901	86123	6682		
1977		E	3495						70	9	300	6127	6127							16352	7473	5423	12896	2671		
1977		TOTAL												6	21274			21274	.							
1977	CIE	L							462	476	315	12322	12711	3	104126	11900	7481	123507	123507	.	55966	18885	74851	.		.
1977	CP	L	5725	3976	11	0	9765	9765	5687	595	1465	36330	36330							.	.	.	.	.		
1977		E	2539						232	37	65	3902	3902							.	.	.	.	.		
1977		TOTAL												5	1796			1796	1796							
1977	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	DB	N.E.	66576	91988	403	18	141610	141261	115696	53972	52299	791658	792883		289072	24848		313920	176970	1961538	3755502	2037344	5792			
1977	DR	N	12419	47500	55	0	71428	71428	54555	34472	46623	418289	422229							1077331	2426065	1264611	3690676	83951		
1977		E							6	21	437	1863	1863							5841	804	465	1269	1425		
1977		TOTAL																								
1977	DSB	N	9747	16359			24658	24658	19547		6217	70228	70110	10	33637	7722		41359	41359	179379	156968	57490	214458	7723		.
1977	FS	N	92328	20632	437	44	56273	55963	63613	10311	22902	390295	387930							1414984	1318063	676724	1964787	128731		
1977		E	471						1	6	1	513	513							350	102	64	166	28		
1977		TOTAL												6	7426	36		7462								
1977	JZ	N	37549		29		4790	4790	4854	7502	20337	157543	157543							396106	954392	446462	1400854	.		
1977		E	1706						31	71	222	2727	2727							4504	2762	1056	3818	.		
1977		TOTAL												10	5356	34215	11799	51370	51370						5356	46014
1977	MAV	N	13977						2956	10143	20848	140687	140687							472682	1182543	571690	1754233	.		
1977		E							65	7	90	1611	1611							5594	1233	976	2209	.		
1977		total												7												
1977	NS	N	17172		27471		95400	95400	2633	30670	2085	143227	143227	5						381368	152975	94558	247533	.		
1977	NSB	N	2853	1971			12757	12757	4097	470	3527	43359	42699	10	19221	7731		26952	26952	99641	182158	108417	290575	13435		.
1977	OBB	N	7639	3137	54	64	13599	14068	5984	11181	9029	118096	118321							301964	606030	377392	983422	44140		
1977		E	20						13	48	196	2208	2205							5423	2154	1349	3503	1500		
1977		TOTAL												5	33654	2635		38289	35472							2068
1977	PKP	N	22895	72014		3081	125042	125042	79416	39611	89815	630004	630202								5641711	2233783	7875494			
1977		E	1522							65	1219	9293	9293							.	19902	12547	32449			
1977		Total												5												
1977	RENFE	L	30249	6739	731	5	42768	42768	17310	11840	13375	181494	181675								689470	346950	1036420	.		
1977		E					79	79				79	79													
1977		TOTAL																		436420						
1977	SJ	N	13218	7059	449		19496	18883	17178	6479	13720	136672	136592							268610	796200	409300	1205500	45040		
1977		E	535						4	25	62	626	627							629	48	31	79	30		
1977		TOTAL													72708	227		72935	72935							
1977	SNCB	N	6437	25065	2689	87	56567	56307	28523	14487	5652	138012	139022	5	34735			34735								
1977	SNCF	N	97708	25154	476	216	68053	67495	68049	62803	34830	657947	658173													
1977		E		276	0	1	751	735	276	0	1	751	735													
1977		TOTAL												6	.	.	.	.		1943130	3330000	1650000	4980000	191380	.	.
1977	VR	L	20498	1796	7	91	6303	6303	16971	620	7121	67274	67274	10		3219		3219	3219	114759	313003	203738	516741	15514		1450
1977	TCDD	N	4082		966		2951	2951	2723	1982	6144	49607	49607	8						137159	341414	204720	546134	.		
1978	BDZ	N	.	.	.	.	.	.	.	.	.	.	.	.						180976	.	.	1320255	.		
1978		E	.	.	.	.	.	.	.	.	.	.	.	.						5009	.	.	11776	.		
1978		total																								
1978	BR	N	103483				133551	133551	15205	18353		.	483386	.						.	948700	.	.	.		
1978	CFF	N		1243	170	37	22037	23035	3111	7270	8721	112142	113688							433627	427177	214652	641829	80066		
1978		E		27	34	22	1177	1091	28	51	81	1341	1250							4725	746	306	1052	2210		
1978		total												6	.	.	.	.	.						.	.
1978	CFL	N	1031	139	60		1004	750	316	852	479	5995	5544	6	3831	573		4404	4404	8325	23584	17828	41412	427		
1978	CFR	L																								
1978		N																								
1978		E																								
1978		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH	N	5120						1413	1413	850	13812	13812							39528	48687	32975	81662	6062		
1978		E	3240						86	86	100	5597	5597							16163	6814	4322	11136	2515		
1978		TOTAL												6	20674			20674	.							
1978	CIE	L							1207	414	301	15345	15716	3	103039	11750	7386	122175	122175	.	51263	17933	69196	.	.	.
1978	CP	L	4966	3393	4	0	9947	9947	4915	748	1286	35491	35491							.	.	.	.	.		
1978		E	3407						777	17	55	4609	4609							.	.	.	.	.		
1978		TOTAL												5	1849			1849	1849							
1978	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	DB	N.E.	62067	100131	371	21	152567	152255	123381	53533	50978	808186	809753	5 \ 6	289762	25027	25027	314789	175417	1936305	3838863	2113786	5952649	25		
1978	DR	N	11870	48899	.	0	73298	73298	55698	34085	45496	417901	420605							1022104	2374837	1234306	3609143	81550		
1978		E							2	18	435	1829	1829							5782	743	412	1155	1417		
1978		TOTAL												5 \ 7												
1978	DSB	N	8968	17268	17268		25848	25848	20648	20648	5820	71148	71042	10	34082	5967	5967	40049	40049	173338	148286	51955	200241	7431		.
1978	FS	N	91242	23094	447	13	59767	59503	65669	9744	19735	390134	387765							1455893	1248286	625915	1874201	115418		
1978		E	381						2	3	1	419	419							243	95	53	148	24		
1978		TOTAL												6	7068	34		7102								
1978	JZ	N	35309	542	20		7545	7545	5630	7448	20268	157552	157552	10	.	.	.	.	.	377679	964124	428602	1392726		.	.
1978		E																								
1978		TOTAL																								
1978	MAV	N	14384						3168	9855	20738	140880	140880							449508	1104431	546216	1650647	.		
1978		E							72	6	88	1439	1439							5052	1016	800	1816	.		
1978		total												7												
1978	NS	N	16489		24683		93037	93037	2453	27442	1923	139608	139608	5						347985	161590	92883	254473	.		
1978	NSB	N	2740	1889			12320	12320	3949	465	3544	43195	42851	10	19452	8312		27764	27764	93513	176388	85004	261392	14352	.	.
1978	OBB	N	6448	3317	62	150	14502	15008	7653	8509	10239	118255	118544							306971	581398	361378	942776	44401		
1978		E	20						20	32	219	2195	2189							5391	2093	1200	3293	1461		
1978		TOTAL												5	36749	2750	2750	39499	36621							2187
1978	PKP	N	22086	76243		3683	131421	131421	84297	39641	92241	638744	639669							.	5609906	2267550	7877456	.		
1978		E	1445							55	1157	9051	9051							.	19499	11351	30850	.		
1978		Total											5													
1978	RENFE	L	25089	6321	734	160	44956	44956	14354	11481	14049	179043	179223								642200	329960	972160	.		
1978		E					89	89				89	89													
1978		TOTAL												6 \ 9	.			.	.	433098						
1978	SJ	N	12519	7051	317		18894	18201	16282	6206	13085	133756	133080							268487	746132	362618	1108750	44150		
1978		E	575						4	78	53	652	652							561	40	30	70	29		
1978		TOTAL												.	72881	172	172	73053	73053						.	.
1978	SNCB	N	6760	25689	2618	61	58098	58027	28898	14372	5940	141785	142681	5						.	.	.	.	.		
1978	SNCF	N	98167	23346	345	208	64297	63723	67587	62335	34868	661621	661901													
1978		E		344	0	1	830	817	344	0	1	830	817													
1978		TOTAL												6	.	.	.	.		1937980	3299000	1652000	4951000	175950	.	.
1978	VR	L	19099	1844	48	124	6593	6593	16470	920	7134	66128	66128	10		3224		3224	3224	112722	299172	200454	499626	12796		1400
1978	TCDD	N	3629	1120	1		3237	3237	3571	849	5538	47844	47844	8							145336	292747	166648	459395		
1979	BDZ	N	.	.	.	.	.	.	.	.	.	.	.							180976	.	.	1320255			
1979		E	.	.	.	.	.	.	.	.	.	.	.							5009	.	.	11776	.		
1979		total																								
1979	BR	N	109542				130889	130889	14661	17320		477500	477500							.	909000	.	.	.		
1979	CFF	N		1355	130	37	21642	22396	4236	6419	9533	114058	115260							432419	435043	221249	656292	78791		
1979		E		47	25	30	1202	1123	47	44	84	1360	1281							4560	641	207	848	2715		
1979		total												6	.	.	.	.	.						.	.
1979	CFL	N	1031	108	57		941	721	304	939	508	6247	5871	6	3769	563		4332	4332	8337	24276	18327	42603	530		
1979	CFR	L																								
1979		N																								
1979		E																								
1979		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH	N							1563	178	550	13607	13607							33245	45148	32913	78061	5788		
1979		E							100	17	109	5525	5525							15211	6906	5243	12149	2488		
1979		TOTAL												6	20041	.	.	.	.							
1979	CIE	L							1277	375	199	15903	16262	3	95317	11736	7378	114431	114431	.	46804	18516	65320	.		.
1979	CP	L	4690	4154	2	15	12002	12002	5683	841	1401	38249	38249							.	.	.	.	.		
1979		E	3302						773	9	57	4580	4580							.	.	.	.	.		
1979		TOTAL												5	1984			1984	1984							
1979	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	DB	N.E.	55233	119588	243	19	172691	172648	145154	52247	48267	848167	851488		293874	24791		318665	175254	2031868	4060883	2269410	6330293	297935	.	.
1979	DR	N	10873	49180		0	73390	73390	55233	34330	44480	414409	414955							992403	2202851	1144497	3347348	76654		
1979		E							3	22	444	1856	1856							5712	736	408	1144	1403		
1979		TOTAL																								
1979	DSB	N	.	.	.	.	.	28213	.	.	5244	.	73677	10	35192	6139		41331	41331	176250	142500	54000	196500	7431		.
1979	FS	N	89530	21666	512	4	57737	57447	63143	9384	19546	388200	386797							1489445	1252298	621581	1873879	148556		
1979		E	348						1	3		384	384							178	90	45	135	29		
1979		TOTAL												6	6875	34		6909								
1979	JZ	N	31081	789	24		8578	8578	5827	7136	20676	158661	158661	10	.	.	.	.	.	375094	1037376	463775	1501151	.	.	.
1979		E																								
1979		TOTAL																								
1979	MAV	N	14847						3131	10145	20018	140820	140820							444597	1049606	541911	1591517	.		
1979		E							61	5	82	1377	1377							4648	860	642	1502	.		
1979		total												7												
1979	NS	N	15863		22582		90767	90767	3081	25065	1954	137985	137985	5						338161	168310	107608	275918	.		
1979	NSB	N	2715	2004			12294	12294	4403	465	3523	43719	43694	10	19467	7693		27160	27160	96277	182946	88892	271838	6207	.	.
1979	OBB	N	5997	3849	66	155	15951	16456	8839	9329	10505	123734	123838							312581	633535	398616	1032151	43368		
1979		E	20						16	28	220	2212	2204							5411	2118	1296	3414	1489		
1979		TOTAL												5	38602	2966		41568	38404							2314
1979	PKP	N	20279	72581	0	4252	127515	127515	79085	39441	95928	625392	626230							.	5416231	2237246	7653477	.		
1979		E	1169							49	1124	8453	8453								17418	11024	28442	.		
1979		Total												5												
1979	RENFE	L	22797	5792	775	280	45011	45011	12878	11148	14460	175002	175177								623190	315690	938880	.		
1979		E					91	91				91	91													
1979		TOTAL																		426420						
1979	SJ	N	12293	7272	358		18716	17944	17007	6268	13082	135450	134650							290657	821569	412783	1234352	45309		
1979		E	569						3	86	41	630	630							570	45	30	75	28		
1979		TOTAL												.	74776	144		74920	74920						.	.
1979	SNCB	N	6847	25277	2476	42	58788	58467	28923	15039	6293	146088	147212	5						.	263972	205618	469590			
1979	SNCF	N	97719	20942	148	229	60956	60536	65590	61928	34508	666802	666943								3372000	1750000	5122000			
1979		E		400	0	1	898	885	400	0	1	898	885													
1979		TOTAL												6	.	.	.	.		1991700				153370		
1979	VR	L	17080	2214	7	119	7059	7059	16714	744	7327	67916	67916	10		3498		3498	3498	116997	332197	220737	552934	14516		540
1979	TCDD	N	3058	1095	1		3338	3338	3472	759	5532	47441	47441	.						149652	294190	144743	438933			
1980	BDZ	N																								
1980		E																								
1980		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	BR	N	115555				137917	137917	12325	16257		.	478334	.						.	777000	.	.	.		
1980	CFF	N	60	1312	114	33	21575	22024	4000	6787	8326	114215	115013							439251	447630	238919	686549	80305		
1980		E		51	21	32	1201	1116	51	38	89	1364	1279							4506	542	184	726	2151		
1980		total												6	.	.	.	.	.						.	.
1980	CFL	N	979	93	58		934	682	294	971	504	6131	5752	6	3759	559		4318	4318	8523	22416	17713	40129	471		
1980	CFR	L																								
1980		N																								
1980		E																								
1980		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH	N	4448						10001	161	1148	12772	12772							34233	38759	26584	65343	6758		
1980		E	2469						63	11	100	4874	4874							14244	5790	4402	10192	2455		
1980		TOTAL												6	18043	.	.	.	.							
1980	CIE	L							1378	406	150	15756	16112	3	100542	11111	6985	118638	118638	.	42609	18697	61306	.		.
1980	CP	L	6537	4621	0	40	13579	13579	7326	803	1899	42473	42473							.	.	.	.	.		
1980		E	3183						741	1	55	4330	4330							.	.	.	.	.		
1980		TOTAL												5	2153			2153	2153							

A1.2.10. ROLLING STOCK-KILOMETRES

MOTIVE VEHICLE KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF KILOMETRES)

YEAR	Railway	rail gauge	STEAM LOCOMOTIVES: Assisting required (at front or rear)	STEAM: Light or Assisting not required	STEAM: Shunting	STEAM: Total KMs Run by The Rolling Stock: of Railways over network under consideration	STEAM: Total KMs: of Railway over the network under consideration and	DIESEL AND SPECIAL SYSTEM LOCOMOTIVES AND LIGHT RAIL MOTOR TRACTORS: Assisting required (at front or rear)	DIESEL: Light or Assisting not required	DIESEL: Shunting	DIESEL: Total KMs Run by the Rolling Stock: of Railways over the network under consideration	DIESEL: Total KMs: of the Railway over the network under consideration and over other networks: light rail motor tractors included	DIESEL: Total KMs: of the Railway over the network under consideration and over other networks: light rail motor tractors excluded
1980	CSD	L.N.E.	103	204	704	1547	1501	6486	13892	76999	197406	197351	.
1980	DB	N.E.						6327	23456	46555	205357	207732	193199
1980	DR	N	288	3465	1133	20375	20378	3847	24539	42516	258272	258744	258160
1980		E	3	22	405	1816	1816		0	32	32	32	1
1980		TOTAL											
1980	DSB	N						.	.	.	.	.	.
1980	FS	N	1	26	49	101	101	1321	1663	16228	42933	42482	42363
1980		E		4		30	30						
1980		TOTAL											
1980	JZ	N	64	338	2410	7051	7051	615	3242	17676	56073	56073	56073
1980		E											
1980		TOTAL											
1980	MAV	N	16	697	1520	8979	8979	388	5907	17547	68978	68978	68978
1980		E						65	5	71	1323	1323	1323
1980		total											
1980	NS	N						3612	1042	1965	12069	12069	12053
1980	NSB	N						658	207	2941	9316	9322	7105
1980	OBB	N		1	0	3	0	492	2491	6376	21964	22160	22160
1980		E	0	5	20	282	280	9	8	141	1198	1198	1102
1980		TOTAL											
1980	PKP	N	375	7229	22665	89782	89941	2108	18690	60076	212346	212919	212175
1980		E		10	295	2189	2189		34	754	4655	4655	.
1980		Total											
1980	RENFE	L						1730	4881	13152	55190	55190	54535
1980		E											
1980		TOTAL											
1980	SJ	N						505	434	5932	11620	11654	11155
1980		E						2	2	40	55	55	48
1980		TOTAL											
1980	SNCB	N						1408	8033	6005	52313	52156	52156
1980	SNCF	N						13955	25962	29852	162402	162439	143152
1980		E											
1980		TOTAL											
1980	VR	L						6094	665	6953	36324	36324	34786
1980	TCDD	N	509	160	3714	9894	9894	1576	517	1460	27713	27713	27713
1981	BDZ	N											
1981		E											
1981		total	.	.	.	.	.	.	.	.	.	.	.
1981	BR	N						7240	13094		167100	167100	.
1981	CFF	N						0	217	2516	3191	3179	1921
1981		E							0	5	6	5	
1981		total											
1981	CFL	N						80	355	503	2305	2781	2781
1981	CFR	L											
1981		N											
1981		E											
1981		total	.	.	.	.	.	.	.	.	.	.	.
1981	CH	N						207	189	1189	8937	8937	8937
1981		E						10	13	75	2331	2331	2331
1981		TOTAL											
1981	CIE	L						1368	428	175	15726	16081	16081
1981	CP	L						155	500	1923	17030	17030	15360
1981		E		0	21	69	69	2	1	35	1160	1160	1160
1981		TOTAL											
1981	CSD	L.N.E.	2	4	86	146	105	7060	13503	76378	194082	194011	.
1981	DB	N.E.						5932	21774	44799	195471	197540	183813
1981	DR	N	196	2304	692	13051	13027	3741	24535	42654	255454	255915	255200
1981		E	7	21	414	1805	1805		0	29	29	29	
1981		TOTAL											
1981	DSB	N						.	.	.	.	.	.
1981	FS	N		18	18	48	48	827	1553	16174	41453	41137	41002
1981		E		1		23	23						
1981		TOTAL											
1981	JZ	N	35	977	2037	5638	5638	509	4056	18167	56959	56959	56959
1981		E											
1981		TOTAL											
1981	MAV	N	2	569	1225	6532	6532	182	6205	16282	65812	.	.
1981		E						20	8	39	862	.	.
1981		total											
1981	NS	N						3638	1040	2285	12634	12634	12620
1981	NSB	N						602	270	3661	9999	10005	6918
1981	OBB	N		0	0	4	1	494	2406	6403	21792	22010	22010
1981		E	0	5	14	223	220	10	11	139	1189	1189	1099
1981		TOTAL											
1981	PKP	N	246	5821	18921	78381	78505	1801	17494	57924	187912	188528	187885
1981		E		11	286	2179	2179		36	660	4083	4083	.
1981		Total											
1981	RENFE	L						1533	4818	12501	52504	52504	52067
1981		E											
1981		TOTAL											
1981	SJ	N						703	372	5700	11338	11342	11342
1981		E						3	6	61	87	87	87
1981		TOTAL											
1981	SNCB	N						1241	7964	5944	49599	49390	49390
1981	SNCF	N						14136	25351	28782	156234	156282	136859
1981		E											
1981		TOTAL											
1981	VR	L						6438	680	7064	36328	36328	34737
1981	TCDD	N	540	126	3746	10936	10936	1743	409	1566	31458	31458	31458
1982	BDZ	N											
1982		E											
1982		total	.	.	.	.	.	.	.	.	.	.	.
1982	BR	N						6730	11727	.	144299	144299	.
1982	CFF	N						0	223	2665	3386	3074	1841
1982		E							0	5	7	5	
1982		total											
1982	CFL	N						69	339	451	2185	2612	2612
1982	CFR	L											
1982		N											
1982		E											
1982		total	.	.	.	.	.	.	.	.	.	.	.
1982	CH	N						252	74	1108	9044	9044	9044
1982		E						9	8	32	2390	2390	2390
1982		TOTAL											
1982	CIE	L						1419	402	146	14542	14899	14899
1982	CP	L						81	482	1880	16893	16893	15312
1982		E		0	20	58	58	2	0	28	994	994	994
1982		TOTAL											
1982	CSD	L.N.E.			16	25	17	7166	12575	74454	186491	186462	.
1982	DB	N.E.						5670	20488	42486	188162	190141	177217
1982	DR	N	115	1743	749	10881	10869	3727	23124	46319	250331	250641	246947
1982		E	6	21	406	1775	1775		0	29	29	29	0
1982		TOTAL											
1982	DSB	N						.	.	.	.	.	.
1982	FS	N		5	12	21	21	850	1597	15928	41326	41068	40882
1982		E		1		2	2						
1982		TOTAL											
1982	JZ	N	38	593	1788	4149	4149	768	4207	18183	57858	57858	57858
1982		E											
1982		TOTAL											
1982	MAV	N	1	905	1426	5005	5005	955	5817	16768	67722	.	.
1982		E							6	37	858	.	.
1982		total											
1982	NS	N						2038	1057	2214	9941	9941	9941
1982	NSB	N						783	268	2778	9419	8409	6816
1983	OBB	N	1	0	0	3	0	520	2387	6360	21503	21722	21722
1983		E	0	1	7	123	121	10	11	143	1207	1206	1118
1983		TOTAL											
1983	PKP	N	167	4974	17305	73155	73306	940	16733	55899	180493	181058	180502
1983		E		13	250	1929	1929		43	646	3980	3980	.
1983		Total											
1983	RENFE	L						1902	4968	12547	51034	51034	50584
1983		E											
1983		TOTAL											
1983	SJ	N						692	476	6028	12022	12065	12065
1983		E						17	0	75	141	141	141
1983		TOTAL											
1983	SNCB	N						1245	7811	5590	46233	46049	46049
1983	SNCF	N						15283	25103	27663	153216	153434	134463
1983		E											
1983		TOTAL											
1983	VR	L						5514	666	6910	34384	34384	32802
1983	TCDD	N	752	264	3641	10883	10883	1945	657	1539	30168	30168	30168
1983	BDZ	N											
1983		E											
1983		total	.	.	.	.	.	.	.	.	.	.	.
1983	BR	N						6494	11634	.	152100	152100	.
1983	CFF	N						0	232	2695	3423	3092	1872
1983		E							0	7	8	7	
1983		total											
1983	CFL	N						48	320	406	2066	2402	2402
1983	CFR	L											
1983		N											
1983		E											
1983		total	.	.	.	.	.	.	.	.	.	.	.
1983	CH	N						237	223	1160	10061	10061	10061
1983		E						19	11	67	2534	2534	2534
1983		TOTAL											
1983	CIE	L						1147	354	145	14015	14371	14371
1983	CP	L						177	460	1897	16580	16580	15053
1983		E		0	19	53	53	0	0	26	875	875	875
1983		TOTAL											
1983	CSD	L.N.E.				2		7649	12433	73844	183818	183786	.
1983	DB	N.E.						5572	19944	40773	184320	186111	173764
1983	DR	N	101	1575	765	10401	10407	3035	22212	46792	245754	245883	242087
1983		E	6	21	406	1787	1787		1	23	24	24	0
1983		TOTAL											
1983	DSB	N						.	.	.	.	.	.
1983	FS	N	1	6	5	16	16	815	1593	15668	41427	41170	41041
1983		E							1		20	20	20
1983		TOTAL											
1983	JZ	N	27	520	1674	3902	3902	567	3890	18320	57726	57726	57726
1983		E											
1983		TOTAL											
1983	MAV	N		898	606	3608	3608	897	5739	1649	51651	.	.
1983		E							6	33	858	.	.
1983		total											
1983	NS	N						1733	1009	2120	8874	8874	8874
1983	NSB	N						879	280	2600	9255	8274	6787
1983	OBB	N				3		572	2316	6130	20721	20939	20939
1983		E	0	0	5	104	102	9	15	135	1160	1159	1082

A1.2.10. ROLLING STOCK-KILOMETRES

YEAR	Railway	rail gauge	MOTIVE VEHICLE KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF KILOMETRES) – RAIL STOCK – STEAM LOCOMOTIVES: Assisting required (at front or rear)	STEAM: Light or Assisting not required	STEAM: Shunting	STEAM: Total KMs Run by The Rolling Stock – of Railways over network under consideration	STEAM: Total KMs – of Railway over the network under consideration and	DIESEL AND SPECIAL SYSTEM LOCOMOTIVES AND LIGHT RAIL MOTOR TRACTORS: Assisting required (at front or rear)	DIESEL: Light or Assisting not required	DIESEL: Shunting	DIESEL: Total KMs Run by the Rolling Stock – of Railways over the network under consideration	DIESEL: of the Railway over the network under consideration and over other networks – light rail motor tractors included	DIESEL: of the Railway over the network under consideration and over other networks – light rail motor tractors excluded	ELECTRIC LOCOMOTIVES AND LIGHT RAIL MOTOR TRACTORS: Assisting required (at front or rear)	ELECTRIC LOCO: Light or Assisting not required	ELECTRIC LOCO: Shunting	ELECTRIC LOCO: Total KMs Run by the Rolling Stock – of Railways over the network under	ELECTRIC LOCO: of the Railway over the – light rail motor	ELECTRIC LOCO: light rail motor	DIESEL AND SPECIAL SYSTEM RAILCARS: Assisting required or to increase	DIESEL RAILCARS: Light or Assisting not required	DIESEL RAILCARS: Shunting	DIESEL RAILCARS: Total KMs Run by The Rolling Stock – of Railways over network under consideration	DIESEL RAILCARS: of Railway over the network under consideration and over other networks	ELECTRIC RAILCARS: Assisting required or to increase transport capacity	ELECTRIC RAILCARS: Light or Assisting not required	ELECTRIC RAILCARS: Shunting	ELECTRIC RAILCARS: Total KMs Run by The Rolling Stock – of Railways over network under consideration	ELECTRIC RAILCARS: of Railway over the network under consideration and over other networks	ALL TYPES OF TRACTION: Assisting required or to increase transport capacity	ALL TYPES: Light or Assisting not required	ALL TYPES: Shunting	ALL TYPES: Total KMs Run by The Rolling Stock – of Railways over network under consideration	ALL TYPES: of Railway over the network under consideration and over other networks	Number of Kms taken for an hours shunting	ROAD MOTOR VEHICLES: Buses/Motor Coaches	ROAD MOTOR VEHICLES: Lorries	ROAD MOTOR VEHICLES: Tractors	ROAD MOTOR VEHICLES: Total	ROAD MOTOR VEHICLES: Including those operated and managed by the Railway	DISTANCES COVERED BY HAULED VEHICLES (IN THOUSANDS OF Kms) – RAIL STOCK: Carriages	RAIL STOCK: Wagons – Loaded	Wagons – Empty	Wagons – Total	Vans	ROAD VEHICLES: Bus Trailers	ROAD VEHICLES: Lorry and Tractor trailers
1983		TOTAL																																	5	44527	3690	219	48436	44685							3035
1983	PKP	N	153	4473	16215	67786	67949	1002	17911	56472	182480	183078	182490	349	19056	8107	192668	192747	192747	1128		271	11920		83092		4979	147952	147952	85724	41440	86044	602806	603631								4423780	1995838	6419618			
1983		E		12	194	1727	1727		51	680	4272	4272									7	6	1156	1156							70	880	7155	7155								11348	9274	20622			
1983		Total																																	5												
1983	RENFE	L						2053	4740	12283	47239	47239	46857	593	4930	675	58349	58349	58349	2719	752		23302	23469	5494	837	157	54531	54531	10860	11259	13115	183421	183588								579880	292720	872600			
1983		E																										106	106				106	106													
1983		TOTAL																																							502978						
1983	SJ	N						854	485	6144	12387	12393		11080	1652	7188	99731	99119	99119	2631	346		11907	11907	7540	719		18934	17574	22105	3202	13332	142959								351500	756900	378620	1135520	52700		
1983		E						20	1	82	157	157								140			624	624						160	1		699								595				25		
1983		TOTAL																																		99797	58		99855	99855							
1983	SNCB	N						1174	7387	5348	42742	42584	42584	1551	4334	116	27509	29165	29165	374	708	1	5441	5025	29425	3936	89	71033	71054	32524	16365	5554	146725	147828	5							205946	156425	362371			
1983	SNCF	N						15202	24652	26517	149074	149301	130892	10268	34130	4034	338802	338701	338701	18457	1530	490	93639		29049	212	286	86364	87020	72976	60524	31327	667879	668900													
1983		E																							404	0	0	905	890	404	0	0	905	890													
1983		TOTAL																																	6						2069370	2626440	1558910	4185350	142160		
1983	VR	L						5971	639	6901	33436	33436	31874	857	325	216	14509	14509	14509	6764	10	117	11960	11960	2859	2	148	8691	8691	16451	976	7382	68596	68596	10		4280		4280	4280	114910	350934	229600	580534	14698		
1983	TCDD	N	827	234	3424	10183	10183	1857	659	1900	31779	31779	31779	4	23		1630	1630	1630	16	1		1352	1352	2874	2		6647	6647	5578	919	5324	51592	51592	5						147376	273356	167722	441078	278		
1984	BDZ	N																																													
1984		E																																													
1984		total																																													
1984	BR	N						5228	12141		169015	169015		5742	2195		54948	54948	54948				145100	145100				164584	164584	10970	14336			533647								588537					
1984	CFF	N						0	241	3295	4044	3134	1925	2651	6678	4537	97524	98813	96510	1			30		1491	92		23061	22673	4143	7011	7832	124659	124611							502356	352801	170470	523271	89456		
1984		E							1	8	10	9		0	13	57	162	162	102						55	25	6	1347	1241	55	39	71	1519	1412							4937	614	116	730	2323		
1984		total																																	6												
1984	CFL	N						58	341	420	2323	2567	2567	15	280	1	1495	908	908	51	64		658	646	108	63		1120	842	232	748	421	5595	4963	6	3759	350	0	4109	4109	8986	18209	14394	32603	510		
1984	CFR	L																																													
1984		N																																													
1984		E																																													
1984		total																																													
1984	CH	N						343	276	696	10166	10166	10166							477	2		3660	3660						820	278	696	13826	13826							34288	28910	22131	51041	7814		
1984		E						4	180	40	2602	2602	2602								3		2310	2310						4	183	40	4912	4912							12816	8568	13900	22468	3913		
1984		TOTAL																																	6				13406								
1984	CIE	L						1046	442	119	13566	13888	13888															724	724	1046	442	119	14290	14612	3	96525	8107	4704	109336	109336	52900	38778	13985	52763			
1984	CP	L						254	496	2014	17398	17398	15901	22	256	18	6742	6742	6742	4149	0	130	9393	9393	4983		63	14643	14643	9408	752	2225	48176	48176													
1984		E		1	7	39	39	0	0	67	806	806	806							1184	0	103	3692	3692						1184	1	177	4537	4537													
1984		TOTAL																																	5	2391			2391	2391							
1984	CSD	L.N.E.						7462	12429	73571	182131	182033		12577	11728	20885	147841	147520		12802		6999	73880	73821	14730	2	1696	26169	26168	47571	24159	103151	430051	429542	10						694568	2654155	1102424	3756579	100292		
1984	DB	N.E.						5738	20307	40445	185892	187595	175489	3652	22752	810	419703	419832	419827	14178	507	9	38421	38519	119382	262	7	166499	166633	142950	43828	41271	810515	812579	########	493470	27737		521207	256096	2001974	3658732	1964031	5622763	237325		
1984	DR	N	99	1558	747	11134	11165	2852	21599	47628	239476	239505	235307	583	8724	433	80342	80309	80309	703	287	68	9492	9464	41652	11	0	56508	56508	45889	31881	48876	396952	396951							959131	2489079	1263696	3752775	74145		
1984		E	4	44	409	1814	1814		1	27	28	28	0																	4	45	436	1842	1842							5578	994	417	1411	1315		
1984		TOTAL																																	7												
1984	DSB	N																											29180			5500		79240	10	47744	5560		53304	53304							
1984	FS	N	1	4		8	8	843	1645	15875	42157	41902	41729	3179	5958	2819	207137	206594	206594	38031	572		91557	91168	19940	463	9	52788	52556	61994	8642	18703	393644	392228							1498124	1171051	564669	1735720	137289		
1984		E							1		18	18	18							4			340	340						4	1		358	358							344	69	23	92	6		
1984		TOTAL																																	6	4593	21		4614								
1984	JZ	N	37	438	1623	3475	3475	721	4028	18108	57736	57736	57736	1140	4262	459	64920	64920	64920	1131	1232		28386	28386	5165	256		20181	20181	8194	10216	20190	174698	174698	10						410915	1093737	450958	1544695			
1984		E																																													
1984		TOTAL																																													
1984	MAV	N		126	2391	3407	3407	147	5565	117390	165808			70	3844	5405	57505	57505	57505	210	429	363	22581	22581						427	9964	125549	249301	249301							475183	1074035	634184	1708219			
1984		E						6	9	231	1073																			6	9	231	1073	1073							28187	4462	3564	8026			
1984		total																																	7												
1984	NS	N						1733	936	1959	8117		8117		1008		29998		29998	2332			17319	17319	24021			90803	90803	28086	1944	1959	146237	146237	5						382052	128436	85624	214060			
1984	NSB	N						1169	295	2442	9371	9371	6768	898	463	461	18435	18420	18420	205			2623	2674	2514			12099	11943	4786	758	2903	42528	42408	10	22820	7207		30027	30027	96626	167251	83108	250359	4025		
1984	OBB	N		0	0	5		556	2321	6019	20512	20732	20732	4557	7080	3864	82281	82558	82558	83	98	88	5298	5069	5111	117	194	21889	22089	10307	9616	10165	129985	130448							318736	641433	432904	1074337	43361		
1984		E	0	0	4	88	86	10	18	138	1175	1174	1098	13	17	51	616	616	616				18	18						23	35	193	1897	1894							4564	2015	1242	3257	1186		
1984		TOTAL																																	5	45536	3731	265	49532	45799							3101
1984	PKP	N	103	4049	14896	60746	60860	830	17963	57510	183482	184067	183476	653	20302	8491	206141	206234	206234	770		260	11035	11016	85535		5570	154940	154940	87891	42314	86727	616344	617117								4515585	2017626	6533211			
1984		E		5	133	1275	1275		65	692	4598	4598									11	1	975	975							81	826	6848	6848								10481	8551	19032			
1984		Total																																	5												
1984	RENFE	L						2057	4604	12079	42438	42438	42063	582	5552	699	65901	65901	65901	11136	690		33914	34090	4616	843	221	54493	54493	18391	11689	12999	196746	196922	########							603950	310850	914800			
1984		E																										105	105				105	105	########												
1984		TOTAL																																	########						526486						
1984	SJ	N						1029	649	6380	13188	13188		11141	1529	7462	102331	102031	102031	3350	5		11997	11997	8478	13		19358	18100	23998	2196	13842	146874	145316							358575	843459	389727	1233186	53100		
1984		E						17	1	70	131	131								356	1		664	664						373	2	70	795	795							676				18		
1984		TOTAL																																					106000	106000							
1984	SNCB	N						2463	6803	5527	42604	42401	42401	1829	4430	162	29835	31569	31569	362	479	1	3922	3690	32491	3995	101	77652	77713	37145	15707	5791	154013	155373	5							227365	174654	402019			
1984	SNCF	N						14803	23868	25852	140674	140897	122778	10488	33545	3782	333464	333417	333417	18387	1405	477	90714	90848	33073	217	305	97600	98555	76751	59035	30416	662452	663717													
1984		E																							391	0	0	868	854	391	0	0	868	854													
1984		TOTAL																																	6						2127790	2531080	1631270	4162350	135710		
1984	VR	L						6351	683	6760	32227	32227	30614	994	387	208	16598	16598	16598	6368	9	86	10666	10666	2938	4	144	8767	8767	16651	1083	7198	68258	68258	10		4520		4520	4520	115046	332691	221619	554310	14541		
1984	TCDD	N	793	308	3207	9411	9411	2328	867	2032	37682	37682	37682	9	34		1555	1555	1555	36	1		1338	1338	3423	1		7976	7976	6589	1211	5239	57961	57961	5						160394	324009	203413	527422	251		

A1.1.11. Passenger Traffic

YEAR	Railway	rail gauge	RAIL TRAFFIC – PASSENGER – NUMBER OF PASSENGER CARRIED – 1 CLASS	2 CLASS	TOTAL	NUMBER OF PASSENGER-KMS (in thousands) – 1 CLASS	2 CLASS	TOTAL	Per KM of Line worked	Per passenger Train-km	Average pass.journey	BAGGAGE – Number of Tonnes – Total	Amount for accompanied motor vehicles	Number of Tonne-Kms (1000) – Total	Amount for accompanied motor vehicles	ROAD TRAFFIC – Number of Passenger carried	Number of passenger-kms(1000)	SHIPPING SERVICES – Number of Passenger carried	Number of passenger-kms(1000)	ALL TRAFFIC – Number of passenger-kms (1000)
1977	BDZ	N.E.	.	.	98673100	.	.	7343380	1663280	.	74,4	9150		1587						7343380
1977	BR	N	11913000	690150000	702063000	.	.	29290000	2032616	90,4	41,7	.	.	.	.			17364000	.	.
1977	CFF	N.E.	15981772	189469751	205451523	1153237	6864654	8017891	2771480	125,4	39	771303	747848	19683	15598	568985	3349	596928	7209	8028449
1977	CFL	N	291555	11024310	11315865	.	.	240226	1049022	85,5	21,2	13373	13103	824	818	4445985	57227			297453
1977	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	N.E.	181856	13183229	13365085	58029	1564804	1622833	659420	122,8	121,4	.	.	.	.	3001000	595932			2218765
1977	CIE	L	21175	14675737	14696912	1222	871321	872543	496610	129,2	59,4	.	.	.	.	289617542	.	.	.	.
1977	CP	L.E	3647000	134301000	137948000	358114	3792653	4150767	1163984	167,1	30,1	4065		360		302949	7963			4158730
1977	CSD	L.N.E.	.	.	455240276	.	.	19171520	1464705		42,1	54807		.						19171520
1977	DB	N.E.	31751819	939404793	971156612	3256289	34091666	37347955	1582540	98,4	38,5	3083356	2987604	227892	188866	515573958	6806009	5969038	218703	44372667
1977	DR	N.E.	4934594	626322234	631256828	790881	21555676	22346557	1737815	137,9	35,4	31427	7024	5145	1202			62504	3283	22349840
1977	DSB	N	684000	85325000	86009000	81432	2916031	2997463	1377511	80,8	34,9	7400	.	1370	.	27200000	366800	.	.	3364263
1977	FS	N.E.	24500692	369084886	393585578	4473923	33887089	38361012	2462196	172,4	97,5	241081	218149	37892	34453	7811685	206651	10470474	210816	38778479
1977	JZ	N.E.	2987000	120559000	123546000	1030000	9429000	10459000	1049363	138	84,7	119000	.	10080	.	3519000	150374			10609374
1977	MAV	N.E.	11348401	267282912	278631313	754470	11143343	11897813	1543767	190,2	42,7	4716	.	613	.					11897813
1977	NS	N	8832687	161937478	170770165	676613	7336441	8013054	3216802	85,1	46,9	.	.	.	.					8013054
1977	NSB	N	201000	33427000	33628000	70100	1993600	2003700	483169	86,7	59,6	.		.		15834000	281000			2284700
1977	OBB	N.E.	1273926	169988298	171262224	284137	6488928	6773065	1199197	118,3	39,5	.	322043	.	8124	82483528	985637	8543615	232264	7990966
1977	PKP	N.E.	8437909	1143264493	1151702402	1907130	42404980	44312110	.	231,9	38,5	31553		4141						44312110
1977	RENFE	L.E	.	.	212200000	.	.	17163000	1267578	188,1	80,9	.	.	.	.	.	.			.
1977	SJ	N.E.	1699400	62128200	64827600	657900	4719200	5377100	499081	91,9	82,9	5400		1800		.	.	5325100	29821	.
1977	SNCB	N	10294262	169164926	179459188	622831	6723655	7346486	2510761	110,3	40,9	30739	28835	4127	3831	40523504	458607			7805093
1977	SNCF	N.E.	32916000	627635000	660551000	8358700	43217896	51576596	2134528	184,5	78,1	305600	242600	189780	166060	12450000	246204	.	.	.
1977	VR	L	297000	36465000	36762000	90100	2887000	2977100	644813	114,2	81	15508	11325	.	.					2977100
1977	TCDD	N	3310358	109297097	112607455	850525	4236732	5087257	625047	270,8	45,2	26437		14012						5087257
1978	BDZ	N.E.	.	.	98749420	.	.	6709850	1545692	.	67,9	8465		1453						6709850
1978	BR	N	12377000	711409000	723786000	.	.	30740000	2134129	93,1	42,5	.	.	.	.			18291000	.	.
1978	CFF	N.E.	15723791	187718938	203442729	1165476	6917520	8082996	2793984	125	39,7	809658	785969	20391	16265	603572	3507	616792	7641	8094144
1978	CFL	N	306500	10732401	11038901	.	.	239049	1043882	84,4	21,7	16935	16705	867	862	4357065	56655			295704
1978	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH	N.E.	172069	10489345	10661414	56435	1511346	1567781	637050	118,1	147,1	.	.	.	.	26994047	548011			2115792
1978	CIE	L	22231	15882701	15904932	1352	964496	965848	585717	116	60,7	.	.	.	.	281736731	.	.	.	.
1978	CP	L.E	3084000	201469000	204553000	381007	5131381	5512388	1536340	219	26,9	3651		333		305403	8652			5521040
1978	CSD	L.N.E.	.	.	423207301	.	.	18631407	1426055		44	47374		.						18631407
1978	DB	N.E.	32239833	958403873	990643706	3284474	34304858	37589332	1594593	98,4	37,9	269547	174123	153300	148966	515439326	6674442	6709909	250015	44513789
1978	DR	N.E.	4653089	618208492	622861581	811387	21505301	22316688	1734682	137,3	35,8	28083	7656	4741	1337			86654	4151	22320839
1978	DSB	N	714000	88512000	89226000	87000	3041000	3128000	1438161	83,3	35,1	.		.		29000000	356000	.	.	3484000
1978	FS	N.E.	22830910	367326522	390157432	4279725	34931761	39211486	2525212	173,9	100,5	243960	226126	40276	37601	7131419	193357	11178651	215445	39620288
1978	JZ	N.E.	2979000	109801000	112780000	1123000	9322000	10445000	1069965	144,9	92,6	108000		9384		3504000	161948			10606948
1978	MAV	N.E.	11610400	251253	263131653	807606	10705383	11512989	1506147	184,1	43,8	3654	.	580	.					11512989
1978	NS	N	9621130	166704843	176325973	703990	7442326	8146316	3257224	86,6	46,2	.	.	.	.					8146316
1978	NSB	N	204000	33930000	34134000	68400	1989900	2058300	502515	89,9	60,3	.		.		15979000	331000			2389300
1978	OBB	N.E.	1382687	167668704	169051391	309617	6799040	7108657	1258615	122,8	42,1	.	265319	.	9030	82940211	996727	10422185	246041	8351425
1978	PKP	N.E.	7996082	1123990547	1131986629	1943351	44772526	46715877	.	244,3	41,3	31742		4152						46715877
1978	RENFE	L.E	.	.	207100000	.	.	16758000	1238306	108,6	80,9	.	.	.	.	.	.			.
1978	SJ	N.E.	1660600	63846700	65507300	632500	4736600	5369100	498015	90,8	82	5450		1815		.	.	4427000	26000	.
1978	SNCB	N	10654263	160103202	170757465	657514	6478874	7136388	2429822	103,3	41,8	38016	36126	5057	4715					7136388
1978	SNCF	N.E.	31735000	639794000	671529000	7899000	45364011	53263011	2207427	188,1	79,3	338100	280300	215920	194100	12061000	241089	.	.	.
1978	VR	L	307000	36955	37262000	90300	2892800	2931000	643603	116,1	80,1	12950	10952	.	.					2983100
1978	TCDD	N	6185940	109479817	115665757	1348820	4251343	5600163	688065	284,2	48,4	24706		24819						5603163
1979	BDZ	N.E.	.	.	98749420	.	.	6709850	1545692	.	67,9	8465		1453						6709850
1979	BR	N	12720000	723501000	736221000	.	.	32030000	2224000	97	43,5	.	.	.	.			18136000	.	.
1979	CFF	N.E.	15867534	189734207	205601741	1182503	7111590	8294093	2866952	127,2	40,3	817946	794505	20599	16516	605667	3526	656901	8181	8305800
1979	CFL	N	308429	10782116	11090545	.	.	241804	1055913	85,2	21,8	16405	16105	1097	1089	4321944	56108			297912
1979	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH	N.E.	159772	10265242	10425014	56001	1474534	1530535	621916	117,4	146,8	.	.	.	.	1788000	501825			2032360
1979	CIE	L	22452	17863522	17885974	.	.	1112521	676716	127,5	62,2	.	.	.	.	243338000	.	.	.	.
1979	CP	L.E	3308000	207349000	210657000	461354	5173649	5635003	1570514	210,4	26,7	3847		347		275798	8311	.		5643314

A1.1.11. Passenger Traffic

			RAIL TRAFFIC													ROAD TRAFFIC		SHIPPING SERVICES		ALL TRAFFIC
			PASSENGER									BAGGAGE								
			NUMBER OF PASSENGER CARRIED			NUMBER OF PASSENGER-KMS			Per KM of	Per		Number of Tonnes		Number of Tonne-Kms (1000)						
YEAR	Railway	rail gauge	1 CLASS	2 CLASS	TOTAL	1 CLASS in thousands	2 CLASS	TOTAL	Line worked	passenger Train-km	Average pass.journey	Total	Amount for accompanied motor vehicles	Total	Amount for accompanied motor vehicles	Number of Passenger carried	Number of passenger-kms(1000)	Number of Passenger carried	Number of passenger-kms(1000)	Number of passenger-kms (1000)
1979	CSD	L.N.E.	.	.	411456851	.	.	18152162	1391930	137,9	44,1	48735		.						18152162
1979	DB	N.E.	33508799	993462205	1026971004	3327131	36052921	39380052	1670558	100,4	38,3	290361	186645	163276	120753	532282133	6851045	6926087	253550	46484647
1979	DR	N.E.	5117404	607775795	612893199	838002	21441387	22279389	1734344	139,8	36,4	30327	8120	3760	1174			87500	4270	22283658
1979	DSB	N	420000	31570000	31990000	80000	1909000	1989000	995495	51,5	62,2	.		.		34000000	400000	.	.	2389000
1979	FS	N.E.	21815280	363980996	385796276	4159746	35527797	39687543	2553239	175,1	102,9	73367	57706	34523	32174	6817363	184763	11152838	197348	40069654
1979	JZ	N.E.	2854000	105195000	108049000	1002000	9132000	10134000	1080269	145,2	93,8	.	.	.	.	4567000	178599			10312599
1979	MAV	N.E.	11622964	242415240	254038204	847140	10575083	11422223	1494469	181,6	45	3922		593						11422223
1979	NS	N	11503676	174963301	186466977	800183	7713895	8514078	3398834	90,8	45,7	.	.	.	.					8514078
1979	NSB	N	198000	35224000	35422000	66700	2198400	2265100	553003	99,3	63,9	.		.		16497000	278000			2543100
1979	OBB	N.E.	1435263	167662105	169097368	318905	6922057	7240962	1282494	122,8	42,8	.	304591	.	9877	81406954	989128	10850373	224040	8454130
1979	PKP	N.E.	7994640	1091460519	1099455159	1835290	43638003	45473293	1870559	248,5	41,4	30574		4500						45473293
1979	RENFE	L.E	.	.	205200000	.	.	16609000	1227478	180,2	80,9	.	.	.	.	.	.			.
1979	SJ	N.E.	1810400	67285800	69096200	673200	5304900	5978100	554503	100,5	86,5	5708		1901		.	.	4653800	20860	.
1979	SNCB	N	9473410	153567119	163040529	642143	6312700	6954843	2356775	98,3	42,7	41053	39196	5471	5114					6954843
1979	SNCF	N.E.	28375000	648074000	676449000	7278400	46054900	53333300	2213000	186	78,8	323900	268600	223880	202960	11575000	231153	.	.	.
1979	VR	L	331000	37287000	37618000	95700	2924200	3019900	646660	118	80,3	15618	11778	.	.					3019900
1979	TCDD	N	7609599	118943712	126553311	1943893	4855467	6799360	836124	333,6	53,7	32855		44576						6799360
1980	BDZ	N.E.	.	.	100000000	.	.	7055000	.	.	70,5	.	.	.	.					7055000
1980	BR	N	12922000	747270000	760192000	.	.	31704000	2202208	92,5	41,7	.	.	.	.			18447000	.	
1980	CFF	N.E.	17185572	199116456	216302028	1322045	7845144	9167189	3163281	137	42,4	778642	753326	20287	15896	653786	3739	650838	8117	9179045
1980	CFL	N	318699	10949989	11268688	.	.	245517	1072127	87	21,8	17469	17206	1244	1238	4383916	56912			302429
1980	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH	N.E.	145992	9989545	10135537	52875	1411105	1463980	594872	121,1	144,4	.	.	.	.	1661197	468699			1932679
1980	CIE	L	.	.	16653722	.	.	1032266	650451	121,9	62	.	.	.	.	247349000	.	.	.	.
1980	CP	L.E	3375000	220816000	224191000	516308	5560626	6076934	1683828	215,4	27,1	4353		392		271206	8714	.	.	6085648
1980	CSD	L.N.E.	.	.	415628790	.	.	18043109	1384842	137	43,4	50079		.						18043109
1980	DB	N.E.	32442912	1075223073	1107665985	3360525	37138770	40499295	1732368	100,9	36,6	306838	198318	173179	129618	559805897	6940769	6425817	250315	47690379
1980	DR	N.E.	5317051	601784187	607101238	933663	22204012	23137675	1801018	145	38,1	28967	10079	5398	2007			78490	4521	23142196
1980	DSB	N	.	.	129289000	.	.	3353000	1678178	85,4	25,9	.		.		20800000	378000	.	.	3731000
1980	FS	N.E.	21207717	360204332	381412049	4137607	35448971	39586578	2532244	172,7	103,8	71123	55648	32645	30324	6454586	170936	10759222	180916	39938430
1980	JZ	N.E.	2798000	104223000	107021000	1013000	9379000	10392000	1097940	143,2	97,1	.	.	.	.	5247000	201978	.	.	10593978
1980	MAV	N.E.	12256807	233517737	245774544	892354	10441242	11333596	1506927	174,3	46,1	2549		523						11333596
1980	NS	N	12444725	184780419	197225144	864634	8045341	8909975	3556876	92,8	45,2	.	.	.	.					8909975
1980	NSB	N	261000	37687000	37948000	87800	2305700	2393500	584065	102,8	63,1	.		.		17109000	270000			2663500
1980	OBB	N.E.	1439734	168572195	170011929	320432	7059993	7380425	1307890	122,5	43,4	.	291238	.	12546	82246640	1062713	8968846	200063	8643201
1980	PKP	N.E.	8366496	1092141246	1100507742	1841331	44483142	46324473	.	243	42,1	32863		4613						46324473
1980	RENFE	L.E	.	.	167200000	.	.	13527000	998892	142,9	80,9	.	.	.	.	.	.			.
1980	SJ	N.E.	1995000	75075400	77070400	740100	6046774	6786874	629522	113,1	88,1	6450		2148		.	.	5318000	22208	.
1980	SNCB	N	10582761	153127680	163710441	669325	6293593	6962918	2356318	96,7	42,5	42913	41139	5807	5420					6962918
1980	SNCF	N.E.	26253000	655961000	682214000	6904300	47346800	54251100	2286570	186,8	79,5	326000	274700	237060	217570	12187000	244454	.	.	.
1980	VR	L	.	.	39310000	.	.	3215600	689303	125,6	81,8	17010	13036	.	.					3215600
1980	TCDD	N	9503307	104434522	113937829	1847622	4163256	6010878	733660	279,2	52,8	26439		24970						6010878
1981	BDZ	N.E.	.	.	100000000	.	.	7055000	.	.	70,5	.	.	.	.					7055000
1981	BR	N	11585000	706903000	718488000	.	.	30740000	2136000	91,1	42,8	.	.	.	.			17812000	.	.
1981	CFF	N.E.	17445700	200797138	218242838	1325139	7760420	9085559	3128636	135,7	41,6	270560	243360	11803	7177	645591	3731	738187	10526	9099546
1981	CFL	N	317240	11315967	11633207	.	.	252149	1101087	87,2	21,7	19779	19534	1411	1405	4528309	58798			310947
1981	CFR	L.N.E.	.	.	347918000	.	.	23220000	.	.	66,7	.	.	.	.					23220000
1981	CH	N.E.	148983	10237746	10386729	56415	1458644	1515059	615627	120,6	145,9	.	.	.	.	1409144	377515			1892574
1981	CIE	L	.	.	15373735	.	.	994630	605743	119,9	64,7	.	.	.	.	227952000	.	.	.	.
1981	CP	L.E	3191000	210188000	213379000	510770	5344903	5855673	1619379	193,6	27,4	2942		270		234982	11737	.	.	5867410
1981	CSD	L.N.E.	.	.	404594800	.	.	17909132	1374665	137,3	44,3	38565		.						17909132
1981	DB	N.E.	31820685	1078462865	1110283550	3328581	38466749	41795330	1822736	104,7	37,6	306639	186977	171037	121583	583064831	6926605	7327525	276565	48998500
1981	DR	N.E.	5147980	596058284	601206264	915707	22104737	23020444	1790081	150,1	38,3	27269	6690	3709	1029			118244	5752	23026196
1981	DSB	N	513000	133611000	134124000	3908740	94260	4003000	2003504	98,5	29,9	.		.		.	.	18281200	268400	4271400
1981	FS	N.E.	21113882	374644069	395757951	4045826	36044614	40090440	2566774	176,7	101,3	74647	58940	35631	33275	4971930	135409	10585678	183916	40409765
1981	JZ	N.E.	2962000	101944000	104906000	1081000	9429000	10510000	1118918	141,2	100,2	.	.	.	.	4925000	198996			10708996
1981	MAV	N.E.	14909389	227084295	241993684	1327432	12061595	13389027	1779982	199,3	49,8	2166	.	514	.					13389027
1981	NS	N	13199620	192011944	205211564	905050	8325114	9230164	3625359	93,8	45,0	.	.	.	.					9230164

A1.1.11. Passenger Traffic

YEAR	Railway	rail gauge	RAIL TRAFFIC: PASSENGER: NUMBER OF PASSENGER CARRIED: 1 CLASS	2 CLASS	TOTAL	NUMBER OF PASSENGER-KMS (in thousands): 1 CLASS	2 CLASS	TOTAL	Per KM of Line worked	Per passenger Train-km	Average pass.journey	BAGGAGE: Number of Tonnes: Total	Amount for accompanied motor vehicles	Number of Tonne-Kms (1000): Total	Amount for accompanied motor vehicles	ROAD TRAFFIC: Number of Passenger carried	Number of passenger-kms(1000)	SHIPPING SERVICES: Number of Passenger carried	Number of passenger-kms(1000)	ALL TRAFFIC: Number of passenger-kms (1000)
1981	NSB	N	232000	38690000	38922000	80000	2344500	2424500	591486	102,5	62,3	.		.		18649000	322000			2746500
1981	OBB	N.E.	1252424	168860833	170113257	268408	6774394	7042802	1255401	116,0	41,4	.	288223	.	12039	85977760	1117846	8538154	172460	8333108
1981	PKP	N.E.	9218611	1104358314	1113576925	2031168	46206872	48238040	.	256,6	43,3	37570		4676						48238040
1981	RENFE	L.E	.	.	176300000	.	.	14261000	1053016	142,5	80,9	.		.		.	.			.
1981	SJ	N.E.	2003000	76513000	78516000	675500	6175300	6850800	639544	111,9	87,3	5990		2008		.	.	5383000	24540	.
1981	SNCB	N	10461522	156365141	166826663	673648	6404432	7078080	2396912	95,0	42,4	40124	38165	5401	4999					7078080
1981	SNCF	N.E.	25675000	661372000	687047000	6846800	48567200	55414200	2373089	189,7	80,7	313100	265200	248400	230200	10323000	252400	.	.	.
1981	VR	L	.	.	41016000	.	.	3274100	722600	128,8	79,8	19837	15499	.	.					3274100
1981	TCDD	N	13054898	110658997	123713895	2142067	3963156	6105223	745176	274,3	49,3	18979		6618						6105223
1982	BDZ	N.E.	.	.	100000000	.	.	7055000	.		70,5	.		.						7055000
1982	BR	N	10007000	620103000	630110000	.	.	27360000	1902000	91,0	43,4	.		.	.			17418000	.	
1982	CFF	N.E.	17233624	199771772	217005396	1279270	7676964	8956234	3076686	120,9	41,3	255664	226064	11752	6726	471216	2797	729035	9422	8968453
1982	CFL	N	292436	11524633	11817069	.	.	251175	1082651	86,2	21,3	.	.	.	.	4644777	59732			310907
1982	CFR	L.N.E.	.	.	347918000	.	.	23220000	.		66,7	.	.	.	.					23220000
1982	CH	N.E.	161048	9986741	10147789	60736	1440701	1501437	610092	113,4	147,9	.	.	.	.	1455171	364925			1866362
1982	CIE	L	.	.	12813324	.	.	887491	540165	113,7	69,3	.	.	.	.	239029000	.	.	.	.
1982	CP	L.E	2603000	208093000	210696000	394104	5020172	5414276	1497311	180,0	25,7	2340		205		200950	13385	.	.	5427661
1982	CSD	L.N.E.	.	.	412798510	.	.	19043236	1449036	145,2	46,1	39413		.						19043236
1982	DB	N.E.	29996970	1039439937	1069436907	3228563	36801847	40030410	1771100	102,5	37,4	259084	161869	148019	108396	590261988	6847722	7448927	294615	47172747
1982	DR	N.E.	4535957	618654492	623190449	872050	23907660	24779710	1928682	161,7	39,8	26219	6612	3629	1046			102352	4997	24784707
1982	DSB	N	514000	134655000	135169000	99000	4116000	4215000	2109610	102,0	31,2	.		.		.	.	18861500	280600	4495600
1982	FS	N.E.	20848970	369581220	390430190	4081947	35937147	40019094	2561222	173,8	102,5	74594	62037	37562	35678	4273393	105957	10350658	181836	40306887
1982	JZ	N.E.	3232041	107549000	110781041	1202428	10063000	11265428	1199854	150,4	101,7	.	.	.	.	4785000	204336			11469764
1982	MAV	N.E.	17596317	244759044	262356081	1263765	11648946	12912710	1718803	275,1	49,2	1752	.	378	.					12912710
1982	NS	N	13369374	195569230	208938604	900014	8476210	9376224	3685623	93,5	44,9	.	.	.	.					9376224
1982	NSB	N	180000	37264000	37444000	63600	2178000	2241600	546865	95,2	59,9	.		.		18595000	317000			2558600
1982	OBB	N.E.	1309892	168899967	170209859	293362	6923880	7217242	1295037	115,0	42,4	.	269772	.	15885	86166953	1130421	9571682	193772	8541435
1982	PKP	N.E.	11545171	1096718287	1108263458	2590782	46674951	49265733	.	263,5	44,5	42485		4274						49265733
1982	RENFE	L.E	.	.	181700000	.	.	14703000	1083333	142,5	80,9	.		.		.	.			.
1982	SJ	N.E.	2283000	73158000	75441000	714100	5666400	6380500	600348	101,4	84,6	6240		2240		.	.	4328000	20900	.
1982	SNCB	N	9972388	152602118	162574506	641025	6237874	6878899	2327885	93,8	42,3	37925	35885	5173	4765					6878899
1982	SNCF	N.E.	24666000	679369000	704035000	6802200	49802800	56605000	2383067	188,5	80,4	313100	266900	250100	232600	10200000	249000	.	.	.
1982	VR	L	.	.	41406000	.	.	3326069	732937	132,8	80,3	20622	16354	.	.					3326069
1982	TCDD	N	11315317	108974643	120289960	1884199	3555839	5440038	666998	255,9	45,2	15608		6180						5440038
1983	BDZ	N.E.	.	.	100000000	.	.	7055000	.		70,5	.		.						7055000
1983	BR	N	11300000	683900000	695200000	.	.	30100000	2094059	92,3	43,4	.		.	.			18576000	.	
1983	CFF	N.E.	16982119	200199817	217181936	1261324	7728326	8989650	3083928	113,4	41,4	242832	215732	9831	5231	378958	2227	697136	9126	9001003
1983	CFL	N	296053	10977800	11273853	.	.	239237	1031194	83,7	21,2	.	.	.	.	4388865	56128			295365
1983	CFR	L.N.E.	.	.	347918000	.	.	23220000	.		66,7	.	.	.	.					23220000
1983	CH	N.E.	180328	11104282	11284610	65453	1563265	1628718		120,3	144,3	.	.	.	.	1410111	354796			1983514
1983	CIE	L	.	.	13026557	.	.	845716	514426	108,4	64,9	.	.	.	.	222560000	.	.	.	.
1983	CP	L.E	2178000	205783000	207961000	317593	4877621	5195214	1441913	181,6	25,0	1900		166		180655	8036	.	.	5203250
1983	CSD	L.N.E.	.	.	410720309	.	.	18884063	1448275	142,8	45,7	36951		.						18884063
1983	DB	N.E.	28451997	1037844661	1066296658	3095870	35659045	38754915	1736798	100,6	36,3	240760	154978	134832	100195	700812238	8136786	7690665	309158	47200859
1983	DR	N.E.	4806130	615570712	620376842	951785	21651295	22603080		148,2	36,4	25682	5933	3432	942			40425	1935	22605015
1983	DSB	N	437000	132535000	132972000	67000	4324000	4391000	2196598	105,5	33,0	.		.		.	.	19480800	286900	.
1983	FS	N.E.	20120000	345430000	365550000	3789300	33360700	37150000	2377296	159,4	101,6	68473	56017	34300	32432	4345022	107476	10294729	172754	37430230
1983	JZ	N.E.	3509000	113356888	116865888	1313000	10330137	11643137	1237447	150,3	99,6	.	.	.	.	4358000	184048	.	.	11827185
1983	MAV	N.E.	13640674	220719411	234360085	891163	10089515	10980678	1460585	156,3	46,9	1207	.	271	.					10980678
1983	NS	N	12270811	189792644	202063455	811896	8239688	9051584	3562213	90,9	44,8	.	.	.	.					9051584
1983	NSB	N	145000	35714000	35859000	67200	2107900	2175100	530642	94,4	60,7	.		.		17882000	305000			2480100
1983	OBB	N.E.	1223188	168053956	169277144	277843	6745072	7022915	1264479	110,5	41,5	.	291713	.	18883	84669561	1110189	8074093	172139	8305243
1983	PKP	N.E.	11977070	1029810502	1041787572	2678421	47474213	50125634	.	260,5	48,1	35967		4265						50152634
1983	RENFE	L.E	.	.	186600000	.	.	15092000	1111913	146,4	80,9	.		.		.	.			.
1983	SJ	N.E.	2265200	74948200	77213400	696319	5763841	6460160	607558	99,5	83,7	5803		2083		.	.	4322000	19312	.
1983	SNCB	N	9439813	146081373	155521186	606906	6024284	6631190	2246338	94,0	42,6	30708	28597	4093	3787					6631190
1983	SNCF	N.E.	23775000	701785000	725560000	6732100	51444500	58176600	2444292	189,8	80,2	324700	279000	261400	244000	10100000	249000	.	.	.
1983	VR	L	.	.	41546000	.	.	3338647	750089	134,6	80,4	21798	17589	.	.					3338647

A1.1.11. Passenger Traffic

YEAR	Railway	rail gauge	RAIL TRAFFIC													ROAD TRAFFIC		SHIPPING SERVICES		ALL TRAFFIC
			PASSENGER									BAGGAGE								
			NUMBER OF PASSENGER CARRIED			NUMBER OF PASSENGER-KMS (in thousands)			Per KM of Line worked	Per passenger Train-km	Average pass.journey	Number of Tonnes		Number of Tonne-Kms (1000)						
			1 CLASS	2 CLASS	TOTAL	1 CLASS	2 CLASS	TOTAL				Total	Amount for accompanied motor vehicles	Total	Amount for accompanied motor vehicles	Number of Passenger carried	Number of passenger-kms(1000)	Number of Passenger carried	Number of passenger-kms(1000)	Number of passenger-kms (1000)
1983	TCDD	N	11682272	113571452	125253724	1997753	3723976	5721729	683355	252,6	45,7	16568		6616						5721729
1984	BDZ	N.E.	.	.	100000000	.	.	7055000	.	.	70,5	.	.	.	.					7055000
1984	BR	N	13700000	843500000	857200000	.	.	36400000	2534000	90,1	42,5	.	.	.	.			21071000	.	.
1984	CFF	N.E.	16743310	201350233	218093543	1271922	7760164	9032086	3083676	113,6	41,4	230782	206682	9472	4742	369717	2162	683142	9072	9043320
1984	CFL	N	273756	10588946	10862702	.	.	230934	999714	80,1	21,3	.	.	.	.	4248421	54332			285266
1984	CFR	L.N.E.	.	.	347918000	.	.	23220000	.	.	66,7	.	.	.	.					23220000
1984	CH	N.E.	164777	10824435	10989212	63632	1587887	1651519	671076	120,8	150,3	.	.	.	.	1447628	364777			2016296
1984	CIE	L	.	.	15560120	.	.	903436	549535	110,9	58,1	.	.	.	.	219177000	.	.	.	.
1984	CP	L.E	2182000	212464000	214646000	319075	5137099	5456174	1510151	180,2	25,4	1896		157		145984	6553	.	.	5462727
1984	CSD	L.N.E.	.	.	421744479	.	.	19322969	1485011	144,3	45,8	39164	.	.	.					19322969
1984	DB	N.E.	29247395	1018548782	1047796177	2989662	36084897	39074559	1787818	102,2	37,3	224245	141034	124984	91432	753957993	8988066	8116699	335254	48397879
1984	DR	N.E.	4901092	622784056	627685148	1035454	21874157	22909611	1784933	152,7	36,5	24750	5082	3118	716			229364	9140	22918751
1984	DSB	N	562000	133443000	134005000	83000	4338000	4421000	2211606	106,9	33,0	.		.		.	.	21023500	309900	.
1984	FS	N.E.	20200000	392300000	412500000	3727000	33400000	37127000	2372332	158,1	90,0	69630	57367	36199	34360	4141518	103258	10116637	173318	37403576
1984	JZ	N.E.	3634695	114150611	117785306	1360083	10374004	11734087	1264585	147,4	99,6	.	.	.	.	3130000	183495			11917582
1984	MAV	N.E.	8967339	198203950	207171289	631124	8872734	9503858	1263642	132,9	45,9	1114	.	239	.					9503858
1984	NS	N	11581140	193314390	204895530	781851	8215506	8997357	3540872	88,7	43,9	.	.	.	.					2494000
1984	NSB	N	136000	34839000	34975000	62500	2135500	2198000	536228	96,6	62,8	.		.		17358000	296000			2494000
1984	OBB	N.E.	1669413	158375316	160044729	364718	6638831	7003549	1263039	109,7	43,8	.	280679	.	19270	82055340	1054596	7695456	157947	8216092
1984	PKP	N.E.	14079743	1022001578	1036081321	3384642	49794791	53179433	.	271,3	51,3	37119		4255						53179433
1984	RENFE	L.E	.	.	192500000	.	.	15574000	.	149,6	80,9	.	.	.	.	.	.			.
1984	SJ	N.E.	2076900	75603100	77680000	647000	5836000	6483000	615437	99,3	83,5	.	.	.	.	.	.	4800000	21560	.
1984	SNCB	N	8902831	140999197	149902028	579938	5864293	6444231	2204663	88,8	43,0	27521	25259	3618	3392					6444231
1984	SNCF	N.E.	24461000	720895000	745356000	7041200	52911400	59952600	2509842	195,4	80,4	329400	283000	266400	248800	9800000	250000	.	.	.
1984	VR	L	.	.	40991000	.	.	3275840	740136	134,1	79,9	22859	18940	.	.					3275840
1984	TCDD	N	13622157	117820003	131442160	2364929	3911798	6276727	747229	251,3	47,8	15834		6326						6276727

A1.2.12. Freight Traffic

RAIL TRAFFIC — TONNES CARRIED (Public traffic) and TONNE-KILOMETRES (according to rate charged; in thousands)

YEAR	Railway	railgauge	Tonnes: Express parcels	Tonnes: Small traffic	Tonnes: Full Traffic	Tonnes: TOTAL (rate charged)	Tonnes: Goods loaded at stations on the system	Tonnes: Goods entered as loaded from other railway systems in the country	Tonnes: Goods entered as loaded from foreign railway system	Tonnes: Goods in international transit between two land frontier points	Tonnes: TOTAL	Tonnes: DEPARTMENTAL TRAFFIC	Tonnes: GRAND TOTAL	TKM: Express parcels	TKM: Smalls traffic	TKM: Full wagons	TKM: TOTAL	TKM: Goods loaded at stations on the system
1977	BDZ	N.E.	205350	559487	75188310	75953147	74628818		.	.	75953147		75953147	60297	163883	17079890	17304070	.
1977	BR	N	1309000	63000	170292000	171664000	.		.	.	171664000	.	.	.	22500	22701400	.	.
1977	CFF	N.E.	1407495		37479995	38887490	20958490	1374000	6800000	9755000	38887490	1993608	40881098	159876		5772610	5932486	2347210
1977	CFL	N	5449	20833	14359192	14385474	7323436		5034281	2027757	14385474	.	.	193	765	564016	564974	242109
1977	CFR	L.N.E.	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
1977	CH	N.E.	6815	51043	3430347	3488205	2859982		628233		3488205	.	.	2240	17189	836007	855436	673600
1977	CIE	L	.	.	.	3565605	.		.	.	3565605	3128	3568733	.	.	.	596255	.
1977	CP	L.E		283396	3367184	3650580	3413192	4858	232530		3650580	342163	3992743		72087	812476	884563	.
1977	CSD	L.N.E.	.	.	.	271395160	228076050		25797334	17521776	271395160	1481914	272877074	.	.	.	64681555	52249080
1977	DB	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	29670977	5647031	279594123	14728549	294322672	150493	932072	53803457	54886022	42302416
1977	DR	N.E.	96932	1964958	285714370	287776260	251370739		26768707	9636814	287776260	11250167	299026427	14795	364206	50468352	50847353	42629633
1977	DSB	N	574000		6877000	7451000	3900000	338000	2008000	1205000	7451000	355000	7806000	133000		1736560	1869560	1050801
1977	FS	N.E.	309728	217526	49669934	50197188	29681389	221161	19998096	296542	50197188	4448140	54645328	137519	94320	16867810	17099649	11345234
1977	JZ	N.E.	142445	671778	76617363	77431586	61941780		8774137	6715669	77431586		77431586	61568	276344	21886695	22224607	16630202
1977	MAV	N.E.	46985	251204	128571796	128869985	87994342		22011203	18864440	128869985	4935102	133805087	6904	69423	23165529	23241856	12834326
1977	NS	N	5825	28466	17671677	17705968	13037083		4433144	235741	17705968	1181259	18887227	.	.	2805449	2805449	2126914
1977	NSB	N	51664	21252	23378141	23451057	8552372	91731	14806954		23451057	448223	23899280	11324	3188	2552175	2566687	1686902
1977	OBB	N.E.	163915	265896	[illegible]	[illegible]	24164230	2047924	1423904	8908316	46544374	2072035	48616409	37208	50520	9800176	9887904	4809853
1977	PKP	N.E.	206370	446786	467562980	468216136	423568754		31181778	13465604	468216136	13045906	481262042	47342	225637	133155403	133428382	14192436
1977	RENFE	L.E	138100	408400	35138400	35684900	.		.	.	35684900	1779800	37464700	60800	253000	10711200	11025000	.
1977	SJ	N.E.	19258	973264	48334340	49326862	44721088	1359574	2787600	458600	49326862	280495	49607357	8525	397251	13644942	14050718	.
1977	SNCB	N	21600	426089	58331734	58779423	42573485		10903473	5302465	58779423	2083618	60863041	2055	40736	6484716	6527507	4116039
1977	SNCF	N.E.	216000	1803000	210730000	212749000	188797000		19016000	4936000	212749000	9659000	222408000	105000	830000	64669000	65604000	57415000
1977	VR	L	43100	408500	21421400	21873000	16872607	164487	4823796	12110	21873000	2012600	23885600	16000	138200	6242500	6396700	5070431
1977	TCDD	N	77752		13833343	13911095	12473994		255805	1181296	13911095	2429719	16340814	19436		6333762	6353198	5064890
1978	BDZ	N.E.	208010	606420	74229780	75044210	74437789			.	75044210		75044210	62777	180231	16904824	17147832	.
1978	BR	N	1247000		170507000	171754000	.		.		171754000	.		.		19982000	.	
1978	CFF	N.E.	1387431		38508647	39896078	21349078	1418000	7426000	9703000	39896078	1940019	41836097	157644		6060358	6218002	2421790
1978	CFL	N	5368	19002	15636390	15660760	8104244		5286000	2270516	15660760	.	.	193	635	646405	647233	272719
1978	CFR	L.N.E.	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
1978	CH	N.E.	7329	38959	3548122	3594410	2379852		708088	506470	3594410	.		2354	12850	839128	854342	617796
1978	CIE	L	.	.	.	3849942	.		.		3849942	2023	3851965	.	.	.	630139	.
1978	CP	L.E		256572	3604500	3861072	3651170		209902		3861072	476890	4337962		67283	865365	932648	.
1978	CSD	L.N.E.	.	.	.	275276867	233127100		25328362	16821405	275276867	1347667	276624534	.	.	.	65156416	53050538
1978	DB	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5545369	290375394	15109524	305484918	159719	1000995	55306540	56467254	44016095
1978	DR	N.E.	93950	1851782	287457599	289403331	251377233	39401	24925434	13061263	403331	10794801	300198132	15769	343141	51427874	51786784	42242913
1978	DSB	N	566000		6416000	6982000	3732000	273000	1755000	1222000	6982000	304000	7286000	133146		1629282	1762428	973997
1978	FS	N.E.	283134	214574	50421068	50918776	29881914	16321	20571611	304930	50918776	4653626	55572402	125696	93089	16420388	16639173	10702778
1978	JZ	N.E.	75553	729314	79958330	80763197	64943745		9225903	6593549	80763197		80763197	49158	286540	23042777	23378475	17717040
1978	MAV	N.E.	45722	240163	129242209	12528094	87757967		22439900	19330227	129528094	4586012	134114106	6806	69670	23532376	23068852	12880006
1978	NS	N	5149	10753	18209166	18225068	12801583		5198961	224524	18225068	926617	19151685	.	.	2882150	2882150	2080223
1978	NSB	N	52918	17411	26574747	26645076	8327076	114544	18203456		26645076	465331	27110407	11148	2612	2636149	2649909	1630617
1978	OBB	N.E.	165039	236384	[illegible]	[illegible]	23251666	1656318	11074319	8888101	44870404	2105377	46975781	37465	44914	9415664	9498043	4702545
1978	PKP	N.E.	206638	425398	474222750	474854786	431083731	.	30430435	13340620	474854786	14737058	489591844	46464	213904	135730135	135990503	116994856
1978	RENFE	L.E	1511000	407100	33861300	34419400	.		.	.	34419400	1403500	35822900	66500	252500	10058000	10377000	.
1978	SJ	N.E.	18930	840082	46975829	47834841	43595456	1262885	2502400	474100	47834841	271162	48106003	8278	341830	13593712	13943820	.
1978	SNCB	N	21481	380100	63187324	63588905	46074286		11960119	5554500	63588905	2175713	65764618	1974	36377	7118573	7156924	4564138
1978	SNCF	N.E.	185000	1796000	210777000	212758000	188545000		19077000	5136000	212758000	9618000	222376000	90000	838000	65749000	66677000	58209000
1978	VR	L	32200	389400	21976700	22398300	17751216	179663	4459420	8001	22398300	1872800	24271100	12000	129900	6183700	6325600	5323345
1978	TCDD	N	6285		13212511	13274696	12308298		243599	722799	13274696	2892426	16167122	19684		5634628	5654312	4831531
1979	BDZ	N.E.	208010	606420	74229780	75044210	74437789		.		75044210		75044210	62777	180231	16904824	17147832	.
1979	BR	N	11235000		169324000	170559000			.		170559000	.		.		19893000	19893000	.
1979	CFF	N.E.	1401722		42576956	43978678	22886759	1605611	7905145	11581163	43978678	2078834	46057512	159218		6796939	6956157	2680889
1979	CFL	N	5946	16978	18706317	18729241	9476043		6598964	2654234	18729241	.	.	210	535	711893	712638	287193
1979	CFR	L.N.E.	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
1979	CH	N.E.	7685	36130	4015411	4059226	2121681		599162	1338383	4059226	.		2515	11649	826383	840547	555207
1979	CIE	L	.	.	.	3798796	.		.		3798796	990	3799786	.	.	.	628705	.
1979	CP	L.E		223354	3155118	3378472	3139550		238922		3378472	388818	3767290		59255	812377	871632	805861
1979	CSD	L.N.E.	.	.	.	280445652	236600550		26215590	17629512	280445652	854644	281300296	.	.	.	65889915	53706906
1979	DB	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6638280	324174859	13914486	338089345	167389	1059162	63995789	65222340	51030729
1979	DR	N.E.	89900	1802500	293215265	295107665	255246437	40256	27483300	12337672	295107665	10246335	305354000	15575	330468	52847783	53193826	42276329
1979	DSB	N	552000		6205000	6757000	3525000	296000	1592000	1344000	6757000	304000	7061000	127000		1574000	1701000	923284
1979	FS	N.E.	302630	190324	53909745	54402699	30529472	161048	23474378	237801	54402699	4379323	58782022	134368	82525	17524653	17741546	10913462
1979	JZ	N.E.	221172	627095	86929439	87777706	70279163		10872343	6626200	87777706		87777706	94218	263589	25567569	25925376	19855321
1979	MAV	N.E.	46460	246644	128407801	128700905	87811583		20855120	20034202	128700905	4549303	133250208	6691	72986	23666423	23746100	13077476
1979	NS	N	4633		21753490	21758123	15271200		6125680	361243	21758123	891191	22649314	.		3376201	3376201	2441816
1979	NSB	N	50076	15514	32970861	33036451	9336493	111638	23588320		33036451	458842	33495293	10936	2327	3009092	3022355	1763163
1979	OBB	N.E.	172917	252453	[illegible]	[illegible]	26365246	1810574	13222184	9143283	50541287	2272016	52813303	39251	47999	10610716	10697966	5392600
1979	PKP	N.E.	196869	367839	464951373	465516081	423866509		29096686	15552886	465516081	14651445	480167526	42575	187404	133211121	133441100	115523414
1979	RENFE	L.E	157200	425000	33869500	34451700	.		.	.	34451700	1298300	35750000	69200	263600	9929300	10262100	.
1979	SJ	N.E.	20605	760108	57906919	58687632	53905401	1215310	3001979	564942	58687632	296284	58983916	9000	303612	16381107	16693719	.
1979	SNCB	N	19908	386157	73878988	74285053	52624017		15102214	6558822	74285053	2055615	76340668	1807	36729	8534962	8573499	5455923
1979	SNCF	N.E.	188000	1821000	221147000	223156000	195062000		21933000	6161000	223156000	9239000	232395000	91000	841000	69074000	70006000	60365000
1979	VR	L	26600	430900	25971300	26428800	21332133	276637	4810312	9718	26428800	1755200	28184000	10200	145100	7209900	7365200	6334313
1979	TCDD	N	77646		12448672	12526318	12022675		297336	206307	12526318	663389	13189707	28703		5548244	5576947	5126890
1980	BDZ	N.E.	.	.	.	.	72800000	.	.	.	.	.	77800000	.	.	.	.	.
1980	BR	N	1180000		153491000	154671000	.		.	.	154671000	.		.		17640000	17640000	.
1980	CFF	N.E.	1451716		44817987	46269703	25536167	1621846	8469582	12642108	46269703	1958115	48227818	164720		7219847	7384567	2705769
1980	CFL	N	5025	16285	17369904	17391214	7918060		6649632	2823522	17391214	.	.	182	498	663345	664025	234122
1980	CFR	L.N.E.	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
1980	CH	N.E.	7134	30410	3608763	3646307	2347367		510987	787953	3646307	.		2278	9928	801375	813581	599132
1980	CIE	L	.	.	.	3628558	.		.		3628558	397	3628955	.	.	.	636505	.
1980	CP	L.E		204203	3531978	3736181	3371688		364493		3736181	345549	4081730		55603	944965	1000568	907220
1980	CSD	L.N.E.	.	.	.	283172747	237455904		27484886	18231957	283172747	816791	283989538	.	.	.	66133581	53308815
1980	DB	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	35753467	7161592	318000824	14474788	332475612	172621	1078018	62514772	63765411	49174201
1980	DR	N.E.	90254	1768101	302317750	304176105	268444940	46690	24667200	11017275	304176105	9996871	314172976	17295	329835	54876364	55223494	45432343
1980	DSB	N	500000		5981000	6481000	3192000	293000	1471000	1525000	6481000	310000	6791000	115000		1504000	1619000	817000
1980	FS	N.E.	339600	176484	55833018	56349102	30848228	145591	25103835	251448	56349102	4316538	60665640	150782	76212	18157088	18384082	11084829
1980	JZ	N.E.	212576	612850	84044589	84870015	68264346		10002177	6603492	84870015		84870015	91789	260513	24665676	25017978	19267624
1980	MAV	N.E.	42263	212808	124887264	125142335	85323428		20022821	19796086	125142335	4257922	129400257	6712	63242	23825419	23895373	13130653
1980	NS	N	4064		22137926	22141990	15851901		5949955	340134	22141990	1130084	23272074	.		3467656	3467656	2558271
1980	NSB	N	49411	13588	30304743	30667742	9500866	99849	21067027		30667742	473344	31141086	11720	2038	3000559	3014317	1841459
1980	OBB	N.E.	185645	248264	[illegible]	[illegible]	26808098	2119226	13917845	8798500	51643669	2209707	53853376	42205	47373	10912388	11001966	5544512
1980	PKP	N.E.	200037	338195	467032527	467570759	423511716		30659329	13399714	467570759	14690900	482261659	43853	169645	132362492	132575990	113181718
1980	RENFE	L.E	147000	416000	34201800	34764800	.		.	.	34764800	1764400	36529200	64600	257900	10205300	10527800	.
1980	SJ	N.E.	24395	735615	52799666	53559676	48526631	1311892	3224687	496466	53559676	275172	53834848	10567	296622	15606509	15913698	13687631
1980	SNCB	N	18743	375066	71062691	71456500	51956372		12934751	6565377	71456500	2368977	73825477	1688	35584	7999453	8036725	5317851
1980	SNCF	N.E.	188400	1880200	217310700	219379300	191904700		21373200	6101400	219379300	9891200	229270500	91700	861600	67862000	68815300	59362400
1980	VR	L	24200	464900	28922700	29411800	23904723	309859	5156965	40253	29411800	1409600	30821400	9400	156900	8167500	8333800	7148825
1980	TCDD	N	61364		11385445	11446809	10715532		452681	278596	11446809	424896	11871705	33711		4995611	5029322	4390218
1981	BDZ	N.E.	.	.	.	.	72800000	.	.	.	.	.	77800000	.	.	.	.	.
1981	BR	N	951000		154172000	155123000	.		.	.	155123000	.		.		17505000	17505000	.
1981	CFF	N.E.	1458301		43802019	45260320	23043663	1711713	8373775	12131169	45260320	2184450	47444770	165492		6971530	7137022	2616105
1981	CFL	N	4155	14458	15113519	15132132	6653043		5237608	3241481	15132132	.	.	177	390	584327	584894	200912
1981	CFR	L.N.E.	.	.	.	.	.		.	.	.	.	274606000	.	.	.	.	
1981	CH	N.E.	8120	32417	2954483	2995020	1915353		564349	515318	2995020	.	.	2622	7659	683108	693389	480586
1981	CIE	L		.	.	3722313	.		.		3722313	.			.	.	691468	.
1981	CP	L.E		180815	3491330	3672145	3192922		479223		3672145	351877	4024022		50263	952486	1002749	881813
1981	CSD	L.N.E.	.	.	.	283431415	241151171		25889124	16391120	283431415	806899	284238314	.	.	.	66418335	54042262
1981	DB	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16519903	34188637	6847513	303429448	11349802	314779250	162493	977909	59896514	61036916	46549936
1981	DR	N.E.	93905	1867091	305813550	307774546	276989872	44987	21884845	8854842	307774546	8755366	316529912	18327	348466	54386175	54752968	46436826
1981	DSB	N	428000		5672000	6100000	2998000	274000	1466000	1362000	6100000	355000	6455000	99000		1377000	1476000	738000
1981	FS	N.E.	327054	145480	50488314	50960848	20232877	122411	22359330	246230	50960848	4136150	55096998	145417	62743	16906972	17115132	10421548
1981	JZ	N.E.	205232	598896	85178129	85982257	69289170		10132186	6560901	85982257		85982257	88460	255054	25377239	25720753	19479547
1981	MAV	N.E.	42110	135278	130424764	130602152	92382939		20113166	18106047	130602152	4495305	135097457	6779	36252	24336962	24379993	14168973
1981	NS	N	3177		21076901	21080078	15034037		5735093	310948	21080078	1250705	22330783	.		3319113	3319113	2464434
1981	NSB	N	44975	12632	25808214	25865821	8672433	122297	17071091		25865821	439327	26305148	10694	1895	2812611	2825200	1817726
1981	OBB	N.E.	182888	234341	[illegible]	[illegible]	26027253	1269869	14028990	8943144	50269256	2323051	52592307	41516	44649	10232264	10318429	5158887
1981	PKP	N.E.	196572	298282	389838069	390332923	350026223		27818700	12488000	390332923	11382740	401715663	44131	149346	107841872	108035349	90031049
1981	RENFE	L.E	144700	382400	32539400	33066500	.		.	.	33066500	2066700	35133200	63600	237100	9966300	10267000	.
1981	SJ	N.E.	25071	618589	45578181	46221841	41464398	1076490	3067115	613838	46221841	342097	46563938	9036	249860	14296257	14555153	12667357
1981	SNCB	N	17367	334356	69636060	69987783	52027309		12639027	5321447	69987783	2604049	72591832	1538	31683	7527983	7561204	5055451
1981	SNCF	N.E.	185000	1839100	194150000	196174100	171886500		18020300	6267300	196174100	9739400	205913500	89900	847000	62792600	63729500	54642500
1981	VR	L	22100	490400	29196600	29709100	23854514	281125	5555052	18409	29709100	1097900	30807000	8700	166500	8214100	8389300	7136252
1981	TCDD	N	42445		12258523	12300968	11435084		274290	591594	12300968	470741	12771709	33414		5902747	5936161	4798378
1982	BDZ	N.E.	.	.	.	.	72800000	.		.	.	.	72800000	.	.	.	.	.
1982	BR	N	900000		154200000	155100000	.		.	.	155100000	.		.		15879000	15879000	.
1982	CFF	N.E.	1362077		40561844	41923921	21729826	1681715	7683794	10828586	41923921	1990527	43914448	154384		6346509	6500893	2397345
1982	CFL	N	3065	13291	13767086	13783442	5898442		4729807	3155193	13783442		13783442	129	345	550026	550500	195967
1982	CFR	L.N.E.	.	.	.	.	.		.	.	.	.	274606000	.	.	.	.	
1982	CH	N.E.	8322	27150	2589620	2625092	1465474		518748	640870	2625092	.	.	2682	8490	574417	585589	377428
1982	CIE	L		.	.	3738880	.		.		3738880	.			.	.	670871	.
1982	CP	L.E		146469	3797477	3943946	3402868		541078		3943946	137514	4081460		41289	1019077	1060366	935747
1982	CSD	L.N.E.	.	.	.	285504174	243413829		25354566	16735778	285504173	990597	286494770	.	.	.	66061819	53788770
1982	DB	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	33870575	6403581	278496412	10483196	288979608	146206	886562	55478528	56511296	42556986
1982	DR	N.E.	109996	2050267	302819763	304980026	278125082	31225	18330611	8493108	304980026	9518237	314498263	21180	372120	52502571	52895871	45879319
1982	DSB	N	431000		6405000	6836000	3229000	221000	1728000	1658000	6836000	322000	7158000	99000		1553000	1652000	776000

RAIL TRAFFIC — TONNE-KILOMETRES (continued); ROAD TRAFFIC; SHIPPING SERVICES; ALL TRAFFIC

YEAR	Railway	TKM: from other rail system in the country	TKM: from foreign railway system	TKM: Goods in international transit between two load	TKM: TOTAL	TKM: Departemental Traffic	TKM: Grand Total	Per Kilometre worked: Public Traffic	Per Kilometre worked: Total Traffic	Per Goods Wagon-KM	Per Goods Train and "others" KM	Average Length of Haul of One Tonne (in KM): Public Traffic	Average Length of Haul: Total Traffic	Road: Tonnes Carried, Small consignments	Road: Tonnes Carried, Full vehicle loads	Road: Tonne-Km (in 1000), Small consignments	Road: Tonne-Km (in 1000), Full vehicle loads	Shipping: tonnes carried	Shipping: Tonne-kilometres (in 1000)	ALL TRAFFIC: Number of Tonne-KM (in 1000)
1977	BDZ		.	323139	17304070		17304070	3919382	3919382	12,8	.	227,8	227,8							17304070
1977	BR		.	.	22723900		.	1344212	.	.		133,4	.					2427000	.	.
1977	CFF	148117	769080	2668079	5932486	140882	6073368	2030978	2079208	9,2	203,8	152,6	148,6	32		0				6073368
1977	CFL		218731	104134	564974	.	.	2061949	.	.		39,3	.	8939	85294	250	1750			.
1977	CFR		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH		181836		855436	.	.	347597	.	.		245,2	.							
1977	CIE		.	.	596255	663	596918	297532	297863	8	138,3	167,2	167,3	3115596		.	.	.	.	.
1977	CP		.		884563	30460	915023	248055	256596	.	125,3	242,3	229,2							915023
1977	CSD		4635904	7796571	64681555	130484	64812039	4903833	4913725	.	.	238,3	237,5							64812039
1977	DB	3259040	6065621	3258945	54886022	2129316	57015338	1956163	2032053	9,8	299,8	196,3								
1977	DR		5276022	2941698	50847353	1341700	52189053	3701219	3798883	14,1	427,8	176,7	174,5					401786	17624	52206677
1977	DSB	98531	393848	326380	1869560	93494	1963054	923240	969409	8,2	238,8	250,9	251,5	.		.	.	.	.	1963054
1977	FS	104520	5511307	138588	17099649	667221	17766870	1056969	1098212	9	248,8	340,6	325,1	759		24				
1977	JZ		2656073	2938332	22224607		22224607	2229819	2229819	15,8	432,2	287	287	560493	4632520	19823	349091			22593521
1977	MAV		4584524	5823006	23241856	617337	23859193	2994699	3074242	13,6	522,7	180,4	178,3							23859193
1977	NS		666478	12057	2805449	133179	2938628	.	.	.	.	158,8	.							2938628
1977	NSB	10329	869456		2566687	63920	2630607	605208	620280	9,1	216,5	109,4	110,1	534000		23708				2654315
1977	OBB	387408	1926111	2764532	9887904	273437	10161341	1691107	1737873	10,3	277,5	212,4	209	252402						
1977	PKP		11302048	7933898	133428382	2025020	135453402	5569675	5654189	17,1	569	284,9	281,4							135453406
1977	RENFE		.		11025000	400300	11425300	815398	845004	11	238,9	309	305							11425300
1977	SJ		.	.	14050178	39830	14090548	1235228	1238729	11,7	341,2	284,9	284	.		.	.	5004361	170416	.
1977	SNCB		1630704	780764	6527507	154129	6681636	1635967	1674596	.	294,1	111,1	109,8							6681636
1977	SNCF		5135000	3054000	65604000	1957000	67561000	1937794	1995599	13,6	316,9	308,4	303,8		1346000		605000	.	.	.
1977	VR	20933	1295657	9679	6396700	180600	6577300	1060461	1090401	12,7	398,8	292,4	275,4	229376		9041				6586341
1977	TCDD		101362	1186946	6353198	1266382	7619580	780587	936181	14	381,6	456,7	466,3							7619580
1978	BDZ		.	243781	17147832		17147832	3950203	3950203	12,9	.	228,5	228,5							17147832
1978	BR		.		19982000	.	.	1187285	.	.		116,3	.					2266000	.	.
1978	CFF	142552	892902	2760758	6218002	136890	6354892	2128724	2175588	9,9	215,2	155,9	151,9	18		0				6354892
1978	CFL		255077	119437	647233	.	.	2397159	.	.		41,3	.	8269	75382	232	1541			.
1978	CFR		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH		192377	44169	854342	.	.	347152	.	.		237,7	.							
1978	CIE		.	.	630139	474	630613	313971	314207	9,1	127,6	163,7	163,7	3002819		.	.	.	.	.
1978	CP		.		932648	38913	971561	259935	270781	.	136,3	241,6	224							971561
1978	CSD		4773808	7332070	65156416	119272	65275688	4948839	4957898	.	.	236,7	236							65275688
1978	DB	3236646	6005439	3209074	56467254	2212225	58679479	2015248	2094200	9,9	295									
1978	DR	8384	53352026	4183461	51786784	1245676	53032460	3766038	3856626	14,7	436,6	178,9	176,7					368958	16963	53049423
1978	DSB	91717	357419	339295	1762428	82000	1844428	855548	895353	8,3	232,9	252,4	253,1	.		.	.	.	.	1844428
1978	FS	75840	5687242	173313	16639173	698044	17337217	1033746	1077113	9,2	247,8	326,8	312	768		24		.	.	
1978	JZ		2812068	2849367	23378475		23378475	2394845	2394845	16,8	448,4	289,5	289,5	770900	5159100	22077	345866			23746418
1978	MAV		4782610	5946236	23068852	578434	24187286	3066881	3142022	14,6	527,5	182,3	180,3							24187286
1978	NS		791296	10631	2882150	84900	2967050	.	.	.	.	158,3	.							2967050
1978	NSB	12272	1006565		2649909	63096	2713005	624831	639709	10,4	219,8	99,5	100,1	510000		22055				2735060
1978	OBB	303430	1828638	2663430	9498043	270818	9768861	1624430	1670748	10,3	272,2	211,7	208	281737						
1978	PKP		11405572	7590075	135990503	2156653	138147156	.	.	17,5	577,6	286,4	282,2							138147156
1978	RENFE		.		10377000	331000	10708000	767870	792363	11	230,4	301,5	298,9							10708000
1978	SJ		.	.	13943820	38505	13982325	1225076	1228459	12,6	353,4	291,5	290,7	.		.	.	5067819	190793	.
1978	SNCB		1777285	815501	7156924	154611	7311535	1778560	1816982		311	112,5	111,2							7311535
1978	SNCF		5240000	3228000	66677000	2020000	68697000	1973159	2032937	13,9	320,9	313,4	308,9		1307000		641000	.	.	.
1978	VR	20670	974963	6622	6325600	163900	6489500	1042452	1069463	13	407,6	282,4	267,4	232270		9478				6498978
1978	TCDD		96525	726256	5654312	947817	6602129	694718	811172	14,4	363,1	425,9	408,4							6602129
1979	BDZ		.	243781	17147832		17147832	3950203	3950203	12,9	.	228,5	228,5							17147832
1979	BR		.		19893000	.	.	1193055	.	.		116,6	.					2474000	.	.
1979	CFF	139578	886168	3219522	6956157	138458	7094615	2381430	2428831	10,8	237,5	158,2	154	14		0				7094615
1979	CFL		294563	130882	712638	.	.	2639400	.	.		38,1	.	8362	43533	234	875			.
1979	CFR		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH		175035	110305	840547	.	.	341547	.	.		207,1	.							
1979	CIE		.	.	628705	225	628930	316250	316363	9,6	118,1	165,5	165,5	2663028		.	.	.	.	.
1979	CP		65771		871632	55725	927357	242930	258431	.	127,3	258	246,2							927357
1979	CSD		5236808	6946201	65889915	82129	65972044	5013690	5019938	.	535,4	234,9	234,5							65972044
1979	DB	3642624	6667961	3881026	65222340	1990973	67213313	2329869	2400990	10,6	31									
1979	DR	8727	5711070	5197700	43193826	1196486	54390312	3882194	3969516	16,2	444,6	180,2	178,1					423720	19457	54409769
1979	DSB	77306	344273	356574	1701000	83437	1784437	874101	916977	9,1	255,9	251,7	252,7	.		.	.	.	.	1784437
1979	FS	81633	6595459	150992	17741546	656898	18398444	1103879	1144751	9,8	263,5	326,1	313	745		24		.	.	
1979	JZ		3293793	2776262	25925376		25925376	2763605	2763605	17,3	469,6	295,4	295,4	.		.	.			.
1979	MAV		4467378	6201246	23746100	585121	24331221	3083108	3159078	15,3	530,4	184,5	182,6							24331221
1979	NS		916874	17511	3376201	79556	3455757	.	.	.		155,2	.							3455757
1979	NSB	12970	1246222		3022355	62667	3085022	712988	727771	11,3	246,5	91,5	92,1	496000		24258				3109280
1979	OBB	362828	2219332	2723206	10697966	307752	11005718	1830276	1882929	10,6	289,4	211,7	208,4							
1979	PKP		10623930	7293756	133441100	1963626	135404726	.	.	17,6	575,6	286,7	282							135404726
1979	RENFE		.	.	10262100	329500	10591600	759480	783866	11,3	238,5	297,9	296,3							10591600
1979	SJ		.	.	16693719	42072	16735791	1466677	1470373	13,6	417,3	284,5	283,7	.		.	.	5698820	219704	.
1979	SNCB		2129423	988153	8573499	149741	8723240	2155229	2192871	18,6	348,2	115,4	114,3							8723240
1979	SNCF		5827000	3814000	70006000	1870000	71876000	2076036	2131491	14	328,9	313,7	309,3		1315000		672000	.	.	.
1979	VR	35915	987050	7922	7365200	171100	7536300	1213577	1241770	13,6	429,5	278,7	267,4	267563		11036				7547336
1979	TCDD		66142	383915	5576947	192495	5769442	685803	709474	13,1	333,5	445,2	437,4							5769442
1980	BDZ		.	.	.	.	17681000	.	4073025	.	.	.	227	.	.	.	.	.	.	.
1980	BR		.		17640000	.	.	1067151	.	.		114	.					2352000	.	.
1980	CFF	172923	961514	3544361	7384567	139670	7524237	2523775	10,9	256,3	159,6	156	11			0				7524237
1980	CFL		293655	136248	664025	.	.	2459352	.	.		38,2	.	8212	47228	230	954			.
1980	CFR		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH		145109	69340	813581	.	.	330590	.	.		2231	.							
1980	CIE		.	.	636505	106	636611	320335	320388	10,4	118,9	175,4	175,4	175,4	2137664	.	.	.	.	.
1980	CP		93348		1000568	43851	1044419	277242	289393	.	134,6	267,8	255,9							1044419
1980	CSD		5122122	77402644	66133581	76171	66209752	5036447	5042248	15,5	540,7	233,5	233,1							66209752
1980	DB	2457048	6996489	4137673	63765411	2114897	65880308	2281328	2356993	10,6	315,1	200								
1980	DR	9653	5149872	4631626	55223494	1192159	56415653	4039167	4126364	15	456,4	181,6	179,6					553273	25133	56440786
1980	DSB	66000	318000	418000	1619000	85000	1704000	642548	676278	.	172,8	249,8	251	.		.	.	.	.	1704000
1980	FS	75127	7068866	155260	18384082	647481	19031563	1139533	1179667	10,1	268,7	326,3	313,7	805		25		.	.	
1980	JZ		2974519	2775835	25017978		25017978	2643210	2643210	16,3	464,6	294,8	294,8	.		.	.			25017978
1980	MAV		4407450	6357270	23895373	535066	24430439	3152424	3223013	15,3	537,1	190,9	188,8							24430439
1980	NS		888666	20719	3467656	78685	3546341	.	.	.		156,6	.							3546341
1980	NSB	11946	1160912		3014317	66433	3080750	710756	726421	10,9	242	98,3	98,9	524000		19021				3099771
1980	OBB	433220	2415192	2609042	11001966	299118	11301084	1885190	1936443	10,5	289,4	213	209,8	42						
1980	PKP		11532485	7861787	132575990	2205295	134781285	.	.	18	578,6	283,5	279,5							134781285
1980	RENFE		.	.	10527800	359500	10887300	778511	805095	11,5	240,3	302,8	298							10887300
1980	SJ	298285	1464485	463297	15913698	39074	15952772	1398146	1401579	13,5	397,3	297,1	296,3	.		.	.	1		
1980	SNCB		1737453	981421	8036725	174034	8210759	2030502	2074472	20,6	328,9	112,5	111,2							8210759
1980	SNCF		5642400	3810500	68815300	2093100	70908400	2047770	2110055	13,9	318,8	313,7	309,3		1253700		651500	.	.	.
1980	VR	39932	1116555	28488	8333800	155800	8489600	1374534	1400231	13,9	439,3	283,3	275,4	281955		11809				8501409
1980	TCDD		84209	554895	5029322	138017	5167339	613856	630702	13,6	360,7	439,4	435,3							5167339
1981	BDZ		.	.	.	.	17681000	.	4073025	.	.	.	227,3							17681000
1981	BR		.		17505000	.	.	1068000	.	.		113,5	.					2335000	.	.
1981	CFF	186207	909821	3424889	7137022	150622	7287644	2432523	2483860	12,1	250,5	157,7	153,6	11		0		3	18	7287644
1981	CFL		236928	147054	584894	.	.	2166274	.	.		38,7	.	8160	56551	229	1476			
1981	CFR		.	.	.	.	75535000	.	.	.	.	.	275,1							75535000
1981	CH		166452	46351	693389	.	.	281750	.	.		231,5	.							
1981	CIE		.	.	691468	.	.	347996	.	.		185,8	.	2050288		.	.	.	.	.
1981	CP		120936		1002749	57262	1060011	277309	293145	.	129,6	273,1	263,4							1060011
1981	CSD		4848473	7527600	66418335	72763	66491098	5058518		17,5	552,8	234,3	233,9							66491098
1981	DB	3455658	7018763	4012559	61036916	1626871	62663787	2192024		10,7	308,2	201,2								
1981	DR	9548	4504827	3801767	54752968	1032605	55785573	4010913	4086556	15,1	466,0	178,3	176,6					561855	25194	55810767
1981	DSB	60000	303000	375000	1476000	97000	1573000	585714	624206	.	178,9	242,0	243,7	.		.	.	.	.	1573000
1981	FS	65654	6472708	155222	17115132	620422	17735554	1059301	1097701	10,2	266,0	335,8	321,9	2248		54		.	.	
1981	JZ		3231724	3009482	25720753		25720753	2738289	2738289	17,1	471,7	299,1	299,1	.		.	.			25720753
1981	MAV		4409032	5801988	24379993	567145	24947138	3205363	3279929	16,0	543,7	186,7	184,7							24947138
1981	NS		836492	18187	3319113	99378	3418491	1122839	1156458	12,6	238,9	157,5	153,1							3418491
1981	NSB	14067	993407		2825200	60289	2885489	666007	680219	10,1	236,1	109,2	109,7	505000		24409				2909898
1981	OBB	187883	2347122	2624537	10318429	324602	10643031	1777813	1833741	10,2	275,8	205,3	202,4							
1981	PKP		10488300	7516000	108035349	1843551	109878900	.	.	17,6	556,4	276,8	273,5							109878900
1981	RENFE		.	.	10267000	335900	10602900	759169	784006	11,9	242,8	310,5	301,8							10602900
1981	SJ	264817	1116328	506651	14555153	48578	14603731	1283523	1287807	12,5	373,2	314,9	313,6	.		.	.	11		
1981	SNCB		1696224	809529	7561204	191974	7753178	1924950	1973823	18,6	318,1	108,0	106,8							7753178
1981	SNCF		5227900	3859100	63729500	2056700	65786200	1875942	1936483	13,9	308,5	324,9	319,5		1201000		668300	.	.	.
1981	VR	33734	1206087	13227	8389300	130800	8520100	1377780	1399261	13,8	424,7	282,4	276,6	296911		12752				8532852
1981	TCDD		83060	1054723	5936161	148193	6084354	724541	742628	12,3	329,4	482,6	476,4							6084354
1982	BDZ		.	.	.	.	17681000	.	4073025	.	.	.	227,3							17681000
1982	BR		.		15879000	.	.	981000	.	.		103,0	.					1909000	.	.
1982	CFF	177270	887422	3038856	6500893	138482	6639375	2210436	2257523	12,1	234,2	155,1	151,2	11		0		3	18	6639375
1982	CFL		212134	142399	550500		550500	2038889	2038889	17,4	433,1	39,9	39,9	8246	60710	231	1317			552048
1982	CFR		.	.	.	.	75535000	.	.	.	.	.	275,1							75535000
1982	CH		150949	57212	585589	.	.	237948	.	.		223,1	.							
1982	CIE		.	.	670871	.	.	337630	.	.		179,4	.	1759712		.	.	.	.	.
1982	CP		124619		1060366	19937	1080303	293243	298756	.	136,9	268,9	268,5							1080303
1982	CSD		5087332	7185717	66061819	87467	66149286	5026771	5033426	19,6	563,7	231,4	230,9							66149286
1982	DB	3276995	6830284	3847031	56511296	1516380	58027676	2038426	2093124	10,6	298,8	202,								
1982	DR	6476	3671249	3338827	52895871	1141480	54037351	3876859	3960521	14,8	459,5	173,4	171,8					601195	26918	54064269
1982	DSB	50000	345000	481000	1652000	90000	1742000	655556	691270	.	180,0	241,7	243,4	.		.	.	.	.	1742000

A1.2.12. Freight Traffic

			RAIL TRAFFIC																												ROAD TRAFFIC				SHIPPING SERVICES		ALL TRAFFIC
			TONNES CARRIED											TONNE-KILOMETRES															Average Length of Haul of One Tonne (in KM)		Tonnes Carried		Tonne-Kilometres (in 1000)				
			PUBLIC TRAFFIC									DEPARTMENTAL TRAFFIC	GRAND TOTAL	PUBLIC TRAFFIC									Departemental Traffic	Grand Total	Per Kilometre worked		Per Goods Wagon-KM	Per Goods Train and "others" KM									
			According to rate charged				According to point of origin				TOTAL			According to rate charged				According to point of origin				TOTAL															
							Goods loaded at stations on the system	Goods entered as loaded (except those in internatio		Goods in international transit between two land frontier points				(in Thousands)				Goods loaded at stations on the system	Goods entered as loaded or resulting from a transhipment		Goods international transit between two load																
YEAR	Railway	railgauge	Express parcels	Small traffic	Full Traffic	TOTAL		from other railway systems in the country	from foreign railway system					Express parcels	Smalls traffic	Full wagons	TOTAL		from other rail system in the country	from foreign railway system					Public Traffic	Total Traffic			Public Traffic	Total Traffic	Small consignments	Full vehicle loads	Small consignments	Full vehicle loads	tonnes carried	Tonne-kilometres(in 1000)	Number of Tonne-KM (in 1000)
1982	FS	N.E.	280545	108658	48900543	49289746	27351945	107414	21568161	262226	49289746	5545073	54834819	124562	47173	16732596	16904331	10306353	64946	6369959	163073	16904331	831761	17736092	1046967	1098482	10,0	258,5	343,0	323,4	1823		41				
1982	JZ	N.E.	179287	608043	84916163	85703493	69677717		9247281	6778495	85703493		85703493	75464	259602	25830764	26165830	20009166		2894618	3262046	26165830		26165830	2786860	2786860	17,1	468,9	305,3	305,3							
1982	MAV	N.E.	41620	129254	121889494	122060368	86298160		18966323	16795885	122060368	4315252	126375620	6869	30413	20126913	20164195	10969606		3972451	5222138	20164195	544912	20709107	2653184	2724883	14,0	469,0	165,2	163,9							20709107
1982	NS	N	2826		18219343	18222169	12720939		5317095	184135	18222169	1334933	19557102			2886576	2886576	2118730		755777	12069	2886576	101814	2988390	1012834	1048558	12,1	219,4	158,4	152,8							2988390
1982	NSB	N	43078	8393	19864575	19916046	8161904	98815	11655327		19916046	468453	20384499	10273	1259	2467611	2479143	1692693	10812	775638		2479143	65837	2544980	584428	599948	9,0	212,6	124,5	124,8	505000		22465				2567445
1982	OBB	N.E.	174948	217048	[illegible]	50039553	29945850	1144060	13795893	9153750	50039553	2411568	52451121	39712	41361	10021544	10102617	5016332	175107	2279262	2631916	10102617	310555	10413172	1752101	1805961	10,2	274,4	201,9	198,5							
1982	PKP	N.E.	191498	197885	390751456	391140839	355441039		24671800	11028000	391140839	11165001	402305840	41713	116149	110645087	110803949	94290649		9546300	6967000	110803949	1926732	112730681			17,7	562,5	283,3	280,2							112730681
1982	RENFE	L.E	148200	362200	30252800	30763200					30763200	1830300	32593500	65100	224600	9903300	10193000					10193000	310800	10503800	752084	775017	12,0	238,8	331,3	322,3							10503800
1982	SJ	N.E.	23329	575142	39576101	40174572	35431808	1123164	3053100	566500	40174572	519000	40693572	7807	220117	13416013	13643937	11594690	275410	1273143	500694	13643937	49984	13693921	1160199	1164449	12,4	349,3	339,6	336,5					12		
1982	SNCB	N	15871	302618	62400739	62719228	47584617		10456745	4677866	62719228	2262873	64982101	1366	28569	6788461	6818396	4679740		1439986	698670	6818396	166485	6984881	1747411	1790077	18,9	305,6	108,7	107,5							6984881
1982	SNCF	N.E.	183900	1837900	181083000	183104800	159977800		17007600	6119400	183104800	9818400	192923200	89000	846800	59618300	60554100	51571200		5185200	3797700	60554100	2129900	62684000	1783101	1845819	14,0	308,6	330,7	324,9		1205600		643100			
1982	VR	L	18424	474149	28100826	28593399	23102913	270222	5208114	12150	28593399	1032700	29626099	7433	164076	7827285	7998794	6915630	32691	1040569	9904	7998794	126800	8125594	1314078	1334909	13,6	417,9	279,7	274,3	297587		13000				8138594
1982	TCDD	N	40932		13017600	13058532	12591385		231194	235953	13058532	559494	13618026	26695		5972370	5999065	5424546		119747	454772	5999065	165850	6164915	735540	737430	13,0	352,0	459,4	452,7							6164915
1983	BDZ	N.E.					72800000						72800000											17681000		4073025				227,3							17681000
1983	BR	N	700000		145100000	145800000					145800000					17144000	17144000					17144000			1076614				118,2						2289500		
1983	CFF	N.E.	1286119		40243774	41529893	21358057	1642413	8151333	10378090	41529893	1918138	43448031	163491		6241135	6404626	2392853	166836	935405	2909532	6404626	136705	6541321	2174007	2220411	12,6	239,4	154,2	150,6					3	20	6541331
1983	CFL	N	2273	11171	12951496	12964940	5707130		4018958	3238852	12964940		12964940	90	279	503111	503480	190617		174931	137932	503480		503480	1864741	1864741	17,1	430,7	38,8	38,8	6616	48573	185	1014			504679
1983	CFR	L.N.E.											274606000											75535000						275,1							75535000
1983	CH	N.E.	8754	23209	3459185	3491148	1688178		479256	1323714	3491148			2887	7250	659993	670130	425702		134394	110034	670130			272300				192,0								
1983	CIE	L				3319000					3319000						582479					582479			229629				175,5		1537000						
1983	CP	L.E		121365	4352202	4473567	4237310		236257		4473567	128048	4601615		34960	1008691	1043651	979195		64456		1043651	18834	1062485	289662	294889		132,9	233,3	230,9							1062485
1983	CSD	L.N.E.				288922356	247001755		24170265	17750336	288922356	982799	289905155				68225234	55264032		5585956	7375246	68225234	84263	68309497	5191784	5198196	18,3	568,6	236,1	235,6							38309497
1983	DB	N.E.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	33753815	6315895	270411472	10535069	280946541	132417	844038	54082931	55059386	41244761	3008672	6977781	3828172	55059386	1492548	56551934	1998308	2052478	10,5	298,4	203,								
1983	DR	N.E.	107964	2124375	306255061	308487400	283049626	30911	18544290	6862573	308487400	9777987	318265387	19222	385471	53270271	53674964	46932414	6287	3597332	3138931	53674964	1227837	54902801	3931656	4021594	15,0	459,7	174,0	172,5					611373	27661	54930462
1983	DSB	N	398000		6395000	6793000	3234000	212000	1733000	1614000	6793000	356000	7149000	93000		1534000	1627000	785000	30000	376000	436000	1627000	97000	1724000	611195	647633		175,5	239,5	241,2							1724000
1983	FS	N.E.	229423	99976	49004559	49333958	27429684	102044	21341864	460366	49333958	5390689	54724647	101864	43558	16600462	16745884	10190736	59781	6239090	256277	16745884	808603	17554487	1037025	1087100	10,4	262,1	339,4	320,8	406,0		11				
1983	JZ	N.E.	167752	596654	88793245	89557651	74086827		9485176	5985648	89557651		89557651	69095	255093	27535878	27860066	22063265		2952635	2844166	27860066		27860066	2961002	2961002	18,5	495,7	311,1	311,1							
1983	MAV	N.E.	39937	122517	188941802	119104256	92103698		10799521	16201037	119104256	4177889	123282145	6451	32216	22217677	22256344	12803908		4546311	4906125	22256344	520672	22777016	2927696	2996187	21,7	548,6	186,9	184,8							22777016
1983	NS	N	2323		18029983	18032306	12677542		5164357	190407	18032306	1207288	19239594			2835000	2835000	2091000		731000	13000	2835000	89000	2924000	1116702	1163087	13,4	227,1	157,2	152,0							2924000
1983	NSB	N	38673	5566	18970381	19014620	7899343	143383	10971894		19014620	422061	19436681	8761	835	2388785	2398381	1648091	15650	734640		2398381	60311	2458692	565389	579607	9,6	214,2	126,1	126,5	495000,0		21780				2480472
1983	OBB	N.E.	176004	207756	49965040	50348800	26524175	1104577	13340198	9379850	50348800	2426565	52775365	39951	39611	10150554	10230116	5033697	167779	2321768	2706872	10230116	317242	10547358	1781940	1837199	10,4	287,3	203,2	199,9							
1983	PKP	N.E.	186294	193910	403806685	404186889	368858689		24403200	10925000	404186889	10587492	414774381	40511	113176	116158568	116312255	99722055		9586200	7004000	116312255	1762518	118074773			18,3	580,8	287,8	284,7							118074773
1983	RENFE	L.E	142000	349000	29446600	29937600					29937600	2356800	32294400	63000	216200	9930400	10209600					10209600	389100	10598700	753254	781961	12,1	234,6	341,0	328,2							10598700
1983	SJ	N.E.	25201	824932	40147286	40997419	36130045	1116074	3253500	497800	40997419	445586	41443005	7716	303829	14639067	14950612	12855186	158700	1512975	423751	14950612	145136	15095748	1275976	1288363	13,3	378,0	364,7	364,3					1		
1983	SNCB	N	14200	266045	63304919	63585164	47071953		11360491	5152720	63585164	1752505	65337669	1186	25064	6869533	6859783	4557678		1547255	790850	6895783	116016	7011799	1798587	1828847	19,3	322,8	108,4	107,3							7011799
1983	SNCF	N.E.	180300	1820600	172292000	174292900	151082400		16560300	6650200	174292900	9136800	183429700	87600	841500	57826500	58755600	49541000		5058400	4156200	58755600	1947200	60702800	1730090	1787427	14,5	308,0	337,1	330,9		1211400,0		647800,0			
1983	VR	L	15197	451061	28601359	29067617	23303450	320191	5433043	10933	29067617	1026400	30094017	6207	156623	7926381	8089211	6960166	31419	1089871	7755	8089211	121400	8210611	1328932	1348876	14,1	432,7	278,3	272,8	320548,0		14202,0				8224813
1983	TCDD	N	39157		14180808	13219965	12762762		227361	229842	13219965	570066	13790031	23884		6093003	6116887	5618254		128684	369949	6116887	177782	6294669	730590	751785	14,3	367,6	462,7	456,5							6294669
1984	BDZ	N.E.					72800000						72800000											17681000		4073025				227,3							17681000
1984	BR	N	900000		96700000	97600000					97600000					15842000	15842000					15842000			1016600				163,8						2968200		
1984	CFF	N.E.	1270235		42224110	43494345	21768914	1872153	8057719	11795559	43494345	1994179	45488524	160950		6730556	6891506	2481498	183682	935458	3290868	6891506	141994	7033500	2321154	2368979	13,4	255,7	158,4	154,6					3	21	7033500
1984	CFL	N	1455	10454	15553701	15565610	6500923		5550606	3514081	15565610		15565610	51	269	582607	582927	205540		232082	145305	582927		582927	2158989	2158989	17,9	445,0	37,5	37,5	6035	41737	169	761			583857
1984	CFR	L.N.E.				3319000							274606000											75535000						275,1							75535000
1984	CH	N.E.	9583	22378	3985069	4017030	1980436		513668	1522926	4017030			3237	7220	759123	769580	499719		145427	124434	769580			312710				191,6								
1984	CIE	L				3383000					3383000						600911					600911			309111				177,6		1611000						
1984	CP	L.E		100959	5379115	5480074	5191709		288365		5480074	112303	5592377		29701	1209164	1238865	1147525		91340		1238865	15789	1254654	342891	347261		144,5	226,1	224,4							1254654
1984	CSD	L.N.E.				295851337	250563423		26043680	19244234	295851337	1065447	296916784				68033205	56395180		4824042	6813983	68033205	93496	68126701	5187830	5194960	18,1	561,6	230,0	229,4							68126701
1984	DB	N.E.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	34767406	6661035	288620122	11035489	299655611	124543	846009	57915331	58885883	44006497	3299818	7472728	4106840	58885883	1635237	60521120	2155808	2215673	10,8	302,3	204,								
1984	DR	N.E.	106087	2201182	316251782	318559051	293709824	32920	17680666	7135641	318559051	9885350	328444401	19148	398502	55003944	55421644	48537648	6909	3596284	3280803	55421644	1250994	56672638	4053364	4144858	15,1	465,8	174,0	172,5					678508	30909	56703547
1984	DSB	N	385000		6518000	6903000	3278000	208000	1806000	1611000	6903000	293000	7196000	91000		1544000	1635000	774000	44000	384000	433000	1635000	80000	1715000	614200	644252		176,4	236,9	238,3							1715000
1984	FS	N.E.	197767	87366	54066618	54351751	28431121	98098	25392817	429715	54351751	5732604	60084355	87269	38098	17745140	17870507	10075432	54027	7493719	247329	17870507	859891	18730398	1109005	1162368	10,8	268,5	328,8	311,7	380		11				
1984	JZ	N.E.	123048	575365	91039985	91738398	74902957		9330868	7504573	91738398		91738398	49910	249921	28431260	28731091	22046722		3078965	3605404	28731091		28731091	3096356	3096356	18,6	508,5	313,2	313,2							
1984	MAV	N.E.	40493	120803	116791914	116953210	80637509		20346118	15969583	116953210	4259242	121212452	6668	31225	21930490	21968383	12515489		4547168	4905726	21968383	535800	22504183	2888676	2959130	13,2	527,6	187,8	185,7							22504183
1984	NS	N	2301		19858253	19860554	13754184		5861257	245113	19860554	1204266	21064820			3157231	3157231	2240351		901515	15365	3157231	80033	3237264	1243	1274	15,1	253,2	159,0	153,7							3237264
1984	NSB	N	37517	5087	22038755	22081359	8035041	12225	14034093		22081359	409722	22491081	8348	763	2583347	2592458	1561811	1829	1028818		2592458	57379	2649837	611140	624667	10,6	233,9	117,4	117,8	520000		22920				2672757
1984	OBB	N.E.	167032	189974	55416731	55773737	28361634	1252891	15732434	10426778	55773737	2549237	58322974	37915	36231	11172957	11247103	5350088	196040	2616087	3084888	11247103	318169	11565272	1960450	2015909	10,7	306,6	201,7	198,							
1984	PKP	N.E.	188351	189213	414274247	414651811	376770375		27806741	10074695	414651811	11083756	425735567	39556	113237	121592034	121744827	104638883		10600200	6505744	121744827	1797625	123542452			18,9	590,2	293,6	290,2							123542452
1984	RENFE	L.E	141700	335100	30776700	31253500					31253500	1761600	33015100	62800	207500	11082500	11352800					11352800	292200	11645000			12,7	234,6	363,2	352,7							11645000
1984	SJ	N.E.	28240	1142244	46167800	47338284	41779540	1069644	3939700	549400	47338284	465378	47803662	9237	390819	16544100	16944156	14241529	152960	2109273	440394	16944156	144456	17088612	1456059	1468472	13,9	407,8	357,9	357,5							
1984	SNCB	N	14210	247345	70832224	71093779	51894353		13415223	5784203	71093779	1739492	72833271	1184	22920	7904867	7928971	5141681		1910483	876807	7928971	115299	8044270	2114392	2145139	20,0	352,7	111,5	110,4							8044270
1984	SNCF	N.E.	175200	1805100	173646100	175626400	150700400		17614500	7311500	176626400	8636100	184262500	84900	831600	58585000	59501500	49544800		5190300	4766400	59501500	1843500	61345000	1753035	1807348	14,7	326,2	338,8	332,9		1235900		639300			
1984	VR	L	12600	443100	29172300	29628000	22756959	262622	6604738	3681	29628000	795300	30423300	5200	151900	7821700	7978800	6630524	27153	1318400	2723	7978800	109300	8088100	1330465	1348691	14,6	427,9	269,3	265,9							
1984	TCDD	N	40830		14771759	14812589	14335413		315366	161810	14812589	488705	15301294	25588		7500211	7525799	7046065		182066	297668	7525799	146629	7672428	895928	913384	14,5	384,7	508,1	501,4							7672428

A1.2.13. Efficiency of Rolling Stock User

			ANNUAL NUMBER OF GROSS TONNE-KILOMETRES HAULED PER MOTIVE UNIT KILOMETRE						ANNUAL NUMBER OF PUBLIC TRAFFIC PASS.KMS				ANNUAL NUMBER OF TONNE-KILOMETRES				ANNUAL NUMBER OF WAGONS LOADED						AVERAGE WAGONS-LOAD (IN TONNES)			
													PUBLIC TRAFFIC		TOTAL TRAFFIC		PUBLIC TRAFFIC ONLY		ALL TRAFFIC	In stations of the system and of the secondary system in contact						
YEAR	Railway	railgauge	Steam Locomotive	Diesel and Special System locomotive and light	Electric locomotive and light rail motor tractor	Diesel and Special System railcar	Electric Railcar	TOTAL	Per carriage of operating stock (in 1000)	Per seat of operating stock (in 1000)	Per carriage-kilometre (in unit)	Per "seat-offered"-Kilometre (in unit)	Per wagon of operating stock (in 1000)	Per tonne of capacity of wagons of operating	Per wagon-kilometre (in units)	Per "tonne-offered"-kilometre (in units)	In the system stations and entered	In stations of the system and of the secondary system in contact	In the system's stations and entered "loaded"	Railway's wagons	Private owner's wagons	Total	Public traffic only	All traffic	Average coefficient of available wagons used, all traffic	Average length of haul
1977	BDZ	N.E.	.	.	.	.	.	.	.	.	40,15	.	12,84	6,42	.	.	.	.	.	.	.	.	21,2	21,2	.	269
1977	BR	N		474	439	121	261	339	1726	26516	.	.	113	4998	.	.	7410000	.	.	.	.	.	23,2	.	.	.
1977	CFF	N	0	12	349	117	162	304																		
1977		E			48		87	82																		
1977		total							2069	30287	18,41	0,29	180	5853	9,18	0,31	2774338	2068570	2901209	1646002	396784	2042786	14	14,1	0,21	155
1977	CFL	N		349	430	71	117	278	2164	24762	30,04	0,34	145	3948	.	.	438283	193008	438323	163620	29428	193048	32,8	.	0,31	50
1977	CFR	L																								
1977		N																								
1977		E																								
1977		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	N		364		100		277	2816	43521	31,54	0,49	86	3407	8,56	0,34	166474	118246	.				.	.	.	.
1977		E		165		81		117	1523	26632	23,48	0,41	61	4433	9,2	0,67	38975	38975	.				.	.	.	.
1977		TOTAL																								
1977	CIE	L		.				.	2371	36034	.	.	99	.	7,97	.	.	.	.	.	.	374269	.	.	.	.
1977	CP	L	85	228	382	78	159	208							.	.	322981	322981	335913	312653		312653				
1977		E	84	93		59		69							.	.	34782	34782	35930	35930		35930				
1977		TOTAL							4081	54710	.	.	150	7000									10,2	10,7	0,15	.
1977	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	14091582	9718745	14091582	9718745		9718745	19,3	19,4	.	.
1977	DB	N.E.	1029	196	484	60	62	298	1841	26756	19,04	0,28	164	5106	9,84	0,31	13156253	11694265	14124894	11552049	1110857	12662906	21,3	20,8	0,12	266
1977	DR	N	550	405	537	63	76	365	.	.		.	.	.			10534056	8903601	10878864	.	.	9240480			.	223
1977		E	77	13				75	.			.	.	.			2711	2711	2711	2711		2711			.	297
1977		TOTAL									20,63				14,14	0,42										
1977	DSB	N	.	245		111	79	168	.	.	16,71	0,27	190	7351	9,15	0,35	.	.	724594	.	.	508860	.	10,8	0,19	217
1977	FS	N	16	154	476	44	109	282																		
1977		E	59			42		43																		
1977		TOTAL							2935	41905	27,1	0,39	140	4974	9,04	0,32	2771275	1925039	3068299	2021352	256755	2278107	18,1	17,8	0,06	430
1977	JZ	N	260	394	681	54	227	385									2632931	2081415	2632931	2632931		2632931	29,4	29,4	0,154	364
1977		E	107	119		25		58																		
1977		TOTAL							3118	46596	26,11	0,39	489	12146	15,87	.										
1977	MAV	N	230	452	801	116		485																		
1977		E		80				80																		
1977		total							.	.	24,88	.	.	.	13,58	.	.	.	.	.	.	.	.	.	.	.
1977	NS	N		219	432	100	122	171	4059	64742	21,01	0,34	.	.	.	.	783682	582158	857369	.	.	648577	22,6	22	0,17	178
1977	NSB	N		.	.	.	.	.	2018	33913	20,11	0,34	280	8833	9,05	0,38	701043	413611	730120	.	.	442688	33,5	32,7	0,19	249
1977	OBB	N	107	138	383	80	178	294									2417943	1407330	2484390	1358474	115303	1473777			0,18	244
1977		E	46	44	73	32		52									25304	25304	27027	27027		27027			0,08	80
1977		TOTAL							1738	30385	22,03	0,39	255	9039	10,3	0,36							19,1	19,4		
1977	PKP	N	362	524	1036	126	130	528	.	.	.	.	.	.	17,17	.	15150681	14403589	15550082	.	.	14802990	30,2	30,3	.	363
1977		E	77	107		31		83	.	.	.	.	.	.	7,89	.	799517	799517	799517	.	.	799517	12,9	13	.	25
1977		Total																								
1977	RENFE	L		289	486	90	168	280					265	8767	11,02	0,37	1299500	1271400	1416103	.	.	1388003	27,5	26,5	0,09	487
1977		E					75	75																		
1977		TOTAL							4665	66485	39,33	0,56														
1977	SJ	N		158	420	28	74	309																		
1977		E		25		15		16																		
1977		TOTAL							2508	44615	19,97	0,36	285	9396	11,69	0,39	2205802	2021415	2269155	1978873	105625	2084498	22,4	21,9	0,13	351
1977	SNCB	N		301	414	55	129	240	2139	24811	.	.	147	4163	.	.	2069725	1453695	2185251	1134474	434747	1569221	28,4	27,9	0,12	.
1977	SNCF	N		305	584	92	147	396																		
1977		E					45	45																		
1977		TOTAL							3229	41664	26,54	0,34	255	6612	13,57	0,35	7084202	6142749	7624961	4064340	2616815	6681155	30	29,2	0,08	437
1977	VR	L		441	592	16	39	284	2706	39453	25,94	0,38	287	9859	12,73	0,44	1282640	1043010	1311198	.	.	1071568	17,1	18,2	0,14	239
1977	TCDD	N	297	573	309	98	195	413	3842	70244	37,09	0,68	335	11508	13,95	0,49	619785	526499	820216	.	.	726930	22,4	19,9	0,1	416
1978	BDZ	N.E.	.	.	.	.	.	.	.	.	36,07	.	.	.	12,87	6,44	.	.	.	.	.	.	21	21	.	229
1978	BR	N		460	425	131	261	331	1817		.	.	110	4706	.	.	7098000	.	.	.	.	.	24,2	.	.	134
1978	CFF	N		14	349	109	162	302																		
1978		E			46		89	83																		
1978		total							2068	30327	18,44	0,29	192	6129	9,89	0,33	2783359	2073018	2908989	1636407	421926	2058333	14,3	14,4	0,21	147
1978	CFL	N		387	451	75	119	306	2344	26572	28,71	0,33	175	4659	.	.	450215	198862	450271	174582	24274	198856	34,8	.	0,32	52
1978	CFR	L																								
1978		N																								
1978		E																								
1978		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH	N		383		100		278	2933	40906	30,64	0,43	85	3395	.	.	165191	99914	.	.	.	.	.	.	.	.
1978		E		174		86		123	1485	25389	22,05	0,38	60	4397	.	.	34740	34740	.	.	.	.	.	.	.	.
1978		TOTAL																								
1978	CIE	L		.				.	2668	40548	.	.	116	.	9,11	.	.	.	.	.	.	359384	.	.	.	.
1978	CP	L	128	222	393	77	173	214							.	.	292212	273886	307207	278561	10320	288881				
1978		E	76	91		65		70							.	.	29409	29409	30166	30166		30166				
1978		TOTAL							4896	64120	.	.	157	6641									12	12,9	0,13	.
1978	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	14098135	10243621	14098135	10243621	.	10243621	19,5	19,6	.	.
1978	DB	N.E.		193	487	60	62	300	1929	26872	19,41	0,27	174	5331	9,86	0,3	13448105	12009269	14383362	11789785	1154741	12944526	21,6	21,2	0,12	267
1978	DR	N	567	411	548	53	76	368																		
1978		E	76	10				74																		
1978		TOTAL							.	.	21,71	.	.	.	14,69	0,43	10291585	8777854	10611201	.	.	9088674	28,1	328,3	.	224
1978	DSB	N	.	235		107	78	161	.	.	18,05	0,3	190	7101	9,21	0,34	.	.	678835	.	.	482285	.	10,7	0,19	218
1978	FS	N	33	175	486	52	109	291																		
1978		E	100			60		64																		
1978		TOTAL							2932	42145	26,93	0,39	137	4844	9,25	0,33	2712130	1846747	3008266	1892933	249950	2142883	18,8	18,5	0,06	415
1978	JZ	N	286	389	689	54	201	394	3410	50222	27,66	0,41	519	12824	16,79	.	2706019	2350613	2706019	2706019	.	2706019	29,8	29,8	0,16	356
1978		E																								
1978		TOTAL																								

A1.2.13. Efficiency of Rolling Stock User

YEAR	Railway	railgauge	ANNUAL NUMBER OF GROSS TONNE-KILOMETRES HAULED PER MOTIVE UNIT KILOMETRE						ANNUAL NUMBER OF PUBLIC TRAFFIC PASS.KMS				ANNUAL NUMBER OF TONNE-KILOMETRES				ANNUAL NUMBER OF WAGONS LOADED						AVERAGE WAGONS-LOAD (IN TONNES)		Average coefficient of available wagons used, all traffic	Average length of haul
													PUBLIC TRAFFIC		TOTAL TRAFFIC		PUBLIC TRAFFIC ONLY		ALL TRAFFIC							
																				In stations of the system and of the secondary system in contact						
			Steam Locomotive	Diesel and Special System locomotive and light	Electric locomotive and light rail motor tractor	Diesel and Special System railcar	Electric Railcar	TOTAL	Per carriage of operating stock (in 1000)	Per seat of operating stock (in 1000)	Per carriage-kilometre (in unit)	Per "seat-offered"-Kilometre (in unit)	Per wagon of operating stock (in 1000)	Per tonne of capacity of wagons of operating	Per wagon-kilometre (in units)	Per "tonne-offered"-kilometre (in units)	In the system stations and entered	In stations of the system and of the secondary system in contact	In the system's stations and entered "loaded"	Railway's wagons	Private owner's wagons	Total	Public traffic only	All traffic		
1978	MAV	N	234	450	811	113		490																		
1978		E		80				80																		
1978		total									25,33				14,64											
1978	NS	N		220	449	99	122	174	4182	66379	23,41	0,37					797673	589304	859304			641969	22,8	22,3	0,18	188
1978	NSB	N							2160	36422	22,01	0,37	289	10097	10,38	0,42	727864	390909	756877			419222	36,6	35,8	0,2	233
1978	OBB	N	108	125	376	79	183	290									2326110	1356992	2393712	1311913	112681	1424594			0,18	243
1978		E	45	43	74	32		52									22902	22902	25340	25340		25340			0,07	83
1978		TOTAL							1803	31300	22,76	0,4	250	8754	10,33	0,36							19,1	19,4		
1978	PKP	N	337	507	1041	127	130	528							17,5		14952346	14194123	15392748			14634525	31,1	31,1		364
1978		E	78	103		31		83							8,3		767230	767230	767230			767230	13,5	13,7		25
1978		Total																								
1978	RENFE	L		272	473	96	171	278					253	8133	11,01	0,35	1209742	1181542	1303916			1275716	28,5	27,5	0,08	493
1978		E					71	71																		
1978		TOTAL							4500	63952	38,69	0,55														
1978	SJ	N		167	411	28	74	308																		
1978		E		22		14		15																		
1978		TOTAL							2686	46154	19,96	0,34	291	9641	12,61	0,42	2084263	1929269	2134680	1979686	98236	2077922	23	22,5	0,13	350
1978	SNCB	N		309	432	55	130	245	2061	23969			167	4640			2112728	1486865	2229403	1135508	468032	1603540	30,1	29,5	0,13	
1978	SNCF	N		304	584	91	151	398																		
1978		E					44	44																		
1978		TOTAL							3320	46298	27,48	0,38	267	6804	13,88	0,35	6938507	6027058	7469575	3950247	2605838	6556085	30,7	29,8	0,08	442
1978	VR	L		538	577	14	38	319	2695	38829	26,46	0,38	290	9629	12,99	0,43	1246832	1026848	1277713			1057729	18	19	0,14	234
1978	TCDD	N	230	534	287	95	195	395	4399	77044	38,53	0,67	284	283509	14,37	0,51	536979	500358	675065			638444	24,7	23,9	0,09	434
1979	BDZ	N.E.									36,07				12,87	6,44							21	21		229
1979	BR	N		466	436	149	261	334	1864	28385			123	5135			6719000						25,4			
1979	CFF	N		14	342	118	160	298																		
1979		E			42		80	75																		
1979		total							2121	31141	18,98	0,3	219	6716	10,8	0,35	2934891	2145382	3064590	1678400	455323	2133723	15	15	0,22	142
1979	CFL	N		386	452	76	117	314	2371	26878	29	0,33	189	4918			504318	213169	504367	182829	30340	37,1		0,35	48	
1979	CFR	L																								
1979		N																								
1979		E																								
1979		total																								
1979	CH	N		385		93		270	2850	41726	35,92	0,53	79	3032			77467	53634								
1979		E		169		80		119	1396	23343	22,12	0,37	60	4371			31246	31246								
1979		TOTAL																								
1979	CIE	L							3143	47617			133		9,63							308760				
1979	CP	L		227	382	49	253	212									307952	286124	318540	282837	13875	296712				
1979		E	64	88		64		70									24956	24956	25404	25404		25404				
1979		TOTAL							4969	64367			146	6143									10,1	11	0,13	
1979	CSD	L.N.E.															14272482	10312374	14272482	10312374		10312374	19,7	19,7		
1979	DB	N.E.		200	511	64	57	314	2081	29846	19,38	0,28	202	6121	10,62	0,32	14635039	13078201	15460831	12629337	1274656	13903993	22,2	21,9	0,14	263
1979	DR	N	602	422	561	54	76	378																		
1979		E	74	15				73																		
1979		TOTAL									22,32				16,24	0,47	10188509	8552009	10481608			8837918	29	29,1		210
1979	DSB	N									11,29	0,18	197	7572	9,08	0,33			673988			469278		10,5	0,2	211
1979	FS	N	57	173	495	53	110	300																		
1979		E	104			56		60																		
1979		TOTAL							2947	41933	26,64	0,38	148	5124	9,82	0,34	2747942	1719731	3005566	1728341	249014	1977355	19,8	19,6	0,05	417
1979	JZ	N	278	405	705	52	195	419	3202	48077	27,02	0,41	573	14238	17,27		2974814	2377361	2974814	2377361		2377361	29,5	29,5	0,18	349
1979		E																								
1979		TOTAL																								
1979	MAV	N	249	430	792	113		487																		
1979		E		79				79																		
1979		total									25,43				15,27											
1979	NS	N		239	460	99	121	178	4409	69436	25,18	0,43					891828	651796	948010			697895	24,4	23,9	0,19	178
1979	NSB	N							2454	54901	23,53	0,53	330	11338	11,35	0,45	839609	438847	867798			1532429	39,3	38,6	0,22	211
1979	OBB	N	78	134	389	74	185	301									2501579	1457715	2576293	1409288	123141	25693			0,18	246
1979		E	46	44	74	33		52									23518	23518	25693	25693			20	20,3	0,08	82
1979		TOTAL							1826	30480	22,77	0,38	280	9705	10,63	0,37										
1979	PKP	N	307	495	1057	122	130	530							17,66		14173089	13397450	14585903	13810264		13810264	32,2	32,3		371
1979		E	70	101		31		82							8,29		669171	669171	669171	669171		669171	14,4	14,5		26
1979		Total																								
1979	RENFE	L		260	468	101	173	277					253	7981	11,28	0,36	1207078	1161578	1294660			1249160	28,5	27,6	0,08	481
1979		E					72	72																		
1979		TOTAL							4446	63270	38,95	0,55														
1979	SJ	N		182	446	27	74	336																		
1979		E		24		14		15																		
1979		TOTAL							3027	52463	20,53	0,36	356	11742	13,56	0,45	2229590	2055031	2282715	2004821	103335	2108156	26,3	25,8	0,14	360
1979	SNCB	N		326	446	55	131	256	1995	23199			197	5446	18,58	0,51	2400327	1650033	2515591	1274548	490749	1765297	30,9	30,3	0,14	105
1979	SNCF	N		303	590	91	158	407					292	7386	14,03	0,36	7159942	6133408	7665883	3955687	2681234	6636921	31,2	30,3	0,09	440
1979		E					45	45																		
1979		TOTAL							3288	45529	26,78	0,37														
1979	VR	L		538	628	14	39	347	2726	40438	25,81	0,38	344	11303	13,63	0,45	1411083	1184728	1437993			1211638	18,7	19,6	0,16	231
1979	TCDD	N	206	532	300	93	191	396	5371	78290	45,43	0,66	249	4794	13,14	0,46	524706	478652	585687			570597	23,9	22,5	0,06	502
1980	BDZ	N.E.																						21,5		
1980	BR	N		463	424	159	261	327	1868	28350			125	5051			5942000						26			
1980	CFF	N		13	358	140	160	310																		
1980		E		20	41		80	75																		
1980		total							2339	34299	20,66	0,32	235	7020	10,95	0,34	2997368	2197264	3124423	1693316	473999	2167315	15,4	15,4	0,23	143
1980	CFL	N		377	436	75	115	304	2047	27292	28,8	0,33	182	4671			498297	194116	498301	170932	23184	194116	34,9		0,37	45

A1.2.13. Efficiency of Rolling Stock User

			ANNUAL NUMBER OF GROSS TONNE-KILOMETRES HAULED PER MOTIVE UNIT KILOMETRE						ANNUAL NUMBER OF PUBLIC TRAFFIC PASS.KMS				ANNUAL NUMBER OF TONNE-KILOMETRES				ANNUAL NUMBER OF WAGONS LOADED						AVERAGE WAGONS-LOAD (IN TONNES)			
													PUBLIC TRAFFIC		TOTAL TRAFFIC		PUBLIC TRAFFIC ONLY		ALL TRAFFIC							
																				In stations of the system and of the secondary system in contact						
YEAR	Railway	railgauge	Steam Locomotive	Diesel and Special System locomotive and light	Electric locomotive and light rail motor tractor	Diesel and Special System railcar	Electric Railcar	TOTAL	Per carriage of operating stock (in 1000)	Per seat of operating stock (in 1000)	Per carriage-kilometre (in unit)	Per "seat-offered"-Kilometre (in unit)	Per wagon of operating stock (in 1000)	Per tonne of capacity of wagons of operating	Per wagon-kilometre (in units)	Per "tonne-offered"-kilometre (in units)	In the system stations and entered	In stations of the system and of the secondary system in contact	In the system's stations and entered "loaded"	Railway's wagons	Private owner's wagons	Total	Public traffic only	All traffic	Average coefficient of available wagons used, all traffic	Average length of haul
1980	CFR	L																								
1980		N																								
1980		E																								
1980		total																								
1980	CH	N		346		85		255	2723	39872	33,33	0,49	75	2930												
1980		E		157		86		121	1340	22408	22,67	0,38	73	5322												
1980		TOTAL																								
1980	CIE	L							2966	45149			144		10,38							260289				
1980	CP	L		206	325	61	166	188									297825	266340	309360	265510	12365	277875				
1980		E	57	86		59		66									23438	23438	23860	23860		23860				
1980		TOTAL							5348	69142			171	7085									11,6	12,3	0,13	
1980	CSD	L.N.E.	233	316	794	58	116	405			26,98				17,33		14427024	10437262	14427024	10437262		10437262	19,6	19,7		188
1980	DB	N.E.		195	504	65	57	308	2174	31566	19,15	0,28	203	6089	10,63	0,32	12860040	11286532	13713103	10853680	1285915	12139595	24,7	24,2	0,13	291
1980	DR	N	637	432	585	55	76	392																		
1980		E	75	1				74																		
1980		TOTAL									22,98				15,04		10338059	8780354	10621990			9159157	29,4	29,6		231
1980	DSB	N																	608129			423202		11,2		
1980	FS	N	48	176	490	53	106	298																		
1980		E	95			52		56																		
1980		TOTAL							2945	41723	27,49	0,39	160	5374	10,15	0,34	2753409	1707103	2996419	1698324	251791	1950115	20,5	20,2	0,06	426
1980	JZ	N	254	399	692	56	135	410	3276	47758	25,37	0,37	554	13147	16,54		2766712	2766712	2766712	2766712		2766712	30,7	30,7	0,16	383
1980		E																								
1980		TOTAL																								
1980	MAV	N	268	422	785	97		481																		
1980		E		78				78																		
1980		total									25,88				12,01											
1980	NS	N		254	446	101	121	176	4451	71662	24,92	0,39					884716	655227	953228			707617	25	24,4	0,2	179
1980	NSB	N							2636	58319	26	0,58	335	11345	10,9	0,43	821020	461241	854382			494603	37,4	36,4	0,23	224
1980	OBB	N	146	141	393	72	192	305									2547123	1509092	2619828	1460215	121582	1581797			0,18	251
1980		E	52	43	74	33		53									24111	24111	25482	25482		25482			0,07	88
1980		TOTAL							1834	30011	23,03	0,38	284	9655	10,49	0,36							20,1	20,4		
1980	PKP	N	267	487	1037	123	130	522							18,07		13780606	13002838	14202199	13424431		13424431	33,3	33,3		369
1980		E	67	101		31		80							9,33		605691	605691	605691	605691		605691	14,5	14,7		25
1980		Total																								
1980	RENFE	L		262	475	104	176	282					258	7947	11,52	0,35	1203160	1156560	1317570			1270970	28,9	27,7	0,08	475
1980		E					79	79																		
1980		TOTAL							3635	51664	31,05	0,44														
1980	SJ	N		172	445	31	73	332																		
1980		E		21		14		15																		
1980		TOTAL							3397	57008	22,23	0,38	347	11441	13,15	0,43	2087769	1910721	2145251	1873785	94418	1968203	25,7	25,1	0,14	377
1980	SNCB	N		315	435	55	132	248	1929	22253			187	5090	20,61	0,56	2308520	1631123	2441651	1267108	497146	1764254	31	30,2	0,14	105
1980	SNCF	N		293	575	92	165	400																		
1980		E					46	46																		
1980		TOTAL							3384	46535	26,95	0,37	287	7192	13,88	0,35	6898723	5903544	7413564	3762159	2654238	6416397	31,8	30,9	0,08	416
1980	VR	L		543	651	13	37	368	2923	42738	26,72	0,39	388	12712	13,9	0,46	1588254	1348201	1391141			1369671	18,5	22,2	0,16	265
1980	TCDD	N	213	499	297	86	180	383	4449	57823	42,89	0,65	217	4508	13,57	0,47	468611	405101	513133			525601	24,4	23,1	0,05	473
1981	BDZ	N.E.																								
1981	BR	N		465	401	165	261	325	1933	29151			145	5550			5675000						27,3			
1981	CFF	N		16	357	131	161	309																		
1981		E		0	42		83	78																		
1981		total							2261	33893	20,29	0,32	228	6814	12,09	0,38	2897233	2152829	3031000	1773534	468088	2241622	15,6	15,7	0,22	132
1981	CFL	N		368	422	76	115	292	2379	26818	28,59	0,33	175	4491			420311	166392	420319	145646	20746	166392	36,0		0,32	46
1981	CFR	L																								
1981		N																								
1981		E																								
1981		total																								
1981	CH	N		343		91		265	2792	42058	32,54	0,49	70	2672			129354	76576								
1981		E		151		85		119	1238	20808	20,40	0,34	38	2788			23472	23472								
1981		TOTAL																					19,6			
1981	CIE	L							2908	44333			177									257566				
1981	CP	L		220	360	68	167	195									295851	261514	309718	255595	19786	275381				
1981		E	61	74		61		64									22904	22904	23199	23199		23199				
1981		TOTAL							4880	63860			176	7092									11,5	12,1	0,13	
1981	CSD	L.N.E.	368	312	778	56	116	405			27,02				17,55		14383199	10659622	14383199	10659622		10659622	19,7	19,8		187
1981	DB	N.E.		183	496	66	56	301	2274	37653	19,88	0,33	195	5743	10,74	0,32	12494050	10637069	13198651	10122795	1218875	11341670	24,3	23,8	0,12	285
1981	DR	N	658	438	600	53	76	403																		
1981		E	74					73																		
1981		TOTAL									23,33				15,10		10307042	8964690	10553627			9209925	29,9	30,0		229
1981	DSB	N																	552350			376759		11,7		
1981	FS	N	45	172	481	53	105	291																		
1981		E	98			56		59																		
1981		TOTAL							2965	41433	28,54	0,40	150	4984	10,17	0,34	2544364	1629648	2777131	1620037	242378	1862415	20,0	19,8	0,05	431
1981	JZ	N	162	390	684	53	125	398	3347	48439	25,52	0,37	563	13356	17,12		2781602	2781602	2781602	2781602		2781602	30,9	30,9	0,16	378
1981		E																								
1981		TOTAL																								
1981	MAV	N	287	431	794	50		478																		
1981		E		76				76																		
1981		total									26,96				15,95											
1981	NS	N		247	424	102	122	174	4572	71210	24,49	0,38	299		12,55		798414	586959	871845			645868	26,4	25,6	0,18	199
1981	NSB	N							2691	59271	23,96	0,53	316	8734	10,12	0,40	737390	428682	763745			455028	35,1	34,4	0,16	246
1981	OBB	N	143	135	388	71	191	300									2440982	1437019	2517697	1409171	104563	1513734			0,18	250

A1.2.13. Efficiency of Rolling Stock User

			ANNUAL NUMBER OF GROSS TONNE-KILOMETRES HAULED PER MOTIVE UNIT KILOMETRE						ANNUAL NUMBER OF PUBLIC TRAFFIC PASS.KMS				ANNUAL NUMBER OF TONNE-KILOMETRES PUBLIC TRAFFIC		TOTAL TRAFFIC		ANNUAL NUMBER OF WAGONS LOADED PUBLIC TRAFFIC ONLY		ALL TRAFFIC				AVERAGE WAGONS-LOAD (IN TONNES)			
YEAR	Railway	railgauge	Steam Locomotive	Diesel and Special System locomotive and light	Electric locomotive and light rail motor tractor	Diesel and Special System railcar	Electric Railcar	TOTAL	Per carriage of operating stock (in 1000)	Per seat of operating stock (in 1000)	Per carriage-kilometre (in unit)	Per "seat-offered"-Kilometre (in unit)	Per wagon of operating stock (in 1000)	Per tonne of capacity of wagons operating	Per wagon-kilometre (in units)	Per "tonne-offered"-kilometre (in units)	In the system stations and entered	In stations of the system and of the secondary system in contact	In the system's stations and entered "loaded"	In stations of the system and of the secondary system in contact: Railway's wagons	Private owner's wagons	Total	Public traffic only	All traffic	Average coefficient of available wagons used, all traffic	Average length of haul
1981		E	46	44	75	32		53									22147	22147	23277	23277		23277			0,07	93
1981		TOTAL							1731	28752	21,96	0,36	264	8876	10,18	0,34							20,4	20,7		
1981	PKP	N	236	432	967	121	130	483	.	.	.	.	.	.	17,68	.	11500500	10700900	11851100	.	.	11051500	33,3	33,3	.	370
1981		E	70	96		28		77	.	.	.	.	.	.	8,56	.	494924	494924	494924	.	.	494924	15,1	15,3	.	25
1981		Total																								
1981	RENFE	L		260	468	108	183	283					248	7439	11,93	0,36	1102447	1058847	1223411	.	.	1179811	30,0	28,7	0,08	481
1981		E					81	81																		
1981		TOTAL							3757	.	30,59	.														
1981	SJ	N		167	419	38	73	316																		
1981		E		18		14		14																		
1981		TOTAL							3373	55689	20,00	0,33	322	10615	12,53	0,41	1922280	1747854	1972510	.	.	1798084	24,0	23,6	0,13	405
1981	SNCB	N		314	425	54	133	241	1933	22166	.	.	175	4708	18,61	0,50	2196686	1592497	2363652	1205597	553866	1759463	31,9	30,7	0,14	98
1981	SNCF	N		276	563	93	178	390																		
1981		E					47	47																		
1981		TOTAL							3498	47576	27,44	0,37	267	6624	13,87	0,34	6162539	5298246	6656859	3439611	2351698	5791309	31,8	30,9	0,07	432
1981	VR	L		519	666	14	38	373	2979	43239	26,70	0,39	393	12586	13,81	0,44	1611751	1354301	1630493	.	.	1373043	18,4	18,9	0,19	228
1981	TCDD	N	244	530	341	85	184	415	4632	84683	40,47	0,75	275	9186	12,27	0,42	465778	443852	611161	.	.	559527	26,4	20,9	0,06	494
1982	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	BR	N		464	415	179	261	326	1745	26159	.	.	162	5884	.	.	4682000	.	.	.	.	.	33,1	.	.	.
1982	CFF	N		16	341	132	163	298																		
1982		E		0	39		79	74																		
1982		total							2213	33171	18,20	0,27	209	6255	12,13	0,37	2702388	2028443	2832881	1596554	446239	2042793	15,5	15,5	0,21	129
1982	CFL	N		377	438	76	112	294	2370	26714	28,36	0,32	176	4453	17,41	.	373523	139957	373523	138590	1367	139957	36,9	36,9	0,29	47
1982	CFR	L																								
1982		N																								
1982		E																								
1982		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	CH	N		340		92		262	2762	41659	30,58	0,46	59	2251	.	.	116584	60402	.	.	.	.		.	.	.
1982		E		156		92		125	1256	21112	19,93	0,33	33	2403	.	.	20586	20586	.	.	.	.		.	.	.
1982		TOTAL																					19,1			
1982	CIE	L		220				220	2649	40019	16,61	0,25	183	.	.	.	.	.	.	.	.	251146	.	.	.	.
1982	CP	L		214	351	70	171	195																		
1982		E	60	64		58		60																		
1982		TOTAL							4475	59141	.	.	188	7205	.	.	263320	229135	273898	214833	24880	239713	15,0	14,9	0,11	.
1982	CSD	L.N.E.	382	315	768	54	117	406	.	.	28,38	.	.	.	19,63	.	14545706	10853386	14545706	10853386		10853386	19,6	19,7	.	164
1982	DB	N.E.		182	487	65	56	297	2223	31580	19,31	0,27	173	5014	10,64	0,31	11384588	9603357	12039118	9082577	1175310	10257887	24,5	24,0	0,10	294
1982	DR	N	570	436	622	44	76	405																		
1982		E	75					74																		
1982		TOTAL							.	.	26,04	.	.	.	14,79	.	10249610	9128063	10539018	.	.	9417102	29,8	29,8	.	228
1982	DSB	N		.		.	.	.	.	.	.	.	.	.	.	.	.	.	554396	.	.	376243	.	12,9	.	.
1982	FS	N	38	170	480	52	104	293																		
1982		E	51			54		54																		
1982		TOTAL							2934	40649	27,74	0,38	149	4884	10,01	0,33	2475138	1593148	2873325	1737409	253926	1991335	19,9	19,1	0,06	419
1982	JZ	N	142	379	682	70	100	404	3520	50800	27,32	0,39	567	14027	17,10	.	2824690	2824690	2824690	2824690		2824690	30,3	30,3	0,16	374
1982		E																								
1982		TOTAL																								
1982	MAV	N	230	400	830	81		517																		
1982		E		78																						
1982		total							.	.	28,70	.	.	.	14,00	.	.	.	.	.	.	.	.	.	.	.
1982	NS	N		223	373	101	121	172	4463	68950	24,47	0,37	268	.	12,05	.	693019	508243	770374	.	.	570030	26,3	25,4	0,17	193
1982	NSB	N		.	.	.	.	.	2488	54440	22,93	0,50	277	9442	8,98	0,35	627239	405253	672764	.	.	450778	31,8	30,3	0,19	284
1982	OBB	N	214	135	388	70	187	300									2379714	1395313	2460411	1396719	79291	1476010			0,17	250
1982		E	44	44	71	33		52									21828	21828	22891	22891		22891			0,07	87
1982		TOTAL							1808	28427	22,14	0,35	257	8545	10,16	0,34							20,8	21,1		
1982	PKP	N	223	425	971	114	130	493	.	.	.	.	.	.	17,68	.	11356600	10554800	11718500	.	.	10916700	33,8	33,7	.	372
1982		E	71	96		27		77	.	.	.	.	.	.	8,63	.	458649	458649	458649	.	.	458649	15,5	15,7	.	26
1982		Total																								
1982	RENFE	L		253	467	123	184	284					243	7157	12,04	0,35	1019360	978860	1129208	.	.	1088708	30,2	28,9	0,07	513
1982		E					85	85																		
1982		TOTAL							3719	54265	29,99	0,44														
1982	SJ	N		161	410	40	72	311																		
1982		E		29		14		17																		
1982		TOTAL							3119	51569	20,54	0,34	307	10007	12,39	0,40	1726040	1556191	1731317	1618964		1618964	23,3	23,5	0,11	426
1982	SNCB	N		312	409	53	133	236	1872	21485	.	.	157	4184	18,93	0,50	1948157	1442136	2116104	1093732	516351	1610083	32,2	30,7	0,12	99
1982	SNCF	N		274	557	95	214	387																		
1982		E					46	46																		
1982		TOTAL							3555	48155	27,46	0,37	254	6241	13,98	0,34	5709869	4886420	6183025	3170456	2188037	5358493	32,1	31,2	0,07	440
1982	VR	L		517	643	14	38	373	3007	42839	28,65	0,41	378	11872	13,64	0,43	1547313	1308127	1570428	.	.	1331242	18,5	18,9	0,18	229
1982	TCDD	N	238	503	315	75	154	385	3942	59368	38,32	0,58	272	7787	13,89	0,48	478062	444680	518120	.	.	530428	27,4	25,7	0,05	509
1983	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	BR	N		475	418	189	261	330	2005	29843	.	.	213	7234	.	.	5139500	.	.	.	.	.	28,4	.	.	.
1983	CFF	N		15	335	123	161	294																		
1983		E		0	40		79	74																		
1983		total							2211	32714	17,56	0,27	207	6072	12,61	0,39	2590955	1945598	2712938	1498381	449466	1947847	16,0	16,0	0,20	127
1983	CFL	N		362	445	69	105	287	2257	25445	26,99	0,30	170	4268	.	.	351285	144794	351285	122281	22513	144794	36,9	.	0,30	47
1983	CFR	L																								
1983		N																								
1983		E																								
1983		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	CH	N		336		82		265	3041	71376	35,86	0,84	67	2614	.	.	136048	58115	.	.	.	.		.	.	.
1983		E		158		93		127	1413	24068	21,59	0,37	46	3508	.	.	22818	22818	.	.	.	.		.	.	.

A1.2.13. Efficiency of Rolling Stock User

YEAR	Railway	railgauge	ANNUAL NUMBER OF GROSS TONNE-KILOMETRES HAULED PER MOTIVE UNIT KILOMETRE: Steam Locomotive	Diesel and Special System locomotive and light	Electric locomotive and light rail motor tractor	Diesel and Special System railcar	Electric Railcar	TOTAL	ANNUAL NUMBER OF PUBLIC TRAFFIC PASS.KMS: Per carriage of operating stock (in 1000)	Per seat of operating stock (in 1000)	Per carriage-kilometre (in unit)	Per "seat-offered"-Kilometre (in unit)	ANNUAL NUMBER OF TONNE-KILOMETRES, PUBLIC TRAFFIC: Per wagon of operating stock (in 1000)	Per tonne of capacity of wagons of operating	TOTAL TRAFFIC: Per wagon-kilometre (in units)	Per "tonne-offered"-kilometre (in units)	ANNUAL NUMBER OF WAGONS LOADED, PUBLIC TRAFFIC ONLY: In the system stations and entered	In stations of the system and of the secondary system in contact	ALL TRAFFIC: In the system's stations and entered "loaded"	In stations of the system and of the secondary system in contact: Railway's wagons	Private owner's wagons	Total	AVERAGE WAGONS-LOAD (IN TONNES): Public traffic only	All traffic	Average coefficient of available wagons used, all traffic	Average length of haul
1983		TOTAL																					22,0			
1983	CIE	L		214				214	2711	41258	15,80	0,24	166	.	.	.	.	.	.	233993	.	.	.	.	.	.
1983	CP	L		227	354	69	173	200																		
1983		E	56	71		57		60																		
1983		TOTAL							4878	61053	.	.	189	7142	.	.	295249	273796	303779	254242	28084	282326	15,1	15,1	0,12	.
1983	CSD	L.N.E.	989	316	757	54	118	409	.	.	27,50	.	.	.	18,34	.	14790155	11066299	14790155	11066299		11066299	19,5	19,6	.	161
1983	DB	N.E.		186	487	64	56	303	2194	30998	19,05	0,27	174	4970	10,50	0,30	10949686	9202872	11604174	8684483	1172877	9857360	24,7	24,2	0,10	310
1983	DR	N	567	438	637	43	76	411																		
1983		E	76					75																		
1983		TOTAL							.	.	23,18	.	.	.	14,96	.	10495162	9438990	10784205	.	.	9736383	29,4	29,5	.	225
1983	DSB	N		.		.	.	.	.	.	.	.	.	.	.	.	.	.	543199	.	.	362371	.	13,2	.	.
1983	FS	N	41	171	477	51	102	292																		
1983		E		0		62		58																		
1983		TOTAL							2655	36528	25,34	0,35	149	4790	10,37	0,33	2340816	1525640	2644878	1579077	250625	1829702	21,1	20,7	0,05	434
1983	JZ	N	175	387	710	83	89	418	3543	56421	26,86	0,43	567	13750	18,53	.	2930970		2930970	2930970		2930970	30,6	30,6	0,16	365
1983		E																								
1983		TOTAL																								
1983	MAV	N	170	499	757	85		514																		
1983		E		66				66																		
1983		total							.	.	16,97	.	.	.	21,77	.	.	.	.	.	.	.	.	.	.	.
1983	NS	N		226	362	95	120	173	4192	63813	23,60	0,37	286	.	13,35	.	644156	461145	717366	.	.	519874	28,0	26,8	0,17	183
1983	NSB	N		.	.	.	.	.	2398	52822	23,02	0,51	293	9612	9,56	0,36	586736,00	371532,00	637398,00	.	.	422194	32,4	30,5	0,20	267
1983	OBB	N	243	134	392	69	186	303									2326324	1365383	2408999	1357953	90105	1448058			0,16	252
1983		E	43	43	69	33		52									20218	20218	21554	21554		21544			0,07	87
1983		TOTAL							1840	29493	21,60	0,35	262	8465	10,45	0,34							21,5	21,7		
1983	PKP	N	215	419	973	114	131	496	.	.	.	.	.	.	18,36	.	11418400	10623526	11793800	.	.	10968926	34,7	34,6	.	375
1983		E	67	96		28		78	.	.	.	.	.	.	8,87	.	431758	431758	431758	.	.	431758	16,5	16,7	.	26
1983		Total																								
1983	RENFE	L		242	474	147	184	287					241	7036	12,15	0,35	996226	957526	1125731	.	.	1087031	30,1	28,7	0,07	515
1983		E					84	84																		
1983		TOTAL							3727	54077	30,01	0,44														
1983	SJ	N		160	410	42	74	313																		
1983		E																								
1983		TOTAL							3162	52230	18,35	0,30	352	11,463	13,29	0,43	1681184	1521310	1752159	1565285		1565285	24,4	24,0	0,12	439
1983	SNCB	N		316	415	56	133	236	1769	20290	.	.	169	4387	19,35	0,50	1894567	1374120	2041546	1055537	465562	1521099	33,6	32,0	0,12	101,00
1983	SNCF	N		270	549	95	232	381																		
1983		E					48	49																		
1983		TOTAL							3654	48338	28,11	0,38	251	6148	14,50	0,35	5369087	4573358	5829617	2940574	2092424	5032998	32,5	31,5	0,06	450,00
1983	VR	L		504	626	14	38	373	3046	43209	29,05	0,41	386	12021	14,14	0,44	1533905	1255493	1553268	.	.	1274856	19,0	19,4	0,18	226
1983	TCDD	N	234	489	324	75	168	381	4164	58901	38,82	0,55	271	8792	14,27	0,46	463140	451807	504671	.	.	488963	28,5	27,3	0,05	542
1984	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	BR	N		447	398	194	261	316	2492	37025	.	.	241	7723	.	.	3260800	.	.	.	.	.	29,9	.	.	.
1984	CFF	N		13	342	110	159	298																		
1984		E		0	43		77	79																		
1984		total							2222	32731	17,80	0,27	224	6719	13,42	0,41	2604003	1928596	2724856	1482239	448561	1930800	16,7	16,7	0,20	130
1984	CFL	N		375	438	76	110	304	2179	24562	25,70	0,29	201	5041	.	.	402038	157309	402038	139654	17655	157309	38,7	.	0,32	45
1984	CFR	L																								
1984		N																								
1984		E																								
1984		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	CH	N		349		84		279	3122	46595	38,70	0,58	78	3012	.	.	160390	65447	.	.	.	.		.	.	.
1984		E		142		84		115	1376	23440	25,34	0,43	43	3310	.	.	21404	21404	.	.		.		.	.	.
1984		TOTAL																					22,1			
1984	CIE	L		215			112	210	2933	43072	17,08	0,25	174	.	.	.	.	.	.	227917	.	.	.	.	.	.
1984	CP	L		248	372	68	148	200																		
1984		E	72	77		58		62																		
1984		TOTAL							4520	59083	.	.	220	8260	.	.	287607	269100	297621	279114	30377	309491	19,1	18,8	0,11	.
1984	CSD	L.N.E.		315	755	53	118	409	.	.	27,82	.	.	.	18,14	.	15191368	11244176	15262082	11314889		11314889	19,5	19,0	.	174
1984	DB	N.E.		187	490	64	55	311	2259	31732	19,52	0,27	191	5408	10,76	0,30	11429335	9676156	12071064	9044189	1273696	10317885	25,3	24,8	0,11	303
1984	DR	N	583	435	660	44	75	424																		
1984		E	76					75																		
1984		TOTAL							.	.	23,75	.	.	.	15,10	.	11040962	10005573	11340918	.	.	10305224	28,9	29,0	.	220
1984	DSB	N		.		.	.	.	.	.	.	.	.	.	.	.	.	.	525500	.	.	341143	.	13,7	.	.
1984	FS	N	94	174	483	51	100	298																		
1984		E		0		54		52																		
1984		TOTAL							2535	34919	24,78	0,34	161	5033	10,79	0,34	2441739	1529265	2747065	1596315	238276	1834591	22,3	21,9	0,06	426
1984	JZ	N	177	391	711	59	133	422	3206	51215	28,56	0,46	549	13208	18,60	.	2931915		2931915	2931915		2931915	31,3	31,3	0,15	373
1984		E																								
1984		TOTAL																								
1984	MAV	N	90	147	686	84		265	.	.	20,00	.	.	.												
1984		E		5																						
1984		total													13,11	.	.	.	.	.	.	.	.	.	.	.
1984	NS	N		227	380	94	120	176	4258	64225	23,55	0,36	363	.	15,12	.	633775	438565	704919	.	.	494083	31,3	29,9	0,18	182
1984	NSB	N		.	.	.	.	.	2392	52565	22,75	0,50	336	10922	10,58	0,37	614479	376298	662726	.	.	424545	35,9	33,9	0,21	252
1984	OBB	N	189	139	407	68	186	313									2447203	1411962	2530828	1373197	122390	1495587			0,17	253
1984		E	43	44	69	33		52									20056	20056	21324	21324		21324			0,07	94
1984		TOTAL							1873	29259	21,66	0,34	294	9171	10,73	0,33							22,6	22,9		
1984	PKP	N	205	406	980	113	130	503	.	.	.	.	.	.	18,61	.	11472500	10767911	11829200	.	.	11121900	35,5	35,4	.	382
1984		E	64	94		26		79	.	.	.	.	.	.	9,25	.	420136	420136	420136	.	.	420136	17,1	17,3	.	25
1984		Total																								
1984	RENFE	L		225	479	119	186	281					269	7818	12,73	0,37	1074074	1022774	1171624	.	.	1120324	29,1	28,2	0,07	515

A1.2.13. Efficiency of Rolling Stock User

			ANNUAL NUMBER OF GROSS TONNE-KILOMETRES HAULED PER MOTIVE UNIT KILOMETRE						ANNUAL NUMBER OF PUBLIC TRAFFIC PASS.KMS				ANNUAL NUMBER OF TONNE-KILOMETRES				ANNUAL NUMBER OF WAGONS LOADED						AVERAGE WAGONS-LOAD (IN TONNES)			
													PUBLIC TRAFFIC		TOTAL TRAFFIC		PUBLIC TRAFFIC ONLY		ALL TRAFFIC							
																				In stations of the system and of the secondary system in contact						
YEAR	Railway	railgauge	Steam Locomotive	Diesel and Special System locomotive and light	Electric locomotive and light rail motor tractor	Diesel and Special System railcar	Electric Railcar	TOTAL	Per carriage of operating stock (in 1000)	Per seat of operating stock (in 1000)	Per carriage-kilometre (in unit)	Per "seat-offered"-Kilometre (in unit)	Per wagon of operating stock (in 1000)	Per tonne of capacity of wagons of operating	Per wagon-kilometre (in units)	Per "tonne-offered"-kilometre (in units)	In the system stations and entered	In stations of the system and of the secondary system in contact	In the system's stations and entered "loaded"	Railway's wagons	Private owner's wagons	Total	Public traffic only	All traffic	Average coefficient of available wagons used, all traffic	Average length of haul
1984		E					84	84																		
1984		TOTAL							3830	55813	29,58	0,43														
1984	SJ	N		176	438	42	75	334																		
1984		E		30		14		17																		
1984		TOTAL							3176	50985	18,05	0,29	441	13997	13,86	0,44	1836251	1662115	1860595	.	.	1686459	25,8	25,7	0,14	453
1984	SNCB	N		337	457	55	134	251	1689	19456	.	.	198	5043	20,01	0,51	2010878	1423358	2147662	1073503	486639	1560142	35,4	33,9	0,13	106
1984	SNCF	N		261	559	95	246	386																		
1984		E					48	48																		
1984		TOTAL							3760	50204	28,18	0,38	262	6342	14,74	0,36	5269962	4451769	5698705	2841314	2038289	4879603	33,3	32,3	0,06	444
1984	VR	L		476	614	11	38	371	3059	43019	28,47	0,40	403	12184	14,59	0,44	1513402	1206206	1532505	.	.	1225309	19,6	19,9	0,19	217
1984	TCDD	N	230	512	336	79	166	404	4464	62612	39,13	0,55	333	10813	14,55	0,48	498003	490795	537227	.	.	529362	29,7	28,5	0,06	603

A1.2.14. Balance Sheet

YEAR	Railway	Currency	ASSETS – Fixed Assets – Land, Buildings and Fixed Installations – Purchase or construction value	Depreciation	Net	Transport Stock – Purchase or construction value	Depreciation	Net	Other equipment – Purchase or constructi	Depreciation	Net	Issuing costs and premiums on loans	Other Assets	TOTAL (col.6+9+12+13+14)	Supplies	Realisable and Available Assets – Debtors	Other Assets	TOTAL (col.17+18)	Results – Losses on Previous financial years	Loss on the financial year under consideratio	Total Assets (col.15+16+19+20+21)	LIABILITIES – Capital and Reserves – Capital	Reserves	Contribution to investments expenses	Provisions	Long Term financial liabilities	Short-Term Debts – Creditors	other short term debts	Results – Profits on previous financial years	Profit on the financial year under	Total Liabilities (col. 23 to 31)
1977	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	BR	pound sterl	380900	52300	328600	991200	606500	384700	97700	45500	52200		528100	1293600	135700	154200	9500	163700			1593000		194700	.	41300	963700	300900	54700	10700	27000	1593000
1977	CFF	swiss franc	7465265	3226680	4238585	4219237	2105188	2114049	164057	136748	27309		590717	6970660	189136	348751	124777	473528		688335	8321659	800000	40747			5975776	1505136				8321659
1977	CFL	luxemburg	1472522	473646	998876	2681745	1123623	155872	141359	97831	43528		51469	2651945	351265	1046287	527453	1573740	148410		4725360	1600000	242079		329389	1936702	617190				4725360
1977	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	drachm	22237619	1074188	21163431	5874451	1289660	4584791	729165	228987	500178	94488	3586	26346474	1467100	5085992	1505900	6591892			34405466	29326000	5684	2309976		1886859	876947				34405466
1977	CIE	pound sterling				.	.	33489	.	.	8558		4213	46260	10628	10322	7130	17452		5124	79464	9884	2710			38111	19362	3363	6034		79464
1977	CP	escudo	12710155	347837	12362318	8014283	293429	7720854	534920	42430	492490	489	62051	20638202	887230	5158679	84717	5243396	1478429	661096	28908353	19460	6044248	4543012	757228	5478320	2040768	10025317			28908353
1977	CSD	Czechoslov	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	DB	Deutsche r	54188986	23221763	30967223	22039103	8244318	13794785	1641735	939751	701984	154498		45618490	936829	2374862	6109257	8484119	3874270	4523829	63437537	23477713	206304	3803759	591944	26017371	7485446	.	.	.	63437537
1977	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	DSB	Danish cro	3431918	42288	3389630	2662367	87702	2574665	204719	5300	199419		8619	6172333	294024	330439	20065	350504			6816861	6172333					449974	194554			6816861
1977	FS	lira	2571662822		[illegible]	1871526163		1871526163	1,25E+08		1,25E+08	2,31E+08	15299391	4814560734	5,09E+08	401357790	665380492	1,067E+09	5427422128	986058566	1,2804E+10	45431101	1161554501	1632873938	644005137	7936782					
1977	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	NS	florin	3106230	1323642	1782588	1643905	864610	779295	168330	154993	13337		387140	2962360	147400	1274809	418181	1692990			4802750	484438	1851620		96648	1872038	379028	118978			4802750
1977	NSB	Norwegian	5143573	668048	4475525	2182631	667284	1515347					40480	6031352	159834	117558	109577	227135			6418321	6064878	795		64461	14000	274187				6418321
1977	OBB	Austrian Sc	65775360	28956670	36818690	28194777	10898900	17295877	3423027	2074767	1348260		303	55463130	1340013	2948230	714783	3663013			60466156	52249392		1398009	415933	2956966	3445856				60466156
1977	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	RENFE	Peseta	163711560	26656016	137055544	55768181	16924286	38843895					11101765	187001204	13720169	46147238	3697316	49844554	108120992	30195316	388882235	282726496	143333			73095818	32916588				388882235
1977	SJ	Swedish cr	6189527	5032091	1157436	4638153	3514807	1123346	300142	235624	64518		54511	2399811	308252	619152	126547	745699			3453762	2139120	285188		12616		629925	386913			3453762
1977	SNCB	Belgian fra	40878028		40878028	12700997		12700997	2187489		2187489	430252	13798602	69995368	6540839	8731584	1327205	10058789	4665885	1124161	92385042	11000000	1672344	24645961	1483142	37384379	10187578	6011638			92385042
1977	SNCF	French frar	23156092	10902956	12253136	21811807	16775760	5036047	685749	377561	308188	1000137	1454373	20051881	2143034	6996339	1738719	8735058	2758574	952619	34641166	14194	3744403		10256	17129195	6753880	6989238			34641166
1977	VR	Finnish ma	2289184	76304	2212880	1127904	119287	1008617	112475	12571	99904			3321401	260858	164784	4054	168868		380504	4131601	4090978					40623				4131601
1977	TCDD	Turkish pou	6913625	2772408	4141217	5579418	1008375	4571043	1747938	131363	1616575		2010971	12339806	1313572	6123576	988610	7112186		990540	21756104	6306015	143029		3707835	3423094	3456937	4719194			21756104
1978	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	BR	pound sterl	531100	65300	465800	1084900	615500	469400	128700	61900	66800		811200	1813200	159000	186300	12200	198500			2170700		389700	.	40800	1279300	344500	74400	35600	6400	2170700
1978	CFF	swiss franc	7657771	3155688	4502083	4337724	2249616	2088108	168368	148914	19454		527248	7136893	169118	303339	135953	439292		622605	8367908	800000	42247			5969251	1556410				8367908
1978	CFL	luxemburg	1686564	492491	1194073	2687387	1125155	1562232	147215	104035	43180		51468	2850953	437423	831259	592288	1423547	141276		4853199	1600000	904098		339671	1192749	816681				4853199
1978	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH	drachm	22633530	1259307	21374223	5932060	1528466	4403594	786605	271525	515080	348094	3586	26644577	1666649	6029748	2408323	8438071			36749297	29326000	7297	2958328		3221138	1236534				36749297
1978	CIE	pound sterling				.	.	27022	.	.	8902		7894	43818	12785	15095	4531	19626		5354	81583	9884	1432			38769	23693	4939	2866		81583
1978	CP	escudo	13980250	2030	13978220	9573514	2908570	6664944	674265	281601	392664		140705	21176533	901816	10441879	114850	10556729	2139525	201546	34976149	819460	271959	12585656	660278	4293661	5737720	10607415			34976149
1978	CSD	Czechoslov	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	DB	Deutsche r	56379074	23749060	32630014	22680822	8695696	13985126	1714176	1010746	703430	136491		47455061	999480	2418937	5554987	7973924	4523829	4611246	65563540	23032790	2717526	4684083	1018405	27833246	6277490	.			65563540
1978	DR	DDR Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	DSB	Danish cro	3824739	47826	3776913	2884617	98877	2785740	229319	6913	222406		8604	6793663	315803	362331	31354	393685			7503151	6793663					461480	248008			7503151
1978	FS	[illegible]	2894754993		[illegible]	2200670884		2200670884	1,38E+08		1,38E+08	2,68E+08	15299391	5516307319	5,64E+08	758522812	467264514	1,226E+09	6225724745	1294945013	1,4827E+10	45431101	1413460988	1830322656	727950909	9100171190	17				
1978	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	NS	florin	3428341	1386685	2041656	1684407	879164	805243	180076	168127	11949		414037	3272885	167727	1240165	294821	1534986			4975598	484438	1989491	104623	99936	1803874	364252	128984			4975598
1978	NSB	Norwegian	5441825	736777	4705048	2298587	734586	1564001					44894	6313943	170214	137644	137196	274840			6758997	6369068				64461	12000	313468			6758997
1978	OBB	Austrian Sc	69256945	29657035	39599910	30155293	11321937	18833356	3642647	2144582	1498065		1733	59933064	1423552	3202742	416519	3619261			64975877	55282835		1859941	397528	3686639	3748934				64975877
1978	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	RENFE	Peseta	178640598	30082689	148557909	60853516	19835191	4101325					11537999	201114233	17149955	43510899	4576477	18087376	138316392	37845107	442513063	331373072	161784			74078465	36899742				442513063
1978	SJ	Swedish cr	6512694	5186521	1326173	4968045	3721840	1246205	339848	258292	81556		45456	2699390	486253	703824	95305	799129			3984772	2441705	285188		11011	4544	679505	562819			3984772
1978	SNCB	Belgian fra	45731914		45731914	14787116		14787116	2195215		2195215	429276	13797536	76941057	6967029	9785985	1783876	11569861	5790046		101267993	11000000	1787361	28730592	1829282	39703399	13395949	3845951		975459	101267993
1978	SNCF	French frar	72803723	26905359	45898364	34136769	19925546	14211223	964095	402524	561571	789144	2076784	65537086	2191343	8698799	1243094	9941893	3711193	1118963	80500478	14194	44704271		3085	19457334	8031650	8289944			80500478
1978	VR	Finnish ma	2694403	91855	2602548	1279975	136389	1143586	151666	16822	134844			3880978	276529	137175	5477	142652		466229	4766388	4721118	.				45270				4766388
1978	TCDD	Turkish pou	10021290	3074652	6946638	6918094	1164196	575389	339111	124322	214789			12915325	1667327	9413319	3200306	12613625		2529447	29725724	6832661	167972		4579092	8660937	2497453	6987609			29725724
1979	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	BR	pound sterl	583400	75000	508400	1187200	628600	558600	155300	70700	84600		972000	2123600	186900	226600	13800	240400		400	2551300		462600		39800	1492300	394500	120100	42000		2551300
1979	CFF	swiss franc	7947128	3275181	4671947	4475217	2400634	2074583	183870	154570	29300		484010	7259840	170367	288441	139749	428190		624355	8482752	800000	43747			6161775	1477230				8482752
1979	CFL	luxemburg	2039638	516302	1523336	2723791	1220862	1502929	168071	111546	56525		51468	3134258	528065	990410	524823	1515233	133999		5311555	1600000	987704		358489	1137155	1228207				5311555
1979	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH	drachm	23267463	1452772	21814690	6381228	1733094	4648134	819499	315893	503606	621912	3586	27591928	2166595	6269256	2240251	8509507			38268030	29326000	9179	3662661		3526749	1743441				38268030
1979	CIE	pound sterling				.	.	44622	12853		12853		23635	81110	21900	15272	4019	19291	5354	2254	129909	9884	33502			43847	34554	8122			129909
1979	CP	escudo	14807396	3768	14803628	11644673	3207539	8437134	739150	356423	382727		83304	23706793	1118240	12289245	142898	12432143	2341071	394452	39992699	1469460	277651	13397450	473064	4201320	6716761	13456993			39992699
1979	CSD	Czechoslov	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	DB	Deutsche r	58580425	24431964	34148461	23183426	9197929	13985497	1468231	751649	716582	123031		48973571	1037912	2434185	4683434	7117619	4611246	3576230	65316578	21541103	4401794	5151340	649785	28324794	5247762	.			65316578
1979	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	DSB	Danish cro	4304949	57151	4247798	3387592	121167	3266425	279293	8531	270762		10319	7795304	414907	313618	34957	348575			8558786	7795303					490563	272920			8558786
1979	FS	[illegible]	3250753134		[illegible]	2570259422		2570259422	1,56E+08		1,56E+08	3,09E+08	17364991	6303144927	7,97E+08	965064577	798941954	1,764E+09	7415481418	1216913777	1,7497E+10	45431102	1593539893	2086271202	878193163	1,0412E+10	24				
1979	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	NS	Guilder	3766649	1453011	2313638	1790828	895813	895015	196218	182845	13373		451639	3673665	184421	1320016	181324	1501340			5359426	484438	1932585	494868	124251	1751367	463720	108197			5359426
1979	NSB	Norwegian	5747620	810473	4937147	2518204	807212	1710992					56089	6704228	175849	220150	166084	386234			7266311	6832140			64461	10000	359710				7266311
1979	OBB	Austrian Sc	73561411	30459887	43101524	33007217	11928294	21078923	3745015	2117476	1627539		2563	65810549		3526548	599669	4126217			71434538	59897403		2270856	565045	4690968	4010266				71434538
1979	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	RENFE	Peseta	203138441	35294804	167843637	68031247	22352576	45678671					15849856	229372164	20350317	59438434	8345959	67784393	176161500	46844881	540513255	392601020	183192			86746426	60982617				540513255
1979	SJ	Swedish cr	6891624	5494632	1396992	5333523	4114551	1218972	386371	292012	94359		65090	2775413	527049	793719	127804	921523			4223985	2493308	285188		10182	14333	849038	571936			4223985
1979	SNCB	Belgian fra	52253096		52253096	14480605		14480605	2506239		2506239	371220	13828140	83439300	7695283	11466393	2199233	13665626	4814587		109614796	11000000	1909723	33756955	2029995	41995609	14968189	3675645		278680	109614796
1979	SNCF	French frar	76319468	28814847	47504621	35819159	21571948	14247211	1093211	497963	595248	440122	2251223	65038425	2270430	8761094	1803743	10564837	4830156		82703848	14194	43758964		9880	21827799	8874975	8109958		108078	82703848
1979	VR	Finnish ma	3170538	129274	3041264	1422697	149919	1272778	114308	15518	98790			4412832	285252	164048	9271	173319		485825	5357228	5302493					54735				5357228
1979	TCDD	Turkish pou	12773782	3456946	9316836	9476769	1479373	7997396	423968	152622	271346			17585578	2520751	13675409	5119340	18794749	2529447	6400177	47830702	9508395	168993		6249990	12325638	5537015	14040671			47830702
1980	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	BR	pound sterl	618500	86500	523000	1334600	649800	684800	181000	80300	100700		8100	1325600	198600	211200	10900	222100		76900	1823200		548700		35600	640100	449900	107300	41600		1823200
1980	CFF	swiss franc	8250331	3441238	4809093	4626085	2556933	2069152	189464	167093	22371		470224	7370840	185388	330540	261185	591725		593452	8741405	800000	45247			6360894	1535264				8741405
1980	CFL	luxemburg	2294855	552021	1742834	2869028	1297436	1571592	173379	110815	62564		51567	3428557	581273	549390	795616	1345006	126576		5481412	1600000	953203		367489	1206358	1354362				5481412
1980	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH	drachm	24862670	1655581	23207089	6457718	1843610	4614108	855181	361826	493355	912889	78077	29305518	2272496	7369427	1595844	8965271			40543285	29326000	10891	4702693		3594621	2909080				40543285
1980	CIE	pound sterling				.	.	45345	18539		18539		29666	93550	24383	20605	3876	24481	7608	4589	154611	5514	39791			51515	42053	15558			154611
1980	CP	escudo	15514827	8619	15506208	12557878	3609434	8948444	798275	436882	361393		73704	24889749	1415461	15810026	1359847	17169873	2735523	4533634	50744240	3569460	276880	15074472	2267677	4791051	8580458	16184242			50744240
1980	CSD	Czechoslov	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	DB	Deutsche r	60967558	24192366	36775192	23756486	9801301	13955185	1539905	796996	742909	129066		51602352	1077998	2461672	3204281	5665953	3576230	3605245	65527778	19603333	3766828	6018948	367680	30320479	5450510				65527778
1980	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

A1.2.14. Balance Sheet

YEAR	Railway	Currency	ASSETS: Fixed Assets: Land, Buildings and Fixed Installations: Purchase or construction value	Depreciation	Net	Transport Stock: Purchase or construction value	Depreciation	Net	Other equipment: Purchase or constructi	Depreciation	Net	Issuing costs and premiums on loans	Other Assets	TOTAL (col.6+9+12+13+14)	Supplies	Realisable and Available Assets: Debtors	Other Assets	TOTAL (col.17+18)	Results: Losses on Previous financial years	Loss on the financial year under consideratio	Total Assets (col.15+16+19+20+21)	LIABILITIES: Capital and Reserves: Capital	Reserves	Contribution to investments expenses	Provisions	Long Term financial liabilities	Short-Term Debts: Creditors	other short term debts	Results: Profits on previous financial years	Profit on the financial year under	Total Liabilities (col. 23 to 31)
1980	DSB	Danish cro	4650634	61261	4589373	3832896	135970	3696926	315424	9584	305840		10339	8602478	526142	481281	37312	518593			9647213	8602478					527478	517257			9647213
1980	FS	lira	3704136875		[illegible]	2955973653		2955973653	1,79E+08		1,79E+08	3,46E+08	23216391	7208205110	9,78E+08	1,447E+09	1,263E+09	2,71E+09	8522457424	1468550081	2,0887E+10	45480602	1901998200	2350670604	994497029	1,2134E					
1980	JZ	Dinar																													
1980	MAV	Forint																													
1980	NS	florin	4162585	1534141	2628444	1958977	935841	1023136	217102	200941	16161		485128	4152869	201246	1232566	234905	1467471			5821586	484438	1983326	699110	114680	1933486	472069	134477			5821586
1980	NSB	Norwegian	6046466	891718	5154748	2730060	884206	1845854					67409	7068011	211871	222341	125058	347399			7627281	7087056			64461	8000	467764				7627281
1980	OBB	Austrian Sc	78055004	31170032	46884972	35465610	12541891	22923719	4101043	2270803	1830240		3591	71642522	1631378	3712139	519362	4231501			77505401	64663781		2845382	618286	5658802	3719150				77505401
1980	PKP	zloty																													
1980	RENFE	Peseta																													
1980	SJ	Swedish cr	7104925	5699089	1405836	5668081	4396261	1271820	441633	322501	119132		470185	3266973	639939	820141	123211	943352			4850264	2973924	266488		9295	28736	943093	628728			4850264
1980	SNCB	Belgian fra	60816605		60816605	8461398		8461398	12234613		12234613	308169	13834140	95654925	8844716	16402898	1481266	17884164	4535908	483800	127403513	11000000	2036992	41184525	1983532	46955984	16591779	7650701			127403513
1980	SNCF	French fran	80731486	30825087	49906399	37818281	22986139	14832142	1161098	519473	641625	993889	2342812	68716867	2720387	10527067	1250925	11777992	4722078	673946	88611270	14194	42887406		5647	26021236	9495827	10186960			88611270
1980	VR	Finnish ma	3550560	146639	3403921	1539969	163505	1376464	139874	18728	121146			4901531	382762	204811	10222	215033		498431	5997757	5893567					104190				5997757
1980	TCDD	Turkish pou	16795431	3854897	12940534	16834803	2079170	14755633	689042	198222	490820			28186987	5349822	25602032	8155240	33757272	8929624	7046278	83269983	30952423	172033		9727763	10528301	3702249	28187214			83269983
1981	BDZ	Leva																													
1981	BR	pound ster	410000	85800	324200	1208300	590300	618000	167400	78800	88600		358100	1388900	181500	170500	25500	196000	34900	37200	1838500		668200			659200	469000	42100			1838500
1981	CFF	swiss franc	8606842	3623929	4982913	4797250	2718109	2079141	193636	173702	19934		448825	7530813	200383	308298	399655	707953		760415	9199564	800000	46747			6666097	1686720				9199564
1981	CFL	luxemburg	2602542	590164	2012378	2879173	1358939	1520234	185010	118352	66658		54860	3654130	557876	476125	534384	1010509	119005		5341520	1600000	746741		335958	1384102	1274719				5341520
1981	CFR	Lei																													
1981	CH	drachm	25653716	1860367	23793349	6798688	2023704	4774984	1161418	415720	745698	991603	78077	30383711	2615481	7227906	1482263	8710169			41709361	29326000	12954	5744105		4730916	1895386				41709361
1981	CIE	pound sterling						57888	31081		31081		36476	125445	34598	31929	4436	36365	12198	9987	218593	5514	50372			84585	53981	24141			218593
1981	CP	escudo	16923033	14160	16908873	13409111	4133636	9275475	896541	527638	368903		79454	26632705	1878360	22211931	1537663	23749594	7269157	332232	59862048	3569460	275871	16800885	2244937	3811157	13532419	19627319			59862048
1981	CSD	Czechoslov																													
1981	DB	Deutsche r	63282836	26029111	37253725	24359148	10377911	13981237	1573803	838369	735434	133444		52103840	1069032	2486889	4405789	6892678	3605245	4044311	67715106	19882661	2890933	6575276	469686	31729645	6166905				67715106
1981	DR	Deutsche M																													
1981	DSB	Danish cro	4977314	1141101	3836213	4458214	1479071	2979143	390782	149668	241114		10363	7066833	666195	403241	53854	457095			8190123	7066803					611642	511678			8190123
1981	FS	lira	4323950861		[illegible]	3424618990		3424618990	1,72E+08		1,72E+08	4,24E+08	62071955	8405927112	1,23E+09	1,828E+09	2,093E+09	3,921E+09	9870798461	1647158026	2,5078E+10	45480601	2416123410	2732553365	1,14E+09	1,4069E+10	467				
1981	JZ	Dinar																													
1981	MAV	Forint																													
1981	NS	Guilder	4524032	1601725	2922307	2188275	978668	1209607	244575	225186	19389		341031	4492334	252910	1185373	130031	1315404			6060648	484438	1854857	871356	85428	2209296	412640	142633			6060648
1981	NSB	Norwegian	6335732	979378	5376354	2996560	968468	2028092					74505	7478951	238468	268168	128566	396734			8114153	7627202			64461	6000	416490				8114153
1981	OBB	Austrian Sc	82764844	32061717	50703127	37762591	13249282	24513309	4373773	2383920	1989853		3808	77210097	1857657	4351970	506400	4858370			83926124	69307059		3275714	750178	6533733	4059440				83926124
1981	PKP	zloty																													
1981	RENFE	Peseta	272362692	46289801	226072891	89999268	29160504	60838764					34296488	321208143	29784560	114810025	16478485	131288510	290291714	79857246	852430173	569458168	331590			146526515	136113900				852430173
1981	SJ	Swedish cr	9578431	7072516	2505915	6466594	5030976	1435618	476369	343224	133145		400158	4474836	776770	964317	107560	1071877			6323483	3701151	290988		8341	82597	1344244	896162			6323483
1981	SNCB	Belgian fra	71340992		71340992	22725556		22725556	3311047		3311047	307032	11889590	109574217	10571817	21924113	1801240	23725353	5019708	5271304	154162399	11000000	2171845	51866542	3049246	49859134	27376685	8838947			154162399
1981	SNCF	French fran	86236022	32100687	54135335	39591406	24388952	15202454	1230122	542813	687309	2565373	2609327	75199798	3186792	11156613	1578857	12735470	5396024	2019712	98537796	1014194	42243425	885188		32274867	11196005	10924117			98537796
1981	VR	Finnish ma	3953601	179200	3774401	1682026	177055	1504971	180629	23348	157281			5436653	407914	175842	11998	187840		690456	6722863	6598022					124841				6722863
1981	TCDD	Turkish pou	22669367	4346426	18322941	23792222	2881453	20910769	969852	266796	703056			39936766	6833967	34134575	12987737	47122312	15975903	2267900	112136848	38622403	223543		14552883	13016706	3730244	41991069			112136848
1982	BDZ	Leva																													
1982	BR	pound ster	438400	96400	342000	1255000	592500	662500	168700	78400	90300		469100	1563900	174400	192400	11100	203500	72100	173600	2187500		892800			676600	532900	85200			2187500
1982	CFF	swiss franc	8957696	3810598	5147098	4984736	2881691	2103045	201620	185944	15676		438353	7704172	207683	310166	584923	895089		498407	9305351	3000000	43247			4678660	1584044				9305351
1982	CFL	luxemburg	2786477	634742	2151735	2954050	1409613	1544437	207548	127831	79717		54960	3830849	659730	229555	496328	725883	111283		5327745	1600000	792685		357263	1230753	1347044				5327745
1982	CFR	Lei																													
1982	CH	drachm	27839637	2068562	25771075	7702655	2223841	5478814	1185717	522971	662746	1200623	83029	33196287	2410555	8220134	2001205	10221339			45828181	29326000	16552	8243831		5463968	2777830				45828181
1982	CIE	pound sterling						74965	56342		56342		37797	169104	35769	33400	3008	36408	22235	13575	277091	3514	62796			107933	56548	46300			277091
1982	CP	escudo	19515026	19909	19495117	14727538	4720888	10006650	1050265	593861	456404		109567	30067738	2217480	29519962	589298	30109260	8166403	9514682	80075563	8169320	272037	19121403	3202578	5286278	22172314	21851633			80075563
1982	CSD	Czechoslov	165567537	95895093	69672444	45089876	21487294	23602582	1,2E+08	74407799	46069862			139344888																	
1982	DB	Deutsche r	65521558	26889743	38631815	24787438	10773166	14014272	1566925	863674	703251	127309		53476647	1027175	2424789	5030786	7455575	4044311	4148939	70152647	19472265	3634091	7046962	571940	32621497	6805892				70152647
1982	DR	Deutsche M																													
1982	DSB	Danish cro	4416494	154289	4262205	3795646	312005	3483641	333267	42345	290922		10723	8047491	781397	490852	43757	534609			9363497	8047492					829972	486033			9363497
1982	FS	lira	5242923161		[illegible]	4325036976		4325036976	3,16E+08		3,16E+08	5,41E+08	84694944	1,0509E+10	1,62E+09	2,134E+09	3,112E+09	5,245E+09	1,139E+10	1478865530	3,0242E+10	45480601	2937676305	3203622046	1,687E+09	1,711E+					
1982	JZ	Dinar																													
1982	MAV	Forint																													
1982	NS	florin	4913619	1677079	3236540	2452864	1020763	1432101	281501	253230	28271		316407	5013319	294879	1232741	141741	1374482			6682680	484438	1891426	1029905	61233	2549560	496836	169282			6682680
1982	NSB	Norwegian	6720754	2040152	4680602	3302977	1078601	2224376					83867	6988845	263516	319049	158979	478028			7730389	7012417	443		64461	4000	649068				7730389
1982	OBB	Austrian Sc	87954543	32998477	54956066	40464114	14066179	26397935	4696330	2526291	2170039		5262	83529302	1856393	4233643	450433	4684076			90069771	74514303		3592299	553629	7325071	4084469				90069771
1982	PKP	zloty																													
1982	RENFE	Peseta	307328059	53025512	254302547	125373774	33069713	92304061					41602353	388208961	37241956	187848710	17628418	205477128	370148961	157800245	1158877251	758229546	460349			195666761	202996750	1523845			1158877251
1982	SJ	Swedish cr	10526071	7837900	2688171	7044041	5495028	1549013	471544	340758	130786		518890	4886860	969193	845310	163383	1008693			6864746	4114419	293846		7469	137213	1387079	924720			6864746
1982	SNCB	Belgian fra	551421142	48193362	[illegible]	91686387	33189311	58497076	5903233	3837615	2065618	308016	3775402	167873892	11940131	25943433	1788864	27732297	2171845	5112239	214830404	51020880	2316357	54596807	4652346	59387957	25041042	1781501			
1982	SNCF	French fran	99607511	33881746	57825765	42130766	26127981	16002785	1357103	579449	777654	4099729	2735126	81441059	3560666	15227409	2559461	17786870	7415736	6157865	116362196	2029194	41640085	1411383	887497	43542338	15228689	11623010			116362
1982	VR	Finnish ma	4329853	214309	4115544	1762610	188630	1573980	203842	26999	176843			5866367	430633	194691	9585	204276		798428	7299704	7168257					131447				7299704
1982	TCDD	Turkish pou	33916677	5231602	28685075	38681497	4333775	34347722	2000310	453749	1546561			64579358	11890098	53828222	23950954	77780176	18243803	-7420769	165072666	81286270	398000		20272632	33602882	3729635	25783247			165072666
1983	BDZ	Leva																													
1983	BR	pound ster	449600	90600	359000	1276800	592800	684000	174500	83200	91300		700	1135000	174300	262600	423500	686100	249500		2244900		1012700			663500	559700	1200		7800	2244900
1983	CFF	swiss franc	9383077	4034908	5348169	5164512	3034869	2129643	216201	195799	20402		426451	7924665	204359	310895	518299	829194		431700	9389918	3000000				4743309	1646609				9389918
1983	CFL	luxemburg	2906413	829503	2076910	2960527	1462734	1497793	213539	137450	76089		54960	3705752	646968	511274	476464	987738	103406	42494	5486358	1600000	847093		428306	1362215	1248744				5486358
1983	CFR	Lei																													
1983	CH	drachm	29801815	2283029	27518786	8616142	2432577	6183565	1274028	622821	651207	1461521	69605	35884684	2851523	8288993	1811511	10100504			48836711	29326000	19383	11219245		5474351	2797732				48836711
1983	CIE	pound sterling				105682		105682	75292		75292		39051	220025	33581	36189	10510	46699	35853	12027	348185	3514	73747			164176	67892	38856			348185
1983	CP	escudo	22173941	26528	22147413	15676056	5328709	10347347	1299995	683282	616713		149678	33261151	2873294	49261873	951341	47213214	10638032	1766830	95752521	12969320	268114	21707834	5570898	4807255	31193753	19235347			9575252
1983	CSD	Czechoslov	169470556	98277350	71193206	48139797	23923329	24216468	1,21E+08	74354021	46976738			142386412																	
1983	DB	Deutsche r	67779309	27519927	40259382	25267998	11093919	14174079	1526937	877492	649445	115112		55198018	1042902	2384959	4053555	6438514	4148939	3712691	70541064	19436486	3607163	7625817	561144	31452561	7857893				80541064
1983	DR	Deutsche M																													
1983	DSB	Danish cro	5091421	171159	4920262	4164637	356752	3807885	375885	50499	325386		10747	9064280	817279	662338	59128	721466			10603025	9064280					807764	730981			10603025
1983	FS	lira	6754572940		[illegible]	5318543491		5318543491	4,17E+08		4,17E+08	7,14E+08	1,02E+08	1,3307E+10	1,77E+09	3,968E+09	4,44E+09	8,408E+09	1,2733E+10	2021934838	3,8237E+10	45480601	3372332530	3809212888	2,061E+09	2,2931E					
1983	JZ	Dinar																													
1983	MAV	Forint																													
1983	NS	florin	5662280	1988208	3674072	2584528	1025592	1558936	308633	269071	39562		325768	5598338	321904	1155588	154196	1309784			7230026	484438	1907914	1282294	64254	2711649	576723	202754			7230026
1983	NSB	Norwegian	7022373	2079935	4942438	3437442	1012725	2424717					92354	7459509	249931	326199	126850	453049			8162489	7484800	299		64461	3150	609779				8162489
1983	OBB	Austrian Sc	94015074	33880698	60134376	43136224	14651878	28484346	5099210	2645188	2454022		5801	91078545	1863624	4588781	521890	5110671			98052840	80925810		4136627	512082	8333380	4144941				98052840
1983	PKP	zloty																													
1983	RENFE	Peseta																													
1983	SJ	Swedish cr	11843187	8571336	3271851	7925531	6175507	1750024	526015	405541	120474		398302	5540651	1143632	1183220	224139	1407359			8091642	4765925	326846		6599	209512	1669656	1113104			8091642
1983	SNCB	Belgian fra	[illegible]	50968294	113798824	98508344	35078562	63429782	6231006	4163536	2067470	644136	3957741	183897953	12466767	26535585	1782642	28318227	7284084	158242	232125273	53020401	2316357	62515711	4267988	64974831	24831890	20198095			

A1.2.14. Balance Sheet

YEAR	Railway	Currency	ASSETS: Fixed Assets: Land, Buildings and Fixed Installations: Purchase or construction value	Land, Buildings and Fixed Installations: Depreciation	Land, Buildings and Fixed Installations: Net	Transport Stock: Purchase or construction value	Transport Stock: Depreciation	Transport Stock: Net	Other equipment: Purchase or constructi	Other equipment: Depreciation	Other equipment: Net	Issuing costs and premiums on loans	Other Assets	TOTAL (col.6+9+12+13+14)	Supplies	Realisable and Available Assets: Debtors	Realisable and Available Assets: Other Assets	Realisable and Available Assets: TOTAL (col.17+18)	Results: Losses on Previous financial years	Results: Loss on the financial year under consideratio	Total Assets (col.15+16+19+20+21)	LIABILITIES: Capital and Reserves: Capital	Capital and Reserves: Reserves	Contribution to investments expenses	Provisions	Long Term financial liabilities	Short-Term Debts: Creditors	Short-Term Debts: other short term debts	Results: Profits on previous financial years	Results: Profit on the financial year under	Total Liabilities (col. 23 to 31)
1983	SNCF	French fran	[illegible]	35577910	69549267	44544587	27814186	16730401	1492045	590129	901916	7297366	2801673	97280623	3668647	15257471	1550790	16808261	13573601	8380561	139711693	4015000	47206034	2017439	1861200	54659327	18708125	11244568			139
1983	VR	Finnish ma	4615024	248466	4366558	1898014	194849	1703165	216632	28105	188527			6258250	433874	253710	7854	261564		884084	7837772	7665174					172598				7837772
1983	TCDD	Turkish pou	113567482	32904191	80663291	144457247	29192845	115264402	6583313	2175710	4407603			200335296	16875835	73723456	42088585	115812041	10823034	-6974891	336871315	223494141	559898		26977889	45165756	6454880	34218751			336871315
1984	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	BR	pound sterl	521200	105300	415900	1322500	620200	702300	220500	110400	110100		900	1229200	213400	311400	220700	532100	241700	408300	2624700		1163400		117600	631900	605200	106600			2624700
1984	CFF	swiss franc	10495809	4945584	5550225	5302983	3192415	2110568	217261	202301	14960		473002	8148755	197045	330517	984177	1314694		304157	9964651	3000000				5260565	1704086				9964651
1984	CFL	luxemburg	3053301	895511	2157790	2976741	1559580	1417161	212877	143665	69212		67421	3711584	563359	851433	502150	1353583	95371		5723897	1600000	1029072		434704	1209710	1450411				5723897
1984	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	CH	drachm	32538998	2499455	30039543	9591584	2709420	6882164	1420802	728258	692544	1974493	11505	39600249	3370320	11274847	3108467	14383314			57353883	29326000	22661	16334737		6135920	5534565				57353883
1984	CIE	pound sterling				152543		152543	63447		63447		50236	266226	37001	26099	3733	29832	52782	-3906	381935	3514	84236			192108	61732	40345			381935
1984	CP	escudo	24487785	36112	24451673	16998061	6085355	10912706	1622185	780742	841443		422940	36628762	3909144	5484575	1050041	6534616	40237760	4207302	91517584	14969320	268114	11349541	4497509	5453976	35929915	19049209			91517584
1984	CSD	Czechoslov	113370548	68455077	44915471	49844521	25153064	24691457	11559120	7546894	4012226			73619154	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	DB	Deutsche m	70398250	28325078	42073172	25417493	11368451	14049042	1474432	875731	598701	103434		56824349	1039363	2379599	3395515	5775114	3712691	3120087	70471604	18909609	3592233	7932411	613208	31464289	7959854	.			70471604
1984	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	DSB	Danish crow	5671036	200320	5470716	4554578	381182	4173396	445212	57445	387767		26918	10058797	884736	687715	77531	765246			11708779	10058797					823074	826908			11708779
[illegible]	[illegible]	lira	9204116368	[illegible]	[illegible]	6380639946		6380639946	4,96E+08		4,96E+08	9,96E+08	1,18E+08	1,7195E+10	1,81E+09	4,635E+09	4,133E+09	8,768E+09	1,4613E+10	1796846660	4,4186E+10	45480601	3921862814	4560943443	2,846E+09	2,7245					
1984	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	NS	florin	6127701	2090763	4036938	2713225	1087250	1625975	341883	285395	56488		375675	6095076	301133	819228	300696	1119924			7516133	484438	1978642	1566198	168034	2448247	575581	294992			7516133
1984	NSB	Norwegian	7746693	978092	6768601	3771785	1041265	2730520					40194	9539315	261560	406737	79432	486169			10287044	9601729	399		66227	1124	617565				10287044
1984	OBB	Austrian Sc	99628240	34991930	64636310	45687195	15418900	30268295	5463575	2758181	2705394		4292	97614291	1800196	4833522	447607	5281129			104695616	87102799		4322990	837075	8288921	4143831				104695616
1984	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	SJ	Swedish cr	13166036	11252368	1913668	8638160	6816793	1821367	843258	650467	192791		430691	4358517	1130770	990726	286427	1277153			6766440	3900078	21720		330265	243596	684313	1477180		109288	6766440
1984	SNCB	Belgian fra	[illegible]	53657870	[illegible]	104791039	37391990	67399049	6516137	4509252	2006885	1214405	3549740	194240865	11365637	20449468	1928047	22377515	7442326	260863	235687206	49653069	2316357	70364548	4025018	73522180	21003145	148028			
1984	SNCF	French fran	[illegible]	37691749	72404099	46298852	29263163	17035689	1716919	633874	1083045	8987655	4305338	103815826	3638204	16702566	1759687	18462253	21954163	6148692	154019138	38044674	12368520	2843220	3622912	63364320	22571186	11204306			
1984	VR	Finnish ma	4860167	273097	4587070	2015918	205839	1810079	235299	30789	204510			6601659	484046	240833	39340	280173		864978	8230856	8079286					151570				8230856
1984	TCDD	Turkish pou	169612181	37429815	132182366	216738599	47299486	169439113	34065422	5489431	28575991			330197470	21216462	120296850	30047440	150344290	3848143	-9866155	495740210	338062644	1705667		36526994	73461052	8794914	37188939			495740210

A1.2.15. Specific Costs and Receipts : Overall general operating and financial results (in thousands)

			Specific Costs													Results						Specific Receipts			
			STAFF CHARGES				Materials and Services Rendered by Third Parties				Sums Allocated														
YEAR	Railway	Currency	Salaries of active Staff	Pensions	Various social charges	Total	Energy consumption	Materials, services rented by third parties and other costs	Total (col.8+9)	Taxes and Dues	To depreciation	To provision accounts	Financial Charges	Total Costs (col.7+10+11+12+13+14)	Traffic receipts	Financial and miscellaneous receipts	Contra account of expenditure charged to other accounts	Compensation received from the State and Public bodies	TOTAL RECEIPTS (col. 16 to 19)	Overall Operating Costs (col. 15 - 18)	Overall Operating receipts (col. 20 - 18)	Results of general operating (col.22-21) (col.20-15)	Exceptional profits and losses and corporation tax	Profit or loss over the financial period (col.23+24)	Operating coefficent (col.21/col.22)
1977	BDZ	Leva																							
1977	BR	pound ster	842900	59400	88600	990900	106900	499000	605900	200	36800		44400	1678200	1212100	119900		375900	1707900	1678200	1707900	29700	2700	27000	0,983
1977	CFF	swiss franc	1476579	257392	101752	1835723	96878	499033	595911	904	340313	1000	329888	3103739	2023679	317410	74315		2415404	3029424	2341089	-688335		-688335	1,294
1977	CFL	luxemburg	2109799	1813803	202247	4125849	134352	266523	400875	55276	359775	154095	164432	5260302	1472430	104674	47404	3559403	5183911	5212898	5136507	-76391		-76391	1,015
1977	CFR	Lei																							
1977	CH	drachm	3015979		524107	3540086	321679	948765	1270444	111730	444361		26390	5393011	2904992	93170	306901	1293596	4598659	5086110	4291758	-794352	794352		1,185
1977	CIE	pound ster	65832	1938	4661	72431	6618	21092	27710	1183	8018	3924	4320	117586	82367	6702		28370	117439	117586	117439	-147	-408	-555	1,001
1977	CP	escudo	5023870		74491	5098361	585077	1039285	1624362	217229	237555	964	2085322	9263793	3113639	372604	485839	4732710	8704792	8777954	8218953	-559001	-102094	-661095	1,068
1977	CSD	Czechoslov																							
1977	DB	Deutsche r	10930172	4131211	2345879	17407262	1013810	3760407	4774217	112963	1760979	24157	2407455	26487033	13730667	1427274		6805263	21963204	26487033	21963204	-4523829		-4523829	1,206
1977	DR	Deutsche M																							
1977	DSB	Danish cro	1927090	10562	17801	1955453	176626	1175066	1351692	6734	135291		256155	3705325	1771740	299252	749158		2820150	2956167	2070992	-885175		-885175	1,427
60972	FS -986058566		1255797800	277749776	161788920	1695336496	57525884	976826923	1034352807	69775433	296812031	26431766	525746457	3648454990	941301209	137638966	325156054	1221439263	2625535492	3323298936	2300379438	-1022919498	368		
1977	JZ	Dinar																							
1977	MAV	Forint																		26143463	28281200	2137737			0,924
1977	NS	florin	820025	250606	197197	1267928	133046	308985	442031	6604	379919	1591	31327	2129300	968427	62719	210643	887511	2129300	1918657	1918657				1
1977	NSB	Norwegian	1350870	92118	210866	1653854	85821	312121	397402		127174		9425	2187855	1400592	134844		652419	2187855	2187855	2187855				1
1977	OBB	Austrian Sc	10888417	1454419	1043853	13386689	820676	8245041	9065717	34864	2094093		215970	24797333	11393318	1819992	5780069	2000800	20994179	19017264	15214110	3803154	7749	-3795405	1,25
1977	PKP	zloty																							
1977	RENFE	Peseta	37338614		11028242	48366856	4454646	21927633	26382279		6385138		5610218	86744491	49303099	7246048	5610218		62159365	81134273	56549147	24585126		24585126	1,435
1977	SJ	Swedish cr	2508434	319078	619841	3447353	137505	937034	1074539		364436			4886328	3949405	143998		662498	4755901	4886328	4755901	-130427		-130427	1,027
1977	SNCB	Belgian fra	26448317	13250405	4179908	43878630	2406650	16404013	18810663	33401		8320000	3382439	74425133	20092057	5018399	9765098	38325000	73200554	64660035	63435456	-1224579	100418	-1124161	1,019
1977	SNCF	French frar	1992479	3779397	2454439	19226315	937692	7629353	8567227	407335	2073765	14777	1684185	31973604	17233912	2448892	1003793	10293019	30979606	30969821	29975823	-993998	41379	-952619	1,033
1977	VR	Finnish ma	832360	123291	106475	1062126	100171	310101	410272	1011	203797			1677206	1219373	77329			1296702	1677206	1296702	-380504		-380504	1,293
1977	TCDD	Turkish pou	4499918	686081	1135384	6321383	865276	1212378	2077654	5628	499530	6326	304582	9215103	3495692	2401569		2327302	8224563	9215103	8224563	-990540		-990540	1,12
1978	BDZ	Leva																							
1978	BR	pound ster	963400	70000	97600	1131000	111300	607600	718900	200	93500		50000	1993600	1408300	144500		447300	2000100	1993600	2000100	6500	100	6400	997
1978	CFF	swiss franc	1484554	258992	95597	1839143	95700	484584	580284	1085	344930	1500	326423	3093365	2087347	313459	69954		2470760	3023411	2400806	-622605		-622605	1,259
1978	CFL	luxemburg	2203302	1897299	199491	4300092	135481	265943	401424	600036	371270	160427	165373	5458622	1649112	131649	42573	3566793	5390127	5416049	5347554	-68495		-68495	1,013
1978	CFR	Lei																							
1978	CH	drachm	3542912		590039	4132951	342238	1063061	1405299	127862	472565		145714	6284391	3161220	234224	258223	1426768	5080435	6026168	4822212	-1203956	1203956		1,25
1978	CIE	pound ster	72072	2647	5359	80078	6923	27851	34774	1251	8577	4360	4415	133455	93617	8082		31922	133621	133455	133621	166	-451	-285	0,999
1978	CP	escudo	5198509		79524	5278033	632790	1179085	1811875	255987	382247	204115	2286152	10218409	3812537	322456	485478	5955395	10575866	9732931	10090388	357457	-559003	-201546	0,965
1978	CSD	Czechoslov																							
1978	DB	Deutsche r	10899619	4810274	2467292	18177185	1026960	2570565	3597525	90826	1768584	565592	2464466	26664178	14165520	152188		7735224	22052932	26664178	22052932	-4611246		-4611246	1,209
1978	DR	Deutsche M																							
1978	DSB	Danish cro	2015263	11105	20574	2046942	187709	1264502	1452211	4496	153618		284738	3942005	1871821	131790	831178		3016789	3110827	2185611	-925216		-925216	1,423
8578683	-1294945014		1445466967	319347201	183710601	1944224769	62487654	1098533913	1161021567	75883520	340032579	1,06E+08	575067978	4201786749	1073847793	135276394	402510466	1246673395	2858308048	3799276283	2455797582	-1343478701	4		
1978	JZ	Dinar																							
1978	MAV	Forint																		29006855	30762600	1755745			0,943
1978	NS	florin	856583	267826	217775	1342184	132586	326317	458903	6591	384534	43042	27689	2262943	1013599	68307	222241	956393	2260540	2040702	2038299	-2403		-2403	1,001
1978	NSB	Norwegian	1461069	98358	215143	1774570	92925	331927	424852		136031		853	2334600	1535787	134371		664442	2334600	2334600	2334600			1	
1978	OBB	Austrian Sc	11139757	1462699	1715570	14318026	660636	9394338	10054974	63521	2301308		228042	26965871	11760354	1871038	6697212	2755600	23084204	20268659	16386992	-3881667	102816	-3778851	1,237
1978	PKP	zloty													74406517	2745681			77152198		77152198				
1978	RENFE	Peseta	46493151		14111375	60604526	4974001	23053767	28027768		8556979		7328508	104517781	58353187	8198705	7328508		73880400	97189273	66551892	30637381		30637381	1,46
1978	SJ	Swedish cr	2603895	294397	778959	3677251	228837	1072134	1300971		284848			5263070	4165803	155484		795456	5116743	5263070	5116743	-146327		-146327	1,029
1978	SNCB	Belgian fra	28432803	13811574	4886582	47130959	2434303	16604695	19038998	19714		8290000	4112079	78591750	20355053	6576248	11261189	40295000	78487490	67330561	67226301	-104260	1079719	975459	1,002
1978	SNCF	French frar	14117907	4118984	2650304	20887195	1012687	8503929	9516616	485442	3410375	15518	1892714	36207860	19915609	2163652	1206594	10588332	33874187	35001266	32667593	-2333673	1214710	-1118963	1,071
1978	VR	Finnish ma	882852	129771	109329	1121952	102413	311162	413575	774	238700		34463	1809464	1261043	82192			1343235	1809464	1343235	-466229		-466229	1,347
1978	TCDD	Turkish pou	6067625	821752	2430616	9319993	1293614	1559043	2852657	6945	565520	8690	497669	13251474	4184265	2760866		3776897	10722028	13251474	10722028	2529446		2529446	1,236
1979	BDZ	Leva																							
1979	BR	pound ster	1094400	98200	117800	1310400	136700	715000	851700	100	108000		62900	2333100	1628300	168100		538100	2334500	2333100	2334500	1400	-1800	-400	0,999
1979	CFF	swiss franc	1519594	255896	95952	1871442	114186	487373	601559	996	384600	1500	328669	3188766	2152786	320621	91004		2564411	3097762	2473407	-624355		-624355	1,252
1979	CFL	luxemburg	2376044	2049769	192434	4618247	168818	277762	446580	66811	389599	170844	166960	5859041	1841157	155097	57144	3698562	5761960	5801897	5694816	-107081		-107081	1,019
1979	CFR	Lei																							
1979	CH	drachm	3928501		664930	4593431	396025	1267465	1663490	130384	469983		233481	7090769	3486040	340821	274780	1586639	5688280	6815989	5413500	-1402489	1402489		1,259
1979	CIE	pound ster	85852	3164	7118	96134	11431	32665	44096	1317	9035	6500	4765	161847	102487	9254		48634	160375	161847	160375	-1472	-738	-2210	1,009
1979	CP	escudo	5949329		19323	5968652	976755	1142326	2119081	320707	453124	6860	2658466	11526890	4685990	295808	487690	5917469	11386957	11039200	10899267	-139933	-254519	-394452	1,013
1979	CSD	Czechoslov																		16394548	18128680	1734132			
1979	DB	Deutsche r	10984756	5055899	2729166	18769821	1244976	3157500	4402476	95312	1819474	104960	2394017	27586060	15723907	203103		8082820	24009830	27586060	24009830	-3576230		-3576230	1,149
1979	DR	Deutsche M																							
1979	DSB	Danish cro	2177925	11688	38103	2227716	281138	711383	992521		186850		335071	3742158	2342383	391463		1008312	3742158	3742158	3742158				1
8229715	-1216913777		1918704699	445469521	247980023	2612154243	69817502	1275310233	1345127735	94633479	321062693	28984170	641870831	5043833151	1252847795	176290105	423254689	1926301068	3778693657	4620578462	3355438968	-1265139494	4		
1979	JZ	Dinar																							
1979	MAV	Forint																							
1979	NS	Guilder	893234	287975	234952	1416161	156673	362088	518761	5056	321273	66247	40820	2368318	1115558	63890	238171	919535	2337154	2130147	2098983	-31164		-31164	1,015
1979	NSB	Norwegian	1484456	100358	192198	1777012	109936	397438	507374		146322		-26091	2404617	1613014	136465		655138	2404617	2404617	2404617				1
1979	OBB	Austrian Sc	11699564	1521439	1763893	14984896	723548	11180984	11904532	49562	2476539		292964	29708493	12617513	2240106	8318194	3051200	26227013	21390299	17908819	-3481480	-123251	-3604731	1,194
1979	PKP	zloty													74457480	8901919			83359399		83359399				
1979	RENFE	Peseta	54284775		16562604	70847379	5248942	25135699	30384641		10023910		7387772	118643702	63241135	8941687	7387772		79570594	111255930	72182822	-39073108		-39073108	1,541
1979	SJ	Swedish cr	2826561	311759	687417	3825737	284938	1218416	1503354		451119			5780210	4652983	153658		810982	5617623	5780210	5617623	-162587		-162587	1,029
1979	SNCB	Belgian fra	31411108	14831152	5408850	51651110	2826717	16739893	19566610	50921		8610000	4070633	83949274	22494237	8288714	10127892	42959000	83869843	73821382	73741951	-79431	358111	278680	1,001

A1.2.15. Specific Costs and Receipts : Overall general operating and financial results (in thousands)

			Specific Costs												Results							Specific Receipts			
			STAFF CHARGES				Materials and Services Rendered by Third Parties				Sums Allocated														
YEAR	Railway	Currency	Salaries of active Staff	Pensions	Various social charges	Total	Energy consumption	Materials, services rented by third parties and other costs	Total (col.8+9)	Taxes and Dues	To depreciation	To provision accounts	Financial Charges	Total Costs (col.7+10+11 +12+13+14)	Traffic receipts	Financial and miscellaneous receipts	Contra account of expenditure charged to other accounts	Compensation received from the State and Public bodies	TOTAL RECEIPTS (col. 16 to 19)	Overall Operating Costs (col. 15 - 18)	Overall Operating receipts (col. 20 - 18)	Results of general operating (col.22-21) (col.20-15)	Exceptional profits and losses and corporation tax	Profit or loss over the financial period (col.23+24)	Operating coefficent (col.21/col.22)
1979	SNCF	French fran	15638571	4624994	3042207	23305772	1245789	9717824	10963613	487976	3355466	3902	2287955	40404684	22958659	2598089	1463410	12349309	39369467	38941274	37906057	-1035217	1143295	108078	1,027
1979	VR	Finnish ma	1110220	166384	123897	1400501	132916	158581	291497	931	294712		38978	2026619	1442865	97929			1540794	2026619	1540794	-485825		-485825	1,315
1979	TCDD	Turkish pou	10486006	1223462	3918286	15627754	2444017	2392042	4836059	5876	791879	6894	1572143	22840605	6569533	3157478		6713416	16440427	22840605	16440427	-6400178		-6400178	1,389
1980	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	BR	pound sterl	1381700	65700	170300	1617700	192400	1036300	1228700	200	131000		71300	3048900	1847400	181600	290700	652300	2972000	2758200	2681300	-76900		-76900	1,029
1980	CFF	swiss franc	1595338	273952	94019	1963309	108895	544104	652999	1178	403579	1500	336095	3358660	2340409	335159	89640		2765208	3269020	2675568	-593452		-593452	1,222
1980	CFL	luxemburg	2644930	2241722	201471	5088123	213945	298485	512430	87157	427265	184820	165265	6465060	1823101	163325	63134	4181000	6230560	6401926	6167426	-234500		-234500	1,038
1980	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH	drachm	4558170		853623	5411793	666445	1371614	2038059	150127	470146		240642	8310767	4025271	332034	254927	1845778	6458010	8055840	6203083	-1852757	1852757		1,298
1980	CIE	pound sterl	104697	4180	9164	118041	14823	41075	55898	1430	9776	7379	5845	198369	124464	9550		61113	195127	198369	195127	-3242	-1280	-4522	1,017
1980	CP	escudo	7183202		24428	7207630	1610340	1483946	3094286	407713	514652	3840	3186216	14414337	5866953	371487	465244	6131313	12834997	13949093	12369753	-1579340	-2954294	-4533634	1,128
1980	CSD	Czechoslov	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	16618865	18068345	1449480	.	.	0,92
1980	DB	Deutsche r	11364820	5380192	3096031	19841043	1428162	3653351	5081513	95818	1832461	72228	2393934	29316997	16679066	193929		8838757	25711752	29711752	25711752	-3605245		-3605245	1,14
1980	DR	Deutsche N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	DSB	Danish cro	2377658	12819	65949	2456426	410744	869893	1280637		206915		366576	4310554	2487408	460185		1362961	4310554	4310554	4310554				1
2080518 -1468550081			2578362156	562449352	342987661	3483879169	98763769	1573094910	1671858679	1,08E+08	425384624	19297867	691848070	6400514469	1484466740	208794142	545673132	2610982860	4849916874	5854841337	4304243742	-1550597595	8		
1980	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	41759303	.	.	.	.
1980	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	28988348	34962974	5974626	.	.	0,829
1980	NS	florin	929426	296822	256241	1482489	194298	423317	617615	5085	354370	19400	43587	2522546	1204610	60344	264759	964030	2493743	2257787	2228984	-28803		-28803	1,013
1980	NSB	Norwegian	1594586	109188	210191	1913965	142798	474342	617140		157039		-28804	2659340	1764716	148966		745658	2659340	2659340	2659340				1
1980	OBB	Austrian Sc	12427806	1566914	1870406	15865126	985931	11290235	12276166	48767	2662059		382137	31234255	12999672	2334225	8464577	3104800	26903274	22769678	18438697	-4330981	79262	-4251719	1,235
1980	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	71632958	17428955			89061913	.	89061913	.	.	.	.
1980	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	SJ	Swedish cr	3134039	350775	799446	4284260	352887	1080288	1433175		531700			6249135	5056565	155300		823700	6035565	6249135	6035565	-213570		-213570	1,035
1980	SNCB	Belgian fra	34632934	15896531	5692486	56221951	3771599	21686512	25458111	23738		8150000	4322560	94176360	24208167	11123105	13222842	44758700	93312814	80953518	80089972	-863546	379746	-483800	1,011
1980	SNCF	French fran	17716527	5293318	3395595	26405440	1677249	10945377	12622626	659740	3372637	8158	2652541	45721142	26005628	3121429	1897263	12982386	44006706	43823879	42109443	-1714436	1040490	-673946	1,041
1980	VR	Finnish ma	1251572	186207	133366	1571145	193348	221782	415130	677	328872		46860	2362684	1678199	131256		54798	1864253	2362684	1864253	-498431		-498431	1,267
1980	TCDD	Turkish pou	15534992	4388441	7696004	27619437	6517624	7493198	14010822	132887	1162470	9796	4095895	47031307	13550024	7335529		19099476	39985029	47031307	39985029	-7046278		-7046278	1,176
1981	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	BR	pound sterl	1394900	67600	200700	1663200	195300	919400	1114700	100	138500		69000	2985500	1757300	104000	255900	831100	2948300	2729600	2692400	-37200		-37200	1,014
1981	CFF	swiss franc	1695853	304308	97613	2097774	106545	571897	678442	1238	426948	1500	348456	3554358	2341798	354562	97583		2793943	3456775	2696360	-760415		-760415	1,282
1981	CFL	luxemburg	2877142	2400566	232844	5510552	241063	311118	552181	102738	450173	195624	203096	7014364	1663634	143593	83576	4722500	6613303	6930788	6529727	-401061		-401061	1,061
1981	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	CH	drachm	5875216		1115746	6990962	861729	1581411	2443140	184810	464533		357775	10441220	4713597	339276	423506	1741216	7217595	10017714	6794089	-3223625	3223625		1,474
1981	CIE	pound sterling		5660	11106	131759	16527	50646	67173	1495	13952	8287	8159	230825	135005	11287		75563	221855	230825	221855	-8970	-926	-9896	1,040
1981	CP	escudo	9044580		38870	9083450	2150809	1465881	3616690	543472	628269	50140	3946785	17868806	7844960	182954	711216	9829770	18568900	17157590	17857684	700094	-1032326	-332232	0,961
1981	CSD	Czechoslov	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	17689694	16516304	1826610	.	.	0,906
1981	DB	Deutsche r	11782790	5586993	3234842	20604625	1637274	3553929	5191203	123398	1891949	154755	2713010	30678940	17252359	320200		9062072	26634629	30678940	26634629	-4044311		-4044311	1,152
1981	DR	Deutsche N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	DSB	Danish cro	2690952	14115	92751	2797818	529442	1039982	1569424		2769839		402709	7539790	2732896	607615		4199279	7539790	7539790	7539790				1,000
5782387 -1647158026			3115904940	678051000	387425391	4181421331	126712842	2044130356	2170843198	1,27E+08	644851988	1,14E+08	964941828	8202275541	1571295921	202885722	833691257	3889822228	6497695128	7368584284	5664003871	-1704580413			
1981	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	57066403	.	.	.	.
1981	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	31885000	39517000	7632000	.	.	0,807
1981	NS	Guilder	952213	312571	270525	1535309	239737	461364	701101	5127	391088	16939	90839	2740403	1313997	70854	290577	1034955	2710383	2449826	2419806	-30020		-30020	1,012
1981	NSB	Norwegian	1801218	121891	234950	2158059	178444	551597	730041		171922		-29666	3030356	2012055	158487		859814	3030356	3030356	3030356				1,000
1981	OBB	Austrian Sc	13323800	1626860	2035315	16985975	1088074	12096388	13184462	54358	2808911		531762	33565468	14166840	2933186	8846977	3567150	29514153	24718491	20667176	-4051315	-176229	-4227544	1,196
1981	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	92958597	8611769			101570366	.	101570366	.	.	.	.
1981	RENFE	Peseta	73649651		22602495	96252146	12432736	43446599	55879335		13164232		9266703	174562416	73743411	9592645	11369115		94705171	163193171	83336056	-79857245		-79857245	1,958
1981	SJ	Swedish cr	3380415	381300	899000	4660715	409348	1002961	1412309		873553		26364	6972941	5436268	121943		887554	6445765	6972941	6445765	-527176		-527176	1,081
1981	SNCB	Belgian fra	38001863	17232109	6208916	61442888	4516917	26965272	31482189	7545		8030000	7260246	108222868	23972366	15128160	14950365	48302100	102352991	93272503	87402626	-5869877	598573	-5271304	1,067
1981	SNCF	French fran	20070471	6010737	3797318	29878526	1940702	12264737	14205439	929980	3438101	27206	4060293	52539545	28457639	3664657	2299607	15254775	49676678	50239938	47377071	-2862867	843155	-2019712	1,060
1981	VR	Finnish ma	1440798	270299	154547	1865644	250110	256098	506208	904	379604		53437	2805797	1924741	131216		59384	2115341	2805797	2115341	-690456		-690456	1,326
1981	TCDD	Turkish pou	17793381	5675432	7502174	30970987	11218042	10247954	21465996	298932	1514191	18662	5588969	59857737	21499803	13774418		22315616	57589837	59857737	57589837	-2267900		-2267900	1,039
1982	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	BR	pound sterl	1369700	76900	222600	1669200	186000	909900	1095900		153100		79200	2997400	1605800	88300	220800	908900	2823800	2776600	2603000	-173600		-173600	1,067
1982	CFF	swiss franc	1878715	345158	102956	2326829	126314	601407	727721	1676	445071	1500	223313	3726110	2734596	388004	105103		3227703	3621007	3122600	-498407		-498407	1,160
1982	CFL	luxemburg	2961399	2511278	183628	5656305	244111	348540	592651	108612	456626	209011	194479	7217684	1697271	115974	87564	5158508	7059317	7130120	6971753	-158367		-158367	1,023
1982	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	CH	drachm	7702000		1544901	9246901	998365	2154790	3153155	230570	544797		535402	13710825	4927718	385672	957635	2285538	8556563	12753190	7598928	-5154262	5154262		1,678
1982	CIE	pound sterl	120882	4566	13840	139288	19546	71600	91146	1646	15916	10600	10538	269134	158604	12402		83872	254878	269134	254878	-14256	-1033	-15289	1,056
1982	CP	escudo	10762424		17558	10779982	2929711	2727847	5657558	643000	722471	623108	5026671	23452790	9594902	249701	1101520	5390405	16336528	22351270	15235008	-7116262	-2398420	-9514682	1,467
1982	CSD	Czechoslov	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	19214579	21664461	2449882	.	.	0,887
1982	DB	Deutsche r	11831573	5553336	3265736	20650645	1805671	3208919	5014590	185420	1871963	235677	2926166	30884461	17094691	406904		9233927	26735522	30884461	26735522	-4148939		-4148939	1,155
1982	DR	Deutsche N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	DSB	Danish cro	3079483	28000	106836	3214319	683124	1264801	1947925		508640		648556	6319440	2955460	912203		2451778	6319441	6319441	6319441				1,000
5092 FS3799039		lira1478865580052537632968828474			533959894	5608042131	166901944	2660977318	2827879262	1,66E+08	1012000000	1,72E+08	1,205E+09	10990856283	1797401200	286559427	1166172404	6098058683	9348191714	9824683879	8182019310	-1642664			
1982	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	72719818	.	.	.	.
1982	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	35264551	41903171	6638620	.	.	0,842
1982	NS	florin	979101	337438	290012	1606551	253549	500412	753961	2680	426563	26539	148102	2964396	1367837	69445	303520	1193702	2934504	2660876	2630984	-29892		-29892	1,011
1982	NSB	Norwegian	2037661	138742	267943	2444346	209681	574477	784158		186907		-23225	3392186	2195903	171899		1024384	3392186	3392186	3392186				1,000
1982	OBB	Austrian Sc	14196053	1729839	2151709	18077601	1173265	13182381	14355646	73062	2999725		616538	36122572	14044655	3136923	10002590	3493061	30677229	26119982	20674639	-5445343	-87321	-5532664	1,263
1982	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	200633049	250000			200883049	.	200883049	.	.	.	.

A1.2.15. Specific Costs and Receipts : Overall general operating and financial results (in thousands)

			Specific Costs												Results							Specific Receipts			
			STAFF CHARGES				Materials and Services Rendered by Third Parties				Sums Allocated														
YEAR	Railway	Currency	Salaries of active Staff	Pensions	Various social charges	Total	Energy consumption	Materials, services rented by third parties and other costs	Total (col.8+9)	Taxes and Dues	To depreciation	To provision accounts	Financial Charges	Total Costs (col.7+10+11 +12+13+14)	Traffic receipts	Financial and miscellaneous receipts	Contra account of expenditure charged to other accounts	Compensation received from the State and Public bodies	TOTAL RECEIPTS (col. 16 to 19)	Overall Operating Costs (col. 15 - 18)	Overall Operating receipts (col. 20 - 18)	Results of general operating (col.22-21) (col.20-15)	Exceptional profits and losses and corporation tax	Profit or loss over the financial period (col.23+24)	Operating coefficent (col.21/col.22)
1982	RENFE	Peseta	95303025		31323348	126626373	16848543	56041669	72890212		15471374		34691799	249679758	81723765	10155748			91879513	249679758	91879513	-157800245		-157800245	2,717
1982	SJ	Swedish cr	3579300	406193	1159779	5145272	438405	1038965	1477370		934880		4646	7562168	6101553	140258		951639	7193450	7562168	7193450	-368718		-368718	1,051
1982	SNCB	Belgian fra	39629921	18581637	5992156	64203714	4893482	27786961	32680443	10218	4327587	2038813	8227786	111488561	24818766	16863070	14118909	50315800	106116545	97369652	91997636	-5372016	259777	-5112239	1,058
1982	SNCF	French frar	23056712	6974112	4365154	34395978	2242706	13783448	16026154	1123010	3726560	497475	5422728	61191905	31621053	4086462	2117942	16697706	54523163	59073963	52405221	-6668742	510877	-6157865	1,127
1982	VR	Finnish ma	1543288	287811	171348	2002447	264762	307010	571772	938	429938		54506	3059601	2032576	164627		63970	2261173	3059601	2261173	-798428		-798428	1,353
1982	TCDD	Turkish pou	22300185	4811880	7865819	34977884	15357748	12577633	27935380	229971	2557290	49816	8182647	73932988	29116308	26491372		25746077	81353757	73932988	81353757	7420769		7420769	0,909
1983	BDZ	Leva																							
1983	BR	pound sterl	1526600	80900	210200	1817700	81200	1039000	1120200		164500		69100	3171500	1914600	106800	203500	957900	3182800	2968000	2979300	11300	-3500	7800	0,996
1983	CFF	swiss franc	1916875	345111	99540	2361526	143685	853940	997625	2746	454404	3401	223568	4043270	2863976	747594			3611570	4043270	3611570	-431700		-431700	1,120
1983	CFL	luxemburg	3077712	2668940	232736	5979388	268460	321214	589674	116804	515984	220935	204700	7627485	1634249	95406	78806	5634833	7443294	7548679	7364488	-184191	-42494	-226685	1,025
1983	CFR	Lei																							
1983	CH	drachm	9279632		1907326	11186958	1279666	2288283	3567949	260945	583971		644292	16244115	5973795	432137	1071108	2534468	10011508	15173007	8940400	-6232607	6232607		1,697
1983	CIE	pound sterl	120761	10817	13252	144830	21500	87952	109452	1772	17136	10316	12678	296184	191051	6013		75029	272093	296184	272093	-24091	-1888	-25979	1,089
1983	CP	escudo	13666462		3547	13670009	3685950	2612608	6298558	751996	778161	899908	5334758	27733390	11168154	369366	1060190	16967009	29564719	26673200	28504529	1831329	-3598159	-1766830	0,936
1983	CSD	Czechoslov																		19609082	22031466	2422384			0,890
1983	DB	Deutsche r	11758207	5594610	3252197	20605014	1836588	3036617	4873205	165965	1733138	119179	2932767	30429268	17050679	298049		9367849	26716577	30429268	26716577	-3712691		-3712691	1,139
1983	DR	Deutsche M																							
1983	DSB	Danish cro	3322976	25645	99163	3447784	624689	1388918	2013607		578410		745415	6785216	3303639	990366		2491211	6785216	6785216	6785216				1,000
[illegible]	[illegible]	[illegible]	[illegible]	1,044E+09	563323758	5956826034	219670450	3508399676	3728070126	2,45E+08	861418821	1,58E+08	1,56E+09	12509612964	2214388005	393472012	1828014034	5997664668	1,0444E+10	1,0672E+10	8605524685	-206607424			
1983	JZ	Dinar																			99723860				
1983	MAV	Forint																		38513694	43555261	5041567			0,884
1983	NS	florin	939645	333648	339402	1612695	241427	525095	766522	9009	435421	38567	189589	3051803	1354813	77639	299599	1293430	3025481	2752204	2752882	-26322		26322	1,010
1983	NSB	Norwegian	2078773	142593	273915	2495281	227732	620318	848050		198027		-19419	3521939	2243998	176699		1101242	3521939	3521939	3521939				1,000
1983	OBB	Austrian Sc	14707275	1782678	2265609	18755562	1063135	14556355	15619490	71832	3124992		632199	38204075	14270892	3199303	11348707	3716300	32535202	26855368	21186495	-5668873	-261296	-5930169	1,268
1983	PKP	zloty													268399118				268399118		268399118				
1983	RENFE	Peseta																							
1983	SJ	Swedish cr	3748700	424878	1299222	5472800	550232	1051363	1601595	168462	1018031		41564	8302452	6549824	544530		1330449	8424803	8302452	8424803	122351		122351	0,985
1983	SNCB	Belgian fra	39678556	19844790	5695803	65219149	5027141	26972141	31999207	4425	4388341	333990	8598583	110543695	25669956	19686648	10420355	54710733	110487692	100123340	100067337	-56003	-102238	-158241	1,001
1983	SNCF	French frar	25214914	7743661	4755216	37713791	2574363	15437922	18012285	1338168	3934440	823047	6738298	68560029	34404480	4762113	2461455	17802338	59430386	66098574	56968931	-9129643	749082	-8380561	1,160
1983	VR	Finnish ma	1660707	362393	205677	2228777	262392	343923	606315	1060	471420		73836	3381408	2248500	179864		68960	2497324	3381408	2497324	-884084		-884084	1,354
1983	TCDD	Turkish pou	27087252	6706470	9999831	43793553	16696887	16555609	36252496	191444	9299563	28599	8583978	98149633	32933922	33774451		38416151	105124524	98149633	105124524	6974891		6974891	0,934
1984	BDZ	Leva																							
1984	BR	pound sterl	1980900	108900	286100	2375900	263700	1212300	1476000		221800		83800	4157500	2252500	129200	267600	1202600	3851900	3889900	3584300	-305600	-102700	-408300	1.085
1984	CFF	swiss franc	1933728	364291	94008	2392027	156272	768616	924888	3671	495367	1500	220887	4038340	2967127	767056			3734183	4038340	3734183	-304157		-304157	1.081
1984	CFL	luxemburg	3216753	2779325	240478	6236556	298946	345880	644826	96451	449276	232565	280055	7939729	1915836	118821	96636	5717500	7848793	7843093	7752157	-90936	10309	-80627	1.012
1984	CFR	Lei																							
1984	CH	drachm	11504207		2448762	13952969	1585426	2780383	4365809	301218	635654		462821	19718471	6810138	413273	1435020	3206693	11865124	18283451	10430104	-7853347	7853347		1.752
1984	CIE	pound sterl	127832	10859	14713	153404	23395	94975	118370	1949	18926	11000	20996	324645	208237	6963		98490	313690	324645	313690	-10955	1029	-9926	1.035
1984	CP	escudo	15655605		3932	15659537	5309321	2978234	8287555	941617	911963	-21930	2389869	28168611	13744819	434428	364364	10325026	24868637	27804247	24504273	-3299974	-907327	-4207301	1.135
1984	CSD	Czechoslov																		19184514	24734980	5550466			0,776
1984	DB	Deutsche r	11524958	5535908	3264786	20325652	1913393	3145925	5059318	160814	1842973	83763	2926621	30399141	17484772	326470		9467812	27279054	30399141	27279054	-3120087		-3120087	1.114
1984	DR	Deutsche M																							
1984	DSB	Danish cro	3446562	36162	72538	3555262	623483	1512459	2135942		641784		840406	7173394	3470044	1029439		2673911	7173394	7173394	7173394				1.000
[illegible]	[illegible]	[illegible]	[illegible]	1,106E+09	614819547	6273574743	229599000	4664727525	4894326525	3,48E+08	1375811459	1,5E+08	2,224E+09	15266184759	2419739904	513229912	2764579697	7502985538	1,3201E+10	1,2502E+10	1,0436E+10	-20656497			
1984	JZ	Dinar																			164078975				
1984	MAV	Forint																		38671879	41881519	3209640			0,923
1984	NS	florin	1012775	353163	238108	1604046	248652	515807	764459	10515	439313	21855	203917	3044105	1403332	76816	305377	1286921	3072446	2738728	2767069	28341		28341	0,990
1984	NSB	Norwegian	2140575	146164	271781	2558520	246356	648281	894637		210235		16527	3679919	2311129	178945		1189845	3679919	3679919	3679919				1.000
1984	OBB	Austrian Sc	15249213	1815001	2352294	19416508	1134337	14066851	15201188	85166	3362167		654469	38719498	15070987	3123870	10922267	4421606	33538730	27797231	22616463	-5180768	-537106	5717874	1.229
1984	PKP	zloty													323805596				323805596		323805596				
1984	RENFE	Peseta																							
1984	SJ	Swedish cr	3862439	440810	799465	5102714	667482	2297871	2965353	210595	887815		22825	9189302	6863798	731882		1523807	9119487	9189302	9119487	-69815		-69815	1.007
1984	SNCB	Belgian fra	41181928	20541261	6736103	68459292	5530147	21632111	27162258	6065	4726568	592363	8770790	109717336	28144425	15844237	8350544	57060900	109400106	101366792	101049562	-317230	56366	-260864	1.003
1984	SNCF	French frar	26810248	6495664	5165365	38471277	2762884	16506998	19269882	1831167	4142092	2588320	8700031	75002769	36541930	5265469	3404439	19323166	64535004	71598330	61130565	-10467765	4319073	-6148692	1.171
1984	VR	Finnish ma	1723748	426146	222799	2372693	275025	346079	621104	1708	509725		84511	3589741	2440478	207915		76370	2724763	3589741	2724763	-864978		-864978	1.317
1984	TCDD	Turkish pou	33609000	7358351	12641714	53609065	30100500	26595208	56695708	198332	16010269	91386	22010511	148615271	48503605	57007150		58805776	164316531	148615271	163316531	15701260	-5835105	9866155	0,904

A1.2.16. Operating Costs according to category or destination

YEAR	Railway	Currency	COSTS FOR RAILWAY OPERATION							Total Railway Operating costs (col.4+5+6+7+9)	CHARGES FOR OTHER TYPES OF OPERATION				Total Operating costs classified according to category	For amortisation or renewal	Compensation offset against costs and differences in entries	Overall operating costs (col.16+18)
						Rolling Stock and Traction		Fixed Installations - Way and Works										
			GENERAL ADMINISTRATION	General Costs (financial charges, taxes and	OPERATING AND TRAFFIC	Total	Amount for depreciation or renewal	Total	Amount for depreciation or renewal		Road services	Shipping Services	Other types of operation	total costs of other types of operating (col.12+13+14)Various				
1977	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	BR	pound sterl	109050	44600	477792	413110	.	381564	.	1426116	28799	114009	109329	252137	1678253	.	.	1678253
1977	CFF	swiss franc	171726	450233	1017960	765195	171831	578073	159298	2983187	899	2648	42690	46237	3029424	340313		3029424
1977	CFL	luxemburg	411094	364002	1533286	1497288	83767	1074928	362785	4880598	332300			332300	5212898	446552		5212898
1977	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	drachm	201148	272244	1117064	1838585	236775	339196	200182	3768237	441598		27040	468638	4236875	444361	849235	5086110
1977	CIE	pound sterl	3661	3345	20169	15337	2657	10457	3924	52969	62084	300	7063	69447	122416	11942	-4830	117586
1977	CP	escudo	307142	2296086	2346136	1963786	103411	1565721	112576	8478871	33731	58883	206469	299083	8777954	235572		8777954
1977	CSD	Czechoslov	.	.	.	.	.	.	.	.	.	.	.	.	15480777	.	.	.
1977	DB	Deutsche r	409084	3569990	5134250	4079466	552528	5221672	1391976	18414462	1499517	37985	1980855	3518357	21932819	1991100	4554214	26487033
1977	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	DSB	Danish cro	89189	383614	832143	685905	58832	451205	42288	2442056	153485	284069	76557	514111	2956167	135291	.	2956167
1977	FS	lira	90905353	225076294	852288424	888844234	79322432	612776864	113227686	2,67E+11	20793792	40334060	3325386	64453238	2,73E+09	196363553	588954529	3323298936
1977	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	26143463
1977	NS	florin	150607	24612	536966	668538	122027	537934	251203	1918657					1918657	379919		1918657
1977	NSB	Norwegian	204557	4285	610768	672636	51818	510337	63334	2002583	164580		20692	185272	2187855	133922		2187855
1977	OBB	Austrian S	1361117	481590	6249073	5632174	802457	4024121	1154157	17748075	754551	18571	496067	1269189	19017264	2090473		19017264
1977	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	RENFE	Peseta	8202675	657188	20316022	29175885	1590864	22717596	4794275	81069366	24340		40567	64907	81134273	.		81134273
1977	SJ	Swedish cr	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	SNCB	Belgian fra	1540945	317239	12161989	16655158	3825624	5417722	4174045	36093053	2598334		4312048	6910382	43003435	8030000	21656600	64660035
1977	SNCF	French fran	991153	2341519	8145479	9415610	968692	7261517	2412768	28155278	52491		26791	79282	1677206	203798		1677206
1977	VR	Finnish ma	44374	259737	438128	582687	112263	272998	81037	1597924	52491		26791	79282	1677206	203798		1677206
1977	TCDD	Turkish pou	578223	496663	1618976	3643804	184097	2216757	286164	8554423			660680	660680	9215103	499530		9215103
1978	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	BR	pound sterl	125598	50200	524119	513087	.	454312	.	1667316	28903	140171	157210	326284	1993600	.	.	1993600
1978	CFF	swiss franc	173619	453585	1009400	775458	180567	567913	156827	2979975	807	2827	39802	43436	3023411	344930		3023411
1978	CFL	luxemburg	295238	358238	1073408	1105447	87726	894749	273689	3727334	257462			257462	39849796	371270	1431252	5416048
1978	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH	drachm	227351	563954	1258388	2149161	256363	374716	202449	4573570	457045		41350	498395	5071965	472565	954203	6026168
1978	CIE	pound sterl	4359	3656	23634	17071	3143	11785	4360	60505	70533	327	7868	78728	139233	12937	-5778	133455
1978	CP	escudo	335806	2771534	2431896	2338186	287074	1437101	73528	9314523	35966	69878	312564	418408	9732931	382247		9732931
1978	CSD	Czechoslov	.	.	.	.	.	.	.	.	.	.	.	.	15766968	.	.	.
1978	DB	Deutsche r	415689	3590308	5126220	4030981	559388	5284548	1337258	18447746	1564368	39846	1980663	3584877	22032623	1948984	4631555	26664178
1978	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	DSB	Danish cro	93647	446489	876314	715846	64302	453430	47826	2585726	167020	314946	43135	525101	3110827	153616	.	3110827
1978	FS	lira	91455387	346830011	988687603	980706722	90653029	7749642482	169090321	3,16E+09	18296103	49310319	4271644	71878066	3,23E+09	265025756	570076012	3799276283
1978	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	29006855
1978	NS	florin	162031	71837	554515	695726	125909	556593	257341	2040702					2040702	384534		2040702
1978	NSB	Norwegian	220667	-8992	652518	725113	55370	547307	67675	2136613	175134		22853	197987	2334600	136031		2334600
1978	OBB	Austrian S	1520064	535732	6517904	6030673	857981	4331964	1272585	18936337	815746	20526	496050	1332322	20268659	2274863		20268659
1978	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	RENFE	Peseta	9825164	787180	24334531	34946875	1905537	27217778	5742583	97111528	29154		48591	77745	97189273	.		97189273
1978	SJ	Swedish cr	.	.	.	.	.	.	.	.	.	.	.	.	5263070	284848		5263070
1978	SNCB	Belgian fra	1578321	313879	12659178	17656241	3758246	6057885	4208237	38265504	1423766		5163291	6587057	44852561	8000000	22478000	67330561
1978	SNCF	French fran	1067223	2466422	8611684	10771824	1517144	8570687	3337394	31487840	306505	400255	2778699	3485459	34973299	4854538	27967	35001266
1978	VR	Finnish ma	45618	268034	456222	622731	129711	327083	98172	1719688	55849		33927	89776	1809464	238700		1809464
1978	TCDD	Turkish pou	742931	771558	2211211	5330175	192084	3106738	341840	12162613			1088861	13251474	565520	565520		13251474
1979	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	BR	pound sterl	148014	63000	596369	612189	.	514219	.	1933791	31480	164011	203818	399309	2333100	.		2333100
1979	CFF	swiss franc	174680	452932	1030280	813478	186298	579947	185616	3051317	828	3255	42362	46445	3097762	384600		3097762
1979	CFL	luxemburg	304526	373061	1169691	1287350	109261	959930	270613	4094558	271611			271611	4366169	389599	1435728	5801897
1979	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH	drachm	251365	515022	1413318	2482393	239887	425716	212682	5087814	578267		33252	611519	5699333	469983	1116656	6815989
1979	CIE	pound sterl	5004	4320	27355	22047	3024	15495	6500	74221	85557	381	9054	94992	169213	15535	-7366	161847
1979	CP	escudo	398340	3006170	2691560	2933721	342317	1730356	75130	10760147	40807	81535	156711	279053	11039200	453125		11039200

A1.2.16. Operating Costs according to category or destination

YEAR	Railway	Currency	COSTS FOR RAILWAY OPERATION: GENERAL ADMINISTRATION	General Costs (financial charges, taxes and	OPERATING AND TRAFFIC	Rolling Stock and Traction: Total	Rolling Stock and Traction: Amount for depreciation or renewal	Fixed Installations - Way and Works: Total	Fixed Installations - Way and Works: Amount for depreciation or renewal	Total Railway Operating costs (col.4+5+6+7+9)	CHARGES FOR OTHER TYPES OF OPERATION: Road services	Shipping Services	Other types of operation	total costs of other types of operating (col.12+13+14)Various	Total Operating costs classified according to category	For amortisation or renewal	Compensation offset against costs and differences in entries	Overall operating costs (col.16+18)
1979	CSD	Czechoslov	.	.	.	.	.	.	.	.			.	.	16394548	.	.	1639548
1979	DB	Deutsche r	454400	2994358	5237362	4462286	570008	6053719	1809744	19202125	1718497	46450	2095462	3860409	23062534	2882379	4523526	27586060
1979	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	DSB	Danish cro	121774	563659	1046191	803945	72788	537411	57151	3072980	210483	373025	85670	669178	3742158	186849		3742158
1979	FS	lira	265014964	297109423	1233354670	1170644850	66431168	930158507	197102225	3,9E+09	21264247	60890533	5344488	87499268	3,98E+09	268681710	636796780	4620578462
1979	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	MAV	Forint	.	.	.	.	.	.	.	.			.	.	.	.	.	.
1979	NS	Guilder	171462	109615	579509	727303	89625	542258	230163	2130147					2130147	321273		2130147
1979	NSB	Norwegian	227907	-34626	665473	762820	59242	578925	72408	2200499	179300		24818	204118	2404617	146322		2404617
1979	OBB	Austrian Sc	1576753	537711	6530362	6425534	909683	4877581	1395322	19947941	881705	21290	539363	1442358	21390299	2460557		21390299
1979	PKP	zloty	.	.	.	.	.	.	.	.			.	.	.	.	.	.
1979	RENFE	Peseta	11247975	901173	27858485	40007632	3478482	31151661	4661143	1,11E+08	33377		55627	89004	1,11E+08	.		111255930
1979	SJ	Swedish cr	.	.	.	.	.	.	.	.	.	.	.	.	5780210	451119		5780210
1979	SNCB	Belgian fra	1399813	381315	13852858	19525618	3702545	7504385	4584236	42663989	1602087		6579106	8181193	50845182	8320000	22976200	73821382
1979	SNCF	French fra	1200954	2845662	9652807	11877765	1547400	9369638	3568559	34946826	342414	403353	3019717	3765484	38712310	5115959	228964	38941274
1979	VR	Finnish ma	74612	322242	505280	601007	141433	403369	137400	1906510	63017		57092	120109	2026619	294712		2026619
1979	TCDD	Turkish po	1224477	1953267	3194187	9132506	333336	5704940	425319	21209377			1631228	1631228	22840605	791879		22840605
1980	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	BR	pound ster	777486	71500	697200	749276	.	611573	.	2307035	30895	194382	225888	451165	2758200	.		2758200
1980	CFF	swiss franc	199145	453437	1084676	843210	194702	637661	199527	3218129	896	3177	46818	50891	3269020	403579		3269020
1980	CFL	luxemburg	344580	406893	1306507	1396598	86730	1080122	321074	4534700	413043			413043	4947743	427266	1454183	6401926
1980	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH	drachm	301324	484401	1678507	2955841	230046	423717	223457	5843790	775191		61227	836418	6680208	470146	1375632	8055840
1980	CIE	pound ster	6219	4995	33127	27361	3163	18777	7379	90479	105806	487	10484	116777	207256	17155	-8887	198369
1980	CP	escudo	655516	3686798	2789690	4323535	397153	2004552	23265	13460091	94906	172868	67105	334879	13794970	514651	154123	13949093
1980	CSD	Czechoslov	.	.	.	.	.	.	.	.			.	.	16618865	.		16618865
1980	DB	Deutsche r	487897	3156670	5543004	4840776	623476	6397868	1928014	20426215	1867012	50219	2214416	4131647	24557862	2609180	4759135	29316997
1980	DR	Deutsche M	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
1980	DSB	Danish cro	137285	630573	1168568	990774	75970	611077	61261	3538277	257400	448615	66262	772277	4310554	206815		4310554
1980	FS	lira	397646983	377069536	1628223394	1538741657	89381812	1155159733	225590707	5,1E+09	25275518	77874962	4502072	107652552	5,2E+09	324894531	650347482	5854841337
1980	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	MAV	Forint	.	.	.	.	.	.	.	.			.	.	.	.	.	28988348
1980	NS	florin	188253	54957	614218	804037	96811	596322	256244	2257787					2257787	354370		2257787
1980	NSB	Norwegian	247313	-42520	719457	868313	63411	637135	77503	2429698	202013		27629	229642	2659340	157039		2659340
1980	OBB	Austrian Sc	1696137	618028	6739460	6793836	976005	5180688	1512702	21028149	1045878	26739	668912	1741529	22769678	2651859		22769678
1980	PKP	zloty	.	.	.	.	.	.	.	.			.	.	.	.	.	.
1980	RENFE	Peseta	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
1980	SJ	Swedish cr	.	.	.	.	.	.	.	.	.	.	.	.	6249135	531700		6249135
1980	SNCB	Belgian fra	1622679	382248	15156415	21000477	3423178	8190725	4408260	46352544	1804587		9475387	11279974	56632518	7860000	23321000	80953518
1980	SNCF	French fra	1298096	3440615	11050822	13516933	1590307	10115934	3613588	39422400	391193	463600	3439497	4294290	43716690	5203895	107189	43823879
1980	VR	Finnish ma	77138	352541	587490	727783	153612	466647	155492	2211599	75663		75422	151085	2362684	328872		2362684
1980	TCDD	Turkish po	1939652	4853234	5334669	20803582	619103	10734343	502604	43665480			3365827	3365827	47031307	1162470		47031307
1981	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	BR	pound ster	239905	69100	763392	814257	.	661975	.	2548629	16113	.	164858	180971	2729600	.		2729600
1981	CFF	swiss franc	205533	480250	1156689	890641	202581	673684	212128	3406797	892	3478	45608	49978	3456775	426948		3456775
1981	CFL	luxemburg	361274	469103	1351846	1452160	81754	1159213	354111	4793596	319645			319645	5113241	450173	1817547	6930788
1981	CFR	Lei	.	.	.	.	.	.	.	.	.			.	.	.	.	.
1981	CH	drachm	393105	877337	2106301	3584765	206852	485678		7447186	702861		126451	829312	8276498	464533	1741216	10017714
1981	CIE	pound ster	7185	4902	36252	35320	3802	22005	8287	105664	121358	523	12733	134614	240278	22239	-9453	230825
1981	CP	escudo	743071	4695366	3495131	5491030	601217	2347215	28717	16771813	194201	420689	31847	646737	17418550	657740	-290960	17157590
1981	CSD	Czechoslov	.	.	.	.	.	.	.	.			.	.	17689694	.		17689694
1981	DB	Deutsche r	493007	3642461	5881174	5115791	621388	6596018	2047160	21728451	2129619	64121	2010487	4204227	25932678	2727444	4746262	30678940
1981	DR	Deutsche M	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
1981	DSB	Danish cro	154989	914279	1199357	2150470	1047082	1799480	1141101	6218575	285495	956350	79370	1321215	7539790	2769839		7539790
1981	FS	lira	230411708	573928461	2093761896	2063771899	140079895	1446379166	324086769	6,41E+09	37044632	101269213	6215783	144529628	6,55E+09	492356725	815801526	7368584284
1981	JZ	Dinar	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
1981	MAV	Forint	.	.	.	.	.	.	.	.			.	.	.	.	.	31885000
1981	NS	Guilder	198439	104570	631316	890956	103151	624545	277672	2449826					2449826	391088		2449826

A1.2.16. Operating Costs according to category or destination

YEAR	Railway	Currency	COSTS FOR RAILWAY OPERATION: GENERAL ADMINISTRATION	General Costs (financial charges, taxes and	OPERATING AND TRAFFIC	Rolling Stock and Traction: Total	Rolling Stock and Traction: Amount for depreciation or renewal	Fixed Installations - Way and Works: Total	Fixed Installations - Way and Works: Amount for depreciation or renewal	Total Railway Operating costs (col.4+5+6+7+9)	CHARGES FOR OTHER TYPES OF OPERATION: Road services	Shipping Services	Other types of operation	total costs of other types of operating (col.12+13+14)Various	Total Operating costs classified according to category	For amortisation or renewal	Compensation offset against costs and differences in entries	Overall operating costs (col.16+18)
1981	NSB	Norwegian	278077	-43825	811885	978408	69218	733495	84599	2758040	243536		28780	272316	3030356	171922		3030356
1981	OBB	Austrian S	1748617	886665	7192808	7335012	1017114	5600502	1590418	22763604	1078743	27112	849032	1954887	24718491	2800873		24718491
1981	PKP	zloty	.	.	.	.	.	.	.	.			.	.	.	.	.	.
1981	RENFE	Peseta	16493562	1321361	40868050	58681975	4585831	45696732	6150348	1,63E+08	49687		81934	131621	1,63E+08	.		163193301
1981	SJ	Swedish cr	953200	-19900	2571200	1330400	458200	1037600	262000	5872500	443000	117200	114800	675000	6547500	720200		6547500
1981	SNCB	Belgian fra	1735790	346942	16296616	22894253	3286245	10203322	4483621	51476923	1968368		13433512	15401880	66878803	7800000	26393700	93272503
1981	SNCF	French fra	1460139	4750988	12792724	15067953	1575210	11382509	4410481	45454313	435714	543412	3808483	4787609	50241922	5985691	-1984	50239938
1981	VR	Finnish ma	83968	468724	688572	845722	163826	552607	190109	2639593	88572		77632	166204	2805797	379604		2805797
1981	TCDD	Turkish po	2460431	6468114	6537813	28619809	854451	11924763	605495	56010930			3846807	3846807	59857737	1514191		59857737
1982	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	BR	pound ster	277600	79200	752600	827700	.	681600	.	2618700	3600	.	154300	157900	2776600	.		2776600
1982	CFF	swiss fran	225022	384254	1265010	973216	212033	712333	217774	3559835	941	4627	55604	61172	3621007	445071		3621007
1982	CFL	luxemburg	394252	480486	1379941	1511898	102027	1184160	335147	4950737	331086			331086	5281823	456626	1848297	7130120
1982	CFR	Lei	.	.	.	.	.	.	.	.	.			.	.	.	.	.
1982	CH	drachm	490156	1419262	2761128	4492304	228369	495053	236426	9657903	736684		73065	809749	10467652	544797	2285538	12753190
1982	CIE	pound ster	7757	6090	38938	41122	4605	27700	10600	121607	142933	546	14261	157740	279347	26517	-10213	269134
1982	CP	escudo	677050	5828481	4117287	7744198	1241727	2780244	28624	21147260	159409	548759	41736	749904	21897164	1356381	454106	22351270
1982	CSD	Czechoslo	.	.	.	.	.	.	.	.			.	.	19214579	.		19214579
1982	DB	Deutsche r	505077	3229325	5809694	5308864	625250	6896517	2214694	21749477	2158463	66990	2020086	4245539	25995016	2900710	4889445	30884461
1982	DR	Deutsche M	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
1982	DSB	Danish cro	178319	1122169	1442779	1481858	168921	922009	154289	5147134	352815	756331	63161	1172307	6319441	508640		6319441
1982	FS	lira	307334100	772487499	2907655881	2575422108	104271597	1778497982	392326062	8,34E+09	30259779	128568396	6269150	165097325	8,51E+09	529599669	1318188984	9824683879
1982	JZ	Dinar	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
1982	MAV	Forint	.	.	.	.	.	.	.	.			.	.	.	.	.	35264551
1982	NS	florin	209882	167287	654563	945331	112006	683813	298027	2660876					2660876	426563		2660876
1982	NSB	Norwegian	313214	-33379	877964	1104179	74951	814733	91606	3076711	279941		35534	315475	3392186	186907		3392186
1982	OBB	Austrian S	1967270	826526	7592268	7819856	1078114	5919191	1732881	24125111	1146158	28460	820253	1994871	26119982	2993310		26119982
1982	PKP	zloty	.	.	.	.	.	.	.	.			.	.	.	.	.	.
1982	RENFE	Peseta	24191932	1938106	59943212	86071786	6436213	67025682	8639913	2,39E+08	76870		117170	194040	2,39E+08		10315000	249679758
1982	SJ	Swedish cr	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7562168
1982	SNCB	Belgian fra	1675538	669338	17415325	23292553	2539010	9847988	1677436	52900742	2011339		14793071	16804410	69705152	4327587	27664500	97369652
1982	SNCF	French fra	1794781	6860609	14738823	17185671	1682156	12800445	4944353	53380329	494573	562108	4321798	5378479	58758808	6626509	315155	59073963
1982	VR	Finnish ma	91138	524712	746951	911974	174964	607585	227061	2882360	108807		68434	177241	3059601	429938		3059601
1982	TCDD	Turkish po	3071724	9127986	7774678	35998396	1449459	13308324	987587	69281108			4651880	4651880	73932988	2557290		73932988
1983	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	BR	pound ster	268700	69300	811200	882700	.	761800	.	2793700	3700	.	170600	174300	2968000	.		2968000
1983	CFF	swiss fran	238865	456805	1264977	1144582	228414	832523	228292	4037752	851	4667		5518	4043270	454404		4043270
1983	CFL	luxemburg	420698	508686	1458087	1649240	148985	1275943	353732	5312654	326470			326470	5639124	515984	1909555	7548679
1983	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	CH	drachm	538293	1746643	3242378	5522136	255330	558119	243096	11607569	905921		125049	1030970	12638539	583971	2534468	15173007
1983	CIE	pound ster	9172	6992	42857	39935	4992	28635	10316	127591	164419	633	6534	171586	299177	27452	-2993	296184
1983	CP	escudo	825821	6669226	4880194	9131952	1517417	3360562	27071	24867755	181095	725846	60613	967554	25835309	1594402	837891	26673200
1983	CSD	Czechoslo	.	.	.	.	.	.	.	.			.	.	19609082	.		19609082
1983	DB	Deutsche r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	DR	Deutsche M	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
1983	DSB	Danish cro	198852	1301687	1510245	1628741	216087	961489	165159	5601014	362114	778983	43105	1184202	6785216	578410		6785216
1983	FS	lira	339147965	672340350	3111531087	2758344311	45936069	1925565012	375471671	8,81E+09	33665554	153334047	8778030	195777631	9E+09	447691292	1668892574	10671598930
1983	JZ	Dinar	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
1983	MAV	Forint	.	.	.	.	.	.	.	.	.			.	.	.	.	38513694
1983	NS	florin	206898	210144	623216	952025	111569	759921	318166	2752204					2752204	435421		2752204
1983	NSB	Norwegian	335495	-31091	890901	1128247	80775	876798	98725	3200350	289314		32275	321589	3521939	198027		3521939
1983	OBB	Austrian S	1925009	1001850	7778194	7904301	1045961	6250076	1882863	24859430	1255070	27452	713416	1995938	26855368	3114507		26855368
1983	PKP	zloty	.	.	.	.	.	.	.	.			.	.	.	.	.	.
1983	RENFE	Peseta	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
1983	SJ	Swedish cr	849023	1056149	2718315	1793085	613300	922921	272114	7339493	675855	196110	302481	1174446	8513939	1018031	-211487	8302452
1983	SNCB	Belgian fra	1533760	572719	17307892	23546020	2684288	3702965	1604732	46663356	2003626		17314930	19318556	65981912	4388341	33825233	99807145
1983	SNCF	French fra	1991201	8663125	16326845	18795820	1738864	13720638	5281826	59497629	564727	620601	4760973	5946301	65443930	7020690	654644	66098574
1983	VR	Finnish ma	99135	622883	877080	907377	180892	723864	255301	3230339	110063		41006	151069	3381408	471420		3381408

A1.2.16. Operating Costs according to category or destination

YEAR	Railway	Currency	COSTS FOR RAILWAY OPERATION: GENERAL ADMINISTRATION	General Costs (financial charges, taxes and	OPERATING AND TRAFFIC	Rolling Stock and Traction: Total	Rolling Stock and Traction: Amount for depreciation or renewal	Fixed Installations - Way and Works: Total	Fixed Installations - Way and Works: Amount for depreciation or renewal	Total Railway Operating costs (col.4+5+6+7+9)	CHARGES FOR OTHER TYPES OF OPERATION: Road services	Shipping Services	Other types of operation	total costs of other types of operating (col.12+13+14)Various	Total Operating costs classified according to category	For amortisation or renewal	Compensation offset against costs and differences in entries	Overall operating costs (col.16+18)
1983	TCDD	Turkish pou	3953549	9707666	9609567	48580604	5064286	19697226	3670086	91548612			6601021	6601021	98149633	9299563		98149633
1984	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	BR	pound sterl	559000	83800	1023000	1142400	192600	826300		3634500		.	255400	255400	3889900	221800		3889900
1984	CFF	swiss franc	235075	465643	1285193	1183212	240265	862684		4031807	891	5642		6533	4038340	495367		4038340
1984	CFL	luxemburg	445292	579387	1536364	1699311	133023	1265565	316253	5525919	297517			297517	5823436	449276	2019657	7843093
1984	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	CH	drachm	644970	1485534	4096993	6978545	302891	617579	242472	13823621	1146362		106775	1253137	15076758	635654	3206693	18283451
1984	CIE	pound sterl	9179	16187	45286	45837	6711	30796	11000	147285	173105	683	7077	180865	328150	29926	-3505	324645
1984	CP	escudo	1003283	4031186	5506599	12063841	1888314	4561699	29863	27166608	295888	717211	71355	1084454	28251062	1918177	-446815	27804247
1984	CSD	Czechoslov	.	.	.	.	.	.	.	.			.	.	19184514	.		19184514
1984	DB	Deutsche m	467435	3825409	4936759	4880884	646814	6526100	2000604	20636587	2585000	74200	2242000	4901200	25537787	2721444	4861354	30399141
1984	DR	Deutsche M	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
1984	DSB	Danish cro	220386	1491556	1571125	1710774	244438	963270	200320	5957111	355300	801178	59805	1216283	7173394	638947		7173394
1984	FS	lira	376766979	900510727	3243524297	2959256146	67221130	2086788668	426173549	9,57E+09	34509674	171489460	11711222	217710356	9,78E+09	526498441	2717047889	12501605062
1984	JZ	Dinar	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
1984	MAV	Forint	.	.	.	.	.	.	.	.				.	.	.	.	38671879
1984	NS	florin	248529	229997	601987	937701	114717	720514	312006	2738728					2738728	439313		2738728
1984	NSB	Norwegian	353439	18210	907189	1164125	83690	905459	98163	3348422	300034		31463	331497	3679919	210235		3679919
1984	OBB	Austrian Sc	1990490	926112	7984636	8394769	1110575	6478420	2024947	25774427	1304588	26602	691554	2022804	27797231	3354754		27797231
1984	PKP	zloty	.	.	.	.	.	.	.	.			.	.	.	.	.	.
1984	RENFE	Peseta	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
1984	SJ	Swedish cr	954684	1405173	3029440	1828461	597299	826210	148981	8043968	809343	207221	273255	1289819	9333787	887815	-144485	9189302
1984	SNCB	Belgian fra	1630231	821907	17232079	26204982	2781711	6614534	1747823	52503733	2153897		13382567	15536464	68040197	4647520	33123900	101164097
1984	SNCF	French fran	2088561	11283096	17351729	19902435	1707886	13908149	5638496	64533970	601364	648987	5708930	6959281	71493251	7346382	105079	71598330
1984	VR	Finnish ma	89892	687427	936205	943220	191120	803096	285963	3459840	128757		1144	129901	3589741	509725		3589741
1984	TCDD	Turkish pou	5255598	22667550	11878086	70357135	7695174	28804110	6886092	1,39E+08			9652792	9652792	1,51E+08	16010260		148615271

A1.2.17. Operating Revenue

YEAR	Railway	Currency	RAILWAY OPERATING REVENUE: Total revenue from passenger traffic and baggage	Total revenue from goods traffic and postal	Various revenue and contribution	TOTAL	OTHER OPERATING REVENUE: ROAD SERVICES: Passenger	Goods	Total	shipping services: Passenger	Goods	Total	Sundry operations	Tariff compensation	Total (col. 10+ 13 + 14 + 15)	Compensation offset against costs and differences in entries	Overall operating receipts (col.7+16+17) (col.22 tab.3.2)
1977	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	BR	pound sterl	598302	466409	373225	1437936		.	.	.	.	120139	149877	.	270016	.	1707952
1977	CFF	swiss franc	900859	1120482	267886	2289227	343	1	344	1994		1994	49524		51862		2341089
1977	CFL	luxemburg	172048	1256942	930115	2359105	25302	21400	46702						46702	2730700	5136507
1977	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	drachm	1006639	1357823	578624	2943086	439764		439764				59673		499437	849235	4291758
1977	CIE	pound sterl	15101	10552		25653	45422	10664	56086	123	43	166	7164		63416	28370	117439
1977	CP	escudo	4669574	860990	176406	5706970	11095		11095				361198		372293	2139690	8218953
1977	CSD	Czechoslov	1795658	15528978	.	.											.
1977	DB	Deutsche m	6111542	7472844	5788698	19373084	528252	921731	1449983	19962	9120	29082	1086055	25000	2590120		21963204
1977	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	DSB	Danish crow	663346	654427	6780	1324553	109895	.	109895	193198	131482	324680	296339		730914	15525	2070992
1977	FS	lira	778378392	463986808	559283001	1801648201	.	.	.	.	.	.	3325386		3325386	495405851	2300379438
1977	JZ	Dinar	4092412	14412276	3370726	21875414	115429		115429						115429		21990843
1977	MAV	Forint	2732250	14734074	5152609	22618933							5662267		5662267		28281200
1977	NS	florin	677046	291381	950230	1918657											1918657
1977	NSB	Norwegian	510810	731664	785551	2028025	100327	59503	159830						159830		2187855
1977	OBB	Austrian Sc	4189248	8572810	1615306	14377364	534978	66710	601688	16090		16090	218968		836746		15214110
1977	PKP	zloty	15206698	54289354	4657893	74153945											74153945
1977	RENFE	Peseta	21421591	25 674577	7246048	54342216	2206931		2206931						2206931		56549147
1977	SJ	Swedish cr	1272783	2261162	662498	4196443	288396	14392	302788	30148	82524	112672	143998		559458		4755901
1977	SNCB	Belgian fra	21134688	12356807	2658113	36149609	470406		470406				4346566	812275	5629247	21656600	63435456
1977	SNCF	French fran	9533621	10478804	8904720	28917145				255905		255905	637645		893550	165128	29975823
1977	VR	Finnish ma	305801	833071	115	1138987		46985	46985				77329	24447	148761	8954	1296702
1977	TCDD	Turkish pou	406519	2897673		3304192							4920371		4920371		8224563
1978	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	BR	pound sterl	707859	513327	447344	1668530		.	.	.	.	142214	189356	.	331570	.	2000100
1978	CFF	swiss franc	937621	1147316	264297	2349234	368	?	369	2041		2041	49162		51572		2400806
1978	CFL	luxemburg	184553	1421683	3566792	5173028	26816	19487	46303				128223		174526		5347554
1978	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH	drachm	1068238	1490899	671463	3230600	446541		446541				190868		637409	954203	4822212
1978	CIE	pound sterl	18339	11233		29572	51873	11299	63172	146	48	194	8761		72127	31922	133621
1978	CP	escudo	7156880	1089738	145867	8392485	13130		13130				379578		392578	1305195	10090388
1978	CSD	Czechoslov	1818239	16242141	.	.											.
1978	DB	Deutsche m	6492874	7729926	5086609	19309409	454997	997241	1523238	21179	8741	29920	1085050	105315	2743523		22052932
1978	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	DSB	Danish crow	712555	645485	8063	1366103	122557	.	122557	234088	151443	385531	305407		813495	-5749	2173849
1978	FS	lira	923094276	524085937	500376537	1947556750	.	.	.	.	.	.	4271644		4271644	503969188	2455797582
1978	JZ	Dinar	5839280	18077767	3053501	26970548	89259		89259						89259		27059807
1978	MAV	Forint	2690572	16632213	5408190	24730975							6031625		6031625		30762600
1978	NS	florin	709855	303744	1024700	2038299											2038299
1978	NSB	Norwegian	548052	820287	797501	2165840	105020	63740	168760						168760		2334600
1978	OBB	Austrian Sc	5128092	8702510	1660893	15491495	580113	71113	651432	18320		18320	225745		895497		16386992
1978	PKP	zloty	15316315	55767684	6068199	77152198											77152198
1978	RENFE	Peseta	26011652	31745535	8198705	65955892	596000		596000						596000		66551892
1978	SJ	Swedish cr	1419322	2286736	795456	4501514	327137	14075	341212	34588	83945	118533	155484		615229		5116743
1978	SNCB	Belgian fra	23428170	12472971	3670021	39571162							5177139		5177139	22478000	67226301
1978	SNCF	French fran	10981080	11764882	8766428	31512390	.	.	.	184743	101679	286422	687705		974127	181076	32667593

A1.2.17. Operating Revenue

YEAR	Railway	Currency	RAILWAY OPERATING REVENUE				OTHER OPERATING REVENUE									Compensation offset against costs and differences in entries	Overall operating receipts (col.7+16+17) (col.22 tab.3.2)
			Total revenue from passenger traffic and baggage	Total revenue from goods traffic and postal	Various revenue and contribution	TOTAL	ROAD SERVICES			shipping services			Sundry operations	Tariff compensation	Total (col. 10+ 13 + 14 + 15)		
							Passenger	Goods	Total	Passenger	Goods	Total					
1978	VR	Finnish ma	320150	855192	611	1175953		47009	47009				82161	26161	155362	11920	1343235
1978	TCDD	Turkish pou	720772	3563184		4283956							6438072		6438072		10722028
1979	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	BR	pound sterl	806169	574321	536255	1916745				.	.	173187	244568		417755		2334500
1979	CFF	swiss franc	942587	1207593	270603	2420783	371	0	371	2235		2235	50018		52624		2473407
1979	CFL	luxemburg	204027	1594698	3698562	5497287	27707	18372	46079				151450		197529		5694816
1979	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH	drachm	1190014	1699058	676063	3565135	479544		479544				252165		731709	1116656	5413500
1979	CIE	pound sterl	23340	11326		34666	54195	12737	66932	146	38	184	9959		77075	48634	160375
1979	CP	escudo	7682773	1412643	240691	9336107	11435		11435				375815		387250	1175910	10899267
1979	CSD	Czechoslov	1776275	16352405		18128680											18128680
1979	DB	Deutsche r	6865202	8617717	5542780	21025699	570159	1094043	1664202	40275	9378	49653	1187862	82414	2984131		24009830
1979	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	DSB	Danish cro	984559	733095	4362	1722016	153013	.	153013	250952	188429	439381	387759		980153	1039989	3742158
1979	FS	lira	1127514015	621314554	1005850114	2754678683	.	.	.	.	.	.	5344489		5344489	595415796	3355438968
1979	JZ	Dinar	6734397	22495713	4074978	33305088		62534	62534						62534		33367622
1979	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	NS	Guilder	772807	342751	983425	2098983											2098983
1979	NSB	Norwegian	583498	852045	790158	2225701	114862	64054	178916						178916		2404617
1979	OBB	Austrian Sc	5600362	9312106	2041818	16854286	635853	82608	718461	20696		20696	215376		954533		17908819
1979	PKP	zloty	15740295	58717185	8901919	83359399											83359399
1979	RENFE	Peseta	26478074	33870797	8941687	69290558	2892264		2892264						2892264		72182822
1979	SJ	Swedish cr	1490836	2638084	810982	4939902	366654	13876	380530	38855	104678	143533	153658		677721		5617623
1979	SNCB	Belgian fra	25904387	14468980	3807257	44180624							6585127		6585127	22976200	73741951
1979	SNCF	French fran	12248306	13623343	10648874	36520523	.	.	.	219658	129406	349064	837408		1186472	199062	37906057
1979	VR	Finnish ma	354665	988819	1423	1344907		53687	53687				97929	32471	184087	11800	1540794
1979	TCDD	Turkish pou	886978	5537443	6727440	13151861							3288566		3288566		16440427
1980	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	BR	pound sterl	961817	599501	652259	2213577				.	.	194490	273233		467723		2681300
1980	CFF	swiss franc	1033937	1303937	277873	2615657	398	0	398	2227		2227	57286		59911		2675568
1980	CFL	luxemburg	215636	1561785	4181000	5958421	28104	21315	49419				159586		209005		6167426
1980	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH	drachm	1402397	1989231	646760	4038388	520456		520456				268607		789063	1375632	6203083
1980	CIE	pound sterl	27820	12929		40749	67127	13592	80719	169	59	228	12318		93265	61113	195127
1980	CP	escudo	8629976	1426988	268402	10325366	9882		9882	131632		131632	179471		320985	1723402	12369753
1980	CSD	Czechoslov	1797576	16270769		18068345											18068345
1980	DB	Deutsche r	7259516	9135063	6072980	22467559	607932	1176934	1784866	46795	11439	58234	1332298	68795	3244193		25711752
1980	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	DSB	Danish cro	1167310	752121	5901	1925332	261558	.	261558	253677	205340	459017	383188	1362961	2466724	-81502	4310554
1980	FS	lira	1339440830	747521194	1648922258	3735884282	.	.	.	.	.	.	4502071		4502071	563857389	4304243742
1980	JZ	Dinar	8965890	27348034	5378765	41692689		66514	66514						66514		41759303
1980	MAV	Forint	2740984	18855398	5322591	26918973							8044001		8044001		34962974
1980	NS	florin	860744	343866	1024374	2228984											2228984
1980	NSB	Norwegian	664529	898520	893121	2456170	130187	72893	203170						203170		2659340
1980	OBB	Austrian Sc	5762659	9507637	2112489	17382785	701975	93390	795365	20630		20630	239917		1055912		18438697
1980	PKP	zloty	10434901	61198057	17428955	89061913											89061913
1980	RENFE	Peseta	.	.	.	.	.		.				.	.	.	.	.
1980	SJ	Swedish cr	1643382	2905108	823700	5372190	447885	13683	461568	46507	.	46507	155300		663375		6035565

A1.2.17. Operating Revenue

YEAR	Railway	Currency	RAILWAY OPERATING REVENUE				OTHER OPERATING REVENUE									Compensation offset against costs and differences in entries	Overall operating receipts (col.7+16+17) (col.22 tab.3.2)
							ROAD SERVICES			shipping services							
			Total revenue from passenger traffic and baggage	Total revenue from goods traffic and postal	Various revenue and contribution	TOTAL	Passenger	Goods	Total	Passenger	Goods	Total	Sundry operations	Tariff compensation	Total (col. 10+ 13 + 14 + 15)		
1980	SNCB	Belgian fra	28042116	15314414	3937146	47293676							9475297		9475297	23321000	80089973
1980	SNCF	French frar	14155442	15392722	10929528	40477692	.	.	.	254450	139614	394064	1093128		1487192	144559	42109443
1980	VR	Finnish ma	405784	1205548	1593	1612925		65274	65274				131256	41498	238028	13300	1864253
1980	TCDD	Turkish pou	2183120	19580274	11154411	32925805							7059224		7059224		39985029
1981	BDZ	Leva	.	.	.	.							.	.	.	.	.
1981	BR	pound sterl	1031474	630340	831118	2492932				.	.	.	199468		199468		2692400
1981	CFF	swiss franc	1057711	1281181	300186	2639078	396	0	396	2510		2510	54376		57282		2696360
1981	CFL	luxemburg	228268	1384837	4722500	6335605	31750	23154	54904				139218		194122		6529727
1981	CFR	Lei	.	.	.	.							.	.	.	.	.
1981	CH	drachm	1895400	2067625	321842	4284507	555903		555903				212463		768366	1741216	6794089
1981	CIE	pound sterl	29441	16004		45445	74913	14073	88986	227	60	287	11808		101081	75329	221855
1981	CP	escudo	12770794	1880653	347574	14999021	11730		11730	167063		167063	237198		415991	2442672	17857684
1981	CSD	Czechoslov	1818705	17697599		19516304											19516304
1981	DB	Deutsche r	7925465	9080809	6176556	23182830	672684	1187978	1860662	50042	11194	61236	1435633	94268	3451799		26634629
1981	DR	Deutsche N	.	.	.	.				.	.	.	.	.	.	.	.
1981	DSB	Danish cro	1382295	748434	10253	2140982	209810	.	209810	292819	232984	525803	457889		1193502	4205306	7539790
1981	FS	lira	2096324795	932257551	1935899478	4964481824	.	.	.	.	.	.	6215783		6215783	693306264	5664003871
1981	JZ	Dinar	11228238	38312163	7441074	56981475		84928	84928						84928		57066403
1981	MAV	Forint	2829558	21311546	7279736	31420840							8096160		8096160		39517000
1981	NS	Guilder	965130	348867	1105809	2419806											2419806
1981	NSB	Norwegian	785262	984639	1016985	2786886	160808	82662	243470						243470		3030356
1981	OBB	Austrian Sc	6765886	10043929	2737692	19547507	786553	96673	883226	21178		21178	215265		1119669		20667176
1981	PKP	zloty	35169751	57788846	8611769	101570366											101570366
1981	RENFE	Peseta	33138737	40604674	5811734	79555145	3780911		3780911						3780911		83336056
1981	SJ	Swedish cr	1845051	2948686	887554	5681291	574467	11905	586372	56158	.	56158	121944		764474		6445765
1981	SNCB	Belgian fra	29168951	14662012	3744451	47575414							13433512		13433512	26393700	87402626
1981	SNCF	French frar	16529586	16334325	12743094	45607005	.	.	.	304549	154710	459259	1157410		1616669	153397	47377071
1981	VR	Finnish ma	481516	1384226	1809	1867551		57189	57189				131216	44385	232790	15000	2115341
1981	TCDD	Turkish pou	2906540	28596275	12312604	43815419							13774418		13774418		57589837
1982	BDZ	Leva	.	.	.	.							.	.	.	.	.
1982	BR	pound sterl	932880	577879	908900	2419659				.	.	.	183341		183341		2603000
1982	CFF	swiss franc	1468349	1262719	321790	3052858	316	0	316	2503		2503	66923		96742		3122600
1982	CFL	luxemburg	278574	1394648	5158508	6831730	38586	28659	67245				72778		140023		6971753
1982	CFR	Lei	.	.	.	.							.	.	.	.	.
1982	CH	drachm	2040352	2160379	316856	4517587	571961		571961				223842		795803	2285538	7598928
1982	CIE	pound sterl	31965	17977		49942	93851	14811	108662	79	76	155	12482		121299	83637	254878
1982	CP	escudo	12502998	2083071		14586069	14360		14360	178185		178185	455175		647720	1219	15235008
1982	CSD	Czechoslov	1946881	19717580		21664461											21664461
1982	DB	Deutsche r	8043890	8819153	6331031	23194074	753486	1180790	1934276	52948	11835	64783	1433725	108664	3541448		26735522
1982	DR	Deutsche N	.	.	.	.				.	.	.	.	.	.	.	.
1982	DSB	Danish cro	1579163	871639	9499	2460301	281987		281987	331280	255064	586344	536736		1405067	2454073	6319441
1982	FS	lira	2504961559	928705340	3846294608	7279961507	.	.	.	.	.	.	6269150		6269150	895788653	8182019310
1982	JZ	Dinar	14502842	49380344	8834994	72718180		1638	1638						1638		72719818
1982	MAV	Forint	3524063	22417835	6545925	32487823							9415348		9415348		41903171
1982	NS	florin	1046003	321834	1263147	2630984											2630984
1982	NSB	Norwegian	846603	1076217	1195005	3117825	185906	88455	274361						274361		3392186
1982	OBB	Austrian Sc	6701347	9805774	3006233	19513354	881709	99785	981494	24424		24424	155367		1161285		20674639
1982	PKP	zloty	69081846	131551203	250000	200883049											200883049

A1.2.17. Operating Revenue

YEAR	Railway	Currency	RAILWAY OPERATING REVENUE: Total revenue from passenger traffic and baggage	Total revenue from goods traffic and postal	Various revenue and contribution	TOTAL	OTHER OPERATING REVENUE: ROAD SERVICES: Passenger	Goods	Total	shipping services: Passenger	Goods	Total	Sundry operations	Tariff compensation	Total (col. 10+ 13 + 14 + 15)	Compensation offset against costs and differences in entries	Overall operating receipts (col.7+16+17) (col.22 tab.3.2)
1982	RENFE	Peseta	38372236	43351529	6620448	88344213	3535300		3535300						3535300		91879513
1982	SJ	Swedish cr	2221866	3128393	951639	6301898	687728	2695	690423	60871	.	60871	140258		891552		7193450
1982	SNCB	Belgian fra	30432852	14925326	4180024	49538202							14794934		14794934	27664500	91997636
1982	SNCF	French frar	19216260	17415870	13833302	50465432	.	.	.	278928	156571	435489	1283168		1718657	221132	52405221
1982	VR	Finnish ma	561460	1437958	.	1999418		83128	83128				164627		247755	14000	2261173
1982	TCDD	Turkish pou	4586714	36456307	13819366	54862387							26491370		26491370		81353757
1983	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	BR	pound ster	1149197	641483	957800	2748480				.	.	.	230820		230820		2979300
1983	CFF	swiss franc	1578381	1282729	629620	3490730	261	0	261	2605		2605	117974		120840		3611570
1983	CFL	luxemburg	273432	1302716	5634833	7210981	37899	25296	63195				90312		153507		7364488
1983	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	CH	drachm	2593530	2583728	265618	5442876	655673		655673				307383		963056	2534468	8940400
1983	CIE	pound ster	33929	17244		51173	121477	17224	138701	158	99	257	6927		145885	75035	272093
1983	CP	escudo	12768790	2698087	12989152	28456029	16589		16589	191341		191341	393527		601457	-552957	28504529
1983	CSD	Czechoslov	1979829	20051637		22031466											22031466
1983	DB	Deutsche r	8069477	8645346	6286496	23001319	964870	1211099	2175969	56188	11919	68107	1354918	116264	3715258		26716577
1983	DR	Deutsche M	.	.	.	.	.	.		.	.	.	.	.	.	.	.
1983	DSB	Danish cro	1724314	909360	7995	2641669	290469		290469	415861	301751	717612	589159		1597240	2546307	6785216
1983	FS	lira	2871195532	1,1E+09	3283671048	7254581610	.	.	.	.	.	.	8778030		8778030	1342165045	8605524685
1983	JZ	Dinar	20626336	67098497	11994752	99719585		4275	4275						4275		99723860
1983	MAV	Forint	4413667	23148289	5656801	33218757	.	.	.				10336504		10336504		43555261
1983	NS	florin	1029957	324856	1371069	2725882											3725882
1983	NSB	Norwegian	886826	1066437	1277050	3230313	199132	92494	292626						291626		3521939
1983	OBB	Austrian Sc	6702218	10232375	2963859	19898452	891711	112945	1004656	26202		26202	257185		1288043		21186495
1983	PKP	zloty	69197842	199201276		268399118											268399118
1983	RENFE	Peseta	.	.	.	.	.	.	.				.	.	.	.	.
1983	SJ	Swedish cr	2316313	3366624	1330449	7013386	803441	2859	806300	60587	.	60587	544530		1411417		8424803
1983	SNCB	Belgian fra	29752608	15010445	3847589	48610642							17315267		17315267	33825233	99751142
1983	SNCF	French frar	20943461	18646409	15268366	54858236	.	.	.	356001	176322	532323	1319327		1851650	259045	56968931
1983	VR	Finnish ma	623063	1593278	.	2216341		85619	85619				179864		265483	15500	2497324
1983	TCDD	Turkish pou	6105079	47680073	17564920	71350072							33774452		33774452		105124524
1984	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	BR	pound ster	1506300	520800	1202600	3229700				.	.	.	354600		354600		3584300
1984	CFF	swiss franc	1675773	1288511	658418	3622702	255	0	255	2588		2588	108638		111481		3734183
1984	CFL	luxemburg	293925	1559607	5717500	7571032	44558	22524	67082				114043		181125		7752157
1984	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	CH	drachm	2890742	2944125	341392	6176259	788338		788338				258814		1047152	3206693	10430104
1984	CIE	pound ster	37461	17947		55408	133430	18019	151449	136	108	244	8098		159791	98491	313690
1984	CP	escudo	14080755	3273142	6442994	23796891	17838		17838	225279		225279	464254		707371	11	24504273
1984	CSD	Czechoslov	2015776	22719204		24734980											24734980
1984	DB	Deutsche r	8066907	8899653	6280610	23247170	1064025	1222920	2286945	60121	12902	73023	1485824	186092	4031884		27279054
1984	DR	Deutsche M	.	.	.	.				.	.	.	.	.	.	.	.
1984	DSB	Danish cro	1811563	961455	10810	2783828	.	.	296458	459722	307562	767284	605940		1669682	45972	4499482
1984	FS	lira	3498470428	1,04E+09	3931345064	8469509261	.	.	.	.	.	.	11711223		11711223	1954734870	10435955354
1984	JZ	Dinar	27598531	116527586	19946065	164072182		6793	6793						6793		164078975
1984	MAV	Forint	4291850	23340077	1124549	28756476							13125043		13125043		41881519
1984	NS	florin	1068480	334852	1363737	2767069											2767069
1984	NSB	Norwegian	938527	1067883	1368014	3374424	212224	93271	305495						305495		3679919

A1.2.17. Operating Revenue

YEAR	Railway	Currency	RAILWAY OPERATING REVENUE: Total revenue from passenger traffic and baggage	RAILWAY OPERATING REVENUE: Total revenue from goods traffic and postal	RAILWAY OPERATING REVENUE: Various revenue and contribution	RAILWAY OPERATING REVENUE: TOTAL	OTHER OPERATING REVENUE: ROAD SERVICES: Passenger	ROAD SERVICES: Goods	ROAD SERVICES: Total	shipping services: Passenger	shipping services: Goods	shipping services: Total	Sundry operations	Tariff compensation	Total (col. 10+ 13 + 14 + 15)	Compensation offset against costs and differences in entries	Overall operating receipts (col.7+16+17) (col.22 tab.3.2)
1984	OBB	Austrian Sc	7206149	11191486	2879756	21277391	925001	127695	1052696	23231		23231	263145		1339072		22616463
1984	PKP	zloty	91114839	232690757		323805596											323805596
1984	RENFE	Peseta	.	.	.	.	.	.	.				.	.	.	.	.
1984	SJ	Swedish cr	2564819	3268986	1523807	7357612	924826	1455	926281	103712	.	103712	731882		1761875		9119487
1984	SNCB	Belgian fra	33014552	17094620	4252017	54361189							13361778		13361778	33123900	100846867
1984	SNCF	French frar	22719921	19473405	16193112	58386438	.	.	.	348755	161637	510392	2000245		2510637	233490	61130565
1984	VR	Finnish ma	694642	1705228	.	2399870		100978	100978				207915		308893	16000	2724763
1984	TCDD	Turkish pou	8860437	77133219	21610608	107604264							56712267		56712267		164316531

A1.2.18 Railway Operating Revenue - Passenger and Baggage Traffic Revenue

YEAR	Railway	Currency	PASSENGER TRAFFIC: REVENUE (IN THOUSANDS) 1 Class	2 Class	Total	AVERAGE REVENUE PER PASSENGER 1 Class	2 Class	General average	AVERAGE REVENUE PER PASSENGER-KILOMETRE 1 Class	2 Class	General average	BAGGAGE TRAFFIC: REVENUE (IN THOUSANDS) Total	Amount for accompanied road motor vehicles	ACCESSORY REVENUE: FROM PASSENGER TRAFFIC	FROM BAGGAGE TRAFFIC	REVENUE FROM PASSENGER TRAFFIC AND FROM BAGGAGE TRAFFIC
1977	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	BR	pound sterling	63552	529533	593085	533,47	76,73	84,48	.	.	1,808	.	.	5217	.	598302
1977	CFF	swiss franc	162433	711246	873679	10,16	3,75	4,25	0,141	0,104	0,109	21223	13961		5957	900859
1977	CFL	luxemburg fran	22482	145183	167665	77,11	13,17	14,82	.	.	0,698	4017	2309	366		172048
1977	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	drachm	.	.	1002250	.	.	74,99	.	.	0,618	4389	.			1006639
1977	CIE	pound sterling	51	12473	12524	2,41	0,85	0,85	0,042	0,14	0,014	.	.	2577	.	15101
1977	CP	escudo	.	.	4659392	.	.	33,78	.	.	1,123	10182	.			4669574
1977	CSD	Czechoslovak	.	.	1744287	.	.	3,83	.	.	0,091	51371	.	.	.	1795658
1977	DB	Deutsche mark	1007104	4996861	6003965	57,17	6,34	6,18	0,329	0,155	0,161	62515	34276	33940	11122	6111542
1977	DR	Deutsche Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	DSB	Danish crown	.	.	661375	.	.	7,69	.	.	0,221	1971				663346
1977	FS	lira	.	.	757901796	.	.	1925,63	.	.	19,757	7131805	2351495	11093438	2251353	778378392
1977	JZ	Dinar	.	.	3898720	.	.	31,56	.	.	0,373	16404		177288		4092412
1977	MAV	Forint	180053	2376661	2556714	15,87	8,89	9,18	0,239	0,213	0,215	4127	.	171409		2732250
1977	NS	florin	78555	595274	673829	8,89	3,68	3,95	0,116	0,081	0,084	1546	.	1671		677046
1977	NSB	Norwegian cro	27654	477422	505076	137,58	14,28	15,02	0,394	0,247	0,252	5301			433	510810
1977	OBB	Austrian Schilli	.	.	4023376	.	.	23,49	.	.	0,594	61631	51060	90303	13938	4189248
1977	PKP	zloty	.	.	14982197	.	.	13,01	.	.	0,339	29376		195125		15206698
1977	RENFE	Peseta	.	.	21365906	.	.	100,69	.	.	1,245	55685	.			21421591
1977	SJ	Swedish crown	215228	982842	1198070	126,65	15,57	18,48	0,327	0,208	0,223	5021		66398	3294	1272783
1977	SNCB	Belgian franc	2356854	18565177	20922031	228,95	109,75	116,58	3,784	2,761	2,848	43452	27091	146194	23012	21134689
1977	SNCF	French franc	.	.	9200318	.	.	13,93	.	.	0,178	86763	51269	213366	33174	9533621
1977	VR	Finnish mark	11061	263404	274465	37,24	7,22	7,47	0,123	0,091	0,092	1838	1359	27770	1728	305801
1977	TCDD	Turkish pound	144769	200734	345503	43,73	1,84	3,07	0,17	0,047	0,068	14388		46268	360	406519
1978	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	BR	pound sterling	72895	628527	701422	5,89	0,88	0,97	.	.	0,023		.	6437	.	707859
1978	CFF	swiss franc	164284	744034	908318	10,45	3,96	4,46	0,141	0,108	0,112	23281	15899		6022	937621
1978	CFL	luxemburg fran	24186	152492	176678	78,91	14,21	16,01	.	.	0,74	7496	5741	379		184553
1978	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH	drachm	.	.	1063185	.	.	99,72	.	.	0,678	5053				1068238
1978	CIE	pound sterling	56	15023	15079	2,52	0,95	0,95	0,041	0,016	0,016	.	.	3260	.	18339
1978	CP	escudo	.	.	7141215	.	.	34,91	.	.	1,295	15665	.			7156880
1978	CSD	Czechoslovak	.	.	1766277	.	.	4,17	.	.	0,095	51962	.	.	.	1818239
1978	DB	Deutsche mark	1056136	5333919	6390055	59,03	6,49	6,45	0,342	0,159	0,17	61893	33850	29719	11207	6492874
1978	DR	Deutsche Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	DSB	Danish crown	.	.	710417	.	.	7,96	.	.	0,227	2138				712555
1978	FS	lira	.	.	900259848	.	.	2307,43	.	.	22,959	6393120	2907442	13896387	2544921	923094276
1978	JZ	Dinar	.	.	5746057	.	.	50,95	.	.	0,55	14031	.	79192		5839280
1978	MAV	Forint	200557	2315756	2516313	17,27	9,21	9,56	0,248	0,216	0,219	3178	.	171081		269057?
1978	NS	florin	83808	623447	707255	8,71	3,74	4,01	0,119	0,084	0,087	1999	.	601		709855
1978	NSB	Norwegian cro	27987	514991	542978	137,19	15,18	15,91	0,409	0,259	0,264	4660			414	548052
1978	OBB	Austrian Schilli	.	.	4922545	.	.	29,12	.	.	0,692	63969	44779	125208	16370	5128092
1978	PKP	zloty	.	.	15085926	.	.	13,33	.	.	0,323	29812		200577		15316315
1978	RENFE	Peseta	.	.	25964086	.	.	125,37	.	.	1,546	47566	.			26011652
1978	SJ	Swedish crown	232457	1104924	1337381	139,98	17,31	20,42	0,368	0,233	0,249	5032		73515	3394	1419322
1978	SNCB	Belgian franc	2911074	20290844	23201918	273,23	126,74	135,88	4,427	3,132	3,251	40422	36644	163812	22018	23428170
1978	SNCF	French franc	.	.	10587687	.	.	15,77	.	.	0,199	109020	69627	251281	33092	10981080
1978	VR	Finnish mark	10950	277958	288908	35,67	7,52	7,75	0,121	0,096	0,097	3113	1541	26334	1795	320150
1978	TCDD	Turkish pound	206630	364051	570681	33,4	3,33	4,93	0,153	0,086	0,102	28318		121407	367	720773
1979	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	BR	pound sterling	82841	716540	799381	6,51	0,99	1,09	.	.	0,025			6788		806169
1979	CFF	swiss franc	163179	748536	911715	10,28	3,95	4,43	0,138	0,105	0,11	24798	17581		6074	942587

A1.2.18 Railway Operating Revenue - Passenger and Baggage Traffic Revenue

YEAR	Railway	Currency	PASSENGER TRAFFIC REVENUE (IN THOUSANDS) 1 Class	2 Class	Total	AVERAGE REVENUE PER PASSENGER 1 Class	2 Class	General average	AVERAGE REVENUE PER PASSENGER-KILOMETRE 1 Class	2 Class	General average	BAGGAGE TRAFFIC REVENUE (IN THOUSANDS) Total	Amount for accompanied road motor vehicles	ACCESSORY REVENUE FROM PASSENGER TRAFFIC	FROM BAGGAGE TRAFFIC	REVENUE FROM PASSENGER TRAFFIC AND FROM BAGGAGE TRAFFIC
1979	CFL	luxemburg fran	26796	167180	193976	86,88	15,51	17,49	.	.	0,802	9658	7907	393		204027
1979	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH	drachm	.	.	1184481	.	.	113,62	.	.	0,774	5533	.			1190014
1979	CIE	pound sterling	58	19303	19361	2,58	1,08	1,08	.	.	0,017		.	3979		23340
1979	CP	escudo	.	.	7665957	.	.	36,39	.	.	1,36	16816	.			7682773
1979	CSD	Czechoslovak	.	.	1725507	.	.	4,19	.	.	0,095	50768				1776275
1979	DB	Deutsche mark	1083621	5708506	6792127	57,85	6,92	6,61	0,348	0,158	0,172	47690	17544	13607	11778	6865202
1979	DR	Deutsche Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	DSB	Danish crown	.	.	538419	.	.	16,83	.	.	0,271	1846		444294		984559
1979	FS	lira	.	.	1,099E+09	.	.	2848,17	.	.	27,687	8748862	3342000	18162072	1788370	1127514015
1979	JZ	Dinar	.	.	6614282	.	.	61,22	.	.	0,653			120115		6734397
1979	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	NS	Guilder	95748	671348	767096	8,32	3,84	4,11	0,12	0,087	0,09	2471		3240		772807
1979	NSB	Norwegian cro	27408	550816	578224	138,42	15,64	16,32	0,411	0,251	0,255	4590			684	583498
1979	OBB	Austrian Schilli	.	.	5388125	.	.	31,86	.	.	0,744	64557	40311	130993	16687	5600362
1979	PKP	zloty	.	.	15511452	.	.	14,11	.	.	0,341	31276		197567		15740295
1979	RENFE	Peseta	.	.	26449752	.	.	128,9	.	.	1,592	28322	.			26478074
1979	SJ	Swedish crowr	238671	1156287	1394958	131,83	17,18	20,19	0,355	0,218	0,233	5271		87068	3539	1490836
1979	SNCB	Belgian franc	3087393	22540533	25627926	325,9	146,78	157,19	4,808	3,571	3,685	49156	38587	204693	22612	25904387
1979	SNCF	French franc	.	.	11812448	.	.	17,46	.	.	0,221	126925	88432	272688	36245	12248306
1979	VR	Finnish mark	14032	306327	320359	42,39	8,22	8,52	0,147	0,105	0,106	3504	1900	28955	1847	354665
1979	TCDD	Turkish pound	241279	385574	626853	31,71	3,24	4,95	0,124	0,079	0,092	38266		221178	681	886978
1980	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	BR	pound sterling	97597	856018	953615	7,56	1,15	1,25	.	.	0,03			8202		961817
1980	CFF	swiss franc	180399	822761	1003160	10,5	4,13	4,64	0,136	0,105	0,109	24450	16078		6327	1033937
1980	CFL	luxemburg fran	27907	176598	204505	87,57	16,13	18,15	.	.	0,833	10732	9118	399		215636
1980	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH	drachm	.	.	1394561	.	.	137,59	.	.	0,953	7836	.			1402397
1980	CIE	pound sterling	.	.	22932	.	.	1,38	.	.	0,022		.	4888		27820
1980	CP	escudo	.	.	8619266	.	.		.	.	.	.	.	.	.	8629976
1980	CSD	Czechoslovak	.	.	1746571	.	.	4,2	.	.	0,097	51005	.			1797576
1980	DB	Deutsche mark	1051561	6128320	7179881	61,32	7,84	6,48	0,335	0,173	0,177	53265	20875	14046	12324	7259516
1980	DR	Deutsche Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	DSB	Danish crown	.	.	1165292	.	.	9,01	.	.	0,348	2018				1167310
1980	FS	lira	.	.	1,305E+09	.	.	3420,49	.	.	32,956	9711441	3663000	23291155	1821345	1339440830
1980	JZ	Dinar	.	.	8824183	.	.	82,45	.	.	0,849	.		141707		8965890
1980	MAV	Forint	232060	2348139	2580199	18,93	10,06	10,5	0,26	0,225	0,228	2928	.	157857		2740984
1980	NS	florin	104952	739994	844946	8,43	4,01	4,28	0,121	0,092	0,095	3164		12634		860744
1980	NSB	Norwegian cro	35684	622596	658280	136,72	16,52	17,35	0,406	0,27	0,275	5501			748	664529
1980	OBB	Austrian Schilli	.	.	5551282	.	.	32,65	.	.	0,752	63109	46916	134734	13534	5762659
1980	PKP	zloty	.	.	10202339	.	.	9,27	.	.	0,22	32739		199823		10434901
1980	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	SJ	Swedish crowr	242662	1295771	1538433	121,63	17,26	19,96	0,328	0,214	0,227	5653		94675	4621	1643382
1980	SNCB	Belgian franc	3318417	24378655	27697072	313,57	159,2	169,18	4,958	3,874	3,978	63940	52162	253572	27532	28042116
1980	SNCF	French franc	.	.	13674176	.	.	20,04	.	.	0,252	146674	105683	293806	40786	14155442
1980	VR	Finnish mark	.	.	364815	.	.	9,28	.	.	0,113	4489	2502	34486	1994	405784
1980	TCDD	Turkish pound	701608	984145	1685753	73,82	9,42	14,8	0,38	0,236	0,28	65594		430382	1291	2183120
1981	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	BR	pound sterling	102479	919858	1022337	8,85	1,30	1,42	.	.	0,033			9137		1031474
1981	CFF	swiss franc	187065	851457	1038522	10,72	4,24	4,76	0,141	0,110	0,114	12809	3774		6380	1057711
1981	CFL	luxemburg fran	30756	185447	216203	96,95	16,39	18,59	.	.	0,857	12065	10353			228268
1981	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	CH	drachm	.	.	1884549	.	.	181,44	.	.	1,244	10851	.			1895400

A1.2.18 Railway Operating Revenue - Passenger and Baggage Traffic Revenue

YEAR	Railway	Currency	PASSENGER TRAFFIC: REVENUE (IN THOUSANDS) 1 Class	2 Class	Total	AVERAGE REVENUE PER PASSENGER 1 Class	2 Class	General average	AVERAGE REVENUE PER PASSENGER-KILOMETRE 1 Class	2 Class	General average	BAGGAGE TRAFFIC REVENUE (IN THOUSANDS) Total	Amount for accompanied road motor vehicles	ACCESSORY REVENUE FROM PASSENGER TRAFFIC	FROM BAGGAGE TRAFFIC	REVENUE FROM PASSENGER TRAFFIC AND FROM BAGGAGE TRAFFIC
1981	CIE	pound sterling	.	.	24223	.	.	1,58	.	.	0,024			5218		29441
1981	CP	escudo	.	.	.	.	.	.	.	.	.	.	.	.	.	12770794
1981	CSD	Czechoslovak	.	.	1768685	.	.	4,37	.	.	0,099	50020	.			1818705
1981	DB	Deutsche mark	1087327	6749289	7836616	67,42	10,30	7,06	0,347	0,178	0,188	62262	19125	13989	12598	7925465
1981	DR	Deutsche Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	DSB	Danish crown	.	.	1380277	.	.	10,29	.	.	0,345	2018				1382295
1981	FS	lira	.	.	2,057E+09	.	.	5197,29	.	.	51,306	13613813	3869000	25157125	684915	2096324795
1981	JZ	Dinar	.	.	11228238	.	.	107,03	.	.	1,068	.	.	.	.	11228238
1981	MAV	Forint	249634	2425793	2675427	16,74	10,68	11,06	0,188	0,201	0,200	2912	.	151219		2829558
1981	NS	Guilder	112576	814641	927217	8,53	4,24	4,52	0,124	0,098	0,100	3658	.	34255		965130
1981	NSB	Norwegian cro	40897	737068	777965	176,28	19,05	19,99	0,511	0,314	0,321	6480			817	785262
1981	OBB	Austrian Schilli	.	.	6543281	.	.	38,46	.	.	0,929	61324	47658	147536	13745	6765886
1981	PKP	zloty	.	.	34912367	.	.	31,35	.	.	0,724	35865		221519		35169751
1981	RENFE	Peseta	.	.	33138737	.	.	187,97	.	.	2,324					33138737
1981	SJ	Swedish crown	295571	1442494	1738065	147,56	18,85	22,14	0,437	0,234	0,253	5893		95942	5151	1845051
1981	SNCB	Belgian franc	3392251	25326106	28718357	324,26	161,97	172,14	5,036	3,954	4,057	57931	44894	362629	30034	29168951
1981	SNCF	French franc	.	.	15968141	.	.	23,24	.	.	0,288	153726	112737	365052	42667	16529586
1981	VR	Finnish mark	.	.	436538	.	.	10,64	.	.	0,133	5388	3127	37440	2150	481516
1981	TCDD	Turkish pound	1198684	1349444	2548128	91,82	12,19	20,60	0,560	0,340	0,417	72118		284594	1700	2906540
1982	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	BR	pound sterling	86870	836910	923780	8,68	1,35	1,47	.	.	0,034			9100		932880
1982	CFF	swiss franc	194517	1253664	1448181	11,29	6,28	6,67	0,152	0,163	0,162	13744	3402		6424	1468349
1982	CFL	luxemburg fran	27283	240650	267933	93,30	20,88	22,67	.	.	1,067	10641	8734			278574
1982	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	CH	drachm	.	.	2028855	.	.	199,93	.	.	1,351	11497	.			2040352
1982	CIE	pound sterling	.	.	26880	.	.	2,10	.	.	0,030			5085		31965
1982	CP	escudo	.	.	.	.	.	.	.	.	.	.	.	.	.	12502998
1982	CSD	Czechoslovak	.	.	1878970	.	.	4,55	.	.	0,099	47526	.	20385		1946881
1982	DB	Deutsche mark	1097691	6857871	7955562	75,59	11,10	7,44	0,365	0,193	0,199	62337	20184	13567	12424	8043890
1982	DR	Deutsche Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	DSB	Danish crown	.	.	1575631	.	.	11,66	.	.	0,374	3532				1579163
1982	FS	lira	.	.	2,453E+09	.	.	6283,65	.	.	61,304	13290799	3747665	31933645,000	6409757	2504961559
1982	JZ	Dinar	.	.	14349040	.	.	129,53	.	.	1,274	.	.	153802		14502842
1982	MAV	Forint	275218	3115088	3390306	15,64	12,73	12,92	0,218	0,267	0,263	2859	.	130898		3524063
1982	NS	florin	115918	879428	995346	8,67	4,50	4,76	0,129	0,104	0,106	3649		47008		1046003
1982	NSB	Norwegian cro	39733	799534	839267	220,74	21,46	22,41	0,625	0,367	0,374	6475			861	846603
1982	OBB	Austrian Schilli	.	.	6443658	.	.	37,86	.	.	0,893	60212	51224	183957	13520	6701347
1982	PKP	zloty	.	.	68791764	.	.	62,07	.	.	1,396	42626		247458		69081846
1982	RENFE	Peseta	.	.	38372236	.	.	211,18	.	.	2,610					38372236
1982	SJ	Swedish crown	310938	1727425	2038363	136,20	23,61	27,02	0,435	0,305	0,319	7070		170322	6111	2221866
1982	SNCB	Belgian franc	3474610	26467120	29941730	348,42	173,44	184,17	5,420	4,243	4,353	49406	34772	408078	33638	30432852
1982	SNCF	French franc	.	.	18518646	.	.	26,30	.	.	0,327	181251	135725	472237	44126	19216260
1982	VR	Finnish mark	.	.	545510	.	.	13,17	.	.	0,164	6570	4025	6470	2910	561460
1982	TCDD	Turkish pound	1785060	2324294	4109354	157,76	21,33	34,16	0,947	0,654	0,755	99947		374615	2798	4586714
1983	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	BR	pound sterling	114629	1022568	1137197	10,14	1,50	1,64	.	.	0,038			12000		1149197
1983	CFF	swiss franc	208152	1349137	1557289	12,26	6,74	7,17	0,165	0,175	0,173	14750	3268		6342	1578381
1983	CFL	luxemburg fran	31942	227202	259144	107,89	20,70	22,98	.	.	1,083	14288	11600			273432
1983	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	CH	drachm	.	.	2578657	.	.	228,51	.	.	1,583	14873	.			2593530
1983	CIE	pound sterling	.	.	28873	.	.	2,22	.	.	0,034			5056		33929
1983	CP	escudo	.	.	.	.	.	.	.	.	.	.	.	.	.	12768790
1983	CSD	Czechoslovak	.	.	1927427	.	.	4,69	.	.	0,102	52402	.			1979829

A1.2.18 Railway Operating Revenue - Passenger and Baggage Traffic Revenue

			PASSENGER TRAFFIC									BAGGAGE TRAFFIC		ACCESSORY REVENUE		REVENUE FROM PASSENGER TRAFFIC AND FROM BAGGAGE TRAFFIC
			REVENUE (IN THOUSANDS)			AVERAGE REVENUE PER PASSENGER			AVERAGE REVENUE PER PASSENGER-KILOMETRE			REVENUE (IN THOUSANDS)				
YEAR	Railway	Currency	1 Class	2 Class	Total	1 Class	2 Class	General average	1 Class	2 Class	General average	Total	Amount for accompanied road motor vehicles	FROM PASSENGER TRAFFIC	FROM BAGGAGE TRAFFIC	
1983	DB	Deutsche mark	1030974	6955348	7986322	77,30	11,36	7,49	0,358	0,201	0,206	59078	19303	12176	11901	8069477
1983	DR	Deutsche Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	DSB	Danish crown	.	.	1720091	.	.	12,94	.	.	0,392	4223				1724314
1983	FS	lira	.	.	2,815E+09	.	.	7700,94	.	.	75,776	14741095	4438000	36043929	5332691	2871195532
1983	JZ	Dinar	.	.	20421148	.	.	174,74	.	.	1,754	.	.	205188		20626336
1983	MAV	Forint	269806	3983471	4253277	19,78	18,05	18,15	0,303	0,395	0,387	4246	.	156144		4413667
1983	NS	florin	109045	912542	1021587	8,89	4,81	5,06	0,134	0,111	0,113	3796		4574		1029957
1983	NSB	Norwegian cro	44911	835280	880191	309,73	23,39	24,55	0,668	0,396	0,405	6167			468	886826
1983	OBB	Austrian Schilli	.	.	6443205	.	.	38,06	.	.	0,917	60681	41404	185108	13224	6702218
1983	PKP	zloty	.	.	68668984	.	.	65,91	.	.	1,369	85766		443092		69197842
1983	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	SJ	Swedish crown	342766	1901752	2244518	151,32	25,37	29,07	0,492	0,330	0,347	7221		58265	6309	2316313
1983	SNCB	Belgian franc	3398837	25878748	29277585	360,05	177,15	188,25	5,600	4,296	4,415	52116	37306	393447	29460	29752608
1983	SNCF	French franc	.	.	20130745	.	.	27,75	.	.	0,346	201007	153345	566536	45173	20943461
1983	VR	Finnish mark	.	.	605028	.	.	14,56	.	.	0,181	7662	4867	7403	2970	623063
1983	TCDD	Turkish pound	2469996	2994313	5464309	211,43	26,37	43,63	1,236	0,804	0,955	125675		507235	7860	6105079
1984	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	BR	pound sterling	162300	1328300	1490600	11,85	1,57	1,74	.	.	0,041			15700		1506300
1984	CFF	swiss franc	216233	1438161	1654394	12,91	7,14	7,59	0,170	0,185	0,183	14859	2954		6520	1675773
1984	CFL	luxemburg fran	33062	247217	280279	120,77	23,35	25,80	.	.	1214,000	13646	11121			293925
1984	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	CH	drachm	.	.	2873220	.	.	261,46	.	.	1740,000	17522	.			2890742
1984	CIE	pound sterling	.	.	32357	.	.	2,08	.	.	0,036			5104		37461
1984	CP	escudo	.	.	.	.	.	.	.	.	.	.	.	.	.	14080755
1984	CSD	Czechoslovak	.	.	1945426	.	.	4,61	.	.	0,101	55028	.	15322		2015776
1984	DB	Deutsche mark	1020877	6968307	7989184	79,22	12,89	7,62	0,369	0,205	0,204	53962	17080	11833	11928	8066907
1984	DR	Deutsche Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	DSB	Danish crown	.	.	1807701	.	.	13,49	.	.	0,409	3862				1811563
1984	FS	lira	.	.	3,432E+09	.	.	8320,82	.	.	92449,000	15974371	4666077	45847486,000	4310919	3498470428
1984	JZ	Dinar	.	.	27334164	.	.	232,07	.	.	2329,000	.	.	264367		27598531
1984	MAV	Forint	294695	3997155	4291850	32,86	20,17	20,72	0,467	0,450	0,452	2437	.	178884		4312171
1984	NS	florin	111477	949384	1060861	9,63	4,91	5,18	0,143	0,116	0,118	3131	687	4488		1068480
1984	NSB	Norwegian cro	43096	888357	931453	316,88	25,50	26,63	0,690	0,416	0,424	6605			469	938527
1984	OBB	Austrian Schilli	.	.	6940560	.	.	43,37	.	.	0,991	63439	42148	189401	12749	7206149
1984	PKP	zloty	.	.	90497162	.	.	87,35	.	.	1702,000	95164		522513		91114839
1984	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	SJ	Swedish crown	370199	2108143	2478342	178,25	27,88	31,90	0,572	0,361	0,382	8300	800	70605	7572	2564819
1984	SNCB	Belgian franc	3762284	28793573	32555857	422,59	204,21	217,18	6.487	4.910	5.052	47906	34160	373966	36823	33014552
1984	SNCF	French franc	.	.	21770067	.	.	29,21	.	.	0,363	208562	160456	692452	48840	22719921
1984	VR	Finnish mark	.	.	672735	.	.	16,41	.	.	0,205	8922	5720	9872	3113	694642
1984	TCDD	Turkish pound	3744475	4145668	7890143	274,88	35,19	60,03	1.583	1.060	1.257	184957		769878	15459	8860437

A 1.2.19. Railway Operating Revenue - Goods Traffic and Postal Traffic Revenue

			GOODS TRAFFIC														
			REVENUE (IN THOUSANDS)				AVERAGE REVENUE PER TONNE CARRIED				AVERAGE REVENUE PER TONNE-KILOMETRE				ACCESSORY REVENUE FROM GOODS TRAFFIC	REVENUE FROM POSTAL TRAFFIC	TOTAL REVENUE
YEAR	Railway	Currency	Express parcels	Part-load consignments	Full wagons loads	TOTAL	Express parcels	Part-load consignments	Full wagons loads	General Average	Express parcels	Part-load consignments	Full wagons loads	General Average	(IN THOUSANDS)		
1977	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	BR	pound sterl	73412	491	346082	419985	56,08	7,79	2,03	2,44	.	2,182	1,524	.	10479	35945	466409
1977	CFF	swiss franc	313347		724585	1037932	222,63		19,33	26,69	1,96		0,126	0,175		82550	1120482
1977	CFL	luxemburg	14649	17264	1202004	1233917	2688,38	828,69	83,71	85,78	75,902	22,567	2,131	2,184	19764	3261	1256942
1977	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH	drachm	.	.	.	1345550	.	.	.	385,74	.	.	.	1,573		12273	1357823
1977	CIE	pound sterl	.	.	.	10285	.	.	.	2,88	.	.	.	0,017	267		10552
1977	CP	escudo		.	.	.		.	.	.		.	.	.		.	860990
1977	CSD	Czechoslov	.	.	.	15433368	.	.	.	56,87	.	.	.	0,239	.	95610	15528978
1977	DB	Deutsche r	423691	701325	5754894	6879910	854,5	222,77	20,85	24,61	2,815	0,752	0,107	0,125	223879	369055	7472844
1977	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	DSB	Danish cro	191988		387846	579834	334,47		56,4	77,82	1,444		0,223	0,31	15206	59387	654427
1977	FS	lira	.	.	.	433535849	.	.	.	8636,65	.	.	.	25,353	321525	30129434	463986808
1977	JZ	Dinar	198679	532136	13036224	13767039	1394,78	792,13	170,15	177,8	3,227	1,926	0,596	0,619	557226	88011	14412276
1977	MAV	Forint	53451	138940	12495241	12687632	1137,62	553,1	97,18	98,45	7,742	2,001	0,539	0,546	1884283	162159	14734074
1977	NS	florin	4627	6263	229143	240033	794,33	220,02	12,97	13,56	.	.	0,082	.	16065	35283	291381
1977	NSB	Norwegian	.	.	577552	715594	.	.	24,7	30,51	.	.	0,226	0,279	16070		731664
1977	OBB	Austrian Sc	.	.	.	8012978	.	.	.	172,16	.	.	.	0,81	331101	228731	8572810
1977	PKP	zloty	298597	49047663		49346260	1446,9	.	104,8	105,39	6,307	0,368		0,37	4629826	313268	54289354
1977	RENFE	Peseta	3368964		19807861	23176825	6164,62		563,71	649,49	10,736		1,849	2,102	227397	2270355	25674577
1977	SJ	Swedish cr	56139	447438	1597387	2100964	2915,1	459,73	33,05	42,59	6,585	1,126	0,117	0,15	80141	80057	2261162
1977	SNCB	Belgian fra	227101	2274551	9066804	11568456	10513,94	5338,21	155,44	196,81	110,511	55,836	1,398	1,772	372188	416163	12356807
1977	SNCF	French frar	537137	1403077	7802280	9742494	2486,75	778,19	37,03	45,79	5,116	1,69	0,121	0,149	425766	310544	10478804
1977	VR	Finnish ma	23474	74333	684648	782455	544,64	181,97	31,96	35,77	1,467	0,538	0,11	0,122	41316	9300	833071
1977	TCDD	Turkish pou	41000		2650559	2691559	527,32		191,61	193,48	2,109		0,418	0,424	206114	.	2897673
1978	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	BR	pound sterl	82243		382666	464909	65,65		2024	2,7	.	.	0,019	.	11624	36794	513327
1978	CFF	swiss franc	353945		724440	1078385	255,11		18,81	27,03	2,245		0,12	0,173		68931	1147316
1978	CFL	luxemburg	15543	19236	1357934	1392713	2895,49	1012,31	86,84	88,93	80,534	30,293	2,101	2152	25544	3426	1421683
1978	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH	drachm	.	.	.	1476846	.	.	.	410,87	.	.	.	1,719		14053	1490899
1978	CIE	pound sterl	.	.	.	10903	.	.	.	2,83	.	.	.	0,017	330		11233
1978	CP	escudo		.	.	.		.	.	.		.	.	.		.	1089738
1978	CSD	Czechoslov	.	.	.	16143962	.	.	.	58,65	.	.	.	0,248	.	98179	16242141
1978	DB	Deutsche r	437672	736669	5962593	7136934	831,59	233,67	20,8	24,58	2,74	0,736	0,108	0,126	226312	366680	7729926
1978	DR	Deutsche Mark of the Deutschen I			.	.	.	.	.	.	.	.	.	.	.	.	.
1978	DSB	Danish cro	218783		354802	573585	386,54		55,3	82,15	1,643		0,218	0,325	10580	61320	645485
1978	FS	lira	.	.	.	489178451	.	.	.	9607,03	.	.	.	29,399	326286	34581200	524085937
1978	JZ	Dinar	235307	571465	16733088	17539860	3114,46	783,57	209,27	217,18	4,787	1,994	0,726	0,75	441824	96083	18077767
1978	MAV	Forint	52929	168790	14112536	14334255	1157,63	702,81	109,19	110,67	7,777	2,423	0,6	0,607	2137882	160076	16632213
1978	NS	florin	4501	2628	245618	252747	874,15	244,4	13,49	13,87	.	.	0,085	.	17167	33830	303744
1978	NSB	Norwegian	.	.	722090	799194	.	.	27,17	29,99	.	.	0,274	0,302	21093		820287
1978	OBB	Austrian Sc	.	.	.	8084839	.	.	.	180,18	.	.	.	0,851	366426	251245	8702510
1978	PKP	zloty	295957	50528299		50824256	1432,25	.	106,55	107,03	6,37	0,372		0,374	4508556	434872	55767684
1978	RENFE	Peseta	4318299		24153903	28472202	7737,5		713,32	827,21	13,537		2,401	2,744	212994	3060339	31745535
1978	SJ	Swedish cr	62510	436324	1619282	2118116	3302,17	519,38	34,47	44,28	7,551	1,276	0,119	0,152	76055	92565	2286736
1978	SNCB	Belgian fra	234473	2359588	9057485	11651546	10915,37	6207,81	143,34	183,23	118,781	64,865	1,272	1,628	375478	445947	12472971
1978	SNCF	French frar	584393	1471186	8909198	10964777	3158,88	819,15	42,27	51,54	6,493	1,756	0,136	0,164	436397	363708	11764882

A 1.2.19. Railway Operating Revenue - Goods Traffic and Postal Traffic Revenue

			GOODS TRAFFIC														
			REVENUE (IN THOUSANDS)				AVERAGE REVENUE PER TONNE CARRIED				AVERAGE REVENUE PER TONNE-KILOMETRE				ACCESSORY REVENUE FROM GOODS TRAFFIC	REVENUE FROM POSTAL TRAFFIC	TOTAL REVENUE
YEAR	Railway	Currency	Express parcels	Part-load consignments	Full wagons loads	TOTAL	Express parcels	Part-load consignments	Full wagons loads	General Average	Express parcels	Part-load consignments	Full wagons loads	General Average	(IN THOUSANDS)		
1978	VR	Finnish ma	24337	73010	713874	811221	755,81	187,49	32,48	36,22	2,028	0,562	0,115	0,128	33871	10100	855192
1978	TCDD	Turkish pou	43430		3311222	3354652	698,4		250,61	252,71	2,206		0,588	0,593	208532	.	3563184
1979	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	BR	pound sterl	89524		430199	519723	72,49		2,54	3,05	.		0,022	.	13698	40900	574321
1979	CFF	swiss franc	362181		780630	1142811	258,38		18,33	25,99	2,275		0,115	0,164		64782	1207593
1979	CFL	luxemburg	16776	19022	1529383	1565181	2821,39	1120,39	81,76	83,57	79,886	35,555	2,148	2,195	25869	3648	1594698
1979	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH	drachm	.	.	.	1683946	.	.	.	414,84	.	.	.	2		15112	1699058
1979	CIE	pound sterl	.	.	.	11066	.	.	.	2,91	.	.	.	0,018	260		11326
1979	CP	escudo		.	.	.		.	.	.		.	.	.		.	1412643
1979	CSD	Czechoslov	.	.	.	16256114	.	.	.	57,97	.	.	.	0,247		96291	16352405
1979	DB	Deutsche r	460939	798961	6734433	7994333	835,86	239,41	21,03	24,66	2,754	0,754	0,105	0,123	265178	358206	8617717
1979	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	DSB	Danish cro	260375		392728	653103	471,69		63,29	96,66	2,05		0,25	0,384	15658	64334	733095
1979	FS	lira	.	.	.	585231071	.	.	.	10757,39	.	.	.	32,986	461593	35621890	621314564
1979	JZ	Dinar	286834	667215	20763343	21717392	1296,88	1063,98	238,85	247,41	2,347	2,531	0,812	0,838	663561	114760	22495713
1979	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	NS	Guilder	4803		288840	293643	1036,69		13,28	13,5	.		0,086	.	18608	30500	342751
1979	NSB	Norwegian	.	.	753841	829215	.	.	22,86	25,1	.	.	0,251	0,274	22830		852045
1979	OBB	Austrian Sc	.	.	.	8648486	.	.	.	171,12	.	.	.	0,808	407830	255790	9312106
1979	PKP	zloty	285340	48275335		48560675	144939	.	103,75	104,32	6,702	0,362		0,364	9720416	436094	58717185
1979	RENFE	Peseta	5065061		24813580	29878641	8699,86		732,62	867,26	15,22		2,499	2,912	245686	3746470	33870797
1979	SJ	Swedish cr	69362	437345	1956903	2463610	3366,27	575,37	33,79	41,98	7,707	1,441	0,121	0,148	84947	89527	2638084
1979	SNCB	Belgian fra	231913	2473197	10782469	13487579	11649,24	6404,64	145,95	181,57	128,341	67,336	1,263	1,573	521593	459808	14468980
1979	SNCF	French fran	677482	1660924	10376775	12715181	3603,63	912,09	46,92	56,98	7,445	1,975	0,15	0,182	534580	373582	13623343
1979	VR	Finnish ma	18767	84451	835127	938345	705,53	195,99	32,16	35,5	1,84	0,582	0,116	0,127	39474	11000	988819
1979	TCDD	Turkish pou	51017		5173660	5224677	657,05		415,6	417,1	1,777		0,932	0,937	312766	.	5537443
1980	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	BR	pound sterl	90956		448930	539886	77,08		2,92	3,49	.		0,025	.	9815	49800	599501
1980	CFF	swiss franc	367765		851909	1219674	253,33		19,01	26,36	2,233		0,0118	0,165		84173	1303847
1980	CFL	luxemburg	16892	18691	1496379	1531962	3361,59	1147,74	86,15	88,09	92,813	37,532	2,256	2,307	26085	3738	1561785
1980	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH	drachm	.	.	.	1969726	.	.	.	540,2	.	.	.	2,421		19505	1989231
1980	CIE	pound sterl	.	.	.	12511	.	.	.	3,45	.	.	.	0,02	418		12929
1980	CP	escudo		.	.	1426988		.	.	.		.	.	.			1426988
1980	CSD	Czechoslov	.	.	.	16175920	.	.	.	57,12	.	.	.	0,245		94849	16270769
1980	DB	Deutsche r	489323	885955	7079120	8454398	892,56	260,89	22,54	26,59	2,835	0,822	0,113	0,133	279199	401466	9135063
1980	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	DSB	Danish cro	256847		403672	660519	513,69		67,49	101,92	2,233		0,268	0,408	15950	75652	752121
1980	FS	lira	.	.	.	710283751	.	.	.	12605,06	.	.	.	38,636	539066	36698377	747521194
1980	JZ	Dinar	361606	772053	25361034	26494693	1701,07	1259,77	301,76	312,18	3,94	2,964	1,028	1,059	717871	135470	27348034
1980	MAV	Forint	58609	99779	15132321	15290709	1386,77	468,87	121,17	122,19	8,732	1,578	0,635	0,64	3429670	135019	18855398
1980	NS	florin	4849		295336	300185	1193,16		13,34	13,56	.		0,085	.	19023	24658	343866
1980	NSB	Norwegian	.	.	791058	872386	.	.	25,85	28,45	.	.	0,264	0,289	26134		898520
1980	OBB	Austrian Sc	.	.	.	8837234	.	.	.	171,12	.	.	.	0,803	404764	265639	9507637
1980	PKP	zloty	288272	49898203		50186475	1441,09	.	106,84	107,33	6,574	0,377		0,379	10514333	497249	61198057
1980	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	SJ	Swedish cr	81866	472076	2149406	2703348	3355,85	641,74	40,71	50,47	7,747	1,592	0,138	0,17	105472	96288	2905108

A 1.2.19. Railway Operating Revenue - Goods Traffic and Postal Traffic Revenue

			GOODS TRAFFIC												ACCESSORY REVENUE FROM GOODS TRAFFIC	REVENUE FROM POSTAL TRAFFIC	TOTAL REVENUE
			REVENUE (IN THOUSANDS)				AVERAGE REVENUE PER TONNE CARRIED				AVERAGE REVENUE PER TONNE-KILOMETRE						
YEAR	Railway	Currency	Express parcels	Part-load consignm ents	Full wagons loads	TOTAL	Express parcels	Part-load consignments	Full wagons loads	General Average	Express parcels	Part-load consignm ents	Full wagons loads	General Average	(IN THOUSANDS)		
1980	SNCB	Belgian fra	232580	2624408	11491923	14348911	12408,9	6997,19	161,72	200,81	137,784	73,752	1,437	1,785	489641	475862	15314414
1980	SNCF	French frar	763074	1945954	11560518	14269546	4050,29	1034,97	53,2	65,05	8,321	2,259	0,17	0,207	670419	452757	15392722
1980	VR	Finnish ma	17116	90972	1029069	1137157	707,27	195,68	35,58	38,66	1,821	0,58	0,126	0,136	57191	11200	1205548
1980	TCDD	Turkish pou	118877		18529707	18648584	1937,24		1627,49	1629,15	3,526		3,709	3,708	939690	.	19588274
1981	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	BR	pound sterl	119187		501357	620544	125,33		3,25	4	.		0,029	.	9796	.	630340
1981	CFF	swiss franc	375194		823294	1198488	257,28		18,80	26,48	2,267		0,118	0,168		82693	1281181
1981	CFL	luxemburg	16533	13394	1329026	1358953	3979,06	926,41	87,94	89,81	93,407	34,344	2,274	2,323	21508	4376	1384837
1981	CFR	Lei		.	.	.		.	.	.		.	.	.	.	.	.
1981	CH	drachm	.	.	.	2043599	.	.	.	682,33	.	.	.	2,947		24026	2067625
1981	CIE	pound sterling		1181	14325	15506		.	.	4,17		.	.	0,022	498		16004
1981	CP	escudo		.	.	.		.	.	.		.	.	.	.	.	1880653
1981	CSD	Czechoslov	.	.	.	17607742	.	.	.	62,12	.	.	.	0,265		89857	17697599
1981	DB	Deutsche m	506716	861664	7008015	8376395	983,98	280,26	23,37	27,61	3,118	0,881	0,117	0,137	274300	430114	9080809
1981	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1981	DSB	Danish cro	254945		397345	652290	595,67		70,05	106,93	2,575		0,289	0,442	12487	83657	748434
1981	FS	lira	.	.	.	879914876	.	.	.	17266,49	.	.	.	51,412	534104	51808571	932257551
1981	JZ	Dinar	444906	1013710	35997365	37455981	2167,82	1692,63	422,61	435,62	5,029	3,974	1,418	1,456	689328	166854	38312163
1981	MAV	Forint	63903	102716	19087803	19254422	1517,53	759,29	146,35	147,43	9,427	2,834	0,784	0,789	1862036	195088	21311546
1981	NS	Guilder	4292		301875	306167	1350,96		14,32	14,52	.		0,091	0,092	18240	24460	348867
1981	NSB	Norwegian	.	.	871020	957755	.	.	33,75	37,03	.	.	0,310	0,339	26884		984639
1981	OBB	Austrian Sc	.	.	.	9317429	.	.	.	183,35	.	.	.	0,903	425034	301466	10043929
1981	PKP	zloty	288041	48787794		49075835	1465,32	.	125,15	125,73	6,527	0,452		0,454	8213192	499819	57788846
1981	RENFE	Peseta	6044069		29780881	35824950	11466,65		915,23	1083,42	20,100		2,988	3,489	185624	4594100	40604674
1981	SJ	Swedish cr	92086	450694	2194258	2737038	3673,00	728,58	48,14	59,21	10,191	1,803	0,153	0,188	92127	119521	2948686
1981	SNCB	Belgian fra	216114	2598184	11003353	13817651	12443,95	7770,71	158,01	197,43	140,516	82,006	1,462	1,827	380342	464019	14662012
1981	SNCF	French frar	859996	2170502	12187019	15217517	4648,63	1180,20	62,77	77,57	9,566	2,563	0,194	0,239	650775	466033	16334325
1981	VR	Finnish ma	18997	130090	1166652	1315739	859,59	265,27	39,96	44,29	2,184	0,781	0,142	0,157	55687	12800	1384226
1981	TCDD	Turkish pou	122921		27534431	27657352	2896,01		2246,15	2248,39	3,679		4,665	4,659	938923	.	28596275
1982	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	BR	pound sterl	92116		476263	568379	102,35		3,09	3,66	.		0,030	.	9500	.	577879
1982	CFF	swiss franc	352671		820887	1173558	258,92		20,24	27,99	2,284		0,129	0,181		89161	1262719
1982	CFL	luxemburg	16844	9664	1339238	1365746	5495,60	727,11	97,28	99,09	130,574	28,012	2,435	2,481	24187	4715	1394648
1982	CFR	Lei		.	.	.		.	.	.		.	.	.	.	.	.
1982	CH	drachm	.	.	.	2132496	.	.	.	812,35	.	.	.	3,642		27883	2160379
1982	CIE	pound sterling		3559	13917	17476		.	.	4,67		.	.	0,026	501		17977
1982	CP	escudo	.	.	.	.		.	.	.		.	.	.	.	.	2083071
1982	CSD	Czechoslov	.	.	.	19630440	.	.	.	68,76	.	.	.	0,297		87140	19717580
1982	DB	Deutsche m	494085	839981	6785407	8119473	1066,33	301,54	24,65	29,15	3,379	0,947	0,122	0,144	264876	434804	8819153
1982	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	DSB	Danish cro	288470		472465	760935	669,30		73,77	111,31	2,914		0,304	0,461	13098	97606	871639
1982	FS	lira	.	.	.	865618404	.	.	.	17561,84	.	.	.	51,207	697784	62389152	928705340
1982	JZ	Dinar	439224	1211235	46680651	48331110	2449,84	1992,02	549,73	563,93	5,820	4,666	1,807	1,847	844795	204439	49380344
1982	MAV	Forint	68676	211816	20241196	20521688	1650,07	1638,76	166,06	168,12	9,998	6,947	1,006	1,018	1702225	193922	22417835
1982	NS	florin	4051		268190	272241	1433,47		14,72	14,94	.		0,093	.	17590	32003	321834
1982	NSB	Norwegian	.	.	935873	1042199	.	.	47,11	52,33	.	.	0,379	0,420	34018		1076217
1982	OBB	Austrian Sc	.	.	.	9045602	.	.	.	180,77	.	.	.	0,895	440629	319543	9805774
1982	PKP	zloty	274752	1,15E+08		114919836	1434,75	.	293,39	293,81	6,587	1,036		1,037	15270549	1360818	131551203

A 1.2.19. Railway Operating Revenue - Goods Traffic and Postal Traffic Revenue

			GOODS TRAFFIC												ACCESSORY REVENUE FROM GOODS TRAFFIC	REVENUE FROM POSTAL TRAFFIC	TOTAL REVENUE
			REVENUE (IN THOUSANDS)				AVERAGE REVENUE PER TONNE CARRIED				AVERAGE REVENUE PER TONNE-KILOMETRE						
YEAR	Railway	Currency	Express parcels	Part-load consignm ents	Full wagons loads	TOTAL	Express parcels	Part-load consignments	Full wagons loads	General Average	Express parcels	Part-load consignm ents	Full wagons loads	General Average	(IN THOUSANDS)		
1982	RENFE	Peseta	6890300		31744304	38634604	13499,80		1049,30	1255,87	23,784		3,205	3,790	290500	4426425	43351529
1982	SJ	Swedish cr	91204	426482	2393334	2911020	3909,47	741,53	60,47	72,46	11,682	1,938	0,178	0,213	103217	114156,000	3128393
1982	SNCB	Belgian fra	214383	2686326	11136443	14037152	13507,84	8876,95	178,47	223,81	156,942	94,029	1,640	2,059	429367	458807	14925326
1982	SNCF	French frar	958427	2425782	12668496	16052705	5211,67	1319,87	69,96	87,67	10,769	2,865	0,212	0,265	780421	582744	17415870
1982	VR	Finnish ma	17840	141339	1237518	1396697	968,30	298,09	44,04	48,85	2,400	0,861	0,158	0,174	25561	15700	1437958
1982	TCDD	Turkish pou	176500		34710334	34886834	4312,03		2666,42	2671,57	6,612		5,812	5,815	1569473	.	36456307
1983	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	BR	pound sterl	114426		516257	630683	163,47		3,56	4,33	.		0,030	.	10800	.	641483
1983	CFF	swiss franc	326490		859045	1185535	253,86		21,35	28,55	1,997		0,138	0,185		97194	1282729
1983	CFL	luxemburg	15368	9295	1249916	1274579	4089,31	832,07	96,51	98,31	170,756	33,315	2,484	2,532	23043	5094	1302716
1983	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	CH	drachm	.	.	.	2554478	.	.	.	731,7	.	.	.	3,812		29250	2583728
1983	CIE	pound sterling		3613	13631	17244		.	.	5,20		.	.	0,030			17244
1983	CP	escudo		.	.	.		.	.	.		.	.	.	.	.	2698087
1983	CSD	Czechoslov	.	.	.	19957437	.	.	.	69,08	.	.	.	0,293		94200	20051637
1983	DB	Deutsche n	486162	822044	6697078	8005284	1158,67	309,58	25,05	29,60	3,671	0,974	0,124	0,145	237127	402935	8645346
1983	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	DSB	Danish cro	310932		480923	791855	781,24		75,20	116,57	3,343		0,314	0,487	8470	109035	909360
1983	FS	lira	.	.	.	1,022E+09	.	.	.	20709,70	.	.	.	61,012	782710	77240664	1099715030
1983	JZ	Dinar	562665	1707359	63253368	63523392	3354,15	2861,56	712,37	731,63	8,143	6,693	2,297	2,352	1291261	283844	67098497
1983	MAV	Forint	74500	201569	20914686	21190755	1865,44	1645,23	175,84	177,92	11,549	6,257	0,941	0,952	1739359	218175	23148289
1983	NS	florin	3821		274636	278457	1644,86		15,23	15,44	.		0,097	.	17980	28419	324856
1983	NSB	Norwegian	98904		937190	1036094	.	.	49,40	54,49	.	.	0,392	0,432	30,343		1066437
1983	OBB	Austrian Sc	.	.	.	9445896	.	.	.	187,61	.	.	.	0,923	434116	352363	10232375
1983	PKP	zloty	605457	1,77E+08		177405062	3250,01	.	437,83	438,92	14,945	1,522		1,525	20442764	1353450	199201276
1983	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	SJ	Swedish cr	105576	464768	2576454	3146798	4189,36	563,40	64,18	76,76	13,683	1,530	0,176	0,210	89500	130326	3366624
1983	SNCB	Belgian fra	182985	2673560	11450696	14307241	12886,27	10049,28	180,88	225,01	154,288	106,669	1,667	2,075	221924	481280	15010445
1983	SNCF	French frar	1054230	2582046	13603164	17239440	5847,09	1418,24	78,95	98,91	12,035	3,068	0,235	0,293	766539	640430	18646409
1983	VR	Finnish ma	15148	125212	1373409	1513769	996,78	277,59	48,02	52,08	2,440	0,799	0,173	0,187	62409	17100	1593278
1983	TCDD	Turkish pou	230841		45499056	45729897	5895,27		3451,92	3459,15	9,665		7,467	4,476	1950176	.	47680073
1984	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	BR	pound sterl	149000		365300	514300	165,55		3,78	5,27	.		0,023	.	6500	.	520800
1984	CFF	swiss franc	297728		891349	1189077	234,39		21,11	27,34	1.850		0,132	0,173		99434	1288511
1984	CFL	luxemburg	13934	10499	1506846	1531279	9576,63	1004,30	96,88	98,38	273.216	39.030	2.586	2627,000	23.551	4.777	1.559.607
1984	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	CH	drachm	.	.	.	2925953	.	.	.	728,39	.	.	.	3.802		18172	2944125
1984	CIE	pound sterling		4094	13853	17947		.	.	5,31		.	.	0,030			17947
1984	CP	escudo	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3273142
1984	CSD	Czechoslov	.	.	.	22532157	.	.	.	76,16	.	.	.	0,331		187047	22719204
1984	DB	Deutsche n	482282	807361	6973814	8263457	1221,91	303,26	24,42	28,63	3.872	0,954	0,12	0,140	245542	390654	8899653
1984	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	DSB	Danish cro	314571		535228	849799	817,07		82,12	123,11	3.457		0,347	0,520	739	110917	961455
1984	FS	lira	.	.	.	930073870	.	.	.	17112,12	.	.	.	52045,000	795402	108824497	1039693769
1984	JZ	Dinar	650841	4631698	1,09E+08	114586924	5289,33	8050,02	1200,62	1249,06	13040,000	18.533	3.845	3.988	1.546.890	393.772	116.527.586
1984	MAV	Forint	85417	199716	20485151	20770284	2109,43	1653,24	175,4	177,59	12.810	6.396	0,934	0,945	2336869	232924	23340077
1984	NS	florin	3960		283009	286969	1720,99		14,25	14,45	.		0,09	.	19090	28793	334852
1984	NSB	Norwegian	90291		946657	1036948	.	.	42,95	46,96	.	.	0,366	0,400	30935		1067883

A 1.2.19. Railway Operating Revenue - Goods Traffic and Postal Traffic Revenue

			GOODS TRAFFIC												ACCESSORY REVENUE FROM GOODS TRAFFIC	REVENUE FROM POSTAL TRAFFIC	TOTAL REVENUE
			REVENUE (IN THOUSANDS)				AVERAGE REVENUE PER TONNE CARRIED				AVERAGE REVENUE PER TONNE-KILOMETRE						
YEAR	Railway	Currency	Express parcels	Part-load consignm ents	Full wagons loads	TOTAL	Express parcels	Part-load consignments	Full wagons loads	General Average	Express parcels	Part-load consignm ents	Full wagons loads	General Average	(IN THOUSANDS)		
1984	OBB	Austrian Sc	.	.	.	10318918	.	.	.	185,01	.	.	.	0,917	495227	377341	11191486
1984	PKP	zloty	635308	.	2,01E+08	201875161	3373,00	.	485,76	486,85	16.061	.	1.655	1658,000	29466639	1348957	232690757
1984	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	SJ	Swedish cr	124488	495164	2436138	3055790	4408,22	433,50	52,77	64,55	13.477	1.266	0,147	0,180	89052	124144,000	3268986
1984	SNCB	Belgian fra	185229	2779765	13387895	16352889	13035,12	11238,41	189,01	230,02	156.443	121.281	1.694	2.062	255.724	486.007	17.094.620
1984	SNCF	French frar	1079557	2700580	14301069	18081207	6161,86	1496,08	82,36	102,95	12.716	3.247	0,244	0,304	724941	667257	19473405
1984	VR	Finnish ma	13315	133250	1458431	1604996	1056,75	300,72	49,99	54,17	2.561	0,877	0,186	0,201	81632	18600	1705228
1984	TCDD	Turkish pou	275861		73555116	73830977	6756,33		4979,44	4984,34	10.781		9.807	9.810	3.302.242		77.133.219

A1.2.20. Fuel - Motor Fuel - Electricity and Lubricants for Motor Vehicles

YEAR	Railway	Rail Vehicles – Steam Traction – Solid and Liquid Fuels – Coal Consumption (in 1000 of tonnes)	Other Solid Fuels – Type of Fuel	Other Solid Fuels – Quantities used (in 1000	Fuel oil consumption (in 10000 Tonnes)	Total Consumption (in 1000Tonnes)	UNIT Consumption (in Kg of coal equivalent) – Per motive unit Km	UNIT Consumption (in Kg of coal equivalent) – Per 1000gross tonnes-kms hauled	Diesel or Special Systems of Traction – Motor Fuels – Consumption – of Diesel oil (in 1000 of	Consumption – of Petrol (in 1000 tonnes)	Total consumption (in 1000 of	Unit Consumption (in Kg of Diesel oil equivalent) – Per motive unit Km	Unit Consumption (in Kg of Diesel oil equivalent) – Per 1000 gross tonnes-kms hauled	Electricity – Total consumption (in millions of KW/H)	Unit Consumption (in Kw/h) – Per motive unit Km	Unit Consumption (in Kw/h) – Per 1000 gross tonnes-kms hauled	Total consumption of Lubricants (in tonnes)	ROAD VEHICLES – Consumption – of Diesel oil (in 1000 tonnes)	ROAD VEHICLES – Consumption – of Petrol (in 1000 tonnes)	Water-Borne Craft – Type of Fuel	Water-Borne Craft – Quantities Used (in 1000 tonnes)
1977	BDZ	.	.	.	.		.		.	.	.	.	.	.	.	.	.	.	.	.	.
1977	BR								732		732	2,42	6,8	2354	13,21	42,6	.			Diesel boat fuel	155
1977	CFF								6		6	1,89	.	1421	12,91	41,75	323	.	.	Diesel	0,6
1977	CFL								8		8	2,24	8,14	28	11,16	36,52	119	1	0		
1977	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	CH								43		43	2,12	9,27				1086	1	0		
1977	CIE								31		31	2,46	.				549	44	1	.	.
1977	CP	17			0	18	23,96	286,25	47	0	47	1,93	11,26	146	9,64	40,54	.	.	.	Gasoil	3
1977	CSD	626				626	.	.	678		678	.	.	2082	.	.	16266				
1977	DB	2			7	13	25,59	25,31	520		520	1,9	11,78	5837	11,24	30,47	4727	55	11	Diesel	13,6
1977	DR	522	Lignite	7	241	801	22,06	41,92	692		692	2,69	6,76	989	8,35	32,23	.				
1977	DSB								106		106	2,33	10,79	118	4,79	60,72	1320	10	0	Oil	65
1977	FS	27			0	27	14,44	847,1	137		137	1,01	12,6	3425	13,61	34,5	3429	.	.	Gasoil	42
1977	JZ	314				314	25,67	101,06	174		174	1,86	8,02	745	14,08	22					
1977	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1977	NS								39		39	1,43	9,89	782	6,75	38,21	855				
1977	NSB								17		17	1,44	.	341	10,79	.	536	7	0		
1977	OBB	8	Wood	0		8	22,16	392,68	56		56	1,84	15,42	1187	13,32	38,11	.	11	0	Diesel	0
1977	PKP	.			.	.	.	.	.	.	.	.	.	.	.	.	.				
1977	RENFE								186		186	2,05	9,22	1003	11	32,72	.	.			
1977	SJ								30	1	31	1,18	13,38	1260	11,33	31,52	.	19	3	Diesel	20,2
1977	SNCB								134		134	2,4	8,83	657	8,01	36,83	1493	.	.		
1977	SNCF								484		484	1,83	8,08	5029	12,73	25,09	14000	.	.	.	.
1977	VR								94		94	1,67	5,87	112	10,05	35,95	1454	1			
1977	TCDD	371			128	563	35,52	119,62	109		109	3,77	7,44	66	13,72	57,42	4658				
1978	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	BR								734		734	2,44	7,03	2270	12,46	40,88	.			Diesel boat fuel	173
1978	CFF								6	1,83	.	1455	13,21	42,84	430	.	.	Diesel	0,6		
1978	CFL								9		9	2,47	7,99	29	11,17	34,47	121	1	0		
1978	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	CH								40		40	2,06	8,85				1065	1	0		
1978	CIE								36		36	2,28	.				581	44	1	.	.
1978	CP	8			0	8	21,8	284,65	47	0	47	1,92	11,56	152	9,95	39,83	.	.	.	Gasoil	3
1978	CSD	502				502			692		692	.	.	2143	.	.	15502				
1978	DB								513		513	1,91	11,92	6085	11,22	30,52	4631	53,9	10,9	Diesel	13,7
1978	DR	394	Lignite	4	231	669	22,04	40,91	709		709	2,63	6,72	1032	8,71	32,79	.			(Coal; Diesel fuel)	(0,3;27,5)
1978	DSB								98		98	2,17	10,37	119	4,6	59,03	1300	10	0	Oil	65
1978	FS	12			1	13	24,8	653,7	136		136	1	11	3495	13,8	34,5	3259	.	.	Gasoil	42
1978	JZ	256				256	25,6	89,61	176		176	1,9	8,26	788	17,21	22,89					
1978	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1978	NS								38		38	1,46	10,14	793	6,99	38,7	752				
1978	NSB								16		16	1,38	.	345	10,92	.	457	7	0		
1978	OBB	5	Wood	0		5	17,01	368,41	54		54	1,86	16,75	1225	13,5	39,36	.	12	0	Diesel	0
1978	PKP	.			.	.	.	.	.	.	.	.	.	.	.	.	.				
1978	RENFE								178		178	2,1	9,51	1029	10,91	33,17	.	.			
1978	SJ								28	1	29	1,2	13,22	1271	11,52	32,58	.	19	3,3	Diesel	20,4
1978	SNCB								141		141	2,42	8,72	680	8,18	37,06	1582	.	.		
1978	SNCF								482		482	1,81	8,05	5123	12,88	25,14	14000	.	.	.	.
1978	VR								85		85	1,61	5,78	134	9,99	32,63	1436	1			
1978	TCDD	248			95	391	34,02	147,7	114		114	3,66	7,58	71	13,62	59,26					
1979	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	BR								724		724	2,44	6,98	2340	12,98	41,99	.				184
1979	CFF								7		7	2,13	13,7	1489	13,29	43,77	431	.	.	Diesel	1
1979	CFL								10		10	2,52	7,9	33	11,88	35,25	124	1	0		
1979	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	CH								39		39	2,07	9,05				1067	.	.		
1979	CIE								36		36	2,19	.				594	36	1	.	.
1979	CP	3				3	18,75	293,48	49	0	49	1,96	11,8	179	10,16	34,56	.	.	.	Diesel	3
1979	CSD	216				216			710		710	.	.	2143	.	.	14533				
1979	DB								531		531	2	11,75	6725	11,49	30,46	.	56	12	Diesel	14
1979	DR	317	Lignite	0	220	583	22,94	40,77	727		727	2,71	6,7	1097	8,93	32,89	.				
1979	DSB								101		101	.	.	130	.	59,33	1300	11	0	Diesel	67
1979	FS	5			1	6	32,2	484,03	134		134	1,02	10,97	3537	13,89	32,99	3234	.	.		
1979	JZ	190				190	23,68	85,19	173		173	2,02	6,93	797	12,87	20,27	.	.	.		
1979	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979	NS								41		41	1,55	9,91	821	7,38	40,19	788				
1979	NSB								17		17	1,45	.	357	11,15	.	511	7	0		
1979	OBB	5	Wood	0		5	15,67	342,28	58		58	1,96	16,66	1306	13,62	38,58	.	12	0	Diesel	0
1979	PKP	.			.	.	.	.	.	.	.	.	.	.	.	.	.				
1979	RENFE								168		168	2,11	9,81	1052	11,01	33,51	.	.			

A1.2.20. Fuel - Motor Fuel - Electricity and Lubricants for Motor Vehicles

YEAR	Railway	Rail Vehicles																ROAD VEHICLES		Water-Borne Craft	
		Steam Traction							Diesel or Special Systems of Traction												
		Solid and Liquid Fuels							Motor Fuels					Electricity			Total consumption of Lubricants (in tonnes)	Consumption			
		Coal Consumption (in 1000 of tonnes)	Other Solid Fuels		Fuel oil consumption (in 10000 Tonnes)	Total Consumption (in 1000Tonnes)	UNIT Consumption (in Kg of coal equivalent)		Consumption		Total consumption (in 1000 of	Unit Consumption (in Kg of Diesel oil equivalent)		Total consumption (in millions of KW/H)	Unit Consumption (in Kw/h)			of Diesel oil (in 1000 tonnes)	of Petrol (in 1000 tonnes)	Type of Fuel	Quantities Used (in 1000 tonnes)
			Type of Fuel	Quantities used (in 1000			Per motive unit Km	Per 1000gross tonnes-kms hauled	of Diesel oil (in 1000 of	of Petrol (in 1000 tonnes)		Per motive unit Km	Per 1000 gross tonnes-kms hauled		Per motive unit Km	Per 1000 gross tonnes-kms hauled					
1979	SJ								29	0	29	1,24	12,94	1374	12,21	31,77	.	20	3	Diesel	22
1979	SNCB								151		151	2,49	8,46	710	8,33	36,41	1600	.	.		
1979	SNCF								483		483	1,83	8,18	5276	13,02	24,85	14200	.	.	.	.
1979	VR								87		87	1,67	5,69	163	10,23	28,41	1534	1			
1979	TCDD	247			101	399	36,13	175,48	118		118	3,76	7,68	67	13,37	58,74	3800				
1980	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	BR								711		711	2,45	7,16	2397	12,76	41,92	.				178
1980	CFF								7		7	2,1	12,94	1558	13,9	43,97	422	.	.	diesel	1
1980	CFL								10		10	2,46	7,8	31	11,56	35,68	120	1	0		
1980	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	CH								37		37	2,11	9,7				944	.	.		
1980	CIE								36		36	2,23	.				578	37	1	.	.
1980	CP	1				1	14,93	264,06	50	0	50	1,89	12,43	183	9,27	42,95	.	.	.	diesel	3
1980	CSD	62				62			703		703	.	.	2183	.	.	14636				
1980	DB								523		523	2,01	12,03	6935	11,41	31,07	5298	57	13	diesel	13
1980	DR	317			167	510	22,98	38,86	735		735	2,73	6,58	1163	9,41	31,75	.				
1980	DSB								100		100	.	10,53	139	.	58,4	1300	11	0	diesel	65
1980	FS	3			0	4	27,07	457,37	136		136	1,02	10,95	3162	12,31	30,32	3059	.	.		
1980	JZ	213				213	30,21	118,95	170		170	2,01	7,09	870	12,51	21,54		.	.	.	.
1980	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1980	NS								42		42	1,49	8,91	833	7,08	39,66	786				
1980	NSB								17		17	1,42	.	369	11,34	.	443	8	0		
1980	OBB	5		0		5	17,86	342,23	59		59	2,01	16,35	1386	13,91	39,2	.	13	0	diesel	0
1980	PKP	.			.	.	.	.	.	.	.	.	.	.	.	.	.				
1980	RENFE								162		162	2,12	9,72	1104	10,93	33,08	.	.			
1980	SJ								31	1	32	1,26	13,05	1390	12,35	32,33	.	21	3	diesel	21
1980	SNCB								146		146	2,48	8,72	735	8,18	36,43	1362	.	.		
1980	SNCF								466		466	1,8	8,26	5350	12,83	25,03	14100	.	.	.	.
1980	VR								88		88	1,68	5,45	191	10,59	27,33	1573	1			
1980	TCDD	255			66	354	35,78	168,1	126		126	4,21	8,98	64	12,15	57,73	3961				
1981	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1981	BR								679		679	2,40	7,01	2353	12,82	42,90	.				140
1981	CFF								6		6	2,07	11,46	1536	13,75	43,65	414	.	.	Diesel	1
1981	CFL								9		9	2,44	7,72	30	11,49	38,34	91	1	0		
1981	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1981	CH								39		39	2,21	9,73				965	.	.		
1981	CIE								35		35	2,20	.				611	37	0	.	.
1981	CP	1				1	14,49	237,47	53	0	53	1,74	11,41	189	9,17	39,85	.	.	.	Diesel	3
1981	CSD	2				2	19,05	.	686		686	2,63	.	2231	14,14	21,20	13934				
1981	DB								484		484	1,98	12,42	6849	11,08	31,14	5457	56	13	Diesel	13
1981	DR	222			110	347	23,40	39,80	728		728	2,73	6,51	1209	10,23	30,90	.				
1981	DSB								107		107	.	11,35	138	.	57,02	1300	11	0	Diesel	70
1981	FS	1			0	2	23,00	371,81	130		130	1,00	10,90	3039	12,11	30,49	3418,00	.	.		
1981	JZ	138				138	24,48	150,76	170		170	1,93	7,13	996	13,08	23,29		.	.		
1981	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1981	NS								41		41	1,41	8,57	863	7,02	39,99	760				
1981	NSB								17		17	1,34	.	372	11,48	.	409	8	0		
1981	OBB	4	Bois	0		4	18,1	392,16	56		56	1,92	16,21	1384	13,78	39,50	.	14	0	Diesel	0
1981	PKP	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1981	RENFE								156		156	2,15	9,87	1164	10,90	33,43	.	.			
1981	SJ								31	1	32	1,27	13,19	1391	12,16	33,63	.	23	4	Diesel	20
1981	SNCB								137		137	2,45	8,70	752	7,80	36,02	1536				
1981	SNCF								446		446	1,77	8,55	5201	12,55	25,08	11600	.	.	.	.
1981	VR								86		86	1,70	5,60	224	10,91	26,71	1575	1			
1981	TCDD	248			64	359	32,83	134,33	129		129	3,84	7,65	72	12,73	54,36	.				
1982	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1982	BR								604		604	2,41	7,02	2079	12,85	42,76	.				94
1982	CFF								6		6	2,02	10,70	1564	13,35	43,99	417	.	.	Diesel	1
1982	CFL								8		8	2,35	7,15	31	11,73	39,62	183	1	0		
1982	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1982	CH								40		40	2,24	9,88				1070	.	.		
1982	CIE								33		33	2,21	10,33				584	39	0	.	.
1982	CP	1				1	17,24	285,88	51	0	51	1,71	11,85	185	9,30	40,25	.	.	.	Diesel	3
1982	CSD	.				.	.	.	651		651	2,55	10,44	2265	11,08	21,19	12691				
1982	DB								468		468	2,00	12,58	6612	11,00	31,47	4596	56	13	Diesel	12
1982	DR	302			7	268	21,18	42,59	701		701	2,69	6,39	1323	10,49	29,30	.				
1982	DSB								111		111	.	11,52	138	.	56,79	1400	12	0	Diesel	66
1982	FS	1				1	29,70	751,93	131		131	0,98	11,07	3110	12,19	30,49	2786	.	.		40
1982	JZ	205				205	49,41	348,60	170		170	1,94	7,08	963	12,23	21,72		.	.		
1982	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				

A1.2.20. Fuel - Motor Fuel - Electricity and Lubricants for Motor Vehicles

YEAR	Railway	Rail Vehicles																ROAD VEHICLES		Water-Borne Craft	
		Steam Traction							Diesel or Special Systems of Traction												
		Solid and Liquid Fuels							Motor Fuels					Electricity			Total consumption of Lubricants (in tonnes)	Consumption			Quantities Used (in 1000 tonnes)
		Coal Consumption (in 1000 of tonnes)	Other Solid Fuels		Fuel oil consumption (in 10000 Tonnes)	Total Consumption (in 1000Tonnes)	UNIT Consumption (in Kg of coal equivalent)		Consumption		Total consumption (in 1000 of	Unit Consumption (in Kg of Diesel oil equivalent)		Total consumption (in millions of KW/H)	Unit Consumption (in Kw/h)			of Diesel oil (in 1000 tonnes)	of Petrol (in 1000 tonnes)	Type of Fuel	
			Type of Fuel	Quantities used (in 1000			Per motive unit Km	Per 1000gross tonnes-kms hauled	of Diesel oil (in 1000 of	of Petrol (in 1000 tonnes)		Per motive unit Km	Per 1000 gross tonnes-kms hauled		Per motive unit Km	Per 1000 gross tonnes-kms hauled					
1982	NS								35		35	1,33	9,05	898	7,26	41,04	679				
1982	NSB								15		15	1,36	.	355	11,15	.	351	9	0		
1982	OBB	3	Bois	0		3	24,79	516,27	55		55	1,92	16,30	1387	13,64	39,32	.	17	0	Diesel	0
1982	PKP	.			.	.	.	.	.	.	.	.	.	.	.	.	.				
1982	RENFE								150		150	2,11	9,76	1225	10,95	33,56	.	.			
1982	SJ								33	1	33	1,25	12,85	1383	11,97	33,68	.	26	4	Diesel	25
1982	SNCB								127		127	2,46	8,71	782	7,87	37,34	1279				
1982	SNCF								429		429	1,72	8,41	5312	12,67	25,66	12500	.	.	.	.
1982	VR								80		80	1,69	5,56	225	10,40	26,39	1336	2			
1982	TCDD	269			58	370	27,02	142,43	127		127	3,83	8,29	80	10,27	58,21	2759				
1983	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	BR								667		667	2,48	7,06	2209	12,48	41,66	.				138
1983	CFF								6		6	2,00	11,12	1577	13,03	43,07	381	.	.	Diesel	1
1983	CFL								7		7	2,22	6,82	30	11,61	39,82	75	1	0		
1983	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	CH								51		51	2,72	11,83				1084	.	.		
1983	CIE								32		32	2,20	10,65				535	39	0	.	.
1983	CP	1				1	18,87	336,93	49		49	1,65	10,61	177	10,61	40,60	.	.	.	Diesel	3
1983	CSD	.				.	.	.	633		633	2,47	10,21	2307	10,70	20,66	12353				
1983	DB								449		449	1,97	12,13	6509	11,20	31,30	.	60	9	Diesel	12
1983	DR	314			3	278	22,81	46,80	685		685	2,68	6,37	1422	10,73	28,50	.			Diesel	23
1983	DSB								105		105	.	10,82	136	.	56,67	1500	14	0	Diesel	66
1983	FS	0			0	0	24,50	592,15	133		133	0,90	11,22	3155	12,41	31,00	2689	.	.		44
1983	JZ	93				93	23,83	136,00	171		171	1,98	6,91	1009	12,30	21,64		.	.		
1983	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	NS								34		34	1,27	9,19	906	7,50	41,60	540				
1983	NSB								15		15	1,37	.	344	11,11	.	416	8	0		
1983	OBB	2		0		2	19,61	466,31	56		56	2,05	17,45	1419	13,86	39,78	.	18	0		0
1983	PKP	.			.	.	.	.	.	.	.	.	.	.	.	.	.				
1983	RENFE								150		150	2,12	10,05	1290	11,42	34,21	.	.			
1983	SJ								32	1	33	1,31	13,21	1433	12,22	35,03	.	27	4	Diesel	24
1983	SNCB								116		116	2,44	8,53	790	8,02	37,87	1474				
1983	SNCF								430		430	1,77	8,76	5463	12,82	26,52	12700	.	.	.	.
1983	VR								77		77	1,70	5,68	242	10,43	26,12	1194	2			
1983	TCDD	270			40	335	32,95	141,09	130		130	3,92	8,31	88	10,63	53,47	2279				
1984	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	BR								764		764	2,43	7,37	2853	13,00	44,06	.				142
1984	CFF								6		6	2,05	11,56	1594	13,05	42,88	348	.	.	Diesel	1
1984	CFL								8		8	2,48	7,22	31	11,85	39,86	90	1	0		
1984	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	CH								44		44	2,35	9,96				1106	.	.		
1984	CIE								30		30	2,19	10,28	5	6,91	61,47	537	39	0	.	.
1984	CP	1				1	25,64	356,25	51		51	1,62	9,77	186	8,69	39,80	.	.	.	Diesel	3
1984	CSD	.				.	.	.	475		475	1,86	7,74	2355	10,62	20,53	11931				
1984	DB								440		440	1,95	11,80	6687	11,41	31,12	.	67	8	Diesel	12
1984	DR	345			0	306	23,63	47,30	669		669	2,69	6,43	1551	11,33	27,07	.			Diesel	23
1984	DSB								103		103	.	10,81	135	.	66,18	1500	14	0	Diesel	79
1984	FS	0			0	0	22,00	233,73	134		134	1,01	11,22	3339	12,88	31,71	2581	.	.		.
1984	JZ	86				86	24,75	140,10	177		177	2,06	7,29	1065	12,51	21,79	.	.	.		
1984	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1984	NS								33		33	1,30	9,53	921	7,62	41,28	470				
1984	NSB								15		15	1,25	.	364	11,92	.	419	9	0		
1984	OBB	2	Bois	0		2	23,26	557,26	55		55	2,04	16,85	1446	13,80	38,47	.	15	0	Diesel	0
1984	PKP	.			.	.	.	.	.	.	.	.	.	.	.	.	.				
1984	RENFE								139		139	1,82	10,21	1429	11,86	34,27	.	.			
1984	SJ								35	0	36	1,37	12,60	1507	12,38	32,54	.	30	4	Diesel	26
1984	SNCB								115		115	2,49	8,00	870	8,09	36,17	1585				
1984	SNCF								409		409	1,76	9,02	5585	12,93	26,53	11200	.	.	.	.
1984	VR								72		72	1,68	5,88	264	10,41	25,40	837	2			
1984	TCDD	256			24	300	31,89	138,82	157		157	4,03	8,10	96	10,04	51,86	2390				

A1.1.21. Operating Accidents

YEAR	Railway	Rail traffic – Collisions and Derailments – Collisions – Between Rolling Stock – Train	Collisions – Between Rolling Stock – During shunting operations	Collisions – between rolling stock and an obstacle at a level crossing	Collisions – Other collisions (between r.s. and	Derailments – Train	Derailments – during shunting operation	Total Number of Collisions and derailments	Total Number of Collisions and derailments	Other rolling stock accidents	Casualties caused by rolling S. in motion	KILLED – Passenger killed as a result of – Collisions and derailments	Passenger killed – others causes	Railway servants killed as a result of – collisions and derailments	Railway servants killed – other causes	Other Persons killed as a result of – collisions and derailments	Other Persons killed – other causes	Total Number of killed	INJURED – Passenger injured as a result of – Collisions and derailments	Passenger injured – others causes	Railway servants injured – collisions and derailments	Railway servants injured – other causes	Other Persons injured as a result of – collisions and derailments	Other Persons injured – other causes	Total Number of injured	NUMBER – of passenger – Killed per 10000000 Pass.KMs	of passenger – injured per 10000000 Pass.KMs	of railway servants – Killed per 1000000 motive vehicle kms (after deduction of assisting not required railcars	of railway servants – injured per 1000000 motive vehicle kms (after deduction of assisting not required railcars	ROAD TRAFFIC – Number accidents	ROAD TRAFFIC – Number killed	ROAD TRAFFIC – Number injured
1977	BDZ																															
1977	BR	25		71	285	185		566	1,27	230			28	8	27	10	6	79	3	65	6	69	1	1	145	0,01	0,024	0,08	0,17			
1977	CFF	12	9	38	15	9	8	91	0,97	1	66	1	8	2	15	14	17	57	21	12	7	10	18	7	75	0,011	0,041	0,17	0,17			
1977	CFL	1				1		2	0,48																					2	1	9
1977	CFR																															
1977	CH	24	11	91	8	31	68	233	13,41	10	18		3		1	15	7	26	1	4	3		30	3	41	0,018	0,031	0,05	0,16	10		3
1977	CIE	1		6		3		10	0,9							4	5	9		2			2	2	6		0,023			12	14	2
1977	CP	5	3	35	6	23	2	74	2,3	1	253		32	1	7	11	50	101	18	82	11	51	42	17	221	0,077	0,241	0,24	1,84	4	2	7
1977	CSD	43	18	69	10	47	1	188	0,73			4		8		22		34	10		6		34		50	0	0	0,02	0,01			
1977	DB	42	278	290	155	41	240	1046	1,84	24	585	4	60	11	53	124	88	340	41	138	93	208	127	69	676	0,017	0,048	0,1	0,48			
1977	DR																															
1977	DSB																															
1977	FS	3	22	42	25	13	31	136	0,46	33	268		16		7	25	97	145	2	116	5	14	15	28	180	0,004	0,031	0,02	0,06			
1977	JZ	7				141		148	1,17	166		32		37		329		398	152		92		476		720	0,031	0,145	0,01	0,01			
1977	MAV																															
1977	NS	7	48	52	31	8	77	223	2,07	34	56		1			52	33	86		10	5	8	18	4	45	0,001	0,012		0,12			
1977	NSB	1	1	21	5	17	1	46	1,3	2	19	1	1	2	3		7	14	1	5	3	10		8	27	0,01	0,03	0,13	0,34			
1977	OBB	11	22	52	7	13	7	112	1,19	13	138		13		18	22	32	85	2	25	8	28	31	25	119	0,019	0,04	0,17	0,35	59	4	40
1977	PKP																															
1977	RENFE																															
1977	SJ	9	19	115	3	67	14	227	2,27	7	78	3		4	2	24	14	47	8	2	14	62	43	3	132	0,006	0,019	0,05	0,67			
1977	SNCB	8	36	18	6	29	83	180	2,01	6	28		4		3	23	1	31		26	3	5	29	4	67	0,005	0,035	0,03	0,08	11	4	11
1977	SNCF	24	2	253	29	63	35	406	0,82	49	319		43	3	21	58	108	233	5	91	9	41	39	44	229	0,008	0,019	0,05	0,09	5	1	4
1977	VR	8	24	135	12	11	13	203	4,77	27	85	2	2	2			59	65	27	14	15	8		49	113	0,013	0,138	0,04	0,46	61		1
1977	TCDD	28	20	132	19	142	109	450	11,6	22	216		8	13	2	20	66	109	12	62	18	17	64	104	277	0,016	0,145	0,33	0,78			
1978	BDZ																															
1978	BR	26		79	298	176		579	1,3	192			25	2	29		15	71	4	56	4	104		11	179	0,009	0,02	0,07	0,24			
1978	CFF	4	18	47	13	13	7	102	1,08	4	67		6	2	1	16	19	44	36	17	5	10	11	16	95	0,007	0,066	0,03	0,15			
1978	CFL		1			1	1	3	0,69		2		1					1				1			1	0,042			0,21	1		1
1978	CFR																															
1978	CH	11	15	160	4	38	79	307	18,1	17	53		1	1	1	22	18	43	11	11	10	10	53	13	108	0,006	0,14	0,11	1,12	24	1	6
1978	CIE		2	4	1	3		10	0,74		5			1			4	5				1			1			0,07	0,07	14	20	51
1978	CP	7	6	50	5	14	8	90	2,79	1	332	4	15	1	4	32	106	162	13	133	17	24	39	58	284	0,034	0,265	0,15	1,22	4	3	1
1978	CSD	31	28	57	7	33	9	165	0,65			4		8		41		53	10		11		39		60	0	0					
1978	DB	41	257	265	173	35	183	954	1,64	17	506	2	60	8	38	82	89	279	24	104	118	179	99	52	576	0,016	0,034	0,07	0,47			
1978	DR																															
1978	DSB																															
1978	FS	3	11	43	41	19	28	145	0,49	43	292	44	20	12	6	14	84	180	75	131	5	21	10	31	273	0,016	0,053	0,06	0,08			
1978	JZ	9				164		173	1,39	155		27		31		356		414	154		101		363		618	0,026	0,147	0,21	0,7			
1978	MAV																															
1978	NS	9	33	37	10	9	61	159	1,48	19	66	1	1			41	37	80	33	9	11	19	21	3	96	0,002	0,052		0,27			
1978	NSB		1	29	10	22	3	65	1,84	3	19		4		1		7	12	1	9	1	14		4	29	0,019	0,049	0,03	0,39			
1978	OBB	5	20	47	11	6	11	100	1,07	6	113		11		17	21	42	91	12	16	6	22	35	14	105	0,015	0,039	0,16	0,27	51	4	61
1978	PKP																															
1978	RENFE																															
1978	SJ	4	15	116	6	72	17	230	2,33	6	81	14	1	2	3	39	7	66	47	2	6	71	30	3	159	0,028	0,091	0,04	0,69			
1978	SNCB	6	55	21	2	41	74	199	2,15	30	28		4		4	13	5	26	1	34	5	7	22	8	77	0,006	0,049	0,04	0,12			
1978	SNCF	18	5	258	37	62	25	405	0,81	54	351	1	49	6	28	42	137	263		105	13	22	42	62	244	0,01	0,02	0,06	0,07	1		1
1978	VR	1	9	158	1	15	12	196	4,71	16	63		3	4		28	34	69	1	9	3	3	36	19	71	0,01	0,034	0,08	0,12	60		
1978	TCDD	38	41	144	33	98	472	826	21,8	148	209		12	3	7	46	92	160	8	97	21	12	121	111	370	0,021	0,187	0,23	0,76			
1979	BDZ																															
1979	BR	17		64	303	173		557	1,24	214		1	39	2	30		17	89	3	69	2	93		4	171	0,013	0,023	0,07	0,21			
1979	CFF	8	11	47	22	9	5	102	1,07	2	68		2		6	11	28	47	4	16	14	10	24	11	79	0,002	0,024	0,06	0,23			
1979	CFL		4	1	1	2	2	10	0,45	2	5					1	3	4		2					2		0,082					
1979	CFR																															
1979	CH	15	30	138	8	40	61	292	17,57	15	49		1			16	14	31	45	9	21	12	60	19	166	0,007	0,353		1,91	29	6	55
1979	CIE	3		3		3		9	0,64	3			1			1	2	4	42	1	3				46	0,009	0,387		0,21	10	10	2
1979	CP	4	11	58	8	14	5	100	2,94	1	359	1	20	3	5	30	99	158	18	142	16	16	67	89	348	0,037	0,284	0,23	0,9	5	1	7
1979	CSD	32	21	67	2	39	5	166	0,65	13				8		38		46	1		16		22		39		0,001					
1979	DB	50	270	313	210	36	191	1070	1,78	36	519	3	59	3	48	85	84	282	36	105	91	190	121	57	600	0,016	0,036	0,08	0,43			
1979	DR																															
1979	DSB																															
1979	FS	7	19	38	45	21	19	149	0,5	30	276		26	6	5	11	75	123	11	141	3	5	15	18	193	0,007	0,038	0,03	0,03			
1979	JZ	15				184		199	1,59	188		101		38		332		471	210		86		245		541	0,1	0,207	0,26	0,59			
1979	MAV																															
1979	NS	10	44	46	31	4	72	207	1,92	37	64	6	3	1		55	43	108	6	10	5	23	38	2	84	0,011	0,19	0,01	0,18			
1979	NSB	1	4	22	8	36	1	72	2,04	5	13		3		2		5	10		4		6		7	17	0,013	0,018	0,05	0,15			
1979	OBB	12	23	42	12	25	13	127	1,31	8	104		16	3	5	15	22	61	7	24	15	22	26	15	109	0,022	0,043	0,07	0,34	64	1	86
1979	PKP																															
1979	RENFE																															
1979	SJ	2	23	110		104	21	260	2,61	11	107		1	1	1	31	11	45	11	1	11	91	29	2	145	0,002	0,02	0,01	0,75			
1979	SNCB	9	41	30	13	50	128	271	2,83	5	34	1	3	1	10	25	7	47	3	54	7	24	26	18	132	0,006	0,082	0,11	0,3			
1979	SNCF	12	7	241	26	73	33	392	0,78	56	312		45	1	22	80	102	250	10	85	7	37	49	61	249	0,008	0,018	0,04	0,08			
1979	VR	7	11	137	6	7	16	184	4,27	24	66		2		2		50	54		27		13		31	71	0,007	0,089	0,04	0,26	62		
1979	TCDD	42	11	167	19	178	512	929	24,66	56	201	43	23	5	4	40	75	190	244	124	20	24	116	111	639	0,097	0,541	0,21	1,02			
1980	BDZ																															
1980	BR	25		68	286	175		554	1,24	236		8	38	5	24		12	87	16	76	6	81		3	182	0,014	0,029	0,07	0,2			
1980	CFF	9	13	37	23	4	2	88	0,91	3	80		7	2	11	8	16	44	3	12	12	15	16	21	79	0,008	0,016	0,12	0,26			
1980	CFL		2			1	2	5	1,15		7		1				2	3				4			4	0,041			0,82	2	1	3
1980	CFR																															
1980	CH	4	17	143	6	37	59	266	17,54	17	41		1			17	20	38	7	10	11	8	57	2	95	0,007	0,116		1,16	27	2	35
1980	CIE		1	5		3		9	0,65	2	6	16		2	1		2	21	40		4		2	3	49	0,155	0,387	0,21	0,29	8	14	30
1980	CP	4	6	49	5	5	1	70	1,95	6	343		29		4	20	118	171	11	146	12	10	45	42	266	0,048	0,258	0,11	0,58	3	1	9
1980	CSD	23	19	72	2	57	6	179	0,7	28		1		4		43	1	49	9		2	1	21		33	0,001	0,005	0,01	0,01			
1980	DB	43	300	279	201	31	248	1102	1,81	38	561		69	3	40	83	102	297	60	151	81	204	88	59	643	0,017	0,052	0,07	0,43			
1980	DR																															
1980	DSB	3	238	19	2	2	114	378	7,85	277			3		2	3	3	11	9	6	17	27	1	4	64	0,009	0,045	0,04	0,82			
1980	FS	12	21	33	27	14	24	131	0,44	47	245	28	20	1	4	16	82	151	57	111	20	8	8	20	224	0,012	0,042	0,02	0,09			
1980	JZ	14				198		212	1,68	172		35		49		294		378	105		88		289		482	0,034	0,101	0,33	0,6			
1980	MAV																															
1980	NS																															
1980	NSB	2	1	27	12	25		67	1,86	3	21		1		5		6	12		7	6	9		4	26	0,004	0,029	0,13	0,38			
1980	OBB	7	32	57	15	27	21	159	1,6	8	113		9	2	15	24	38	88	1	11	30	25	36	18	121	0,012	0,016	0,15	0,5	70	7	110
1980	PKP																															
1980	RENFE																															
1980	SJ	10	31	93	10	87	28	259	2,59	15	83	21	4	2		30	11	68	182	2	10	75	24	5	298	0,037	0,271	0,02	0,75			
1980	SNCB	15	61	24	4	38	147	289	2,98	7	23		4		4	25	5	38	10	38	13	13	24	9	107	0,006	0,069	0,04	0,25			
1980	SNCF	8	1	220	38	48	23	338	0,66	42	300		33	3	14	38	115	203	1	93	7	26	43	62	232	0,006	0,017	0,03	0,06			
1980	VR	3	12	153	5	17	22	212	4,72	100	55		4		1		57	62	1	10	3	8		54	76	0,012	0,034	0,02	0,21	70		7
1980	TCDD	29	20	135	39	215	471	909	25,35	57	179	26	18	7	8	75	64	198	27	44	16	25	129	124	365	0,073	0,12	0,37	0,99			
1981	BDZ																															
1981	BR	20		55	258	128		461	1,03	183			22	3	20		9	54	26	63	5	93		6	193	0,007	0,028	0,05	0,22			
1981	CFF	4	12	48	23	12	3	102	1,06	2	68		4		15	14	16	49		15	5	10	11	12	53	0,004	0,017	0,14	0,14			
1981	CFL		1	1		3	1	6	1,41	1	6				1		2	3		1	1	1			3		0,039	0,21	0,42			
1981	CFR																															
1981	CH	15	17	169	8	29	53	291	18,84	19	45				2	23	18	43		6	8	11	52	10	87		0,040	0,12	1,14	25	4	13

A1.1.21. Operating Accidents

YEAR	Railway	Rail traffic – Collisions and derailments – Collisions between rolling stock: Train	Collisions between rolling stock: During shunting operations	Collisions between rolling stock and an obstacle at a level crossing	Other collisions (between r.s. and	Derailments: Train	Derailments: during shunting operation	Total Number of Collisions and derailments	Total Number of Collisions and derailments	Other rolling stock accidents	Casualties caused by rolling S. in motion	Killed – Passenger killed as a result of: Collisions and derailments	Passenger killed: others causes	Railway servants killed as a result of: collisions and derailments	Railway servants killed: other causes	Other Persons killed as a result of: collisions and derailments	Other Persons killed: other causes	Total Number of killed	Injured – Passenger injured as a result of: Collisions and derailments	Passenger injured: others causes	Railway servants injured: collisions and derailments	Railway servants injured: other causes	Other Persons injured as a result of: collisions and derailments	Other Persons injured: other causes	Total Number of injured	Number of passenger killed per 10000000 Pass.KMs	Number of passenger injured per 10000000 Pass.KMs	Number of railway servants killed per 1000000 motive vehicle kms (after deduction of assisting not required railcars	Number of railway servants injured per 1000000 motive vehicle kms (after deduction of assisting not required railcars	Road traffic: Number accidents	Road traffic: Number killed	Road traffic: Number injured
1981	CIE			6		2		8	0,58	2	4		1			3	2	6		1			3		4	0,010	0,010			11	14	1
1981	CP	4	1	41	4	6	2	58	1,51	10	188	5	22	1	2	37	76	143	9	56	11	9	29	26	140	0,046	0,111	0,07	0,49	2	3	3
1981	CSD	34	31	61	4	60	8	198	0,79	8	.	1		2		35		38	6		4	2	38		50	0,001	0,003	0,01	0,02			
1981	DB	40	275	318	241	36	266	1176	1,95	26	571	2	72	7	38	99	105	323	26	137	97	187	98	54	599	0,018	0,039	0,07	0,44	.	.	.
1981	DR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1981	DSB	2	209	27	5	6	103	352	7,12	235			7		2	8	5	22	8	11	21	39	12	1	92	0,017	0,047	0,04	1,09	19	5	14
1981	FS	5	18	25	24	15	33	120	0,41	21	234		19	1	5	12	72	109	7	116	3	5	17	21	169	0,005	0,031	0,02	0,03	.	.	.
1981	JZ	14				195		209	1,62	177		75		48		333		456	160		104		283		547	0,071	0,152	0,32	0,70			
1981	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1981	NS	9	31	50	38	19	42	189	1,68	24	125		1		1	51	58	111		15	4	58	22	3	102	0,001	0,016	0,01	0,54			
1981	NSB	1	1	18	6	21		47	1,31	7	11		1		2		7	10	2	5	2	8		2	19	0,004	0,029	0,05	0,25	.	.	.
1981	OBB	8	22	72	9	29	13	153	1,54	11	115	4	6	4	8	19	40	81	24	27	19	14	41	22	147	0,014	0,072	0,11	0,30	160	4	200
1981	PKP	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1981	RENFE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1981	SJ	10	10	100	4	72	6	202	2,01	19	49			2	5	32	2	41	9	1	11	42	28	1	92		0,015	0,06	0,47	.	.	.
1981	SNCB	5	49	23	3	28	169	277	2,80	11	20		1	1	4	27	6	39	8	41	6	10	28	8	101	0,001	0,069	0,05	0,15			
1981	SNCF	9	1	265	38	41	13	367	0,73	40	316		45	3	18	63	105	234	9	96	9	33	41	52	240	0,008	0,019	0,04	0,08	1	1	
1981	VR	5	23	132	2	11	32	205	4,51	33	50	4	3		1	12	27	47	7	10	3	4	27	7	58	0,021	0,052	0,02	0,13	82		
1981	TCDD	45	19	142	7	225	530	968	23,78	46	127		11	2	9	19	69	110		67	5	13	50	101	236	0,018	0,110	0,24	0,39			
1982	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	BR	29		46	340	134		549	1,41	190	.	4	28	1	21	2	6	62	12	52	3	33	5	4	109	0,010	0,021	0,05	0,08			
1982	CFF	5	15	47	17	7	6	97	0,95	2	70	6	8		8	51	23	96	16	11	15	14	19	8	83	0,016	0,030	0,07	0,26			
1982	CFL		4				3	7	1,43		4		1					1		1		2			3	0,040	0,040		0,43	2		2
1982	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	CH	8	16	150	25	39	56	294	18,27	21	35	3				21	19	43	66	11	19	5	70	13	184	0,020	0,513		1,39	19		25
1982	CIE		1	5		3		9	0,72	3			2				3	5		1			4	2	7	0,023	0,011			3	3	1
1982	CP			30	5	2		37	0,97	2	175	1	24	3	4	26	102	160	3	17	2	14	23	19	78	0,046	0,037	0,17	0,40	3		2
1982	CSD	25	28	51	2	52	9	167	0,67	8	.	2		5		25		32	11		9		31		51	0,001	0,006	0,01	0,03			
1982	DB	31	275	263	270	27	226	1092	1,87	35	507		53	5	30	71	75	234	32	103	88	204	90	60	577	0,013	0,034	0,06	0,46	.	.	.
1982	DR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1982	DSB	2	131	18	6	5	333	495	9,87	107	40		3		3	4	13	23	2	12	16	33	4	4	71	0,007	0,033	0,05	0,88	14	2	12
1982	FS	4	17	17	38	9	41	126	0,42	41	248	5	28	2	4	10	88	137	3	117	3	2	7	22	154	0,008	0,030	0,02	0,02	.	.	.
1982	JZ	11				173		184	2,46	120		1		17		3		21	16		70		7		93	0,001	0,001	0,11	0,46			
1982	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1982	NS	20	35	55	23	11	83	227	1,99	52	118	2	2	1		68	55	128	4	4	6	30	23	7	74	0,004	0,009	0,01	0,31			
1982	NSB		1	18	13	17	3	52	1,46	6	16		5		3		3	11	2	3	2	11		6	24	0,022	0,022	0,08	0,33	.	.	.
1982	OBB	13	17	59	7	23	7	126	1,18	9	104	5	16	3	11	26	22	83	28	19	13	25	30	12	127	0,029	0,065	0,13	0,34	164	6	171
1982	PKP	37	44	39	9	96	44	269	0,71		173	2	12	8	2		77	101	259	14	49	15		178	515	0,003	0,055	0,02	0,14			
1982	RENFE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1982	SJ	8	21	87	14	58	27	215	2,11	26	55	3		1	3	20	3	30	22	1	8	47	19	3	100	0,005	0,036	0,03	0,48	.	.	.
1982	SNCB	8	49	22	5	27	158	269	2,80	12	26	4	1	1	5	26	7	44	17	50	8	12	26	10	123	0,007	0,097	0,06	0,20			
1982	SNCF	8	2	248	39	50	14	361	0,72	36	288	3	55	7	15	49	115	244	46	105	13	29	37	36	266	0,01	0,027	0,04	0,08			
1982	VR	5	12	111	21	12	23	184	4,14	19	77		3			25	35	63	9	12	3	3	26	12	65	0,009	0,063		0,12	73		2
1982	TCDD	39	9	140	22	210	521	941	24,28	30	79		2	1	5	6	50	64		72	4	4	46	23	149	0,004	0,132	0,14	0,18			
1983	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	BR	50	.	62	348	210		670	1,59	309	.	2	22	1	24		11	60	7	43	6	40		8	104	0,008	0,017	0,06	0,11			
1983	CFF	8	12	45	17	8	5	95	0,89	5	66		4	1	13	8	17	43		10	6	11	15	14	56	0,004	0,011	0,12	0,15			
1983	CFL		3		1		1	5	1,24	3	3		1					1			1	2			3	0,041			0,68	6	1	5
1983	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	CH	2	26	142	46	33	67	316	19,18	21	40		1	4	2	24	10	41	9	11	11	5	88	13	137	0,006	0,123	0,34	0,90	15	20	34
1983	CIE	1		4	1	1	1	8	0,64			6		1	2		1	10	26		3			2	31	0,071	0,307	0,24	0,24	4	4	1
1983	CP	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	CSD	30	24	76		40	7	177	0,70	3	.	1		5		39		45	12		12		76	3	103	0,001	0,006	0,01	0,03			
1983	DB	27	250	252	243	19	217	1008	1,75	24	421	6	43	4	30	75	67	225	8	116	72	124	67	50	437	0,013	0,032	0,06	0,32	.	.	.
1983	DR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1983	DSB	2	102	15	3	5	244	371	7,35	100	71	3	3		3	7	9	25	23	11	11	28	4	2	79	0,014	0,077	0,05	0,70	60	4	28
1983	FS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	JZ	11				149		160	1,20	118		5		10		9		24	61		50		8		119	0,004	0,052	0,06	0,32			
1983	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1983	NS	1	46	36	25	1	78	187	1,66	9	80		1			60	46	107		16	5	31	35	6	93	0,001	0,018		0,31			
1983	NSB			18	8	10	6	42	1,22	5	17		1		2		7	10		7		5		6	18	0,005	0,032	0,05	0,13	.	.	.
1983	OBB	3	27	50	12	18	21	131	1,31	10	104		9		7	11	23	50	3	25	11	24	30	19	112	0,013	0,040	0,06	0,32	158	5	173
1983	PKP	31	42	40	6	82	43	244	0,63		162	1	14	5	1		68	89	93	25	29	10		213	370	0,003	0,024	0,01	0,08			
1983	RENFE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1983	SJ	7	20	86	13	37	22	185	1,76	18	59		2	1	3	26	6	38	6	3	2	38	35	3	87	0,003	0,014	0,03	0,34	.	.	.
1983	SNCB	4	37	24	7	14	127	213	2,31	7	24		3		2	26	4	35	2	41	2	17	18	10	90	0,005	0,065	0,02	0,19			
1983	SNCF	11	2	307	44	37	31	432	0,86	31	295	7	55	1	14	70	115	262	15	111	7	16	48	46	243	0,011	0,022	0,03	0,04	1	2	
1983	VR	5	14	122	40	11	22	214	4,89	25	50		3		2	21	23	49		7	4		30	12	53	0,009	0,021	0,04	0,08	73		
1983	TCDD	27	26	136	51	263	539	1042	26,20	28	257		19	1	4	26	70	120	1	79	10	15	67	110	282	0,033	0,140	0,11	0,56			
1984	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	BR	47	.	55	455	209		.	1,88	290	.	18	20	4	12		14	68	13	59	4	18		10	104	0,013	0,025	0,04	0,05			
1984	CFF	5	6	47	23	13	6	100	0,93	5	54		3	1	4	8	11	27		16	8	5	10	18	57	0,003	0,018	0,04	0,11			
1984	CFL		4	2		1	1	8	1,92		1										1	1	1		3				0,43	2		3
1984	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	CH	11	18	125	51	32	72	309	18,48	12	70	7	1	6	1	12	15	42	81	12	7	30	69	13	212	0,048	0,563	0,4	2,12	17	3	9
1984	CIE	1		4	2	2	2	11	0,87		3		2		1	4		7						1	1	0,022		0,08		8	8	30
1984	CP	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	CSD	17	7	57	1	38	24	144	0,56		.	3		5		29		37	24		13		50		87	0,001	0,012	0,01	0,03			
1984	DB	30	224	255	194	15	179	897	1,54	33	389	2	51	3	18	76	78	228	10	93	62	130	92	28	415	0,014	0,026	0,03	0,31	.	.	.
1984	DR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1984	DSB	3	76	19	2	5	243	348	6,94	105	43				2	1	5	8	5	7	5	15	6	1	39		0,027	0,04	0,36	54	2	21
1984	FS	3	22	25	40	21	67	178	0,58	29	216		16	1	3	17	54	91	1	122	5	3	7	18	156	0,004	0,033	0,01	0,02	.	.	.
1984	JZ	7				146		153	1,12	153		31		14		3		48	61		59		11		131	0,026	0,052	0,09	0,38			
1984	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1984	NS	5	41	21	17	1	90	175	1,53	8	87					45	54	99	2	8	1	21	21	7	60		0,011		0,19			
1984	NSB		2	20	4	17	4	47	1,38	2	6				1		8	9		8	1	4		7	20		0,036	0,03	0,14	.	.	.
1984	OBB	8	22	59	21	10	16	136	1,34	13	100		13		5	14	23	55	1	16	7	28	27	14	93	0,019	0,024	0,04	0,31	155	5	118
1984	PKP	29	41	38	7	79	42	236	0,59		166	2	10	6	1		53	72	205	83	35	12		217	552	0,002	0,054	0,01	0,10			
1984	RENFE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1984	SJ	10	38	89	16	40	10	203	1,89	17	68		1	3	1	39	14	58		4	5	55	23	8	95	0,002	0,006	0,03	0,50	.	.	.
1984	SNCB	10	48	16	9	16	116	215	2,25	11	16		2	1	1	11	8	23		37	6	8	12	9	72	0,003	0,057	0,02	0,14			
1984	SNCF	15	4	318	30	53	18	438	0,88	45	285	1	38	2	5	78	96	220	3	99	10	14	36	41	203	0,007	0,017	0,01	0,05			
1984	VR		15	109	27	13	26	190	4,39	27	60	2	8			21	19	50	4	8	2	2	34	15	65	0,031	0,037		0,08	55		
1984	TCDD	30	24	171	37	274	587	1123	25,28	30	325		9	8	8	51	97	173	47	73	11	24	148	106	409	0,014	0,191	0,31	0,67			

A.1.1.1. Firms

BR - British Railways
CFF Swiss Federal Railways
CFL Luxembourg National Railway Company
CIE Irish Transport Company
CP Portuguese Railway Company
DB German Federal Railway
CH Hellenic Railways Organisation - Greece
DSB Danish state railways
FS Italian State Railways
NS Netherlands Railways
NSB Norwegian State Railways
OBB Austrian Federal Railways
RENFE Spanish National Railway System
SJ Swedish State Railway
SNCB Belgian National Railway Company
SNCF French National Railway Company
VR Finnish State Railways

DR German State Railway
BDZ Bulgarian State Railways
CFR Rumanian Railways
CSD Czechoslovak State Railways
JZ Yugoslav Railway Community
MAV Hungary State Railways
PKP Polish State Railway
TCDD Turkish Republic State Railways

NOTE:
(.) INSTEAD OF FIGURES INDICATES
THAT THE FIGURE IS NOT KNOWN

A.1.1.2. Lines and Track - Length

G- running generally on the left
D-G no general running direction
F"/"twppkpi"igpgtcm{"qp"vjg"tkijv
L wide; E narrow

Year	Railway	Direction of Running	Rail Gauge	Length of Lines (end of the year)			Average Length of Lines WORKED								Length of Track (at the end of the year)					Road Traffic		Shipping Services	
				lines not electrified	elect. Lines	TOTAL	Lines not elect.		Elect. Lines		Total	Lines Worked			Not Elect.		Electrified		Total	Average Length of Lines Worked			
							Single Track	>Double Track	S.T.	> D. T.		pass.& goods	pass.	goods	Main running tracks	Other Tracks	Main Running	Other tracks		Passenger	Goods	Passenger	Goods
1972	BR	G	N	15570	3178	18748	5154	10613	96	3074	18937	14617		4320	29645	10489	7615	695	48744			.	.
1972	CFF	G	N	15	2837	2852	16		1476	1347	2839	2812		27	15	403	4202	2127	6717				
1972			E		74	74			74		74	74				9	74	19	102				
1972			total	15	2911	2926	16		1550	1347	2913	2886		27	15	412	4276	2146	6849	16	16	53	13
1972	CFL	D-G	N	134	137	271	65	69	45	92	271	229		42	206	124	230	108	668	1513	262		
1972	CH	D	N	1560		1560	1461	99			1560	1560			1659	540			2199				
1972			E	1017		1017	980	2			982	909		73	990	134			1124				
1972			TOTAL	2577		2577	2441	101			2542	2469		73	2649	674			3323	2317		3	3
1972	CIE	G	L	2189		2189	1698	491			2189	1830		359	1758	938			2696	.	.	.	.
1972	CP	G	L	2408	417	2825	2401	15	13	378	2807	.	.	.	2431	435	822	172	3860				
1972			E	759		759	753	6			759	.	.	.	765	72			837				
1972			TOTAL	3167	417	3584	3154	21	13	378	3566	.	.	.	3196	507	822	172	4697	134		10	10
1972	DB	D	N	19919	9296	29215	15637	4387	1355	7799	29178	24807	394	3977	24804	14861	18901	8246	66812				
1972			E	52		52	52				52	27	4	21	52	10			62				
1972			TOTAL	19971	9296	29267	15689	4387	1355	7799	29230	24834	398	3998	24856	14871	18901	8246	66874	108832	3558	168	42
1972	DSB	D	N	1900	84	1984	1311	645	0	84	2043	1964	54	22	2545	1942	168	38	4693	7440	.	208	208
1972	FS	G	N	8205	8025	16230	7702	282	3229	4735	15948	15723		225	8487	2710	12792	5371	29360				
1972			E	164		164	135				135	135			164	21			185				
1972			TOTAL	8369	8025	16394	7837	282	3229	4735	16083	15858		225	8651	2731	12792	5371	29545	1960	166	237	237
1972	NS	D	N	1189	1645	2834	1101	88	169	1476	2834	2479		355	1387	1564	3122	690	6763				
1972	NSB	D	N	1801	2439	4240	1801		2363	76	4240	4146		94	1801	511	2523	598	5433	8559	2527		
1972	OBB	D-G	N	3026	2394	5420	2898	186	1083	1262	5429	5218	3	208	3211	1297	3673	1578	9759				
1972			E	363	91	454	371		91		462	447	4	11	363	42	91	17	513				
1972			TOTAL	3389	2485	5874	3269	186	1174	1262	5891	5665	7	219	3574	1339	3764	1595	10272	9126	6508	40	
1972	RENFE	D-G	L	10283	3123	13406	9760	620	1649	1475	13504	13504			10903	.	4598	.	.				
1972			E						19		19		19										
1972			TOTAL	10283	3123	13406	9760	620	1668	1475	13523	13504	19		10903	.	4598	.	.	14815			
1972	SJ	G	N	4220	6959	11179	4225		5807	1152	11184	10613		571	4220	2299	8111	2823	17453				
1972			E	182		182	182		24	4	210	182	28		182	545			727				
1972			TOTAL	4402	6959	11361	4407		5831	1156	11394	10795	28	571	4402	2844	8111	2823	18180	23171	.	71	220
1972	SNCB	G	N	3194	1232	4426	1523	1374	51	1176	4124	2897	13	1214	4631	3702	2489	724	11546	7394			
1972	SNCF	G	N	27297	9248	36545	17564	7833	1281	7920	34598	24690	50	9858	33574	.	18458	.	.				
1972			E	272	100	372	133		98		231	200		31	133	.	98	.	.				
1972			TOTAL	27569	9348	36917	17697	7833	1379	7920	34829	24890	50	9889	33707	.	18556	.	.	9759	3307	384	427
1972	VR	D	L	5778	109	5887	5459	358		106	5923	4605	3	1315	6133	2500	238	48	8919		4242		
1972	BDZ	D	N	2982	1016	3998	2742	240	1016		3998	3998			3222	1395	1016	438	6071				
1972			E	245		245	245				245	245			245	51			296				
1972			TOTAL	3227	1016	4243	2987	240	1016		4243	4243			3467	1446	1016	438	6367				
1972	CFR	D	L	36		36	36				36	21		15	10	118			128				
1972			N	9769	600	10369	8458	1261	416	227	10362	10024	27	311	9335	7502	1166	198	18201				
1972			E	560	58	618	560		58		618	618				623		67	690				
1972			TOTAL	10365	658	11023	9054	1261	474	227	11016	10663	27	326	9345	8243	1166	265	19019				
1972	CSD	D	L	97	4	101	97		4		101			101	.	.	.	.	.				
1972			N	10435	2581	13016	9549	886	638	1943	13016	13016			.	.	.	.	.				
1972			E	136	45	181	136		45		181	181			.	.	.	.	.				
1972			TOTAL	10668	2630	13298	9782	886	687	1943	13298	13197		101	11552	6113	4608	1962	24235				
1972	DR	D	N	12618	1384	14002	11107	1560	337	997	14041	12464	317	1259	14943	9446	2291	1037	27717				
1972			E	381		381	428				428	322	40	65	522	155			677				
1972			TOTAL	12999	1384	14383	11535	15560	337	997	14469	12786	357	1324	15465	9601	2291	1037	28394			150	150
1972	JZ	D	N	7430	1925	9355	7313	117	1274	651	9355	9355			10123	234	2575	982	13914				
1972			E	1062		1062	1062				1062	1062			1062	190			1252	.	.		
1972			TOTAL	8492	1925	10417	8375	117	1274	651	10417	10417			11185	424	2575	982	15166				
1972	MAV	D	L	35		35	35				35	1		34	35	101			136				
1972			N	6901	969	7870	6725	176	78	891	7870	7789	25	56	7110	2903	1829	887	12729				
1972			E	432		432	432				432	421	11		432	51			483				
1972			TOTAL	7368	969	8337	7192	176	78	891	8337	8211	36	90	7577	3055	1829	887	13348				
1972	TCDD	D	N	8024	108	8132	8014	42		78	8134	8134			8036	1522	217	56	9831				
1973	BR	G	N	14766	3461	18227	15002		3320		18322	13584	853	3885	27779	10235	8521	748	47283			.	.
1973	CFF	G	N	15	2837	2852	16		1468	1355	2839	2812		27	15	385	4207	2200	6807				
1973			E		74	74			74		74	74				9	74	19	102				
1973			total	15	2911	1926	16		1542	1355	2913	2886		27	15	394	4281	2219	6909	40	40	53	13
1973	CFL	D-G	N	134	137	271	65	69	45	92	271	229		42	206	118	230	108	668	1519	262		
1973	CH	D	N	1560		1560	1461	99			1560	1560			1659	550			2209				
1973			E	1017		1017	980	2			982	909		73	990	135			1125				
1973			TOTAL	2577		2577	2441	101			2542	2469		73	2649	685			3334	2250		3	3
1973	CIE	G	L	2189		2189	1698	491			2189	1830		359	1758	938			2696	.	.	.	.
1973	CP	G	L	2412	417	2829	2401	15	13	378	2807	.	.	.	2431	435	822	172	3860				
1973			E	759		759	753	6			759	.	.	.	765	72			837				
1973			TOTAL	3171	417	3588	3154	21	13	378	3566	.	.	.	3196	507	822	172	4697	134		10	10
1973	DB	D	N	19550	9514	29064	15412	4242	1421	7993	29068	24553	474	4041	24117	14660	19440	8455	66672				
1973			E	25		25	39				39	18		21	24	7			31				
1973			TOTAL	19575	9514	29089	15451	4242	1421	7993	29107	24571	474	4062	24141	14667	19440	8455	66703	110434	2949	168	42
1973	DSB	D	N	1900	99	1999	1246	646	2	97	1991	1918	56	17	2545	1939	196	45	4725	7301	.	204	208
1973	FS	G	N	8187	7988	16175	7679	282	3218	4750	15929	15704		225	8469	2774	12800	8294	29337				
1973			E	164		164	135				135	135			164	21			185				
1973			TOTAL	8351	7988	16339	7814	282	3218	4750	16064	15839		225	8633	2795	12800	5294	29522	1853	166	237	237
1973	NS	D	N	1187	1645	2832	1099	88	169	1476	2832	2479		353	1387	1562	3122	690	6761				
1973	NSB	D	N	1801	2440	4241	1801		2348	91	4240	4146		94	1801	529	2540	599	5469	8556	3969		
1973	OBB	D-G	N	2996	2423	5419	2843	175	1118	1276	5412	5193	3	216	3164	1250	3730	1628	9772				
1973			E	363	91	454	360		91		451	447	4		363	45	91	14	513				
1973			TOTAL	3359	2514	5873	3203	175	1209	1276	5863	5640	7	216	3527	1295	3821	1642	10285	8989	7161	36	
1973	RENFE	D-G	L	9885	3413	13298	9420	562	1924	1490	13396	13396			10447	2311	4903	1526	19187				
1973			E						19		19		19										
1973			TOTAL	9885	3413	13298	9420	562	1924	1490	13415	13396	19		10447	2311	4903	1526	19187	.			
1973	SJ	G	N	4220	6959	11179	4225		5807	1152	11184	10592		592	4220	2299	8111	2823	17453				
1973			E	182		182	182				182	182			182	545			727				
1973			TOTAL	4402	6959	11361	4407		5807	1152	11366	10774		592	4402	2844	8111	2823	18180	22875	.	71	220
1973	SNCB	G	N	3094	1272	4366	1444	1353	70	1193	4060	2908	13	1139	4499	3662	2551	734	11446	7386			
1973	SNCF	G	N	26711	9217	35928	17536	7801	1308	7922	34567	24405	50	10112	33171	.	18459	.	.				
1973			E	272	100	372	103		98		201	170		31	103	.	98	.	.				
1973			TOTAL	26983	9317	36300	17639	7801	1406	7922	34768	24575	50	10143	33274	.	18557	.	.	10451	3317	384	427
1973	VR	D	L	5788	109	5897	5469	355		109	5933	4605	3	1325	6143	2494	238	48	8923		4208		
1973	BDZ	D	N	2885	1116	4001	2632	253	1116		4001	4001			3138	1425	1116	443	6122				
1973			E	245		245	245				245	245			245	51			296				
1973			TOTAL	3130	1116	4246	2877	253	1116		4246	4246			3383	1476	1116	443	6418				
1973	CFR	D	L	36		36	36				36	21		15	10	118			128				
1973			N	9516	850	10366	8082	1416	636	231	10365	9979	27	359	8697	8076	1509	239	18521				
1973			E	560	57	617	560		56		616	616				623		65	688				
1973			TOTAL	10112	907	11019	8678	1416	692	231	10017	10616	27	374	8707	8817	1509	304	19337				
1973	CSD	D	L	97	4	101	97		4		101			101	.	.	.	.	.				
1973			N	10401	2610	13011	9522	879	654	1956	13011	13011			.	.	.	.	.				
1973			E	136	45	181	136		45		181	181			.	.	.	.	.				
1973			TOTAL	10634	2659	13293	9755	879	703	1956	13293	13192		101	11513	6130	4649	1947	24239				
1973	DR	D	N	12577	1383	13960	10959	1652	357	1024	13992	12386	320	1286	14872	9345	2305	1003	27525				
1973			E	356		356	374				374	273	40	61	480	143			623				
1973			TOTAL	12933	1383	14316	11333	1652	357	1024	14366	12659	360	1347	15352	9488	2305	1003	28148			150	150
1973	JZ	D	N	7382	1971	9353	7261	121	1299	672	9353	9353			10147	158	2643	981	13929				
1973			E	1045	6961	1045	1045				1045	1045			1046	182			1228				
1973			TOTAL	8427	1971	10398	8306	121	1299	672	10398	10398			11193	340	2643	981	15157	.	.		
1973	MAV	D	L	35		35	35				35	1		34	35	106			141				
1973			N	6783	1010	7793	6640	143	73	937	7793	7712	25	56	6966	2871	1908	931	12676				
1973			E	433		433	433				433	422	11		433	50			483				
1973			TOTAL	7251	1010	8261	7108	143	73	937	8261	8135	36	90	7434	3027	1908	931	13300				
1973	TCDD	D	N	8033	108	8141	8015	12		108	8135	8135			8045	1551	217	56	9869				
1974	BR	G	N	14521	3647	18168	14643		3555		18198	13505	869	3824	27436	9897	8755	690	46778			.	.
1974	CFF	G	N	15	2837	2852	16		1464	1359	2839	2812		27	15	406	4218	2204	6843				
1974			E		74	74			74		74	74				9	74	19	102				
1974			total	15	2911	2926	16		1538	1359	2913	2886		27	15	415	4292	2223	6945	40	40	53	13
1974	CFL	D-G	N	134	137	271	65	69	45	92	271	229		42	214	79	233	112	638	1519	262		
1974	CH	D	N	1560		1560	1461	99			1560	1560			1659	563			2222				
1974			E	1017		1017	980	2			982	909		73	984	135			1119				
1974			TOTAL	2577		2577	2441	101			1542	2469		73	1643	698			3341	2250		3	3
1974	CIE	G	L	2189		2189	1698	491			2189	1830		359	1758	938			2696	.	.	.	.
1974	CP	G	L	2412	417	2829	2401	15	13	378	2807	.	.	.	2431	435	822	172	3860				
1974			E	759		759	753	6			759	.	.	.	765	72			837				
1974			TOTAL	3171	417	3588	3154	21	13	378	3566	.	.	.	3196	507	822	172	4679	134		10	10
1974	DB	D	N	19157	9703	28860	15198	4085	1473	8145	28901	24197	542	4162	23615	14520	19922	8534	66591				
1974			E	25		25	25				25	4		21	24	7			31				
1974			TOTAL	19182	9703	28885	15223	4085	1473	8145	28926	24201	542	4183	23639	14527	19922	8534	66622	111166	.	168	42
1974	DSB	D	N	1900	99	1999	1254	646	2	97	1999	1926	56	17	2546	1860	196	45	4647	7399	.	204	208
1974	FS	G	N	8191	7986	16177	7715	281	3161	4780	15937	15712		225	8473	2774	12800	5322	29369				
1974			E	164		164	135				135	135			164	21			185				
1974			TOTAL	8355	7986	16341	7850	281	3161	4780	16072	15847		225	8637	2795	12800	5322	29554	1853	166	237	237
1974	NS	D	N	1120	1712	2832	1032	88	225	1487	2832	2479		353	1337	1562	3172	690	6761				
1974	NSB	D	N	1801	2440	4241	1801		2349	91	4241	4147		94	1801	529	2540	597	5467	8849	4157		
1974	OBB	D-G	N	2881	2536	5417	2800	167	1148	1294	5409	5192	3	214	3022	1167	3872	1725	9786				
1974			E	363	91	454	360		91		451	447	4		363	41	91	14	509				
1974			TOTAL	3244	2627	5871	3160	167	1239	1294	5860	5639	7	214	3385	1208	3963	1739	10295	9168	6963	38	
1974	RENFE	D-G	L	9888	3427	13315	9423	562	1921	1507	13413	13413			10450	2435	4934	1537	19356				
1974			E						19		19		19										
1974			TOTAL	9888	3427	13315	9423	562	1940	1507	13432	13413	19		14450	2435	4934	1537	19356	.			
1974	SJ	G	N	4220	6959	11179	4225		5807	1152	11184	10592		592	4220	2299	8111	2823	17453				
1974			E	182		182	182				182	182			182	545			727				
1974			TOTAL	4402	6959	11361	4407		5807	1152	11366	10774		592	4402	2844	8111	2823	18180	22794	.	71	275
1974	SNCB	G	N	3050	1272	4322	1420	1346	57	1215	4038	2909	13	1116	4454	3609	2568	756	11387	7652			
1974	SNCF	G	N	26709	9219	35928	17354	7625	1247	7955	34181	24188	55	9938	32883	.	18565	.	.				
1974			E	272	100	372	103		98		201	170		31	103	.	98	.	.				
1974			TOTAL	26981	9319	36300	17457	7625	1345	7955	34382	24358	55	9969	32986	.	18663	.	.	10720	3317	384	427
1974	VR	D	L	5724	185	5909	5480	294		173	5947	4605	3	1339	6007	2468	391	51	8917		4047		
1974	BDZ	D	N	2797	1240	4037	2542	255	1240		4037	4037			3052	1376	1240	508	6176				
1974			E	245		245	245				245	245			245	51			296				
1974			TOTAL	3042	1240	4282	2787	255	1240		4282	4282			3297	1427	1240	508	6472				
1974	CFR	D	L	36		36	36				36	21		15	23	105			128				
1974			N	9342	1089	10431	7716	1626	856	233	10431	10037	27	367	9371	7303	1867	318	18859				
1974			E	562	57	619	562		57		619	619				625		65	690				
1974			TOTAL	9940	1146	11086	8314	1626	913	233	11086	10677	27	382	9394	8033	1867	383	19677				
1974	CSD	D	L	97	4	101	.		.		101			101	.	.	.	.	.				
1974			N	10348	2635	12983	.	.	.	.	12983	12983			.	.	.	.	.				
1974			E	112	45	157	.		.		157	157			.	.	.	.	.				
1974			TOTAL	10557	2684	13241	.	.	.	.	13241	13140		101	11433	6113	4676	1959	24181				
1974	DR	D	N	12506	1406	13192	10699	1867	358	1018	13942	12346	333	1263	14746	9112	2443	1079	27380				
1974			E	340		340	346				346	262	40	44	450	137			587				
1974			TOTAL	12846	1406	14252	11045	1867	358	1018	14288	12608	373	1307	15196	9249	2443	1079	27967			150	150
1974	JZ	D	N	6801	2552	9353	6744	57	1815	737	9353	9353			9501	47	3289	1110	13947				
1974			E	966		966	966				966	966			966	166			1132				
1974			TOTAL	7767	2552	10319	7710	57	1815	737	10139	10319			10467	213	3289	1110	15097	.	1		
1974	MAV	D	L	35		35	35				35	1		34	35	105			140				
1974			N	6553	1123	7676	6523	30	73	1050	7676	7595	25	56	6735	2774	2022	1036	12567				

A.1.1.2. Lines and Track - Length

G- running generally on the left
D-G no general running direction
F"/"twppkpi"igpgtcm{"qp"vjg"tkijv
L wide; E narrow

		Direction	Rail	Length of Lines (end of the year)			Average Length of Lines WORKED								Length of Track (at the end of the year)					Road Traffic		Shipping Services	
		of		lines not	elect.	TOTAL	Lines not elect.		Elect. Lines		Total	Lines Worked			Not Elect.		Electrified			Average Length of Lines Worked			
Year	Railway	Running	Gauge	electrified	Lines		Single Track	>Double Track	S.T.	> D. T.		pass.& goods	pass.	goods	Main running tracks	Other Tracks	Main Running	Other tracks	Total	Passenger	Goods	Passenger	Goods
1974			E	399		399	399				399	388	11		399	47			446				
1974			TOTAL	6987	1123	8110	6957	30	73	1050	8110	7984	36	90	7169	2926	2022	1036	13153				
1974	PKP	D	N	18655	5118	23773	14890	3587	766	4352	23595	23595			22445	10979	9470	3504	46398				
1974			E	.		.	.	.			.	.			.	.			.				
1974			TOTAL	.	5118	.	.	.	766	4352	.	.			.	.	9470	3504	.				
1974	TCDD	D	N	8033	108	8141	8021	12		108	8141	8141			8045	1570	217	56	9888				
1975	BDZ	D	N	2719	1326	4045	2455	264	1326		4045	4045			2719	1360	1326	554	5959				
1975			E	245		245	245				245	245			245	51			296				
1975			TOTAL	2964	1326	4290	2700	264	1326		4290	4290			2964	1411	1326	554	6255				
1975	BR	G	N	14507	3611	18118	14515		3629		18144	13525	877	3742	27365	9423	8686	692	46166			.	.
1975	CFF	G	N	15	2844	2859	16		1457	1370	2843	2816		27	15	429	4237	2212	6893				
1975			E		74	74			74		74	74				9	74	19	102				
1975			total	15	2918	2933	16		1531	1370	2917	2890		27	15	438	4311	2231	6995	58	58	53	13
1975	CFL	D-G	N	138	137	275	69	69	45	92	275	229		46	214	81	233	112	640	1519	262		
1975	CFR	D	L	45		45	45				45			45	35	86			121				
1975			N	9164	1239	10403	7415	1749	989	250	10403	9941	27	435	10020	6604	2115	364	19103				
1975			E	534	57	591	534		57		591	591				596		65	661				
1975			TOTAL	9743	1296	11039	7994	1749	1046	250	11039	10532	27	480	10055	7286	2115	429	19885				
1975	CH	D	N	1565		1565	1466	99			1565	1565			1664	570			2234				
1975			E	967		967	893	18			911	911			929	135			1064				
1975			TOTAL	2532		2532	2359	117			2476	2476			2593	705			3298	2200		3	3
1975	CIE	G	L	2006		2006	1517	489			2006	1785		221	1609	902			2511	.	.	.	.
1975	CP	G	L	2412	417	2829	2401	15	13	378	2807	.	.	.	2431	435	822	172	3860				
1975			E	759		759	753	6			759	.	.	.	765	72			837				
1975			TOTAL	3171	417	3588	3154	21	13	378	3566	.	.	.	3196	507	822	172	4697	134		10	10
1975	CSD	D	L	97	4	101	.		.	.	101			101	.	.	.	.	.				
1975			N	10298	2658	12956	.	.	.	.	12956	12956			.	.	.	.	.				
1975			E	112	45	157	.		.		157	157			.	.	.	.	.				
1975			TOTAL	10507	2707	13214	.	.	.	.	13214	13113		101	11364	6906	4723	1998	24181				
1975	DB	D	N	18796	10003	28799	15033	3894	1545	8316	28788	23800	529	4459	23086	14403	20388	8638	66515				
1975			E	25		25	25				25	4		21	24	7			31				
1975			TOTAL	18821	10003	28824	15058	3894	1545	8316	28813	23804	529	4480	23110	14410	20388	8638	66546	111002	.	168	42
1975	DR	D	N	12508	1454	13962	10567	1926	371	1067	13931	12284	366	1281	14718	9126	2527	1050	27421				
1975			E	336		336	340				340	249	40	51	422	136			558				
1975			TOTAL	12844	1454	14298	10907	1926	371	1067	14271	12533	406	1332	15140	9262	2527	1050	27979			150	150
1975	DSB	D	N	1900	99	1999	1254	646	2	97	1999	1926	56	17	2546	1862	196	48	4652	7373	.	204	208
1975	FS	G	N	8191	7986	16177	7719	282	3157	4784	15942	15327		615	8473	2774	12800	5322	29369				
1975			E	164		164	135				135	135			164	21			185				
1975			TOTAL	8355	7986	16341	7854	282	3157	4784	16077	15462		615	8637	2795	12800	5322	29554	1961	166	237	237
1975	JZ	D	N	6772	2647	9414	6771	1	1858	789	9419	9419			6687	2676	3499	1148	14010				
1975			E	649		649	649				649				632	119			751				
1975			TOTAL	7421	2647	10068	7420	1	1858	789	10068	10068			7319	2795	3499	1148	14761	.	.		
1975	MAV	D	L	35		35	35				35	1		34	35	106			141				
1975			N	6414	1196	7610	6385	29	146	1050	7610	7529	25	56	6594	2713	2097	1104	12508				
1975			E	329		329	329				329	318	11		329	41			370				
1975			TOTAL	6778	1196	7974	6749	29	146	1050	7974	7848	36	90	6958	2860	2097	1104	13019				
1975	NS	D	N	1113	1712	2825	1025	88	224	1488	2825	2476		349	1330	1562	3172	690	6754				
1975	NSB	D	N	1801	2440	4241	1801		2349	91	4241	4147		94	1801	532	2540	596	5469	8508	3961		
1975	PKP	D	N	18178	5588	23766	13849	4251	1106	4482	23688		23688		22149	10695	10070	3872	46786				
1975			E	.		.	.	.			.		.		.	.			.				
1975			TOTAL	.	5588	.	.	.	1106	4482	.		.		.	.	10070	3872	.				
1975	OBB	D-G	N	2811	2599	5410	2703	144	1232	1324	5403	5193	3	207	2952	1163	3942	1740	9797				
1975			E	363	91	454	360		91		451	447	4		363	44	91	14	512				
1975			TOTAL	3174	2690	5864	3063	144	1323	1324	5854	5640	7	207	3315	1207	4033	1754	10309	8729	9323	40	
1975	RENFE	D-G	L	9735	3645	1380	9328	504	2069	1577	13478	13478			10334	2777	5218	1598	19927				
1975			E						19		19		19										
1975			TOTAL	9735	3645	13380	9328	504	2088	1577	13497	13478	19		10334	2777	5218	1598	19927				
1975	SJ	G	N	4220	6959	11179	4225		5807	1152	11184	10592		592	4220	2223	8111	2823	17377				
1975			E	182		182	182				182	182			182	545			727				
1975			TOTAL	4402	6959	11361	4407		5807	1152	11366	10774		592	4402	2768	8111	2823	18104	22568	.	71	309
1975	SNCB	G	N	3041	1276	4317	1373	1346	57	1216	3992	2910	13	1069	4446	3575	2580	773	11374	7795			
1975	SNCF	G	N	26551	9252	35803	17469	7357	1247	7981	34054	24162	92	9800	32744	.	18728	.	.				
1975			E	272	100	372	103		98		201	170		31	103	.	98	.	.				
1975			TOTAL	26823	9352	36175	17572	7357	1345	7981	34225	24332	92	9831	32847	.	18821	.	.	10720	3317	503	427
1975	VR	D	L	5523	395	5918	5357	239	129	228	5953	4605	9	1339	6008	2471	408	51	8938		4148		
1975	TCDD	D	N	8030	108	8138	8020	12		108	8140	8140			8122	1608	216	56	10002				
1976	BDZ	D	N	2636	1426	4062	2351	285	1426		4062	4062			2636	1422	1426	603	6087				
1976			E	246		246	246				246	246			246	51			297				
1976			TOTAL	2882	1426	4308	2597	285	1426		4308	4308			2882	1473	1426	603	6384				
1976	BR	G	N	14272	3735	18007	5226	9141	127	3568	18062	13449	970	3643	26894	9609	8993	692	46188			.	.
1976	CFF	G	N	15	2844	2859	16		1453	1377	2846	2819		27	15	488	4237	2232	6972				
1976			E		74	74			74		74	74				9	74	19	102				
1976			total	15	2918	2933	16		1527	1377	2920	2893		27	15	497	4311	2251	7074	58	58	53	13
1976	CFL	D-G	N	137	137	274	68	69	45	92	274	229		45	213	77	217	129	636	1519	262		
1976	CFR	D	L																				
1976			N																				
1976			E																				
1976			TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	D	N	1569		1569	1470	99			1569	1569			1668	563			2231				
1976			E	892		892	868	24			892	892			916	135			1051				
1976			TOTAL	2461		2461	2338	123			2461	2461			2584	698			3282	2200			
1976	CIE	G	L	2010		2010	1523	487			2010	1763		247	1611	908			2519	.	.	.	.
1976	CP	G	L	2397	432	2829	2401	15	13	378	2807	.	.	.	2416	435	837	172	3860				
1976			E	759		759	753	6			759	.	.	.	765	72			837				
1976			TOTAL	3156	432	3588	3154	21	13	378	3566	.	.	.	3181	507	837	172	4697	134		10	10
1976	CSD	D	L	97	4	101	.		.	.	101			101	.	.	.	.	.				
1976			N	10263	2665	12928	.	.	.	.	12928	12928			.	.	.	.	.				
1976			E	112	45	157	.		.		157	157			.	.	.	.	.				
1976			TOTAL	10472	2714	13186	.	.	.	.	13186	13085		101	11321	5818	4737	2280	24156				
1976	DB	D	N	18215	10341	28556	14779	3702	1661	8519	28661	23389	511	4761	22261	14099	21003	8891	66254				
1976			E	25		25	25				25	4		21	24	7			31				
1976			TOTAL	18240	10341	28581	14804	3702	1661	8519	28661	23393	511	4782	22285	14106	21003	8891	66285	102798	.	166	40
1976	DR	D	N	12467	1509	13976	10409	2066	371	1112	13958	12236	412	1310	14766	9073	2682	1059	2758				
1976			E	331		331	331				331	235	40	56	411	120							
1976			TOTAL	12798	1509	14307	10740	2066	371	1112	14289	12471	452	1366	15177	9193	2682	1059	2811			150	150
1976	DSB	D	N	1900	99	1999	1254	646	2	97	1999	1926	56	17	2546	1850	196	48	4640	7360	.	197	208
1976	FS	G	N	8061	8182	16243	7713	158	3163	4974	16008	15393		615	8219	2774	13186	5325	29504				
1976			E	164		164	135				135	135			164	21			185				
1976			TOTAL	8225	8182	16407	7848	158	3163	4974	16143	15528		615	8383	2795	13186	5325	29689	1533	155	237	237
1976	JZ	D	N	6970	2649	9619	6962	8	1864	785	9619	9619			6979	2694	3434	1212	14319				
1976			E	348		348	348				348	348			348	64			412				
1976			TOTAL	7318	2649	9967	7310	8	1864	785	9967	9967			7327	2758	3434	1212	14731	.	.		.
1976	MAV	D	L	35		35	35				35	1		34	35	106			141				
1976			N	6354	1196	7550	6202	152	266	930	7550	7469	25	56	6536	2775	2097	1114	12522				
1976			E	329		329	329				329	318	11		329	41			370				
1976			TOTAL	6718	1196	7914	6566	152	266	930	7914	7788	36	90	6900	2922	2097	1114	13033				
1976	NS	D	N	1106	1719	2825	1025	81	224	1495	2825	2215	264	346	1387	1564	3122	690	6763				
1976	NSB	D	N	1801	2440	4241	1801		2349	91	4241	4147		94	1801	534	2540	595	5470	8575	4003		
1976	PKP	D	N	17867	5988	23855	14313	3452	1148	4840	23753	23753	.	.	21612	10573	10828	4028	47041				
1976			E	.		.	.	.			.	.	.	.	.	.			.				
1976			TOTAL	.	5988	.	.	.	1148	4840	.	.	.	.	.	.	10828	4028	.				
1976	OBB	D-G	N	2757	2653	5410	2679	111	1254	1359	5403	5193	3	207	2847	1145	4047	1761	9800				
1976			E	363	91	454	360		91		451	447	4		363	43	92	14	512				
1976			TOTAL	3120	2744	5864	3039	111	1345	1359	5854	5640	7	207	3210	1188	4139	1775	10312	8983	9688	40	
1976	RENFE	D-G	L	9085	4307	13392	8840	341	2448	1821	13490	13490			9030	2994	5376	2565	19965				
1976			E						19		19		19										
1976			TOTAL	9085	4307	13392	8840	341	2507	1821	13509	13490	19		9030	2994	5376	2565	19965	.			
1976	SJ	G	N	4220	6959	11179	4225		5807	1152	11184	10592		592	4220	2354	8111	2777	17462				
1976			E	182		182	182				182	182			182	409			591				
1976			TOTAL	4402	6959	11361	4407		5807	1152	11366	10774		592	4402	2763	8111	2777	18053	22249	.	56	159
1976	SNCB	G	N	3023	1296	4319	1369	1339	61	1227	3996	2913	13	1070	4400	3548	2614	784	11346	7939			
1976	SNCF	G	N	2524	9276	34516	17638	7269	1253	7990	34150	23869	307	9974	32535	.	18562	.	.				
1976			E	103	98	201	103		98		201	138	63		103	.	98	.	.				
1976			TOTAL	25343	9374	34717	17741	7269	1351	7990	34351	24007	370	9974	32638	.	18660	.	.	10440	3320	503	427
1976	VR	D	L	5616	394	6010	5328	239	155	239	5961	4605	12	1344	5876	2367	632	185	9060		4084		
1976	TCDD	D	N	8030	108	8138	7938	92		108	8138	8138			8122	1651	216	56	10045				

A1.1.3.Tractive Stock

(Stock and Power)

Year	Railway	Rail-Gauge	RAIL STOCK – Steam Locomotives: Up to(750 K.W) or for 1972 year (incl.) 1000H.P (Number)	Steam Locomotives: (751 to 1500 KW) or for 1972 year 1001 to 2000 hp (Number)	Steam Locomotives: above (1500KW) 2000hp (for1972) (Number)	Steam Locomotives: Total (Number)	Total Power KW (H.P. for 1972)	Diesel and System Locomotives and Light Rail Motor Tractors: Light rail motor (Number)	Diesel Locomotives (111 to 750 KW) (Number)	Diesel Locomotives (750-1500 KW) (Number)	Diesel Locomotives >(1500 KW) (Number)	Diesel: Total	Diesel: Total power (Kw)	Diesel: Total power (KW) (exc. Light rail motor tractors)	Electric Locomotives and Light rail motor tractors: Light rail motor tractors(<110 KW) (NUMBER)	Electric Locomotives (111-750 KW)	Electric Locomotives (751-1500 kw)	Electric Locomotives (1501-2250 kw)	Electric Locomotives (2251-3000 Kw)	Electric Locomotives >(3000 Kw)	Electric: TOTAL	Electric: Total power (KW)	Electric: Total power Kw (exc. Light r.m.t.)	DIESEL AND SPECIAL SYSTEM RAILCARS – Single Units: < 260 Kw (Number)	Single Units: > 260 kw (Number)	Single Units: Total (Number)	Single Units: Total power	Indivisible coach sets: Number	Indivisible coach sets: Total number of vehicles	Indivisible coach sets: Total power Kw (1972 h.p.)	ELECTRIC RAILCARS – Single Units: <(260 Kw) (Number)	Single Units: >(260 kw) (Number)	Single Units: Total (Number)	Single Units: Total power KW (in 1972 h.p.)	Indivisible coach sets: Number	Indivisible coach sets: Total number of vehicles	Indivisible coach sets: Total power Kw (in 1972h.p.)	ROAD STOCK – MOTOR VEHICLES – Rail Owned: Buses/Motor coaches (Number)	Rail Owned: Lorries	Rail Owned: Tractors	Privately-owned: Buses/Motor coaches	Privately-owned: Lorries	Privately-owned: Tractors
1972	BR	N						1370	1463	850	3683					98	24	195		317					19		1179	3467			15		2029	7071						
1972	CFF	N						135	89	14		238	95610	79120	269	163	77	183	138	310	1140	2913613	2854858					1	4	1600		155	155	291510	26	90	73620						
1972		E						3				3	285		2	3		2			7	5390	4080										16	16	19120										
1972		total																																								
1972	CFL	N						6	33	24		63	69784	68825					19		19	66120	66120	10		10	2600	8	16	1560								49	56				
1972	CH	N	20	76	20	116	150640		30	28	32	90	130000	130000										10	43	53	28500												38			174		
1972		E	55			55	31050		21	22		43	47280	47280										12	16	28	9220	27	74	18260														
1972		TOTAL																																								
1972	CIE	L							161	60		221	197270											57		57	14610												2437	550	412			
1972	CP	L	2	97		99	123385	18	79	96	10	203	156346	153700				35			35	94500	94500	16	29	45	14400	19	38	10640					81	243	126690	11					
1972		E	69			69	44095																		25		25	4538																
1972		TOTAL																																								
1972	DB	N	15	747	320	1082	1984596	1174	1482	1304	420	4380	3721636	3574016	10	12	14	150	555	1700	2441	11299764	11299304	799	142	941	263255				237	39	276	89288	756	1009	949692	2284	19	3	3552	71	
1972		E						3	4			7	2544	2160																												
1972		TOTAL																																								
1972	DSB	N	24	18	2	44	41805	98	141	104	26	369	273710	261517										124	124	52080	15	55	12820		245	245	188660				541	215	7			
1972	FS	N	360	377		737	710135	321	465	252		1029	485485	458390		70	157	1018	240	351	1836	5220526	5220526	1009	19	1028	244020	8	16	5360		456	456	326638	23	101	39884						
1972		E	12			12	6570	2				2	180											21		21	5130																
1972		TOTAL																																								
1972	NS	N						141	387	5		533	238796	230900				6	83	24	113	394290	394290		30	30	10800	103	294	77070		35	35	32200	471	1272	585120						
1972	NSB	N						72	159	35		266	114431	106159	275570	26		64	37	35	162	515338	515338	8	42	50	17804	5	16	4580		96	96	55332	18	40	22635	525	171				
1972	OBB	N	79	122		201	226996		236	131	1	368	275570	275570		56	114	102	1	265	538	1762319	1762319	38	48	86	32750	16	32	8640		27	27	48150	78	156	133340	660	79	2	31		
1972		E	24			24	7037		35			35	12630	12630		16					16	6960	6960		2	2	900																
1972		TOTAL																																								
1972	RENFE	L	2	216	115	333	717861	46	329	193	125	693	836741	830761		7	17	275	28	40	367	1111130	1111130	37	8	45	14280	328	637	135425		3	3	2844	298	736	335656	49			364		
1972		E																																3	3	1170										
1972		TOTAL																																								
1972	SJ	N						186	305	121		612	321645	294870		139	113	340	49	170	811	2259120	2259120	231		231	46200				25	25	50	20750	131	471	157270	1260	9	1			
1972		E						30	8			38	10000	5500										11		11	1705																
1972		TOTAL																																								
1972	SNCB	N							394	478	1	873	836335	836335			14	158	48		220	554990	554990	82		82	21184	7	21	4592					392	784	336554				1214		
1972	SNCF	N			124	124	327018	1396	1119	684	322	3521	2512986	2346134		62	322	223	761	841	2209	8112072	8112072	408	229	637	243152	357	744	162193		170	170	205706	500	1378	556515						
1972		E																																23	23	8906	4	12	4800						
1972		TOTAL																																								
1972	VR	L	120	130		250	260236	161	214	194	53	622	566405	519895										184	48	232	57120						40	40	46800					128				
1972	BDZ	N																																								
1972		E																																								
1972		TOTAL																																								
1972	CFR	L																																								
1972		N																																								
1972		E																																								
1972		TOTAL																																								
1972	CSD	L																																								
1972		N																																								
1972		E																																								
1972		TOTAL																																								
1972	DR	N																																								
1972		E																																								
1972		TOTAL																																								
1972	JZ	N	445	426		871	738805		359	217		576	659095	659095				56	21	210	287	1321275	1321275					283	595	58880		2	2	1632	27	97	40857	42	847	32			
1972		E											22800	22800																												
1972		TOTAL																																								
1972	MAV	L																																								
1972		N																																								
1972		E																																								
1972		TOTAL																																								
1972	TCDD	N	64	667	88	819	1411045		68	7	79	154	224990	224990				3	9		12	42600	42600		25	25	6680	27	82	22420					30	120	41400						
1973	BR	N							1350	1452	837	3639					98	24	211		333					16		1179	3468			21		2058	7173						
1973	CFF	N						119	105	14		238	70418	58215	85	347	77	170	136	339	1154	2443747	2435927					1	4	1178		155	155	235777	26	90	60210						
1973		E						3				3	210		2	3		2			7	4813	4183										16	16	15136										
1973		total																																								
1973	CFL	N						4	39	24		67	52015	51600					19		19	48617	48617	9		9	1720	8	16	1882								49	58				
1973	CH	N	20	76	20	116	150640		42	28	32	102	137800	137800										10	43	53	22506																	
1973		E	55			55	31050		21	22		43	47280	47280										9	13	22	5340	33	86	15306														
1973		TOTAL																																				38			174		
1973	CIE	L							161	60		221	197270	197270										44		44	11360												2537	507	453			
1973	CP	L	2	75	6	83	102095		97	86	35	218	191798					35			35	94500	94500	16	29	45	14400	19	38	10640					81	243	126690						
1973		E	62	7		69	44095																		16	9	25	4538																
1973		TOTAL																																				11					
1973	DB	N	6	616	207	829	1128573	1174	2265	1059	51	4549	2171052	2084428	9	12	18	171	533	1771	2514	8670014	8666970	768	154	922	156580				237	38	275	65100	843	1094	780360						
1973		E						4	2			6	756	456																												
1973		TOTAL																																				2317	13	3	3728	75	
1973	DSB	N	15	14	1	30	21591	94	140	104	41	379	237050	228277										119	119	36771	14	53	8801		249	249	142656				541	220	13			
1973	FS	N	318	363		681	486160	320	484	252		1056	360727	340150		70	157	991	240	385	1843	3896302	3896302	1014	19	1033	179410	8	16	3945		458	458	241930	23	101	29354						
1973		E	12			12	4835	2				2	133											21		21	3179																
1973		TOTAL																																								
1973	NS	N				0		129	366	5		500	168267	162950	0	0	0	6	83	24	113	290124	290124	0	30	30	7949	103	294	56724	0	35	35	23699	503	1326	434711						
1973	NSB	N						71	165	35		271	85974	79423		20		64	37	37	158	385090	385090	8	42	50	13104						95	95	40348	18	40	16659	502	178				
1973	OBB	N	62	95		157	130265		260	129		389	200478	200478		38	112	109	48	244	551	1391557	1391557	44	39	83	21578	16	32	5568		25	25	35000	83	166	102780						
1973		E	24			24	5429	8	26			34	8020	7329		16					16	5120	5120		2	2	560																
1973		TOTAL																																				683	77	2	33		
1973	RENFE	L		207	58	265	413174	46	329	193	125	693	615423	611025		7	14	274	28	46	369	829766	829766	32	8	40	9422	328	636	99605					286	728	240613						
1973		E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	861	0	0	0	0					
1973		TOTAL																																								
1973	SJ	N						178	313	130		621	275961	257398		136	96	331	49	182	794	1632160	1632160	211		211	31038				25	25	50	15262	131	471	115672						
1973		E	0	0	0	0	0	29	7	0	0	36	6692	3494	0	0	0	0	0	0	0	0	0	11	0	11	1254	0	0	0	0	0	0	0	0	0	0						
1973		TOTAL																																				1293	9	1			
1973	SNCB	N							419	478	1	898	629307	629307			13	163	43	4	223	424414	424414	82		82	15576	7	21	3374					422	844	268064				1214		
1973	SNCF	N			58	58	206090	1401	1115	685	370	3571	1915033	1778405		62	275	559	796	543	2235	5861844	5861844	372	226	598	202302	387	844	143264		166	166	148065	502	1424	370475						
1973		E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	21	5985	5	15	4400						
1973		TOTAL																																								
1973	VR	L	161	89		350	191403	146	224	194	53	617	416609	403197						4	4	12393	12393	184		184	24358	48	72	17830					50	100	43000		121				
1973	BDZ	N																																								
1973		E																																								
1973		TOTAL																																								
1973	CFR	L																																								
1973		N																																								
1973		E																																								
1973		TOTAL																																								
1973	CSD	L																																								
1973		N																																								
1973		E																																								
1973		TOTAL																																								
1973	DR	N																																								
1973		E																																								
1973		TOTAL																																								
1973	JZ	N	364	313		677	562745		382	263	73	718	923745	923745				56	23	222	301	1412931	1412931					296	640	70330		2	2	1632	26	97	40904						
1973		E	80			80	33700		40			40	24000	24000															12	48	8880												
1973		TOTAL																																				51	897	37			
1973	MAV	L																																								
1973		N																																								
1973		E																																								
1973		TOTAL																																								
1973	TCDD	N	53	641	87	781	940927		70	7	99	176	201843	201843				3	15		18	48984	48984		25	25	4913	27	81	16490					30	120	30450						
1974	BR	N							1345	1448	826	3619					98	24	230		352					16		1165	3427			21		2053	7156						
1974	CFF	N						119	120	14		253	74657	58215	85	344	74	165	133	360	1161	2522643	2515136					1	4	1178		150	150	232266	26	90	60210						
1974		E						3				3	210		2	3		2			7	4381	4183										16	16	15136										
1974		total																																								
1974	CFL	N						4	39	24		67	52015	51600					19		19	48617	48617	9		9	1720	8	16	1882								49	63				
1974	CH	N	20	76	20	116	150640	3	42	31	62	138	187910	187777										9	43	52	21881																	
1974		E	55			55	31050		21	22		43	47280	47280										9	13	22	5340	33	86	15306														
1974		TOTAL																																				54			100		
1974	CIE	L							161	60		221	197270	197270										39		39	10110												2535	429	468			
1974	CP	L	1	62		63	57186	18	91	102	10	221	142941	140996				35	7		42	90307		16	29	45	10584	19	38	7820		3	3	3653	78	234	89464						
1974		E	69			69	32410																		25		25	3335																
1974		TOTAL																																				11					
1974	DB	N		445	171	616	849427	1167	2341	1105	50	4663	2250038	2164613	8	12	14	156	521	1870	2581	9017402	9017130	759	184	943	167227				237	35	272	63611	915	1164	837960						
1974		E						4	2			6	756	456																												
1974		TOTAL																																				2386	4212	612	3953		
1974	DSB	N	12	9	1	22	13756	94	140	104	41	379	227518	183533										109	109	33681	11	43	7124		254	254	146376				554	223	12			
1974	FS	N	317	365		682	487688	333	498	290		1121	400901	379457		70	158	969	240	413	1850	4015649		1014	19	1033	179410	8	16	3945		456	456	240966	23	101	29354						
1974		E	11			11	4376	2				2	133											21		21	3179																
1974		TOTAL																																								
1974	NS	N						129	363	5		497	167880	162563				6	83	23	112	286554	286554		30	30	7949	87	216	40362		33	33	22345	525	1364	447576						
1974	NSB	N						71	165	35		271	85974	79423		20		64	37	37	158	385090	385090	8	42	50	13104						94	94	39968	29	62	27556	498	169				
1974	OBB	N	53	83		136	112607		274	148		422	225202	225202		36	112	109	48	261	566	1455677	1455677	44	39	83	21578	16	32	5568		25	25	35000	90	180	109080						
1974		E	24			24	5429	9	26			35	8106	7329		16					16	5120	5120		2	2	560																
1974		TOTAL																																				708	75	1	35		
1974	RENFE	L		109		109	160339	46	324	202	143	715	675574	671158		6	9	270	27	81	393	919502	919502	30	8	38	8934	308	636	99679					318	817	273754						
1974		E																																3	3	861										
1974		TOTAL																																								
1974	SJ	N						174	321	121		616	275270	257148		134	86	320	49	198	787	1609259	1609259	207		207	30450				25	25	50	15262	131	469	115672						
1974		E						26	7			33	6362	3494										10		10	1139																
1974		TOTAL																																				1271	9	1			
1974	SNCB	N							432	478	1	911	636406	636406			12	163	43	6	224	436626	436626	82		82	15576	7	21	3374					440	880	280376				1229		
1974	SNCF	N		2	9	11	20077	1390	1112	685	410	3597	1978956	1842855		62	227	590	848	566	2293	6106549	6106549	330	275	605	221928	372	824	145060		162	162	144565	524	1500	403145						
1974		E																																21	21	5985	5	15	4400						
1974		TOTAL																																								
1974	VR	L	161	89		250	191403	139	223	205	53	620	426407	413587						6	6	18600	18600	175		175	23170	48	72	17830					50	100	43000		125				
1974	BDZ	N																																								
1974		E																																								
1974		TOTAL																																								
1974	CFR	L																																								
1974		N																																								
1974		E																																								

A1.1.3.Tractive Stock

(Stock and Power)

RAIL STOCK

Year	Railway	Rail-Gauge	Steam Locomotives: Up to(750 K.W) or for 1972 year (incl.) 1000H.P (Number)	Steam: (751 to 1500 KW) or for 1972 year 1001 to 2000 hp (Number)	Steam: above (1500KW) 2000hp (for1972) (Number)	Steam: Total (Number)	Total Power KW (H.P. for 1972)	Diesel and System Locomotives and Light Rail Motor Tractors: Light rail motor (Number)	Locomotives (111 to 750 KW) (Number)	Locomotives (750-1500 KW) (Number)	Locomotives >(1500 KW) (Number)	Total (Number)	Total power (Kw)	Total power (KW) (exc. Light rail motor tractors)
1974		TOTAL												
1974	CSD	L												
1974		N												
1974		E												
1974		TOTAL												
1974	DR	N												
1974		E												
1974		TOTAL												
1974	JZ	N	309	251		560	450645		384	222	132	738	963548	963548
1974		E	68			68	28700		40			40	24000	24000
1974		TOTAL												
1974	MAV	L												
1974		N												
1974		E												
1974		TOTAL												
1974	PKP	N.E.												
1974	TCDD	N	51	629	87	767	926868		74	7	111	192	223879	223879
1975	BDZ	N.E.												
1975	BR	N							1316	1385	809	3510		
1975	CFF	N						117	120	14		251	74534	58158
1975		E						3				3	210	
1975		total												
1975	CFL	N						4	38	24		66	51684	51269
1975	CFR	L.N.E.												
1975	CH	N	20	76	20	116	150640	3	42	31	72	148	216595	216462
1975		E	55			55	31050		21	22		43	47280	47280
1975		TOTAL												
1975	CIE	L							161	60		221	147163	147163
1975	CP	L	1	62		63	57186	18	90	102	10	220	142750	140805
1975		E	69			69	32410		6			6	2561	
1975		TOTAL												
1975	CSD	L.N.E.												
1975	DB	N		172	84	256	315209	1161	2382	1161	49	4753	2359779	2273169
1975		E						4	2			6	756	456
1975		TOTAL												
1975	DR	N.E.												
1975	DSB	N	10	10		20	13171	94	139	104	46	383	248051	239263
1975	FS	N	290	302		592	415622	333	501	52		1186	461942	440489
1975		E	11			11	4376	2				2	133	
1975		TOTAL												
1975	JZ	N	289	208		497	395460		389	293	72	754	974730	974730
1975		E	59			59	24595		40			40	24000	24000
1975		TOTAL												
1975	MAV	N.E.												
1975	NS	N						128	359			487	160792	155517
1975	NSB	N						71	164	35		270	85830	79789
1975	OBB	N	41	51		92	73154		287	160		447	242248	242248
1975		E	24			24	5429	9	26			35	8096	7329
1975		TOTAL												
1975	PKP	N.E.												
1975	RENFE	L						46	324	201	181	752	767600	763184
1975		E												
1975		TOTAL												
1975	SJ	N						163	321	125		609	250242	226759
1975		E						25	6			31	6067	3747
1975		TOTAL												
1975	SNCB	N							432	478	1	911	636406	636406
1975	SNCF	N						1386	1111	686	436	3619	2020385	1884480
1975		E												
1975		TOTAL												
1975	VR	L	161	89		250	191403	138	223	214	53	628	435730	422990
1975	TCDD	N	45	594	86	725	883242		79	7	156	242	289679	289679
1976	BDZ	N.E.												
1976	BR	N							1270	1277	833	3380	6280941	6280941
1976	CFF	N						117	128	14	6	265	86132	78426
1976		E						3				3	210	
1976		total												
1976	CFL	N						4	37	24		65	51243	50828
1976	CFR	L.N.E.												
1976	CH	N	20	76	20	116	150640	3	42	31	72	148	216595	216462
1976		E	55			55	31050		21	22		43	47280	47280
1976		TOTAL												
1976	CIE	L						3	152	60		215	146055	145764
1976	CP	L		5		5	4542	18	95	102	10	225	146690	146259
1976		E	48			48	23836		12			12	6041	6041
1976		TOTAL												
1976	CSD	L.N.E.												
1976	DB	N		17	42	59	88319	1127	2521	1056	49	4753	2371073	2301041
1976		E						4	2			6	744	460
1976		TOTAL												
1976	DR	N.E.												
1976	DSB	N	6	10		16	12038	94	139	104	46	383	248061	239273
1976	FS	N	191	215		406	284748	333	512	383		1228	489693	468249
1976		E	6			6	2096	2				2	133	
1976		TOTAL												
1976	JZ	N	248	176		424	336140		388	280	92	760	997055	997055
1976		E	20			20	8240		38			38	22800	22800
1976		TOTAL												
1976	MAV	N.E.												
1976	NS	N						127	350			477	156409	151174
1976	NSB	N						70	164	35		269	85750	79789
1976	OBB	N	23	38		61	50102		286	167		453	249369	249369
1976		E	24			24	5429	9	26			35	8096	7329
1976		TOTAL												
1976	PKP	N.E.												
1976	RENFE	L						46	320	191	214	771	825708	821292
1976		E												
1976		TOTAL												
1976	SJ	N						159	313	144		616	266762	243877
1976		E						25	6			31	6067	3309
1976		TOTAL												
1976	SNCB	N							427	478	1	906	635746	635746
1976	SNCF	N						1379	1110	680	435	3604	2010893	1875535
1976		E												
1976		TOTAL												
1976	VR	L						138	220	225	52	635	443366	430536
1976	TCDD	N	41	519	86	646	792648		79	7	206	292	391132	391132

Year	Railway	Rail-Gauge	Electric Locomotives and Light rail motor tractors: Light rail motor tractors(<110 KW) (NUMBER)	Locomotives (111-750 KW) (NUMBER)	Locomotives (751-1500 kw) (NUMBER)	Locomotives (1501-2250 kw) (NUMBER)	Locomotives (2251-3000 Kw) (NUMBER)	Locomotives >(3000 Kw) (NUMBER)	TOTAL (NUMBER)	Total power (KW)	Total power Kw (exc. Light r.m.t.)	DIESEL AND SPECIAL SYSTEM RAILCARS: Single Units < 260 Kw (Number)	Single Units > 260 kw (Number)	Single Units Total (Number)	Total power	Indivisible coach sets: Number	Total number of vehicles	Total power Kw (1972 h.p.)
1974		TOTAL																
1974	CSD	L																
1974		N																
1974		E																
1974		TOTAL																
1974	DR	N																
1974		E																
1974		TOTAL																
1974	JZ	N				56	23	230	309	1476920	1476920					315	685	82080
1974		E														12	48	8880
1974		TOTAL																
1974	MAV	L																
1974		N																
1974		E																
1974		TOTAL																
1974	PKP	N.E.																
1974	TCDD	N				3	15		18	48984	48984		25	25	4913	27	81	16490
1975	BDZ	N.E.																
1975	BR	N			98	24	230		352					16		1157	3402	
1975	CFF	N	85	349	158	59	131	372	1154	2381571	2338916					1	4	1140
1975		E	2	3	2				7	3964	3000							
1975		total																
1975	CFL	N					19		19	48617	48617	4		4	764	8	16	1882
1975	CFR	L.N.E.																
1975	CH	N										9	43	52	21881			
1975		E										6	14	20	4884	33	86	15306
1975		TOTAL																
1975	CIE	L										39		39	7542			
1975	CP	L				35	12		47	104738	104738	16	29	45	10584	19	38	7820
1975		E										25		25	3335			
1975		TOTAL																
1975	CSD	L.N.E.																
1975	DB	N	4	12	18	155	526	1918	2633	9374838	9374506	692	207	899	168242			
1975		E																
1975		TOTAL																
1975	DR	N.E.																
1975	DSB	N											102	102	31487	11	43	7115
1975	FS	N		70	158	956	240	415	1839	4001711		1017	19	1036	180193	8	16	3945
1975		E										19		19	2781			
1975		TOTAL																
1975	JZ	N				1	56	264	321	1552570	1552570					329	706	88830
1975		E														12	48	8880
1975		TOTAL																
1975	MAV	N.E.																
1975	NS	N				6	83	23	112	286554	286554		30	30	7949	87	216	40326
1975	NSB	N		20		64	37	37	158	384732	384732	8	40	48	12500			
1975	OBB	N		31	108	109	48	282	578	1528397	1528397	42	39	81	21114	16	32	5568
1975		E		16					16	5120	5120		2	2	560			
1975		TOTAL																
1975	PKP	N.E.																
1975	RENFE	L		6	8	259	61	57	391	925873	925873	29	21	50	13781	289	579	87430
1975		E																
1975		TOTAL																
1975	SJ	N		134	79	298	48	213	772	1688700	1688700	189		189	32390			
1975		E										10		10	1139			
1975		TOTAL																
1975	SNCB	N			12	163	43	14	232	477826	477826	82		82	15576	7	21	3374
1975	SNCF	N		62	249	544	915	589	2359	6380929	6380929	284	259	543	204366	403	941	174470
1975		E																
1975		TOTAL																
1975	VR	L						27	27	83700	83700	175		175	23170	48	72	17830
1975	TCDD	N				3	15		18	48984	48984		25	25	4913	27	81	16490
1976	BDZ	N.E.																
1976	BR	N			98	23	230		351	1407571	1407571		16	16	8365	1147	3367	923882
1976	CFF	N	85	349	137	55	131	392	1149	2496341	2488834							
1976		E	2	3	2				7	3964	3773							
1976		total																
1976	CFL	N					19		19	48617	48617	4		4	764	8	16	1882
1976	CFR	L.N.E.																
1976	CH	N										9	54	63	31176			
1976		E										10	14	24	8274	33	92	15306
1976		TOTAL																
1976	CIE	L										3		3	560			
1976	CP	L				35	12		47	104738	104738	16	25	41	9455	21	44	8949
1976		E										25		25	3335	4	8	1117
1976		TOTAL																
1976	CSD	L.N.E.																
1976	DB	N	3	8	17	156	508	1996	2688	9668032	9667930	690	135	825	163129			
1976		E																
1976		TOTAL																
1976	DR	N.E.																
1976	DSB	N											94	94	29018	11	43	7115
1976	FS	N		70	158	878	240	453	1799	4016022	4016022	1064	19	1083	191993	8	16	3945
1976		E										19		19	2781			
1976		TOTAL																
1976	JZ	N				52	73	238	363	1763400	1763400					340	750	94630
1976		E														12	48	8880
1976		TOTAL																
1976	MAV	N.E.																
1976	NS	N				6	82	23	112	286554	286554		30	30	7949	87	216	40362
1976	NSB	N		20		64	37	37	158	384732	384732	8	40	48	12500			
1976	OBB	N		31	131	108	48	306	624	1651113	1651113	38	39	77	20478	16	32	5568
1976		E		16					16	5120	5120		2	2	560			
1976		TOTAL																
1976	PKP	N.E.																
1976	RENFE	L		6	8	248	56	85	403	979279	979279		17	17	6562	262	526	80968
1976		E																
1976		TOTAL																
1976	SJ	N		134	70	280	45	233	762	1709024	1709024	168	6	174	30185			
1976		E										8		8	912			
1976		TOTAL																
1976	SNCB	N			12	163	43	21	239	513876	513876	80		80	15376	7	21	3374
1976	SNCF	N		62	221	542	915	620	2360	6508209	6508209	253	256	509	197448	439	1035	193780
1976		E																
1976		TOTAL																
1976	VR	L						39	39	120900	120900	167		167	22094	48	72	17818
1976	TCDD	N				3	15		18	48984	48984		24	24	4751	27	81	16490

Year	Railway	Rail-Gauge	ELECTRIC RAILCARS: Single Units <(260 Kw) (Number)	Single Units >(260 kw) (Number)	Single Units Total (Number)	Total power KW (in 1972 h.p.)	Indivisible coach sets: Number	Total number of vehicles	Total power Kw (in 1972h.p.)	ROAD STOCK – MOTOR VEHICLES: Rail Owned Buses/Motor coaches (Number)	Rail Owned Lorries (Number)	Rail Owned Tractors (Number)	Privately-owned Buses/Motor coaches (Number)	Privately-owned Lorries (Number)	Privately-owned Tractors (Number)
1974		TOTAL													
1974	CSD	L													
1974		N													
1974		E													
1974		TOTAL													
1974	DR	N													
1974		E													
1974		TOTAL													
1974	JZ	N		2	2	1632	26	97	40904						
1974		E													
1974		TOTAL								41	966	85			
1974	MAV	L													
1974		N													
1974		E													
1974		TOTAL													
1974	PKP	N.E.													
1974	TCDD	N					30	120	30450						
1975	BDZ	N.E.													
1975	BR	N			21		2073	7225							
1975	CFF	N		150	150	211120	26	90	54132						
1975		E		16	16	12960									
1975		total													
1975	CFL	N					6	12	3690	49	63				
1975	CFR	L.N.E.													
1975	CH	N													
1975		E													
1975		TOTAL								54			60		
1975	CIE	L								2520	337	475			
1975	CP	L			3	3653	78	234	89464						
1975		E													
1975		TOTAL								9					
1975	CSD	L.N.E.													
1975	DB	N	237	29	266	60611	1047	1269	922993						
1975		E													
1975		TOTAL								2383	4362	481	4164		
1975	DR	N.E.													
1975	DSB	N		261	261	150410				424	226	11			
1975	FS	N		456	456	240966	23	101	29354						
1975		E													
1975		TOTAL													
1975	JZ	N		2	2	1632	40	156	62994						
1975		E													
1975		TOTAL								45	1119	99			
1975	MAV	N.E.													
1975	NS	N		33	33	22345	544	1402	468487						
1975	NSB	N		90	90	38400	40	84	38690	496	173				
1975	OBB	N		25	25	35000	93	186	111780						
1975		E													
1975		TOTAL								758	99	2	40		
1975	PKP	N.E.													
1975	RENFE	L				349	349	928	308498						
1975		E		3	3	861									
1975		TOTAL													
1975	SJ	N	25	22	47	13938	133	477	117442						
1975		E													
1975		TOTAL								1256	6	1			
1975	SNCB	N					447	906	289370		517	25	1248	403	
1975	SNCF	N		156	156	140810	530	1548	413975						
1975		E		23	23	4854	4	12	3520						
1975		TOTAL													
1975	VR	L					60	120	49200		120				
1975	TCDD	N					30	120	30450						
1976	BDZ	N.E.													
1976	BR	N		10	10	6702	2074	7228	2302145						
1976	CFF	N		150	150	211120	30	96	62420						
1976		E		16	16	12960									
1976		total													
1976	CFL	N					6	12	3690	49	62				
1976	CFR	L.N.E.													
1976	CH	N													
1976		E													
1976		TOTAL								53			90		
1976	CIE	L								2483	301	453			
1976	CP	L					81	238	93117						
1976		E													
1976		TOTAL								25	5				
1976	CSD	L.N.E.													
1976	DB	N	237	25	262	58307	1072	1311	938160						
1976		E													
1976		TOTAL								2158	4353	458	3805		
1976	DR	N.E.													
1976	DSB	N		283	283	163346				457	238	8			
1976	FS	N		473	473	255018	24	105	31228						
1976		E													
1976		TOTAL													
1976	JZ	N		2	2	1632	40	155	62505						
1976		E													
1976		TOTAL								87	1154	98			
1976	MAV	N.E.													
1976	NS	N		33	33	22345	550	1404	484002						
1976	NSB	N		87	87	37260	51	106	49290	502	178				
1976	OBB	N					97	194	121780						
1976		E													
1976		TOTAL								776	108	2	44		
1976	PKP	N.E.													
1976	RENFE	L					362	970	313753						
1976		E		6	6	2433									
1976		TOTAL													
1976	SJ	N	25	17	42	11731	132	277	117573						
1976		E													
1976		TOTAL								1275	6	1			
1976	SNCB	N					464	974	312558		525	26	1269	399	
1976	SNCF	N		141	141	126640	547	1638	441475						
1976		E		23	23	5040	4	12	3520						
1976		TOTAL													
1976	VR	L					72	144	56640		105				
1976	TCDD	N					30	120	30450						

1.1.4.Tractive Stock - Available and Out of Service

			LOCOMOIVES AVAILABLE FOR OPERATING PURPOSES																		RAILCARS AVAILABLE FOR OPERATING PURPOSES											
			Steam Locomotives						Diesel and Special System Locomotives (excluding Light r. m. t.)						Electric Locomotives (excluding light r. m. t.)						Diesel and Special System						Electric					
			Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios	
YEAR	Railway	railgauge	Total	Out of servicefor maintenance and repair	In working order	Locomotives used	Nºin working order/Total	Nº loc.used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nºin working order/Total	Nº loc.used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nºin working order/Total	Nº loc.used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nºin working order/Total	Nº loc.used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nºin working order/Total	Nº loc.used/working order
1972	BR	N							2567	382	2185		0,85		299	65	234		0,78		2072	297	1775		0,86		2518	272	2246		0,89	
1972	CFF	N							103	11	92	65	0,89	0,71	858	82	776	665	0,9	0,86	1	0	1	1	1	1	183	20	163	141	0,89	0,87
1972		E													2		2	2	1	1							16	2	14	11	0,88	0,79
1972		total																														
1972	CFL	N							57	6	51	48	0,89	0,94	19	4	15	14	0,79	0,93	18	1	17	14	0,94	0,82						
1972	CH	N	116	41	75	75	0,65	1	90	31	59	59	0,66	1							53	10	43	43	0,81	1						
1972		E	55	27	28	28	0,51	1	43	11	32	32	0,74	1							55	12	43	43	0,78	1						
1972		TOTAL																														
1972	CIE	L							221	44	177	165	0,8	0,93							57	27	30	14	0,53	0,47						
1972	CP	L	99	44	55	55	0,56	1	185	21	164	164	0,89	1	35	4	31	31	0,89	1	64	13	51	51	0,8	1	81	14	67	67	0,83	1
1972		E	69	3	65	65	0,96	1													25	4	21	21	0,84	1						
1972		TOTAL																														
1972	DB	N	1249	204	1045	745	0,84	0,71	2735	164	2571	2362	0,94	0,92	2385	139	2246	2170	0,94	0,97	956	77	879	755	0,92	0,86	714	49	665	598	0,93	0,9
1972		E							4		4	4	1	1																		
1972		TOTAL																														
1972	DSB	N	51		51	8	1	0,16	261	8	253	249	0,97	0,98							140	7	133	125	0,95	0,94	238	8	230	208	0,97	0,9
1972	FS	N	552	120	432	320	0,78	0,74	706	168	538	538	0,76	1	1836	278	1558	1528	0,85	0,98	1020	169	851	753	0,83	0,88	466	103	363	347	0,78	0,96
1972		E	6	2	4	3	0,67	0,75													19	6	13	12	0,68	0,92						
1972		TOTAL																														
1972	NS	N							401	27	374	277	0,93	0,74	113	8	105	96	0,93	0,91	133	6	127	107	0,95	0,84	460	15	445	386	0,97	0,87
1972	NSB	N							83	9	74	67	0,89	0,91	165	24	141	125	0,85	0,89	60	8	52	34	0,87	0,65	114	14	100	94	0,88	0,94
1972	OBB	N	226	59	167	124	0,74	0,74	356	33	323	298	0,91	0,92	528	57	471	465	0,89	0,99	103	13	90	87	0,87	0,97	102	9	93	92	0,91	0,99
1972		E	25	8	17	11	0,68	0,65	35	4	31	25	0,89	0,81	16	3	13	11	0,81	0,85	2	1	1	1	0,5	1						
1972		TOTAL																														
1972	RENFE	L	209	77	132		0,63		647	88	559		0,86		353	27	326		0,92		387	77	310		0,8		287	20	267		0,93	
1972		E																									3		3		1	
1972		TOTAL																														
1972	SJ	N	0		0	0	0	0	182	32	150	150	0,82	1	705	91	614	614	0,87	1	184	29	155	155	0,84	1	151	22	129	129	0,85	1
1972		E							5	2	3	3	0,6	1	1	0	1	1	1	1	14	5	9	9	0,64	1	8	2	6	6	0,75	1
1972		TOTAL																														
1972	SNCB	N							873	24	849	581	0,97	0,68	220	7	213	171	0,97	0,8	79	4	75	56	0,95	0,75	391	11	380	327	0,97	0,86
1972	SNCF	N	232	33	199	15	0,86	0,08	2105	166	1939	1686	0,92	0,87	2211	182	2029	1882	0,92	0,93	1015	87	928	809	0,91	0,87	657	48	609		0,93	
1972		E																									30					
1972		TOTAL																														
1972	VR	L	136	45	91	73	0,67	0,8	353	36	317	315	0,9	0,99							255	46	209	209	0,82	1	38	2	36	36	0,95	1
1972	BDZ	N																														
1972		E																														
1972		TOTAL																														
1972	CFR	L																														
1972		N																														
1972		E																														
1972		TOTAL																														
1972	CSD	L	1150			920			1799			1043			844			735			919			710			137			104		
1972		N																														
1972		E																														
1972		TOTAL																														
1972	DR	N																														
1972		E																														
1972		TOTAL																														
1972	JZ	N	924	133	791	524	0,86	0,66	544	86	458	422	0,84	0,92	251	46	205	196	0,82	0,96	275	34	241	226	0,88	0,94	21	10	11	10	0,52	0,91
1972		E	134	48	86	55	0,64	0,64	37	1	36	35	0,97	0,97							12	1	11	9	0,92	0,82						
1972		TOTAL																														
1972	MAV	L																														
1972		N																														
1972		E																														
1972		TOTAL																														
1972	TCDD	N	819	186	633	500	0,77	0,79	154	34	120	117	0,78	0,98	12	1	11	11	0,92	1	52	15	37	36	0,71	0,97	30	2	28	27	0,93	0,96
1973	BR	N							2527	522	2005		0,79		316	73	243		0,77		2055	317	1738		0,85		2498	265	2233		0,89	
1973	CFF	N							103	10	93	63	0,9	0,68	877	79	798	672	0,91	0,84	1	0	1	1	0,56	1	181	18	163	142	0,9	0,87
1973		E													2	0	2	2	1	1							16	2	14	11	0,88	0,79
1973		total																														
1973	CFL	N							57	6	51	46	0,89	0,9	19	2	17	16	0,89	0,94	17	1	16	13	0,94	0,81						
1973	CH	N	116	72	44	44	0,38	1	102	35	67	67	0,66	1							53	11	42	42	0,79	1						
1973		E	55	31	24	24	0,44	1	43	12	31	31	0,72	1							55	8	47	47	0,85	1						
1973		TOTAL																														
1973	CIE	L							221	46	175	160	0,79	0,91							44	36	8	6	0,18	0,75						
1973	CP	L	83	43	40	40	0,48	1	218	32	186	186	0,85	1	35	4	31	31	0,89	1	64	12	52	52	0,81	1	81	11	70	70	0,86	1
1973		E	69	6	63	63	0,91	1													25	3	22	22	0,88	1						
1973		TOTAL																														
1973	DB	N	936	157	779	575	0,83	0,74	2872	181	2691	2458	0,94	0,91	2468	155	2313	2232	0,94	0,96	935	81	854	736	0,91	0,86	1071	77	994	904	0,93	0,91
1973		E							2		2	2	1	1																		
1973		TOTAL																														
1973	DSB	N	39		39		1		265	11	254	254	0,96	1							134	5	129	118	0,96	0,91	244	6	238	229	0,98	0,96
1973	FS	N	497	120	377	286	0,76	0,76	726	178	548	548	0,75	1	1826	276	1550	1512	0,85	0,98	1042	175	867	774	0,83	0,89	479	110	369	352	0,77	0,95
1973		E	6	2	4	3	0,67	0,75													19	6	13	12	0,68	0,92						
1973		TOTAL																														
1973	NS	N							382	23	359	269	0,94	0,75	113	5	108	97	0,96	0,9	133	5	128	109	0,96	0,85	489	16	473	106	0,97	0,86
1973	NSB	N							88	8	80	71	0,91	0,89	158	19	139	122	0,88	0,88	50	6	44	35	0,88	0,8	113	14	99	90	0,88	0,91
1973	OBB	N	176	42	134	98	0,76	0,73	372	31	341	314	0,92		545	57	488	483	0,9	0,99	99	12	87	85	0,88	0,98	107	10	97	95	0,91	0,98
1973		E	24	9	15	11	0,63	0,73	29	4	25	22	0,86	16	2	14	12	0,88	0,86	2	1	1	1	0,5	1							
1973		TOTAL																														
1973	RENFE	L	163	21	142		0,87		647	103	544		0,84		345	37	308		0,89		371	73	298		0,8		273	30	243		0,89	
1973		E																									3	2	1		0,33	
1973		TOTAL																														
1973	SJ	N							186	30	156	156	0,84	1	690	96	594	594	0,86	1	169	27	142	142	0,84	1	150	22	128	128	0,85	1
1973		E							3	0	3	3	1	1							8	2	6	6	0,75	1						
1973		TOTAL																														
1973	SNCB	N							884	26	858	589	0,97	0,69	220	7	213	174	0,97	0,82	78	5	73	55	0,94	0,75	407	11	396	348	0,97	0,88
1973	SNCF	N	76			4			2150	175	1975	1716	0,92	0,87	2219	171	2048	1884	0,92	0,92	997	81	916	808	0,92	0,88	663	38	625		0,94	
1973		E																									31					
1973		TOTAL																														
1973	VR	L	123	44	79	67	0,64	0,85	350	33	317	316	0,91	0,99	0,83	0,75	0,08	0,08	0,1	1	232	31	201	201	0,87	1	45	2	43	43	0,96	1
1973	BDZ	N																														
1973		E																														
1973		TOTAL																														
1973	CFR	L																														
1973		N																														
1973		E																														
1973		TOTAL																														
1973	CSD	L																														
1973		N																														
1973		E																														
1973		TOTAL	927			747			1947			1158			882			772			910			705			147			111		
1973	DR	N																														
1973		E																														
1973		TOTAL																														
1973	JZ	N	776	118	658	422	0,85	0,64	641	88	553	452	0,86	0,82	298	55	243	188	0,82	0,77	282	32	250	228	0,89	0,91	26	3	23	20	0,88	0,87

1.1.4.Tractive Stock - Available and Out of Service

			LOCOMOIVES AVAILABLE FOR OPERATING PURPOSES																		RAILCARS AVAILABLE FOR OPERATING PURPOSES											
			Steam Locomotives						Diesel and Special System Locomotives (excluding Light r. m. t.)						Electric Locomotives (excluding light r. m. t.)						Diesel and Special System						Electric					
			Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios	
YEAR	Railway	railgauge	Total	Out of servicefor maintenance and repair	In working order	Locomotives used	Nºin working order/Total	Nº loc.used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nºin working order/Total	Nº loc.used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nºin working order/Total	Nº loc.used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nºin working order/Total	Nº loc.used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nºin working order/Total	Nº loc.used/working order
1973		E	93	33	60	31	0,65	0,52	39	3	36	33	0,92	0,92							12		12	9	1	0,75						
1973		TOTAL																														
1973	MAV	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	TCDD	N	781	167	614	535	0,79	0,87	176	27	149	143	0,85	0,96	18	2	16	15	0,89	0,94	52	15	37	31	0,71	0,84	30	2	28	26	0,93	0,93
1974	BR	N							2510	514	1996	.	0,8	.	345	75	270	.	0,78	.	2043	334	1709	.	0,84	.	2482	286	2196	.	0,88	.
1974	CFF	N							103	10	93	64	0,9	0,69	894	70	824	662	0,92	0,8	1	0	1	0	1	0,25	179	17	162	139	0,91	0,86
1974		E													2	0	2	2	1	1							16	2	14	11	0,88	0,79
1974		total																														
1974	CFL	N							57	7	50	44	0,88	0,88	19	1	18	16	0,95	0,89	17	3	14	12	0,82	0,86						
1974	CH	N	116	86	30	30	0,26	1	135	31	104	104	0,77	1							52	19	33	33	0,63	1						
1974		E	55	34	21	21	0,38	1	43	10	33	33	0,77	1							55	9	46	46	0,84	1						
1974		TOTAL																														
1974	CIE	L							221	52	169	152	0,76	0,9							39	35	4	2	0,1	0,5						
1974	CP	L	63	31	32	32	0,51	1	203	50	153	153	0,75	1	42	7	35	35	0,83	1	64	16	48	48	0,75	1	78	15	63	63	0,81	1
1974		E	69	12	57	57	0,83	1													25	5	20	20	0,8	1						
1974		TOTAL																														
1974	DB	N	730	155	575	427	0,79	0,74	2972	193	2779	2529	0,94	0,91	2536	172	2364	2278	0,93	0,96	936	78	858	735	0,92	0,86	1152	86	1066	959	0,93	0,9
1974		E							2		2	2	1	1																		
1974		TOTAL																														
1974	DSB	N	28		28		1		275	12	263	262	0,96	1							124	5	119	109	0,96	0,92	249	6	243	232	0,98	0,95
1974	FS	N	478	118	360	265	0,75	0,74	755	185	570	570	0,75	1	1813	294	1519	1491	0,84	0,98	1041	180	861	777	0,83	0,9	480	103	377	360	0,79	0,95
1974		E	6	2	4	3	0,67	0,75													19	5	14	12	0,74	0,86						
1974		TOTAL																														
1974	NS	N							370	23	347	253	0,94	0,73	113	6	107	96	0,95	0,9	123	5	118	102	0,96	0,86	517	12	505	439	0,98	0,87
1974	NSB	N							89	7	82	72	0,92	0,88	158	19	139	124	0,88	0,89	50	7	43	34	0,86	0,79	117	13	104	93	0,89	0,89
1974	OBB	N	146	40	106	73	0,73	0,69	408	34	374	345	0,92	0,92	558	55	503	498	0,9	0,99	99	13	86	85	0,87	0,99	110	8	102	100	0,93	0,98
1974		E	24	8	16	11	0,67	0,69	26	2	24	20	0,92	0,83	16	2	14	12	0,88	0,86	2	1	1	1	0,5	1						
1974		TOTAL																														
1974	RENFE	L	136	23	113	.	0,83	.	656	119	537	.	0,82	.	384	67	317	.	0,83	.	367	85	282	.	0,77	.	303	51	252	.	0,83	.
1974		E																												.	1	.
1974		TOTAL																														
1974	SJ	N							192	36	156	156	0,81	1	679	103	576	576	0,85	1	158	21	137	137	0,87	1	150	20	130	130	0,87	1
1974		E							2	0	2	2	1	1							8	2	6	6	0,75	1						
1974		TOTAL																														
1974	SNCB	N							908	34	874	598	0,96	0,68	224	8	216	177	0,96	0,82	77	6	71	54	0,92	0,76	431	12	419	367	0,97	0,88
1974	SNCF	N	31	.	.		.		2196	158	2038	1769	0,93	0,87	2267	151	116	1961	0,93	0,93	972	74	898	809	0,92	0,9	677	41	636	.	0,94	.
1974		E																									36	.	.	.	.	.
1974		TOTAL																														
1974	VR	L	106	27	79	52	0,75	0,66	354	35	319	318	0,9	0,99	6	1	5	5	0,83	1	230	35	195	195	0,85	1	50	2	48	48	0,96	1
1974	BDZ	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CFR	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CSD	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	DR	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	JZ	N	603	79	524	357	0,87	0,68	722	69	653	541	0,9	0,83	301	28	273	215	0,91	0,79	303	25	278	258	0,92	0,93	26	2	24	21	0,92	0,88
1974		E	60	18	42	21	0,7	0,5	40	1	39	35	0,98	0,9							12	2	10	8	0,83	0,8						
1974		TOTAL																														
1974	MAV	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	TCDD	N	767	196	571	500	0,74	0,88	192	33	159	151	0,83	0,95	18	1	17	15	0,94	0,88	52	15	37	33	0,71	0,89	30	2	28	27	0,93	0,96
1975	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	BR	N							2455	569	1886	.	0.77	.	349	85	264	.	0.76	.	2043	373	1670	.	0.82	.	2485	306	2179	.	0.88	.
1975	CFF	N							103	9	94	60	0.91	0.64	891	63	828	623	0.93	0.75	1	0	1	0	1.00	0	176	17	159	137	0.90	0.86
1975		E													2	0	2	2	1.00	1.00							16	1	15	10	0.94	0.67
1975		total																														
1975	CFL	N							56	7	49	42	0.88	0.86	19	2	17	16	0.89	0.94	15	4	11	10	0.73	0.91	4	1	3	3	0.75	1.00
1975	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	CH	N	116	84	32	32	0.28	1.00	145	44	101	101	0.70	1.00							52	20	32	32	0.62	1.00						
1975		E	55	30	25	25	0.45	1.00	43	4	39	39	0.91	1.00							53	15	38	38	0.72	1.00						
1975		TOTAL																														
1975	CIE	L							221	60	161	151	0.73	0.94							39	36	3	2	0.08	0.67						
1975	CP	L	63	43	20	20	0.32	1.00	202	31	171	171	0.85	1.00	47	6	41	41	0.87	1.00	64	11	53	53	0.83	1.00	78	14	64	64	0.82	1.00
1975		E	69	21	48	48	0.70	1.00	6	1	5	5	0.83	1.00							25	5	20	20	0.80	1.00						
1975		TOTAL																														
1975	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	DB	N	431	63	368	217	0.85	0.59	3058	205	2853	2530	0.93	0.89	2609	180	429	2280	0.93	0.94	932	69	863	704	0.93	0.82	1251	116	1135	1001	0.91	0.88
1975		E							2		2	2	1.00	1.00																		
1975		TOTAL																														
1975	DR	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	DSB	N	21		21	.	1.00	.	280	11	269	259	0.96	0.96							115	4	111	97	0.97	0.87	256	8	248	.	0.97	.
1975	FS	N	438	100	338	213	0.77	0.63	827	185	642	642	0.78	1.00	1813	320	1493	1467	0.82	0.98	1040	192	848	761	0.82	0.90	479	111	368	351	0.77	0.95
1975		E	6	2	4	3	0.67	0.75													19	4	15	15	0.79	1.00						
1975		TOTAL																														
1975	JZ	N	505	109	396	328	0.78	0.83	753	181	572	552	0.76	0.97	318	72	246	238	0.77	0.97	328	56	272	261	0.83	0.96	40	7	33	31	0.83	0.94
1975		E	38	9	29	27	0.76	0.93	39	14	25	25	0.64	1.00							12		12	12	1.00	1.00						
1975		TOTAL																														
1975	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	NS	N							362	20	342	250	0.94	0.73	112	9	103	92	0.92	0.98	117	4	113	99	0.97	0.88	532	13	519	451	0.98	0.87
1975	NSB	N							89	9	80	72	0.90	0.90	158	21	137	116	0.87	0.85	48	5	43	33	0.90	0.77	126	14	112	97	0.89	0.87
1975	OBB	N	108	26	82	31	0.76	0.38	434	36	398	361	0.92	0.91	571	57	514	507	0.90	0.99	99	12	87	85	0.88	0.98	117	8	109	106	0.93	0.97
1975		E	24	8	16	11	0.67	0.69	26	2	24	21	0.92	0.88	16	3	13	12	0.81	0.92	2	1	1	1	0.50	1.00						
1975		TOTAL																														
1975	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	RENFE	L							688	115	573	.	0.83	.	392	81	311	.	0.79	.	357	77	280	.	0.78	.	339	63	276	.	0.81	.
1975		E																									3		3	.	1.00	.
1975		TOTAL																														
1975	SJ	N							190	41	149	149	0.78	1.00	660	101	559	559	0.85	1.00	152	26	126	126	0.83	1.00	147	22	125	125	0.85	1.00
1975		E							3	1	2	3	0.67	1.00							7	1	6	6	0.86	1.00						
1975		TOTAL																														
1975	SNCB	N							908	37	871	577	0.96	0.66	223	6	217	171	0.97	0.79	76	6	70	54	0.92	0.77	443	14	429	374	0.97	0.87
1975	SNCF	N							2222	151	2071	1718	0.93	0.83	2336	140	2196	1935	0.94	0.88	943	46	897	800	0.95	0.89	657	44	613	.	0.93	.

1.1.4.Tractive Stock - Available and Out of Service

			LOCOMOIVES AVAILABLE FOR OPERATING PURPOSES																		RAILCARS AVAILABLE FOR OPERATING PURPOSES											
			Steam Locomotives						Diesel and Special System Locomotives (excluding Light r. m. t.)						Electric Locomotives (excluding light r. m. t.)						Diesel and Special System						Electric					
			Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios		Average number				Ratios	
YEAR	Railway	railgauge	Total	Out of servicefor maintenance and repair	In working order	Locomotives used	Nºin working order/Total	Nº loc.used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nºin working order/Total	Nº loc.used/working order	Total	Out of service for maint. and repair	In working order	locom. Used	Nºin working order/Total	Nº loc.used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nºin working order/Total	Nº loc.used/working order	Total	Out of service for maint. and repair	In working order	Railcar Used	Nºin working order/Total	Nº loc.used/working order
1975		E																									31	.	.	.	.	.
1975		TOTAL																														
1975	VR	L	93	27	66	66	0.71	1.00	367	34	333	333	0.91	1.00	19	2	17	17	0.89	1.00	223	26	197	197	0.88	1.00	53	3	50	50	0.94	1.00
1975	TCDD	N	746	243	503	453	0.67	0.90	219	45	174	165	0.79	0.95	18	1	17	15	0.94	0.88	52	17	35	31	0.67	0.89	30	2	28	27	0.93	0.96
1976	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	BR	N							2323	515	1808	.	0,78	.	343	82	261	.	0,76	.	2032	408	1624	.	0,8	.	2452	304	2148	.	0,88	.
1976	CFF	N							104	12	92	60	0,88	0,65	887	66	821	616	0,93	0,75	0	0	0	0	0	0	179	20	159	137	0,89	0,86
1976		E													2	0	2	2	1	1							16	2	14	10	0,88	0,71
1976		total																														
1976	CFL	N							55	8	47	42	0,85	0,89	19	2	17	14	0,89	0,82	12	2	10	8	0,83	0,8	6	0	6	5	1	0,83
1976	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	N	116	103	13	6	0,11	0,46	145	47	98	98	0,68	1							63	20	43	43	0,68	1						
1976		E	55	46	9	7	0,16	0,78	43	4	39	39	0,91	1							57	4	53	53	0,93	1						
1976		TOTAL																														
1976	CIE	L							212	62	150	142	0,71	0,95							3	3										
1976	CP	L	14		14	14	1	1	225	37	188	188	0,84	1	45	8	37	37	0,82	1	62	15	47	47	0,76	1	80	14	66	66	0,83	1
1976		E	48	8	40	40	0,83	1	12		12	9	1	0,75							25	4	21	21	0,84	1						
1976		TOTAL																														
1976	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	DB	N	149	20	129	60	0,87	0,47	3108	186	2922	2559	0,94	0,88	2662	172	2490	2307	0,94	0,93	878	60	818	657	0,93	0,8	1332	116	1216	1059	0,91	0,87
1976		E									2	2	1	1																		
1976		TOTAL																														
1976	DR	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	DSB	N	18		18	.	1	.	280	12	268	248	0,96	0,93							110	5	105	86	0,95	0,82	252	.	.	237	.	.
1976	FS	N	372	61	311	158	0,84	0,51	872	184	688	688	0,79	1	1807	314	1493	1456	0,83	0,98	1067	199	868	770	0,81	0,89	484	108	376	359	0,78	0,95
1976		E	5	2	3	3	0,6	1													19	5	14	14	0,74	1						
1976		TOTAL																														
1976	JZ	N	486	118	368	251	0,76	0,68	757	152	605	569	0,8	0,94	347	64	283	276	0,82	0,98	353	64	289	268	0,82	0,93	40	8	32	30	0,8	0,94
1976		E	24	13	11	11	0,46	1	39	19	20	20	0,51	1							5	1	4	4	0,8	1						
1976		TOTAL																														
1976	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	NS	N							356	21	335	245	0,94	0,73	112	8	104	90	0,93	0,87	117	6	111	99	0,95	0,89	547	14	533	462	0,97	0,87
1976	NSB	N							89	11	78	70	0,88	0,9	158	21	137	116	0,87	0,85	46	6	40	32	0,87	0,8	133	17	116	102	0,87	0,88
1976	OBB	N	74	9	65	11	0,88	0,17	447	33	414	372	0,93	0,9	611	53	558	551	0,91	0,99	96	11	85	83	0,89	0,98	95	8	87	84	0,92	0,97
1976		E	24	8	16	11	0,67	0,69	26	3	23	21	0,88	0,91	16	3	13	12	0,81	0,92	2	1	1	1	0,5	1						
1976		TOTAL																														
1976	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	RENFE	L							717	129	588	.	0,82	.	395	75	320	.	0,81	.	295	54	241	.	0,82	.	356	53	303	.	0,85	.
1976		E																									6	1	5	.	0,83	.
1976		TOTAL																														
1976	SJ	N							329	72	257	257	0,78	1	654	108	546	546	0,83	1	144	24	120	120	0,83	1	145	22	123	123	0,85	1
1976		E							2	0	2	2	1	1							7	2	5	5	0,71	1						
1976		TOTAL																														
1976	SNCB	N							889	35	854	569	0,96	0,67	226	6	220	167	0,97	0,76	76	5	71	54	0,93	0,76	456	14	442	376	0,97	0,85
1976	SNCF	N							2228	144	2084	1718	0,94	0,82	2357	136	2221	1959	0,94	0,88	946	56	890	799	0,94	0,9	691	37	654	.	0,95	.
1976		E																									31	.	.	.	.	.
1976		TOTAL																														
1976	VR	L							374	34	340	340	0,91	1	34	4	30	30	0,88	1	222	26	196	196	0,88	1	67	5	62	62	0,93	1
1976	TCDD	N	681	185	496	440	0,73	0,89	269	55	214	186	0,8	0,87	18	2	16	15	0,89	0,94	51	13	38	35	0,75	0,92	30	3	27	26	0,9	0,96

A1.1.5. Rolling Stock : Carriages, Vans, Buses and Trailers - Stock available and out of service

YEAR	Railway	rail gauge	Rail stock – Railway-owned – Stock: Carriages	Railcars	Railcar trailers	Total stock	Including: RIC carriages	RIC railcars and trailers	Air-conditioned carriages	Air-conditioned railcars and trailers	Restaurant cars	Couchette coaches	Sleeping cars	Standing Room carriages	Standing Room Railcars and trailers	Carrying Capacity – Seats 1º class	Seats 2ºclass	Sleeping accommodation – Couchettes 1º class	Couchettes 2ºclass	Sleeping cars 1 & 2nd class	Seating & sleeping accommodation Total	Average no. per carriage	Standing room	Luggage and other vans Total Stock	including mail-vans	Private owners vehicles – Carriages Total Stock	Luggage and Vans Total Stock	including mail-vans	Average Number of Carriages, Railcars and Trailers – TOTAL	Out of service for maintenance or repair	In working	Ratio between stock in working order and total stock	Road stock – Railway-owned vehicles – Motor Coaches and Trailers – Total Stock	Total Carrying capacity	Contractor's vehicles TOTAL stock	Total Carrying capacity
1974	BR	N	7154	4663	5920	17737					620		398			111234	987571			7029	1105834	64,6		10220		16			17620	2051	15569	0,88				
1974	CFF	N	3503	177	67	3747	547	28	43	28	52	80	32			37558	213940		4620	1047	257165	69,6		625			585	585	3760	140	3620	0,96				
1974		E	115			115										860	5816				6676	58,1		29			6	6	115	4	111	0,97				
1974		total																																		
1974	CFL	N	77	25	8	110	17									390	9076				9466	86,1		7					110	7	103	0,94	49	2479		
1974	CH	N	267	52	28	347	126				9	12	6	240	80	2014	19065		648	147	21874	64,7	2288	103	13		4	4	347	50	297	0,86				
1974		E	130	55	22	207								130	77	1062	10162				11224	54,2	1325	66	8				207	18	189	0,91				
1974		TOTAL																															54	2024	100	3600
1974	CIE	L	383	39		422			62		35					978	23835				24813	64,1		199	14				434	41	393	0,91	2535	143616		
1974	CP	L	459	145	202	806				8	5				301	13805	49768				63573	79,4	17707	176			28	28	794	100	694	0,87				
1974		E	157	25	7	189									32	1516	6681				8197	43,4	707	38			12	12	181	10	171	0,94				
1974		TOTAL																															11	489		
1974	DB	N	17858	2129	1708	21695			782		118	796	110			164463	1277998		47760	3630	1494571	69,3		1819	2	315	948	948	22008	1547	20461	0,93				
1974		E	15			15											720				720	48		3					15		15	1				
1974		TOTAL																															2386	242931	3953	311961
1974	DSB	N	941	374	288	1603	208			43		13			510	5948	97142		585		103675	64,7		141	91				1584	100	1484	0,94	554	28843		
1974	FS	N	10353	1520	610	12483	2154		596	116	32	616	11	196	2109	129496	701534	2256	32058	396	865740	69,5	101925	2399	498				12291	2300	9991	0,81				
1974		E		21	5	26									26		1420				1420	54,6	460	2					24	6	18	0,75				
1974		TOTAL																																		
1974	NS	N	345	642	968	1955	88				36		1	257	1610	21759	97939			36	119734	62,4	61209	124	66				1975	55	1920	0,97				
1974	NSB	N	590	173	257	1020					17		82			813	54051			2649	57513	57,3		108	10				1011	52	959	0,95	522	24721		
1974	OBB	N	3001	172	556	3729	340		4	4	36	43	3	2		9390	200445		2658	108	212601	57	176	827			149	149	3752	355	3397	0,91				
1974		E	177	2		179										96	7496				7592	42,4		25			3	3	179	6	173	0,91				
1974		TOTAL																															708	30517	35	1505
1974	RENFE	L	1830	684	807	3321			265	201	8	119	34		1235	18972	192301		7176	872	219321	66	113669	610		214	255	255	3594	522	3072	0,85				
1974		E		3	3	6									6		420				420	70							6		6	1				
1974		TOTAL																																		
1974	SJ	N	1424	388	533	2345	6				38	33	224		609	9263	106102		2112	6768	124245	53,9	22791	244					2349	79	2286					
1974		E		10	5	15											630				630	42							16							
1974		TOTAL																														0,97	1271	91517		
1974	SNCB	N	2502	880		3382	365					85	3	1244	878	39273	246886		4860	108	291127	86,1	75692	413		25	39	39	3389	239	3150	0,93			1229	98320
1974	SNCF	N	11429	1697	2341	15467	5057		385	95	151	1346	265	1493	1982	157344	847183	8818	59012	8125	1080482	70,5	316786	3429	528				15484	1243	14241	0,92				
1974		E		32	15	47									17	354	1718				2072	44,1	484	7					47							
1974		TOTAL																																		
1974	VR	L	704	270	74	1048			6		8	9	98		172	1998	61154		405	2851	66408	63,9	7440	78			74	74	1051	61	990	0,94				
1974	BDZ	N																																		
1974		E																																		
1974		TOTAL																																		
1974	CFR	L																																		
1974		N																																		
1974		E																																		
1974		TOTAL																																		
1974	CSD	L																																		
1974		N																																		
1974		E																																		
1974		TOTAL																																		
1974	DR	N				10249																		705												
1974		E				348																		58												
1974		TOTAL																																		
1974	JZ	N	2553	771		3324	950				5	88	135			26222	193595		5022	4074	228913	69		415					3209	234	2975	0,93				
1974		E	222	47		269										1452	8440							76					269	44	225	0,84				
1974		TOTAL																															41	1838		
1974	MAV	L																																		
1974		N																																		
1974		E																																		
1974		TOTAL																																		
1974	PKP	N.E.																																		
1974	TCDD	N	1053	82	184	1319	49				11	75	34		120	20323	64970	2400		690	88383	67,6	10260	524			31	31	1331	131	1200	0,9				
1975	BDZ	N.E.																																		
1975	BR	N	6834	4675	5962	17471					604		384			110429	982181			6781	1099391	65.2		5439		16			17536	2281	15255	0.87				
1975	CFF	N	3514	158	67	3739	594	34	89	28	57	80	27			37136	210630		4620	941	253327	68.8		578			585	585	3743	157	3586	0.96				
1975		E	115			115										860	5816				6676	58.1		29			6	6	115	7	108	0.94				
1975		total																																		
1975	CFL	N	77	18	17	112	17									486	9287				9773	87.3		7					112	10	102	0.91	49	2502		
1975	CFR	L.N.E.																																		
1975	CH	N	326	52	28	406	201				10	27	6	300	80	2014	22569		1800	147	26530	67.0	5450	106	13		4	4	406	58	348	0.86				
1975		E	154	53	24	231								154	77	1157	12414				13571	58.7	2125	58	5				231	20	211	0.91				
1975		TOTAL																															54	2024	60	2400
1975	CIE	L	382	39		421			62		35					859	23855				24714	64		188	14				422	45	377	0.89	2520	143581		
1975	CP	L	484	145	202	831				8	5				301	13765	52070				65835	79.7	17707	156			28	26	815	72	743	0.91				
1975		E	154	25	7	186									32	1488	6563				8051	43.3	707	38					180	7	173	0.96				
1975		TOTAL																															9	387		
1975	CSD	L.N.E.																																		
1975	DB	N	17711	2227	1656	21594			508		121	796	185			163871	1225351		47760	5577	1442559	67.2		1695		219	902	902	21729	1594	20135	0.93				
1975		E	15			15											720				720	48.0		3					15		15	1.00				
1975		TOTAL																															2383	242613	4164	328419
1975	DR	N				10219																		633												
1975		E				283																		76												
1975		TOTAL																																		
1975	DSB	N	954	374	293	1621	89			43		13			522	5726	94035		585		100346	61.9		138	99				1614	134	1480	0.92	424	22160		
1975	FS	N	10544	1523	629	12693	2200		742	116	47	630	28	254	2128	131005	713310	2416	32658	1008	880397	69.6	110339	2353	488				12511	2348	10163	0.81				
1975		E		19	5	24	24								24		1300				1300	54.2	420	1					24	4	20	0.83				
1975		TOTAL																																		
1975	JZ	N	2534	862		3396	793				4	87	147			23046	195977		4698	4434	228155	67.3		371					3226	162	3064	0.95				
1975		E		47																									229	30	199	0.87				
1975		TOTAL																															45	2025		
1975	MAV	N.E.																																		
1975	NS	N	339	661	987	1987	82				36		3	257	1648	22295	100264			104	122663	62.9	63263	116	62				1968	59	1909	0.97				
1975	NSB	N	575	178	248	1001			11		17		82			762	54370			2649	57781	58.7		105	10				1009	48	961	0.95	509	23614		
1975	OBB	N	2933	173	558	3664	417		4	4	29	42	6	2		8991	198508		2598	210	210307	57.4	176	806			147	147	3701	349	3352	0.91				
1975		E	177	2		179										96	7496				7592	42.4		25			3	3	179	7	172	0.96				
1975		TOTAL																															758	33727	40	1760
1975	PKP	N.E.																																		
1975	RENFE	L	1914	688	869	3471		502	265	205	20	127	34		1300	18376	213766		7614	952	240708	69.8	127936	597		229	250	250	3687	561	3126	0.85				
1975		E		3	3	6									6		420				420	70.0							6		6	1.00				
1975		TOTAL																																		
1975	SJ	N	1391	369	524	2284	6				39	53	223		585	9439	99586		3392	7447	119864	53.4	22080	240					2315	82	2248	0.97	1256	90437		
1975		E		10	5	15									15		630				630	42.0	470						15							
1975		TOTAL																																		
1975	SNCB	N	2389	536	479	3404	366					85	6	1244	906	39635	248275		4860	216	292986	86.1	76584	390		22	46	46	3399	267	3132	0.92			1248	99840
1975	SNCF	N	11204	1678	2380	15271	5616		469	165	144	1369	274	2288	1680	158623	808649	8762	60494	8676	1045204	69.1	326410	2823	550				15462	1128	14334	0.93				
1975		E		31	18	49									17	316	1895				2211	45.1	484	7					49							
1975		TOTAL																																		
1975	VR	L	585	280	218	1083			6		19	9	98		485	1998	62669		405	2851	67923	63.8	20660	70			63	63	1066	69	997	0.94				
1975	TCDD	N	1057	82	184	1323	49				10	94	39		120	33655	48921	6204		800	89580	68.2	10260	511			31	31	1311	140	1170	0.89				
1976	BDZ	N.E.																																		
1976	BR	N	6536	4677	5918	17111					566		366			102176	973655			6385	1082216	65,4		5262		16			17120	2279	14841	0,87				

A1.1.5. Rolling Stock : Carriages, Vans, Buses and Trailers - Stock available and out of service

STOCK AT THE END OF THE YEAR – Rail STOCK – RAILWAY - OWNED VEHICLES – Carriages, Railcar and trailers

YEAR	Railway	rail gauge	STOCK: Carriages	STOCK: Railcars	STOCK: Railcar trailers	STOCK: Total stock	Including: RIC carriages	Including: RIC railcars and trailers	Including: air-conditioned carriages	Including: air-conditioned railcars and trailers	Including: Restaurant cars	Including: Couchette coaches	Including: Sleeping cars	Including: Standing Room carriages	Including: Standing Room Railcars and trailers	Carrying Capacity: Seats 1º class	Carrying Capacity: Seats 2ºclass
1976	CFF	N	3511	161	66	3738	604	30	89	25	57	80	27	.	.	36596	210670
1976		E	115			115								.	.	860	5816
1976		total															
1976	CFL	N	77	18	17	112	17									486	9287
1976	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	N	327	63	48	438	201				6	28	6	300	80	2162	23979
1976		E	159	57	36	252								159	77	1205	13198
1976		TOTAL															
1976	CIE	L	372	3		375			62		35					674	21241
1976	CP	L	463	145	202	810	293			8	5				301	13535	50853
1976		E	128	28	11	167									39	1264	5683
1976		TOTAL															
1976	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	DB	N	16759	2154	1558	20471	.	.	533		129	770	185	.	.	159813	1175150
1976		E	15			15								.	.		720
1976		TOTAL															
1976	DR	N	.	.	.	10328	.	.	.	.	.	.	.	.	.	.	.
1976		E	.			278											
1976		TOTAL															
1976	DSB	N	962	388	315	1665	94		2	43		13	2	.	566	5372	98085
1976	FS	N	10694	1588	664	12946	3131		817	117	47	629	44	321	2230	133907	730672
1976		E		19	5	24									24		1300
1976		TOTAL															
1976	JZ	N	2434	393	512	3339	1030				4	86	144	.	.	26859	193096
1976		E	93	5	42	140								.	.	930	4076
1976		TOTAL															
1976	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	NS	N	327	667	983	1977	72				36		3	255	1650	22357	99102
1976	NSB	N	562	186	255	1003			11		16		82	.	.	762	54996
1976	OBB	N	2914	169	577	3660	452		4	4	46	71	8	2		9294	196388
1976		E	177	2		179										96	7496
1976		TOTAL															
1976	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	RENFE	L	1925	641	872	3438		513	273	204	20	127	45		1294	18389	212367
1976		E		6	3	9									9		630
1976		TOTAL															
1976	SJ	N	1387	348	439	2174	6				39	53	222		557	9600	97383
1976		E		8	5	13									5		546
1976		TOTAL															
1976	SNCB	N	2342	551	530	3423	360					85	6	1242	972	40002	250360
1976	SNCF	N	11652	1726	2442	15820	5763		1203	195	134	1420	274	1547	2349	168370	842188
1976		E		31	18	49									17	294	1917
1976		TOTAL															
1976	VR	L	602	284	210	1096			6		26	9	97		481	1998	67691
1976	TCDD	N	1070	81	184	1335	49				10	94	40		120	13158	52174

YEAR	Railway	rail gauge	Sleeping accommodation: Couchettes 1º class	Sleeping accommodation: Couchettes 2ºclass	Sleeping accommodation: Sleeping cars 1 & 2nd class	Seating & sleeping accor: Total	Seating & sleeping accor: Average no. per carriage	Standing room	LUGGAGE AND OTHER VANS: Total Stock	LUGGAGE AND OTHER VANS: including mail-vans	PRIVATE OWNERS VEHICLES: CARRIAGES Total Stock	PRIVATE OWNERS VEHICLES: Luggage and Vans Total Stock	PRIVATE OWNERS VEHICLES: Luggage and Vans including mail-vans	Average Number of Carriages, Railcars and Trailers: TOTAL	Average Number: Out of service for maintenance or repair	Average Number: In working	Ratio between stock in working order and total stock	ROAD STOCK – RAILWAY - OWNED VEHICLES – Motor Coaches and Trailers: Total Stock	RAILWAY - OWNED VEHICLES: Total Carrying capacity	Contractor's vehicles: TOTAL stock	Contractor's vehicles: Total Carrying capacity
1976	CFF	N		4620	941	252827	68,7	.	544			585	585	3739	169	3570	0,95				
1976		E				6676	58,1	.	29			6	6	115	8	107	0,93				
1976		total																		.	.
1976	CFL	N				9773	87,3		7					112	11	101	0,9	49	2502		
1976	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	N		1800	147	28088	65	.	104	11		4	4	438	58	380	0,87				
1976		E				14403	57,2	.	46	5				252	20	232	0,92				
1976		TOTAL																53	1988	90	3240
1976	CIE	L				21915	64,5		126	10				398	54	344	0,86	2483	139217		
1976	CP	L				64388	80	17755	156			28	28	810	64	746	0,92				
1976		E				6947	41,6	1081	33					167	14	153	0,92				
1976		TOTAL																25	668		
1976	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	DB	N		46200	5577	1386740	68,2	.	1616		209	887	887	21231	1633	19598	0,92				
1976		E				720	48	.	2					15		15	1				
1976		TOTAL																2158	219706	3805	300104
1976	DR	N		.	.	.	.	.	615			.	.	.	.	.	.				
1976		E				.	.		73					.	.	.	.				
1976		TOTAL																			
1976	DSB	N		585	68	104110	62,5	30564	123	80				1602	.	.	.	457	24126		
1976	FS	N	2416	32598	1584	901177	69,9	125857	2316	465				12744	2406	10338	0,81				
1976		E				1300	54,2	420	1					24	6	18	0,75				
1976		TOTAL																		.	.
1976	JZ	N		5944	4345	230244	69	.	442	.				3237	130	3107	0,96				
1976		E				5006	35,8	.	40	.				140	17	123	0,88				
1976		TOTAL																87	3915		
1976	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	NS	N			104	121563	62,6	63296	99	61				1983	61	1922	0,97				
1976	NSB	N			2627	58385	59,2	.	103	10				1002	46	956	0,95	515	24491		
1976	OBB	N		4338	278	210298	57,6	176	738			147	147	3661	346	3315	0,91				
1976		E				7592	42,4		25			3	3	179	7	172	0,96				
1976		TOTAL																776	36797	44	1936
1976	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1976	RENFE	L		7614	1106	239476	70,1	132424	596		226	256	256	3682	479	3203	0,87				
1976		E				630	70	.						7	1	6	0,86				
1976		TOTAL																.	.	.	.
1976	SJ	N		3392	6885	117260	54,9	17329	247					2262							
1976		E				546	42	90						14							
1976		TOTAL													91	2185	0,96	1275	91720		
1976	SNCB	N		4860	216	295438	86,3	79106	387		21	46	46	3430	254	3176	0,93			1269	101520
1976	SNCF	N	8798	61818	8724	1049898	79,5	337778	2279	575				15581	1306	14275	0,92				
1976		E				2211	45,1	484	6					49	.	.	.				
1976		TOTAL																.	.	.	.
1976	VR	L		405	2826	72920	68,1	21928	71			62	62	1090	95	995	0,91				
1976	TCDD	N	6204		818	72354	54,6	10260	500			31	31	1325	138	1187	0,9				

A1.1.6. Rolling Stock : Wagons, Lorries and Trailers- Stock available and out of service

			Stock at the end of the year																STOCK at the END of the YEAR							AVERAGE NUMBER OF WAGONS AVAILABLE FOR OPERATING PURPOSES						RATIO		Average stock of wagons used exclusively for departmental traffic
			Railway-owned Vehicles Rail Stock																Railway-Owned Vehicles ROAD STOCK LORRIES AND TRAILERS		PRIVATE OWNERS VEHICLES RAIL STOCK WAGONS			VEHICLES BELONGING TO PRIVATE UNDERTAKING RAIL STOCK LORRIES AND TRAILERS										
			Covered Wagons of ordinary Type			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			ALL WAGONS																		
YEAR	Railway	rail gauge	STOCK	Total capacity (tonnes)	Average Capacity per wagon	Stock	Total capacity (tonnes)	Average Capacity per wagon	Stock	Total capacity (tonnes)	Average Capacity per wagon	Stock	Total capacity (tonnes)	Average Capacity per wagon	Stock	Including RIV, EUROP and POOL wagons	Total capacity (tonnes)	Average Capacity per wagon (tonnes)	Stock	Total Capacity (tonnes)	Stock	Total Capacity	Average capac. Per wagons (tonnes)	Stock	Total Capacity (tonnes)	TOTAL	OUT of service for maint. and repair	In working order	Average daily balance of RIV, EUROP and Pool wagons	Average daily balance of wagons exchanged with the secondary system in the country	Available	Between the stock in working order and total stock	Between the total stock available and the stock in working order	
1972	BR	N	34344	478295	13,9	204379	3829211	18,7	25589	696408	27,2	1244	32535	26,2	265556		5036449	19			18575					282700	19900	262800				0,93		32899
1972	CFF	N	11495	247402	21,6	4952	126748	25,6	3833	114057	29,8	5398	139041	25,8	25678	22702	627248	24,4			7499	260891	34,8			32982	438	32544	4383		36927	0,99	1,13	2977
1972		E	100	1350	13,6	29	479	16,6	28	471	16,8	59	2604	44,1	216		4904	22,7			4	48	12			220	2	218			218	0,99	1	40
1972		total																															
1972	CFL	N	769	18947	24,6	906	25087	27,7	1325	52848	39,9	546	15631	28,6	3546	2930	112513	31,7	10	92	546	25642	47			4092	128	3964	433		4397	0,97	1,11	292
1972	CH	N	4199	97700	23,3	758	13795	18,2	637	18207	28,6	1759	35402	20,1	7353	4868	165104	22,5			2	50	25			7353	431	6922	202		7124	0,94	1,03	465
1972		E	1266	17400	13,7	374	3943	10,5	67	796	11,9	79	1207	15,3	1786		23346	13,1								1786	150	1636			1636	0,92	1	56
1972		TOTAL																															
1972	CIE	L	3622	43814	12,1	2546	30744	12,1	1224	25592	20,9	973	15281	15,7	8365		115431	13,8	1785	17823	96	1578	16,5			8677	606	8071			8071	0,93	1	518
1972	CP	L	3441	56108	16,3	2320	41011	17,7	1781	29817	16,7	307	10642	34,7	7849		137578	17,5			370	6741	18,2			7595	418	7177			7177	0,94	1	170
1972		E	200	2264	11,3	282	3106	11	220	2683	12,2	14	298	21,3	716		8351	11,7			3	30	10			716	17	699			699	0,98	1	18
1972		TOTAL																															
1972	DB	N	83110	2032219	24,5	82067	2360426	28,8	49558	1700589	34,3	65738	2130948	32,4	280473	246534	8224182	29,3	22	198	46535	1626052	34,9	71	421	321812	17069	304743	-10679		294064	0,95	0,96	15868
1972		E	33	462	14	16	306	19,1	21	242	11,5				70		1010	14,4								70		70			70	1	1	7
1972		TOTAL																															
1972	DSB	N	4840	109593	22,6	1995	47856	24	840	25189	30	2062	50540	24,5	9737	6108	233178	23,9	376	2304	596	14143	23,7			10538	327	10211	1506	-80	11637	0,97	1,14	
1972	FS	N	47751	1098000	23	36763	1022000	27,8	13730	530000	38,6	14916	280000	18,8	113160	106343	2930000	25,9			14223	354000	24,9			127111	13050	114061	14925		128986	0,9	1,13	7997
1972		E	54	588	10,9	53	622	11,7	36	514	14,3	23	281	12,2	166		2005	12,1								155	15	140			140	0,9	1	11
1972		TOTAL																															
1972	NS	N	5113	130467	25,5	4015	115695	28,8	1280	35524	27,8	3903	116419	29,8	14311	13279	398105	27,8			1391	47259	34			17276	542	16734	-2830		13904	0,97	0,83	1638
1972	NSB	N	2931	53730	18,3	495	8010	16,2	3834	83160	21,7	2271	41650	18,3	9531	6108	186550	19,6	219	1204	486	10950	22,5			10054	360	9694	1834	-100	11428	0,96	1,18	
1972	OBB	N	14486	326205	22,5	11221	297478	26,5	2951	97356	33	6118	176985	28,9	34776	26484	898024	25,8	142	781	3469	111820	32,2			38182	2819	35363	2880	-62	38181	0,93	1,08	1337
1972		E	161	1995	12,4	326	3819	11,7	228	2523	11,1	186	4618	24,8	901		12955	14,4								904	18	886			886	0,98	1	4
1972		TOTAL																															
1972	RENFE	L	12847	256940	20	10349	196307	19	6992	167658	24	3690	139853	37,9	33878	25758	760758	22,5			10485	318060	30,3			45680	4718	40962			40962	0,9	1	3357
1972		E																															
1972		TOTAL																															
1972	SJ	N	11663	287797	24,7	722	34024	47,1	22953	625529	27,3	11714	410367	35	47052		1357717	28,9	220	429	4785	141087	29,5			52283	898	51929	-2331	-173	49425	0,98	0,95	
1972		E	23	282	12,3				162	2387	14,7	347	10615	30,6	532		13284	25								544								
1972		TOTAL																															
1972	SNCB	N	9917	206931	20,9	17572	522293	29,7	10568	442607	41,9	8239	277340	33,7	46296	43217	1449171	31,3			4022	161501	40,2			48045	3622	44423	1788		46211	0,92	1,04	4883
1972	SNCF	N	90971	2701222	29,7	52341	1716599	32,8	52128	2111464	40,5	24160	847173	35,1	219600	216249	7376458	33,6			81796	3009256	36,8			288822	13736	275086	-6900		268186	0,95	0,97	10805
1972		E	47	470	10	62	620	10	87	870	10	4	40	10	200		2000	10								200								
1972		TOTAL																															
1972	VR	L	6971	147306	21,1	483	11527	23,9	10175	278684	27,4	4187	119792	28,6	21816		557309	25,5	148	975	782	20827	26,6			22548	991	21557			21557	0,96	1	3071
1972	BDZ	N																															
1972		E																															
1972		TOTAL																															
1972	CFR	L																															
1972		N																															
1972		E																															
1972		TOTAL																															
1972	CSD	L																															
1972		N												128759																			
1972		E												52																			
1972		TOTAL																															
1972	DR	N												146631																132375			
1972		E												151													151			151		1	
1972		TOTAL																															
1972	JZ	N	22257	562130	25,3	24719	720315	29,1	5502	154943	28,2	4945	177953	36	57423	40243	1615341	28,1	1073	9288						56410	3149	53261	5125		58386	0,94	1,1	1251
1972		E	1176	15925	13,5	2363	35275	14,9	263	3849	14,6	125	1703	13,6	3927		56752	14,5								3584	686	2898			2898	0,81	1	47
1972		TOTAL																															
1972	MAV	L																															
1972		N																															
1972		E																															
1972		TOTAL																															
1972	TCDD	N	7688	154372	20,1	5884	157440	26,8	1649	55760	33,8	815	36172	44,4	16036	3192	403744	25,2			1479	57408	38,8			17515	1225	16290	1378		17668	0,93	1,08	
1973	BR	N	32551	443627	13,6	189692	3541894	18,7	25280	684055	27,1	1159	30592	26,4	248682		4700168	18,9			18207					257200	23600	233600				0,91		
1973	CFF	N	11176	241801	21,6	4851	124562	25,7	3848	118690	30,8	6168	173961	28,2	26043	23265	659014	25,3			7518	266416	35,4			33369	470	32899	4537		37436	0,99	1,14	3009
1973		E	100	1350	13,5	29	479	16,5	28	471	16,8	59	2604	44,1	216		4904	22,7			4	48	12			220	2	218			218	0,99	1	40
1973		total																															
1973	CFL	N	729	18152	24,9	752	21821	29	1300	52133	40,1	638	18324	28,7	3419	3124	110430	32,3	10	92	526	25245	48			3945	137	3808	790		4598	0,97	1,21	283
1973	CH	N	4163	97750	23,5	819	20085	24,5	822	23800	29	1880	41480	22,1	7684	5171	183115	23,8			2	50	25			7684	540	7144	508		7652	0,93	1,07	392
1973		E	1261	17350	13,8	367	3873	10,6	67	796	11,9	116	1702	14,7	1811		23721	13,1								1811	102	1709			1709	0,94	1	37
1973		TOTAL																															
1973	CIE	L	3442	41969	12,2	2472	29950	12,1	1290	24996	19,4	834	13606	16,3	8038		110521	13,7	1879	20417	96	1587	16,5			8290	536	7754			7754	0,94	1	528
1973	CP	L	3204	53197	16,6	2037	36755	18	1672	30463	18,2	417	13658	32,8	7330		134073	18,3			370	6741	18,2			7094	485	6609			6609	0,93	1	156
1973		E	200	2264	11,3	282	3106	11	220	2683	12,2	14	298	21,3	716		8351	11,7			3	30	10			716	15	701			701	0,98	1	18
1973		TOTAL																															
1973	DB	N	78418	1970624	25,1	81550	2345360	28,8	49777	1714648	34,4	70666	2309117	32,7	280411	258493	8339749	29,7			46912	1723677	36,7			317847	17456	300391	-11775		288616	0,95	0,96	15803
1973		E										42	606	14,4	42		606	14,4								42		42			42	1	1	3
1973		TOTAL																16	179				75	512									
1973	DSB	N	4325	100905	23,3	1972	47389	24	923	29754	32,2	2191	54093	24,7	9411	6341	232141	24,7	394	2696	631	14890	23,6			10055	362	9693	2062	-63	11692	0,96	1,21	
1973	FS	N	45326	1043400	23	36237	1019700	28,1	13393	531700	39,7	15472	317600	20,5	110428	104421	2912400	26,4			14563	362000	24,9			126694	13941	112753	20049		132802	0,89	1,18	7892
1973		E	52	567	10,9	50	585	11,7	35	500	14,3				137		1652	12,1								139	15	124			124	0,89	1	19
1973		TOTAL																															
1973	NS	N	5054	129213	25,6	3940	113539	28,8	1267	35242	27,8	4122	123779	30	14383	13421	401773	27,9			1387	47582	34,3			15797	622	15175	-2771		12404	0,96	0,82	1671
1973	NSB	N	2841	59300	20,9	415	8175	19,7	3398	90480	26,6	1985	48320	24,3	8639	6267	206275	23,9	226	1320	494	11230	22,7			9411	381	9030	1656	-98	10588	0,96	1,17	
1973	OBB	N	14505	345122	23,8	10822	265405	24,5	2941	100103	34	6824	193998	28,4	35092	27441	904628	25,8			3414	99646	29,2			38481	3231	35250	2748	-111	37887	0,92	1,07	2705
1973		E	160	1989	12,4	317	3666	11,6	229	2557	11,2	186	4618	24,8	892		12830	14,4								897	16	881			881	0,98	1	4
1973		TOTAL																143	787														
1973	RENFE	L	12429	248580	20	10141	202820	20	6968	175172	25,1	3825	153484	40,1	33363		780056	23,4			10625	320469	30,2			44060	3865	40195			40195	0,91	1	3015
1973		E																															
1973		TOTAL																															
1973	SJ	N	11217	275982	24,6	712	33555	47,1	22890	629023	27,5	12255	424048	34,6	47074	37091	1362608	28,9			4527	135150	29,9			51719								
1973		E	17	209	12,3				71	1044	14,7	318	9731	30,6	406		10984	27,1								469								
1973		TOTAL																216	424							885	51303	-3219	-206	47806	0,98	0,93	
1973	SNCB	N	10067	215063	21,4	17175	528906	30,8	10711	450300	42	8826	308494	35	46779	44384	1502763	32,1			4102	167789	40,9			48952	3112	45840	765		46605	0,94	1,02	4752
1973	SNCF	N	85340	2566154	30,1	49462	1680709	34	54046	2267651	42	26438	953798	36,1	215286	212993	7468312	34,7			82780	3139815	37,9			280800	26800	254000	-8300		245700	0,9	0,97	10626
1973		E	47	470	10	62	620	10	87	870	10	4	40	10	200		2000	10								200								
1973		TOTAL																															
1973	VR	L	6600	146264	22,2	575	13800	24	10082	276696	27,4	4289	127244	29,7	21546		564004	26,2	141	995	759	20517	27			22452	723	21729			21729	0,97	1	2989
1973	BDZ	N																															
1973		E																															
1973		TOTAL																															
1973	CFR	L																															
1973		N																															
1973		E																															
1973		TOTAL																															
1973	CSD	L																															
1973		N												129669																			
1973		E												35																			
1973		TOTAL																															
1973	DR	N												145374																131402			
1973		E												158																134			
1973		TOTAL																															
1973	JZ	N	20724	552712	26,7	24145	767892	31,8	5438	166132	30,6	5402	206180	38,2	55709	30033	1692916	30,4								52589	3706	48883	3602		52485	0,93	1,07	1260
1973		E	1127	15325	13,6	2249	34244	15,2	246	3666	14,9	95	1423	15	3717		54658	14,7								3598	632	2966			2966	0,82	1	14
1973		TOTAL																1149	9722														
1973	MAV	L																															
1973		N																															
1973		E																															
1973		TOTAL																															
1973	TCDD	N	7672	156939	20,5	5810	159820	27,5	1509	52245	34,6	998	46499	46,6	15989	3794	415503	26			1492	57258	38,4			17481	1301	16180	1725		17905	0,93	1,11	
1974	BR	N	31557	448074	14,2	183692	3507274	19,1	25055	688437	27,5	1125	30409	27	241429		4674194	19,4			18418					244900	20500	224400				0,92		
1974	CFF	N	10802	234989	21,8	4457	116238	26,1	3807	124066	32,6	7014	195800	27,9	26080	23474	671093	25,7			7521	272243	36,2			33581	485	33096	3153		36249	0,99	1,1	2981
1974		E	100	1350	13,5	29	479	16,5	27	460	17	59	2604	44,1	215		4893	22,8			4	48	12			220	2	218			218	0,99	1	39
1974		total																															
1974	CFL	N	721	17994	25	708	20867	29,5	1353	57716	42,7	686	21179	30,9	3468	3298	117756	34	13	130	402	20415	50,8			3870	155	3715	800		4515	0,96	1,22	299
1974	CH	N	4667	114096	24,4	641	15911	24,8	761	21639	28,4	2266	63597	28,1	8335	5571	215243	25,8			2	50	25			8335	630	7705	438		8143	0,92	1,06	445
1974		E	1366	18805	13,8	260	2894	11,1	171	1864	10,9	181	3169	17,5	1978		26732	13,5								1978	102	1876			1876	0,95	1	37
1974		TOTAL																															
1974	CIE	L	3333	40854	12,3	2423	29433	12,1	1328	25785	19,4	828	14659	17,7	7912		110731	14	1828	20588	96	1587	16,5			8071	545	7526			7526	0,93	1	517
1974	CP	L	3093	51817	16,8	1890	34571	18,3	1362	19995	14,7	632	22325	35,3	6977		128708	18,4			584	17556	30,1			7054	350	6704			6704	0,95	1	185
1974		E	200	2264	11,3	279	3071	11	220	2683	12,2	14	298	21,3	713		8316	11,7								708	15	693			693	0,98	1	18

A1.1.6. Rolling Stock : Wagons, Lorries and Trailers- Stock available and out of service

YEAR	Railway	rail gauge	Stock at the end of the year – Railway-owned Vehicles – Rail Stock – Covered Wagons of ordinary Type: STOCK	Covered: Total capacity (tonnes)	Covered: Average Capacity per wagon	HIGH-SIDED OPEN WAGONS: Stock	High-sided: Total capacity (tonnes)	High-sided: Average Capacity per wagon	FLAT WAGONS: Stock	Flat: Total capacity (tonnes)	Flat: Average Capacity per wagon	OTHER WAGONS: Stock	Other: Total capacity (tonnes)	Other: Average Capacity per wagon	ALL WAGONS: Stock	All: Including RIV, EUROP and POOL wagons	All: Total capacity (tonnes)	All: Average Capacity per wagon (tonnes)	STOCK at the END of the YEAR – Railway-Owned Vehicles – ROAD STOCK – LORRIES AND TRAILERS: Stock	Road: Total Capacity (tonnes)	PRIVATE OWNERS VEHICLES – RAIL STOCK – WAGONS: Stock	Private: Total Capacity	Private: Average capac. Per wagons (tonnes)	VEHICLES BELONGING TO PRIVATE UNDERTAKING – RAIL STOCK – LORRIES AND TRAILERS: Stock	Private undertaking: Total Capacity (tonnes)	AVERAGE NUMBER OF WAGONS AVAILABLE FOR OPERATING PURPOSES: TOTAL	OUT of service for maint. and repair	In working order	Average daily balance of RIV, EUROP and Pool wagons	Average daily balance of wagons exchanged with the secondary system in the country	Available	RATIO: Between the stock in working order and total stock	RATIO: Between the total stock available and the stock in working order	Average stock of wagons used exclusively for departmental traffic
1974		TOTAL																																
1974	DB	N	76951	1953508	25,4	79991	2301132	28,8	50226	1732965	34,5	76481	2409080	31,5	283649	268428	8396685	29,6			47304	1787512	37,8			321068	22801	298267	-18906		279361	0,93	0,94	15856
1974		E										42	606	14,4	42		606	14,4								42		42			42	1	1	3
1974		TOTAL																	6450															
1974	DSB	N	4187	102457	24,5	1937	46654	24,1	980	32889	33,6	2290	79866	34,9	9394	6463	261866	27,9	395	2703	642	15515	24,2			10028	391	9637	2909	-78	12468	0,96	1,29	
1974	FS	N	44337	1028600	23,2	35553	1006100	28,3	13858	557100	40,2	15822	325900	20,6	109570	103456	2917700	26,6			15153	377000	24,9			125123	11820	113303	19586		132889	0,91	1,17	6951
1974		E	52	567	10,9	52	608	11,7	35	500	14,3				139		1675	12,1								138	15	123			123	0,89	1	18
1974		TOTAL																																
1974	NS	N	4992	127906	25,6	3755	108217	28,8	1209	34112	28,2	4262	128437	30,1	14218	13190	398672	28			1116	40853	36,6			15592	582	15010	-2869		12141	0,96	0,81	1732
1974	NSB	N	2647	56039	21,2	328	6849	20,9	3642	100223	27,5	1883	47467	25,2	8500	6866	210578	24,8	230	1370	429	10240	23,9			9124	370	8754	1759	-90	10423	0,96	1,19	
1974	OBB	N	14173	330714	23,3	10093	251705	24,9	3072	110876	36,1	7608	217601	28,6	34946	28512	910896	26,1			3580	105734	29,5			38533	2967	35566	1022	-132	36456	0,92	1,03	2796
1974		E	160	1989	12,4	313	3629	11,6	227	2531	11,1	186	4618	24,8	886		12767	14,4								889	15	874			874	0,98	1	4
1974		TOTAL																	133	740														
1974	RENFE	L	11814	256320	21,7	9664	193075	20	6870	196622	28,6	3986	165245	41,5	32334		811262	25,1			10956	330900	30,2			44015	2803	41212			41212	0,94	1	3120
1974		E																																
1974		TOTAL																																
1974	SJ	N	10958	269557	24,6	709	33414	47,1	23000	635296	27,6	12659	434399	34,3	47326	34671	1372666	29			4262	129205	30,3			51595								
1974		E	16	197	12,3				45	662	14,7	302	9241	30,6	363		10100	27,8								385								
1974		TOTAL																	212	418							897	51083	-2229	-239	48615	0,98	0,95	
1974	SNCB	N	10091	219122	21,7	16833	519670	30,9	12091	519057	42,9	8820	317835	36	47835	45829	1575684	32,9			4459	190491	42,7			50492	3611	46881	1252		48133	0,93	1,03	4721
1974	SNCF	N	80788	2422945	30	47649	1629475	34,2	52219	2221828	42,5	28281	1046260	37	208937	206017	7320508	35			84758	3282429	38,7			279400	25800	253600	-9300		244300	0,91	0,96	11114
1974		E	47	470	10	62	620	10	87	870	10	4	40	10	200		2000	10								200								
1974		TOTAL																																
1974	VR	L	6333	148127	23,4	575	13800	24	10046	275653	27,4	4560	140705	30,9	21514		578285	26,9	149	1146	687	18924	27,5			22253	801	21452			21452	0,96	1	2934
1974	BDZ	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CFR	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CSD	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	DR	N	.	.	.	.	.	.	.	.	.	.	.	.	140506	.	.	.	.	.	.	.	.	.	.	.	.	.	.		131483	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	577	.	.	.	.	.	.	.	.	.	.	.	.	.	.		531	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		2	.	.	.
1974	JZ	N	20965	583028	27,8	24547	769471	31,3	4945	156193	31,6	5188	186849	36	55645	29063	1695541	30,5								53626	2268	51358	2987		54345	0,96	1,06	1490
1974		E	1098	14950	13,6	2145	32139	15	205	3003	14,6	98	1493	15,2	3546		51585	14,5								3496	438	3058			3058	0,87	1	14
1974		TOTAL																	1146	12038														
1974	MAV	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	TCDD	N	7707	159574	20,7	5697	157606	27,7	1531	53333	34,8	1063	49506	46,6	15998	4182	420019	26,3			1499	57642	38,5			17497	379	17118	5296		22414	0,98	1,31	.
1975	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	BR	N	25511	373166	14,6	166792	3265499	19,6	23277	664594	28,6	787	26459	33,6	216367	513	4329718	20			18647	638088	34,2			235100	20400	214700	.		.	0,91	.	31300
1975	CFF	N	10434	228245	21,9	4185	110512	26,4	3896	133311	34,2	7749	215170	27,8	26264	23848	687238	26,2			7372	270413	36,7			33619	455	33164	-1031		34195	0,99	1,033	3198
1975		E	100	1350	13,5	29	479	16,5	27	460	17	59	2604	44,1	215		4893	22,8			4	48	12			219	6	213			213	0,97	1	39
1975		total																																
1975	CFL	N	718	17931	25	668	19845	29,7	1350	57628	42,7	685	21150	30,9	3421	3258	116554	34,1	13	130	407	20724	50,9			3828	192	3636	79		3715	0,95	1,02	297
1975	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	CH	N	4443	109650	24,7	591	14900	25,2	736	21139	28,7	2751	72700	26,4	8521	5889	218389	25,6			2	50	25			8521	520	8001	-87		7914	0,94	0,99	223
1975		E	1350	18500	13,7	260	2894	11,1	171	1864	10,9	159	2900	18,2	1940		26158	13,5								1940	91	1849			1849	0,95	1	31
1975		TOTAL																																
1975	CIE	L	30003	36992	12,3	2176	26479	12,2	1463	29062	19,9	627	12374	19,7	7269		104907	14,4	1683	19262	96	1587	16,5			7769	502	7267			7267	0,94	1	505
1975	CP	L	2952	50061	16,9	1726	32837	19	1223	18199	14,9	636	22408	35,2	6537		123505	18,9			241	4742	19,7			6339	310	6029			6029	0,95	1	548
1975		E	200	2264	11,3	278	3061	11	220	2683	12,2	14	298	21,3	712		8306	11,7								711	12	699			699	0,98	1	18
1975		TOTAL																																
1975	CSD	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.			.	.	.	.	.	.	.	.	.
1975		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.			.	.	.	.	.	.	.	.	.
1975		TOTAL																																
1975	DB	N	76958	1962577	25,5	79755	2293322	28,8	50855	1771522	34,8	78289	2609588	33,3	285857	273239	8637009	30,2			47760	1824127	38,2			329137	17419	311718	-24409	.	287309	0,95	0,92	15495
1975		E										42	606	14,4	42		606	14,4								42		42			42	1	1	3
1975		TOTAL																	6469	.				.	.									
1975	DR	N	.	.	.	.	.	.	.	.	.	.	.	.	141797	.	.	.			.	.	.			.	.	.	.	.	135101	.	.	.
1975		E	.	.	.	.	.	.	.	.	.	.	.	.	619	.	.	.			.	.	.			.	.	.	.	.	447	.	.	.
1975		TOTAL																																
1975	DSB	N	4066	100411	24,7	1762	42910	24,4	980	32889	33,6	2510	61852	24,6	9318	6651	238062	25,5	395	2710	636	15461	24,3			9990	380	9610	875	-78	10407	0,96	1,08	
1975	FS	N	43375	1006700	23,2	35209	1002400	28,5	14265	574700	40,3	15644	322200	20,6	108493	93657	2906000	26,8			15539	387000	24,9			124586	11418	113168	9755		122923	0,91	1,09	6711
1975		E	51	560	11	50	586	11,7	35	500	14,3				136		1646	12,1								138	13	125			125	0,91	1	17
1975		TOTAL																	.	.														
1975	JZ	N	19346	627269	32,4	23645	838075	35,4	4030	139503	34,6	5329	213933	40,1	52350	30795	1818780	34,7						.	.	51978	4679	47299	3047		50346	0,91	1,06	.
1975		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.								.	.	.			.	.	.	.
1975		TOTAL																	1596	18875														
1975	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.			.	.	.	.	.	.	.	.	.
1975	NS	N	4797	123775	25,8	3250	93672	28,8	1151	32740	28,4	4444	133350	30	13642	12573	383537	28,1			1125	41289	36,7			13980	488	13492	-1426		12066	0,97	0,89	1879
1975	NSB	N	2593	55133	21,3	320	6871	21,5	3782	105141	27,8	1981	51164	25,8	8676	7199	218309	25,2	236	1476420	11851	28,2				9017	375	8642	1252	-93	9801	96	1,13	
1975	OBB	N	13900	332159	23,9	9627	239328	24,9	3271	123946	37,9	8387	243595	29	35185	29358	939028	26,7			3899	116183	29,8			39052	2607	36445	-3344	-79	33022	0,93	0,91	2846
1975		E	159	1983	12,5	313	3629	11,6	225	2499	11,1	186	4618	24,8	883		12729	14,4								885	15	870			870	0,98	1	62
1975		TOTAL																	178	1022														
1975	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.			.	.	.			.	.	.	.
1975	RENFE	L	13104	305323	23,3	9928	220402	22,2	6960	208800	30	3219	141870	44,1	33211	.	876395	26,4			11358	352098	31			44290	2523	41767			41767	0,94	1	3089
1975		E																																
1975		TOTAL																																
1975	SJ	N	10624	262323	24,7	684	32141	47	22506	627648	27,9	12916	441228	34,2	46730	32744	1363340	29,2			4078	124397	30,5			51198								
1975		E	16	197	12,3				41	603	14,7	281	8599	30,6	338		9399	27,8								351								
1975		TOTAL																	182	359							2577	48912	-531	-186	48255	0,95	0,99	.
1975	SNCB	N	10726	237754	22,2	16300	505892	31	11935	518722	43,5	9208	345976	37,6	48169	46794	1608344	33,4			4405	189961	43,1			49458	3152	46306	295		46601	0,94	1,01	4574
1975	SNCF	N.E.	76613	2376907	31	42072	1476970	35,1	51229	2208120	43,1	29211	1094474	37,5	199125	196537	7156471	35,9			84744	3338992	39,4	.	.	278800	23500	255300	-10800		244500	0,92	0,96	11700
1975	VR	L	6731	163308	24,3	575	13765	23,9	10072	281601	28	4630	147169	31,8	22008		605843	27,5	146	1240	668	17595	26,3			22439	775	21664			21664	0,97	1	2898
1975	TCDD	N	7515	157383	20,9	5659	157171	27,8	1978	66612	33,7	1583	75318	47,6	16735	4914	456484	27,3			1522	57215	37,6			18257	445	17812	3626		21438	0,98	1,2	.
1976	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.	.	.	.	.
1976	BR	N	23591	352403	14,9	141770	2861503	20,2	20895	624310	29,9	744	25317	34	187000	516	3863533	20,7			18400	620177	33,7			223400	20400	203000	.			0,91	.	30167
1976	CFF	N	10189	223976	22	3632	96614	26,6	3871	137590	35,5	8069	224124	27,8	25761	23564	682304	26,5			7259	270731	37,3			33328	450	32878	1762		34640	0,99	1,05	3444
1976		E	100	1350	13,5	29	479	16,5	27	460	17	59	2604	44,1	215		4893	22,8			4	48	12			219	6	213			213	0,97	1	37
1976		total																						.	.									
1976	CFL	N	713	17852	25	662	19701	29,8	1445	62408	43,2	612	19070	31,2	3432	3277	119031	34,7	13	130	466	22418	48,1			3898	200	3698	130		3568	0,95	0,96	299
1976	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	N	4465	107160	24	571	14400	25,2	714	20523	28,7	2785	72375	26	8535	5889	214458	25,1			2	50	25			8535	624	7911	213		7698	0,93	0,97	219
1976		E	1446	19965	13,8	280	3204	11,4	171	1864	10,9	211	4069	19,3	2108		29102	13,8								2108	91	2017			2017	0,96	1	38
1976		TOTAL																																
1976	CIE	L	2361	29182	12,4	2035	24772	12,2	1282	26197	20,4	690	14743	21,4	6368		94894	14,9	1579	18209	96	1587	16,5			6914	450	6464			6464	0,93	1	479
1976	CP	L	2547	45073	17,7	1410	34081	24,2	652	10819	16,6	678	22725	33,5	5287		112698	21,3			234	4623	19,8			5333	27	5306	56		5362	0,99	1,01	864
1976		E	199	2256	11,3	386	4126	10,7	78	1275	16,3	38	538	14,2	701		8198	11,7								701	2	699			699	0,99	1	26
1976		TOTAL																	4	10														
1976	CSD	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	DB	N	75922	1961999	25,8	78941	2269657	28,8	51565	1821396	35,3	80496	2667034	33,1	286924	269165	8720086	30,4			49675	1967107	39,6			325111	18706	306405	18033	.	288372	0,94	0,94	14708
1976		E										42	606	14,4	42		606	14,4								42		42			42	1	1	
1976		TOTAL																	6408	.				.	.									
1976	DR	N	.	.	.	.	.	.	.	.	.	.	.	.	142697	.	.	.			.	.	.			.	.	.	.	.	137372	.	.	.
1976		E	.	.	.	.	.	.	.	.	.	.	.	.	527	.	.	.			.	.	.			.	.	.	.	.	474	.	.	.
1976		TOTAL																																
1976	DSB	N	4021	99661	24,8	1615	39823	24,7	980	32889	33,6	2710	67273	24,8	9326	6789	239646	25,7	409	2852	630	15477	24,6			9970	385	9585	854	46	10393	0,96	1,08	
1976	FS	N	42581	990000	23,2	35112	1004200	28,6	14652	614600	41,9	14622	350200	23,9	106967	94569	2959000	27,7			15193	381000	25,1			123561	13334	110227	19668		129895	0,89	1,18	6564
1976		E	51	560	11	50	586	11,7	35	500	14,3				136		1646	12,1								138	15	123			123	0,89	1	17
1976		TOTAL																.	.	.				.	.									
1976	JZ	N	19312	690750	35,8	21223	766855	36,1	3663	133007	36,3	5250	214875	40,9	49448	31974	1805487	36,5								47219	3133	44086	1506		45592	0,93	1,03	.
1976		E	561	8362	14,9	1121	16752	14,9	61	930	15,2	37	585	15,8	1780		26629	14,9								.	.	.			.	.	.	.
1976		TOTAL																	1644	18950														
1976	MAV	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

A1.1.6. Rolling Stock : Wagons, Lorries and Trailers- Stock available and out of service

Stock at the end of the year – Railway-owned Vehicles – Rail Stock

YEAR	Railway	rail gauge	Covered Wagons of ordinary Type: STOCK	Covered Wagons of ordinary Type: Total capacity (tonnes)	Covered Wagons of ordinary Type: Average Capacity per wagon	HIGH-SIDED OPEN WAGONS: Stock	HIGH-SIDED OPEN WAGONS: Total capacity (tonnes)	HIGH-SIDED OPEN WAGONS: Average Capacity per wagon	FLAT WAGONS: Stock	FLAT WAGONS: Total capacity (tonnes)	FLAT WAGONS: Average Capacity per wagon	OTHER WAGONS: Stock	OTHER WAGONS: Total capacity (tonnes)	OTHER WAGONS: Average Capacity per wagon	ALL WAGONS: Stock	ALL WAGONS: Including RIV, EUROP and POOL wagons	ALL WAGONS: Total capacity (tonnes)	ALL WAGONS: Average Capacity per wagon (tonnes)
1976	NS	N	4783	123461	25,8	3163	91178	28,8	1087	31453	28,9	4435	133097	30	13468	12394	379189	28,2
1976	NSB	N	2557	54510	21,3	305	6436	21,1	3807	106921	28,1	2029	53445	26,3	8698	7115	221312	25,4
1976	OBB	N	13301	325819	24,5	9079	245755	27,1	3486	137222	39,4	8878	257751	29	34744	30111	966547	27,8
1976		E	157	1968	12,5	303	3419	11,3	235	2710	11,5	186	4618	24,8	881		12715	14,4
1976		TOTAL																
1976	PKP	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	RENFE	L	12228	277593	22,7	8453	187344	22,2	6574	202150	30,7	3370	147325	43,7	3625	.	814412	26,6
1976		E																
1976		TOTAL																
1976	SJ	N	10248	254566	24,8	676	31762	47	21805	612827	28,1	13262	453569	34,2	45991	30448	1352724	29,4
1976		E	16	197	12,3				41	603	14,7	281	8599	30,6	338		9399	27,8
1976		TOTAL																
1976	SNCB	N	10371	235465	22,7	15952	497059	31,2	11667	511273	43,8	10432	401441	38,5	48422	47580	1645238	34
1976	SNCF	N.E.	71376	2299267	32,2	39022	1397226	35,8	50071	2167441	43,3	29094	1093761	37,6	189563	187129	6957695	36,7
1976	VR	L	6378	161773	25,4	575	13765	23,9	10042	284607	28,3	4786	158128	33	21781		618273	28,4
1976	TCDD	N	7422	155402	20,9	6077	169259	27,9	1964	67079	34,2	2026	98960	48,8	17489	5843	490700	28,1

STOCK at the END of the YEAR; AVERAGE NUMBER OF WAGONS AVAILABLE FOR OPERATING PURPOSES; RATIO

YEAR	Railway	rail gauge	Railway-Owned Vehicles – ROAD STOCK – LORRIES AND TRAILERS: Stock	Railway-Owned Vehicles – ROAD STOCK – LORRIES AND TRAILERS: Total Capacity (tonnes)	PRIVATE OWNERS VEHICLES – RAIL STOCK – WAGONS: Stock	PRIVATE OWNERS VEHICLES – RAIL STOCK – WAGONS: Total Capacity	PRIVATE OWNERS VEHICLES – RAIL STOCK – WAGONS: Average capac. Per wagons (tonnes)	VEHICLES BELONGING TO PRIVATE UNDERTAKING – RAIL STOCK – LORRIES AND TRAILERS: Stock	VEHICLES BELONGING TO PRIVATE UNDERTAKING – RAIL STOCK – LORRIES AND TRAILERS: Total Capacity (tonnes)	AVERAGE NUMBER: TOTAL	AVERAGE NUMBER: OUT of service for maint. and repair	AVERAGE NUMBER: In working order	AVERAGE NUMBER: Average daily balance of RIV, EUROP and Pool wagons	AVERAGE NUMBER: Average daily balance of wagons exchanged with the secondary system in the country	AVERAGE NUMBER: Available	RATIO: Between the stock in working order and total stock	RATIO: Between the total stock available and the stock in working order	Average stock of wagons used exclusively for departmental traffic
1976	NS	N			1082	40239	37,2			13558	433	13125	2107		11018	0,97	0,84	2021
1976	NSB	N	247	1971	419	11835	28,2			9105	390	8715	1245	87	9873	0,96	1,13	
1976	OBB	N			3746	114305	30,5			38787	2924	35863	1429	90	34344	0,92	0,96	2884
1976		E								882	15	867			867	0,98	1	62
1976		TOTAL	199	1157														
1976	PKP	N.E.			.	.	.			.	.	.	.	.	.	.	.	.
1976	RENFE	L			11384	397933	35			43180	2346	40834			40834	0,95	1	3064
1976		E																
1976		TOTAL																
1976	SJ	N			3591	109539	30,5			50195								
1976		E								338								
1976		TOTAL	173	350							2527	48006	643	166	47197	0,95	0,98	.
1976	SNCB	N			4378	189223	43,2			45374	3096	42278	958		41320	0,93	0,98	4294
1976	SNCF	N.E.			84311	3359778	39,8	.	.	270000	22800	247200	1200		246000	0,92	0,99	12100
1976	VR	L	131	1449	589	16280	27,6			22523	869	21654			21654	0,96	1	2840
1976	TCDD	N			1243	39898	32,1			18481	1126	17355	4133		21488	0,94	1,24	.

1.1.7. Average Staff Strength

YEAR	Railway	General manager's Office	Regional Manager's Offices	Total	Headquarter Offices	Regional Offices	Total	Stations	Train Services	Total	Headquarter Offices	Regional Offices	Total	Driving staff of motor vehicles	Main workshops	Other Staff	Total	Renewal	Total	Headquarter Offices	Regional Offices	Total	Maintenance and supervision of way and	Renewal	Total	Total	Road transport services	Shipping services	Various	New works, reconstruction	Total staff belonging to the Railway	Headquarter Offices	Regional Offices	Permanent Staff	Temporary Staff	Contractual Staff	Staff supplied by private firms	Total strength	Percentage of unavailability of Railway's staff due to sickness and injury
		RAILWAY'S STAFF																																					
		GENERAL MANAGEMENTS			RAILWAY OPERATION																					Total	OTHER OPERATIONS			New works,	Total staff	Amount for		Division of staff					
					OPERATION AND TRAFFIC						ROLLING STOCK AND MOTIVE POWER									WAY AND WORKS																			
1972	BR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	199155		6351	.		260034	.	.	.	.	.		260034	.
1972	CFF	1802	211	2013		518	518	19732	3002	23252		369	369	4633	2870	685	8188		8557		840	840	4654		5494	39316		36	.	1173	40741	1802	1938	37686	3055		1009	41750	4,06
1972	CFL	291		291	64		64	1307	169	1540	46		46	344	490	406	1240	1	1287	82		82	772	41	895	4013	226		.	28	4323	483		4063	247	13		.	3,16
1972	CH	462	421	883	26	233	259	2276	635	3170	28	31	59	602	1202	932	2736	433	3228	29	77	106	2889	2265	5260	12541	272	5	.		12818	573	762	8629	422	3767		12818	2,09
1972	CIE	676	281	957		63	63		3921	3984	168	13	181	642	1424	597	2663	.	2844	119	89	208	2023		2231	10016	10806	9	.		21884	963	446	18133	3751			21884	.
1972	CP	2018	482	2500	109	72	181	6105	1474	7760	72	435	507	1421	5036	334	6791		7298	297	94	391	5980		6371	23929	13		.		23942	2496	1083	23888	54			23942	6,7
1972	DB	403	13738	14141	1255	9554	10809	139951	19702	170462	1870	3709	5579	34070	22168	57599	113837	8760	128176	751	7107	7858	65528	4450	77836	390615	11872	505	.		402992	4345	34674	402627		365	.	.	8,6
1972	DSB	1203	183	1386				7501	1304	8805				1747	2993	913	5653		5653				3119	734	3853	19697	1179	1761	.	.	22997	1203	183	17536	5460		.	.	.
1972	FS	2380	4319	6699	1701	2997	4698	62421	19450	86569	1495	2499	3994	25007	9736	20522	55265		59259	1225	5106	6331	43561		49892	202419		2021	.	.	209693	6801	14921	204241		5452	18260	227953	4,26
1972	NS	2406		2406	568	224	792	9247	1766	11805	272	23	295	3224	2267	2262	7753	.	8048	867	194	1061	4143		5204	27463			.		27463	4113	441	26056	1407			27463	7,3
1972	NSB	822	800	1622				5723	876	6599				1790	2049	1391	5230		5230				3580		3580	17031	1152		.	1028	19211	822	800	18427	784		.	.	.
1972	OBB	2694	658	3352	284	608	892	24961	6136	31989	91	99	190	5070	7031	7949	20050	138	20378	142	260	402	15604	842	16848	72567	2403	54	358	.	75382	3211	1625	56269	15005	2904	1075	76457	5,27
1972	RENFE	4286	919	5205	253	932	1185	17866	3297	22348	257	159	416	7480	5624	12819	25923		26339	573	354	927	19161		20088	73980	.		4445	610	79035	5369	2364	78814	69	152	8	79043	2,42
1972	SJ	1174	263	1437	200	425	625	14431	1236	16292	169	138	307	5155	2966	4605	12726	.		432	694	1126	5843	.	.	37731	2431	314	.	1664	42459	1975	1520	41684	734	41		42459	6,95
1972	SNCB	1416	1367	2783	790		790	18545	2287	21622	699		699	5594	5120	6975	17689	504	18892	12		12	8103	4393	12508	55805	89		.	1981	59484	2917	1367	55933	1219	2332		59484	4,76
1972	SNCF	14356	3759	18115	3597	5964	9561	96589	8676	114826	1258	2260	3518	23026	10899	36382	70307		73825	1625	5747	7372	55694	4430	67496	274262		114	.	14678	289279	20836	17730	.	.	.	.	.	3
1972	VR	1136		1136		353	353	7403	2533	10289				3156	1958	2559	7673	.	7673		208	208	2432	.		2640	21738	215		.	4210	26825	1136	561	13789	3948	9088	494	27319	3,17
1972	BDZ	381	1215	1596	.	.	.	.	.	19145	.	.	16256	.	.	.	.	.	16256	.	.	.	.	.	12799	49796					49796	.	.	.	.	.		49796	.
1972	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	168074			6013	.	174087	.	.	.	.	.		174087	.
1972	CSD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				.	192110	.	.	.	.	.		192110	.
1972	DR	1634	13464	15098	204	4581	4785	79961	5356	90102	721	.	721	20666	36672	35453	92791	.	93512	193	326	519	26938	20481	47938	246650		471	.		247381	2752	18371	245892	1489		.	.	.
1972	JZ	1040	2738	3778	.	.	2077	46057	8247	56381	.	.	3471	10259	4086	15867	30212		33683	.	.	2354	25516		27870	121712	780		.	8618	135196	.	.	.	.	.	2008	137204	.
1972	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				.	144931	.	.	.	.	.		144931	.
1972	TCDD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	64045			.		64045	.	.	57672	6373			64045	.
1973	BR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	193755		6398	52901		253045	.	.	.	.	.		253045	.
1973	CFF	1878	222	2100		538	538	19630	3000	23168		378	378	4848	2910	664	8422		8800		932	932	4567		5499	39567		35	212	1095	40909	1878	2070	38001	2908		1009	41918	4,21
1973	CFL	293		293	63		63	1316	163	1542	45		45	340	489	409	1238	2	1285	82		82	741	37	860	3980	224		56	36	4296	483		4076	207	13	.	.	3,54
1973	CH	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			12232	.	.	.	.	.		12232	2,05
1973	CIE	680	281	961	121	62	183	3936		4119	188	12	200	629	1199	615	2443	.	2643	119	80	199	1992		2191	9914	10564	10	907		21395	1108	435	17669	3726			21395	.
1973	CP	2251	528	2779	114	72	186	5893	1489	7568	96	442	538	1289	4660	313	6262		6800	211	92	303	5606		5909	23056	23	139			23218	2672	1134	23152	66			23218	6,8
1973	DB	409	14304	14713	1243	9527	10770	139371	20542	170683	1877	3599	5476	34007	23280	58237	115524	8270	129270	770	7145	7915	65959	3790	77664	392330	11891	494			404715	4349	35142	404390		325	.	.	8,92
1973	DSB	1225	188	1413				7155	1242	8397				1737	2891	876	5504		5504				3037	723	3760	19074	1170	1840	354	.	22438	1225	188	17266	5172		.	.	.
1973	FS	2506	4472	6978	1537	2991	4528	64581	20348	89457	1461	2517	3978	27600	10619	22582	60801		64779	1150	5265	6415	44873		51288	212502		2160	5517	.	220179	6654	15245	214842		5337	19026	239205	4,63
1973	NS	2421		2421	563	219	782	8902	1774	11458	283	23	306	3102	2193	2194	7489	.	7795	956	192	1148	4074		5222	26896					26896	4223	434	25587	1309			26896	7,69
1973	NSB	827	800	1627				5581	860	6441				1780	2005	1385	5170		5170				3538		3538	16776	1166			926	18868	827	800	18116	752		.	.	.
1973	OBB	2626	723	3349	278	532	810	24872	6042	31724	97	95	192	5266	6790	7550	19606	220	20018	163	254	417	15102	823	16342	71433	2414	54	360	.	74261	3164	1604	55902	15543	2816	1732	75993	5,3
1973	RENFE	4169	973	5142	269	843	1112	17562	3055	21729	252	162	414	7327	5192	12277	24796		25210	601	343	944	18345		19289	71370	.		4868	694	76932	5291	2321	76755	44	133	8	76940	2,96
1973	SJ	1231	253	1484	184	419	603	13992	1205	15800	171	135	306	4995	3010	4462	12467	.		431	650	1081	5596	.	.	36734	2386	304	262	1484	41170	2017	1457	40335	795	40		41170	7,5
1973	SNCB	1424	1363	2787	804		804	18408	2300	21512	741		741	5377	5007	6995	17379	519	18639	14		14	8304	4076	12394	55332	89		1579	1718	58718	2983	1363	55379	1087	2252		58718	5,02
1973	SNCF	16645	6805	23450	3926	4966	8892	94180	8658	111730	1340	905	2245	26612	10912	31757	69281		71526	1741	4526	6267	54412	3819	64498	271204		173	210	13814	285401	23652	17202	.	.	.	.	.	3,12
1973	VR	1136		1136		339	339	7538	2544	10421				3114	1952	2579	7654	.	7654		206	206	2482	.		2688	21890	206		673	4101	26870	1136	545	13594	4255	9021	668	27538	3,45
1973	BDZ	369	1235	1604	.	.	.	.	.	19095	.	.	.	.	.	.	.	.	16252	.	.	.	.	.	12881	49832					49832	.	.	.	.	.		49832	
1973	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	165697			7761		173458	.	.	.	.	.		173458	
1973	CSD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	192978	.	.	.	.	.		192978	.
1973	DR	1812	11911	13723	217	5028	5245	79270	5365	89880	981	597	1578	19560	35620	35147	90327	.	91905	504	1106	1610	27303	19875	48788	244296		504	2137		246937	3514	18642	245235	1702		.	.	6,72
1973	JZ	1022	2386	3408	.	.	3595	41544	8052	53191	.	.	4187	9836	4558	15871	30265		34452	.	.	2102	22355		24457	115508	1051		4558	10656	131773	.	.	.	.	.	4279	136052	.
1973	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				.	.	.	.	.	.	.	.	.	.
1973	TCDD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	66255					66255	.	.	59078	7177			66255	.
1974	BR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	192882		6734	53376		252992	.	.	.	.	.		252992	.
1974	CFF	1941	224	2165		557	557	19510	3003	23070		385	385	4994	2848	668	8510		8895		1029	1029	4519		5548	39678		34	206	1113	41031	1941	2195	38243	2788		939	41970	4,38
1974	CFL	294		294	60		60	1312	161	1533	44		44	326	478	400	1204	1	1249	81		81	705	62	848	3924	216		55	38	4233	479		4006	213	14	120	4353	3,53
1974	CH	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			12231	.	.	.	.	.		12231	2,61
1974	CIE	659	261	920	124	36	160	3940		410	191	12	203	620	1282	561	2463	.	2666	105	101	206	1948		2154	9840	10628	10	893		21371	1079	410	17648	3723			21371	.
1974	CP	2390	575	2965		113	113	5935	1378	7426		364	364	1522	5005	326	6853		7217		333	333	5176		5509	23117	23	148			23288	2390	1385	23288				23288	7,9
1974	DB	421	14188	14609	1256	9505	10761	137509	21330	169600	1864	3463	5327	34331	23468	58584	116383	8400	130110	832	7214	8046	66741	4240	79027	393346	11880	487			405713	4429	34859	405421		292		405713	8,44
1974	DSB	1110	296	1406				6933	1155	8088				1748	2778	846	5372		5372				2787	715	3502	18368	1164	1915	318	.	21765	1110	296	16719	5046		.	.	.
1974	FS	2725	4487	7212	1825	3098	4923	64193	20294	89410	1394	2661	4055	27499	10914	22791	61204		65259	1231	5216	6447	44878		52325	213206		2279	4703		220188	7175	15462	215310		4878	19026	239214	5,68
1974	NS	2300		2300	551	218	769	8673	1802	11244	286	23	309	3080	2125	2169	7374		7683	987	189	1176	4010		5186	26413					26413	4124	430	25178	1235			26413	8,3
1974	NSB	925	709	1634				5510	850	6360				1765	1928	1405	5098		5098				3454		3454	16546	1145			896	18587	925	709	17796	791		.	.	.
1974	OBB	2611	699	3310	280	569	849	25007	6043	31899	127	94	221	5052	6707	7901	19660	226	20107	160	256	416	14844	805	16065	71381	2484	61	356	.	74282	3178	1618	55668	16067	2547	2404	76686	5,41
1974	RENFE	4081	880	4961	394	816	1210	16912	2891	21013	239	140	379	8091	4498	10560	23149		23528	732	329	1061	17519		18580	68082	108		4963	776	73929	5446	2165	73702	66	161	8	73937	4,35
1974	SJ	1217	253	1470	167	419	586	13746	1187	1519	171	136	307	4915	2960	4394	12269	.		408	612	1020	5409	.	.	35994	2398	300	226	1349	40267	1963	1420	39340	904	23		40267	8,3
1974	SNCB	1454	1363	2817	810		810	19465	2287	21562	771		771	5818	5163	7016	17997	413	19181	12		12	8321	4175	12508	56068	91		1610	1642	59411	3047	1363	56061	919	2431		59411	5,01
1974	SNCF	18142	6610	24752	4088	5278	9366	93457	8903	111726	1315	861	2176	27176	11130	30736	69042		71218	1773	4548	6321	51475	4117	61913	269609		168	210	14575	284562	25318	17297						3,12
1974	VR	1016		1016		351	351	7889	2679	10919				3048	2064	2895	8007	.	8007		225	225	2600	.		2825	22767	211		649	4124	27751	1016	576	13450	4866	9435	960	28711	3,59
1974	BDZ	361	1250	1611	.	.	.	.	.	19395	.	.	.	.	.	.	.	.	16457	.	.	.	.	.	12889	50352					50352	.	.	.	.	.		50352	.
1974	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	167755			7740		175495	.	.	.	.	.		175495	.
1974	CSD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	189520	.	.	.	.	.		189520	.
1974	DR	1920	12628	14548	217	4907	5124	77117	5174	87415	1015	510	1525	18716	35637	35640	89993	.	91518	507	1025	1532	27756	20054	49342	242823		508	2155		245486	3659	19070	244363	1623				6,45
1974	JZ	1004	2373	3377	.	.	3638	41699	7832	53169	.	.	4215	9698	4489	15725	29912		34127	.	.	2138	22409		24547	115220	859		4874	10036	130989	.	.	.	.	.	6503	137492	.
1974	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				.	144145	.	.	.	.	.		144145	.
1974	PKP	.	.	14760	.	.	.	.	30231	.	.	.	.	38217		34425	72642	.	.	.	.	.	.	9876	.	348053			8432	2665	359150	.	.	.	.	.		359150	4,58
1974	TCDD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	67369					67369	.	.	59529	7840			67369	.
1975	BDZ	375	1283	1658	.	.	.	.	.	19697	.	.	.	.	.	.	.	.	.	.	.	.	.	.	12876	50844					50844	.	.	.	.	.	.	.50844	.
1975	BR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	192411		9914	51440		253765	.	.	.	.	.		253765	.
1975	CFF	1993	224	2217		567	567	19126	3034	22727		373	373	5053	2845	687	8585		8958		1059	1059	4532		5591	39493		36	224	1114	40867	1993	2223	38320	2547		655	41522	4.15
1975	CFL	292		292	66		66	1315	144	1525	44		44	312	451	389	1152	2	1198	78		78	731	27	836	3851	220		55	46	4172	480		3872	286	14	109	4281	3.66
1975	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	169197			7759		176956	.	.	.	.	.		176956	.
1975	CH	650	569	1219	27	1478	1505	908	842	3255	4	426	430	692	2507	416	3615		4045	10	799	809	2975		3784	12303	284	7			12594	691	3272	10769		1825		12594	2.84
1975	CIE	463	282	745	113	37	150	3868		4018	172	6	178	630	1083	617	2330	.	2508	99	107	206	1939		2145	9416	9964	10	916		20306	847	432	16860	3446			20306	.
1975	CP	1834	233	2067	250	333	583	6978	1527	9088	105	122	227	1772	5316	538	7626		7853	341	197	538	5021	583	6142	25150	30	176			25356	2530	885	25356				25356	6.92
1975	CSD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	187113	.	.	.	.	.		187113	.
1975	DB	391	13664	14055	1195	8814	10009	132452	21044	163505	1810	3219	5029	33853	23075	56670	113598	8000	126627	844	6774	7618	66037	5000	78655	382842	11568	493			394903	4276	32939	394670		233		394903	8.52
1975	DR	1966	13309	15275	217	4911	5128	76200	4999	86327	1014	513	1527	18299	35267	35688	89254	.	90781	503	1010	1513	27956	20029	49498	241881		499	2168		244548	3700	19743	242949	1599		.	.	6.77
1975	DSB	1101	327	1428				6961	1121	8082				1798	2698	812	5308		5308				2712	725	3437	18255	1065	1970	253	.	21543	1101	327	16565	4979		.	.	.
1975	FS	2878	4635	7513	1851	3216	5067	65229	20349	90645	1388	2799	4187	27480	10960	24261	62701		66888	1713	5243	6956	45602		52558	217604	.	2018	4083	.	223705	7830	15893	217712		5993	18707	242412	6.19
1975	JZ	992	2340	3332	.	.	3189	45199	7524	55912	.	.	4105	9798	5906	10016	25720		29825	.	.	2390	27584		29974	119043	2121		1831	14125	137120	.	.	.	.	.	2976	140096	.
1975	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				.	145716	.	.	.	.	.		145716	.
1975	NS	2291		2291	526	215	741	8611	1875	11227	278	23	301	3202	2121	2174	7497		7798	1048	183	1231	3974		5205	26521					26521	4143	421	25293	1228			26521	8.70
1975	NSB	994	649	1643				5449	845	6294				1770	1937	1395	5102		5102				3421		3421	1119				853	18430	994	649	17678	752		.	.	.
1975	OBB	2612	703	3315	287	561	848	24996	6095	31939	125	95	220	5075	6792	7904	19771	221	20212	160	260	420	14992	864	16276	71742	2534	61	362	.	74699	3184	1619	54582	17763	2354	2190	76889	5.12
1975	PKP	.	.	14706	.	.	.	.	29483	.	.	.	.	39531		34101	73632	.	.	.	.	.	.	8701	.	347623			8408	2397	358428	.	.	.	.	.		358428	4.66
1975	RENFE	4101	1299	5400	429	785	1214	16871	2861	20946	273	138	411	7950	4415	10092	22457		22868	681	331	1012	17373		18385	67599	190		4956	830	73575	5484	2553	73277	116	182		73575	4.76
1975	SJ	1167	251	1418	165	417	582	13651	1175	15372	172	136	308	4866	2962	4349	12177	.		403	598	1001	5425	.	.	35701	2399	289	278	1355	40022	1907	1402	39207	790	25		40022	8,73
1975	SNCB	1480	1343	2823	835		835	18782	2221	21838	741		741	6096	4989	7159	18244	587	19572	13		13	8558	4152	12723	56956	92		1578	1788	60414	3069	1343	56848	995	2571		60414	4,85
1975	SNCF	18000	6327	24327	4140	5277	9417	92952	9176	111545	1326	899	2225	27052	26756	14356	68164		70389	1788	6464	6452	49762	4130	60344	266605		177	207	14690	281679	25254	17167						2.97
1975	VR	1077		1077		363	363	8321	2725	11409				3088	2137	3113	8338	.	8338		241	241	2663	.		2904	23728	197		662	4415	29002	1077	604	18873	2345	7784	1076	30078	3.75
1975	TCDD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	69574					69574	.	.	60557	9017			69574	.
1976	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	60906	.
1976	BR	.	.	13895	.	.	.	.	.	75198	.	.	.	27288	35363	24838	87489	.	87489	.	.	.	.	.	45093	221675		9986	15890		247551	.	.	.	.	.	.	247551	.
1976	CFF	1968	217	2185		552	552	18385	3007	21944		383	383	4910	2791	665	8366		8749		1036	1036	4439		5475	38353		29	211	1202	39795	1968	2188	37796	1999		477	40272	4,53
1976	CFL	294		294	60		60	1276	137	1473	37		37	302	435	384	1121	2	1160	81		81	755	46	882	3809	213		55	50	4127	472		3793	316	18	60	4187	3,61
1976	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	809	632	1441	25	1338	1363	999	823	3185	13	641	654	423	2621	153	3197		3851	15	98	113	4025		4138	12615	300				12915	862	2709	10761		2154		12915	3,17
1976	CIE	382	237	619	116	37	153	3505	3505	3658	161	5	166	612	1237	420	2269	.	2435	70	13	83	1825	1825	1908	8620	9585	9	944		19158	729	292	16637	2521			19158	.
1976	CP	1950	257	2207	238	322	560	7127	1930	9617	106	74	180	1943	5107	579	7629		7809	339	114	453	5833	1047	7333	26966	53	202			27221	2633	767	27221				27221	8,59
1976	CSD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	DB	390	16490	16880	1134	7961	9095	123967	18954	152016	1792	2962	4754	31655	20633	53473	105761	8500	119015	759	6231	6990	70003	3500	80493	368404	11198	490			380092	4138	34092	379917		175		380092	8,65
1976	DR	1983	13265	15248	217	4922	5139	74750	5265	85154	1017	506	1523	18435	34944	34870	88249	.	89772	492	988	1480	27821	20122	49423	239597		517	2225		242339	3709	19681	239925	2414		.	.	7
1976	DSB	1119	327	1446				6866	1113	7979				1782	2693	789	5264		5264				2863	812	3675	18364	1014	1956	240	.	21574	1119	327	16532	5042		.	.	.
1976	FS	2983	4721	7704	1833	3213	5046	64944	20080	90070	1417	2919	4336	27555	10682	25508	63745		68081	1816	5396	7212	45082		52294	218149	.	2029	3752	.	223930	8049	16249	219935		3995	19782	243712	5,55

1.1.7. Average Staff Strength

RAILWAY'S STAFF — GENERAL MANAGEMENTS; RAILWAY OPERATION: OPERATION AND TRAFFIC

YEAR	Railway	GENERAL MANAGEMENTS: General manager's Office	GENERAL MANAGEMENTS: Regional Manager's Offices	GENERAL MANAGEMENTS: Total	OPERATION AND TRAFFIC: Headquarter Offices	OPERATION AND TRAFFIC: Regional Offices	OPERATION AND TRAFFIC: Total	OPERATION AND TRAFFIC: Stations	OPERATION AND TRAFFIC: Train Services	OPERATION AND TRAFFIC: Total
1976	JZ	975	2409	3384	.	.	3266	46522	6868	56656
1976	MAV	.	.	.	.	.	.	.	.	.
1976	NS	2267		2267	519	197	716	8578	1993	11287
1976	NSB	940	698	1638				5335	853	6188
1976	OBB	2635	702	3337	299	554	853	24573	5940	31366
1976	PKP	.	.	14222	.	.	.	.	28961	.
1976	RENFE	3278	3265	6543	439	773	1212	16753	2841	20806
1976	SJ	1172	251	1423	160	417	577	13422	1158	15157
1976	SNCB	1469	1323	2792	819		819	18214	2154	21187
1976	SNCF	16674	6169	22843	4220	5169	9389	90354	9347	109090
1976	VR	1078		1078		360	360	8109	2703	11172
1976	TCDD	.	.	.	.	.	.	.	.	.

RAILWAY'S STAFF — RAILWAY OPERATION: ROLLING STOCK AND MOTIVE POWER; WAY AND WORKS

YEAR	Railway	ROLLING STOCK AND MOTIVE POWER: Headquarter Offices	Regional Offices	Total	Driving staff of motor vehicles	Main workshops	Other Staff	Total	Renewal	Total	WAY AND WORKS: Headquarter Offices	Regional Offices	Total	Maintenance and supervision of way and	Renewal	Total	Total
1976	JZ	.	.	4353	9782	6304	9331	25417		29770	.	.	2589	26978		29567	119377
1976	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	NS	238	23	261	3248	2105	2175	7528		7789	1104	316	1420	3888		5308	26652
1976	NSB				1794	1960	1376	5130		5130				3440		3440	16396
1976	OBB	124	95	219	5108	6834	7679	19621	212	20052	166	264	430	14946	1009	16385	71140
1976	PKP	.	.	.	40361		35993	76354	.	.	.	.	.	.	1044	.	351850
1976	RENFE	276	138	414	8087	4293	9896	22276		22690	732	331	1063	16989		18052	68091
1976	SJ	174	135	309	4792	3003	4283	12078		12078	398	592	990	5291		6281	35248
1976	SNCB	763		763	5649	4734	7077	17460	410	18633	11		11	8815	3958	12784	55396
1976	SNCF	1289	875	2164	26616	26249	13677	66542		68706	1928	4791	6719	45217	7081	59017	259656
1976	VR				3086	2323	3244	8653	.	8653		276	276	2859	.	3135	24038
1976	TCDD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	70834

YEAR	Railway	OTHER OPERATIONS: Road transport services	Shipping services	Various	New works, reconstruction	Total staff belonging to the Railway	Amount for: Headquarter Offices	Amount for: Regional Offices	Division of staff: Permanent Staff	Division of staff: Temporary Staff	Division of staff: Contractual Staff	Staff supplied by private firms	Total strength	Percentage of unavailability of Railway's staff due to sickness and injury
1976	JZ	2550		2051	14171	137149	.	.	.	.	.	2829	140978	.
1976	MAV	.	.	.	.	145320	.	.	.	.	.	.	145320	.
1976	NS					26652	4128	536	25448	1204			26652	9,2
1976	NSB	1114			854	18364	940	698	17510	854		.	.	.
1976	OBB	2608	67	365	.	74180	3224	1615	53821	18236	2123	2269	76449	5,06
1976	PKP			8435	2211	362496	.	.	.	.	.	.	362496	4,66
1976	RENFE	211		4057	866	73225	4725	4507	73014	134	77		73225	5,11
1976	SJ	2381	270	318	1320	39537	1904	1395	38509	822	26		39537	9,12
1976	SNCB	93		1465	1786	58740	3062	1323	55867	671	2202		58740	4,95
1976	SNCF		181	198	14045	274080	24111	17004						3,08
1976	VR	175		453	4968	29634	1078	636	18741	2868	8025	819	30453	3,7
1976	TCDD					70834	.	.	60237	10597			70834	.

A1.1.8. Train -Kilometres

TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)

YEAR	Railway	rail gauge	Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
			Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1972	BR	N					93638	92552	16551	202741	21572	8724	1019	31315	95541		1084	96625	119137		959	120096	329888	101276	19613	450777
1972	CFF	N	0		0	0	9	135	4	148	40005	30421	484	70910	193		0	193	17919	409	222	18550	58126	30965	710	89801
1972		E									77	19	0	96					871	145	18	1034	948	164	18	1130
1972		total																								
1972	CFL	N	0	1		1	704	1000	26	1730	299	738	1	1038	1529		1	1530	182	22		204	2714	1761	28	4503
1972	CH	N	953	872	187	2012	3446	2418	19	5883					4267		3	4270					8666	3290	209	12165
1972		E	234	51	6	291	1541	742	56	2339					3614		6	3620					5389	793	68	6250
1972		TOTAL																								
1972	CIE	L					6747	4021	359	11127					318			318					7065	4021	359	11445
1972	CP	L	908	407	151	1466	7122	3286	746	11154	2404	1727	163	4294	4951	1	119	5071	4988	1	250	5239	20373	5422	1429	27224
1972		E	2000	114	24	2138									1670	0	14	1684					3670	114	38	3822
1972		TOTAL																								
1972	DB	N	8582	24427	606	33615	90190	40653	1826	132669	204042	143249	1556	348847	62256	23	922	63201	41600	0	441	42041	406670	208352	5351	620373
1972		E																								
1972		TOTAL																								
1972	DSB	N					14745	7461	1	22207					11380	179		11559	6528		12	6540	32653	7640	13	40306
1972	FS	N	2335	2313	248	4896	14320	4483	450	19253	103522	55836	9044	168402	52429		2094	54523	33419		1659	35078	206025	62632	13495	282152
1972		E		44	13	57									520		6	526					520	44	19	583
1972		TOTAL																								
1972	NS	N					436	6730		7166	14267	6522		20789	17022			17022	58135	2782		60917	89860	16034		105894
1972	NSB	N					2109	2060	119	4288	7146	7679	127	14952	2999	11	24	3034	9702	3	12	9717	21956	9753	282	31991
1972	OBB	N	1196	2752	52	4000	6616	3374	128	10118	28307	26806	357	55470	8170	19	209	8398	8770	1	114	8885	53059	32952	860	86871
1972		E	162	97	10	269	890	222	15	1127	407	148	19	574	18		0	18					1477	467	44	1988
1972		TOTAL																								
1972	RENFE	L	584	2860	317	3761	19103	18983	947	39033	12649	21023	339	34011	27755		44	27799	23854	0	1	23855	83945	42866	1648	128459
1972		E																	91			91	91			91
1972		TOTAL																								
1972	SJ	N	1	0	0	1	499	4903	167	5569	31673	37851	390	69914	11477	15	66	11558	11663	17	104	11784	55313	42786	727	98826
1972		E						49	1	50	84		0	84	579		0	579	450		1	451	1113	49	2	1164
1972		TOTAL																								
1972	SNCB	N		111		111	20107	15220	1204	36531	10860	8567	21	19448	5845		110	5955	23470	205	148	23823	60282	24103	1483	85868
1972	SNCF	N	106	760	7	873	29606	67600	1156	98362	106963	150752	470	258185	76535	0	722	77257	33772	13	483	34268	246982	219125	2838	468945
1972		E												0					358	109	10	477	358	109	10	477
1972		TOTAL																								
1972	VR	L		599	91	690	8956	18892	364	28212				0	11899	173		12072	2888			2888	23743	19664	455	43862
1972	BDZ	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972		TOTAL																								
1972	CFR	L	35	65		100		0		0				0									35	65		100
1972		N	22074	13635	64	35773	32266	57946	187	90399	3677	6687	71	10435	6230		7	6237					64247	78268	329	142844
1972		E	447	121		568	575	715		1290	419	1	4	424									1441	837	4	2282
1972		TOTAL																								
1972	CSD	L	16811	20432	61	37304	26693	39178	118	65989	27169	55229	41	82439	55061	285	126	55472	6409	15	0	6424	132143	115139	346	247628
1972		N																								
1972		E																								
1972		TOTAL																								
1972	DR	N	29294	44583	743	74620	65342	50618	853	116813	17914	16705	106	34725	12279	0	538	12817	26152		50	26202	150981	111906	2290	265177
1972		E	1083	599	4	1686	0	0	2	2				0		0	2	2					1083	599	8	1690
1972		TOTAL																								
1972	JZ	N	11106	15711		26817	15582	15004		30586	13763	17829		31592	22547			22547	2824			2824	65822	48544		114366
1972		E	410	1090		1500	894	1228		2122				0	1049			1049					2353	2318		4671
1972		TOTAL																								
1972	MAV	L																								
1972		N	22154	10072	495	32721	14380	17150	420	31950	13656	13594		27250	10740	1		10741					60930	40817	915	102662
1972		E					1954	337	1	2292				0	10			10					1964	337	1	2302
1972		TOTAL																								
1972	TCDD	N	5881	16520	476	22877	5319	4440	15	9774	623	59	0	682	4103		14	4117	2190		0	2190	18116	21019	505	39640
1973	BR	N					93707	95439	16162	205308	21742	8695	1209	31646	94928		1072	96000	118095		1043	119138	328472	104134	19486	452092
1973	CFF	N	0			0	14	132	3	149	39807	30552	476	70835	142		0	142	18362	366	231	18959	58325	31050	710	90085
1973		E									71	18		89					895	146	20	1061	966	164	20	1150
1973		total																								
1973	CFL	N	0	1		1	690	967	5	1662	373	743	0	1116	1521			1521	179	16		195	2763	1727	5	4495
1973	CH	N	.	.	.	.	.	.	.	.					.		.	.					.	.	.	.
1973		E	.	.	.	.	.	.	.	.					.		.	.					.	.	.	.
1973		TOTAL	.	.	.	.	.	.	.	.					.		.	.					.	.	.	.
1973	CIE	L					8508	3888	311	12707					160			160					8668	3888	311	12867
1973	CP	L	859	394	100	1353	7245	3320	664	11229	2462	1845	172	4479	4562	1	113	4676	5436	3	287	5726	20564	5563	1336	27463
1973		E	1587	101	19	1707									1661		11	1672					3248	101	30	3379
1973		TOTAL																								
1973	DB	N	5154	18726	447	24327	93671	43171	1888	138730	206701	148538	1774	357013	60142	27	1018	61187	45453	1	496	45950	411121	210463	5623	627207
1973		E																								
1973		TOTAL																								
1973	DSB	N					15129	7662	9	22800					11188	177	2	11367	7338		10	7348	33655	7839	21	41515
1973	FS	N	2026	2208	237	4471	13366	4189	515	18070	106563	56357	8698	171618	54316		2132	56448	33818		1765	35583	210089	62754	13347	286190
1973		E		37	14	51									553		6	559					553	37	20	610
1973		TOTAL																								
1973	NS	N					470	6235		6705	13292	6741		20033	17265			17265	59759	2776		62535	90786	15752		106538
1973	NSB	N					2083	1861	124	4068	7134	7541	84	14759	2983	6	10	2999	9526	5	17	9548	21726	9413	235	31374
1973	OBB	N	1017	2141	51	3209	6640	3801	146	10587	28348	27918	336	56602	8019	15	192	8226	8602	0	92	8694	52626	33875	817	87318
1973		E	163	91	14	268	887	215	10	1112	404	144	22	570	17		1	18					1471	450	47	1968
1973		TOTAL																								
1973	RENFE	L	861	4366	282	5509	19044	19035	887	38966	12822	23524	337	36683	26950		50	27000	24388			24388	84065	46925	1556	132546
1973		E																	57			57	57			57
1973		TOTAL																								
1973	SJ	N					465	5099	132	5696	32061	38296	394	70751	10794	15	65	10874	11958	14	95	12067	55278	43424	686	99388
1973		E					0	37	0	37					516		0	516					516	37	0	553
1973		TOTAL																								
1973	SNCB	N		101		101	20681	15766	1182	37629	11099	9301	25	20425	5666		123	5789	24535	219	156	24910	61981	25387	1486	88854
1973	SNCF	N	47	274	1	322	31243	67259	2760	101262	109899	153478	633	264010	75939	0	1109	77048	34275	16	372	34663	251403	221027	4875	477305
1973		E																	357	107	9	473	357	107	9	473
1973		TOTAL																								
1973	VR	L	1	508	25	534	9578	18826	180	28584	0	0	0	0	11526	199		11725	3708			3708	24813	19533	205	44551
1973	BDZ	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	CFR	L	34	83		117																	34	83		117
1973		N	19798	9627	49	29474	34425	63528	174	98127	4094	8358	42	12494	6294		9	6303					64611	81513	274	146398
1973		E	472	105	1	578	563	585		1148	421	0	2	423									1456	690	3	2149
1973		TOTAL																								
1973	CSD	L																								
1973		N																								
1973		E																								
1973		TOTAL	12553	16254	60	28867	30557	43640	125	74322	28651	54660	52	83363	55061	281	137	55479	6606	2		6608	133428	114837	374	248639
1973	DR	N	24750	42499	672	67921	73348	55249	925	129522	18170	16521	104	34795	12049		507	12556	26300		18	26318	154617	114269	2226	271112
1973		E	1031	502	3	1536	0	0	1	1							1	1					1031	502	5	1538
1973		TOTAL																								
1973	JZ	N	9452	11863		21315	17610	19622		37232	13900	18406		32306	23868			23868	2794			2794	67624	49891		117515
1973		E	219	936		1155	824	1181		2005					994			994					2037	2117		4154
1973		TOTAL																								
1973	MAV	L																								
1973		N	19706	9031	404	29141	15753	18984	376	35113	15006	14982		29988	11037	12		11049					61502	43009	780	105291
1973		E					1964	350	1	2315					1			1					1965	350	1	2316
1973		TOTAL																								
1973	TCDD	N	5406	14852	510	20768	5806	6712	35	12553	1150	69	1	1220	4186		13	4199	2161		0	2161	18709	21633	559	40901
1974	BR	N					88857	88361	14931	192149	30217	9989	1287	41493	95665		1179	96844	119832		1030	120862	334571	98350	18427	451348
1974	CFF	N					15	136	6	157	40481	29979	477	70937	118		0	118	17913	375	228	18516	58527	30490	711	89728
1974		E									78	17	0	95					905	135	19	1059	983	152	19	1154
1974		total																								
1974	CFL	N	0	1		1	714	1005	9	1728	414	835	1	1250	1446			1446	208	12		220	2782	1853	10	4645
1974	CH	N	75	442	64	581	4209	3084	144	7437					4089		2	4091					8373	3526	210	12109
1974		E	99	119	3	221	1558	670	35	2263					3648		2	3650					5305	789	40	6134
1974		TOTAL																								
1974	CIE	L					6053	3021	233	9307					51			51					6104	3021	233	9358
1974	CP	L	422	267	38	727	7983	3496	876	12355	2619	1809	164	4592	4284	1	98	4383	5508	1	292	5801	20816	5574	1468	27858
1974		E	1600	104	22	1726									1682	0	12	1694					3282	104	34	3420
1974		TOTAL																								
1974	DB	N																								
1974		E																								
1974		TOTAL	2832	13298	336	16466	94369	44816	1899	141084	211123	152460	1825	365408	58730	21	1038	59789	47424	1	581	48006	414478	210596	5679	630753
1974	DSB	N					16757	7811	14	24582					8545	86	16	9647	8474		5	8479	34776	7897	35	42708
1974	FS	N	1525	1948	208	3681	14230	4155	528	18913	109209	55645	8781	173635	54286		2157	56443	33198		1874	35072	212448	61748	13548	287744
1974		E		27	10	37									522		5	527					522	27	15	564
1974		TOTAL																								
1974	NS	N					453	5368		5821	12790	7049		19835	16525			16525	62023	2798		64821	91791	15215		107006
1974	NSB	N					2107	2015	480	4602	7248	8582	165	15995	2978		19	2997	9438		35	9473	21771	10597	699	33067
1974	OBB	N	791	1630	38	2459	6923	4389	176	11488	28332	29523	347	58202	7997	12	202	8211	8883	0	90	8973	52926	35554	853	89333
1974		E	161	94	12	267	898	209	8	1115	405	146	18	569	16	0	0	16					1480	449	38	1967
1974		TOTAL																								
1974	RENFE	L	858	3194	144	4196	18953	19314	677	38944	13052	24881	381	38314	25946		51	25997	23829			23829	82638	47389	1253	131280
1974		E																	13			13	13			13
1974		TOTAL																								
1974	SJ	N					422	5329	138	5889	32807	39639	375	72821	10401	13	67	10481	12392	13	84	12489	56022	44994	664	101680
1974		E						26	0	26					512		0	512					512	26	0	538
1974		TOTAL																								
1974	SNCB	N		104		104	20730	16237	1205	38172	11687	9692	31	21410	5331		132	5463	25872	242	159	26273	63620	26275	1527	91422
1974	SNCF	N					32895	70687	1234	104816	113968	157062	657	271687	78528	0	1066	79594	35834	13	471	36318	261225	227762	3428	492415
1974		E																	441	18	10	469	441	18	10	469
1974		TOTAL																								
1974	VR	L	11	336	3	350	10265	19575	115	29955	191	208	1	400	11405	244		11649	3884			3884	25756	20363	119	46238
1974	BDZ	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CFR	L	36	81		117																	36	81		117
1974		N	15311	6696	46	22053	37847	68202	177	106226	6785	11425	39	18249	6124		9	6133					66067	86323	271	152661
1974		E	313	89		402	656	629		1285	406	0	3	409									1375	718	3	2096
1974		TOTAL																								
1974	CSD	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	DR	N	18866	36618	551	56035	81023	63706	1117	145846	19207	16824	132	36163	11384		453	11837	26180		18	26198	156660	117148	2271	276079
1974		E	1014	491	5	1510	0	0	1	1							1	1					1014	491	7	1512
1974		TOTAL																								
1974	JZ	N	6736	7318		14054	18361	23073		41434	14252	22330		36582	25932			25932	2890			2890	68171	52721		120892
1974		E	142	722		864	619	1174		1793					3044			3044					3805	1896		5701

A1.1.8. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
			Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1974		TOTAL																								
1974	MAV	L																								
1974		N	17406	8420	375	26201	17261	20065	408	37734	16171	16769	1	32941	10569	54	0	10623					61407	45308	784	107499
1974		E					1820	341	1	2162					0			0					1820	341	1	2162
1974		TOTAL																								
1974	PKP	N	64763	60805	3837	129405	26060	55722	4420	86202	29569	91424	1346	122339	17182	176	2057	19415	40255		3186	43441	177829	208127	14846	400802
1974		E	1488	2452	17	3957	1059	1671	24	2754					1676	4	8	1688					4223	4127	49	8399
1974		Total																								
1974	TCDD	N	4890	14165	428	19483	5825	7255	43	13123	1295	71	1	1367	4179		11	4190	2112		0	2112	18301	21491	483	40275
1975	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	BR	N					89655	80187	15802	185644	34083	10179	1271	45533	96594		1107	97701	124864		1057	125921	345104	90366	19173	454643
1975	CFF	N	1			1	11	136	6	153	41994	26953	516	69463	96		0	96	17890	295	201	18386	59992	27384	723	88099
1975		E									73	16	0	89					901	142	6	1049	974	158	6	1138
1975		total																								
1975	CFL	N	0	0		0	586	854	4	1444	540	652	0	1192	1142			1142	561	12		573	2829	1518	4	4351
1975	CFR	L	36	78		114																	36	78		114
1975		N	10691	4036	41	14768	41325	69953	142	111420	8155	14754	36	22945	5496								65667	88743	222	154632
1975		E	214	79		293	694	591		1285	404	0	2	406									1312	670	2	1984
1975		total																								
1975	CH	N	10	19	26	55	5100	3404	167	8671					3217		3	3220					8327	3423	196	11946
1975		E	35	101	1	137	1705	641	36	2382					3640		2	3642					5380	742	39	6161
1975		TOTAL																								
1975	CIE	L					7094	3672	342	11108					35			35					7129	3672	342	11143
1975	CP	L	256	169	18	443	8134	3419	627	12180	2952	1822	87	4861	4159	1	108	4268	5439	2	291	5732	20940	5413	1131	27484
1975		E	1350	99	19	1468	398	0	4	402					1678	0	8	1686					3426	99	31	3556
1975		TOTAL																								
1975	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	DB	N.E.	862	6373	169	7404	89809	44137	1947	135893	207997	135456	1916	345369	52847	17	921	53785	47476	1	543	48020	398991	185984	5496	590471
1975	DR	N	13700	28823	401	42924	91488	70943	1330	163761	20239	17152	139	37530	10755		516	11271	26208		37	26245	162390	116918	2423	281731
1975		E	975	450	1	1426	0	0	0	0													975	450	1	1426
1975		TOTAL																								
1975	DSB	N					20054	7788	19	27861					8147	44	15	8206	8028		11	8039	36229	7832	45	44106
1975	FS	N	464	1094	117	1675	16750	4430	536	21716	109929	48293	8052	166274	52801		2177	54978	32111		1922	34033	212055	53817	12804	278676
1975		E			30	8	38									499	6	505					499	30	14	543
1975		TOTAL																								
1975	JZ	N	5230	6057		11287	17573	20679		38252	14843	23435		38278	29856			29856	4110			4110	71612	50171		121783
1975		E	58	504		562	579	846		1425					3007			3007					3644	1350		4994
1975		TOTAL																								
1975	MAV	N	15107	6989	290	22386	17251	21986	436	39673	17607	16830	1	34438	11203	32	1	11236					61168	45837	728	107733
1975		E					1717	327	1	2045													1717	327	1	2045
1975		total																								
1975	NS	N					459	4821		5280	12969	6333		19302	15785			15785	63250	2887		66137	92463	14041		106504
1975	NSB	N					2116	2167	682	4965	7159	8566	224	15949	3019		15	3034	10046		35	10081	22340	10733	956	34029
1975	OBB	N	393	571	13	977	7145	4687	295	12127	28877	28237	430	57544	8099	18	460	8577	9548	2	163	9713	54062	33515	1361	88938
1975		E	167	93	12	272	893	203	9	1105	414	142	20	576	17	0	1	18					1491	438	42	1971
1975		TOTAL																								
1975	PKP	N	55192	56947	3558	115697	32649	60542	5043	98234	33827	94276	1450	129553	18222	151	2141	20514					183094	211916	15763	410773
1975		E	1289	2326	14	3629	1063	1788	20	2871					1628	4	3	1635					3980	4118	37	8135
1975		Total																								
1975	RENFE	L	212	550	29	791	19773	20617	668	41058	12408	22914	431	35753	25832		46	25878	25463		2	25465	83688	44081	1176	128945
1975		E																66				66	66			66
1975		TOTAL																								
1975	SJ	N					399	4996	120	5515	34249	36767	286	71302	9954	18	87	10059	11996	21	59	12076	56598	41802	552	98952
1975		E						24	0	24					504		0	504					504	24	0	528
1975		TOTAL																								
1975	SNCB	N		94		94	20906	13232	1274	35412	12080	7868	41	19989	5191		152	5343	26387	244	136	26767	64564	21438	1603	87605
1975	SNCF	N					33531	64530	1339	99400	118671	144197	665	263533	78229	1	1036	79266	37390	12	462	37864	267821	208740	3502	480063
1975		E																	470	0	7	477	470	0	7	477
1975		TOTAL																								
1975	VR	L		68	2	70	9787	16860	154	26801	1389	625		2014	11247	240		11487	4189			4189	26612	17793	156	44561
1975	TCDD	N	4872	12593	505	17970	5989	8173	51	14213	1340	81	0	1421	4033		6	4039	2143		0	2143	18377	20847	562	39786
1976	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	BR	N					72586	89718	15641	177945	27296	15019	1247	43562	97505	1135	1130	99770	122801	717	1096	124614	320189	106588	19114	445891
1976	CFF	N	0			0	4	134	12	150	43610	27794	600	72064	83		0	83	18408	245	199	18852	62165	28173	811	91149
1976		E									81	15	0	96					917	142	0	1059	998	157	0	1155
1976		total																								
1976	CFL	N					513	785	4	1302	631	617	0	1248	954			954	834	12		846	2932	1414	4	4350
1976	CFR	L																								
1976		N																								
1976		E																								
1976		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	N	5	1	1	7	5117	3293	247	8657					3020		5	3025					8142	3294	253	11689
1976		E	1	53		54	1753	645	44	2442					3399		6	3405					5153	698	50	5901
1976		TOTAL																								
1976	CIE	L					6415	3816	307	10538													6415	3816	307	10538
1976	CP	L	96	55	15	166	8526	3695	583	12804	2873	1930	108	4911	4000		112	4112	4356		251	4607	19851	5680	1069	26600
1976		E	1005	106	23	1134	745	3	9	757					1675		6	1681					3425	109	38	3572
1976		TOTAL																								
1976	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	133176	122158	355	255689
1976	DB	N.E.	37	2219	45	2301	84203	45137	1890	131230	204534	139462	2099	346095	47026	23	817	47866	47733	0	408	48141	383533	186841	5259	575633
1976	DR	N	10565	23133	345	34043	92494	78398	1478	172370	21686	17970	162	39818	10223		333	10556	25273		56	25329	160241	119501	2374	282116
1976		E	963	449	3	1415	0	1	0	1													963	450	3	1416
1976		TOTAL																								
1976	DSB	N	.	.	.	.	20701	7521	20	28242					7995	46	20	8061	8153		7	8160	36849	7567	47	44463
1976	FS	N	155	385	73	613	19217	5371	640	25228	113621	52245	7970	173836	53578		2107	55685	32261		2029	34290	218832	58001	12819	289652
1976		E		29	7	36									450		1	451					4506	29	8	487
1976		TOTAL																								
1976	JZ	N	4218	4951		9169	16724	18930		35654	16109	24363		40472	33658			33658	4398			4398	75107	48244	48244	123351
1976		E	8	277		285	538	472		1010					1713			1713					2259	749	749	3008
1976		TOTAL																								
1976	MAV	N	12424	5462	197	18083	18932	20530	528	39990	18437	18112	1	36550	11569	24	1	11594					61362	44128	727	106217
1976		E					1544	274	1	1819													1544	274	1	1819
1976		total																								
1976	NS	N					412	4605		5017	13179	6088		19267	15808			15808	64514	3001		67515	93913	13694		107607
1976	NSB	N					2147	2149	733	5029	7370	8728	271	16369	2809		19	2828	10685	24	43	10752	23011	10901	1066	34978
1976	OBB	N	73	178	7	258	7653	4847	330	12830	30168	30378	443	60989	7623	20	470	8113	10020	2	165	10187	55537	35425	1415	92377
1976		E	165	92	8	265	891	212	10	1113	415	140	20	575	16	0	1	17					1487	444	39	1970
1976		TOTAL																								
1976	PKP	N	48749	51153	3130	103032	38001	64529	5581	108111	36902	97399	1480	135781	16639	122	2088	18849	45107		3986	49093	185398	213204	16264	414866
1976		E	1018	2308	14	3340	1118	1884	19	3021					1568	23	2	1593					3704	4215	35	7954
1976		Total																								
1976	RENFE	L	3	2	0	5	19376	20285	614	40275	13695	25069	391	39155	23182		12	23194	29913		0	29913	86169	45356	1017	132542
1976		E																	56			56	56			56
1976		TOTAL																								
1976	SJ	N					378	5049	74	5501	35715	36012	242	71969	9724	22	87	9833	12033	26	39	12098	57850	41109	442	99401
1976		E						24	0	24					493		0	493					493	24	0	517
1976		TOTAL																								
1976	SNCB	N		0		0	20922	13446	1376	35744	11795	7600	69	19464	5278		154	5432	27499		140	27639	65494	21046	1739	88279
1976	SNCF	N					33845	57713	5871	97429	123620	147516	672	271808	78024		1012	79036	40490	42	572	41104	275979	205271	8127	489377
1976		E																	460	0	9	469	460	0	9	469
1976		TOTAL																								
1976	VR	L					9092	15610	208	24910	2017	1324		3341	10750	121		10871	4370			4370	26229	17055	208	43492
1976	TCDD	N	4201	10391	433	15025	6632	10641	46	17319	1394	107	1	1502	3936		17	3953	2045		0	2045	18208	21139	497	39844

A1.1.9. Train Gross Tonne -Kilometres Hauled

			TRAIN GROSS TONNE-KILOMETRES HAULED BY TYPE OF TRACTION (IN THOUSANDS OF TONNE-KILOMETRES)																							
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
YEAR	Railway	rail gauge	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1972	BR	N					.	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
1972	CFF	N	0		0	0	1500	34800	500	36800	12178400	18243500	86700	30508600	12500		0	12500	3429000	99900	37400	3566300	15621400	18378200	124600	34124200
1972		E									7100	1400	0	8500					82600	17800	1100	101500	89700	19200	1100	110000
1972		total												0												0
1972	CFL	N	36	1117		1153	125923	925294	7326	1058543	90828	718144	19	808991	117682		0	117682	34101	1387		35488	368570	1645942	7345	2021857
1972	CH	N	225877	376676	31410	633963	1062358	1380346	4947	2447651				0	413967		302	414269					1702202	1757022	36659	3495883
1972		E	22698	3251	585	26534	235927	188031	7341	431299				0	250115		277	250392					508740	191282	8203	708225
1972		TOTAL												0												
1972	CIE	L					.	.	.	.				0	.			.					.	.	.	.
1972	CP	L	160726	111842	24629	297197	1548649	1037696	237963	2824308	780579	897613	63017	1741209	526306	15	13013	539334	1376554	0	50495	1427049	4392814	2047166	389117	6829097
1972		E	163683	11959	1686	177328								0	73020	3	791	73814					236703	11962	2477	251142
1972		TOTAL																								
1972	DB	N	1608907	21052439	191242	22852588	17251646	20919707	350992	38522345	60801771	128220353	512326	189534450	4238607	1333	39506	4279446	6767357	40	52375	6819772	90668288	170193872	1146441	262008601
1972		E																								
1972		TOTAL																								
1972	DSB	N					3296111	4495204		7791315				0	1620014	48215		1668229	.		.	1465108	.	.	.	.
1972	FS	N	346685	688844	46721	1082250	3544271	1852894	115633	5512798	44127513	39089095	4393771	87610379	4139125		108643	4247768	5772212		181963	5954175	57929806	41630833	4846731	104407370
1972		E		2791	724	3515								0	22627		74	22701					22627	2791	798	26216
1972		TOTAL																								
1972	NS	N					92480	3438837		3531317	4074611	4635280		8709891	2262211			2262211	11798077	253961		12052038	18227379	8328078		26555457
1972	NSB	N					.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972	OBB	N	127947	1739936	5098	1872981	944792	1506925	17128	2468845	7823142	19104736	92320	27020198	783306	1369	13146	797821	1857791	84	20282	1878157	11536978	22353050	147974	34038002
1972		E	5800	8515	117	14432	40497	20156	557	61210	35118	14010	1416	50544	602		6	608					82017	42681	2096	126794
1972		TOTAL																								
1972	RENFE	L	117060	1364600	97600	1579260	6433020	10006960	280630	16720610	5909710	12330140	126790	18366640	3119330		2900	3122230	5029947	20	80	5030047	20609067	23701720	508000	44818787
1972		E												0					4353			4353	4353			4353
1972		TOTAL																								
1972	SJ	N	64	113	17	194	90547	1842158	72828	2005443	9178668	30293611	174452	39646731	460352	426	1833	462611	1316038	1347	6876	1324261	11045579	32137655	256006	43439240
1972		E						6163	34	6197	6198		2	6200	11456		13	11469	30493		42	30535	48147	6163	91	54401
1972		TOTAL																								
1972	SNCB	N		8759		8759	4332744	11918336	47252	16298332	4095112	6859266	1903	10956281	427074		4688	431762	5702988	29307	28571	5760866	14557918	18815668	82414	33456000
1972	SNCF	N	39936	447603	2064	489603	11834132	38775673	412377	51022182	56371070	131518961	209851	188099882	7107492	12	43721	7151225	8081810	3302	61031	8146143	83434440	170745551	729044	254909035
1972		E												0					29381	9379	898	39658	29381	9379	898	39658
1972		TOTAL																								
1972	VR	L		429300	39400	468700	2987000	14787700	148000	17922700				0	342700	7300		350000	148700			148700	3478400	15224300	187400	18890100
1972	BDZ	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972		TOTAL																								
1972	CFR	L	5098	64510		69608		270		270				0									5098	64780		69878
1972		N	5350315	9593261	19175	15962751	14561908	490538	73062	94125508	1872308	9373854	28878	11275040	666101		1235	667336					23450632	98457653	122350	122030635
1972		E	43109	18448		61557	65952	135972	11	201935	44727	35	238	45000									153788	154455	249	308492
1972		TOTAL																								
1972	CSD	L	3800458	13186381	14712	17001551	7298647	35902477	23685	43224809	11130117	74915388	8706	86054211	5095007	13860	5041	5113908	1716320	1467	2	1717789	29040549	124019573	52146	153112268
1972		N																								
1972		E																								
1972		TOTAL																								
1972	DR	N	6844965	39696632	217855	46759452	15651797	44583236	190214	60425247	4952194	16647017	26826	21626037	865211	1	25971	891183	5614032		7436	5621468	33928199	100926886	468302	135323387
1972		E	103558	63474	88	167120	0	13	44	57				0			74	75					103558	63488	206	167252
1972		TOTAL																								
1972	JZ	N	1893718	11039454		12933172	5097666	13380840		18478506	5981980	16258485		22240465	1479172			1479172	617325			617325	15069861	40678779		55748640
1972		E	36379	241683		278062	91384	289095		380479				0	101728			101728					229491	530778		760269
1972		TOTAL																								
1972	MAV	L																								
1972		N	5128667	6264465	173467	11566599	5305205	18826031	117938	24249174	5654551	16870732		22525283	1505998	431		1506429					17594421	41961659	291405	59847485
1972		E					157351	35003		192354				0	367			367					157718	35003		192721
1972		TOTAL																								
1972	TCDD	N	2107429	10465150	93561	12666140	2514057	3681563	4558	6200178	191023	26445	33	217501	468721		1132	469853	635261		49	635310	5916491	14173158	99333	20188982
1973	BR	N					.	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
1973	CFF	N	0			0	2100	34600	500	37200	12271300	18998500	84500	31354300	10000		100	10100	3453000	86400	36700	3576100	15736400	19119500	121800	34977700
1973		E									6500	1300	0	7800					85200	19700	1100	106000	91700	21000	1100	113800
1973		total																								
1973	CFL	N	76	892		968	120310	878749	598	999657	102093	748621	7	850721	115028			115028	32518	996		33514	370025	1629258	605	1999888
1973	CH	N	92069	284143	24739	400951	1158419	1604528	6190	2769137					420067		226	420293					1670555	1888671	31155	3590381
1973		E	14723	10619	225	25567	242919	172029	6304	421252					248285		115	248400					505927	182648	6644	695219
1973		TOTAL																								
1973	CIE	L					.	.	.	.					.			.					.	.	.	.
1973	CP	L	149319	101697	13143	264159	1636313	1050047	209551	2895911	848965	944931	58539	1852435	483666	22	12859	496547	1506960		61112	1568072	4625223	2096697	355204	7077124
1973		E	132868	11960	1191	146019									73666	1	764	74431					206534	11961	1955	220450
1973		TOTAL																								
1973	DB	N																								
1973		E																								
1973		TOTAL	933894	16792803	141263	17867960	17856725	23304425	401789	41564939	60858627	136014120	628887	197501634	4280400	2187	49173	4331760	7803291	195	60633	7864119	91734937	176113730	1281745	269130412
1973	DSB	N					3335898	4637012		7972910					1620131	34551		1654682	.		.	1653753	.		.	11281345
1973	FS	N	288867	666346	43996	999209	3386672	1813170	129375	5329217	46133977	39375606	4169168	89678751	4218612		115059	4333671	5889856		200722	6090578	59917984	41855122	4658320	106431426
1973		E		2477	870	3347									23495		77	23572					23495	2477	947	26919
1973		TOTAL																								
1973	NS	N					104057	3520321		3624378	3898346	4964902		8863248	2259236			2259236	11472235	256708		11728943	17733874	8741931		26475805
1973	NSB	N					.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	OBB	N	94417	1354888	4386	1453691	934445	1814167	19335	2767947	7800958	20058423	87559	27946940	744611	1122	12734	758467	1850817	34	16856	1867707	11425248	23228634	140870	34794752
1973		E	7556	9712	255	17523	57235	23367	603	81205	49244	17467	2141	68852	510		40	550					114545	50546	3039	168130
1973		TOTAL																								
1973	RENFE	L	180090	2307160	98050	2585300	6523501	10518740	277194	17319435	6131190	14722660	119090	20972940	3000280		3050	3003330	5054789			5054789	20889850	27548560	497384	48935794
1973		E																	3531			3531	3531			3531
1973		TOTAL																								
1973	SJ	N					87418	2080036	55304	2222758	9226522	33077466	179431	42483419	412904	441	1736	415081	1385670	1207	7829	1394706	11112514	35159150	244300	46515964
1973		E					3	3424	3	3430					9350		4	9534					9353	3424	7	12784
1973		TOTAL																								
1973	SNCB	N		7962		7962	168602	12591883	50815	17113547	4079552	7705508	3071	11877181	396092		5181	401273	6006280	32535	31576	6070391	15041823	20337888	90643	35470354
1973	SNCF	N	15331	158943	90	174364	12484175	41524119	372527	54380821	57709854	139561432	341650	179612936	7320510	21	82877	7403408	8289089	7818	57231	8354138	85818959	181252333	854375	267925667
1973		E																	29880	9413	745	40038	29880	9413	745	40038
1973		TOTAL																								
1973	VR	L	100	342800	11500	354400	3194500	15380100	76000	18650600	0	0	0	0	334800	8300		343100	200300			200300	3729700	15731200	87500	19548400
1973	BDZ	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	CFR	L	5429	88593		94022																	5429	88593		94022
1973		N	5711833	6619637	15470	12346940	15322786	86169408	68221	101560415	2028483	12034784	17565	14080832	662276		1120	663396					23725378	104823829	102376	128651583
1973		E	45199	17790	254	63243	67795	114860		182655	43422	1	209	43632									156416	132651	463	289530
1973		TOTAL																								
1973	CSD	L																								
1973		N																								
1973		E																								
1973		TOTAL	2703062	9933577	15113	12651752	8345788	39809627	26061	48181476	11651405	74346293	10966	86008664	5116415	13140	8946	5138501	1806185	161		1806346	29622855	124102798	60086	153786739
1973	DR	N	5961174	37976859	191893	44129926	17624492	50242022	205552	68072066	5125698	16728406	25394	21879498	824316		26918	851234	5675835		3008	5678843	35211515	104947287	452765	140611567
1973		E	100101	55414	79	155594	0	0	27	27							10	10					100101	55414	116	155631
1973		TOTAL																								
1973	JZ	N	1658243	8150203		9808446	5768539	16745475		22514014	5871719	17873301		23745020	1685159			1685159	614856			614856	15598516	42768979		58367495
1973		E	19082	196266		215348	87225	280638		367863					91810			91810					198117	476904		675021
1973		TOTAL																								
1973	MAV	L																								
1973		N	4481211	5571526	151499	10204236	5804694	20560662	100232	26465588	6127446	18483784		24611230	1589789	5744		1595533					18003140	44621716	251731	62876587
1973		E					155582	35120		190702					42			42					155624	35120		190744
1973		TOTAL																								
1973	TCDD	N	1906553	9350464	97957	11354974	2759852	5577257	9267	8346376	383541	35689	76	419306	458588		1139	459727	630688		0	630688	6139222	14963410	108439	21211071
1974	BR	N					.	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
1974	CFF	N					2000	34500	1100	37600	12538500	18562200	78400	31179100	6500		0	6500	3200200	82000	35500	3317700	15747200	18678700	115000	34540900
1974		E									7000	1200	0	8200					84300	18300	1200	103800	91300	19500	1200	112000
1974		total																								
1974	CFL	N	33	266		299	120411	936497	1559	1058467	110347	847662	509	958518	108041			108041	39431	736		40167	378263	1785161	2068	2165492
1974	CH	N	13960	194062	12378	220400	1259002	1809903	39666	3108571					412248		148	412396					1685210	2003965	52192	3741367
1974		E	8126	15268	262	23656	247077	185083	4081	436241					251166		98	251264					506369	200351	4441	711161
1974		TOTAL																								
1974	CIE	L					.	.	.	.					.			.					.	.	.	.
1974	CP	L	87441	74520	4572	166533	1801094	1196985	279121	3277200	969885	903066	63541	1936492	491039	5	12236	503280	1531771		59913	1591624	4881170	2174576	419383	7475129
1974		E	136827	12076	1428	150331									75331		758	76089					212158	12076	2186	226420
1974		TOTAL																								
1974	DB	N																								
1974		E																								
1974		TOTAL	526096	12480331	119041	13125468	17860323	24413702	373067	42647092	61374805	140167247	625035	202167087	4330516	1785	46090	4378391	8282429	225	82241	8364895	92374169	177063290	1245474	270682933
1974	DSB	N					3616434	5000585		8617019					1403867	18144		1422011	.		.	1899084	.		.	11938114
1974	FS	N	221598	587718	32735	842051	3635269	1865344	138387	5639000	48067189	39624378	4226451	91918018	4170420		118356	4288776	5845003		217021	6062024	61939479	42077740	4732950	108750169
1974		E		2385	672	3057									22729		55	22784					22729	2385	727	25841
1974		TOTAL																								
1974	NS	N					104278	3079388		3183666	3872060	5201924		9073984	2009893			2009893	12046810	251957		12298767	18033041	8533269		26566310
1974	NSB	N					.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	OBB	N	67092	1094683	3269	1165044	972861	2282955	24806	3280622	7722695	21318189	82515	29123399	729331	979	12610	742920	1937602	19	15992	1953613	11429581	24696825	139192	36265598
1974		E	12166	12877	278	25321	89058	30318	963	120339	77853	26205	3337	107395	487		19	506					179564	69400	4597	253561
1974		TOTAL																								
1974	RENFE	L	187300	1619110	42050	1848460	6597810	11080200	186910	17864920	6382050	15655170	130390	22167610	2848850		2990	2851840	5006164			5006164	21022174	28354480	362340	49738994
1974		E																	866			866	866			866
1974		TOTAL																								
1974	SJ	N					84306	2179347	60508	2324161	9490321	35007873	170361	44668555	423100	354	2033	425487	1480726	1153	5716	1487595	11478453	37188727	238618	48905798
1974		E						2211	1	2212					9018		7	9025					9018	2211	8	11237
1974		TOTAL																								
1974	SNCB	N		8221		8221	4425379	13405458	66688	17897525	4356664	8306662	3030	12666356	354689		6109	360798	6467515	35832	32455	6535802	15604247	21756173	108282	37468702
1974	SNCF	N					13102386	45373078	454543	58930007	59417763	141289791	362723	201070277	8171525	44	70175	8241744	8889361	7082	61338	8957781	89581035	186669995	948779	277199809
1974		E																	34771	1447	785	37003	34771	1447	785	37003
1974		TOTAL																								
1974	VR	L	1500	218100	1300	220900	3415900	16849600	46800	20312300	90000	213400	400	303800	338600	10200		348800	210000			210000	4056000	17291300	48500	21395800
1974	BDZ	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CFR	L	4784	85106		89890																	4784	85106		89890
1974		N	4423864	4626686	13607	9064157	16518568	91541276	72640	108132484	3196985	16709080	18292	19924357	674334		1567	675901					24813751	112877042	106106	137796899
1974		E	31375	13668		45043	79517	120147		199664	40815			40815									151707	133815		285522
1974		TOTAL																								
1974	CSD	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

A1.1.9. Train Gross Tonne -Kilometres Hauled

YEAR	Railway	rail gauge	TRAIN GROSS TONNE-KILOMETRES HAULED BY TYPE OF TRACTION (IN THOUSANDS OF TONNE-KILOMETRES)																											
			Steam Locomotives				Diesel and Special System Locomotives and Light Rail Motor Tractors				Electric Locomotives and Light Rail Motor Tractors				Diesel and Special System Railcars				Electric Railcars				All Types of Traction			
			Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total	Passenger Traffic	Goods Traffic	Other Traffics	Total
1974		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	DR	N	4881009	33482209	184941	38548159	19498987	57700417	265027	77464431	5295086	16989256	29277	22313619	765637		23328	788965	5616664		3517	5620181	36057383	108171882	506090	144735355
1974		E	96137	55454	218	151809			14	14							12	12					96137	55454	244	151835
1974		TOTAL																								
1974	JZ	N	1109116	4607570		5716686	5738801	21072114		26810915	6369425	21443331		27812756	1832699			1832699	643662			643662	15693703	47123015		62816718
1974		E	13484	147168		160652	71405	273617		345022					92020			92020					176909	420785		597694
1974		TOTAL																								
1974	MAV	L	3864987	5016604	152083	9033674	6042146	22083373	115662	28241181	6604870	21070380		27675250	1524955	32230		1557185					18036958	48202587	267745	66507290
1974		N					148505	33915		182420					4			4					148509	33915		182424
1974		E																								
1974		TOTAL																								
1974	PKP	N	15001829	53879483	891829	69773141	8582169	67066059	813499	76461727	12146817	129969270	455478	142571566	1021549	42944	141230	3205723	13586896		766590	14353486	52339260	250957756	3068626	306365642
1974		E	121888	278560		400448	71512	285006	.	356518					53415	182	.	53597					246815	563748	.	810563
1974		TOTAL																								
1974	TCDD	N	1742081	8816749	84364	10643194	2745629	5950312	11863	8707804	440363	40504	175	481042	450884		856	451740	632945		9	632954	6011902	14807565	97267	20916734
1975	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	BR	N					32458200	52488900	12788700	97735800	13672800	7606300	1007000	22286100	9879500	65400	92100	10037000	32634500	35500	225500	32895500	88645000	60196100	14113300	162954400
1975	CFF	N	100			100	1500	28400	1000	30900	13027500	15002000	83600	28113100	5000		100	5100	3173000	57400	28900	3259300	16207100	15087800	113600	31408500
1975		E									6100	1200	0	7300					81000	17200	500	98700	87100	18400	500	106000
1975		total																								
1975	CFL	N	26	2		28	105857	737315	467	843639	132699	632325	12	765036	88276			88276	86126	757		86883	412984	1370399	479	1783862
1975	CFR	L	5130	84204		89334																	5130	84204		89334
1975		N	3214880	2763862	14132	5992874	18020503	93796701	56582	111873786	3916502	21914159	16982	25847643	625274		782	626056					25777159	118474722	88478	144340359
1975		E	20828	12466		33294	85973	116214		202187	41854			41854									148655	128680		277335
1975		total																								
1975	CH	N	2015	6171	4235	12421	1490280	2151521	40731	3682532					324966		246	325212					1817261	2157692	45212	4020165
1975		E	2750	12654	156	15560	256492	176733	4797	438022					248967		80	249047					508209	189387	5033	702629
1975		TOTAL																								
1975	CIE	L					.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	CP	L	50688	45195	3229	99112	1883202	1154526	183481	3221209	1143184	833808	28479	2005471	484142	148	13926	498216	1490947	644	59674	1551265	5052163	2034321	288789	7375273
1975		E	112830	11837	1194	125861	38151	46	306	38503					67365	4	529	67898					218346	11887	2029	23262
1975		TOTAL																								
1975	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	DB	N.E.	157799	6117140	63994	6338933	16921983	22963779	400593	40286355	59826895	116084625	703675	176615195	4197491	1130	42076	4240697	8452027	146	72851	8525024	89556195	145166820	1283189	236006204
1975	DR	N	3759262	25943015	133242	29835519	21788178	66037236	341103	88166517	5624979	17402019	37047	23064045	786240		18515	804755	5624371		7160	5631531	37583030	109382270	537067	147502367
1975		E	93822	51330	77	145229	0	0	0	0													93822	51330	77	145229
1975		TOTAL																								
1975	DSB	N					4127636	4483460		8611096					1141599	12167		1153766	.		.	1783302	.	.	.	11548164
1975	FS	N	62499	286022	17567	366088	4090933	1849008	131637	6071578	47968385	34247308	3833612	86049305	3994590		118439	4113029	5622518		218815	5841333	61738925	36382338	4320070	102441333
1975		E		2275	433	2708									21526		80	21606					21526	2275	513	24314
1975		TOTAL																								
1975	JZ	N	840904	3730015		4570919	5448355	18047952		23496307	6831526	21775461		28606987	1844210			18444210	904570			904570	15869565	43553428		59422993
1975		E	5922	110467		116389	69941	188789		258730					75623			75623					151486	299256		450742
1975		TOTAL																								
1975	MAV	N	3293387	4056854	107357	7457598	5864380	23465122	187204	29516706	7202982	21585104		28788086	1687270	14669		1701939					18048019	49121749	294561	67464329
1975		E					142168	34936		177104													142168	34936		177104
1975		total																								
1975	NS	N					98619	2550357		2648976	3860768	4490240		8351008	1779847			1779847	11724886	264695		11989581	17464120	7305292		24769412
1975	NSB	N					.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	OBB	N	25476	284585	645	310706	997684	2241834	29870	3269388	7935638	18931572	91596	26958851	723735	1722	22396	747853	2148506	597	28082	2177185	11831084	21460310	172589	33463983
1975		E	5827	7335	213	13375	39218	15396	528	55142	33462	12192	1419	47073	559	6	15	580					79066	34929	2175	116170
1975		TOTAL																								
1975	PKP	N	12719881	50086494	815203	63621578	10526605	73684850	951310	85162765	13913937	135540597	511895	149966429	3296501	41251	147566	3485318	14217632		842466	15060098	54674556	259353192	3268440	317296188
1975		E	101980	252196		354176	73835	310074		383909					51754	124		51878					227569	562394		789963
1975		Total																								
1975	RENFE	L	51910	231920	6810	290640	6935370	11561660	189570	18686600	6224680	13829830	145700	20200210	2822730		2650	2825380	5472176			5472176	21506866	25623410	344730	47475006
1975		E																	3864			3864	3864			3864
1975		TOTAL																								
1975	SJ	N					77568	1839874	49851	1967293	10029059	29569219	123177	39721455	402838	537	2246	405621	1440140	1875	4773	1446788	11949605	31411505	180047	43541157
1975		E						2444	31	2475					8387		3	8390					8387	2444	34	10865
1975		TOTAL																								
1975	SNCB	N		392225		7431	4461722	10330836	74531	14867089	4496278	6182003	4782	10683063	335431		6663	342094	6678087	39208	26239	6743534	15971518	16591272	112215	31675005
1975	SNCF	N					13496591	37993873	466796	51957260	61748352	120525584	347680	182621616	8403733	57	72650	8476440	9099487	4566	62124	9166177	92748163	158524080	949250	252221493
1975		E																	36566	12	651	37229	36566	12	651	37229
1975		TOTAL																								
1975	VR	L		46200	500	46700	3188200	14398200	68800	17655200	582400	615000		1197400	340600	10100		350700	245300			245300	4356500	15069500	69300	19495300
1975	TCDD	N	1664607	7674976	96144	9435727	2687020	6969348	11900	9668268	434277	42354	25	476656	430059		461	430520	632526		8	632534	5848489	14686678	108538	20643705
1976	BDZ	N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	BR	N					31673300	52686500	12825800	97185600	13007900	8161100	987800	22156800	9957700	69200	82900	10469800	32239700	43800	234100	32517600	87238600	60960600	14130600	162329800
1976	CFF	N	0			0	600	28400	1700	30700	13883600	15798500	95400	29777500	8000		100	8100	3303700	48400	26300	3378400	17195900	15875300	123500	33194700
1976		E									7000	900	0	7900					84300	16100	0	100400	91300	17000	0	108300
1976		total																								
1976	CFL	N					97741	671380	589	769710	149815	616011	6	765832	75788			75788	117346	742		118088	440690	1288133	595	1729418
1976	CFR	L																								
1976		N																								
1976		E																								
1976		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	N	31	392	1223	1646	1530890	1969944	64944	3565778					326819		523	327342					1857740	1970336	66690	3894766
1976		E	58	6711	6	6775	268242	175093	5515	448850					238230		324	238554					506530	181804	5845	694179
1976		TOTAL																								
1976	CIE	L					.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CP	L	12749	13134	1000	26883	1972480	1277610	142303	3392393	1152710	867814	37898	2058422	457096		13038	470134	1527831		51947	1579778	5122866	2158558	246186	7527610
1976		E	82615	12766	859	96240	66622	265	488	67375					67340		157	67497					216577	13031	1504	231112
1976		TOTAL																								
1976	CSD	L.N.E.			.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	DB	N.E.	8577	2875339	18571	2902487	15570614	25451326	420207	41442147	58283054	126522258	835264	185640576	4069319	1271	43782	4114372	8800515	26	54188	8854729	86732079	154850220	1372012	242954311
1976	DR	N	2937713	20702057	117970	23757740	22429990	74393955	395457	97219402	6042388	18549698	41099	24633185	756502		14140	770642	5816062		10943	5827005	37982655	113645710	579609	152207974
1976		E	94672	48632	260	143564	0	96	0	96													94672	48728	260	143660
1976		TOTAL																								
1976	DSB	N	.	.	.	.	4147306	4174846		8322152					1117577	9039		1126616	.		.	1883864	.	.	.	11332632
1976	FS	N	11401	88565	11374	111340	4628198	2246780	152100	7027078	49540647	37765328	3900662	91206637	4057723		117615	4175338	5671658		238122	5909780	63909627	40100673	4419873	108430173
1976		E		2307	428	2735									19326		27	19353					19326	2307	455	22088
1976		TOTAL																								
1976	JZ	N	643516	3130633		3774149	5163952	16366198		21530150	7251410	22420968		29672378	1929535			1929535	992330			992330	15980743	41917799		57898542
1976		E	665	56413		57078	64486	76773		141259					43434			43434					108585	133186		241771
1976		TOTAL																								
1976	MAV	N	2676678	3090624	60141	5827443	6212090	21279458	200782	27692330	7495653	23576804		31072457	1699231	8608		1707839					18083652	47955494	260923	66300069
1976		E					130978	30084		161062													130978	30084		161062
1976		total																								
1976	NS	N					82758	2250440		2333198	3848504	4845068		8693572	1770020			1770020	11754514	280417		12034931	17455796	7375925		24831721
1976	NSB	N						.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	OBB	N	4206	81853	320	86379	1017105	2296218	41693	3355016	8026622	21299480	96701	29422803	666278	1733	25391	693402	2297474	433	28840	2326747	12011685	23679717	192945	35884347
1976		E	5717	7397	136	13250	39950	17307	548	57805	32487	12527	1321	46335	524	6	16	546					78678	37237	2021	117936
1976		TOTAL																								
1976	PKP	N	10912144	43937288	839182	55688614	11635905	78304125	1112718	91052748	15084158	141898981	498996	157482135	2938241	32281	142215	3292737	15009607		920197	15929804	55580055	264172675	3513308	323266038
1976		E	97335	213221		310556	75175	316258		391433					49716	176		49892					222226	529655		751881
1976		Total																								
1976	RENFE	L	1000	1110	20	2130	6637530	11272620	189720	18099870	6693800	14818010	129010	21640820	2534390		670	2535060	6333532		100	6333632	22200252	26091740	319520	48611512
1976		E																	3068			3068	3068			3068
1976		TOTAL																								
1976	SJ	N					68839	1936681	30674	2036194	10394490	29956168	108467	40459125	385562	567	2195	388324	1437589	1973	3594	1443156	12286480	31895389	144930	44326799
1976		E						2286	4	2290					7884		4	7888					7884	2286	8	10178
1976		TOTAL																								
1976	SNCB	N		2		2	4411786	10928836	61902	15402524	4389616	6167395	13771	10570782	339418		6578	345996	6843970	984	30225	6875179	15984790	17097217	112476	33194483
1976	SNCF	N						38486187	725919	53043803	62094350	131385771	319405	193799526	8907916	44	68247	8976207	9799768	20124	77713	9897605	94633731	169892126	1191284	265717141
1976		E																	33376	191	714	34281	33376	191	714	34281
1976		TOTAL																								
1976	VR	L					2927000	13875000	80100	16882100	808700	1453900		2262600	336900	4900	100	341900	252400			252400	4325000	15333800	80200	19739000
1976	TCDD	N	1406905	6288724	85581	7781210	3090061	9207046	13638	12310745	440602	55013	193	495808	409922		1713	411635	607507			607507	5954997	15550783	101125	21606905

A1.1.10. ROLLING STOCK-KILOMETRES

MOTIVE VEHICLE KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF KILOMETRES)

RAIL STOCK

YEAR	Railway	rail gauge	STEAM LOCOMOTIVES: Assisting required (at front or rear)	Light or Assisting not required	Shunting	Total KMs Run by The Rolling Stock: of Railways over network under consideration	of Railway over the network under consideration and	DIESEL AND SPECIAL SYSTEM LOCOMOTIVES AND LIGHT RAIL MOTOR TRACTORS: Assisting required (at front or rear)	Light or Assisting not required	Shunting	Total KMs Run by the Rolling Stock: of Railways over the network under	of the Railway over the network under consideration and over other networks: light rail motor tractors included	light rail motor tractors excluded
1972	BR	N						11691	18817		233249	233249	233249
1972	CFF	N		0		0		0	125	2702	2975	3087	2068
1972		E								12	12	5	
1972		total											
1972	CFL	N		1		2		112	422	590	2854	3254	3061
1972	CH	N		944		2956	2956		1809		7692	7692	7692
1972		E		130		421	421		410		2749	2749	2749
1972		TOTAL											
1972	CIE	L						1624	467	564	13782	14302	14302
1972	CP	L	8	94	253	1821	1821	57	784	1928	13923	14108	12264
1972		E	1	40	144	2323	2323						
1972		TOTAL											
1972	DB	N	569	9439	2642	46265	46496	2266	23030	57721	215686	217053	193333
1972		E											
1972		TOTAL											
1972	DSB	N						469	577	8737	31990	32037	
1972	FS	N	173	858	3391	9318	8919	844	1221	13900	35218	34877	34682
1972		E	9	3	6	75	75						
1972		TOTAL											
1972	NS	N						4162	1059	2983	15370	15370	15199
1972	NSB	N						353	196	3285	8122	8128	6264
1972	OBB	N	113	982	913	6008	6077	202	2383	4787	17490	18008	18008

A1.1.10. ROLLING STOCK-KILOMETRES

			MOTIVE VEHICLE KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF KILOMETRES																																						DISTANCES COVERED BY HAULED VEHICLES (IN THOUSANDS OF KILOMETRES)						
			RAIL STOCK																																	ROAD MOTOR VEHICLES					RAIL STOCK					ROAD VEHICLES	
			STEAM LOCOMOTIVES					DIESEL AND SPECIAL SYSTEM LOCOMOTIVES AND LIGHT RAIL MOTOR TRACTORS						ELECTRIC LOCOMOTIVES AND LIGHT RAIL MOTOR TRACTORS						DIESEL AND SPECIAL SYSTEM RAILCARS					ELECTRIC RAILCARS					ALL TYPES OF TRACTION					Number of Kms taken for an hours shunting	Buses/Motor Coaches	Lorries	Tractors	Total	Including those operated and managed	Carriages	Wagons			Vans	Bus Trailers	Lorry and Tractor trailers
			Assisting required (at front or rear)	Light or Assisting not required	Shunting	Total KMs Run by The Rolling Stock		Assisting required (at front or rear)	Light or Assisting not required	Shunting	Total KMs Run by the Rolling Stock			Assisting required (at front or rear)	Light or Assisting not required	Shunting	Total KMs Run by the Rolling Stock			Assisting required or to increase	Light or Assisting not required	Shunting	Total KMs Run by The Rolling Stock		Assisting required or to increase	Light or Assisting not required	Shunting	Total KMs Run by The Rolling Stock		Assisting required or to increase	Light or Assisting not required	Shunting	Total KMs Run by The Rolling Stock									Loaded	Empty	Total			
						of Railways over network under consideration	of Railway over the network under consideration and				of Railways over the network under	of the Railway over the network under consideration and over other networks					of Railways over the network under consideration	of the Railway over the network under consideration and over other networks					of Railways over network under consideration	of Railway over the network under consideration and over other networks				of Railways over network under consideration	of Railway over the network under consideration and over other networks				of Railways over network under consideration	of Railway over the network under consideration and over other networks													
YEAR	Railway	rail gauge										light rail motor tractors included	light rail motor tractors excluded					light rail motor tractors included	light rail motor tractors excluded																												
1975		E	174	70	521	1327	.	59	99	174	1757	.	.					.	.				3007	.						233	169	695	6091								6625	.	.	18794	.		
1975		TOTAL																																	10	2533	29709	9739	41981	41989						2533	39448
1975	MAV	N	168	2288	7339	32181	32181	533	4610	13337	58153	.	.	26	2758	1861	39083	39083	39083	2493	528	14	14271	14271						3220	10184	22551	143688	143688							532105	1249193	641053	1890246	.		
1975		E						68	21	118	2252	.	.																	68	21	118	2252	2252							8203	1772	1348	3120	.		
1975		total										.	.	.	.	.	.	.	.	.	.	.	.	.											7												
1975	NS	N						3544	970	2349	12143	12143	12039		800		20102	20102	20102		1801		17586	17586		31121		97258	97258	3544	34692	2349	147089	147089	5						356615	180982	100483	281465	.		
1975	NSB	N						491	202	2872	8530	8535	6819	1291	294	654	18188	17469	17469	186			3220	3220	1628			11709	11724	3596	496	3526	41647	40948	10	17751	7607		25358	25358	102974	160100	81366	241466	15999	.	.
1975	OBB	N	45	180	118	1320	1311	189	2868	5524	20708	20799	20799	2375	7644	3062	70625	70722	256	368	17	9218	8749		2567	61	55	12396	12869	5432	11121	8776	114267	114450							293692	620385	390108	1010493	45150		
1975		E	0	2	21	295	295	8	28	129	1270	1270	1167	1	14	39	630	630	630				18	18						9	44	189	2213	2213							5459	2236	1307	3543	1528		
1975		TOTAL																																	5	33509	2160		35669	33656							1553
1975	PKP	N	1211	15075	37424	169407	169699	1168	14359	40458	154219	154584	153025	924	11745	4758	146980	147033	147033	6335		560	27409	27417	71036		2282	120093	120093	80674	41179	85482	618108	618826							.	5814396	2191145	8005541	.		
1975		E		23	678	4330	4330	0	44	644	3559	3559	.								1	4	1640	1640						0	68	1326	9529	9529							.	22208	14489	36697	.		
1975		Total																																	5												
1975	RENFE	L	47	149	74	1061	1061	1976	5483	12732	61249	61249	60609	977	4589	501	41820	41820	41820	11092	991		37961	38244	7649	695	5	33814	33814	21741	11907	13312	175905	176188								667620	353770	1021390	.		
1975		E																										66	66				66	66													
1975		TOTAL																																	6	.			.	.	428750						
1975	SJ	N						257	592	6202	12566	12657	9876	11346	2083	8084	92815	93327	93327	210	3604		13873	13874	6957	508		19541	18703	18770	6787	14286	138795	138497							281800	821140	369960	1191100	70200		
1975		E						4	5	64	97	107	46							4	29		537	537						8	34	64	634	644							400	35	25	60	100		
1975		TOTAL																																	.	74019	263		74282	74335							
1975	SNCB	N	3	19		1116		911	7610	5519	49452	49504	49504	1787	3789	127	25693	27216	27216	423	483		6249	6257	27273	2395	9	56443	56033	30397	14296	5655	137953	139010	5	68998			68998		.	.	.	.	.		
1975	SNCF	N						12445	26395	30088	168328	68112	149832	11013	34618	4502	313666	313733	313733	16998	1039	283	97586	98598	25710	572	145	64291	63808	66166	62624	35018	643871	644251		.	.	.	.		1873730	3263000	1600000	4863000	233850	.	.
1975		E																							305	1	5	788	769	305	1	5	788	769													
1975		TOTAL																																	6												
1975	VR	L	7	4	116	197	197	4409	612	7474	39296	39296	37127	41	35	29	2119	2119	2119	10945	19	14	22465	22465	1467	1	67	5724	5724	16869	671	7700	69801	69801	10		3281		3281	3281	119943	356295	204464	560759	13850		850
1975	TCDD	N	2769	513	4358	25610	25610	1207	306	2010	17736	17736	17736	2	4	0	1437	1437	1437		136		4175	4175		1069	0	3212	3212	3978	2038	6368	52170	52170	8						128856	360934	215959	576893	.		
1976	BDZ	N																																							179260	.	.	1315984			
1976		E																																					.		4772	.	.	11306			
1976		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.												.		
1976	BR	N						10305	16913	.	205162	.	.	3392	3492	.	50446	.	.	.	.		98820	.				124614	124614	13697	20405		.	479992	.	.	.	.	.	.	.	1153068	.	.	.		
1976	CFF	N				0		0	178	2601	2929	3040	1958	1907	6832	5945	86748	87025	84639	4	0		87		1752	270	81	20955	22267	3663	7280	8627	110719	112332							438295	419116	172595	591711	87027		
1976		E							0	11	11	5		4	16	48	164	164	101						47	25	123	1154	1068	51	41	82	1329	1237							4858	659	268	927	2189		
1976		total																																	6	.	.	.	.	.						.	.
1976	CFL	N						57	341	502	2202	2449	2449	38	332		1618	1101	1101	19	122		1095	1068	123	61		1030	749	237	856	502	5945	5367	6	3829	612		4441	4441	7905	24899	16218	41117	420		
1976	CFR	L																																													
1976		N																																													
1976		E																																													
1976		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	N	2	4	114	127	127	317	182	1297	10453	10453	10453							848	7		3880	3880						1167	193	1411	14460	14460							37976	51711	35411	87122	7321		
1976		E			19	73	73	90	6	304	2842	2842	2842								4		3409	3409						90	10	323	6324	6324							15900	8498	5592	14090	2810		
1976		TOTAL																																	6	22628			22628	.							
1976	CIE	L						542	512	368	11960	12349	12349																	542	512	368	11960	12349	.	106542	12866	8088	127496	127496	.	58279	22951	81230	.		7240
1976	CP	L	2	10	61	239	239	63	426	1672	14965	14965	13412	25	219	2	5157	5157	5157	1597	23	0	5762	5732	4015	5	0	8627	8627	5702	683	1735	34720	34720							.	.	.	.	.		
1976		E	9	19	62	1224	1224	4	12	4	777	777	777							1	6	0	1688	1688																	.	.	.	.	.		
1976		TOTAL																																	5	1404			1404	1404							
1976	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.							.	.	.	.	.	.	.
1976	DB	N.E.	89	854	118	3362	3408	3225	25263	50847	210565	212657	193150	1799	26877	1545	376316	376225	376205	17851	2506	1488	69711	69497	87011	347	16	135515	135078	109975	55847	54014	795469	796865	5|6	305179	25877		331056	190002	2031105	3846585	2150586	5997171	285269	.	.
1976	DR	N	464	6596	2682	43785	43787	3872	22124	47987	246353	246623	242500	844	4715	440	45817	45796	45796	1605	294	138	12299	12707	48042	69	0	73371	73371	54827	33435	51247	421625	422284							1046617	2483754	1300578	3784332	84871		
1976		E	7	22	419	1863	1863			36	37	37	8																												5921	859	518	1377	1431		
1976		TOTAL																																	5|7												
1976	DSB	N	.	.	.	.	.	483	606	5968	35299	35384	.							2144		285	10490	10290		15967			24127	24127	19200		6253	69916	69801	10	32882	7437		40319	177670	146841	52730	199571	7848		.
1976	FS	N	38	324	1348	2323	2181	910	1677	15896	43711	42882	42594	4051	6818	4144	188849	188405	188405	38233	635		94553	94238	18393	415	43	53141	52889	61625	9869	21431	382577	380307							1376006	1351704	647755	1999459	141973		
1976		E	2	4	3	45	45														1		452	452						2	5	3	497	497							262	103	70	173	32		
1976		TOTAL																																	6	9122	35		9157								.
1976	JZ	N	181	831	4571	14752	14752	525	3415	15045	54639	54639	54639	371	3166	345	44354	44354	44354	3364	82		37104	37104	70	28		4496	4496	4511	7522	19961	155345	155345							408379	913579	445524	1359103	.		
1976		E	19	30	177	571	571	14	66	197	1287	1287	1287																	93	96	374	3571	3571							5547	4780	2328	7108	.		
1976		TOTAL																																	10	3563	32947	11939	48449	48499						3563	44886
1976	MAV	N	134	1906	5499	25622	25622	405	4866	14686	59947	.	.	69	2851	235	39705	39705	39705	2369	480	13	14456	14456						2977	10103	20433	139730	139730							532858	1213753	613055	1826808	.		
1976		E						72	13	104	2008	.	.																	72	13	104	2008	2008							7592	1518	1165	2683	.		
1976		total																																	7												
1976	NS	N						2952	864	2244	11077	11077	11019		775		20042	20042	20042		1736		17544	17544		30419		97934	97934	2952	33794	2244	146597	146597	5						362506	179505	106331	285836	.		
1976	NSB	N						664	169	2958	8820	8820	7025	1466	302	619	18756	17498	17498	186			3014	3014	1921			12673	12673	4237	471	3577	43263	42005	10	18034	7326		25360	25360	104373	159292	80342	239634	14354	.	.
1976	OBB	N	16	67	46	387	383	180	2972	5739	21721	21819	21819	2462	8237	3063	74751	74634	74634	277	298	26	8714	8229	2822	55	60	13124	13763	5757	11629	8934	118697	118828							298052	674392	421508	1095899	44907		
1976		E	1	2	22	290	290	5	31	133	1282	1282	1173	0	13	45	633	633	633	0		0	17	17						6	46	200	2222	2222							5421	2463	1526	3989	1521		
1976		TOTAL																																	5	33827	2448		36275	33787							1859
1976	PKP	N	996	13767	34433	152229	152515	1278	15115	44794	169298	169788	169788	352	12115	5223	153471	153511	153511	5437		547	24833	24826	74377		2764	126233	126233	82440	40997	87761	626065	626873													
1976		E		20	562	3922	3922	0	49	633	3703	3703	.								1	6	1600	1600						0	70	1201	9225	9255							.	5647233	2248526	7895759	.		
1976		Total																																	5						.	20010	12956	32966	.		
1976	RENFE	L		1	16	22	22	2312	5550	12878	61015	61015	60429	992	4832	442	45421	45421	45421	9483	1112		33789	34018	7165	770	2	37850	37850	19952	12265	13338	178097	178326		.						676160	346254	1022414	.		
1976		E																										56	56				56	56													
1976		TOTAL																																	6|9	.			.	.	436246						
1976	SJ	N						256	506	6094	12357	12462	9822	10624	2012	7730	92335	92954	92954	212	3551		13596	13597	6975	516		19589	18942	18067	6585	13824	137877	137929							269024	844540	386310	1230850	45110		
1976		E						4	3	63	94	104	48							1	24		518	518						5	27	63	612	622							547	47	28	75	27		
1976		TOTAL																																	.	73395	239		73634	73634						.	.
1976	SNCB	N	0	0		0		963	7527	5374	49608	49551	49551	1789	3741	140	25134	26645	26645	409	455		6296	6299	25425	2593	68	55725	55469	28586	14316	5582	136763	137964	5	69901			69901		.	.	.	.	.		
1976	SNCF	N						13862	26511	29939	167741	167469	148985	11312	34266	4374	321760	321713	321713	17426	1117	293	97872	98838	26516	493	224	68337	67796	69116	62387	34830	655710	655816		.	.	.	.		1908750	3545000	1739000	5284000	208740	.	.
1976		E																							275	0	1	745	730	275	0	1	745	730													
1976		TOTAL																																	6												
1976	VR	L						4669	490	7188	37257	37257	35313	177	44	44	3606	3606	3606	10631	15	29	21546	21546	1828	5	71	6274	6274	17305	554	7332	68683	68683	10		3011		3011	3011	119029	340501	212530	553031	13177		1150
1976	TCDD	N	2582	571	4081	22259	22259	1532	484	2169	21504	21504	21504	2	17	0	1521	1521	1521		189		4142	4142		1047		3092	3092	4116	2308	6250	52518	52518	8						129694	372877	228515	601392	.		

A.1.1.11. Passenger Traffic

			RAIL TRAFFIC													ROAD TRAFFIC		SHIPPING SERVICES		ALL TRAFFIC
			PASSENGER									BAGGAGE								
			NUMBER OF PASSENGER CARRIED			NUMBER OF PASSENGER-KMS					Average	Number of Tonnes		Number of Tonne-Kms (1000)		Number of Passenger carried	Number of passenger-kms(1000)	Number of Passenger carried	Number of passenger-kms(1000)	Number of passenger-kms (1000)
YEAR	Railway	rail gauge	1 CLASS	2 CLASS	TOTAL	1 CLASS (in thousands)	2 CLASS (in thousands)	TOTAL (in thousands)	Per KM of Line worked	Per passenger Train-km	pass.journey	Total	Amount for accompanied motor	Total	Amount for accompan					
1972	BR	N	15095000	738513000	753608000	.	.	29129000	20108000	99	38,7	.	.	.	.			16018000	.	.
1972	CFF	N	16417229	207926167	224343396	1166392	7129741	8296133	2874613	140,4	37	879977	850340	26401	21285	532897	2971	435433	7171	8306275
1972		E																		
1972		total																		
1972	CFL	N	256413	9857307	10113720	.	.	208283	909533	76,7	20,6	11150	10345	649	630	4080709	51989			260272
1972	CH	N	276316	12609731	12886047	73936	1489110	1563046	633068	111,2	121,3	.	.	.	.	2897218	619683	.	.	.
1972		E																		
1972		TOTAL																		
1972	CIE	L	140118	11721852	11861970	8438	835409	843847	461119	119,4	71,1	.	.	.	.	296091004	.	.	.	.
1972	CP	L	9854004	100483675	110337679	325986	2655989	2981975	836244	124	27	7720		671		241012	6595			2988570
1972		E																		
1972		TOTAL																		
1972	DB	N	38011595	940922695	978934290	3680729	35142963	38823692	1538669	95,5	39,7	981703	845656	216708	169072	579351013	8124676	4594692	150321	47098689
1972		E																		
1972		TOTAL																		
1972	DSB	N	1545000	113292000	114837000	157638	3456030	3613668	1623391	95,1	31,5	10000		1774		34257000	546516	.	.	4160184
1972	FS	N	22148014	332631462	354779476	4445535	30948110	35393645	2231911	171,4	99,8	180546	154993	47053	38748	8051733	.	10853350	178520	.
1972		E																		
1972		TOTAL																		
1972	NS	N	9703006	174081208	183784214	676144	7362933	8039077	3242871	89,5	43,7	.	.	.	.					12543173
1972	NSB	N	206000	29209000	29415000	60900	1561200	1622100	391245	73,9	55,1	.		.		18344000	297000			1919100
1972	OBB	N	1054655	176328881	177383536	228901	6340247	6569148	1158171	120,5	37	636254	596925	13912	11303	61790037	640359	3271064	28765	7238272
1972		E																		
1972		TOTAL																		
1972	RENFE	L	.	.	177882000	.	.	14390700	1064165	171,2	80,9	.	.	.	.	17451167	948659			15339359
1972		E																		
1972		TOTAL																		
1972	SJ	N	1431100	55890500	57321600	633243	3788051	4421294	408509	78,4	77,1	8178		2717		.	.	.	.	.
1972		E																		
1972		TOTAL																		
1972	SNCB	N	10633732	186303950	196937682	626331	6883555	7509886	2580717	124,6	38,1	31487	29776	4920	4575	88916168	974282			8484168
1972	SNCF	N	33316000	580381000	613697000	7920600	35086490	43007090	1724422	173,9	70,1	328790	232250	178830	144920	11801000	225610	.	.	.
1972		E																		
1972		TOTAL																		
1972	VR	L	277000	27508000	27785000	85878	2507981	2593859	562903	109,2	93,4	13143	5740	.	.					2593859
1972	BDZ	N	465855	100375020	100840875	133546	6566789	6700335	1579150	.	66,4	11365		1819						6700335
1972		E																		
1972		TOTAL																		
1972	CFR	L	8785869	276437189	285223058	847023	15442967	16289990	1523853	247,9	56,7	.	.	.	.					16289990
1972		N																		
1972		E																		
1972		TOTAL																		
1972	CSD	L	.	.	504850583	.	.	17739450	1344203	134,2	35,1	57678		.						17739450
1972		N																		
1972		E																		
1972		TOTAL																		
1972	DR	N	4161783	636581635	640743418	625717	19303352	19929069	1516326	131,1	31,1	36264	5928	8041	1535			97148	2552	19931621
1972		E																		
1972		TOTAL																		
1972	JZ	N	1991438	139247283	141238721	634197	9944138	10578335	1015488	155,2	74,9	.		.		838000	57545			10635880
1972		E																		
1972		TOTAL																		
1972	MAV	L	10966040	315079792	326045832	578590	11964583	12543173	1520938	199,4	38,5	6899	.	517	.					12543173
1972		N																		
1972		E																		
1972		TOTAL																		
1972	TCDD	N	42359604	70596979	112956583	1731996	3604545	5336541	656078	294,6	47,2	21748		13854						5336541
1973	BR	N	15376000	712894000	728270000	.	.	29773000	2062300	102	40,9	.	.	.	.			15685000	.	.
1973	CFF	n.e.	17556307	206346996	223903303	1260149	7131073	8391222	2907561	141,5	37,5	802528	772923	24948	19811	551189	3070	463799	7985	8402277
1973	CFL	N	261237	10410339	10671576	.	.	216733	946432	78,4	20,3	11638	10651	604	581	4209635	53232			269965
1973	CH	N																		
1973		E																		
1973		TOTAL	258017	12461513	12719530	78497	1492243	1570740	636185	.	123,5	.	.	.	.	2971216	617277	.	.	.
1973	CIE	L	27198	12667957	12695155	1749	873152	874901	478088	100,9	68,9	.	.	.	.	308298597	.	.	.	.
1973	CP	L																		
1973		E																		
1973		TOTAL	11188489	106129968	117318457	393143	2831877	3225020	904380	135,4	27,5	7053		639		244300	7016			3232036
1973	DB	N																		
1973		E																		
1973		TOTAL	37795422	981479940	1019275362	4055310	34889454	38944764	1554992	94,7	38,2	1014787	869104	237648	183610	623084224	8742932	4834977	165144	47852840
1973	DSB	N	1064000	111318000	112382000	136185	3329090	3465275	1591035	88	30,8	9700		1728		34546000	525641	.	.	3990916 excluding 3
1973	FS	N																		
1973		E																		
1973		TOTAL	22883439	338197275	361080714	4626407	31732344	36358751	2295521	172,6	100,7	149335	123928	38620	30362	8217698	.	11453370	192759	.
1973	NS	N	9447729	171815798	181263527	684867	7487614	8172481	3296685	90	45,1	.	.	.	.					8172481
1973	NSB	N	184000	29346000	29530000	62700	1577500	1640200	395610	75,5	55,5	.		.		18273000	304000			1944200
1973	OBB	N																		
1973		E																		
1973		TOTAL	1231104	172009012	173240116	266120	6247173	6513293	1153408	120,4	37,6	659589	625116	13619	11508	66564913	710247	3424921	32076	7255616
1973	RENFE	L																		
1973		E																		
1973		TOTAL	.	.	193327000	.	.	15639950	1165855	185,9	80,9	.	.	.	.	19575050	1161772			16801722
1973	SJ	N																		
1973		E																		
1973		TOTAL	1569700	56482600	58052300	668700	3831200	4499900	417663	80,7	77,5	7148		2126		.	.	3685800	16500	.
1973	SNCB	N	10778132	183122985	193901117	623407	6825356	7448763	2550073	114,2	38,4	35380	33540	5028	4702	85945218	944603			8393366
1973	SNCF	N																		
1973		E																		
1973		TOTAL	33329000	574303000	607632000	8378400	36090206	44468606	1807814	176,6	73,2	330930	239430	193970	160850	12246000	235094	.	.	.
1973	VR	L	314000	29321000	29635000	98100	2675100	2773200	601823	111,8	93,6	12970	7556	.	.					2773200
1973	BDZ	N																		
1973		E																		
1973		TOTAL	520887	102608965	103129852	149256	6921315	7070571	1665231	.	68,6	10820		1645						7070571
1973	CFR	L																		
1973		N																		
1973		E																		
1973		TOTAL	9219766	287702496	296922262	890840	16373548	17264388	1622135	261,2	58,1	.	.	.	.					17264388
1973	CSD	L																		
1973		N																		
1973		E																		
1973		TOTAL	.	.	515948067	.	.	19277957	1461337	144,5	37,4	45168		.						19277957
1973	DR	N																		
1973		E																		
1973		TOTAL	4349877	628891137	633241014	713124	20135523	20848647	1601402	133,9	32,9	41275	9042	10096	3056			94599	2199	20850846
1973	JZ	N																		
1973		E																		
1973		TOTAL	2802000	133796000	1365980000	930229	9647925	10578154	1017326	151,9	77,4	.		.		1014097	58407			10636561
1973	MAV	L																		
1973		N																		
1973		E																		
1973		TOTAL	10911715	312110810	323022525	594321	12016534	12610855	1543367	198,7	39	7465	.	706	.					12610855
1973	TCDD	N	50609898	66890528	117500426	1892232	3323042	5215274	641091	278,8	44,4	22827		14603						5215274
1974	BR	N	15132000	717654000	732786000	.	.	30899000	2149645	103,5	42,2	.	.	.	.			16081000	.	.
1974	CFF	N.E.	17270751	202299742	219570493	1239494	7039494	8278818	2868613	139,1	37,7	763720	736872	23178	18516	527432	2966	474656	7518	8289302
1974	CFL	N	276072	10581969	10858068	.	.	231340	1010218	83,2	21,3	10544	9962	611	597	4302878	57548			288888
1974	CH	N.E.	.	.	12468454	.	.	1594173	645676	116,6	127,9	.	.	.	.	3101249	629209	84886	255	2223637
1974	CIE	L	19356	11356821	11376177	1173	689175	690348	377239	113,1	60,7	.	.	.	.	178766035	.	.	.	.
1974	CP	L.E	12876606	113878843	126755449	482787	3135270	3618057	1014598	150,1	28,5	6741		638		254970	8168			3626185
1974	DB	N.E.	36696586	1013803911	1050500497	3856004	35878177	39734181	1605876	95,9	37,8	973566	847719	228699	177303	603399483	8460640	5285808	186026	48380847
1974	DSB	N	792000	108129000	108921000	110926	3196110	3307036	1512825	95,1	30,4	9400		1690		34195000	501559	.	.	3808595
1974	FS	N.E.	24082637	362582281	386664918	4951285	33288848	37880133	2390366	177,9	98	114118	91087	35387	27362	9034547	.	11357728	193885	.
1974	NS	N	9568184	173387608	182955792	738845	7850029	8588874	3464653	93,6	46,9	.	.	.	.					8588874
1974	NSB	N	177000	32464000	32641000	62500	1821400	1883900	454280	86,5	57,7	.		.		17632000	312000			2195900
1974	OBB	n.e.	1222449	172252653	173475102	266931	6308173	6575104	1164560	120,9	37,9	644581	608798	13641	11394	73065025	758534	3080224	42132	7375770
1974	RENFE	L.E	.	.	198747000	.	.	16078627	1197039	194,5	80,9	.	.	.	.	20852900	1347494			17426121
1974	SJ	n.e.	1749800	64819100	66568900	728500	4575900	5304400	492333	93,8	79,7	7145		2212		.	.	3866900	19100	.
1974	SNCB	N	10895421	183716798	194612219	632143	7009039	7641182	2615052	120,1	39,3	38285	36580	5097	4868	83854232	931385			8572567
1974	SNCF	n.e.	34548000	594736000	629284000	8728800	38325490	47054290	1927428	179,8	74,8	319790	234100	198946	167562	13014000	252610	.	.	.
1974	VR	L	348000	32445000	32793000	99700	2947200	3046900	661220	118,3	92,9	15830	9892	.	.					3046900
1974	BDZ	n.e.	551151	104197463	104748614	149941	7302803	7452744	1740482	.	71,1	11448		1892						7452744
1974	CFR	L.N.E	10935405	297549206	308484611	966488	17295469	18261957	1706087	270,6	59,2	.	.	.	.					18261957
1974	CSD	L.N:E	.	.	492106147	.	.	18195922	1384773	.	37	84490		.						18195922
1974	DR	N.E.	3869751	617662832	621532583	607312	20183383	20790695	1601625	131,9	33,5	33966	8135	7844	2750			81575	1051	20791746
1974	JZ	N.E.	2933000	131993000	134926000	1029772	9399439	10429211	1010680	144,9	77,3	.	.	.	.	945326	56634			10485845
1974	MAV	L.N.E	11437510	302942260	314379770	654968	11973769	12628737	1574655	199,7	40,2	7509	.	737	.					12628737

A.1.1.11. Passenger Traffic

YEAR	Railway	rail gauge	RAIL TRAFFIC – PASSENGER – NUMBER OF PASSENGER CARRIED – 1 CLASS	2 CLASS	TOTAL	NUMBER OF PASSENGER-KMS – 1 CLASS (in thousands)	2 CLASS (in thousands)	TOTAL (in thousands)	Per KM of Line worked	Per passenger Train-km	Average pass.journey	BAGGAGE – Number of Tonnes – Total	Amount for accompanied motor	Number of Tonne-Kms (1000) – Total	Amount for accompan	ROAD TRAFFIC – Number of Passenger carried	Number of passenger-kms(1000)	SHIPPING SERVICES – Number of Passenger carried	Number of passenger-kms(1000)	ALL TRAFFIC – Number of passenger-kms (1000)
1974	PKP	n.e.	9679041	1101259725	1110938766	2016855	39652602	41669457	.	228,9	37,5	30553		4798						41669457
1974	TCDD	N	54235407	74188642	128424049	2074469	3678837	5753306	706708	314,4	44,8	24731		14730						5753306
1975	BDZ	N.E.	557201	103368684	103925885	159558	7409104	7568662	1764257		72,8	10750		1937						7568662
1975	BR	N	13280000	701415000	714695000	.	.	30256000	2100819	87,7	42,3	.	.	.	.			16914000	.	.
1975	CFF	N.E.	16538249	194025206	210563455	1178353	6794874	7973227	2758902	130,8	37,9	812538	788602	23102	18939	590704	3559	490307	7414	7984200
1975	CFL	N	281001	10808131	11089132	.	.	234443	1023769	82,9	21,1	16280	15648	964	950	4405756	58244			292687
1975	CFR	L.N.E.	10580122	291504199	302084321	956547	17350646	18307193	1733800	273,2	60,6	.	.	.	.					18307193
1975	CH	N.E.	195327	12270460	12465787	60688	1492018	1552706	627103	113,3	124,6	.	.	.	.	3266435	660406	.	.	.
1975	CIE	L	25233	13865912	13891145	1618	897003	898621	503429	126,1	64,7	.	.	.	.	306981267	.	.	.	.
1975	CP	L.E	11618000	116772000	128390000	533064	3315174	3848238	1079147	157,9	29,9	6205		565		257474	8330			3856568
1975	CSD	L.N.E.	.	.	486436880	.	.	18472848	1408743	.	38	69314		.						18472848
1975	DB	N.E.	33775358	974622233	1008397591	3401297	33495661	36896958	1516334	92,5	36,6	2274347	2163245	234188	188410	589182831	7751039	6470391	225474	44873471
1975	DR	N.E.	4874422	629132015	634006437	711919	20591409	21303328	1646443	130,4	33,6	34857	12216	8536	4129			51738	2119	21305447
1975	DSB	N	651000	105715000	106366000	96273	3237167	3333440	1524904	92	31,3	8500		1527		26196000	416378	.	.	3749818
1975	FS	N.E.	22638796	347475951	370114747	4185612	32146276	36331888	2349753	170,9	98,2	110263	88833	38914	31092	8702662	.	10803641	193036	.
1975	JZ	N.E.	2571000	126508000	129079000	861130	9423823	10284953	1021549	136,7	79,7	.	.	.	.	1259000	62000			10346953
1975	MAV	N.E.	11725612	292876897	304602509	721332	11767971	12489303	1584133	198,6	41	6708	.	680	.					12489303
1975	NS	N	9286152	167018926	176305078	739912	7761191	8501103	3433402	91,9	48,2	.	.	.	.					8501103
1975	NSB	N	208000	33276000	33484000	72200	1876000	1948200	469785	87,2	58,2	.		.		15460000	290000			2238200
1975	OBB	N.E.	1178905	168145907	169324812	256483	6213531	6470014	1145744	116,5	38,2	597275	562253	13417	11505	78222457	820728	3362236	45374	7336116
1975	PKP	N.E.	9864134	1108094397	1117958531	2092847	40725779	42818626	.	228,9	38,3	33014		4725						42818626
1975	RENFE	L.E	.	.	199582000	.	.	16146200	1196281	192,8	80,9	.	.	.	.	21755411	1423395			17569595
1975	SJ	N.E.	1829700	62956000	64785700	825000	4822200	5647200	524151	98,9	87,2	6652		2169		.	.	4005300	20897	.
1975	SNCB	N	10452024	179401982	189854006	643201	7006556	7649757	2617091	118,5	40,3	37641	35646	4990	4708	80347463	891386			8541143
1975	SNCF	N.E.	34985000	611729000	646714000	8908900	41537806	50446706	2065456	188	78	317900	235200	195996	165215	11212000	249194	.	.	.
1975	VR	L		332000	35546000	95664	3039500	3135164	679489	117,8	88,2	18151	12846	.	.					3135164
1975	TCDD	N	30087889	79622430	109710319	1308946	3426778	4735724	581784	257,7	43,2	15475		7936						4735724
1976	BDZ	N.E.	.	.	101905788	.	.	7498894	1740690	.	73,6	9887		1691						7498894
1976	BR	N	12059000	696415000	708474000	.	.	28607600	1985260	83,5	40,4	.	.	.	.			16450000	.	.
1976	CFF	N.E.	16827394	191521234	208348628	1207711	6897095	8104806	2801523	128,3	38,9	737717	712765	20148	15787	591565	3558	547094	7081	8115445
1976	CFL	N	289710	11057100	11346810	.	.	240142	1048655	81,9	21,2	14906	14626	918	911	4502776	58868			299010
1976	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	N.E.	193689	12703759	12897448	59067	1523614	1582681	643105	119	122,7	.	.	.	.	3144115	629780	.	.	.
1976	CIE	L	18811	13588913	13607724	1103	786523	787626	446753	122,8	57,9	.	.	.	.	301718721	.	.	.	.
1976	CP	L.E	8432000	121427000	129859000	479893	3599329	4079222	1143921	175,3	31,4	4497		427		286342	9838			4089060
1976	CSD	L.N.E.	.	.	461695861	.	.	17908201	1368605		38,8	59583		.						17908201
1976	DB	N.E.	32343313	932595583	964938896	3296142	33915423	37211565	1556709	97	38,6	2694206	2601773	220687	182895	532296653	7313282	5848320	211391	44736238
1976	DR	N.E.	4922403	625032329	629954732	762776	21192283	21955059	1698913	136,2	34,9	31118	7711	6104	1511			42388	1843	21956902
1976	DSB	N	606000	84059000	84665000	80257	2772541	2852798	1309224	76,9	33,7	7200		1312		24263000	339600	.	.	3639264
1976	FS	N.E.	25086641	364982914	390069555	4624585	34492923	39117508	2519159	137,5	30,6									141774
1976	JZ	N.E.	2664000	123828000	126492000	954000	8987000	9941000	997391	128,5	78,6	420000	.	33012	.	2199000	94388			10035388
1976	MAV	N.E.	11436224	283013845	294450069	709596	11502101	12211697	1560800	194,1	41,5	5331	.	622	.					12211697
1976	NS	N	8994551	162578455	171573006	695288	7523131	8218419	3315215	87,5	47,9	.	.	.	.					8218419
1976	NSB	N	212000	32474000	32686000	74700	1922400	1997100	481577	86,8	61,1	.		.		15410000	277000			2274100
1976	OBB	N.E.	1222778	166948776	168171554	266951	6232628	6499579	1150979	114	38,6	398103	365446	10358	8145	77888301	910165	8152547	230532	7640276
1976	PKP	N.E.	9204382	1100555905	1109760287	2012785	40786477	42799262	.	226,3	38,6	31606		4280						42799262
1976	RENFE	L.E	.	.	206283000	.	.	16686000	1235177	193,5	80,9	.	.	.	.	.	.	.	.	.
1976	SJ	N.E.	1647300	61386800	63034100	632100	4744800	5376900	499063	92,2	85,3	6274		2055		.	.	4850100	26880	.
1976	SNCB	N	1,06E+08	176597399	187244903	649520	6924981	7574501	2588688	115,7	40,5	30509	28591	4238	3913	79337893	889330			8463831
1976	SNCF	N.E.	33381000	609232000	642613000	8547000	42286288	50833588	2085309	183,9	79,1	303600	236400	181100	155730	12462000	244012	.	.	.
1976	VR	L	310000	36680000	36990000	88300	2897000	2985300	646589	113,8	80,7	16289	10824	.	.					2985300
1976	TCDD	N	2689533	105103734	107793267	644399	3970946	4615345	567135	253,5	42,8	24031		11244						4615345

A1.1.12. Goods Traffic

YEAR	Railway	railgauge	RAIL TRAFFIC – TONNES CARRIED – PUBLIC TRAFFIC – According to rate charged: Express parcels	Small traffic	Full Traffic	TOTAL	According to point of origin: Goods loaded at stations on the system	Goods entered as from other railway systems in the country	Goods entered as from foreign railway system	Goods in international transit between two land frontier points	TOTAL	DEPARTMENTAL TRAFFIC	GRAND TOTAL	TONNE-KILOMETRES – PUBLIC TRAFFIC (in Thousands) – According to rate charged: Express parcels	Smalls traffic	Full wagons	TOTAL	According to point of origin: Goods loaded at stations on the system	Goods entered as loaded or resulting from other rail system in the country	from foreign railway system	Goods in international transit between two load frontier points	TOTAL	Departemental Traffic	Grand Total	Per Kilometre worked: Public Traffic	Per Kilometre worked: Total Traffic	Per Goods Wagon-KM	Per Goods Train and "others" KM	Average Length of Haul of One Tonne (in KM): Public Traffic	Total Traffic	ROAD TRAFFIC – Tonnes Carried: Small consignments	Full vehicle loads	Tonne-Kilometres (in 1000): Small consignments	Full vehicle loads	SHIPPING SERVICES: tonnes carried	Tonne-kilometres (in 1000)	ALL TRAFFIC: Number of Tonne-KM (in 1000)
1972	BR	N	.	.	171652000	171652000	.	.	.	.	171652000	.	.	.	.	21030000	21030000	.	.	.	.	21030000	.	.	1127400	.	.	.	122,5	.					.	.	.
1972	CFF [illegible]	N	152217	2171705	43755146	46079068	23037068	1630000	10270000	11142000	46079068	10012	46089080	12634	249116	6436818	6698568	2397553	179300	1148230	2973485	6698568	901	6699469	2299543	2299852	8,1	210,3	145,4	145,4	80		0		326121	3	
1972		E																																			
1972		total																																			
1972	CFL	N	5079	27108	21915488	21947675	10519465		8518641	2909569	21947675	.	.	177	1085	779751	781013	290154		347602	143257	781013	.	.	2881967	.	.	.	35,6	.	10659	80487	298	1637			.
1972	CH	N	1172	47390	3033454	3082016	2342637		472535	266844	3082016	.	.	451	15939	739259	755649	586848		146398	22403	755649	.	.	297266	.	.	.	245,2	.					.	.	.
1972		E																																			
1972		TOTAL																																			
1972	CIE	L	.	.	.	3691484	.	.	.	.	3691484	16078	3707562	.	.	.	564472	.	.	.	.	564472	3048	567520	257868	259260	4,9	129,6	152,9	153,1	3846841		.	.	.	.	.
1972	CP	L		689338	3713783	4403121	4260989	2941	139191		4403121	617136	5020257		94457	702687	797144	.	.	.		797144	55368	852512	223540	239067	8	121,7	181	169,8							852512
1972		E																																			
1972		TOTAL																																			
1972	DB	N	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5946604	326200757	13141249	339342006	204116	1311295	62320844	63836255	50299687	3577502	6354025	3605041	63836255	2047573	65883828	2214077	2285094	9,8	308,3	1								
1972		E																																			
1972		TOTAL																																			
1972	DSB	N	458000		7372000	7830000	3815000	391000	1960000	1664000	7830000	381000	8211000	119132		1759720	1878852	949627	94462	388784	445979	1878852	81828	1960680	908975	948563	8,1	229,1	240	238,8	.	.	.	.	.	.	1960680
1972	FS	N	312996	284874	53510275	54108145	35457996	192195	18246935	211019	54108145	4824145	58932290	138970	125156	16856071	17120197	12343311	90112	4570977	115797	17120197	723623	17843820	1064490	1109483	8	234,2	316,4	302,8	3211		105		.		
1972		E																																			
1972		TOTAL																																			
1972	NS	N	23095	1140812	20669271	21833178	15355564		6029223	448391	21833178	744024	22577202	.	.	3071161	3071161	2094192		931842	45127	3071161	95248	3166409	.	.	.	.	148,6	.							3166409
1972	NSB	N	27489	469585	28079204	28576278	6749686	145643	21680949		28576278	790494	29366772	8412	127749	2422478	2558639	1472533	16314	1069792		2558639	95393	2654032	603453	625951	11,5	264,5	89,5	90,4	308000		15870				2669902
1972	OBB	N	[illegible]	[illegible]	49039617	49527882	28526042	1724315	10756163	8521362	49527882	1724982	51252864	32724	62034	9774652	9869410	5401364	313025	1766829	2388192	9869410	211529	10080939	1677330	1713280	9,6	293,7	199,3	196,7	202383	.					
1972		E																																			
1972		TOTAL																																			
1972	RENFE	L	468400		31581300	32049700	.	.	.	.	32049700	2495100	34544800	232500		9528900	9761400	.	.	.	.	9761400	459500	10220900	722852	756879	10,1	229,6	304,6	295,9							10220900
1972		E																																			
1972		TOTAL																																			
1972	SJ	N	15155	954681	57749080	58718916	54273552	1953749	2091897	399718	58718916	341400	59060316	5984	377355	14555787	14939126	.	.	.	.	14939126	48479	14987605	1314370	1318635	12	344	254,4	253,8	.	.	.	.	4995552	154156	.
1972		E																																			
1972		TOTAL																																			
1972	SNCB	N	42180	532870	69332917	69907967	50284332	114	14179891	5443630	69907967	1811221	71719188	3657	52487	7489707	7545851	4448106	10	2324909	772826	7545851	129255	7675106	1835527	1866968	.	300	107,9	107							7675106
1972	SNCF	N	285000	1706000	243402000	245393000	221013000		19697000	4683000	245393000	9342000	254735000	919000		67185000	68104000	60031000		5215000	2858000	68104000	1884000	69988000	1958193	2012364	13,1	315,5	277,5	274,7		987000		50700			
1972		E																																			
1972		TOTAL																																			
1972	VR	L	81200	645200	23015600	23742000	20408050	373700	2942000	18250	23742000	1884400	25626400	28000	214300	6260300	6502600	5784010	31970	676700	9920	6502600	196300	6698900	1098412	1131571	10,8	333	273,9	261,4	256203		8399				6707299
1972	BDZ	N	31198	533322	71451083	72015603	68991772		2436312	588119	72015603	961250	72976853	7202	151060	15555643	15713905	14883302		570799	259804	15713905	117864	15831769	3703489	3731268	13	.	218,2	216,9							15831769
1972		E																																			
1972		TOTAL																																			
1972	CFR	L		1650371	189162720	190813091	169626058		17382972	3804061	190813091	2927039	193740130		409593	46952941	47362534	39216978		6257478	1888078	47362534	630980	47993514	4309995	4367414	.	603,7	148,2	247,7							47993514
1972		N																																			
1972		E																																			
1972		TOTAL																																			
1972	CSD	L	.	.	.	257146467	217317533		24538028	15290906	257146467	1487224	258633691	.	.	.	59730734	48716894		4490266	6523574	59730734	118823	59849557	4491708	4500643	16,4	518,2	232,3	231,4							59849557
1972		N																																			
1972		E																																			
1972		TOTAL																																			
1972	DR	N	122000	2082160	263461830	265665990	228772876	.	29107994	7785120	265665990	2124327	267790317	18541	386040	43750101	44154682	35553399	.	5452634	3148649	44154682	573529	44728211	3129318	3169965	12,5	389,6	166,2	167					144744	5869	44734080
1972		E																																			
1972		TOTAL																																			
1972	JZ	N	126438	866841	71346189	72339468	61169799		6912483	4257186	72339468		72339468	50440	311653	18817387	19179480	15160010		1904292	2115178	19179480		19179480	1841171	1841171	12,4	377,1	265,1	265,1	535993	3482084	15092	145554			19340126
1972		E																																			
1972		TOTAL																																			
1972	MAV	L	61797	246183	113024164	113332144	80553798		18372927	14405419	113332144	4624422	117956566	8076	69765	19356743	19434584	11184835		3802393	4447356	19434584	624033	20058617	2341234	2416410	11,9	476,8	171,5	170,1							20058617
1972		N																																			
1972		E																																			
1972		TOTAL																																			
1972	TCDD	N	143750		15759961	15903711	15246963		138985	517763	15903711	1109135	17012846	84373		6641147	6725520	5877377		43609	804534	6725520	478550	7204070	826840	885674	13	334,7	422,9	423,4							7204070
1973	BR	N	1930000	7520000	189510000	198960000	.	.	.	.	198960000	.	.	.	.	22960000	22960000	.	.	.	.	22960000	.	.	1314300	.	.	.	121,2	.					.	.	.
1973	CFF	N																																			
1973		E																																			
1973	[illegible]	total	135175	2043643	45449704	47628522	24893522	1698000	9688000	11349000	47628522	15478	47644000	11220	234596	6890085	7135901	2744984	188478	1088931	3113508	7135901	1530	7137431	2449674	2450199	8,5	223,4	149,8	149,8	75		0		230891		
1973	CFL	N	5348	26986	22489467	22521801	10255836		9621304	2644661	22521801	.	.	180	869	782961	784010	291834		357220	134956	784010	.	.	2893026	.	.	.	34,8	.	12062	85265	337	1724			.
1973	CH	N																																			
1973		E																																			
1973		TOTAL	1095	51612	3238374	3291081	2536034		567232	187815	3291081	.	.	491	17764	779647	797902	613533		166245	18124	797902	.	.	313887	.	.	.	242,4	.					.	.	.
1973	CIE	L	.	.	.	3731154	.	.	.	.	3731154	10870	3742024	.	.	.	568190	.	.	.	.	568190	1607	569797	259566	260300	5,4	135,7	152,3	152,3	4150612		.	.	.	.	.
1973	CP	L																																			
1973		E																																			
1973		TOTAL		830187	3887126	4717313	4538618	3686	175009		4717313	378861	5096174		106231	712655	818886	.	.	.		818886	40079	858965	229637	240876	8,4	122,2	173,6	168,6							858965
1973	DB	N																																			
1973		E																																			
1973		TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14453580	356110967	210969	1302172	64843022	66356163	52887153	3751085	6405215	3312710	66356165	2161746	68517909	2317472	2392970	9,9	317,									
1973	DSB	N	459000		7615000	8074000	4031000	385000	2063000	1594000	8073000	398000	8471000	120569		1882767	2003336	1046149	93624	432866	430697	2003336	85586	2088922	993718	1036172	8,5	237,1	248,2	246,6	.	.	.	.	.	.	2088922
1973	FS	N																																			
1973		E																																			
1973		TOTAL 55	287769	. 276691	. 54224864	54789324	34874870	277527	19371291	265636	54789324	4338726	59128050	127770	121627	17324737	17574134	12406010	135550	4885710	146864	17574134	650809	18224943	1094007	1134521	8,5	239,3	320,8	308,2	177						
1973	NS	N	20376	48576	23552079	23621031	16377212		6456974	786845	23621031	625561	24246592	.	.	3463251	3463251	2425648		984512	53091	3463251	80565	3543816	.	.	.	.	147	.							3543816
1973	NSB	N	31301	27546	30869934	30928241	7035456	154541	23738244		30928241	747104	31675345	9578	7923	2729901	2747402	1569866	17493	1160043		2747402	95927	2843329	647972	670596	12,3	294,7	88,8	89,8	354000		27992				2871321
1973	OBB	N																																			
1973		E																																			
1973		TOTAL	.145622	338489	[illegible]	51516512	29426263	1762818	11530239	8797192	51516512	1717007	53233519	33045	62960	10251699	10347704	5549808	336817	1909670	2551409	10347704	218044	10565748	1767026	1804260	9,8	300,3	200,9	198,5	211						
1973	RENFE	L																																			
1973		E																																			
1973		TOTAL	80011	388987	35207487	35676485	.	.	.	.	35676485	1944570	37621055	34400	199218	11019532	11253150	.	.	.	.	11253150	307806	11560956	840038	863016	10,1	238,5	315,4	307,3							11560956
1973	SJ	N																																			
1973		E																																			
1973		TOTAL	15488	1027683	63856419	64899590	59853344	2092988	2456183	488075	64899590	285322	65184912	6319	421892	16567031	16995242	.	.	.	.	16995242	40156	17035758	1495270	1498835	12,6	385,9	261,9	261,3	.	.	.	.	5606277	195489	.
1973	SNCB	N	38996	521506	75524004	76084506	55553224		14115262	6416020	76084506	1799166	77883672	3412	51269	8183338	8238019	5081964		2226267	929788	8238019	132153	8370172	2035587	2068241	.	311,5	108,3	107,5							8370172
1973	SNCF	N																																			
1973		E																																			
1973		TOTAL	281000	1763000	254734000	256778000	230183000		21164000	5431000	256778000	8581000	265359000	940000		72319000	73259000	64241000		5517000	3501000	73259000	1640000	74899000	2110116	2157354	13,2	331,4	285,3	282,3		1357000		6110			
1973	VR	L	75400	714300	25378500	26168200	21392260	340380	4431060	4500	26168200	1872900	28041100	26800	234000	6746600	7007400	6084340	32370	888010	2680	7007400	171300	7178700	1181686	1210573	11,7	363,7	267,8	256	259633		8620				7187320
1973	BDZ	N																																			
1973		E																																			
1973		TOTAL	276240		6227730	6503970	543009	3744791		619565	75714301		75714301	7848	153198	16487115	16648161	15645473		723908	278780	16648161		16648161	3920905	3920905	13,2	.	219,9	219,9							16648161
1973	CFR	L																																			
1973		N																																			
1973		E																																			
1973		TOTAL		1638581	201492130	203130711	177942062		21068900	4119749	203130711	2824644	205955355		409645	50203363	50613008	41333040		7219207	2060761	50613006	630572	51243580	4605369	4662746	.	620,7	249,2	248,8							51243580
1973	CSD	L																																			
1973		N																																			
1973		E																																			
1973		TOTAL	.	.	.	257902202	217040885		24631886	16229431	257902202	1660012	259562214	.	.	.	59229897	47876898		4510464	6842535	59229897	149688	59379585	4455721	4466982	16,3	515,4	229,6	228,8							59379585
1973	DR	N																																			
1973		E																																			
1973		TOTAL	114417	2159214	270899467	273173098	231104759	.	32076144	9992195	273173098	2098473	275271571	17409	397596	45887386	46302391	36356611	.	6012624	3933156	46302391	543762	46846153	3305897	3344720	12,6	400,4	169,5	170,2					185091	7565	46853718
1973	JZ	N																																			
1973		E																																			
1973		TOTAL	133000	835575	73548171	74516746	60614746		7823000	6079000	74516746		74516746	47014	307369	20093083	20447466	15462099		2205702	2779665	20447466		20447466	1966481	1966481	12,8	393,2	274,4	274,4	506333	3436735	14747	146806			20609019
1973	MAV	L																																			
1973		N																																			
1973		E																																			
1973		TOTAL	57551	221715	116974952	117254218	82281025		18946195	16026998	117254218	4660512	121914730	8047	62191	20619213	20689451	11795778		3951053	4942620	20689451	625813	21315264	2515435	2591521	12,2	482,9	176,4	174,8							21315264
1973	TCDD	N	125390		14868624	14994014	14351849		171633	470532	14994014	879231	15873245	62751		6693228	6755979	5931627		66358	757994	6755979	451199	7207178	830483	885947	12,2	324,8	450,6	454							7207178
1974	BR	N	1830000	7200000	169090000	178120000	.	.	.	.	178120000	.	.	.	.	21630000	21630000	.	.	.	.	21630000	.	.	1248200	.	.	.	122,5	.					.	.	.
1974	CFF [illegible]	N.E	119340	1882389	44195612	46197341	25176341	1660000	8211000	11150000	46197341	10659	46208000	9905	216092	6774591	7000588	2849163	184371	919632	3047422	7000588	880	7001468	2403223	2403525	8,7	223,2	151,5	151,5	38		0		219517	26	
1974	CFL	N	5787	27049	23061125	23093961	10259190		9821730	3013041	23093961	.	.	199	892	862814	863905	324680		382394	156831	863905	.	.	3187841	.	.	.	37,4	.	13072	82920	366	1722			.
1974	CH	N.E	2272	71513	3881119	3954904	3150507		535875	268522	3954904	.	.	880	22896	878180	901956	696718		164848	40390	901956	.	.	354821	.	.	.	228,1	.					.	.	.
1974	CIE	L	.	.	.	2694847	.	.	.	.	2694847	6861	2701708	.	.	.	453775	.	.	.	.	453775	997	454772	207298	207753	5,8	139,8	168,4	168,3	2796497		.	.	.	.	.
1974	CP	L.E		753666	3761523	4515189	4337199	4352	173638		4515189	245741	4760930		151669	767484	919153	.	.	.		919153	20883	940036	257755	263611	10,1	130,9	203,6	197,4							940036
1974	DB	N.E	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	351798683	14662248	366460931	180379	1176830	66916520	68273729	54744971	3551669	6554264	3422825	68273729	2215489	70489218	2405360	2483410	10,4	325,9	194,								
1974	DSB	N	489000		8289000	8778000	4306000	379000	2539000	1554000	8778000	391000	9169000	136062		2064247	2200309	1138594	89469	552030	420216	2200309	93149	2293458	1087109	1133131	8,6	258,5	250,7	250,1	.	.	.	.	.	.	2293458
1974	FS	N.E	295848	262752	52245514	52804114	32671770	295425	19658682	178237	52804114	3708659	56512773	131357	115466	17898620	18145443	12533108	136544	5396021	79770	18145443	556299	18701742	1129010	1163623	8,7	248,2	343,6	330,9	624		2				
1974	NS	N	9849	45679	22582590	22638118	15417915		6646884	573319	22638118	844873	23482991	.	.	3369962	3369962	2349068		984624	36270	3369962	102382	3472344	.	.	.	.	149,2	.							3472344
1974	NSB	N	35169	22913	31271242	31329324	7376909	126698	23825717		31329324	542791	31872115	9556	3383	2872398	2885337	1654858	15086	1215393		2885337	64010	2949347	680344	695437	12,1	261,1	92,1	92,5	463000		26398				2975745
1974	OBB	N.E	142117	[illegible]	[illegible]	54081423	29453218	2294315	12515995	9817897	54081423	1807766	55889189	32219	59453	10993558	11085230	5467645	457867	2181863	2977855	11085230	233843	11319073	1893940	1933893	9,9	306,8	205	202,5	2118						
1974	RENFE	L	90854	399282	39763508	40253644	.	.	.	.	40253644	1877000	42130644	39062	193994	12033990	12267046	.	.	.	.	12267046	401969	12669015	914564	944533	11	260,5	304,7	300,7							12669015
1974	SJ	N.E	17509	1134555	67977015	69129079	64087039	2180833	2364222	496980	69129079	303934	69433013	7253	463364	17809136	18279753	.	.	.	.	18279753	43159	18322912	1608284	1612087	13,1	401,1	264,4	263,9	.	.	.	.	6129000	216900	.
1974	SNCB	N	33452	517617	82092063	82643132	58853096	167	16185653	7604217	82643132	1978943	84622075	2968	50533	9145620	9199121	5591282	15	2495562	1112262	9199121	143874	9432995	2285496	2321245	.	336,1	111,3	110,4							9342995
1974	SNCF	N.E	284000	1761000	261991000	264036000	236931000		22347000	4758000	264036000	9480000	273516000	945000		75479000	76424000	67956000		5616000	2852000	76424000	1962000	78386000	2226352	2283508	13,4	339	289,4	286,6		1504000		640000	.	.	.
1974	VR	L	74200	644700	26308900	27027800	21490697	303512	5225287	8304	27027800	1051100	28078900	26900	218700	7238500	7484100	6341622	32815	1105018	4645	7484100	139000	7623100	1259102	1282400	11,8	372,2	276,9	271,5	254816		8846				7631946
1974	BDZ	N.E	31033	556848	77455770	78043651	74160030		3111937	771684	78043651		78043651	8185	158386	17150478	17317049	16129302		853856	333891	17317049		17317049	4044150	4044150	13	.	221,9	221,9							17317049
1974	CFR	L.N.E		1574721	214066506	215641227	187271527		23626796	4742904	215641227	2431801	218073028		393680	54188807	54582487	43661790		8510564	2410133	54582487	542136	55124623	4935571	4984596	.	630,7	253,1	252,8							55124623
1974	CSD	L.N.E	.	.	.	263470628	220668789		24649228	18152611	263470628	1541058	265011686	.	.	.	61428632	49081107		4637782	7709743	61428632	138009	61566641	4639274	4649693	.	.	233,2	232,3							61566641
1974	DR	N.E	111291	2022185	274365929	276499405	234519623	.	30498180	11481602	276499405	5958905	282458310	17033	372636	48059210	48448879	37991773	.	5944908	4512198	48448879	736227	49185106	3481774	3534682	13,3	410,2	175,2	174,1					251875	10682	49195788
1974	JZ	N.E	137000	815000	80553661	81505661	62125663		10565000	8814998	81505661		81505661	65233	337134	22678763	23081130	16448043		3259901	3373186	23081130		23081130	2236760	2236760	14	422,6	283,2	283,2	533889	4057616	14299	168144			23263573
1974	MAV	N.E	59202	236102	123960850	124256154	84966693		20757913	18531548	124256154	4769644	129025798	8331	68487	22398676	22475494	12287931		4366128	5821435	22475494	645694	23121188	2783688	2863660	12,4	497,9	180,9	179,2							23121188
1974	PKP	n.e.	234202	402855	443272334	443909391	398873632		31145938	13889821	443909391	9196421	453105812	51960	193456	123244273	123489689	104676474		10634479	8178736	123489689	1718469	125208158	5222970	5295656	15,5	551,2	278,2	276,3							125208158
1974	TCDD	N	127744		13609976	13737720	12679231		224424	834065	13737720	1122686	14860406	27320		6376315	6403635	7835569		92435	1475631	6403635	620903	7024538	706591	862850	11,7	319,7	466,1	472,7							7024538
1975	BDZ	N.E.	31808	573339	78219330	78824477	74544067		3540994	739416	78824477		78824477	7785	163289	17122150	17293224	16013867		945110	334247	17293224		17293224	4031055	4031055	13	.	219,4	219,4							17293224
1975	BR	N	1720000	6700000	168030000	176450000	.	.	.	.	176450000		.	.	.	20990000	20990000	.	.	.	.	20990000	.	.	1215600	.	.	.	119	.					.	.	.
1975	CFF [illegible]	N.E.	88662	1424135	32947224	34460021	19548021	1033000	6022000	7857000	34460021	14979	34475000	7359	162860	4968590	5138809	2268638	115180	651580	2103410	5138808	1117	5139926	1761676	1762059	8,7	181,8	149,1	149,1	45		0		123038	14	
1975	CFL	N	5245	24590	16788790	16818625	7514837		7194295	2109493	16818625	.	.	187	894	657247	658328	255626		293340	109362	658328	.	.	2393920	.	.	.	39,1	.	10186	83891	285	1753			.
1975	CFR	L.N.E.		1512877	225086416	226599293	197104431		24574353	4920509	226599293	1665196	228264489		378220	56972298	57350518	45950756		8911350	2488412	57350518	313663	57664181	5208002	5236486	.	643,3	253,1	252,6							57664181
1975	CH	N.E.	5758	63698	3964392	4033848	3276581		607417	149850	4033848	.	.	2026	21177	907474	930677	737096		181214	12367	930677	.	.	375879	.	.	.	230,7	.							
1975	CIE	L	.	.	.	3397308	.	.	.	.	3397308	10108	3407416	.	.	.	561290	.	.	.	.	561290	1523	562813	279806	280565	6,6	140,2	165,2	165,2	3159280		.	.	.	.	.
1975	CP	L.E		577240	2738726	3315966	3171267	5982	138717		3315966	244257	3560223		120650	633174	753824	.	.	.		753824	19796	773620	211392	216943	.	115,9	227,3	217,3							773620
1975	CSD	L.N.E.	.	.	.	268262156	226136764		24311978	17813414	268262156	1577894	269840050	.	.	.	62570283	50477878		4605999	7846406	62570283	133572	62703855	4735151	4745259	.	.	233,2	232,4							62703855
1975	DB	N.E.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5199202	287248716	14482147	301730863	168130	985379	53157596	54311105	43329400	2574346	5425679	2981680	54311105	2157270	56468375	1920206	1996478	10	294,9									
1975	DR	N.E.					242161637		27735190	10352418	280249245	6617658	286866903	16674	370793	48415299	48802766	39301218	.	5425797	4075751	48802766	894806	49697572	3519853	3584390	13,4	414,9	174,1	173,2					301002	13057	49710629
1975	DSB	N		446000	7474000	7920000	3940000	392000	2056000	1532000	7920000	377000	8297000		118412	1848653	1967065	1044259	87225	423192	412389	1967065	85269	2052334	971870	1013999	8,8	234	248,4	247,4	.	.	.	.	.	.	2052334
1975	FS	N.E.	281720	212927	42665863	43160510	27546474	186106	15233357	194573	43160510	3904292	47064802	125084	93235	14667013	14885332	10528036	95525	4164601	97470	14885332	585644	15470976	925877	962305	8,3	232,1	344,9	328,7	628		21	.	.		
1975	JZ	N.E.	189000	817000	76724000	77730000	61701000		8600000	7429000	77730000		77730000	53525	303970	21280183	21637668	15584839		2660462	3392367	21637688		21637688	2149153	2149153	14,4	420	278,4	278,4	498619	4874056	15225	281147			21934040
1975	MAV	N.E.	54320	255870	125972130	126282320		86178609	21212313	18891398	126282320	4554000	130836320	7648	71395	22598986	22678029	12364340		4485172	5828517	22678029	567281	23245310	2856895	2928359	12,3	495,7	179,6	177,7							23245310
1975	NS	N	6413	34186	17695761	17736360	11771004		5496201	469155	17736360	1025999	18762359	.	.	2720856	2720856	1848317		848014	24525	2720856	127295	2848151	.	.	.	.	153,8								2848151
1975	NSB	N	40815	21941	24998848	25061604	8148509	141351	16771744		25061604	503942	25565546	10115	3291	2547376	2560782	1608767	15112	936903		2560782	61976	2622758	603816	618429	10,9	224,4	102,2	102,6	469000		26004				2648762
1975	OBB	N.E.	132659	[illegible]	[illegible]	46357637	25588203	1934979	10431830	8402625	46357637	1802251	48159888	30112	49465	9298800	9378377	4725202	360279	1743160	2549736	9378377	232126	9610503	1603964	1643664	9,5	271,8	202,3	199,6	20978						
1975	PKP	N.E.	233330	439548	453894344	454567222	410487593		30408299	13671330	454567222	9914400	464481622	52823	217798	127233945	127504566	109166423		10291476	8046667	127504566	1778620	129283186	5371949	5446890	16,1	557,7	280,5	278,3							129283186
1975	RENFE	L.E	97387	343280	35934489	36375156	.	.	.	.	36375156	1296504	37671660	41871	177556	10206890	10426317	.	.	.	.	10426317	267020	10693337	773580	793392	10,5	236,3	286,6	283,9							10693337
1975	SJ	N.E.	17903	1108749	54337996	55464648	50354838	1825750	2811510	472550	55464648	315162	55779810	7623	450347	14530442	14988412	.	.	.	.	14988412	44753	15033165	1318706	1322643	12,6	354,7	270,2	269,5	.	.	.	.	5151400	182900	.
1975	SNCB	N	27164	453401	59200754	59681319	42724449	6	11320386	5636478	59681319	2078292	51759611	2525	44035	6757458	6804018	4227220	1	1758336	818461	6804018	147366	6951384	1709982	1747018	.	301,7	114	112,6							6951384
1975	SNCF	N.E.566000	. 259000	.1677000	215447000	217383000	195366000		17690000	4327000	217383000	10215000	227598000	125000	773000	62575000	63473000	56105000		4794000	2574000	63473000	2116000	65589000	1857946	1919884	13,5	309	292	288,2		14700					
1975	VR	L	64600	560200	21799600	22424400	17135228	160893	5069728	58551	22424400	1735200	24159600	23800	195100	6217000	6435900	5177072	20286	1201961	36581	6435900	182200	6618100	1082756	1113408	11,8	368,7	287	273,9	228865		8048				6626148
1975	TCDD	N	111744		13455184	13566928	12409901		255805	901222	13566928	1094498	14661426	24727		6774662	6799389	5067124		101362	1630903	6799389	547421	7346810	835306	902557	12,7	343,2	501,2	501,1							7346810
1976	BDZ	N.E.	224529	536313	76640642	77401484	73376601		.	.	77401484		77401484	63735	152922	17054891	17271548	4009180	4009180								13	.	223,1	223,1							17271548
1976	BR	N	1446	92000	176117000	.	.	.	.	.	177655600	.	.	.	33800	23012000	.	.	.	.	.	23045800	.	.	1348338	.	.	.	130,8	.					2499000	.	
1976	CFF [illegible]	N.E.	1404915		35945203	37350118	20173118	1127000	6489000	9561000	37350118	1598251	38948369	160233		5497775	5658008	2375612	124195	709248	2448953	5658008	119244	5777252	1937674	1978511	9,7	198,3	151,5	148,3	36		0		41782	500	57777
1976	CFL	N	5384	20314	15646472	15672170	7712048		6273680	1686442	15672170	.	.	194	824	622990	624008	261738		268755	93515	624008	.	.	2277401	.	.	.	39,8	.	9583	83091	268	1696			.
1976	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	N.E.	6817	55704	3463496	3526017	2898797		625891	1329	3526017	.	.	2325	18476	823694	844495	667159		176511	825	844495	.	.	343151	.	.	.	239,5	.							.
1976	CIE	L	.	.	.	2533	.	.	.	.	3533732	6236	3539968	.	.	.	594682	.	.	.	.	594682	928	595610	295862	296323	7,3	144,5	168,3	3089226		.	.	.	.	.	
1976	CP	L.E		362750	3057185	3419935	3248073	4315	167547		3419935	253603	3673538		90704	763679	854383	.	.	.		854383	21146	875529	239591	245521		127	249,8	238,3							875529
1976	CSD	L.N.E.	.	.	.	272802514	227189388		27075739	18537387	272802514	1482041	274284555	.	.	.	64335408										.		235,8	235							64460994
1976	DB	N.E.	514443	3089032	295260017	298863492	244029736	17246304	31549049	6038403	298863492	14866119	313729611	156157	913422	57320527	58390106	45544499				58390106		60593321	2072408	2150819	10,1	315,5	195,4	193,2	349975	12840934	64071	1701845	34138	64195	64195777
1976	DR	N.E.	100471	1993234	282653462	284747167	244874254		28427627	11445286	284747167	9014211	293761378	15317	368560	50256771	50640648	40285326		5783536	4571786	50640648	1166829	51807477	3659800	3744126	13,7	423,5	177,8	176,4					380144	17031	51824508
1976	DSB	N	555000		6624000	7179000	3793000	314000	1827000	1245000	7179000	411000	7590000	130177		1652386	1782563	1003865	73854	367101	337743	1782563	109081	1891644	880713	934607	8,5	222,7	248,3	249,2	.	.	.	.	.	.	1891644
1976	FS	N.E.	324466	227361	47881327	48433154	28352872	207774	19664368	208140	48433154	4079301	52512455	144063	98823	16132721	16375607	10891158	103538	5296885	84026	16375607	611895	16987502	1014409	1052314	8,5	239,7	338,1	323,5	695		2				
1976	JZ	N.E.	125000	629000	72972000	73726000	57833000		7997000	7896000	73726000		73726000	52678	254322	20710000	21017000	19155101	1,26E+08	4685146	7238	68238	22152868	22228344	2108659	2108159	15,4	429	285,1	863784	3787665	32402	379992			21429394	
1976	MAV	N.E.	49556	247115	125747859	126044530	86480621		20408808	19155101	126044530	4685146	130729676	7238	68238	22152868	22228344	12278828		4196967	5752549	22228344	597384	22825728	2821572	2897401	12,5	505,8	176,4	174,6						22825728	
1976	NS	N	6180	29712	17681516	17717408	12307961		5035761	373686	17717408	11112309	18829717	.	.	2696487	2696487	1937744		739974	18769	2696487	134712	2831199	.	.	.	.	152,5	.						2831199	
1976	NSB	N	50411	21627	28683308	28755346	9602800	146272	19006274		28755346	454469	29209815	11268	3244	2694883	2709395	1681561	15682	1012152		2709395	61880	2771275	638858	653448	11,6	231,6	94,2	94,9	493000		26531			2797806	
1976	OBB	N.E.	158457	263218	[illegible]	49904072	27421038	2204029	11436166	8842839	49904072	1887348	51791420	35970	50013	10461894	10547877	5348533	431487	2026013	2741844	10547877	242455	10790332	1803981	1845448	9,8	289,1	211,4	208,3	2						
1976	PKP	N.E.	208248	433295	453755602	454397145	411028908		30135218	13233019	454397145	11011067	465408212	47691	220274	128817368	129085333	111002001		10415483	7667849	129085333	1819728	130905061	.	.	16,5	560,1	284,1	281,3						1,31E+08	
1976	RENFE	L.E	490500		34140100	34630600	.	.	.	.	34630600	1400300	36030900	270000		10223500	10493500	.	.	.	.	10493500	272400	10765900	777872	798065	105	232,2	303	298,8						10765900	
1976	SJ	N.E.	19161	1088948	55767452	56875561	51170481	2065644	3195323	444113	56875561	322692	57198253	8199	444144	14849022	15301365	.	.	.	.	15301365	45822	15347187	1346240	1350272	12,5	369,1	268,3	.	.	.	.	5332252	190446	.	
1976	SNCB	N	23420	442399	60014028	60479847	43915997	6	10780487	5783357	60479847	1948462	62428309	2216	42515	6648301	6693032	4278408	1	1573516	841107	6693032	140864	6833896	1680400	1715766	.	299,9	110,7	109,5						6833896	
1976	SNCF	N.E.	.236000	1796000	223548000	225580000	202833000		18437000	4310000	225580000	9903000	235483000	114000	829000	66940000	67883000	60002000		5066000	2815000	67883000	2047000	69930000	1997675	2057915	13,2	327,7	300,9	297		1751000		62800			
1976	VR	L	53700	474500	22579500	23107700	17322948	197803	5566206	20743	23107700	1961100	25068800	20300	167900	6355900	6544100	5229980	21854	1277364	14902	6544100	174700	6718800	1100034	1129400	12,1	389,2	283,2	268	211539		7579				6726379
1976	TCDD	N	89286		13354054	13443340	12154606		321810	966924	13443340	1259600	14702940	19880		7258100	7277980	533522		113283	1831175	7277980	643048	7921028	894320	973338	13,2	366,1	541,4	538,7							

A1.1.13. Efficiency of Rolling Stock User

			ANNUAL NUMBER OF GROSS TONNE-KILOMETRES HAULED PER MOTIVE UNIT KILOMETRE						ANNUAL NUMBER OF PUBLIC TRAFFIC PASS.KMS				ANNUAL NUMBER OF TONNE-KILOMETRES PUBLIC TRAFFIC		TOTAL TRAFFIC		ANNUAL NUMBER OF WAGONS LOADED PUBLIC TRAFFIC ONLY		ALL TRAFFIC				AVERAGE WAGONS LOAD (IN TONNES)		Average coefficient of available wagons used, all traffic	Average length of haul
YEAR	Railway	rail gauge	Steam Locomotive	Diesel and Special System locomotive and light rail	Electric locomotive and light rail motor tractor	Diesel and Special System railcar	Electric Railcar	TOTAL	Per carriage of operating stock (in 1000)	Per seat of operating stock (in 1000)	Per carriage-kilometre (in unit)	Per "seat-offered"-Kilometre (in unit)	Per wagon of operating stock (in 1000)	Per tonne of capacity of wagons of operating stock (in units)	Per wagon kilometre (in units)	Per "tonne-offered"-kilometre (in units)	In the system stations and entered "loaded"	In stations of the system and of the secondary system in	In the system's stations and entered	In stations of the system and of: Railway's wagons	Private owners' wagons	Total	Public traffic only	All traffic		
1972	BR	N															9242000									
1972	CFF	N	0	12	348	63	173	306	2138	31344	20,64	0,32	202	7557	8,1	0,3	3808076	2500794	3860871	1300975	252794	2553769	12,1	11,9	0,26	143
1972		E			51		90	84																		
1972		total																								
1972	CFL	N	557	371	580	69	117	322	1843	21609	28,34	0,33	191	5027			708191	298458	708707	236446	62528	298974	31		0,4	47
1972	CH	N	214	318		73		215	3387	52789	33,6	0,52	91	4057	7,99	0,36	179198	179198								
1972		E	63	157		66		102	2071	38944	23,05	0,47	48	3676	5,39	0,41	28684	28684								
1972		TOTAL																								
1972	CIE	L							1855	30554			65		4,91							509168				
1972	CP	L	163	203	379	78	156	188	2958	43061	32,48	0,48	96	5220	8,04	0,47	368401	371027	411612	394717	1521	396238	11,7	12	0,14	188
1972		E	76			42		62									54669	54669	59105	59104	1	59105	1,5	1,7	0,22	55
1972		TOTAL																								
1972	DB	N	494	179	499	53	72	321	1753	26246	18,1	0,27	198	6585	9,75	0,32	15730274	13672528	16480141	13151973	1270422	14422395	20,7	20,6	0,14	272
1972		E																								
1972		TOTAL																								
1972	DSB	N		244		105	78	164	2290	35782	28,11	0,44	178	7463	9,02	0,38	756366	515959	803986			563579	10,4	10,2	0,18	208
1972	FS	N	116	157	475	45	110	277	3010	43263	27,99	0,4	135	5222	8	0,31	3395947	2441800	3713462	2339010	420305	2759315	15,9	15,9	0,07	398
1972		E	47			42		43																		
1972		TOTAL																								
1972	NS	N		230	401	116	135	182	4087	66890	22,24	0,63					1125519	792429	1177667			844402	19,4	19,2	0,2	175
1972	NSB	N							1551	27791	18,54	0,33	254	11083	11,5	0,54	1012702	577658	1055400			620356	28,2	27,8	0,24	156
1972	OBB	N	312	141	390	90	168	301	1630	29115	21,99	0,39	253	9666	9,63	0,37	2760866	1699858	2817640	1619204	137428	1756632	17,7	18	0,18	240
1972		E	48	45	80	34		55									31052	31052	32924	32924		32924			0,1	8,4
1972		TOTAL																								
1972	RENFE	L	296	279	463	76	151	250	3852	58268	34,2	0,52	214	8795	10,07	0,41	1573382	1542642	1769979	1364255	374984	1739239	20,4	19,5	0,1	366
1972		E					48	48																		
1972		TOTAL																								
1972	SJ	N	39	156	435	30	74	316	1795	33439	16,6	0,31	283	9780	11,99	0,4	2680134	2519387	2747061	2454280	132034	2586314	21,9	21,5	0,15	314
1972		E		32	69	18	68	39																		
1972		TOTAL																								
1972	SNCB	N	64	320	426	66	117	252	2217	25745			157	4894			2768215	1981385	2889068	1654415	447823	2102238	25,3	24,8	0,14	
1972	SNCF	N	429	302	613	74	134	402	2767	39246	24,86	0,35	236	6848	13,07	0,38	9078773	8018400	9737930	5621601	3050500	8672101	27	26,2	0,009	384
1972		E					44	44																		
1972		TOTAL																								
1972	VR	L	349	437		15	40	271	2468	39678	25,21	0,41	288	11292	10,82	0,42	1608045	1457443	1625044			1474442	14,8	15,8	0,17	240
1972	BDZ	N									36,41				13,05		3490311		3529799				20,6	20,7		248
1972		E																								
1972		TOTAL																								
1972	CFR	L	133					133																		
1972		N	265	831	812	54		611																		
1972		E	80	127	81			106																		
1972		TOTAL																								
1972	CSD	L	268	314	818	65	104	381			24,92				16,41		13297842	9775024	13297842	13151973	1270422	14422395	20,7	20,6	0,14	272
1972		N																								
1972		E																								
1972		TOTAL																								
1972	DR	N	482	343	539	61	76	336			19,6				12,52	0,4	9559160		9620304			7908792	27,8	27,8		243
1972		E	72	1		25		70									6767	6767	6767	6767		6767				30
1972		TOTAL																								
1972	JZ	N	336	394	648	43	211	355	2875	44995	27,05	0,42	320		12,37		3196486	2623629	3196489	3196489		3196489	22,6	22,6	0,13	340
1972		E	87	162		97		115																		
1972		TOTAL																								
1972	MAV	L	248	533	759	107		440			23,64				11,9											
1972		N		76		37		75																		
1972		E																								
1972		TOTAL																								
1972	TCDD	N	392	521	311	103	195	383	3703	61518	39,52	0,66	384	14584	13,04	0,52	746178	710298	879698			843818	21,3	19,3	0,13	438
1973	BR	N															9737000									
1973	CFF	N	0	13	359	69	169	313																		
1973		E			48		91	85																		
1973		total							2153	31518	20,68	0,32	212	6849	8,45	0,31	3603318	2397200	3673818	2183079	284621	2467700	13,2	13	0,24	154
1973	CFL	N	968	365	556	68	118	320	1953	22730	28,29	0,33	199	5778			711912	291139	712160	246263	44876	291139	31,6		0,39	56
1973	CH	N							3575	58679	34,76	0,59	92	3871	8,08	0,34	176262	124540								
1973		E							1989	36823	26,12	0,48	49	3758	5,98	0,46	34330	34330								
1973		TOTAL																					15,5			
1973	CIE	L							1966	32073			69		5,43							517000				
1973	CP	L	157	206	386	76	162	193									375468	355206	398257	377318	677	377995	12,4	12,6	0,15	191
1973		E	78			43		61									47121	47121	49514	49514		49514	1,6	1,7	0,18	51
1973		TOTAL							3219	50290	36,39	0,56	105	5489	8,38	0,47										
1973	DB	N																								
1973		E																								
1973		TOTAL	517	187	508	54	67	319	1752	26351	18,05	0,27	209	6791	9,92	0,32	15818976	13787064	16653192	13364631	1256649	14621280	21,6	21,4	0,14	274
1973	DSB	N		247		104	78	163	2218	34664	25,61	0,4	199	8088	9,49	0,39	686017	455662	736640			506285	11,8	11,5	0,17	223
1973	FS	N	113	153	477	44	112	277																		
1973		E	47			41		42																		
1973		TOTAL							3018	43567	28,41	0,41	139	5279	8,49	0,32	3291387	2325901	3562829	2238008	359335	2597343	16,6	16,6	0,06	406
1973	NS	N		242	423	115	130	182	4107	67214	23,42	0,38					1121578	785939	1168569			832852	21,1	20,7	0,22	182
1973	NSB	N							1613	29059	18,65	0,34	292	12855	12,27	0,55	929521	457667	970455			498601	33,3	32,6	0,24	161
1973	OBB	N	313	147	392	87	166	303									2763914	1692785	2821431	1604691	145611	1750302			0,18	245
1973		E	59	62	109	31		75									29982	29982	31285	31285		31285			0,1	85
1973		TOTAL							1636	29186	21,94	0,39	263	10170	9,75	0,38							18,4	18,7		
1973	RENFE	L	359	289	491	75	153	268					255	10204	10,13	0,4	1664722	1638509	1791994	1350736	415045	1765781	21,4	21	0,1	417
1973		E					62	62																		
1973		TOTAL							4369	66286	36,85	0,56														
1973	SJ	N		167	459	28	74	334																		
1973		E		20		16		17																		
1973		TOTAL							1867	35215	16,54	0,31	326	11240	12,57	0,44	2836393	2679577	2901876	2606217	138743	2745060	22,9	22,5	0,16	320
1973	SNCB	N	63	325	441	64	117	256	2220	25749			168	5126			2833272	2014708	2944169	1626755	498850	2125605	26,9	26,5	0,15	
1973	SNCF	N	398	316	630	77	140	417																		
1973		E					43	43																		
1973		TOTAL							2834	41609	25,27	0,37	261	7320	13,19	0,37	9220399	8095935	9783561	5561798	3093391	8655189	27,8	27,1	0,09	397
1973	VR	L	300	439	0	15	41	274	2656	42433	25,76	0,41	312	11900	11,73	0,45	1711693	1474710	1727415			1490432	15,3	16,2	0,19	224
1973	BDZ	N																								
1973		E																								
1973		TOTAL									39,88				13,18		3632044		3632044				20,8	20,8		251
1973	CFR	L	205					155																		
1973		N	255	824	854	51		640																		
1973		E	87	144	88			116																		
1973		TOTAL																								
1973	CSD	L																								
1973		N																								
1973		E																								
1973		TOTAL	253	322	795	65	102	380			25,93				16,3		13413726	9749223	13413726	9749223		9749223	19,2	19,4		193
1973	DR	N	500	356	545	59	76	344									10657180		10707516			8848390				226
1973		E	76	1		10		75									5734	5734	5734	5734		5734				28
1973		TOTAL									19,78				12,65	0,41							25,6	25,7		
1973	JZ	N	319	408	678	48	211	368																		
1973		E	88	153		92		116																		
1973		TOTAL							2931	45755	26,55	0,4	364		12,84		3047076	2378002	3047076	3047076		3047076	24,5	24,5	0,14	367
1973	MAV	L																								
1973		N	245	531	754	112		454																		
1973		E		75		42		75																		
1973		TOTAL									23,6				12,16											
1973	TCDD	N	388	550	339	104	196	398	3880	58705	37,28	0,56	386	14290	12,23	0,47	720034	655946	863009			798921	20,8	18,4	0,12	456
1974	BR	N															8581000									
1974	CFF	N		13	358	52	160	312																		
1974		E			49		90	84																		
1974		total							2136	31281	20,19	0,32	207	6810	8,7	0,31	3425001	2304935	3506235	2105814	280355	2386169	13,5	13,2	0,24	152
1974	CFL	N	299	374	559	66	130	334	2103	24426	29,49	0,34	223	6245			731761	289299	731793	253040	36291	289331	31,6		0,4	47
1974	CH	N							3460	53474	35,88	0,55	94	3622	8,46	0,33	199997	138591								
1974		E							1902	35086	24,81	0,46	62	4576	7,91	0,59	46428	46428								
1974		TOTAL																					16			
1974	CIE	L							1591	24815			56		5,79							267029				
1974	CP	L	158	212	397	80	162	199									391201	369290	408877	386508	458	386966				167
1974		E	79			43		62									45030	45030	47894	47894		47894				54
1974		TOTAL							3711	51031	39,08	0,54	118	5946	10,11	0,53							10,4	10,4	0,16	
1974	DB	N.E	536	190	509	55	68	319	1804	25799	18,57	0,27	218	6917	10,37	0,34	15299165	13615419	16124133	13247041	1193346	14440387	23	22,7	0,14	274
1974	DSB	N		265		107	78	170	2088	32268	23,84	0,37	219	7931	9,66	0,35	753601	487108	802342			535849	11,6	11,4	0,17	220
1974	FS	N	125	155	485	44	110	282																		
1974		E	58			43		44																		
1974		TOTAL							3076	44277	28,73	0,41	145	5487	8,7	0,33	3075898	2135611	3314298	2075795	298216	2374011	17,2	17,1	0,06	440
1974	NS	N		239	438	110	129	180	4349	69692	24,28	0,39					1020924	707785	1080246			764623	22,2	21,7	0,2	191
1974	NSB	N							1863	32520	19,47	0,34	316	11806	12,07	0,54	930359	460514	965169			495324	33,7	33	0,25	170
1974	OBB	N	335	161	397	86	165	308									2818114	1688105	2875934	1612811	133114	1745925			0,19	252
1974		E	88	92	172	32		113									29621	29621	30925	30925		30925			0,09	85
1974		TOTAL							1673	29709	22,01	0,39	281	10758	9,93	0,38							19	19,2		
1974	RENFE	L	342	301	496	75	155	276					279	10569	11,04	0,42	1690120	1642807	1813947	1340045	426589	1766634	23,8	23,2	0,11	422
1974		E					67	67																		
1974		TOTAL							4466	67664	38,01	0,58														
1974	SJ	N		170	471	29	74	342																		
1974		E		19		16		16																		
1974		TOTAL							2243	41674	19,39	0,36	352	12084	13,11	0,45	2935715	2718329	2998652	2652576	128690	2781266	23,5	23,2	0,17	320
1974	SNCB	N	65	333	450	57	118	261	2255	26187			182	5398			2942072	2042963	3051109	1593902	558098	2152000	28,1	27,7	0,15	
1974	SNCF	N		325	622	84	141	416																		
1974		E					44	44																		
1974		TOTAL							3030	43023	26,21	0,34	278	7588	13,41	0,37	9084285	7925981	9641591	5442111	3037548	8479659	29,1	28,4	0,09	409
1974	VR	L	289	468	674	15	41	296	2899	45369	26,77	0,42	336	12494	11,83	0,44	1713641	1434576	1728429			1449364	15,8	16,2	0,19	238
1974	BDZ	N.E									42,74				13,01	0,65	3733234		3733234				20,9	20,9		254
1974	CFR	L	198					161																		
1974		N	212	797	866	57		645																		
1974		E	82	121				114																		
1974	CSD	L.N.E															13670071	9833848	13670071	9833848		9833848	19,3	19,4		
1974	DR	N	536	368	537	58	76	352									10632987	8758867	10801232			8918940				228
1974		E	77	0		12		75									5514		5514	5514		5514				176
1974		TOTAL									20,05				13,25	0,42							26	26,1		
1974	JZ	N	273	438	667	51	214	386																		
1974		E	84	152		30		83																		
1974		TOTAL							2999	43458	26,63	0,39	404		14		3081251	2272919	3081251	3081251		3081251	26,5	26,5	0,14	
1974	MAV	L	238	525	773	114		471																		
1974		N		77		0		77																		
1974		E									23,83				12,42											
1974		TOTAL																								

A1.1.13. Efficiency of Rolling Stock User

			ANNUAL NUMBER OF GROSS TONNE-KILOMETRES HAULED PER MOTIVE UNIT KILOMETRE						ANNUAL NUMBER OF PUBLIC TRAFFIC PASS.KMS				ANNUAL NUMBER OF TONNE-KILOMETRES PUBLIC TRAFFIC		TOTAL TRAFFIC		ANNUAL NUMBER OF WAGONS LOADED PUBLIC TRAFFIC ONLY		ALL TRAFFIC				AVERAGE WAGONS LOAD (IN TONNES)		Average coefficient of available wagons used, all traffic	Average length of haul
YEAR	Railway	rail gauge	Steam Locomotive	Diesel and Special System locomotive and light rail	Electric locomotive and light rail motor tractor	Diesel and Special System railcar	Electric Railcar	TOTAL	Per carriage of operating stock (in 1000)	Per seat of operating stock (in 1000)	Per carriage-kilometre (in unit)	Per "seat-offered"-Kilometre (in unit)	Per wagon of operating stock (in 1000)	Per tonne of capacity of wagons of operating stock (in units)	Per wagon kilometre (in units)	Per "tonne-offered"-kilometre (in units)	In the system stations and entered "loaded"	In stations of the system and of the secondary system in	In the system's stations and entered	In stations of the system and of Railway's wagons	Private owners' wagons	Total	Public traffic only	All traffic		
1974	PKP	N	374	557	1024	126	125	508	.	.	.	.	.	.	15,5	.	16239644	14428409	16489263	.	.	15686292	26,7	26,8	.	354
1974		E	85	103		32		82	.	.	.	.	.	.	6,84	.	855701	855701	855701	.	.	855701	12,5	12,6	.	26
1974		TOTAL																								
1974	TCDD	N	387	540	347	104	221	400	4323	63943	42,6	0,63	366	13406	11,72	0,45	666582	561811	800728	.	.	695957	20,6	18,6	0,1	485
1975	BDZ	N.E.	.	.	.	.	.	.	.	.	41,12	.	.	.	12,99	0,65	3736796	.	3736796	.	.	.	21,1	21,1	.	256
1975	BR	N		460	451	103	261	336	1725	26463	.	.	.	.	.	.	8110000	.	.	.	.	.	21,6	.	.	.
1975	CFF	N	100	11	337	50	159	294																		
1975		E			46		86	81																		
1975		total							2067	30170	18,93	0,3	152	5180	8,71	0,31	2634428	1836291	2710728	1595998	388162	1984160	13,1	12,4	0,2	139
1975	CFL	N	253	346	483	68	119	295	2093	23978	29,86	0,34	172	4792	.	.	534481	217014	534550	197758	19325	217083	31,5	.	0,35	63
1975	CFR	L	223					155																		
1975		N	185	768	889	54		660	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975		E	92	110				107	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975		total																								
1975	CH	N	51	346		75		264	2880	42984	31,53	0,47	96	3761	8,64	0,34	191911	136781	.		.	.	18,8	.	.	.
1975		E	82	166		68		109	1660	28278	24,01	0,41	56	3753	7,8	0,57	39534	39534	.		.	.	11	.	.	.
1975		TOTAL																								
1975	CIE	L		.		.		.	2129	33272	.	.	73	.	6,65	.	.	.	.	.	.	443689	.	.	.	.
1975	CP	L	139	217	394	82	162	203									329427	315148	343713	329085	349	329434				
1975		E	78	93		39		62									38194	38194	40483	40483		40483				
1975		TOTAL							3868	52973	.	.	107	5875	.	.							9,02	9,27	0,14	.
1975	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	13926915	9639134	13926915	9639134		9639134	19,3	19,4	.	.
1975	DB	N.E.	552	186	470	57	68	294	1697	25256	17,59	0,26	165	5367	10,04	0,32	12463822	11069002	13342155	10882156	1065181	11947337	23	22,6	0,11	272
1975	DR	N	544	382	535	63	76	355									10095223	9041993	10286852	.	.	9050516				235
1975		E	77					76									5090		5090	5090		5090				156
1975		TOTAL							.	.	19,9	.	.	.	13,44	0,42							27,7	27,9	.	
1975	DSB	N		247		109	78	169	2065	33365	22,75	0,37	197	7751	9,75	0,38	688700	454530	741587	.	.	507417	11,5	11,2	0,19	213
1975	FS	N	103	157	477	44	110	277																		
1975		E	48			43		43																		
1975		TOTAL							2898	41805	27,53	0,4	119	4499	8,27	0,31	2503242	1799145	2758612	1815311	239205	2054516	17,2	17,1	0,05	449
1975	JZ	N	271	413	689	51	215	382									2755513	2030008	2755513	2755513		2755513	28,2	28,2	0,137	.
1975		E	88	147		25		74									.	.	.	.	.	.	.	.	.	.
1975		TOTAL							2977	44232	26,65	0,4	416	.	14,38	.										
1975	MAV	N	232	508	737	119		470																		
1975		E		79				79																		
1975		total							.	.	23,12	.	.	.	12,28	.	.	.	.	.	.	.	.	.	.	.
1975	NS	N		218	415	101	123	168	4320	68675	23,84	0,38	.	.	.	.	805270	553143	868262	.	.	612167	22	21,6	0,16	208
1975	NSB	N		.	.	.	.	.	1931	32893	18,92	0,32	284	10605	10,86	0,5	784866	459383	821725	.	.	496242	31,9	31,1	0,22	195
1975	OBB	N	235	158	382	81	176	293									2443883	1494534	2503853	1425764	128740	1554504			0,18	248
1975		E	45	43	75	32		52									24355	24355	26875	26875		26875			0,08	83
1975		TOTAL							1668	29387	21,63	0,38	235	8794	9,48	0,36							18,8	19		
1975	PKP	N	376	552	1020	127	125	513	.	.	.	.	.	.	16,12	.	16068620	15338527	16413868	.	.	15683775	27,6	27,6	.	354
1975		E	82	108		32		83	.	.	.	.	.	.	7,01	.	914440	914440	914440	.	.	914440	11,6	11,7	.	24
1975		Total																								
1975	RENFE	L	274	305	483	74	162	270					235	8536	10,47	0,38	1575259	1546428	1654229	1196082	429316	1625398	23,1	22,8	0,1	404
1975		E					59	59																		
1975		TOTAL							4372	62637	37,66	0,54														
1975	SJ	N		157	428	29	74	314																		
1975		E		26		16		17																		
1975		TOTAL							2424	45473	21,49	0,4	291	9925	12,62	0,43	2502070	2280793	2561389	2219001	121111	2340112	22,2	21,8	0,14	321
1975	SNCB	N	338	301	416	55	119	237	2239	26002	.	.	138	4015	.	.	2179004	1528538	2294333	1224607	419260	1643867	27,4	26,9	0,12	.
1975	SNCF	N		309	582	89	143	392																		
1975		E					47	47																		
1975		TOTAL							3252	47549	26,92	0,39	228	6178	13,49	0,37	7313643	6435111	7891608	4352243	2658001	7010244	29,7	28,8	0,08	413
1975	VR	L	237	449	565	16	43	279	2941	46098	26,14	0,41	287	10444	11,8	0,43	1442525	1175548	1459882	.	.	1192905	15,5	16,5	0,16	244
1975	TCDD	N	368	545	332	103	197	396	3612	52966	36,8	0,54	372	13236	12,74	0,47	604027	521461	769069	.	.	686503	22,5	19,1	0,1	469
1976	BDZ	N.E.	.	.	.	.	.	.	.		40,75	.	.	.	13,01	0,65	.	.	.	.	.	.	21,3	21,3	.	260
1976	BR	N		474	439	105	261	338	1664	25441	.	.	103	4744	.	.	7843000	.	.	.	.	.	22,7	.	.	.
1976	CFF	N	0	10	343	93	161	300							9,75	0,34	2792746	1929989	2911402	168902	398264	2088166	13,4	13,4	0,21	144
1976		E			48		87	81							.	.	493283	206897	493393	179380	27627	207007	31,8	.	0,33	50
1976		total							2103	30745	18,29	0,29	169	5661												
1976	CFL	N		350	473	69	115	291	2144	24560	30,38	0,35	160	4410	.	.	493283	206897	493393	179380	27627	207007	31,8	.	0,33	50
1976	CFR	L																								
1976		N																								
1976		E																								
1976		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	N	13	341		84		269	2763	42501	31,86	0,49	86	3428	8,44	0,34	169627	.	.	.	.	.	.	.	.	.
1976		E	93	158		70		110	1479	25855	23,44	0,41	52	3755	7,76	0,56	37992	.	.	.	.	.	.	.	.	.
1976		TOTAL																								
1976	CIE	L		.		.		.	1979	30682	.	.	86	.	7,33	.	.	.	.	.	.	403469	.	.	.	.
1976	CP	L	112	227	399	82	183	217							.	.	323805	304463	335567	315679	546	316225				
1976		E	79	87		40		63							.	.	33065	33065	34517	34517		34517				
1976		TOTAL							4175	56891	.	.	142	7035									9,58	9,9	0,14	.
1976	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	14165757	9691481	14165757	9691481		9691481	19,3	19,4	.	
1976	DB	N.E.	863	197	493	59	65	305	1751	25687	18,32	0,27	180	5729	10,11	0,32	13898554	12395423	14830888	12181834	1145923	13327757	21,5	21,2	0,13	254
1976	DR	N	543	395	538	63	79	361									11436393	9105032	11707314	.	.	9363704				212
1976		E	77	3				76									4982		4982	4982	.	4982				172
1976		TOTAL							.	.	20,86	.	.	.	13,69	0,41							24,9	25,1	.	
1976	DSB	N	.	1236		107	78	162	2060	32955	18,57	0,3	179	6976	9,48	0,37	621126	428429	682702	.	.	490005	11,6	11,1	0,17	215
1976	FS	N	48	161	483	44	111	283																		
1976		E	61			43		44																		
1976		TOTAL							3064	43848	28,42	0,41	132	4846	8,49	0,31	2695417	1809691	2972900	1830845	256329	2087174	18	17,7	0,05	455
1976	JZ	N	256	394	669	52	221	373																		
1976		E	100	110				68																		
1976		TOTAL							2944	43418	24,02	0,35	445	11641	15,4	.	2495000	1811000	2495000	2495000		2495000	29,5	29,5	0,14	368
1976	MAV	N	227	462	783	118		475																		
1976		E		80				80																		
1976		total							.	.	22,6	.	.	.	12,48	.	.	.	.	.	.	.	.	.	.	.
1976	NS	N		211	434	101	123	169	4144	66205	22,67	0,36	.	.	.	.	806429	576323	879059	.	.	646159	22	21,4	0,18	204
1976	NSB	N		.	.	.	.	.	1993	33667	19,13	0,32	298	11306	11,56	0,48	803306	451088	830542	.	.	478324	35,8	35,2	0,22	192
1976	OBB	N	223	154	394	80	177	302									2521653	1527224	2585800	1458151	133220	1591371			0,18	261
1976		E	46	45	73	32		53									28036	28036	29946	29946		29946			0,09	82
1976		TOTAL							1693	29799	21,42	0,38	266	9585	9,81	0,35							19,6	19,8		
1976	PKP	N	366	538	1026	126	126	516	.	.	.	.	.	.	16,55	.	15351100	14588601	15697895	.	.	14935396	29	29	.	360
1976		E	79	106		31		82	.	.	.	.	.	.	7,49	.	835586	835586	835586	.	.	835586	11,8	11,9	.	24
1976		Total																								
1976	RENFE	L	97	297	476	75	167	273					243	8435		10,53	0,37	.	.	.	.	.	.	.	.	.
1976		E					55	55																		
1976		TOTAL							4523	64524	38,25	0,55														
1976	SJ	N		165	438	29	74	321																		
1976		E		24		15		17																		
1976		TOTAL							2362	44398	19,95	0,38	303	10276	12,47	0,42	2464253	2242976	2523929	2175945	126707	2302652	23,1	22,7	0,14	335
1976	SNCB	N	104	310	421	55	123	243	2208	25589	.	.	148	4228	.	.	2154513	1517772	2267092	1192527	437824	1630351	28,1	27,5	0,13	.
1976	SNCF	N		316	602	92	145	405																		
1976		E					46	46																		
1976		TOTAL							3252	47879	26,63	0,39	251	6692	13,23	0,35	7618508	6671493	8172755	4428295	2795014	7223309	29,6	28,8	0,08	434
1976	VR	L		453	627	16	40	287	2739	40217	25,08	0,37	291	10239	12,15	0,43	1417422	1120304	1434172	.	.	1137054	16,3	17,5	0,15	237
1976	TCDD	N	350	572	326	99	196	411	3483	63796	35,59	0,65	394	13717	13,17	0,47	651451	554959	842009	.	.	745517	20,6	17,5	0,1	443

A.1.1.14. Railway Operating Revenue - Passenger and Baggage Traffic Revenue

			PASSENGER TRAFFIC									BAGGAGE TRAFFIC		ACCESSORY REVENUE		REVENUE FROM PASSENGER TRAFFIC AND FROM BAGGAGE TRAFFIC
			REVENUE (IN THOUSANDS)			AVERAGE REVENUE PER PASSENGER			AVERAGE REVENUE PER PASSENGER-KMS			REVENUE (IN THOUSANDS)		FROM PASSENGER TRAFFIC	FROM BAGGAGE TRAFFIC	
YEAR	Railway	Currency	1 Class	2 Class	Total	1 Class	2 Class	General average	1 Class	2 Class	General average	Total	Amount for accompanied road motor vehicles			
1972	BR	pound sterling	33079	240624	273703	219,14	32,58	36,32	.	.	0,94	.	.	3867	.	277570
1972	CFF	Swiss franc	137267	591112	728379	8,36	2,84	3,25	0,118	0,083	0,088	22884	16340		4578	755841
1972	CFL	Luxemburg franc	19078	363642	382720	74,4	36,89	37,84	.	.	1,838	3163	1681	341		386224
1972	CH	drachma	.	.	521008	.	.	40,43	.	.	0,333	2500	.			523508
1972	CIE	pound sterling	207	5514	5721	1,48	0,47	0,48	0,025	0,007	0,007	.	.	1595		7316
1972	CP	escudo	133399	740107	873506	13,54	7,37	7,92	0,409	0,279	0,293	11026				884532
1972	DB	Deutsche mark	694817	3705661	4400478	33,3	3,87	4,5	0,195	0,105	0,113	40077	16229	36648	11778	4486981
1972	DSB	Danish crown	29660	428700	458360	19,2	3,78	3,99	0,188	0,124	0,127	1870				460230
1972	FS	lira	.	.	262344479	.	.	739,46	.	.	7,412	3355261	1151125	263723	1337904	267301367
1972	NS	florin	55935	432826	488761	5,76	2,49	2,66	0,083	0,059	0,061	872	.	2411		492044
1972	NSB	Norwegian crown	16228	271302	287530	78,78	9,29	9,77	0,266	0,174	0,177	3799			231	291560
1972	OBB	Austrian Schilling	.	.	2255393	.	.	12,71	.	.	0,343	101304	90615	50250	9517	2416469
1972	RENFE	Peseta	.	.	10000906	.	.	56,22	.	.	0,695	39761	.	6930		10047597
1972	SJ	Swedish crown	116611	531289	647900	81,48	9,51	11,3	0,184	0,14	0,147	3964		32549	1783	686196
1972	SNCB	Belgian franc	1379974	9729833	11109807	129,77	52,23	56,41	2,203	1,413	1,479	28566	12804	42078	17381	11197832
1972	SNCF	French franc	1234967	3443403	4678370	37,07	5,93	7,62	0,156	0,098	0,109	52164	28954	113503	18696	4862733
1972	VR	Finnish mark	5810	108115	113925	20,97	3,93	4,1	0,068	0,043	0,044	1055	480	18985	938	134903
1972	BDZ	Leva	.	.	96001	.	.	0,95	.	.	0,014	608		.	.	.
1972	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972	CSD	Czechoslovak crown	.	.	1723697	.	.	3,41	.	.	0,097	77469		9337		1810503
1972	DR	Deutsche Mark of the Deutschen N	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972	JZ	Dinar	.	.	1467341	.	.	10,39	.	.	0,139	8631				1475972
1972	MAV	Forint	135460	2456015	2591475	12,35	7,79	7,95	0,234	0,205	0,207	4199	.	128090		2723764
1972	TCDD	Turkish pound	91300	98999	190299	2,16	1,4	1,68	0,053	0,027	0,036	6144		14453	271	211167
1973	BR	pound sterling	36981	259934	296915	240,51	34,46	40,77	.	.	0,997	.	.	3577	.	300492
1973	CFF	Swiss franc	149736	611242	760978	8,53	2,96	3,4	0,119	0,086	0,091	22776	15741		6414	790168
1973	CFL	Luxemburg franc	22009	403460	425469	84,25	38,76	39,87	.	.	1,963	3717	1784	355		429541
1973	CH	drachma	.	.	569333	.	.	44,76	.	.	0,362	1977	.			571310
1973	CIE	pound sterling	48	7286	7334	1,76	0,58	0,58	0,027	0,008	0,008	.	.	1583		8917
1973	CP	escudo	.	.	964339	.	.	8,22	.	.	0,299	12491				976830
1973	DB	Deutsche mark	869018	3638748	4507766	39,71	4,06	4,42	0,226	0,105	0,116	44707	18167	39290	14185	4605948
1973	DSB	Danish crown	29493	454168	483661	27,72	4,08	4,3	0,217	0,136	0,14	1915				485576
1973	FS	lira	.	.	281073099	.	.	778,42	.	.	7,73	3508206	1293564	166456	1238034	285985795
1973	NS	florin	60958	472483	533441	6,45	2,75	2,94	0,089	0,063	0,065	1012	.	1934		536387
1973	NSB	Norwegian crown	16857	287638	304495	91,61	9,8	10,31	0,269	0,182	0,186	4015			223	308733
1973	OBB	Austrian Schilling	.	.	2439897	.	.	14,08	.	.	0,375	103456	94900	33237	7993	2584583
1973	RENFE	Peseta	.	.	12194909	.	.	63,08	.	.	0,78	36801	.	4566		12236276
1973	SJ	Swedish crown	126280	530691	656971	80,45	9,4	11,32	0,189	0,143	0,15	3705		42957	1711	705344
1973	SNCB	Belgian franc	1479356	10610274	12089630	137,26	57,94	62,35	2,373	1,555	1,623	23828	11373	42861	17329	12173648
1973	SNCF	French franc	1352181	37677674	5119855	40,57	6,56	8,43	0,161	0,104	0,115	60475	34169	130493	23168	5333991
1973	VR	Finnish mark	7393	127033	134426	23,54	4,33	4,54	0,075	0,047	0,048	1029	804	23179	974	159608
1973	BDZ	Leva	.	.	101719	.	.	0,99	.	.	0,014	579		.	.	.
1973	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	CSD	Czechoslovak crown	.	.	1735449	.	.	3,36	.	.	0,09	74140		8979		1818568
1973	DR	Deutsche Mark of the Deutschen N	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	JZ	Dinar	.	.	1904348	.	.	13,94	.	.	0,18	8596		93917		2006861
1973	MAV	Forint	136885	2478163	2615048	12,54	7,94	8,1	0,23	0,206	0,207	4022	.	119823		2738893
1973	TCDD	Turkish pound	95625	90051	185676	1,89	1,35	1,58	0,051	0,027	0,036	7411		19100	355	212542
1974	BR	pound sterling	39346	289174	328520	260,02	40,29	44,83	.	.	1,063	.	.	3860	.	332380
1974	CFF	Swiss franc	157323	683482	840805	9,11	3,38	3,83	0,127	0,097	0,102	23688	16683		6858	871351
1974	CFL	Luxemburg franc	23073	477207	500280	83,58	45,1	46,07	.	.	2,163	3315	1874	369		503964
1974	CH	drachma	.	.	750242	.	.	62,58	.	.	0,489	2834	.			783076
1974	CIE	pound sterling	28	6563	6591	1,45	0,58	0,58	0,024	0,01	0,01	.	.	1308	.	7899
1974	CP	escudo	.	.	111099	.	.	8,77	.	.	0,307	7229				1118328
1974	DB	Deutsche mark	974969	4498670	5473639	47,64	4,87	5,21	0,273	0,127	0,138	48137	18937	37709	12977	5572462
1974	DSB	Danish crown	.	.	470613	.	.	4,43	.	.	0,146	2127				472740
1974	FS	lira	.	.	356953665	.	.	923,16	.	.	9,423	5017258	1432994	28595	1090820	363090338
1974	NS	florin	68374	517936	586310	7,15	2,99	3,2	0,093	0,066	0,068	1060	.	1774		589144
1974	NSB	Norwegian crown	18760	336324	355084	105,99	10,36	10,88	0,3	0,185	0,188	4840			388	360312
1974	OBB	Austrian Schilling	.	.	2426630	.	.	13,99	.	.	0,369	97505	92548	34013	9747	2567895
1974	RENFE	Peseta	.	.	12580593	.	.	63,3	.	.	0,782	32531	.			12613124
1974	SJ	Swedish crown	150540	673965	824505	86,03	10,4	12,39	0,207	0,147	0,155	4013		28266	2254	859038
1974	SNCB	Belgian franc	1657506	12460172	14117678	152,13	67,82	72,54	2,622	1,778	1,848	18925	11289	39537	18916	14195056
1974	SNCF	French franc	1537811	4591021	6128832	44,51	7,72	9,74	0,176	0,12	0,13	69857	39398	153328	25905	6377922
1974	VR	Finnish mark	8247	160054	168301	23,7	4,93	5,13	0,083	0,054	0,055	1216	1097	25304	1090	195911
1974	BDZ	Leva	.	.	105254	.	.	1	.	.	0,014	780		.	.	.
1974	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CSD	Czechoslovak crown	.	.	621396	.	.	3,7	.	.	0,1	72389		9031		1903116
1974	DR	Deutsche Mark of the Deutschen N	.	.	.	.	.	.	.	.	.	.	.	.	.	
1974	JZ	Dinar	.	.	2298272	.	.	17,03	.	.	0,22	9994		97586		2405852
1974	MAV	Forint	153317	2490867	2644184	13,4	8,22	8,41	0,234	0,208	0,209	4008	.	169206		2817398
1974	PKP	.	.	.	7921733	.	.	7,13	.	.	0,19	17198		92701		8031632
1974	TCDD	Turkish pound	112501	100475	212976	2,07	1,35	1,66	0,054	0,027	0,037	9013		23805	347	246141
1975	BDZ	Leva	.	.	104063	.	.	1	.	.	0,014	552				104615
1975	BR	pound sterling	47802	380706	428508	359,95	54,28	59,96	.	.	1,416	.	.	4568	.	433076
1975	CFF	Swiss franc	152761	658865	811626	9,24	3,4	3,85	0,13	0,097	0,102	24054	17646		6440	842120
1975	CFL	Luxemburg franc	25319	541460	566779	90,1	50,1	51,11	.	.	2,418	5243	3659	361		572383
1975	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	CH	drachma	.	.	855534	.	.	68,63	.	.	0,551	3257	.			858791
1975	CIE	pound sterling	45	9682	9727	1,78	0,7	0,7	0,028	0,011	0,011	.	.	1952	.	11679
1975	CP	escudo	.	.	1409298	.	.	10,98	.	.	0,366	10115				1419413
1975	CSD	Czechoslovak crown	.	.	1794540	.	.	3,69	.	.	0,097	71088		11561		1877189
1975	DB	Deutsche mark	930315	4664064	5594379	49,62	5,47	5,55	0,291	0,143	0,152	65816	34776	35927	12101	5708223
1975	DR	Deutsche Mark of the Deutschen N	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	DSB	Danish crown	.	.	559761	.	.	5,26	.	.	0,168	2166				561927
1975	FS	lira	.	.	394993294	.	.	1067,22	.	.	10,871	4202258	1845613	10467	1622116	400828135
1975	JZ	Dinar	.	.	2594575	.	.	20,1	.	.	0,252	12934		729508		3337017
1975	MAV	Forint	170290	2473238	2643528	14,52	8,44	8,68	0,236	0,21	0,212	3669	.	129426		2776623
1975	NS	florin	70964	540417	611381	7,64	3,24	3,47	0,096	0,07	0,072	1067	.	2277		614725
1975	NSB	Norwegian crown	21663	377209	398872	104,15	11,34	11,91	0,3	0,201	0,205	4908			423	404203
1975	OBB	Austrian Schilling	.	.	3522542	.	.	20,8	.	.	0,544	96327	87070	33869	9657	3662395
1975	PKP	zloty	.	.	8714027	.	.	7,79	.	.	0,204	20797		133596		8868420
1975	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	SJ	Swedish crown	175708	786619	962327	96,03	12,49	14,85	0,213	0,163	0,17	4714		62939	2394	1032374
1975	SNCB	Belgian franc	2138648	15127181	17265829	204,62	84,32	90,94	3,325	2,159	2,257	21546	24682	110041	23151	17420567
1975	SNCF	French franc	1790850	5630446	7421296	51,19	9,2	11,48	0,201	0,136	0,147	80840	45797	186558	27705	7716399
1975	VR	Finnish mark	9578	203260	212838	28,85	5,77	5,99	0,1	0,067	0,068	1283	1172	22113	1142	237376
1975	TCDD	Turkish pound	132707	142262	274969	4,41	1,79	2,51	0,101	0,042	0,058	7850		27417	395	310631
1976	BDZ	Leva	.	.	106206	.	.	1,04	.	.	0,014	541		.	.	.
1976	BR	pound sterling	52556	452189	504745	435,82	64,93	71,24	.	.	1,764	.	.	4896	.	509641
1976	CFF	Swiss franc	156321	671581	827902	9,29	3,51	3,97	0,129	0,097	0,102	21452	14495		6226	855580
1976	CFL	Luxemburg franc	29404	742374	771778	101,49	67,14	68,02	.	.	3,214	6669	3449	366		778813
1976	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	drachma	.	.	948152	.	.	73,51	.	.	0,599	5088	.			953240
1976	CIE	pound sterling	43	10704	10747	2,29	0,79	0,79	0,039	0,014	0,014	.	.	2320	.	13067
1976	CP	escudo	.	.	1674396	.	.	12,89	.	.	0,41	8211				1682607
1976	CSD	Czechoslovak crown	.	.	1769163	.	.	3,83	.	.	0,099	60208				1829371
1976	DB	Deutsche mark	911578	4722289	5633867	50,49	5,8	5,84	0,294	0,142	0,151	64425	36318	33294	10823	5742409
1976	DR	Deutsche Mark of the Deutschen N	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	DSB	Danish crown	.	.	639356	.	.	6,41	.	.	0,194	2037				641393
1976	FS	lira	.	.	440391199	.	.	1129,01	.	.	11,258	5036976	1914241	88771	1261475	446778421
1976	JZ	Dinar	.	.	2887184	.	.	22,83	.	.	0,29	14858		411662		3313704
1976	MAV	Forint	171039	2436473	2607512	14,95	8,61	8,85	0,241	0,212	0,214	3330	.	133323		2744165
1976	NS	florin	74636	576584	651220	8,3	3,55	3,8	0,107	0,077	0,079	1238	.	2046		654504
1976	NSB	Norwegian crown	25439	426851	452290	120	13,14	13,84	0,341	0,222	0,226	5071			372	457733
1976	OBB	Austrian Schilling	.	.	3456833	.	.	20,56	.	.	0,532	65816	56157	42672	11837	3577158
1976	PKP	zloty	.	.	9415109	.	.	8,48	.	.	0,22	29300	.	186554		9630963
1976	RENFE	Peseta	.	.	18321377	.	.	88,82	.	.	1,098	35357	.			18356734
1976	SJ	Swedish crown	183048	861679	1044727	111,12	14,03	16,57	0,29	0,182	0,194	5798		63470	3210	1117200
1976	SNCB	Belgian franc	2287765	17021142	19308907	214,86	96,38	103,12	3,522	2,458	2,549	40067	28776	133989	22670	19505633
1976	SNCF	French franc	.	.	8634735	.	.	13,44	.	.	0,17	87229	48466	198592	30570	8951126
1976	VR	Finnish mark	10397	254149	264546	33,54	6,93	7,15	0,118	0,088	0,089	1796	1345	24937	1134	292413
1976	TCDD	Turkish pound	127308	183462	310770	47,33	1,75	2,88	0,198	0,046	0,067	12070		34451	464	357755

A1.1.15. Railway Operating Revenue - Goods Traffic and Postal Traffic Revenue

YEAR	Railway	Currency	GOODS TRAFFIC: REVENUE (IN THOUSANDS): Express parcels	Part-load consignments	Full wagons loads	TOTAL	AVERAGE REVENUE PER TONNE CARRIED: Express parcels	Part-load consignments	Full wagons loads	General Average	AVERAGE REVENUE PER TONNE-KILOMETRE: Express parcels	Part-load consignments	Full wagons loads	General Average	ACCESSORY REVENUE FROM GOODS TRAFFIC (IN THOUSANDS)	REVENUE FROM POSTAL TRAFFIC (IN THOUSANDS)	TOTAL REVENUE (IN THOUSANDS)
1972	BR	pound sterl	42215	12649	169981	224845	.	.	0,99	.	.	.	0,808	.	7884	26239	258968
1972	CFF	Swiss franc	43244	234205	879032	1156481	284,09	107,84	20,09	25,1	3,423	0,94	0,137	0,173		52624	1209105
1972	CFL	Luxemburg	11473	12627	1324590	1348690	2258,91	465,8	60,44	61,45	77,333	11,638	1,696	1,727	22353		1371043
1972	CH	drachma	.	.	.	492340	.	.	.	159,75	.	.	.	0,652		6902	499242
1972	CIE	pound sterl	.	.	.	7685	.	.	.	2,08	.	.	.	0,014	182		7867
1972	CP	escudo		183538	236840	420378		266,25	63,77	95,47		1,943	0,337	0,527	3969	35113	459460
1972	DB	Deutsche r	427301	933379	5628314	6988994	574,31	201,86	17,54	21,43	2,093	0,712	0,09	0,109	221206	270376	7480576
1972	DSB	Danish cro	95528		211777	307305	208,58		28,73	39,25	0,802		0,12	0,164	8546	38038	353889
1972	FS	lira	.	.	.	209755754	.	.	.	3876,6	.	.	.	12,252	3453308	2819115	216028177
1972	NS	florin	11185	136324	193081	340590	484,3	119,5	9,34	15,6	.	.	0,063	.	14925	24948	380463
1972	NSB	Norwegian	.	.	360127	534795	.	.	12,83	18,71	.	.	0,149	0,209	1543	8258	544596
1972	OBB	Austrian Sc	.	.	.	5694630	.	.	.	114,98	.	.	.	0,577	307248	155687	6157565
1972	RENFE	Peseta	1060860		8166062	9226922	2264,86		258,57	287,89	4,563		0,857	0,945	173784	942707	10343413
1972	SJ	Swedish cr	30051	294732	1014117	1338900	1982,91	308,72	17,56	22,8	5,022	0,781	0,07	0,09	48496	46345	1433741
1972	SNCB	Belgian fra	243549	1512819	7799748	9556116	5774,04	2839	112,5	136,7	66,598	28,823	1,041	1,266	302868	251666	10110650
1972	SNCF	French fran	363511	849824	5530775	6744110	1275,48	498,14	22,72	27,48	1,32		0,082	0,099	205675	152980	7102765
1972	VR	Finnish ma	17644	55454	347008	420106	217,29	85,95	15,08	17,69	0,63	0,259	0,055	0,065	15608	6700	442414
1972	BDZ	Leva	1483	4368	225510	231361	47,54	8,19	3,16	3,21	0,206	0,029	0,014	0,015	.	1067	.
1972	CFR	Lei		.	.	.		.	.	.		.	.	.	.	.	.
1972	CSD	Czechoslov	.	.	.	12620983	.	.	.	49,08	.	.	.	0,211	1339466	92582	14053031
1972	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972	JZ	Dinar	73263	226409	4861427	5161099	579,44	261,19	68,14	71,35	1,452	0,726	0,258	0,269		45108	5206207
1972	MAV	Forint	34853	84933	8739065	8858851	563,99	345	77,32	78,17	4,316	1,217	0,451	0,456	994671	154812	10008334
1972	TCDD	Turkish pou	27338		819377	846715	190,18		51,99	53,24	0,324		0,123	0,126	81873		928588
1973	BR	pound sterl	46851	12846	184966	244663	24,28	1,71	0,98	1,23	.	.	0,806	.	8522	26761	279946
1973	CFF	Swiss franc	44741	251373	966102	1262216	330,99	123	21,26	26,5	3,988	1,072	0,14	0,177		58498	1320714
1973	CFL	Luxemburg	11001	15818	1395557	1422376	2057,03	586,16	62,05	63,16	61,117	18,203	1,782	1,814	17821		1440197
1973	CH	drachma	.	.	.	556413	.	.	.	169,07	.	.	.	0,697		6293	562706
1973	CIE	pound sterl	.	.	.	8088	.	.	.	2,17	.	.	.	0,014	179		8267
1973	CP	escudo		199271	250526	449797		240,03	64,45	95,39		1,876	0,352	0,549	184	20111	470092
1973	DB	Deutsche r	439702	942114	6087139	7468955	617,25	210,35	18,09	21,86	2,084	0,723	0,094	0,116	256120	291893	8016968
1973	DSB	Danish cro	120277		254875	375152	262,04		33,47	46,46	0,998		0,135	0,187	7841	43583	426576
1973	FS	lira	.	.	.	211350304	.	.	.	3875,51	.	.	.	12,026	4138736	1232495	216721535
1973	NS	florin	11922	6984	222358	241264	585,1	143,77	9,44	10,21	.	.	0,064	.	16097	27411	284772
1973	NSB	Norwegian	.	.	433434	482389	.	.	14,04	15,6	.	.	0,159	0,176	808	7656	490762
1973	OBB	Austrian Sc	.	.	.	5985030	.	.	.	116,18	.	.	.	0,578	321138	162018	6468186
1973	RENFE	Peseta	1209050		8530107	10739157	2577,94		270,68	301,01	5,175		0,865	0,954	1075482	1020380	12835019
1973	SJ	Swedish cr	32666	314443	1143019	1490128	2109,25	305,97	17,9	22,96	5,169	0,745	0,069	0,088	49518	45413	1585059
1973	SNCB	Belgian fra	267498	1729367	8645036	10641901	6859,63	3316,1	114,47	139,87	78,399	33,731	1,056	1,292	382938	319370	11344209
1973	SNCF	French fran	405056	930274	6192734	7528064	1441,46	527,67	24,31	29,32	1,421		0,086	0,103	231283	171491	7930838
1973	VR	Finnish ma	18970	64207	403237	486414	251,59	89,89	15,89	18,59	0,708	0,274	0,06	0,069	20729	6600	513743
1973	BDZ	Leva	1611	5094	234355	241060	50,96	9,46	3,12	3,18	0,205	0,033	0,014	0,014	.	1029	.
1973	CFR	Lei		.	.	.		.	.	.		.	.	.	.	.	.
1973	CSD	Czechoslov	.	.	.	12570496	.	.	.	48,74	.	.	.	0,212	1340233	96130	14006859
1973	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	JZ	Dinar	82081	245860	6239517	6657458	617,15	294,24	86,06	89,34	1,745	0,799	0,315	0,325	169565	50552	6877575
1973	MAV	Forint	34577	80558	9359738	9474873	600,81	363,34	80,01	80,81	4,297	1,295	0,454	0,458	1220486	139838	10835197
1973	TCDD	Turkish pou	28628		1002392	1031020	228,31		67,42	6876	0,456		0,15	0,153	83247		1114267
1974	BR	pound sterl	45882	12726	191999	250607	25,07	1,77	1,13	1,42	.	.	0,888	.	8008	29190	287805
1974	CFF	Swiss franc	43438	291690	931083	1266211	363,99	154,96	21,07	27,41	4,385	1,35	0,137	0,181		69213	1335424
1974	CFL	Luxemburg	11784	14363	1606113	1632260	2036,29	531	69,65	70,68	59,216	16,102	1,861	1,889	15834		1648094
1974	CH	drachma	.	.	.	809693	.	.	.	204,73	.	.	.	0,898		7915	817608
1974	CIE	pound sterl	.	.	.	6087	.	.	.	2,26	.	.	.	0,013	158		6245
1974	CP	escudo		.	.	539983		.	.	119,59		.	.	0,587		18500	558483
1974	DB	Deutsche r	422647	860511	6774120	8057278	694,01	214,62	19,51	22,9	2,343	0,731	0,101	0,118	269290	305703	8632271
1974	DSB	Danish cro	134601		304188	438789	275,26		36,7	49,99	0,989		0,147	0,199	13363	38817	490969
1974	FS	lira	.	.	.	272130153	.	.	.	5153,59	.	.	.	14,998	6206508	2396691	280733352
1974	NS	florin	5420	6970	229976	242366	550,31	152,59	10,18	10,71	.	.	0,068	.	17801	31108	291275
1974	NSB	Norwegian	.	.	424151	550365	.	.	13,56	17,57	.	.	0,148	0,191	10104	7743	568212
1974	OBB	Austrian Sc	.	.	.	6938654	.	.	.	128,3	.	.	.	0,626	354761	175893	7469308
1974	RENFE	Peseta	1490353		11821362	13311715	3040,69		297,29	330,7	6,395		0,982	1,085	728314	1101530	15141559
1974	SJ	Swedish cr	38484	364595	1399977	1803056	2197,96	321,36	20,59	26,08	5,306	0,787	0,079	0,099	57863	50063	1910982
1974	SNCB	Belgian fra	263478	1904165	9995208	12162851	7876,3	3678,71	121,76	147,17	88,773	37,682	1,093	1,322	566539	342853	13072243
1974	SNCF	French fran	484120	1126961	7018852	8629933	1704,65	639,96	26,79	32,68	1,705		0,093	0,113	289776	171041	9090750
1974	VR	Finnish ma	22541	71670	483774	577985	303,79	111,17	18,39	21,38	0,838	0,328	0,067	0,077	34192	6600	618777
1974	BDZ	Leva	1546	4106	256247	261899	49,82	7,37	3,31	3,36	0,189	0,026	0,015	0,015	.	1054	.
1974	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CSD	Czechoslov	.	.	.	13146619	.	.	.	49,9	.	.	.	0,214	1379658	95441	14621718
1974	DR	Deutsche M	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	JZ	Dinar	109512	284434	8044714	8438660	799,36	349	99,87	103,53	1,679	0,844	0,355	0,366	292914	62168	8793742
1974	MAV	Forint	36754	86407	10100874	10224035	620,82	365,97	81,48	82,28	4,412	1,262	0,451	0,455	1373292	142350	11739677
1974	PKP	Zloty	206413	28555679		28762092	881,35	.	64,42	64,79	3,973	0,231		0,233	2612414	196896	31571402
1974	TCDD	Turkish pou	31713		1112308	1144021	248,25		81,73	83,28	1,161		0,174	0,179	80560		1224581
1975	BDZ	Leva	1518	4804	262889	269211	47.72	8.38	3.36	3.42	0.195	0.029	0.015	0.016	0.016	1069	270280
1975	BR	pound sterl	53139	14079	229616	296834	30.89	2.10	1.37	1.68	.	.	1.094	.	8235	34300	339369
1975	CFF	Swiss franc	38656	263436	784675	1086767	435.99	184.98	23.82	31.54	5.253	1.618	0.158	0.211		77617	1164384
1975	CFL	Luxemburg	12142	18746	1286764	1317652	2314.97	762.34	76.64	78.34	64.931	20.969	1.958	2.002	16.490		1.334.142
1975	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	CH	drachma	.	.	.	860031	.	.	.	213.20	.	.	.	0.924		8463	868494
1975	CIE	pound sterl	.	.	.	8447	.	.	.	2.46	.	.	.	0.015	240		8687
1975	CP	escudo		.	.	509952		.	.	153.79		.	.	0.676		17497	527449
1975	CSD	Czechoslov	.	.	.	13425041	.	.	.	50.04	.	.	.	0.215	1437859	96496	14959396
1975	DB	Deutsche r	404359	758478	5682717	6845554	712.24	226.89	20.06	23.83	2.405	0.770	0.107	0.126	213024	338532	7397110
1975	DR	DDR Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	DSB	Danish cro	146289		319057	465346	328.00		42.69	58.76	1.235		0.173	0.237	11655	48201	525202
1975	FS	lira	.	.	.	246454727	.	.	.	5710.19	.	.	.	16.566	4660618	2795480	253910825
1975	JZ	Dinar	89971	474898	9400985	9965854	476.04	581.27	129.27	134.87	1.681	1.562	0.446	0.484	453928	65276	11002443
1975	MAV	Forint	48783	124781	10878253	11051817	898.07	487.67	86.35	87.52	6.379	1.748	0.481	0.487	1415324	144213	1211353
1975	NS	florin	4081	6066	210195	220342	636.36	177.44	11.88	12.42	.	.	0.077	.	15681	32242	268265
1975	NSB	Norwegian	.	.	460167	596948	.	.	18.41	23.82	.	.	0.181	0.233	11545	9572	618065
1975	OBB	Austrian Sc	.	.	.	6629763	.	.	.	143.01	.	.	.	0.707	299628	198882	7128273
1975	PKP	zloty	196565	29457611		29654176	842.43	.	64.84	65.24	3.721	0.231		0.233	2477263	197079	32328518
1975	RENFE	Peseta	2366969		15050643	14417612	5371.33		335.35	396.36	10.787		1.181	1.383	162.193	1.225.869	15.805.674
1975	SJ	Swedish cr	43861	391996	1380267	1816124	2449.92	353.55	25.40	32.74	5.754	0.870	0.095	0.121	69196	60664	1945984
1975	SNCB	Belgian fra	235116	1889219	7851646	9975981	8655.43	4166.77	132.63	167.15	93.115	42.903	1.162	1.466	360.908	372.089	10.708.978
1975	SNCF	French fran	519482	1226010	6468700	8214192	2005.72	731.07	30.02	37.79	4.156	1.586	0.103	0.129	248787	245661	8708640
1975	VR	Finnish ma	23872	81040	523307	628219	369.53	144.66	24.01	28.01	1.003	0.415	0.084	0.098	23.782	7.300	659.301
1975	TCDD	Turkish pou	46831		2105666	2152497	419.09		156.49	158.66	1.894		0.311	0.317	146199	.	2298696
1976	BDZ	Leva	1184	5453	260469	267106	5,27	10,17	3,4	3,45	0.019	0,036	0,015	0,015	.	1081	.
1976	BR	pound sterl	64648	15086	290343	370077	44,71	2,1	1,72	2,08	.	.	1,412	.	9496	33300	412873
1976	CFF	Swiss franc	317239		787209	1104448	225,81		21,9	29,57	1,98		0,143	0,195		81115	1185563
1976	CFL	Luxemburg	12487	17410	1268598	1298495	2319,28	857,04	81,08	82,85	64,366	21,129	2,036	2,08	16,578	3244	1318317
1976	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	drachma	.	.	.	996253	.	.	.	282,54	.	.	.	1,18		9693	1005946
1976	CIE	pound sterl	.	.	.	9952	.	.	.	2,82	.	.	.	0,017	299		10251
1976	CP	escudo		.	.	660038		.	.	192,99		.	.	0,773		15200	675238
1976	CSD	Czechoslov	.	.	.	13832566	.	.	.	50,7	.	.	.	0,215	1423623	95110	15351299
1976	DB	Deutsche r	419834	699105	6169830	7288769	783,56	226,32	20,9	24,39	2,581	0,765	0,108	0,125	241572	341003	7871344
1976	DR	DDR Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	DSB	Danish cro	190081		315502	505538	342,49		47,63	70,43	1,46		0,191	0,284	11918	60607	578108
1976	FS	lira	.	.	.	310503328	.	.	.	6410,97	.	.	.	18,961	4627707	2577644	317708679
1976	JZ	Dinar	152673	443679	10691395	11287747	1221,38	705,37	146,51	153,1	2,898	1,745	0,516	0,537	949351	86765	12323863
1976	MAV	Forint	53942	126598	11408040	11588580	1088,51	512,3	90,72	91,94	7,453	1,855	0,515	0,521	1530102	149804	13268486
1976	NS	florin	4361	6031	224327	234719	705,66	202,98	12,69	13,25	.	.	0,083	.	15796	30588	281103

A1.1.15. Railway Operating Revenue - Goods Traffic and Postal Traffic Revenue

			GOODS TRAFFIC												ACCESSORY REVENUE FROM GOODS TRAFFIC	REVENUE FROM POSTAL TRAFFIC	TOTAL REVENUE
			REVENUE (IN THOUSANDS)				AVERAGE REVENUE PER TONNE CARRIED				AVERAGE REVENUE PER TONNE-KILOMETRE				(IN THOUSANDS)		
YEAR	Railway	Currency	Express parcels	Part-load consignments	Full wagons loads	TOTAL	Express parcels	Part-load consignments	Full wagons loads	General Average	Express parcels	Part-load consignments	Full wagons loads	General Average			
1976	NSB	Norwegian	.	.	512446	706323	.	.	17,87	24,56	.	.	0,19	0,261	13697	10329	730349
1976	OBB	Austrian Sc	.	.	.	7434619	.	.	.	148,98	.	.	.	0,705	304383	198214	7937216
1976	PKP	zloty	305994	47703739		48009733	1469,4	.	105,03	105,66	6,416	0,37		0,372	4859577	313083	53182393
1976	RENFE	Peseta	2804265		15856238	18660503	5717,16		464,45	538,84	10,386		1,551	1,778	169254	1835824	20665581
1976	SJ	Swedish cr	49496	427004	1530238	2007272	2583,16	392,13	27,45	35,29	6,039	0,961	0,103	0,131	67168	60538	2134978
1976	SNCB	Belgian fra	223762	2135221	8509629	10868612	9554,31	4826,46	141,79	179,71	100,976	50,223	1,28	1,624	406604	371337	11646553
1976	SNCF	French fra	544101	1342717	7840771	9727589	2305,51	747,62	35,07	43,12	4,773	1,62	0,0017	0,143	280804	298444	10306837
1976	VR	Finnish ma	30122	107356	634869	772347	560,93	226,25	28,12	33,42	1,484	0,639	0,1	0,118	36872	8100	817319
1976	TCDD	Turkish pou	43796		2975930	3019726	490,51		222,85	224,63	2,203		0,41	0,415	167367		3187093

A1.1.16. Operating Revenue

YEAR	Railway	Currency	RAILWAY OPERATING REVENUE: Total revenue from passenger traffic and baggage	Total revenue from goods traffic and postal	Various revenue and contribution	TOTAL	OTHER OPERATING REVENUE: ROAD SERVICES Passenger	Goods	shipping services	work Supplies for third parties	Various	TOTAL	TOTAL REVENUE
1972	BR	pound sterling	277570	258968	94596	631134		.	40795	6673	63717	111185	742319
1972	CFF	Swiss franc	755841	1209105	213990	2178936	233	1	2773	42757	71	45835	2224771
1972	CFL	Luxemburg franc	386224	1371043	950009	2707276	67105	14212				81317	2788593
1972	CH	drachma	523508	499242	667608	1690358	170571		373	8253	24437	203634	1893992
1972	CIE	pound sterling	7316	7867		15183	20535	6954	89		3178	30756	45939
1972	CP	escudo	884532	459460		1343992	4173				740583	744756	2088748
1972	DB	Deutsche mark	4587795	7480576	1930384	13998755	437752	505422	28470	507953	1285821	2765418	16764173
1972	DSB	Danish crown	460230	353889		814119	78427	.	129896		114948	323271	1137390
1972	FS	lira	267301367	216028177	313598883	796928427	included in c	in col.5	col.4 and 5			.	796928427
1972	NS	florin	492044	380463	318902	1191409							1191409
1972	NSB	Norwegian crown	291560	544596	44966	881122	53179	27233			1789	82201	963323
1972	OBB	Austrian Schilling	2416469	6157565	3561832	12135866	282732	44995	10345	3289	5345	346706	12482572
1972	RENFE	Peseta	10047597	10343413	3457221	23848231	154829					154829	24003060
1972	SJ	Swedish crown	686196	1433741	335689	2455626	153200	13234	76050		13039	255523	2711149
1972	SNCB	Belgian franc	11197832	10110650	12391827	33700309	1467231				23696	1490927	35191236
1972	SNCF	French franc	4862733	7102765	3591999	15557497	25969	68654	114222	371438	273236	853519	16411016
1972	VR	Finnish mark	134903	442414	2279	579596		1224			38326	39550	619146
1972	BDZ	Leva	.	.	.	.				.	.	.	.
1972	CFR	Lei	.	.	.	.				.	.	.	.
1972	CSD	Czechoslovak crown	1810503	14053031	.	.				.	.	.	.
1972	DR	Deutsche Mark of the Deuts	.	.	.	.			.	.	.	.	.
1972	JZ	Dinar	1475972	5206207		6682179	19810151	925406	13348489	37986110	45110391	117180547	1244256920
1972	MAV	Forint	2723764	10008334	2813285	15545383				3053864	1048882	4102746	19648129
1972	TCDD	Turkish pound	211167	928588		1139755					962977	962977	2102732
1973	BR	pound sterling	300492	279946	91441	671879			46582	4764	72954	124300	796179
1973	CFF	Swiss franc	790168	1320714	242278	2353160	249	2	3214	43996	201	47662	2400822
1973	CFL	Luxemburg franc	429541	1440197	1106364	2976102	67611	15459				83070	3059172
1973	CH	drachma	571310	562706	671781	1805797	182118		2216	23853	49471	257658	2063455
1973	CIE	pound sterling	8917	8267		17184	24177	7687	89		3947	35900	53084
1973	CP	escudo	976830	470092		1446922	6951				767786	774737	221659
1973	DB	Deutsche mark	4716585	8016968	2022941	14756494	493220	576650	38415	529567	2318826	3956678	18713172
1973	DSB	Danish crown	485576	426576		912152	87321	.	150567		117835	355723	1267875
1973	FS	lira	285985795	216721535	460759816	963467146	.	.	.			.	963467146
1973	NS	florin	536387	284772	392801	1213960						1213960	
1973	NSB	Norwegian crown	308733	490762	78393	877888	55769	30773			4702	91244	969132
1973	OBB	Austrian Schilling	2584583	6468186	3548171	12600940	257326	48762	12571	94358	4735	417752	13018692
1973	RENFE	Peseta	12236276	12835019	3345395	28416690	248378					248378	28665068
1973	SJ	Swedish crown	705344	1585059	402134	2692537	167312	12594	81787		14039	275732	2968269
1973	SNCB	Belgian franc	12173648	11344209	12631749	36149606	1645449				22016	1667465	37817071
1973	SNCF	French franc	5333991	7930838	3920997	17185826	31882	86920	125272	379283	316825	940182	18126008
1973	VR	Finnish mark	159608	513743	2457	675808		660			44221	44881	720689
1973	BDZ	Leva	.	.	.	.				.	.	.	.
1973	CFR	Lei	.	.	.	.				.	.	.	.
1973	CSD	Czechoslovak crown	1818568	14006859	.	.				.	.	.	.
1973	DR	Deutsche Mark of the Deuts	.	.	.	.			.	.	.	.	.
1973	JZ	Dinar	2006861	6877575		8884436	.	.				.	8884436
1973	MAV	Forint	2738893	10835197	3320278	16894368				3192192	817864	4010056	20904424
1973	TCDD	Turkish pound	212542	1114267		1326809					1173105	1173105	2499914
1974	BR	pound sterling	332380	287805	154325	774510			57331	8810	87041	153182	927692
1974	CFF	Swiss franc	871351	1335424	264022	2470797	276	1	3015	52563	142	55997	2526794
1974	CFL	Luxemburg franc	503964	1648094	1411982	3564040	86491	17829				104320	3668360
1974	CH	drachma	783076	817608	1101532	2702216	305932		2498	23449	45518	377397	3079613
1974	CIE	pound sterling	7899	6245		14144	17941	6541	101		3843	28426	42570
1974	CP	escudo	1118328	558483	3	1676814	3624			15043	1038425	1057092	2733906
1974	DB	Deutsche mark	5697583	8632271	2433496	16763350	539755	679052	37655	571750	2457949	4286161	21049511
1974	DSB	Danish crown	472740	490969		963709	95367	.	220445		162509	478321	1442030
1974	FS	lira	363090338	280733352	740720592	1384544282	.	.	.			.	1384544282
1974	NS	florin	589144	291275	501827	1382246							1382246
1974	NSB	Norwegian crown	360312	568212	96377	1024901	62289	32176			6023	100488	1125389
1974	OBB	Austrian Schilling	2567895	7469308	3272416	13309619	331075	57329	12259	105164	5016	510843	13820462
1974	RENFE	Peseta	12613124	151141559	5598036	33352719	278683					278683	33631402
1974	SJ	Swedish crown	859038	1910982	430256	3200276	195499	12804	89283		14951	312537	3512813
1974	SNCB	Belgian franc	14195056	13072243	14690368	41957667	1843549				28225	1871774	43829441
1974	SNCF	French franc	6377922	9090750	4869821	20338493	35639	100856	166231	505253	390384	1198363	21536856
1974	VR	Finnish mark	195911	618777	2364	817052		551			50328	50879	867931
1974	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.
1974	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.
1974	CSD	Czechoslovak crown	1903116	14621718	.	.				.	.	.	.
1974	DR	Deutsche Mark of the Deuts	.	.	.	.	.	.	.	.	.	.	.
1974	JZ	Dinar	2405852	8793742		11199594	.	.				.	11551185
1974	MAV	Forint	2817	11739677	3658854	18215929				3226171	924197	4150368	22366297
1974	PKP	Zloty	8031632	31571402	3625155	43228189							43228189
1974	TCDD	Turkish pound	246141	1224581		1470722					1462429	1462429	2933151
1975	BDZ	Leva	104615	270280	892	375787							375787
1975	BR	pound sterling	433076	339369	401612	1174057			76489	7461	108217	192167	1366224
1975	CFF	Swiss franc	842120	1164384	269803	2276307	337	1	2653	44565	83	47639	2323946
1975	CFL	Luxemburg franc	572383	1334142	2197581	4104106	98668	17447				116115	4220221
1975	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.
1975	CH	drachma	858791	868494	1073055	2800340	372164		2737	24798	59760	459459	3259799
1975	CIE	pound sterling	11679	8687		20366	31895	9425	126		5208	46654	67020
1975	CP	escudo	1419413	527449	3	1946865	4498			11619	2653119	2669236	4616101
1975	CSD	Czechoslovak crown	1877189	14959396	.	.				.	.	.	.
1975	DB	Deutsche mark	5830322	7397110	2624072	15851504	581391	655044	28598	619366	2479787	4364186	20215690
1975	DR	DDR Mark	2554774	4779062	32980	7366816			35031	22935		57966	7424782
1975	DSB	Danish crown	561927	525202		1087129	95626	.	247773		227968	571367	1658496
1975	FS	lira	400828135	253910825	960538396	1615277356	.	.	.			.	1615277356
1975	JZ	Dinar	3337017	11002443		14339460	.	.		5572641	2773374	3346015	17685475
1975	MAV	Forint	2776623	12611354	3589767	18977744				3883408	1172448	5055856	24033600
1975	NS	florin	614725	268265	625492	1508482							11508482
1975	NSB	Norwegian crown	404203	618065	112510	1134778	66281	36393			14394	117068	1251846
1975	OBB	Austrian Schilling	3662395	7128273	1992341	12783009	410643	51043	13914	120720	5245	601565	13384574
1975	PKP	zloty	8868420	32328518	3783280	44980218							44980218
1975	RENFE	Peseta	14444259	15805674	7660381	37910314	240018					240018	38150332
1975	SJ	Swedish crown	1032374	1945984	536942	3515300	226199	14400	93709		14070	348378	3863678
1975	SNCB	Belgian franc	17420399	10708978	20419606	48549151	2145268				37788	2183056	50732207
1975	SNCF	French franc	7716399	8708640	5662654	22087693	47193	99459	195633	529047	456750	1328082	23415775
1975	VR	Finnish mark	237376	659301	2402	899079					63284	64615	963694
1975	TCDD	Turkish pound	310631	2298696		2609327					2210774	2210774	4820101

A1.1.16. Operating Revenue

YEAR	Railway	Currency	RAILWAY OPERATING REVENUE: Total revenue from passenger traffic and baggage	Total revenue from goods traffic and postal	Various revenue and contribution	TOTAL	OTHER OPERATING REVENUE: ROAD SERVICES: Passenger	Goods	shipping services	work Supplies for third parties	Various	TOTAL	TOTAL REVENUE
1976	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.
1976	BR	pound sterling	509641	412873	366792	1289306			94197	4646	113949	212792	1502098
1976	CFF	Swiss franc	855580	1185563	276108	2317251	344	1	2256	55137		57738	2374989
1976	CFL	Luxemburg franc	778813	1318317	2468146	4565276	119210	18179				137389	4702665
1976	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.
1976	CH	drachma	953240	1005946	1277895	3237081	419812		2998	39901	71749	534460	3771541
1976	CIE	pound sterling	13067	10251		23318	38055	10201	161		6205	54622	77940
1976	CP	escudo	1682607	675238	5	2357850	7992			15471	4238607	4262070	6619920
1976	CSD	Czechoslovak crown	1829371	15351299	.	.				.	.	.	.
1976	DB	Deutsche mark	5742409	7871344	2797065	16410818	547568	881724	28284	677951	2970372	5105899	21516717
1976	DR	DDR Mark	.	.	.	.	.	.	.	.	.	.	.
1976	DSB	Danish crown	641393	578108	.	1219501	100491	.	297516		244744	642751	1862252
1976	FS	lira	446778421	317708679	1211770083	1976257183	.	.	.			.	1976257183
1976	JZ	Dinar	3313704	12323863		15637567	.	.		548075	2503737	3051812	18689379
1976	MAV	Forint	2744165	13268486	4840949	20853600				3786366	1605811	5392177	26245777
1976	NS	florin	654504	281103	859922	1831529							1831529
1976	NSB	Norwegian crown	457733	730349	119562	1307644	77521	43590			14697	135808	1443452
1976	OBB	Austrian Schilling	3577158	7937216	2205100	13719474	472548	60514	15259	146863	4721	699905	14419379
1976	PKP	zloty	9630963	53182393	4433935	67247291							67247291
1976	RENFE	Peseta	18356734	20665581	6848747	45871062	1817835					1817835	47688897
1976	SJ	Swedish crown	1117200	2134978	627741	3879919	257270	14398	102673	43227	14061	431629	4311548
1976	SNCB	Belgian franc	19505633	11646553	20990563	52142749	2400708				22198	2422906	54565655
1976	SNCF	French franc	8951126	10306837	6558084	25816047	.	.	235276	522135	158374	915785	26731832
1976	VR	Finnish mark	292413	817319	2769	1112501		1022			63445	64467	1176968
1976	TCDD	Turkish pound	357755	3187093		3544848					3331628	3331628	6876476

A.1.1.17.Operating Charges

YEAR	Railway	Currency	CHARGES FOR RAILWAY OPERATION							CHARGES FOR OTHER TYPES OF OPERATION					Total Charges	Amount for Depreciation or Renewal	
			GENERAL MANAGEMENT	General charges (financial charges, taxes and dues, various general charges)	OPERATING AND TRAFFIC	Rolling Stock and Motive power		Way and Works		Road services	Shipping Services	Work and Supplies for third parties	Various	TOTAL			
						Total	Amount for depreciation or renewal	Total	Amount for depreciation or renewal								
1972	BR	pound sterling	56510		238227	189569	.	121665	.	18208	37573	6277	49415	111473	717444	.	
1972	CFF	Swiss franc	131217	246916	832671	570727	117701	420413	97942	504	3168	36865		40537	2242481	224906	
1972	CFL	Luxemburg franc	228246	260554	792843	832146	47981	534439	95869	157785				157785	2806013	180469	
1972	CH	drachma	108882	90821	391107	785963	195664	468225	148403	132263	1692	10697	30	144682	1989680	344067	
1972	CIE	pound sterling	1661	1715	9493	5728	1106	4309	1450	28131	127		3251	31509	54415	4627	
1972	CP	escudo	186812	424047	570237	1004221	242342	358656	67078	4478				4478	2548451	310485	
1972	DB	Deutsche mark	317061	2911827	5885790	3627221	454185	4093252	1035331	1086407	28558	461565	818602	2395132	19230283	1489516	
1972	DSB	Danish crown	90828	204104	494055	371596	38143	279514	28237	86249	155608		394	242251	1682348	85397	
1972	FS	lira	39265097	366472722	371913960	353475719	11000000	258991448	50000000	2272639	12544041			14816680	1404935626	63300000	
1972	NS	florin	91479	90590	450466	415759	91214	307623	144896						1355917	240267	
1972	NSB	Norwegian crown	113269	81927	355255	368767	38136	298530	46611	82861			17758	100619	1318367	94235	
1972	OBB	Austrian Schilling	1079814	536987	5037660	5179357	623855	3463819	1060581	581247	12017		5855	599119	15896756	1721015	
1972	RENFE	Peseta	2326001	417581	5242822	11574596	1395784	7734738	2464151	10766			339703	350469	27646207	.	
1972	SJ	Swedish crown	133573	471348	719147	722288	73758	401460	53660	167487	34430			201917	2649733	152363	
1972	SNCB	Belgian franc	1293088	1867333	9845051	11754612	2672585	7200488	2781057	3290832				3290832	35251404	5500000	
1972	SNCF	French franc	514950	1393740	4126203	5019511	774459	4088881	1416832	189083	123052	321870	728564	1362569	16505854	2210970	
1972	VR	Finnish mark	22719	100556	201201	281925	80272	103766	40781	25636			6881	32517	742684	124567	
1972	BDZ	Leva															
1972	CFR	Lei															
1972	CSD	Czechoslovak crown													14478300		
1972	DR	Deutsche Mark of the Deut															
1972	JZ	Dinar								27796291	11505873			39302164	1594402946	180355180	
1972	MAV	Forint													19172215		
1972	TCDD	Turkish pound	213604	207226	410779	1250554	52710	570201	163235				234763	234763	2887127	240060	
1973	BR	pound sterling	65430		257567	202694	.	141939	.	20131	43808	4391	54499	122829	790459	.	
1973	CFF	Swiss franc	147908	280436	923405	648263	125419	452655	104860	601	3225	36977		40803	2493470	241672	
1973	CFL	Luxemburg franc	241823	272483	892551	929454	54432	587642	105333	173191				173191	3097144	199674	
1973	CH	drachma	82927	89764	512516	835009	108730	578834	113634	152173	2408	12675		167256	2266306	238924	
1973	CIE	pound sterling	1887	1716	12181	6311	1083	4641	1373	33191	140		4683	38014	64750	5032	
1973	CP	escudo	193919	351133	544837	810557	96148	315982	26844	5231				5231	2221659	124058	
1973	DB	Deutsche mark	347806	5066258	5128672	3711534	460019	4428864	1077599	1130636	27226	480930	902510	2541302	21224436	1582238	
1973	DSB	Danish crown	41928	248956	562239	392548	41136	287443	30989	95008	162781	2936		260725	1793839	94443	
1973	FS	lira	42703583	430705165	436065611	409276655	10602000	312966547	48184000	7405646	17334431			24740077	1656457638	61000000	
1973	NS	florin	99648	99164	367317	455708	98422	347461	165246						1369298	265507	
1973	NSB	Norwegian crown	122599	78650	377772	397448	41265	324709	50434	94738			8838	103576	1404754	101931	
1973	OBB	Austrian Schilling	987482	746447	5570132	5396342	657137	3871977	1088844	627797	13778		6235	647810	17220190	1785386	
1973	RENFE	Peseta	2108658	510147	5619559	13127797	1577370	8670552	2833102	9689			14955	24644	30061357	.	
1973	SJ	Swedish crown	149534	472973	717744	858495	125508	460315	92038	180158	36669			216827	2875888	249793	
1973	SNCB	Belgian franc	1395467	1950083	10693481	12570586	2674421	7704686	2776569	3597008				3597008	37911311	5500000	
1973	SNCF	French franc	748863	1610911	4553146	5453712	811899	4514882	1629754	235271	142503	311169	840863	1529806	18411320	2463278	
1973	VR	Finnish mark	23901	120505	238148	301719	78363	117181	45517	30457			15789	46246	847700	127689	
1973	BDZ	Leva															
1973	CFR	Lei															
1973	CSD	Czechoslovak crown													14845682		
1973	DR	Deutsche Mark of the Deut															
1973	JZ	Dinar													8967082		
1973	MAV	Forint													19725124		
1973	TCDD	Turkish pound	177518	176264	482164	1370489	65282	645938	173819				266331	266331	3118704	263073	
1974	BR	pound sterling	87949		323557	269496	.	177807	.	23140	59550	8247	63867	154804	1013613	.	
1974	CFF	Swiss franc	159201	339998	1002162	689509	134400	519329	121077	717	4965	45027		50709	2760908	266014	
1974	CFL	Luxemburg franc	292364	281954	1097135	1145117	77635	713111	126528	226682				226682	3756363	252687	
1974	CH	drachma	124176	281540	618999	1334263	243614	802134	199439	287462	3263	10730		301455	3462567	463073	
1974	CIE	pound sterling	1256	1389	10101	7027	962	4917	1951	27765	145		4470	32380	57070	4952	
1974	CP	escudo	105898	517807	551500	1046235	38900	748496	35100	6200	22686	122620	139271	290777	3260713	74000	
1974	DB	Deutsche mark	362825	5786326	5636885	4132813	457551	4996824	1081240	1226401	35280	582146	1066228	2910055	23825728	1585001	
1974	DSB	Danish crown	59370	300420	589768	444223	43208	317692	33536	113375	190102	25290		328767	2040240	100019	
1974	FS	lira	58118356	416936840	573123847	525481990	18249000	427499490	82939500	6328696	25691255			32019951	2033180474	105000000	
1974	NS	florin	115273	112537	416934	521470	107099	392635	183743						1558849	292016	
1974	NSB	Norwegian crown	136159	-4087	413538	445089	44797	357708	54752	109026			13376	122402	1470809	110275	
1974	OBB	Austrian Schilling	947329	745521	4675352	5188169	738116	3422574	1050136	584834	14754		5153	604741	15583686	1831757	
1974	RENFE	Peseta															
1974	SJ	Swedish crown	180900	534743	748008	1035627	177427	522372	123994	207107	71917			279024	3300674	328976	
1974	SNCB	Belgian franc	1646883	1958667	12951866	14674772	2779884	8940986	2987230	3705093				3705093	43878267	5850000	
1974	SNCF	French franc	849460	1908583	5451329	6478953	844847	5055342	1777456	283576	183302	376484	1029394	1872756	21616423	2647024	
1974	VR	Finnish mark	30076	155227	306870	369646	80045	148824	49533	40383			13723	54106	1064749	134288	
1974	BDZ	Leva															
1974	CFR	Lei															
1974	CSD	Czechoslovak crown													15193971		
1974	DR	Deutsche Mark of the Deut															
1974	JZ	Dinar													12102000		
1974	MAV	Forint													21000349		
1974	PKP	Zloty															
1974	TCDD	Turkish pound	212309	205687	650000	1957946	78171	796930	191408				334995	334995	4160815	294254	
1975	BDZ	Leva															
1975	BR	pound sterling	81606		417380	321347	.	315499	.	25122	81787	7010	78582	192501	1328360	.	1
1975	CFF	Swiss franc	180672	398657	1047206	726492	148506	554266	141310	857	3574	35038		39469	2946762	300715	
1975	CFL	Luxemburg franc	345828	298161	1291199	1313757	89930	852909	132504	275472				275472	4377326	293111	
1975	CFR	Lei															
1975	CH	drachma	154730	198255	739239	1401765	201838	878946	163394	293580	4671	24795		323046	3695981	369060	
1975	CIE	pound sterling	2789	2236	15847	11783	1469	7779	2942	48199	213		6192	54604	95038	7461	
1975	CP	escudo	294444	762245	1597446	1294218	48182	1036029	69008	8579	383831		318341	365751	5350133	119047	
1975	CSD	Czechoslovak crown															
1975	DB	Deutsche mark	347894	6426640	5543347	4331372	535866	4937286	1266595	1227597	33184	645298	1084590	2990669	24577208	1844651	
1975	DR	DDR Mark															
1975	DSB	Danish crown	73150	373754	699034	557231	46280	364985	36589	128791	227209	44203		400203	2468357	109228	
1975	FS	lira	59569470	578167743	611618680	579290217	40843000	557140733	185626500	13150785	29053002			42203787	2427990630	235000000	
1975	JZ	Dinar													17255000	2842000	
1975	MAV	Forint													22564568		
1975	NS	florin	129696	134209	465828	600253	119111	465870	222272						1795856	342737	
1975	NSB	Norwegian crown	163979	-5575	478063	513486	47202	404460	57691	121893			14396	136289	1690702	120033	
1975	OBB	Austrian Schilling	1061269	805194	5396873	5294336	785795	3708795	1198694	671853	1,53E+08		6237	693380	16959847	1970639	
1975	PKP	zloty															
1975	RENFE	Peseta	4905004	395771	12188542	18120920	2115783	13644199	4038939	15106			21140	36246	49290682	.	
1975	SJ	Swedish crown	214792	674833	852270	1169706	188924	614036	137448	233582	81243			314816	3840453	352523	
1975	SNCB	Belgian franc	2008721	2441625	16200290	16980194	3071102	10599087	3181559	3705140				3705140	51935057	6300000	
1975	SNCF	French franc	956308	2039880	6294988	7514195	880904	5747551	2019612	282151	231853	427749	1104105	2045858	24598780	2945202	
1975	VR	Finnish mark	38924	209496	377?	451640	82489	192262	55786	48656			13612	62268	1331639	144626	
1975	TCDD	Turkish pound	289000	352792	1004659	2440278	107480	1181930	216787				621301	621301	5889960	350874	
1976	BDZ	Leva															
1976	BR	pound sterling	93080	43600	453986	362418	.	329273	.	27809	96269	4292	86108	214478	1486835	.	1
1976	CFF	Swiss franc	183119	470103	1047158	754822	158556	576366	155485	853	3315	46891		51059	3082627	354168	
1976	CFL	Luxemburg franc	373203	338608	1406593	1374565	101483	936315	208922	320506				320506	4749790	328276	
1976	CFR	Lei															
1976	CH	drachma	174557	186763	946613	1670300	240363	1071818	164747	345689	3867	38863		388419	4438470	412514	
1976	CIE	pound sterling	3101	2717	20798	13555	2434	8531	3094	55561	263		6979	62803	111505	9579	
1976	CP	escudo	286250	1223914	1962750	1685245	88538	1369613	112192	28551	46882	15425	660034	750892	7278664	214511	
1976	CSD	Czechoslovak crown													16100587		
1976	DB	Deutsche mark	339797	7326741	5267714	4108163	436919	5001179	1178596	1449547	36972	680883	1179991	3347393	25390987	1662760	
1976	DR	DDR Mark															
1976	DSB	Danish crown	83351	318714	780972	624806	52538	429539	41101	133154	267247	51923		452324	2689706	120222	
1976	FS	lira	98854709	596031226	772116292	697701582	41712000	639330480	189576000	12692283	35312312			48004595	2852038884	240000000	
1976	JZ	Dinar													20165984	4248778	
1976	MAV	Forint													24279653		
1976	NS	florin	138595	56527	503161	645846	13677	487400	228046						1831529	352519	
1976	NSB	Norwegian crown	191206	5739	569167	622495	49733	474137	60784	143222			17402	160624	2023368	127609	
1976	OBB	Austrian Schilling	1163043	742338	5919202	5680610	823634	3915849	1181752	767887	16562		6677	791126	18212168	2063238	
1976	PKP	zloty															
1976	RENFE	Peseta	6347062	508976	15723454	22574520	1732740	17577251	3959773	19239			26923	46162	62777425	.	
1976	SJ	Swedish crown	222275	758499	953264	1326719	215737	670172	156953	276196	74881	43227		394304	4325233	400636	
1976	SNCB	Belgian franc	2010308	2603007	15034772	18284917	3429399	14637312	3840016	3952336				3952336	56522652	7300000	
1976	SNCF	French franc	1079113	2085851	7198614	8485385	930120	6603781	2183353	309721	295193	473084	1316941	2394939	27847683	3170834	
1976	VR	Finnish mark	46723	244541	418764	494816	100315	223497	65422	52359			48605	100964	1529305	174295	
1976	TCDD	Turkish pound	366671	353549	1189669	2917485	143900	1614257	317898				639967	639967	7078598	417820	

A.1.1.18. Charges Per Nature and Results for the Period

Specific Charges and Results for the Financial Year

YEAR	Railway	Currency	STAFF CHARGES				Materials and Services Rendered by Third Parties			Taxes and Dues	Amounts Allocated		Financial Charges	Counterpart of charges allocated to other accounts	Total Charges	Total Revenue	Excess or Deficiency	Operating Coefficient
			Salaries of Staff in activity	Pensions	Various social charges	Total	Fuel, Motor fuel, Electricity	Various	Total		To depreciation	To provision accounts						
1972	BR	pound sterling	407200	24100	23300	454600	29800	181700	211500		51300		51100		768500	742300	-26200	1,035
1972	CFF	Swiss franc	1120227	176145	76354	1372726	84388	474205	558593	925	224906	1000	150024	65693	2242481	2224771	-17710	1,008
1972	CFL	Luxemburg franc	1203524	841565	92167	2137256	72096	172722	244818	53531	180469	83658	135359	29078	2806013	2788593	-17420	1,006
1972	CH	drachma	1096683	(+)	123443	1220126	119764	372007	491771	54598	344067		1241	122123	1989680	1893992	-95688	1,05
1972	CIE	pound sterling	31415	1291	1418	34124	1900	10143	12043	1010	3177	1450	2611		54415	45939	-8476	1,185
1972	CP	escudo	1024611	352689	14005	1391305	147869	249680	397549	92145	310486	25064	331902		2548451	2088748	-459703	1,22
1972	DB	Deutsche mark	8634509	2517550	1523341	12675400	807716	2811593	3619309	57839	1471172	6081	1400482		19230283	16764173	-2466110	1,147
1972	DSB	Danish crown	1144483	5877	8515	1158875	39898	685053	724951	2474	85397		164411	453760	1682348	1137390	-544958	1,479
1972	FS	lira	602490120	105229745	46944043	754663908	26837518	246068261	272905779	20259	63300000	100000	326383385	12437705	1404935626	796928427	-608007199	1,763
1972	NS	florin	497786	141636	126419	765841	76118	296514	372632	3152	240267	18117	81265	125357	1355917	1191409	-164508	1,138
1972	NSB	Norwegian crown	747916	138075	125106	1011097	40922	173792	214714		94235		-1679		1318367	963323	-355044	1,369
1972	OBB	Austrian Schilling	6767641	4476395	554498	11798534	679166	1770083	2449249	39684	1722781		183661	297153	15896756	12482572	-3414184	1,274
1972	RENFE	Peseta	13606388		2581187	16187575	2058065	4788809	6846874		3859937		751821		27646207	24003060	-3643147	1,152
1972	SJ	Swedish crown	1681601	268548	206543	2156692	83102	257574	340676		152365				2649733	2711149	61416	0,977
1972	SNCB	Belgian franc	14938348	7349564	3138878	25426790	1081816	11140863	12222679		5500000	250000	1848541	9996606	35251404	35191236	-60168	1,001
1972	SNCF	French franc	6824571	1774190	1252733	9851494	419076	4085844	4504920	263087	1620458	991	848515	583611	16505854	16411016	-94838	1,006
1972	VR	Finnish mark	368864	53985	38407	461256	36113	119942	156055	806	124567				742684	619146	-123538	1,2
1972	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	.14478300	.	.	.
1972	DR	Deutsche Mark of the De	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972	JZ	Dinar	3020053			3020053	577280	1023697	1600977		1435108		1802212		7858350	6723346	-1135004	1,169
1972	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	19172215	19648129	475914	0,976
1972	TCDD	Turkish pound	1117791	192915	190579	1501285	550510	426740	977250	3272	240060	3749	161511		2887127	3102732	-784395	1,373
1973	BR	pound sterling	447000	25800	26300	499100	31800	205000	236800		54600		57300		847800	796200	-51600	1,065
1973	CFF	swiss franc	1277551	215475	86356	1579382	90059	470249	560308	914	241672	1000	176746	66552	2493470	2400822	-92648	1,039
1973	CFL	Luxemburg franc	1342665	931305	93515	2367485	78736	193249	271985	54913	199674	91775	134693	23381	3097144	3059172	-37972	1,012
1973	CH	drachma	1329014		160350	1489364	128122	450849	578971	61996	238924		3690	106639	2266306	2063455	-202851	1,098
1973	CIE	pound sterling	37358	1801	1878	41037	2858	11977	14835	1025	3659	1373	2821		64750	83084	-11666	1,22
1973	CP	escudo	1047294	292772	11549	1351615	159432	206292	365724	107424	124058	29129	243709		2221659	2221659		1
1973	DB	Deutsche mark	9765315	2857899	1802611	14425825	788669	3003203	3791872	54038	1333505	124613	1494583		21224436	18713172	-2511264	1,134
1973	DSB	Danish crown	1199248	7164	16291	1222703	.		731953	6323	94443		179253	440836	1793839	1267875	-525964	1,415
1973	FS	lira	706884277	98648912	71442599	876975788	26346543	324387250	350733793	104798	61000000	100000	381675878	14132619	1656457638	963467146	-692990492	1,719
1973	NS	florin	552614	165537	143015	861166	81455	189395	270850	3836	265507	14470	90511	137042	1369298	1213960	-155338	1,128
1973	NSB	Norwegian crown	798183	141838	148251	1088272	43895	178205	222100		101931		-7549		1404754	969132	-435622	1,449
1973	OBB	Austrian Schilling	7351525	4927369	609656	12888550	708916	1946768	2655684	14988	1787536		197558	324126	17220190	13018692	-4201498	1,323
1973	RENFE	Peseta	15037540		2792137	17829677	2262770	5558436	7821206		4410474		1024586	1024586	30061357	28665068	-1396289	1,049
1973	SJ	Swedish crown	1721136	272605	237580	2231321	95038	299736	394774		250314				2875888	2968269	92381	0,969
1973	SNCB	Belgian franc	16282498	7888661	3553452	27724611	1223500	10358209	11581709		5500000	200000	1940047	9035056	37911311	37817071	-94240	1,002
1973	SNCF	French franc	7541396	1976326	1350627	10868349	433584	4834312	5267896	280403	1748660	853	947226	702067	18411320	18126008	-285312	1,016
1973	VR	Finnish mark	424385	62506	46955	533846	39246	146162	185408	757	127689				847700	720689	-127010	1,176
1973	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	14845682	.	.	.
1973	DR	Deutsche Mark of the De	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	JZ	Dinar	3318543			3318543	684045	1223273	1907318		1715037		2026184		8967082	8884436	-82646	1,009
1973	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	19725124	20904424	1179300	0,944
1973	TCDD	Turkish pound	1297851	177803	203625	1679279	568348	472649	1040997	2687	263544	1906	130291		3118704	2499914	-618790	1,248
1974	BR	pound sterling	561400	31600	36400	629400	68600	262200	330800		53400		71900		1085500	927700	-157800	1,17
1974	CFF	swiss franc	1400538	229134	95193	1724865	95601	527279	622880	971	266014	1000	216380	71202	2760908	2526794	-234114	1,093
1974	CFL	Luxemburg franc	1639316	1176830	118568	2934714	102437	219821	322258	58212	252687	110051	123998	45557	3756363	3668360	-88003	1,024
1974	CH	drachma	1718455		237322	1955777	234785	763147	997932	127074	463073		6884	88173	3462567	3079613	-382954	1,124
1974	CIE	pound sterling	31989	1248	1894	35131	3278	10608	13886	818	3001	1951	2283		57070	42570	-14500	1,341
1974	CP	escudo	2101731	5	11696	2113432	125067	405481	530548	117637	73830	36791	388475		3260713	2733906	-526807	1,193
1974	DB	Deutsche mark	10880265	3254332	2199801	16334398	936327	3308580	4244907	68451	1350784	160526	1666662		23825728	21049511	-2776217	1,132
1974	DSB	Danish crown	1335885	8215	6360	1350460	.		920848	4155	100019		193218	531459	2037241	1442030	-595211	1,413
1974	FS	lira	855345688	189703874	100691888	1145741450	40309899	484451783	524761682	110379	105000000	48693	402165659	19072186	2158755677	1384544282	-774211395	1,559
1974	NS	florin	621394	195359	164475	981228	97044	225009	322053	4183	292016	16540	102170	159341	1558849	1382246	-176603	1,128
1974	NSB	Norwegian crown	879120	63173	161933	1104226	59401	201754	261155		110275		-4847		1470809	1125389	-345420	1,307
1974	OBB	Austrian Schilling	8509785	1535026	733314	10778125	888646	2210296	3098942	23044	1835598		215406	367429	15583686	13820462	-1763224	1,128
1974	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	SJ	Swedish crown	1870723	299611	276108	2446442	132956	391971	524927		329305				3300674	3512813	212139	0,94
1974	SNCB	Belgian franc	18910552	9198288	3963169	32072009	1768900	12730197	14499097		5850000	580000	1914187	11037026	43878267	43829441	-48826	1,001
1974	SNCF	French franc	8904592	2372864	1473300	12750756	639156	5950355	6589511	339734	1805451	4868	1158514	1032411	21616423	21536856	-79567	1,004
1974	VR	Finnish mark	529932	77678	61584	669194	65179	195348	260527	740	134288				1064749	867931	-196818	1,227
1974	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	15193971	.	.	.
1974	DR	Deutsche Mark of the De	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	JZ	Dinar	4097299			4097299	1038047	1607020	2645067		2830000		2529694		12102000	11551185	-550815	1,048
1974	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	21000349	22366297	1365948	0,939
1974	PKP	Zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	43228189	.	.
1974	TCDD	Turkish pound	1685741	233399	284284	2203424	843638	666878	1510516	2997	294254	3505	146119		4160815	2933151	-1227664	1,419
1975	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	BR	pound sterling	745800	37400	57400	840600	77400	383300	460700		27100		32500		1360900	1366300	5400	0,996
1975	CFF	swiss franc	1503501	237279	102670	1843450	84373	511527	595900	1146	300175	1000	280808	76257	2946762	2323946	-622816	10268
1975	CFL	Luxemburg franc	1823741	1426995	148780	3399516	120990	274148	395138	72506	293111	126607	123135	32687	4377326	4220221	-157105	1,037
1975	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	CH	drachma	2006066		322294	2328360	268353	743508	1011861	113624	369006		26000	152944	3695981	3259799	-436182	1,134
1975	CIE	pound sterling	54418	2904	3583	60905	4529	17838	22367	1081	4520	2942	3223		95038	67020	-28018	10418
1975	CP	escudo	3655042	369	7674	3663085	256016	499642	755658	136811	119047	57772	617760		5350133	4616101	-734032	10159
1975	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	DB	Deutsche mark	10900811	3532570	2232189	16665570	956788	3302666	4259454	81010	1533874	87581	1949719		24577208	20215690	-4361518	1,216
1975	DR	DDR Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	DSB	Danish crown	1583893	7306	15063	1606262	.		1222217	4738	109228		209140	686729	2464856	1658496	-806360	1,486
1975	FS	lira	863710450	175749998	122685694	1162146142	38005894	497387976	535393870	103305	235000000		511644993	16297680	2427990630	1615277356	-812713274	1,503
1975	JZ	Dinar	5370000			5370000	1199000	6201000	7400000		2842000		1643000		17255000	17685475	430475	0,976
1975	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	22564568	24033600	1469032	0,939
1975	NS	florin	712143	218647	176714	1107504	115130	280616	395746	4227	342737	19266	123392	197016	1795856	1508482	-287374	1,191
1975	NSB	Norwegian crown	1017044	73321	185754	1276119	64530	232051	296581		115728		2274		1690702	1251846	-438856	1,351
1975	OBB	Austrian Schilling	9512978	1648881	839576	12001435	744192	2429779	3173971	27596	1975402		240069	458626	16959847	13384574	-3575273	1,267
1975	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	44980218	.	.
1975	RENFE	Peseta	22338384		5496598	27834982	3647626	12743764	16391390		5064310		2557300	2557300	49290682	38150332	-11140350	1,292
1975	SJ	Swedish crown	2093530	335460	383661	2812651	121371	553931	675302		352500				38405453	386678	23225	0,994
1975	SNCB	Belgian franc	23098344	1071114	3667325	37476783	2220078	14621981	16842059	70233	6300000	405000	2564337	11723355	51935057	50732207	-1202850	1,024
1975	SNCF	French franc	10341386	2779987	1711047	14832420	722321	6470385	7192706	386433	1867347	11809	1169559	861484	24598780	23415775	-1183005	1,051
1975	VR	Finnish mark	675620	100507	83692	859819	79532	246860	326392	802	144626				1331639	963694	-367945	1,328
1975	TCDD	Turkish pound	2598136	355968	421237	3375341	911196	984108	1895304	5518	350874	2811	260112		5889960	4820101	-1069859	1,222
1976	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	BR	pound sterling	800400	52600	68800	921800	93600	406800	500400	200	31000		43400		1496800	1502100	5300	0,996
1976	CFF	swiss franc	1511895	245110	97944	1854949	105772	511846	617618	1657	354168	1000	329908	76673	3082627	2374989	-707638	1,298
1976	CFL	Luxemburg franc	1938077	1630899	178627	3747603	135611	239545	375156	52539	328276	141076	151719	46579	4749790	4702665	-47125	1,01
1976	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	drachma	2596219		418872	3015091	308120	848948	1157068	101389	412514		4223	251815	4438470	3771541	-666929	1,177
1976	CIE	pound sterling	60556	2892	4405	67853	5893	23118	29011	1132	6488	3094	3927		111505	77940	-33565	1,431
1976	CP	escudo	4588063		2558	4590621	321790	874693	1196483	165301	216279	76161	1033819		7278664	6619920	-658744	1,1
1976	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	16100587	.	.	.
1976	DB	Deutsche mark	10788252	3819435	2285601	16893288	1015869	3619992	4635861	99498	1456127	49985	2256228		25390987	21516717	-3874270	1,18
1976	DR	DDR Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	DSB	Danish crown	1785409	10757	19450	1815616	.		1268986	4580	120222		229909	753107	2686206	1862252	-823954	1,442
1976	FS	lira	1,063E+09	252577189	128987147	1444137880	42605672	627975037	670580709	58024	240000000		516736868	19474597	2852038884	1976257183	-875781701	1,443
1976	JZ	Dinar	6589722			6589722	1161602	3662000	4823602		4248778	9905	4503882		20165984	18689379	-1476605	1,079
1976	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	24279653	26245777	1,966124	0,925
1976	NS	florin	777306	240602	176081	1193989	133420	283537	416957	5194	352519	20903	36492	194525	1831529	1831529		1
1976	NSB	Norwegian crown	1256148	87453	196957	1540558	77075	274728	351803		122306		8701		2023368	1443452	-579916	1,042
1976	OBB	Austrian Schilling	10293210	1770661	939700	13003571	827003	2574508	3401511	31050	2072179		226035	522178	18212168	14419379	-3792789	1,263
1976	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	67247291	.	.
1976	RENFE	Peseta	28605664		7448847	36054511	4116457	16923939	21040396		5682518		3521355	3521355	62777425	47688897	-15088528	1,316
1976	SJ	Swedish crown	2304539	291079	488748	3084366	127859	712372	840231		400636				4325233	4311548	-13685	1,003
1976	SNCB	Belgian franc	24565040	12220030	3981648	40766718	2297302	17073766	19371068	74473	7300000	475000	2858658	14323265	56522652	54565655	-1956997	1,036
1976	SNCF	French franc	11642084	3291775	2208238	17142097	849912	6924704	7774616	335470	1998053	19219	1365705	787477	27847683	26731832	-1115851	1,042
1976	VR	Finnish mark	784341	116876	100994	1002211	84463	267517	351980	819	174295				1529305	1176968	-352337	1,299

A.1.1.18. Charges Per Nature and Results for the Period

Specific Charges and Results for the Financial Year

			STAFF CHARGES				Materials and Services Rendered by Third Parties			Taxes and	Amounts Allocated		Financial	Counterpart	Total	Total	Excess or	Operating
YEAR	Railway	Currency	Salaries of Staff in activity	Pensions	Various social charges	Total	Fuel, Motor fuel, Electricity	Various	Total	Dues	To depreciation	To provision accounts	Charges	of charges allocated to other accounts	Charges	Revenue	Deficiency	Coefficient
1976	TCDD	Turkish pound	3167035	504087	731785	4402907	877899	1121373	1999272	2848	417820	4623	251128		7078598	6876476	-202122	1,029

A.1.1.19. Balance

YEAR	Railway	Currency	ASSETS – Fixed Assets – Land, Buildings and Fixed Installations – Expenses	Land, Buildings and Fixed Installations – Depreciation	Land, Buildings and Fixed Installations – Net	Transport Stock – Expenses	Transport Stock – Depreciation	Transport Stock – Net	Other equipment – Expenses	Other equipment – Depreciation	Other equipment – Net	TOTAL	Other Fixed Assets	Issuing Costs and Redemption Premiums of Loans	Stores	Realisable and Available Assets – Various debtors	Realisable and Available Assets – Securities, loans and advances at less than one year. Post office	Results – Losses on Previous financial years	Results – Loss on the financial year under consideration	Total Assets	LIABILITIES – Capital and Reserves – Capital proper	Capital and Reserves – Reserves	Provisions	Long Term Debts	Short-Term Debts – Various Creditors	Short-Term Debts – Loans at less than one year	Results – Profits on previous financial years	Results – Profit on the financial year under consideration	Total Liabilities
1972	BR	pound sterling	713400	101900	611500	838700	630400	208300	98900	45200	53700	873500	56800		69800	95000	9700	15400	26200	1146400	32000	87700	437200	449200	112000	28300			1146400
1972	CFF	Swiss franc	4517918	2727945	1789973	3030621	1568564	1462057	1090592	74731	1015861	4267891	761537		160495	323412	131973		17710	5663018	800000	85679	14433	3856750	906156				5663018
1972	CFL	Luxemburg franc	1042531	345512	697019	1746566	384157	1362409	104593	50940	53653	2113081	35197		248878	129996	298739	182038		3007929	800000	139253	214765	1463319	390592				3007929
1972	CH	drachma	20237524	283702	19953822	3423290	331788	3091502	374409	72644	301765	23347089	7131		831381	5246014	287289		95688	29814592	29326000				488592				29814592
1972	CIE	pound sterling				.	.	27623	.	.	5860	33483	6355	8	4671	5561	7004		525	57607	18514	7731		17562	9992	3158	1120		57607
1972	CP	escudo	4998190	613674	4384516	4519416	2395173	2124243	226262	226262		6508759	7085		444759	8183832	68120	782135	459703	16454393	20000	251121	1311999	5538440	8765796	567038			16454394
1972	DB	Deutsche mark	44451035	21080090	23370945	18856974	7003904	11852890	869821	472871	396950	35620785		153134	717719	1659799	3714598	2496531	2466110	46828676	25755524		306097	15115895	5651160				46828676
1972	DSB	Danish crown	2233822	28237	2205585	1719029	57160	1661869				3867454	9792		135974	68861	21122		544958	4648161	3877246			678340	92575				4648161
1972	FS	lira	1632669248		1632669248	1083420051		1083420051	85676688		85676688	2801765987	12981596	117668092	199879213	181534174	221119346	1966685175	608007199	6109640782	1699847816		188671694	3200599626	1020521646				6109640782
1972	NS	florin	1898522	1055415	843107	1460859	772123	688736	205260	78299	126961	1685804	286022		113242	183557	81450	771094	164507	3258676	300000	1260569	47568	1396299	254240				3258676
1972	NSB	Norwegian crown	3989324	375669	3613655	1539108	383449	1155659				4769314	19714		127135	70362	55792			5042317	4744971	1989	64461	32106	198790				5042317
1972	OBB	Austrian Schilling	52811945	25544050	27267895	21607412	10165665	11441747	3194758	896590	2298168	41007810	175250		1223336	1804987	531993		3414184	48157560	42960810		206568	2086242	2903940				48157560
1972	RENFE	Peseta	86615902	14736847	71879055	41652275	8686902	32975373				104854428	273149		7357011	6749188	240473	65859861	3106642	188440752	163619085	2197415		2285803	20338449				188440752
1972	SJ	Swedish crown	5259325	4462242	797083	3626289	2326220	1300069	207034	125626	81408	2178560	69956		140547	376221	48092			2813376	1938000	344727	15776		241470	273403			2813376
1972	SNCB	Belgian franc	13941784		13941784	9385696		9385696	1074045		1074045	24401525	11304624	328251	3984854	5181396	3556509	1155039	60168	49936366	11000000	643692	2303320	28075488	6767554	1146312			49936366
1972	SNCF	French franc	14104424	5315278	8789146	15597057	12894514	2702543	336649	266564	70085	11561774	671035	1389901	1328535	4717035	2320951		94838	22084069	14194	2941145	18186	10631121	5683574	2795849			22084069
1972	VR	Finnish mark	543913	38782	505131	541343	80272	461071	58944	9849	49095	1015297			86317	41196	2615		123538	1268963	1254026				14937				1268963
1972	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972	DR	Deutsche Mark of th	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1972	TCDD	Turkish pound	4482159	1898484	2583675	1824099	506447	1317652	529099	143926	385173	4286500	15981		890123	2283503	281222		784395	8541724	3509809	40252	1627265	1995946	898697	469755			8541724
1973	BR	pound sterling	787800	122400	665400	836400	643700	192700	104100	48900	55200	913300	73000		66000	111200	8800	41600		1213900	52400	104200	435700	455300	129600	36700			1213900
1973	CFF	Swiss franc	5055081	2800758	2254323	3230717	1659397	1571320	953304	83662	869642	4695285	774863		178887	403855	154218		92648	6299756	800000	68969	12452	4425531	992804				6299756
1973	CFL	Luxemburg franc	1077081	403805	673276	1799564	374593	1424971	109810	45153	64657	2162904	35197		260928	161638	323097	175576		3119340	800000	177760	247410	1456857	437313				3119340
1973	CH	drachma	20249744	389589	19860155	3640484	432573	3207911	634246	104895	529351	23597417	2886		798803	5099296	298318			29796720	29326000	1000			469720				29796720
1973	CIE	pound sterling				.	.	28935	.	.	6460	35395	6234	6	6223	6606	11373		1067	66904	18514	7225		24888	12665	3017	595		66904
1973	CP	escudo	6363794	3241826	3121968	4939479	2492387	2447092	248581	248581		5569060	35113		451003	6539586	35395			12630157	20000	282698	2684540	6350568	2644760	647591			12630157
1973	DB	Deutsche mark	46104361	21394324	24710037	19417350	7276298	12141052	902727	520886	381841	37232930		151893	770033	1857549	6068903	2466110	2511264	51058682	28652646		439612	16537479	5428945				51058682
1973	DSB	Danish crown	2410951	30989	2379962	1835835	62113	1773722				4153684	8451		144042	175835	5638		525964	5013614	4162135			700675	150804				5013614
1973	FS	lira	1777884932		1777884932	1147377639		1147377639	89790017		89790017	3015052588	8926096	117755316	208906984	278191756	1038720383	2520758071	692990492	7881301686	1828512066		214868689	4670861720	1167059211				7881301686
1973	NS	florin	2030108	1117212	912896	1483398	784695	698703	259033	110191	148842	1760441	307507		123429	179466	133842	935601	155338	3595624	301557	1361328	47698	1605362	279679				3595624
1973	NSB	Norwegian crown	4121182	426957	3694225	1635365	434092	1201273				4895498	20868		118313	72378	79400			5186457	4884336	2034	64461	27625	208001				5186457
1973	OBB	Austrian Schilling	53635519	26072919	27562600	22747752	10456932	12290820	3834057	940339	2893718	42747138	200013		1085151	2292750	542629			46867681	40705688		374574	2230280	3557139				46867681
1973	RENFE	Peseta	103127446	18491055	84636391	45140757	10669692	34471065				119107456	307740		9792481	8811608	234916	68966504	2420875	209641580	176460391	2823861		2291065	28066263				209641580
1973	SJ	Swedish crown	5397022	4333300	1063722	3758777	2768685	990092	214450	165122	49328	2103142	62040		156441	424261	69879			2815763	1918300	285188	15165		257425	339685			2815763
1973	SNCB	Belgian franc	14641597		14641597	10114346		10114346	1019309		1019309	25775252	11307124	368516	4271037	7329067	1354329	1167207	94240	51666772	11000000	643692	2049667	27977348	8597996	1398069			51666772
1973	SNCF	French franc	15084959	6151223	8933736	16340283	13502994	2837289	380430	274328	106102	11877127	691078	1208285	1394236	7329067	1354329	1167207	94240	51666772	11000000	643692	2049667	27977348	8597996	1398069			51666772
1973	VR	Finnish mark	712089	42699	669390	566849	78363	488486	60569	10819	49750	1207626			111804	61747	3086		127010	1511273	1486331				24942				1511273
1973	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	DR	Deutsche Mark of th	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	TCDD	Turkish pound	4590205	2003874	2586331	2195536	525486	1670050	459461	76936	382525	4638906	189599		756733	3084276	365112		618790	9653416	4493429	50160	1859590	1677794	1174906	397537			9653416
1974	BR	pound sterling	869200	145900	723300	870300	660000	210300	115000	53000	62000	995600	70800		80900	126400	7500	41600		1322800	109600	119300	389700	476600	179600	48000			1322800
1974	CFF	Swiss franc	5359609	2887619	2471990	3400958	1754734	1646224	1126636	95959	1030677	5148891	777488		221625	444963	194894		234114	7021975	800000	37747		5122164	1062064				7021975
1974	CFL	Luxemburg franc	1124358	394846	729512	1922369	456484	1465885	113293	45049	68244	2263641	35197		299303	95782	369101	168985		3232009	800000	188737	274601	1450266	518405				3232009
1974	CH	drachma	20467442	582198	19885244	4523457	669100	3854357	925800	138834	786966	24526567	2886		1170125	5281612	348633			31329823	29834664	2015		892792	600352				31329823
1974	CIE	pound sterling				.	.	30068	.	.	7022	37090	6252	5	7704	6894	10979		1485	70409	18514	7358		26298	11803	5964	472		70409
1974	CP	escudo	8039880	85440	7954440	5368001	56958	5311053	294559	1195	293364	13558857	38360	195	618739	3223280	365047		526807	18331285	19460	10164	6740765	6990706	1632490	2937700			18331285
1974	DB	Deutsche mark	48103535	21773430	26330105	20626521	7573471	13053050	958201	574056	384145	39767300		167763	924098	2081667	6515364	2511264	2776217	54743673	29702544	45860	608523	17814465	6572281				54743673
1974	DSB	Danish crown	2593121	33536	2559585	1998540	66483	1932057				4491642	8466		210667	186817	12544		595211	5505347	4500108			791510	213729				5505347
1974	FS	lira	1922356794		1922356794	1229644264		1229644264	96824777		96824777	3248825835	9436596	134331905	261567312	256699323	889529688	2895350471	774211395	8469952525	1989109807		261372199	3241607981	977862538				8469952525
1974	NS	florin	2127228	1149593	977635	1508054	808554	699500	311599	115703	195896	1873031	336022		149320	127309	207590	1090939	176603	3960814	306795	1486617	51085	1832358	283959				3960814
1974	NSB	Norwegian crown	4367497	483642	3883855	1768387	487682	1280705				5164560	24389		124540	84775	53263			5451527	5164098	2083	64461	23793	197092				5451527
1974	OBB	Austrian Schilling	55947760	26806283	29141477	24179893	10984553	13195340	3885138	965221	2919917	45256734	219641		1258385	2210712	294493			49239965	43009655		241483	2366173	3622654				49239965
1974	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	SJ	Swedish crown	5566798	4566975	999823	3983622	2965020	1018602	237002	190117	46885	2065310	57356		162192	507069	109259			2901186	1874319	285188	14753		399400	300779		26747	2901186
1974	SNCB	Belgian franc	15546796		15546796	9488498		9488498	947395		947395	25982689	11307124	308251	1997112	8141227	1265559	1261447	48826	53312235	11000000	643692	2283462	25923793	9259475	4201813			53312235
1974	SNCF	French franc	16607150	7147657	9459493	17311350	14247454	3063896	435505	281066	154439	12677828	751092	975815	1435121	6275133	2010469	380151	79567	24585176	14194	3096121	333	11469753	6672728	3332047			24585176
1974	VR	Finnish mark	961941	46728	915213	633733	80045	553688	64347	11847	52500	1521401			170531	81048	5691		196818	1975489	1938931				36558				1975489
1974	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	DR	Deutsche Mark of th	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	PKP	Zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	TCDD	Turkish pound	5003106	2185352	2817754	2547970	606904	1941066	503337	78899	424438	5183258	188698		1216275	3791516	441920		1227664	12049331	5063882	68364	2147224	2992372	1304621	472868			12049331
1975	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	BR	pound sterling	316200	37400	278800	865700	623300	242400	76500	37500	39000	560200	395500		116800	125800	4600			1202900		89000	507300	353400	203700	44100		5400	120900
1975	CFF	Swiss franc	5712990	2991887	2721103	3610744	1863977	1746767	1219598	108578	1111020	5578890	697026		269606	340303	232831		622816	7741472	800000	38747		5759495	1143230				7741472
1975	CFL	Luxemburg franc	1193512	396741	796771	2060528	515323	1845205	122383	50112	72271	2414247	35197		381127	80579	411268	162262		3484680	800000	133124	290767	1443543	817246			3484680	
1975	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	CH	drachma	21080218	735592	20344626	5249704	838363	4411341	722563	162007	560556	25316523	2886		1303652	5085132	322915			32031108	30232708	3092		1314196	481112				32031108
1975	CIE	pound sterling				.	.	30978	.	.	7968	38946	4818	3	10631	7570	9143		3701	74812	16884	6322		28186	14306	7951	1163		74812
1975	CP	escudo	9938104	154448	9783656	6254350	102091	6152259	312705	3671	309034	16244949	38156	3538	881655	4346638	239168		764846	22518950	19460	9747	6678758	8819217	1746013	5245755			22518950
1975	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	DB	Deutsche mark	50056751	22343714	27713037	21091813	7825509	13266304	993183	622612	370571	41349912		173436	950192	2159380	6182882		4361517	55177319	27297778	185522	534027	18848601	8311391	.			55177319
1975	DR	DDR Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	DSB	Danish crown	2857345	36539	2820806	2229116	72689	2156427				4977233	28215		243977	150670	17748		806360	6215203	5005744			994329	215130				6215203
1975	FS	lira	2100515831		2100515831	1343127380		1343127380	1,03E+08		1,03E+09	354696171	10506596	148972786	377924362	337014441	486423860	3826789970	812713275	9547041461	252548001		391313863	5934886392	968293205				9547041461
1975	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	NS	florin	2248433	1207140	1041293	1519694	843436	676258	441471	123761	317656	2035207	342946		144956	159757	77773	1267542	287374	4315555	352590	1577844	56816	1893827	314478	120000			4315555
1975	NSB	Norwegian crown	4538165	541540	3996625	1789489	544312	1245177				5241802	27793		147948	88627	33437			5539607	5217853	797	6,446E+09	235892				5539607	
1975	OBB	Austrian Schilling	58122682	27620241	30502441	24334459	10339974	13994485	6342125	2034443	4307682	48804608	68		1433720	2474193	425593			53138182	46670111		433189	2496863	3538019				53138182
1975	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	RENFE	Peseta	138258029	24800570	113457459	52201462	13600681	38600781				152058240	317550		11966477	27089633	505917	75814411	13697650	281449878	?07962191	5137662		5310977	63039048				281449878
1975	SJ	Swedish crown	5739460	4692002	1047458	4146301	3121694	1024607	254105	203160	50945	2123010	50420		211098	539654	180651			3104833	1925963	285188	13978		455179	330734		93791	3104833
1975	SNCB	Belgian franc	16094562		16094562	10184672		10184672	1063008		1063008	27342242	11317036	329878	5249556	944616	1362192	1310274	1202850	57559644	11000000	643692	2348476	28396717	13405633	1765126			57559644
1975	SNCF	French franc	18488456	8320276	10168180	18671129	15104379	3566750	489534	303889	185645	13920575	921854	829234	1749975	6198660	1632893	459718	1183005	26940914	14194	3305797	121	12138236	68399964	4642602			26940914
1975	VR	Finnish mark	1370039	53867	1316172	792011	82488	709523	84784	11276	73508	2099203			274147	90928	6796		367945	2839019	2806628				32391				2839019
1975	TCDD	Turkish pound	5433136	2338274	3094862	3431709	708724	2722985	789343	68550	729793	6547640	611959		932945	4986234	598413		1069859	14747050	6034524	93232	2579590	2930747	1929822	11779135			14747050
1976	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	BR	pound sterling	342400	43700	298700	924700	605000	319700	82500	36900	42900	661300	518800		125900	136400	10300			1452700		146000	596300	415200	248300	36200	5400	5300	1452700
1976	CFF	Swiss franc	5974430	3111017	2863413	3856039	1970479	1885560	1383409	122865	1260544	6009517	648541		231921	460733	138386		707638	8196736	800000	39747		5999996	1356993				8196736
1976	CFL	Luxemburg franc	1251471	441997	809474	2590548	1052359	1538189	140054	92190	47864	2395527	51469		354160	233782	500008	155405		3690351	800000	191886	306392	1955023	437050				3690351
1976	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	drachma	21566620	900338	20666282	5740942	1053113	4687829	776988	195025	581963	25936074	3586		1282006	5084029	438684			32744379	30844233	4138		1260397	635611				32744379
1976	CIE	pound sterling				.	.	35341	.	.	11233	46574	4328	1	10200	8601	4254		2523	76481	16884	6831		30764	16284	3010	2708		76481
1976	CP	escudo	11540216	258694	11281522	6804484	189145	6615339	407998	26882	381116	18277977	61802	1769	789759	5518579	101035	764846	713583	26229350	19460	4540099	6653654	5988252	2050937	6976948			26229350
1976	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	DB	Deutsche mark	52115725	22719173	29396552	21893380	8080402	13812978	1010015	668836	341179	43550709		165065	965474	2284003	6142644		3874270	56982165	25542770	403023	573757	22495771	7966844				56982165
1976	DR	DDR Mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	DSB	Danish crown	3231713	41101	3190612	2455222	79120	2376102				5566714	8619		271882	378711	20884		823954	7070764	5575333			981998	513433				7070764
1976	FS	lira	2314265270		2314265270	1562272728		1562272728	1,11E+08		1,11E+08	3987259279	15299391	173594291	449902920	396716	873523585	4553993566	875781700	1,1326E+10	2513004232		517059524	7009362042	1286645449				11326071247
1976	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	NS	florin	2437394	12665078	1172316	1548133	860382	687751	539344	134774	404570	2264637	355334	.	156957	1368623	510665			4656216	408877	1730949	93917	1927630	494843				4656216
1976	NSB	Norwegian crown	4912268	604961	4307307	2033827	604397	1429430				5736737	32158		165759	96471	89465			6120590	5770754	795	64461	17341	267239				6120590
1976	OBB	Austrian Schilling	60407109	28381567	32025542	25623693	10790798	14832895	7136824	2118222	5018602	51877039	49		1388998	2404560	455427			56129073	49913709		447014	2551031	3217319				56129073
1976	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	RENFE	Peseta	143396935	23817783	119579152	53431079	15333421	38097658				157676810	9639562		11957483	35363086	2044268	89512061	18608984	324802254	241202724	125480		60626595	22847455				324802254
1976	SJ	Swedish crown	5945768	4833454	1112314	4352698	3328837	1023861	270365	216056	54309	2190484	44763		542894	626529	100486			3205156	1987391	285188	13253		568142	347604		3578	3205156
1976	SNCB	Belgian franc	16662365		16662365	12180036		12180036	1188259		1188259	30030660	11342972	439040	5782633	11773993	1369744	2708889	1956997	65404868	11000000	643692	2492649	33951563	15069495	2247469			65404868
1976	SNCF	French franc	20653651	9563593	11090058	20094516	15934529	4159987	587278	334152	253126	15503171	1259265	1035223	2122508	6678016	1706949	1642723	1115851	31063706	14194	537502	120	14796566	7653067	5062257			31063706
1976	VR	Finnish mark	1845298	63750	1781548	957397	100315	857082	101638	13759	87879	2726509			241395	131604	3789		352338	3455635	3381416					74219			
1976	TCDD	Turkish pound	6117869	2517370	3600499	4488437	831661	3656776	993308	82733	910575	8167850	642636		1060448	5969768	864606		202122	16907430	6306015	119242	3042953	2790930	2084485	2563805			

A1.1.20. Fuel - Motor Fuel - Electricity and Lubricants for Motor Vehicles

YEAR	Railway	Rail Vehicles – Steam Traction – Solid and Liquid Fuels – Coal Consumption (in 1000 of tonnes)	Other Solid Fuels – Type of Fuel	Other Solid Fuels – Quantities used (in 1000	Fuel oil consumption (in 10000	Total Consumption (in 1000Tonnes)	UNIT Consumption (in Kg of coal equivalent) – Per motive unit Km	UNIT Consumption (in Kg of coal equivalent) – Per 1000gross tonnes-kms hauled	Diesel or Special Systems of Traction – Motor Fuels – Consumption of Diesel oil (in 1000 of tonnes)	of Petrol (in 1000 tonnes)	Total consumption (in 1000 of tonnes of	Unit Consumption (in Kg of Diesel oil equivalent) – Per motive unit Km	Unit Consumption (in Kg of Diesel oil equivalent) – Per 1000 gross tonnes-kms hauled	Electricity – Total consumption (in millions of KW/H)	Unit Consumption (in Kw/h) – Per motive unit Km	Unit Consumption (in Kw/h) – Per 1000 gross tonnes-kms hauled	Total consumption of Lubricants (in tonnes)	ROAD VEHICLES – Consumption – of Diesel oil (in 1000 tonnes)	ROAD VEHICLES – Consumption – of Petrol (in 1000 tonnes)	Water-Borne Craft – Type of Fuel	Water-Borne Craft – Quantities Used (in 1000 tonnes)
1972	BR								869		869	2,63	.	1811	11,76	.	.			.	.
1972	CFF								6,6		6,6	2,01	.	1518	13,65	43,8	470	.	.	Diesel,Fue	1,4; 2,0
1972	CFL								11		11	2,23	9,4	24	15,11	28,69	132	1	0		
1972	CH	27			33	77	22,8	109,69	30		30	1,51	8,46				1200	1	0	.	.
1972	CIE								36,3		36,3	2,48	.				669	42	0	.	.
1972	CP	42			34	93	22,44	195,99	39	0	39	1,73	11,35	125	9,1	39,45	1503	.	.		
1972	DB	868			105	1024	22,02	44,81	483		483	1,62	11,28	5780	12,16	29,44	9151	58	9,7	Diesel Oil	11,6
1972	DSB								90		90	1,87	9,51	89	4,74	60,75	946	10	0	Coal, Dies	0,3;19,6; 6
1972	FS	177				177	19,86	163,01	122		122	0,95	12,47	3211	13,45	34,32	3716	.	.	Naphtha	38
1972	NS								52,1		52,1	1,49	8,99	816	7,36	39,3	1337				
1972	NSB								18		18	1,59	.	303	10,61	.	410	7	0		
1972	OBB	161	Lignite; Wo	1; 1		162	25,4	86,27	51		51	1,81	15,45	1076	13,26	37,17	1814	9	0	Diesel; Fue	0
1972	RENFE				139	195	36,25	123,48	178		178	1,76	8,96	783	10,72	33,46	2921	8			
1972	SJ	0,1				0,1	20	.	31,4	0,8	32,2	1,1	12,95	1226	11,2	29,9	.	19,3	2,8	Gas oil; Fu	24,7; ,2
1972	SNCB								141		141	2,45	8,45	626	8,34	37,45	1770	1	0,4		
1972	SNCF	7,9			14,7	28,6	33,6	58,48	434,6		434,6	1,64	7,47	4810	13,05	24,51	17500	.	.	.	.
1972	VR	23	Wood	5		25	18,63	52,34	103		103	1,59	5,64	26	7,02	174,85	1861	1			
1972	BDZ	.			.	717	.	.	104		104	.	.	359	.	.	.				
1972	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1972	CSD	2081			6	2090	32,9	122,93	357		357	1,64	7,39	1744	14,33	19,87	15914				
1972	DR	1831	Lignite	102	314	2242	22,52	47,65	450		450	2,43	7,33	869	7,6	31,89	14709			Coal; Dies	0,3; ;19,6
1972	JZ	1388			0	1388	33,27	105,06	143		143	1,69	7	388	10,42	16,97	5832	.	.		
1972	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1972	TCDD	788			267	1188	36,79	93,79	48		48	2,92	7,2	52	13,16	60,97	5236				
1973	BR								862		862	2,6	.	2007	13,08	.	.			.	.
1973	CFF								6,5		6,5	2,015976331	.	1513	13,57439325	42,58666892	447	.	.	D,F; Petrol	1,4;2
1973	CFL								11		11	2,2	10,55	26	14,74	29,41	128	1	0		
1973	CH	18			27	59	25,47	139,1	35		35	1,86	9,07				1048	1	0	.	.
1973	CIE								38		38	2,44	.				610	44	0	.	.
1973	CP	31			32	79	22,2	192,6	40		40	1,8	11,79	128	8,86	37,39	1607	.	.	gasoil	2
1973	DB	699			74	810	23,26	45,33	517		517	1,7	11,26	5958	11,76	29,01	8579	60	10,2	Diesel oil	12,8
1973	DSB								87		87	1,8	9,04	100	4,72	60,47	926	10	0	Oil	62
1973	FS	163				163	20	162,9	123		123	0,93	12,65	3249	13,4	33,92	3687	.	.	Naphtha	39
1973	NS								51,9		51,9	1,5	8,82	792	7,13	38,46	1232				
1973	NSB								16		16	1,46	.	305	10,83	.	575	7	0		
1973	OBB	126	Lignite; wo	0;1		126	25,34	85,79	53		53	1,8	14,87	1113	13,38	37,24	1664	9	0	Diesel; Fue	0
1973	RENFE				225	315	43,77	121,84	191		191	1,91	9,38	856	11,31	32,88	3645	.			
1973	SJ								32,4	0,7	33	1,15	12,46	1299	11,68	29,6	.	19	2,9	gasoil	29,9
1973	SNCB								148		148	2,5	8,45	654	8,31	36,62	1808	1,1	0,3		
1973	SNCF	5			2,2	8	.	.	460,9		460,9	1,71	7,46	5046	13,47	24,49	19000	.	.	.	.
1973	VR	19	wood	5		21	17,77	59,26	106		106	1,62	5,58	33	6,77	164,75	1809	1			
1973	BDZ	.			.	625	.	.	121		121	.	.	406	.	.	.				
1973	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1973	CSD	1649				1649	33	130,34	397		397	1,74	7,46	1787	14,19	20,35	15540				
1973	DR	1628	Lignite	89	300	2053	22,68	46,25	496		496	2,473729097	7,19	875	7,62	31,75	15554			Coal, Dies	,3Coal ; 25
1973	JZ	1343			0	1343	32,07	101,2	159		159	1,82	7	569	10,71	17,3	6029	.	.		
1973	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.				
1973	TCDD	713			266	1112	38,01	97,93	63		63	3,21	7,15	65	14,56	61,91	4223				
1974	BR								805		805	2,53	.	2028	12,22	.	.			.	.
1974	CFF								6		6	1,953896104	.	1474	13,51306237	42,59490306	401	.	.	D;f;P	D,F1,4 P2.2
1974	CFL								11		11	2,24	9,5	29	14,14	28,69	122	1	0		
1974	CH	12			21	44	30,9	180,29	39		39	1,74	9,27				1157	1	0	.	.
1974	CIE								27		27	2,44	.				418	29	0	.	.
1974	CP	35			21	66	22,35	208,74	42	0	42	1,81	11,01	109	7,39	30,8	.	.	.	Gas oil;	.
1974	DB	476			73	787	31,83	59,96	546		546	1,79	11,61	6111	11,76	29,03	7866	61,3	10,4	D;oil	12,5
1974	DSB								94		94	2,05	9,36	104	4,28	54,76	1013	10	0	oil	.
1974	FS	135				135	20,44	159,99	125		125	0,93	12,52	3306	13,52	33,74	3582	.	.	Gas oil	40
1974	NS								46		46	1,46	8,88	801	6,91	37,48	1113				
1974	NSB								16		16	1,4	.	314	10,61	.	378	7	0		
1974	OBB	92	Lignite; wo	0; 1		92	24,68	77,3	56		56	1,81	13,63	1154	13,44	37,01	1618	10	0	D; Fuel	0
1974	RENFE				134	187	34,63	101,17	186		186	1,9	8,97	892	11,6	32,82	3110	.			
1974	SJ								32	0,6	32	1,11	11,66	1337	11,64	28,97	.	19,1	3	Gas oil	35,1
1974	SNCB								150		150	2,5	8,22	679	8,15	35,38	1422	1	0,2		
1974	SNCF								193		493	1,76	7,35	5087	13,12	24,22	19000	.	.	.	.
1974	VR	13	wood	4		14	18,32	63,38	108		108	1,64	5,23	39	7,7	185,71	1817	1			
1974	BDZ	.			.	520	.	.	132		132	.	.	440	.	.	.				
1974	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CSD	1354				1354	.	.	423		423	.	.	1859	.	.	16200				
1974	DR	1241	Lignite	72	297	1583	21,4	41,13	555		555	2,53	7,02	873	7,56	31,19	.			coal, Diese	.

A1.1.20. Fuel - Motor Fuel - Electricity and Lubricants for Motor Vehicles

		Rail Vehicles																ROAD VEHICLES		Water-Borne Craft	
		Steam Traction							Diesel or Special Systems of Traction								Total	Consumption		Type of	Quantities
		Solid and Liquid Fuels							Motor Fuels					Electricity			consumption				Used (in
		Coal	Other Solid Fuels		Fuel oil	Total	UNIT Consumption (in Kg of coal equivalent)		Consumption		Total	Unit Consumption (in Kg of Diesel oil equivalent)		Total	Unit Consumption (in Kw/h)		of Lubricants	of Diesel	of Petrol		1000
YEAR	Railway	Consumption (in 1000 of tonnes)	Type of Fuel	Quantities used (in 1000	consumption (in 10000	Consumption (in 1000Tonnes)	Per motive unit Km	Per 1000gross tonnes-kms hauled	of Diesel oil (in 1000 of tonnes)	of Petrol (in 1000 tonnes)	consumption (in 1000 of tonnes of	Per motive unit Km	Per 1000 gross tonnes-kms hauled	consumption (in millions of KW/H)	Per motive unit Km	Per 1000 gross tonnes-kms hauled	(in tonnes)	oil (in 1000 tonnes)	(in 1000 tonnes)	Fuel	tonnes)
1974	JZ	898			.	.	.	.	190		190	.	.	607	13,58	21,33	.	.	.		
1974	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	PKP	3461			52	3530	18,43	50,19	464		464	2,76	5,78	3047	12	19,42	.				
1974	TCDD	661			277	1077	39,14	101,19	70		70	3,42	7,64	69	16,21	61,93	4673				
1975	BDZ	.				418	.	.	135		135	.	.	461	.	.	.				
1975	BR								768		768	2,48	7,13	2134	12,17	38,67	.			.	.
1975	CFF								5		5	1,85	.	1367	13,12	43,43	352	.	.	diesel	0,651
1975	CFL								9		9	2,26	9,66	28	12,1	32,87	120	1	0		
1975	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	CH	4			4	10	22,99	357,39	41		41	1,93	8,73				1092	1	0		
1975	CIE								33		33	2,52	.				535	45	0	.	.
1975	CP	29			16	53	22,76	235,58	44	0	44	1,91	11,5	138	9,4	38,8	.	.	.	gas oil	3
1975	CSD	1107				1107	.	.	451		451	.	.	1934	.	.	16421				
1975	DB	210			54	291	25,04	45,91	528		528	1,81	11,86	5691	11,37	30,74	7044	63,3	11,1	diesel oil	12,3
1975	DR	900	lignite	42	278	1211	21,34	40,56	606		606	2,52	6,85	909	7,76	31,68	.			coal\diesel	0,3
1975	DSB								95		95	2,1	9,73	94	4,12	52,71	952	9	0	oil	21,5\68
1975	FS	77				77	21,96	208,12	128		128	0,96	12,5	3195	13,72	34,76	3448	.	.	gas oil	38,5
1975	JZ	485			.	485	.	.	177		177	.	.	627	.	.	.	.	.		
1975	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	NS								42		42	1,4	9,39	802	6,83	39,46	936				
1975	NSB								17		17	1,45	.	310	10,37	.	363	7	0		
1975	OBB	37	lignit wood	0		37	23,04	114,17	59		59	1,91	14,58	1114	13,32	38,17	1483	10	0	diesel fuel	0
1975	PKP	3340			32	3383	19,44	52,76	518	0	518	2,77	5,8	248	12,16	19,68	.				
1975	RENFE				27	38	35,82	130,75	191		191	1,92	8,88	838	11,07	32,64	2567	.			
1975	SJ								32	0,6	33	1,21	13,76	1253	11,15	30,44	.	19,5	3	gas oil	33,4
1975	SNCB								137		137	2,45	9	649	7,91	37,27	1584	.	.		
1975	SNCF								469		469	1,76	7,76	4822	12,73	25,14	17000	.	.	.	.
1975	VR	4	wood	4		5	25,38	107,07	97		97	1,57	5,39	66	8,42	45,75	1600	1			
1975	TCDD	635			263	1030	40,22	109,16	77		77	3,51	7,62	69	14,84	62,21	5353				
1976	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	BR								729		729	2,39	6,77	2275	13	41,61	.			diesel	152
1976	CFF								6		6	1,82	.	1422	13,05	42,76	334	.	.	diesel fuel	0,5
1976	CFL								8		8	2,36	8,58	30	11,26	33,59	119	1	0		
1976	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	2			1	4	17,5	415,63	43		43	2,09	9,39				1119	1	0		
1976	CIE								32		32	2,56	.				538	44	1	.	.
1976	CP	27			6	36	24,61	292,39	46	0	46	1,99	11,51	145	10,52	39,85	.	.	.	gasoil	3
1976	CSD	899				899	.	.	658		658	.	.	2006	.	.	16628				
1976	DB	44			37	100	29,34	34,45	525		525	1,86	11,52	5840	11,42	30,03	6416	64,2	11,7	diesel oil	12,7
1976	DR	685	lignite	19	268	991	21,71	41,46	664		664	2,6	6,81	956	8,02	31,41	.			coal\diesel	0,2\23,5
1976	DSB								99		99	2,17	10,48	109	4,52	57,86	1300	9	0	oil	66
1976	FS	46				46	20,66	407,04	139		139	1,01	12,4	3306	13,7	34,04	3596	.	.	gasoil	42
1976	JZ	393			.	393	25,65	104,16	166		166	1,78	7,7	686	14,03	22,36	.	.	.		
1976	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	NS								40		40	1,4	9,8	807	6,84	38,93	889				
1976	NSB								17		17	1,44	.	333	10,6	.	464	7	0		
1976	OBB	16	wood	0		16	23,77	160,62	61		61	1,95	14,95	1199	13,55	37,71	.	10	0	diesel	0
1976	PKP	3105			11	3116	19,92	55,52	572	0	572	2,86	6,02	3491	12,48	20,13	.				
1976	RENFE								189		189	1,99	9,15	950	11,4	33,96	2292	.			
1976	SJ								32	0,6	32	1,21	13,23	1279	11,43	30,52	.	19,3	3,2	diesel	29,2
1976	SNCB								137		137	2,45	8,73	642	7,94	36,79	1553	.	.		
1976	SNCF								491		491	1,84	7,91	5054	12,93	24,81	14000	.	.	.	.
1976	VR	.	.	.		.			96		96	1,63	5,57	96	9,72	38,17	1457	1			
1976	TCDD	559			208	871	39,13	111,94	93		93	3,63	7,31	70	15,17	63,45	4445				

A1.1.21. Operating Accidents

YEAR	Railway	Collisions and Derailments – Collisions – Between Rolling Stock – Train	Collisions – Between Rolling Stock – During shunting operations	Collisions – between rolling stock and an obstacle at a level crossing	Collisions – Other collisions (between r.s. and obstacle)	Derailments – Train	Derailments – during shunting operation	Total Number of Collisions and derailments	Total Number of Collisions and derailments per 1000000	Other rolling stock accidents	Causalities caused by rolling S. in motion	RAIL TRAFFIC – KILLED – Passenger killed as a result of – Collisions and derailments	Passenger killed – others causes	Railway servants killed as a result of – collisions and derailments	Railway servants killed – other causes	Other Persons killed as a result of – collisions and derailments	Other Persons killed – other causes	Total Number of killed	INJURED – Passenger injured as a result of – Collisions and derailments	Passenger injured – others causes	Railway servants injured as a result of – collisions and derailments	Railway servants injured – other causes	Other Persons injured as a result of – collisions and derailments	Other Persons injured – other causes	Total Number of injured	NUMBER – of passenger – Killed per 10000000 Pass.KMs	of passenger – injured per 10000000 Pass.KMs	of railway servants – Killed per 1000000 motive vehicle kms (after deduction of assisting not required railcars)	of railway servants – injured	ROAD TRAFFIC – Number of accidents	Number of killed	Number of injured
1972	BR	43		97	53	252		445	0,91	622		3	42	7	45	3	12	112	16	42	4	134	5	6	207	0,016	0,02	0,11	0,29			
1972	CFF	16	18	65	22	21	10	152	1,67	3	254	4	21	4	8	30	31	98	11	37	22	144	23	16	253	0,03	0,058	0,12	1,65			
1972	CFL			1	1			2	0,45		5				1			1				3		3	6			0,2	0,59			
1972	CH	3	21	91	46	38	79	278	15,1	36	38	15		7	1	5	11	39	74	11	26	14	86	14	225	0,096	0,544	0,43	2,17	24	8	34
1972	CIE			1				1	0,09		6					1	3	4						3	3					10	11	
1972	CP	8	52	68	62	53	360	603	19,42	24	178	1	82	2	17		45	147	31	101	22	482		22	658	0,278	0,443	0,57	15,08	15		15
1972	DB	97	336	459		136	290	1318	2,12	37	744	4	83	18	102	134	87	428	370	83	127	199	255	61	1095	0,022	0,117	0,18	0,48	.	.	.
1972	DSB	2	10	13	15	5	6	51	1,27	4	219		2	1	4	2	24	33	1	10	2	165	10	8	196	0,006	0,035	0,1	3,35	34	4	15
1972	FS	8	21	56	21	23	29	158	0,56	38	338	0	24	1	19	35	87	166	10	159	15	28	28	28	268	0,007	0,048	0,07	0,14	.	.	.
1972	NS	18	39	42	15	16	44	174	1,64	21	59					46	18	64	2	15	12	24	29	5	87		0,021		0,33			
1972	NSB	2		24	4	18		48	1,5	1	36		5	1	1	5	3	15		13	4	10	6	4	37	0,031	0,08	0,06	0,39	.	.	.
1972	OBB	17	41	80	14	15	14	181	2,04	11	132	2	6	3	19	42	29	101	16	20	12	41	49	18	156	0,012	0,055	0,22	0,53	85	8	24
1972	RENFE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	4	
1972	SJ	6	4	102	6	59	9	186	1,86	14	124	4	3	5	4	35	18	69	13	4	8	103	30	4	162	0,016	0,038	0,08	0,96	.	.	.
1972	SNCB	10	25	33	3	51	81	203	2,36	9	42	1	3		6	46	10	66	3	35	2	15	40	15	110	0,005	0,051	0,07	0,19	29	12	46
1972	SNCF	25	3	246	42	85	53	454	0,97	20	322	107	40	9	27	50	119	352	149	67	15	33	70	35	369	0,034	0,05	0,07	0,09	1		1
1972	VR	6	13	196	1	19	15	250	5,7	7	146		11	1	3	21	53	89	4	16	7	7	75	33	142	0,042	0,077	0,08	0,27	33	1	3
1972	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1972	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1972	CSD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1972	DR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1972	JZ	11				204	9	224	1,88	556			61						228	408	193					0,057	0,601		1,35	.	.	.
1972	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1972	TCDD	31	23	38	32	56	52	232	5,85	29	169	30	5	14	16	16	81	162	1	28	7	12	79	45	182	0,066	0,054	0,65	0,41			
1973	BR	36		112	39	265		452	1	621		6	21	3	36	11	6	83	39	42	7	84	5	2	179	0,01	0,029	0,09	0,02			
1973	CFF	16	33	69	11	23	9	161	1,76	5	224		11	2	12	30	24	79	3	21	27	135	19	24	229	0,013	0,029	0,14	1,61			
1973	CFL	1				2		3	0,67		2			3	1			4	3	1	2				6		0,185	0,79	0,39	1	1	2
1973	CH	3	18	91	20	17	56	205	.	13	48	3	1		4	13	12	33	49	10	12	5	39	17	132	0,025	0,365	.	.	26	8	93
1973	CIE	1		2		1		4	0,31				1			2	4	7				1	1	2	4	0,011			0,07	19	20	3
1973	CP	9	40	132	56	43	293	573	18,58	31	185	4	6	15	7		100	132	22	37	21	490		127	697	0,031	0,183	0,66	15,38			
1973	DB	88	360	447		132	329	1356	2,16	40	781	25	111	21	90	144	82	473	331	199	152	209	250	69	1210	0,035	0,136	0,16	0,52	.	.	.
1973	DSB	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	FS	10	23	48	25	20	34	160	0,56	46	344	5	30	5	26	20	107	193	14	140	10	17	27	30	238	0,01	0,042	0,1	0,09	.	.	.
1973	NS	9	44	47	19	5	59	183	1,72	26	65		5	1	1	58	22	87		10	4	36	28	5	83	0,006	0,012	0,02	0,37			
1973	NSB	1	1	38	2	35		77	2,45	4	21		1		2	17	5	25		3		6	8	5	22	0,006	0,018	0,06	0,17	.	.	.
1973	OBB	20	38	106	15	20	20	219	2,45	20	193	3	27	1	7	37	46	121	22	45	18	53	46	22	206	0,046	0,103	0,08	0,71	109	2	20
1973	RENFE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	SJ	3	11	107	6	79	10	216	2,16	12	115	4		2	2	25	10	43	23	1	19	100	26	7	176	0,009	0,055	0,04	1,04	.	.	.
1973	SNCB	10	27	40	8	49	83	217	2,44	14	40		6	1	3	62	6	78	6	39	6	12	42	9	114	0,008	0,06	0,04	0,19	24	4	58
1973	SNCF	21	8	253	56	97	51	486	1,02	37	327	3	32	3	25	73	125	261	10	64	27	33	45	52	231	0,008	0,017	0,05	0,12	3		2
1973	VR	10	10	185	3	17	20	245	5,5	23	142		9		6	40	53	108	12	11	3	9	66	35	136	0,032	0,083	0,11	0,23	27		1
1973	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1973	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1973	CSD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1973	DR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1973	JZ	9				186	7	202	1,67	494			40						215	385	172					0,038	0,567		1,19	.	.	.
1973	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1973	TCDD	36	15	76	25	114	111	377	9,22	30	212		5	4	11	29	75	124	37	36	8	23	42	75	221	0,01	0,14	0,32	0,66			
1974	BR	40		107	44	250		441	0,98	627		14	28	3	28	1	8	82	6	48	11	68	5	3	141	0,014	0,017	0,07	0,17			
1974	CFF	11	25	38	35	14	10	133	1,46	3	86	2	11	1	12	14	23	63	12	21	13	11	25	9	91	0,016	0,04	0,13	0,24			
1974	CFL	1	1	2		1	1	6	1,29		2					1		1				2	1		3				0,38			
1974	CH	4	12	65	16	28	70	195	10,69	26	47		3	1	1	10	15	30	31	13	17	9	41	8	119	0,019	0,276	0,1	1,28	23	6	37
1974	CIE	2				2		4	0,43			2			1		1	4	15			1		1	17	0,03	0,22	0,1	0,1	11	15	5
1974	CP	11	52	90	43	36	300	532	17,01	20	95	14	29	6				49	116	71	6				193	0,119	0,517	0,18	0,18			
1974	DB	66	274	335	68	60	261	1064	1,69	52	678	1	75	7	59	105	68	315	126	256	132	222	211	47	994	0,019	0,096	0,1	0,51	.	.	.
1974	DSB	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	FS	7	26	46	29	21	20	149	0,52	34	275	2	29	3	1	30	98	163	13	131	13	14	26	31	228	0,008	0,038	0,01	0,09	.	.	.
1974	NS	10	40	24	17	11	48	150	1,4	17	53				1	53	30	84	1	8	2	24	21	22	88		0,01	0,01	0,24			
1974	NSB	2	2	24	11	19	4	62	1,87	3	15		5	1	1	9	3	19		11	4	11	7		33	0,027	0,058	0,05	0,41	.	.	.
1974	OBB	14	32	83	17	36	8	190	2,08	22	178		17	2	11	31	29	90	11	44	9	58	40	14	176	0,026	0,084	0,13	0,66	107	2	31
1974	RENFE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	SJ	9	9	99	8	67	19	211	2,06	9	115			2	5	30	14	51	4	2	10	81	39	6	142		0,011	0,06	0,78	.	.	.
1974	SNCB	10	23	35	7	52	73	200	2,19	15	20	17	4		4	59	6	90	27	40	5	18	38	11	139	0,027	0,088	0,04	0,24	19	5	53
1974	SNCF	21	1	262	43	123	62	512	1,04	65	399	10	45	6	32	67	113	273	54	46	11	38	43	67	259	0,012	0,021	0,07	0,09	3		12
1974	VR	8	16	157	5	22	25	233	5,04	27	151	1	8		2	42	53	106	14	16	4	3	46	28	111	0,03	0,098	0,04	0,13	42		3
1974	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	CSD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	DR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	JZ	10				200	5	215	1,7	261									206	261	151						0,448		1,01	.	.	.
1974	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1974	PKP	26	34	13	6	90	36	205	0,51	1	173	11	19	15	19	2	71	137	103	23	25	32	3	122	308	0,007	0,03	0,07	0,12			
1974	TCDD	35	13	95	32	126	124	425	10,55	32	242	24	14	13	14	25	93	184	50	30	37	39	50	88	294	0,066	0,139	0,58	1,63			
1975	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1975	BR	31		77	44	228		80	4	668		1	24	4	31	1	9	70	14	69	9	117	3	5	217	0,008	0,027	0,08	0,28			
1975	CFF	9	19	58	19	17	6	128	1,43	2	69		7	3	11	23	14	58	2	11	5	20	32	10	80	0,009	0,016	0,14	0,25			
1975	CFL			3				3	0,69		2				1	2		3			1				1			0,2	0,2	1		2
1975	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	CH	3	14	96	12	16	52	193	10,66	19	42					9	17	26	1	9	6	7	38	8	69		0,064		0,064	26	10	69
1975	CIE					2		2	0,18			4	1	1	1		2	9	22		2			1	25	0,056	0,245	0,17	0,17	10	10	4
1975	CP	3	19	70	22	34	73	221	7,12	10	63		2		1	6	19	28	1	10	7	4	23	25	70	0,005	0,029	0,03	0,33			
1975	CSD	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	DB	55	243	306	69	52	273	998	1,69	46	546	52	72	5	42	131	99	401	137	132	103	176	159	55	762	0,034	0,073	0,07	0,43			
1975	DR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	DSB	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1975	FS	4	33	44	20	13	22	136	0,48	34	265		20	1	10	15	84	130	5	110	11	15	24	34	199	0,006	0,032	0,04	0,09			
1975	JZ		9	42	16		162	8	237	1,87	282			28		109		191	235		123		185		543	0,052	0,428	0	0	.	.	.
1975	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1975	NS	11	37	41	25	13	47	174	1,63	22	56	0	3	0	3	48	30	84	1	6	2	37	21	3	70	0,004	0,008	0,03	0,36			
1975	NSB	2	1	34	7	15	2	61	1,79	1	7	27	1	1	4	8	2	43	23	4	7	3	6	1	44	0,144	0,139	0,13	0,27			
1975	OBB	12	31	91	18	22	11	185	2,04	14	151		12	2	16	36	31	97	16	39	8	47	34	19	163	0,019	0,085	0,18	0,55	118	2	39
1975	PKP	25	31	12	4	86	33	191	0,46		149	10	18	12	21	1	73	135	98	25	26	34	2	125	310	0,007	0,029	0,07	0,12			
1975	RENFE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			
1975	SJ	6	17	103	3	72	12	213	2,14	10	80	21		1	3	32	7	64	33	6	13	61	38	7	158	0,037	0,069	0,04	0,65	.	.	.
1975	SNCB	8	21	10		22	48	109	1,24	1	20	2	3	3	4	37	7	56	50	52	10	13	22	6	153	0,007	0,133	0,08	0,25	21	4	56
1975	SNCF	13	4	266	49	92	55	479	1	45	270	9	37	4	18	36	83	207	31	52	17	32	38	34	204	0,009	0,016	0,004	0,1	1		
1975	VR	3	14	147	6	13	21	204	4,58	34	104		5		1	22	44	72	11	14	6	4	40	20	95	0,016	0,08	0,02	0,19	28		3
1975	TCDD	37	8	121	29	102	110	407	10,23	23	197		9	16	12	42	56	135	12	18	23	23	62	81	219	0,019	0,063	0,61	1			
1976	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	BR	25		71	285	185		566	1,27	230			8	8	27	10	6	79	3	65	6	69	1	1	145	0,01	0,024	0,008	0,17			
1976	CFF	10	11	38	18	10	8	95	1,03	3	74	5	11	2	9	17	23	67	44	14	6	13	15	13	105	0,02	0,072	0,11	0,19			
1976	CFL		1		1			2	0,46		3				1		1	2				2			2			0,21	0,41	1	1	1
1976	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	CH	6	8	57	7	12	24	114	6,48	9	25	1		5		18	9	33	15	4	25	7	40	5	96	0,006	0,12	0,26	1,666	20	4	46
1976	CIE			3		5		8	0,76				1			2	2	5		1				1	2	0,013	0,013			9	9	2
1976	CP	23	28	79	50	60	240	480	15,91		83	12	3		5			20	84	18	5	13			120	0,037	0,25	0,16	0,56			
1976	CSD	23	29	64	3	47	2	168	0,66	1				6		27		33	2		9	1	17		29		0	0,01	0,02			
1976	DB	38	316	313	226	55	306	1254	2,18	59	555	1	68	2	55	94	78	298	16	136	95	198	176	74	695	0,019	0,041	0,09	0,47	.	.	.
1976	DR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	DSB	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	FS	3	30	47	17	22	10	129	0,44	37	281		40	1	11	24	66	142	5	141	10	12	22	20	210	0,01	0,037	0,04	0,07	.	.	.
1976	JZ	15				137		152	1	153		32		47		376		455	187		136		398		721	0,032	0,188	0,01	0,02	.	.	.
1976	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	NS	11	33	55	26	6	61	192	1,78	28	78	30	4	2	2	45	37	120	12	9	9	26	32		88	0,041	0,026	0,04	0,32			
1976	NSB		1	28	13	28	5	75	2,14	3	14		1	1	2		10	14	2	10	2	14		11	39	0,005	0,06	0,08	0,42	.	.	
1976	OBB	17	23	64	15	25	5	149	1,58	13	158		14		20	30	31	95	1	29	7	41	27	18	123	0,022	0,046	0,19	0,46	142	15	41
1976	PKP	28	33	16	5	88	37	207	0,49		159	28	16	17	23		74	158	96	27	31	37		128	319	0,01	0,029	0,08	0,13			
1976	RENFE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1976	SJ	11	14	116	2	64	29	236	2,36	13	102	14		2	6	27	5	54	18	2	20	85	30	3	158	0,026	0,037	0,07	0,92	.	.	.
1976	SNCB	8	16	11	1	15	28	79	0,89	2	23	10	4	1	3	30	9	57	28	38	4	5	6	9	90	0,018	0,087	0,04	0,1	24	7	44

A1.1.21. Operating Accidents

RAIL TRAFFIC

YEAR	Railway	Collisions and Derailments – Collisions – Between Rolling Stock – Train	Collisions and Derailments – Collisions – Between Rolling Stock – During shunting operations	Collisions and Derailments – Collisions – between rolling stock and an obstacle at a level crossing	Collisions and Derailments – Collisions – Other collisions (between r.s. and obstacle)	Collisions and Derailments – Derailments – Train	Collisions and Derailments – Derailments – during shunting operation	Total Number of Collisions and derailments	Total Number of Collisions and derailments per 1000000	Other rolling stock accidents	Causalities caused by rolling S. in motion
1976	SNCF	19	5	252	32	78	32	418	0,85	78	302
1976	VR	6	14	132	13	14	19	198	4,55	40	96
1976	TCDD	19	11	105	20	122	113	390	9,79	12	252

YEAR	Railway	KILLED – Passenger killed as a result of – Collisions and derailments	KILLED – Passenger killed as a result of – others causes	KILLED – Railway servants killed as a result of – collisions and derailments	KILLED – Railway servants killed as a result of – other causes	KILLED – Other Persons killed as a result of – collisions and derailments	KILLED – Other Persons killed as a result of – other causes	KILLED – Total Number of killed
1976	SNCF		44	2	26	44	78	194
1976	VR	1	1	2	3	34	43	84
1976	TCDD		6	7	7	29	92	141

YEAR	Railway	INJURED – Passenger injured as a result of – Collisions and derailments	INJURED – Passenger injured as a result of – others causes	INJURED – Railway servants injured as a result of – collisions and derailments	INJURED – Railway servants injured as a result of – other causes	INJURED – Other Persons injured as a result of – collisions and derailments	INJURED – Other Persons injured as a result of – other causes	INJURED – Total Number of injured
1976	SNCF	8	92	15	36	54	44	249
1976	VR	13	13	5	5	38	16	90
1976	TCDD	8	16	18	17	107	138	304

YEAR	Railway	NUMBER – of passenger – Killed per 10000000 Pass.KMs	NUMBER – of passenger – injured per 10000000 Pass.KMs	NUMBER – of railway servants – Killed per 1000000 motive vehicle kms (after deduction of assisting not required railcars)	NUMBER – of railway servants – injured per 1000000 motive vehicle kms (after deduction of assisting not required railcars)	ROAD TRAFFIC – Number of accidents	ROAD TRAFFIC – Number of killed	ROAD TRAFFIC – Number of injured
1976	SNCF	0,009	0,02	0,05	0,1	4		3
1976	VR	0,007	0,087	0,1	0,2	41		2
1976	TCDD	0,013	0,052	0,3	0,76			

A.1.1.22. Terminal Operations and Combined Transport

		PRIVATE SIDINGS								COMBINED TRANSPORT (other than containers)			
		Number at the End of the Working Year		Full Wagon Loads						Road Units on Wagons		Wagons-Carrying Trailers	
				Consignments Loaded		Consignments Unloaded		Consignments conveyed from siding in internal traffic					
YEAR	Railway	Sidings	Sub-sidings	Effective weight of goods (1000	% of Total effective weight of goods	Effective weight of goods (1000 tonnes)	% of Total effective weight of goods loaded on the Railway	Effective weight of goods (1000 tonnes)	% of Total effective weight of goods conveyed in internal traffic on the Railway	Number of wagons carrying loaded or	Weight of load (1000 tonnes)	Number of loaded wagons conveyed	Effective weight goods (1000
1972	BR												
1972	CFF	1668	651	17798	85	21662	79,2	12008	58	7385	165	15602	295537
1972	CFL	74	36	9744	92,5	11441	79,3						
1972	CH	187											
1972	CIE	18											
1972	CP	213		1486	40	929	25						
1972	DB	7858	3468	201571	77,3	185396	72,4	134175	63,7	97164	2200	146415	3927
1972	DSB	465											
1972	FS	1513	358	17203	31,8	18034	33,3	7394	13,7			479414	8534
1972	NS	510	355							6193	134		
1972	NSB												
1972	OBB	1017	247	14639	52,1	16541	48,3					52431	917
1972	RENFE	1215		21454		20512							
1972	SJ									4034	83	2543	69
1972	SNCB	1373	291	36545	72,7	41758	81,1			2656	56	242	5
1972	SNCF	9157	1620	174000	80	155000	75,4	119000	63,9	154069	2638	52774	826785
1972	VR	845											
1972	BDZ												
1972	CFR												
1972	CSD			193802	88,6	156503	68,4						
1972	DR	3373	1490	202693	88,6	174730	74,7			2609	24	47387	510
1972	JZ												
1972	MAV	1268		68634	85,2	56428	62,2					2787	67
1972	TCDD	272											
1973	BR												
1973	CFF	1679	657	20171	84,9	22568	79,1	12914	58	11704	256	14999	289
1973	CFL	73	45	9184	89,5	12161	81,3						
1973	CH	187		715	0,3								
1973	CIE	18											
1973	CP	203		1370	35,2	933	24						
1973	DB	7762	3708	214141	82,1	197245	73,9	149830	58,7	123122	2677	141165	3233
1973	DSB	430											
1973	FS	1524	356	17257	31,4	18538	33,8	7601	13,9			525496	9730
1973	NS	505	360							5754	126		
1973	NSB												
1973	OBB	1030	256	14097	48,7	16786	47					55107	982
1973	RENFE												
1973	SJ											307	5
1973	SNCB	1283	264	38724	69,7	44437	80			4430	104	1484	36
1973	SNCF	9060	1818	180000	72,5	163000	76	121000	62,6	153216	2772	51933	808970
1973	VR	837											
1973	BDZ												
1973	CFR												
1973	CSD			194729	89	163094	71,5						
1973	DR	3338	1448	205452	88,9	180763	75,5			7756	68	35355	473
1973	JZ												
1973	MAV	1277		70989	86,3	56132	61,5					2833	68
1973	TCDD	272											

		SMALL CONTAINERS				MEDIUM - SIZED CONTAINERS							
		Number at the end of the working year		Number of loaded containers forwarded	Effective weight of goods (1000 tonnes)	Number at the end of the working year				Number of wagons with loaded or charged - empty	Number of loaded containers forwarded	Effective weight of goods (1000 tonnes)	Number of loaded containers collected or delivered
						Railway owned		Privately owned					
YEAR	Railway	Railway owned	Privately owned			Normal	Fitted for special conveyanc	Normal	Fitted for special conveyanc				
1972	BR												
1972	CFF	5191	2593				487	730	2		3039	64	7819
1972	CFL	206		2049									
1972	CH	330											
1972	CIE	76				31							
1972	CP		155										
1972	DB	109717	7164	2389216	860		23100	3461	2534		577249	2840	338586
1972	DSB	2312		46439									
1972	FS	1645	6061	6457	2,2								
1972	NS	65					249						
1972	NSB												
1972	OBB	4153	7	87091	33								
1972	RENFE												
1972	SJ	9463		133015		683	683						
1972	SNCB	2013					774	801	63	3670	14680	70	
1972	SNCF	9276	13956			13875		110157		197000		1244	
1972	VR	40	64				686						
1972	BDZ												
1972	CFR												
1972	CSD	38394			555	3714						65	
1972	DR	43369		777032	396	10504	300				83889	173	
1972	JZ												
1972	MAV	3052		32789	16	269				3959	12294	46	12294
1972	TCDD												
1973	BR												
1973	CFF	5241	2527			17	510	723	2			51	10400
1973	CFL	206		2025									
1973	CH	330		627	2								
1973	CIE	76				31							
1973	CP		155										
1973	DB	105262	7379	2363309	796		22179	2055	1394		540454	2659	288322
1973	DSB	2050		36759									
1973	FS	1638	6071	3787	1,3								
1973	NS	63					135						
1973	NSB												
1973	OBB	4153	7	72736	32								
1973	RENFE												
1973	SJ	9359		128469		678	678						
1973	SNCB	2010					706	256	63	2985	11940	55	
1973	SNCF	9264	13930			13800		98200		167674		1038	
1973	VR	40	64	182	2		786						
1973	BDZ												
1973	CFR												
1973	CSD	40053			522	3707						64	
1973	DR	43369		727914	369	10339	300				78345	168	
1973	JZ												
1973	MAV	3104		32980	16	509				7351	25172	91	25172
1973	TCDD												

		LARGE CONTAINERS																			
		Number at the end of the working year		LOADED										EMPTY				Including Containers Suitable for conveying goods under controlled Temperature Conditions			Number of loaded Containers collected or delivered
				Forwarded from		Forwarded from harbour stations		From Foreign Railway (except international transit)		In International Transit Via Two Land Frontier Points		TOTAL		Number of Containers							
YEAR	Railway	Railway owned	Privately owned	Number of Containers	Effective weight of goods (1000	Number of Containers	Effective weight of goods (1000 tonnes)	Number of Containers	Effective weight of goods (1000 tonnes)	Number of Containers	Effective weight of goods (1000 tonnes)	Number of Containers	Effective weight of goods (1000	Forwarded from stations, including	From foreign Railway (except	In International transit via two land frontier	Total	Number of loaded containers	Effective Weight of goods (1000 tonnes)	Nº of Empty Containers	
1972	BR																				
1972	CFF	17	234	4566	62			7894	108	34898	483	47358	654	6213	1247	7076	14536	592	11	407	
1972	CFL																				
1972	CH																				
1972	CIE	1668																			
1972	CP			22	0	22	0	75	1			119	1	1328	11		1339				
1972	DB	1654		122243	1343	36069	417	53351	679	46338	720	258001	3159	126073	16092	2768	144933	3065	38	2487	82706
1972	DSB																				
1972	FS	115	2346																		
1972	NS		7020			48201	747	36344	535			84545	1282	10775	15789		26564	2587	40	1156	
1972	NSB																				
1972	OBB		2	6666	105			6133	94	6627	95	19426	294	1183	1605	465	3253	360	4	360	261
1972	RENFE	550	3584	7220				2637				9857	68								2156
1972	SJ	466											578								
1972	SNCB		6393		166		710		602		96		1574								
1972	SNCF		49477									151230	1847				96750				
1972	VR	40																			
1972	BDZ																				
1972	CFR																				
1972	CSD	250			12																
1972	DR	8263		161401	1151	5137	58	1398	12	3125	34	166487	1255	2507	49			1024	8		
1972	JZ																				
1972	MAV	71		4299	34			2339	27	595	7	7233	68	601	751	473	1825	238	4	238	1814
1972	TCDD																				
1973	BR																				
1973	CFF	17	234	4893	66			8117	110	29307	397	42317	573	3979	1240	4636	9855	767	14	406	
1973	CFL																				
1973	CH																				
1973	CIE	1911																			
1973	CP			207	4	207	4	146	2			560	10	2872	12		2884				
1973	DB	1928		164573	1784	42086	607	69951	1038	44744	740	321354	4169	206659	109904	4791	321354	3038	53	2698	115
1973	DSB																				
1973	FS	115	2326	88574	1297			40324	724			12898	2021	40652	14458		52110				
1973	NS		5575			60087	931	50091	736			110178	1667	18531	14506		33037	4115	49	864	
1973	NSB																				
1973	OBB		2	10575	148			6863	113	9465	152	26903	413	1677	3242	1684	6603	223	6	242	51
1973	RENFE																				
1973	SJ	643	35																		
1973	SNCB		7481		193		900		726		139		1958								
1973	SNCF		71100									200230	2468				128260				
1973	VR	40		7354	92	3547	33	1655	23	18	0	12574	148	5456	4		5460				
1973	BDZ																				
1973	CFR																				
1973	CSD	999			38																
1973	DR	8825		208607	1437	5311	58	2557	24	7623	76	224098	1595	3755	445			1503	11		
1973	JZ																				
1973	MAV	71		4800	35			1416	18	3346	36	9562	89	772	896	308	1976				2872
1973	TCDD																				

A1.1.23. Miscellaneous Averages Relating To Rolling Stock-Kilometres

YEAR	Railway	railgauge	AVERAGE GROSS LOAD OF A TRAIN BY TYPE OF TRACTION (IN TONNES) — Steam Locomotives Passenger	Steam Locomotives Goods	Diesel and Special System locomotives and light Rail motor tractors Passenger	Diesel and Special System locomotives and light Rail motor tractors Goods	Electric locomotives and Light rail motor Passenger	Electric locomotives and Light rail motor Goods	Diesel and Special system railcar Passenger	Electric railcars Power Cars Passenger	PERCENTAGE OF RAIL MOTIVE VEHICLES KILOMETRES — Steam locomotives	Diesel and special system locomotives and light rail motor tractors	Electric locomotives and light rail motor tractors	Assisting required (at the front or rear) Steam locomotives	Assisting Diesel and special System locomotives and light rail motor tractors	Assisting Electric locomotives and light rail motor tractors	Assisting Diesel and Special System railcars	Assisting Electric Railcars	AVERAGE ANNUAL RAIL MOTIVE VEHICLE KMS Per motive vehicle used — Steam Locomotives	Diesel and S.S. Loc. (excluding Light R. M. T.)	Electric Locomotives (excluding Light R. M. T.)	Diesel and special System Railcars	Electric Railcars	AVERAGE ANNUAL CARRIAGE AND WAGONS-KMS — Carriages	wagons Loaded + empty	wagons loaded	RATIO OF LOADED TO TOTAL WAGONS-KMS
1972	BR	N										5,8	1,2		9,3	6,8											
1972	CFF	N	0		167	258	304	600	65	191		0	3,7	0	84,5	10,4	0	1,5		31815	128244	205000	152979	105500	20471	13649	0,7
1972		E					92	74		95			3,1			16,7		1,9			51500		95545	40096	4577	3385	0,7
1972		total																									
1972	CFL	N	0	1117	179	925	304	973	77	187		6,5	3,8	100	24,4	30,6	8,5	49		63771	77429	118643		65044	11015	6845	0,6
1972	CH	N	237	432	308	571			97										39413	130373		131209		100795	10454	6525	0,6
1972		E	97	64	153	253			69										15036	85906		88395		82675	8651	5238	0,6
1972		TOTAL																									
1972	CIE	L										14,6			4,2		0,6			86679		22857			12574	8858	0,7
1972	CP	L	177	275	217	316	325	520	106	276	0,5	0,5	0,7	6,4	7	5,1	0,7	0	33109	74780	148355	132019	136403	104266	13090	9946	0,8
1972		E	82	105					44					1,9			0,9		35197			82857		38416	5907	4454	0,8
1972		TOTAL																									
1972	DB	N	187	862	191	515	298	895	68	163	1,7	1,7	0,3	28,1	17,4	7,8	2,9	0,7	62411	81713	174982	107332	120178	96860	20655	13714	0,7
1972		E																									
1972		TOTAL																									
1972	DSB	N			224	602			142			2,1			2,6							128752	90183	81468	18167	13955	0,8
1972	FS	N	148	298	248	413	426	700	79	173	3,5	4,4	2,4	17,5	6,3	4,2	1,1	1,1	27872	64465	120366	123823	155622	107749	14869	9854	0,7
1972		E		63					43		15,8			5,3					25000			44667		16346	1675	976	0,6
1972		TOTAL																									
1972	NS	N			212	511	286	711	133	203		58,1			14,8	4,4	14,9	46,5		54870	226042	182738	231135	183777	20316	12799	0,6
1972	NSB	N										8,2	9,8		4,6	1,7				93493	138056	94294	117096	83623	19584	13980	0,7
1972	OBB	N	107	632	143	447	276	713	96	212	2,8	2	4,9	24,6	23,6	13	0	2,3	49008	60430	143198	100598	170391	76150	24629	15962	0,6
1972		E	36	88	46	91	86	95	33		0,7	1	0,3	0	1,4	2,6	0		27455	54160	57545	18000		31078	4986	3058	0,6
1972		TOTAL																									
1972	RENFE	L	200	477	337	527	467	587	112	211	7,1	6,5	2,7	25,4	14	12,1	3,9	2						112628	20697	13219	0,6
1972		E								48																	
1972		TOTAL																									
1972	SJ	N	64		181	376	290	800	40	113	0	5,4	15,2	0	10,7	2,8	30,1	6		66713	149049	100355	133938	11354	24838	17133	0,7
1972		E				126	74		20	68		22	0		12		6,6			26667	90000	71778	75167	17647			
1972		TOTAL																									
1972	SNCB	N		79	215	783	377	801	73	243	4,5	3,2	10,8	18,9	20	20,8	6	7,4		87979	158240	113196	150789				
1972	SNCF	N	377	589	400	574	527	872	93	239	1,7	10,8	4,6	26,1	25	12,4	1,7	0,7	56800	87044	163185	118231		111291	18272	12770	0,7
1972		E								82																	
1972		TOTAL																									
1972	VR	L		717	334	783			29	51	9,4	16,8		10,7	2		0,4	0,1	18384	121276		113483	102889	97883	24173	15195	0,6
1972	BDZ	N																									
1972		E																									
1972		TOTAL																									
1972	CFR	L	146	992							170	0		18	0												
1972		N	288	704	451	1372	509	1402	107		3,9	6	22,2	10,3	6,5	9,4	8,3										
1972		E	96	152	115	190	107	35			0,2	0,3	25,2	1,1	1,1	2,1											
1972		TOTAL																									
1972	CSD	L	226	645	273	916	410	1356	93	268	5,3	5,7	4,6	13,1	13,5	13			69048			112070	158269				
1972		N																									
1972		E																									
1972		TOTAL																									
1972	DR	N	234	890	240	881	276	997	70	215	1,8	1,5	2,4	16,9	11,3	11,9	3,8	0,4									0,7
1972		E	96	106							0,5			2,7	100												0,6
1972		TOTAL																									
1972	JZ	N	171	703	327	892	435	912	66	219	1,1	1,8	0,7	8	8,6	6,6	0,9	1,1	73536	111192	174980	151903	293000	111372	24211	16998	0,7
1972		E	89	222	102	235			97		13	2		11,9	4,3				57836	67286		116556		42421	8201	5550	0,7
1972		TOTAL																									
1972	MAV	L																									
1972		N	232	622	369	1098	414	1241	140		1,1	1,1	0,4	10,1	11,5	8,2	6,1										
1972		E			81	104			37			4,4			1		0										
1972		TOTAL																									
1972	TCDD	N	358	633	473	829	307	448	114	290	17,3	3,1	0,1	4,3	1,2	2,3	10,4	48,5	64574	101684	63545	126444	120444	93716	29244	20371	0,7
1973	BR	N										5,9	1,2		8,9	7											
1973	CFF	N	0		150	262	308	622	70	188		0	3,4		83,2	10,6	0	1,4		32222	126533	294000	155993	106059	30605	13793	0,7
1973		E					92	72		95			2,2			19,1		1,7			48000		97727	40226	4608	3231	0,7
1973		total																									
1973	CFL	N	0	892	174	909	274	1008	76	182		4,8	3,8	0	24,2	33,4	8,5	10,3		65348	74813	126231		69009	11861	7953	0,7
1973	CH	N																	44682	114597		134333		99952	10217	6365	0,6
1973		E																	14583	73935		73085		76130	8070	4864	0,6
1973		TOTAL																									
1973	CIE	L										9,2			4,2		0,6			96431		26833			11909	8671	0,7
1973	CP	L	174	258	226	316	345	512	106	277	0,8	0,3	0,6	6,7	7	5,7	1	0	42050	66086	154710	120519	137929	102268	13671	10484	0,8
1973		E	84	118					44		0,1			2,6			0,9		29778			78773		33035	4606	3451	0,7
1973		TOTAL																									
1973	DB	N																									
1973		E																									
1973		TOTAL	181	897	191	540	294	916	71	172	2,3	1,8	0,5	31,3	17,4	7,7	3,4	0,7	60572	81741	174138	107443	132112	97070	21454	14174	0,7
1973	DSB	N			220	604			145			2,3			1,8							135720	92480	86630	18258	13603	0,7
1973	FS	N	143	302	253	433	433	699	78	174	4	3,4	2,4	19,4	7,2	4,4	1,2	1,3	28294	62549	123386	125527	153949	106416	13880	9364	0,7
1973		E		67					42		15,7			5,9			1,3		23667			48000		19692	1639	924	0,6
1973		TOTAL																									
1973	NS	N			221	565	293	737	131	192		69,1			16,6	4,6	13,8	44,1		55093	215990	180211	221877	175352	23030	14509	0,6
1973	NSB	N										8,6	10		4,9	1,7				86155	139221	89686	121267	86454	21125	14212	0,7
1973	OBB	N	93	633	141	477	275	718	93	215	3,2	2,3	5,5	24,7	25,3	14	0	2,2	47684	61659	141983	103024	162526	76633	24621	15802	0,6
1973		E	46	107	65	109	122	121	30		0,7	1,1	0,5	0,4	1,5	3,3	0		27091	55409	52417	18000		30709	4708	2950	0,6
1973		TOTAL																									
1973	RENFE	L	209	528	343	553	478	626	111	207	7,2	7,1	3,1	16	13,9	11,8	3,7	1,9							24246	15858	0,7
1973		E								62																	
1973		TOTAL																						118553			
1973	SJ	N			188	408	288	864	38	116		6,9	15,8		10,4	3,1	30,4	4,4		67327	156194	102613	141500	113471			
1973		E			0	93			18			16,2			13,5		12,4			22667		98000		25000			
1973		TOTAL																							27845	19052	0,7
1973	SNCB	N		79	216	799	376	828	72	245	2	3,4	10,6	22,8	20,8	20,9	7	7,8		89798	161023	114309	149965				
1973	SNCF	N	326	580	400	617	525	909	96	242	0,9	11	4,5	33,9	23,3	12,5	1,3	1	42250	86847	166715	119313					
1973		E								84																	
1973		TOTAL																						112136	20037	13702	0,7
1973	VR	L	100	675	334	817			29	54	16,1	20,2		6,9	2		0,4		17642	125987		113726	113349	103110	24052	15192	0,6
1973	BDZ	N																									
1973		E																									

A1.1.23. Miscellaneous Averages Relating To Rolling Stock-Kilometres

YEAR	Railway	railgauge	AVERAGE GROSS LOAD OF A TRAIN BY TYPE OF TRACTION (IN TONNES)								PERCENTAGE OF RAIL MOTIVE VEHICLES KILOMETRES								AVERAGE ANNUAL RAIL MOTIVE VEHICLE KMS					AVERAGE ANNUAL CARRIAGE AND WAGONS-KMS			RATIO OF LOADED TO TOTAL WAGONS-KMS
			Steam Locomotives		Diesel and Special System locomotives and light Rail motor tractors		Electric locomotives and Light rail motor		Diesel and Special system railcar	Electric railcars Power Cars	Assisting required (at the front or rear)								Per motive vehicle used					Carriages	wagons		
			Passenger	Goods	Passenger	Goods	Passenger	Goods	Passenger	Passenger	Steam locomotives	Diesel and special system locomotives and light rail motor tractors	Electric locomotives and light rail motor tractors	Steam locomotives	Diesel and special System locomotives and light rail motor tractors	Electric locomotives and light rail motor tractors	Diesel and Special System railcars	Electric Railcars	Steam Locomotives	Diesel and S.S. Loc. (excluding Light R. M. T.)	Electric Locomotives (excluding Light R. M. T.)	Diesel and special System Railcars	Electric Railcars		Loaded + empty	loaded	
1973		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1973	CFR	L	160	1067							19,7			20,5					.					.	.	.	.
1973		N	289	688	445	1356	495	1440	105		2,8	5,4	15,4	6,9	5,8	15,1	7,2		.	.	.	.		.	.	.	.
1973		E	96	169	120	196	103	0			0	0,7	12,3	0,9	0,8	1,2			.	.	.			.	.	.	.
1973		TOTAL																									
1973	CSD	L																									
1973		N																									
1973		E																									
1973		TOTAL	215	611	273	912	407	1360	93	273	4,8	5,4	4,7	13,4	13,2	13			66886	.	.	111948	159739	.	.	.	.
1973	DR	N	241	894	240	909	282	1013	68	216	1,7	1,6	2,3	17,1	11,2	11,9	3,6	0,3	.	.	.	.	.	.	.	.	0,7
1973		E	97	110	.	.					0,7			1,4	200				.	.		.		.	.	.	0,6
1973		TOTAL																									
1973	JZ	N	175	687	328	853	422	971	71	220	1,2	2,1	0,8	7,8	8,2	7	0,8	1,4	72765	122137	186271	153110	145450	115634	27243	19126	0,7
1973		E	87	210	106	238			92		16,4	3,2		13,5	5				78613	72727		110444		40312	7605	5146	0,7
1973		TOTAL																									
1973	MAV	L																									
1973		N	227	617	368	1083	408	1234	144		0,9	1,1	0,1	10,1	11,1	8,3	5,7		.	.	.	.		.	.	.	.
1973		E			79	100			42			3,2			1		0			.		.		.	.	.	.
1973		TOTAL																									
1973	TCDD	N	353	630	475	831	334	517	110	292	16,2	4,4	0,2	3,7	2,1	1,3	5,6	49,3	54684	106154	82533	143032	124077	104089	30681	20489	0,7

A1.1.24. Rolling Stock : Carriages, Vans, Buses and Trailers - Stock available and out of service

YEAR	Railway	rail gauge	STOCK AT THE END OF THE YEAR – RAILWAY - OWNED VEHICLES – Rail STOCK – Carriages, Railcar and trailers – STOCK – Total stock	STOCK – Including – Metal or composite	STOCK – Including – RIC	STOCK – Including – with standing room	Carrying Capacity – Seats and Sleeping accommodation – 1º class	Carrying Capacity – Seats and Sleeping accommodation – 2ºclass	Carrying Capacity – Seats and Sleeping accommodation – Total	Carrying Capacity – Seats and Sleeping accommodation – Average per vehicle	Carrying Capacity – Standing room	VANS – Total Stock	ROAD STOCK – Buses and Trailers – Total Stock	ROAD STOCK – Buses and Trailers – Carrying Capacity	PRIVATE OWNERS VEHICLES – RAIL STOCK – CARRIAGES – Total Stock	PRIVATE OWNERS VEHICLES – RAIL STOCK – Vans – Total Stock	VEHICLES BELONGING TO PRIVATE ROAD STOCK – Buses and Trailers – Total Stock	VEHICLES BELONGING TO PRIVATE ROAD STOCK – Buses and Trailers – Carrying Capacity	Average number of carriages available for operating purposes – TOTAL	Average number of carriages available for operating purposes – out of service for maint. or repair	Average number of carriages available for operating purposes – In working order	Ratio between Stock in Working and Total Stock
1972	BR	N	17804	.	.	.	109371	997387	1106758	62,2	.	10811			20				.	.	.	.
1972	CFF	N	3793	3793	504		38534	221386	259920	68,5		586				555	.	.	3766	138	3628	0,96
1972		E	115	115			860	5816	6676	58,1		29				6	.	.	115	4	111	0,97
1972		total																				
1972	CFL	N	113	113	18		342	9301	9643	85,3		13	49	2288					113	7	106	0,94
1972	CH	N	341	316	91		1920	19960	21880	64,2		88	38	1248	7		174	6264	341	58	283	0,83
1972		E	197	135			1052	9425	10477	53,2		63							197	17	180	0,91
1972		TOTAL																				
1972	CIE	L	451	451			1292	26091	27383	60,7		177	2437	138128					455	42	413	0,91
1972	CP	L	806	737		306	14867	45743	60610	75,2	18017	194	11	489		28			806	112	694	0,86
1972		E	202	38		32	1546	7133	8682	43	707	40				12			202	22	180	0,89
1972		TOTAL																				
1972	DB	N	21795	21795	9156	1880	154286	1301348	1455634	66,8	54392	2286	2284	235663	235	1142	3552	268413	22132	1606	20526	0,93
1972		E	17	10				816	816	48		3							17		17	1
1972		TOTAL																				
1972	DSB	N	1576	1545	282	.	6376	94426	100802	64	.	149	541	28230					1578	130	1448	0,92
1972	FS	N	11920	11838	2416	196	118821	710743	829564	69,6	21680	2529					.	.	11734	2042	9692	0,83
1972		E	26	21				1420	1420	54,6		2					.	.	26	7	19	0,73
1972		TOTAL																				
1972	NS	N	1965	1965	95	.	21628	98341	119969	61,1	58504	138							1967	72	1895	0,96
1972	NSB	N	1048	746		.	1017	57420	58437	55,8	.	114	515	23606					1046	166	880	0,84
1972	OBB	N	3824	3824	423	2	9835	206491	216326	56,6	176	892	664	28552		157	31	1333	3849	304	3545	0,92
1972		E	179	155			96	7554	7650	42,7		25				3			180	5	175	0,97
1972		TOTAL																				
1972	RENFE	L	3230	3217		1156	213353	150	213503	66,1	102242	616	49	2646	222	234	364	18365	3730	705	3025	0,81
1972		E	6	6		6		420	420	70	.								6		6	1
1972		TOTAL																				
1972	SJ	N	2350	2350	27	.	10375	116813	127188	54,1	.	330	1260	90720					2378	89	2374	0,96
1972		E	16	13		.		672	672	42	.								85			
1972		TOTAL																				
1972	SNCB	N	3292	3292	358	2030	38300	245222	283522	86,1	72280	428			23	39	1214	97120	3388	265	3123	0,92
1972	SNCF	N	14882	14882	5036	3278	165476	885002	1050478	70,6	296513	3994			288	522	.	.	15484	829	14655	0,95
1972		E	58	12		18	472	2050	2522	43,5	496	8							59	.	.	.
1972		TOTAL																				
1972	VR	L	1035	357			2713	61625	64338	62,2		89				95			1051	58	993	0,94
1972	BDZ	N	.	.	.	.	.	.	.	.	.	.										
1972		E													.	.			.	.	.	.
1972		TOTAL																				
1972	CFR	L	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1972		N	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1972		E																				
1972		TOTAL																				
1972	CSD	L																	.	.	.	.
1972		N	10943	.	.	.	.	.	.	.	.	965							.	.	.	.
1972		E	80	.	.	.	.	.	.	.	.	18							.	.	.	.
1972		TOTAL																				
1972	DR	N	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1972		E	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1972		TOTAL																				
1972	JZ	N	3538	3464	1108		28525	205225	233750	66,1		620	42	1900					3408	273	3135	0,92
1972		E	299	84			1765	9011	10776	36		95							271	67	204	0,75
1972		TOTAL																				
1972	MAV	L	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1972		N	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1972		E	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1972		TOTAL																				
1972	TCDD	N	1441	1198	6	120	29529	57145	86674	60,2	10260	104			45	36			1441	145	1296	0,9
1973	BR	N	17801	.	.	.	112520	995431	1107951	62,2	.	10311			20				.	.	.	.
1973	CFF	N	3773	3773	489		37940	220802	258742	68,6		594				555	.	.	3783	135	3648	0,96
1973		E	115	115			860	5816	6676	58,1		29				6	.	.	115	4	111	0,97
1973		total															.	.				
1973	CFL	N	111	111	17		390	9146	9536	85,9		7	49	2439					111	6	105	0,95
1973	CH	N	333	326	91		1920	19960	21880	64,2		98			7				341	52	289	0,85

A1.1.24. Rolling Stock : Carriages, Vans, Buses and Trailers - Stock available and out of service

			STOCK AT THE END OF THE YEAR																Average number of carriages			Ratio between Stock in Working and Total Stock
			RAILWAY - OWNED VEHICLES												PRIVATE OWNERS VEHICLES		VEHICLES BELONGING TO PRIVATE		available for operating purposes			
			Rail STOCK										ROAD STOCK		RAIL STOCK		ROAD STOCK					
			Carriages, Railcar and trailers									VANS	Buses and Trailers		CARRIAGES	Vans	Buses and Trailers					
			STOCK				Carrying Capacity												TOTAL	out of service for maint. or repair	In working order	
			Total	Including			Seats and Sleeping accommodation				Standing	Total	Total	Carrying	Total Stock	Total Stock	Total Stock	Carrying Capacity				
YEAR	Railway	rail gauge	stock	Metal or composite	RIC	with standing room	1º class	2ºclass	Total	Average per vehicle	room	Stock	Stock	Capacity								
1973		E	208	132			1052	9425	10477	53,2		63							197	20	177	0,9
1973		TOTAL											38	1248			174	6264				
1973	CIE	L	435	435			1015	25638	26653	61,3		189	2537	143292					445	39	406	0,91
1973	CP	L	802	763		306	14459	41091	55550	69,3	18017	195				28			802	110	692	0,86
1973		E	200	38		32	1516	7091	8607	43	707	39				12			200	19	181	0,91
1973		TOTAL											11	489								
1973	DB	N	21747	21747	13930	1834	164752	1280617	1445369	66,5	52932	2259			458	1060			22214	1581	20633	0,93
1973		E	15	10				720	720	48		3							15		15	1
1973		TOTAL											2317	235906			3728	294205				
1973	DSB	N	1573	1565	277	.	6080	94570	100650	64	.	144	541	28180					1562	110	1452	0,93
1973	FS	N	12254	12162	1982	196	127063	722814	849877	69,4	21680	2512					.	.	12022	2345	9677	0,8
1973		E	26	26				1420	1420	54,6		2					.	.	26	7	19	0,73
1973		TOTAL															.	.				
1973	NS	N	2004	2004	91	.	22033	100390	122423	61,1	60790	134							1990	66	1924	0,97
1973	NSB	N	1002	736		.	945	54648	55593	55,5	.	109	528	24612					1017	49	968	0,95
1973	OBB	N	3779	3779	425	2	9336	205049	214385	56,7	176	874				162			3802	328	3474	0,91
1973		E	179	164			96	7496	7592	42,4		25				3			179	6	173	0,97
1973		TOTAL											685	29455			33	1419				
1973	RENFE	L	3231	3149	.	1143	20325	192566	212891	65,9	102002	626			222	232			3574	583	2991	0,84
1973		E	6	6		6		420	420	70	.								6	4	2	0,33
1973		TOTAL											.	.			.	.				
1973	SJ	N	2312	2312	6	.	10275	112561	122836	53,1	.	294							2331			
1973		E	16	16		.		672	672	42	.								16			
1973		TOTAL											1293	93022						81	2265	0,97
1973	SNCB	N	3344	3344	356	2087	38621	249672	288293	86,2	74560	417			23	39	1214	97120	3356	262	3094	0,92
1973	SNCF	N	14871	14871	5392	3706	167297	883392	1050689	70,7	309349	3276			272	502	.	.	15424	964	14460	0,94
1973		E	51	12		15	418	1996	2414	47,3	500	7					.	.	55	.	.	.
1973		TOTAL															.	.				
1973	VR	L	1053	395			2518	63349	65867	62,6		84				95			1044	63	981	0,94
1973	BDZ	N	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1973		E	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1973		TOTAL	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1973	CFR	L	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1973		N	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1973		E	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1973		TOTAL	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1973	CSD	L																	.	.	.	.
1973		N	10894	.	.	.	.	.	.	.	.	950							.	.	.	.
1973		E	78	.	.	.	.	.	.	.	.	17							.	.	.	.
1973		TOTAL																	.	.	.	.
1973	DR	N	10179	.	.	.	.	.	.	.	.	705							.	.	.	.
1973		E	364					.	.	.	.	75							.	.	.	.
1973		TOTAL																	.	.	.	.
1973	JZ	N	3465	3414	950		27619	202265	229884	66,3		542							3359	459	2900	0,86
1973		E	284	81			1690	8579	10269	36,2		90							250	45	205	0,82
1973		TOTAL											51	2294								
1973	MAV	L																				
1973		N																				
1973		E																				
1973		TOTAL	.	.	.	.	.	.	.	.	.	.			.	.			.	.	.	.
1973	TCDD	N	1344	1278	6	120	28372	60458	88830	66,1	10260	97				31			1344	135	1209	0,9

A.1.3.1. Firms

BR - British Railways
CFF/SBB/FFS Swiss Federal Railways
CFL Luxembourg National Railway Company
CIE Irish Transport Company
CP Portuguese Railway Company
DB AG German Railway
CH Hellenic Railways Organisation - Greece
DSB Danish state railways
FS SpA Italian State Railways
NS Netherlands Railways
NSB BA Norwegian State Railways
OBB Austrian Federal Railways
RENFE Spanish National Railway System
SJ Swedish State Railway
SNCB/NMBS Belgian National Railway Company
SNCF French National Railway Company
VR Finnish State Railways
NS B.V. NS Railinfrabeheer
NS N.V. Netherlands Railways

DR German State Railway
BDZ Bulgarian State Railways
CFR Rumanian Railways
CSD Czechoslovak State Railways
JZ Yugoslav Railway Community
MAV Rt Hungary State Railways
PKP Polish State Railway
TCDD Turkish Republic State Railways

BS Danish National Railway Agency
RFF Roseau Ferré de France - Société française de gestion de l'infrastructur
BC Chemin de fer de Belarus
EVR Estonian Railways
LDZ Latvijas Dzelzcelsh
SZ slovenske
ZSR Railways of the Slovak Republik
EW&S English Welsh and Scottish Railways Ltd
BV Banverket - Sweden
BK BK tag AG - Sweden
MTAB Malmtrafik I Kiruna - Sweden
SJ Statens Jarnvagar - Swedish State Railways
FEVE Ferrocarriles de via estreita
FGC Ferrocarrils de la Generalitat de Catalunya
RHK Finish Railway Admnistration
GKE Graz Koflacher Eisenbahn - AT
AAE Ahaus-Alstatter eisenbahn GmbH - DE(germany
GVG Georg Verkehrsorganisation GmbH DE
KEG Karsdorfer Eisenbahngesellschaft mbH - DE
Euskotren EuskoTrenbideak - ferrocarrilesVascosSA
JBV Norwegian Natinal Rail Administration
Note:
(.) INSTEAD OF FIGURES INDICATES THAT THE FIGURE IS NOT KNOWN

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

After 1996

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year — Rail based operations — Lines not electrified: Total	Lines not electrified: Single track	Electrified Lines — Catenary supplied — a. c. current: 25000 volts; 50 cycles	a. c. current: 15000 volts, 16 2/3 cycles	a. c. current: other	d. c. current: 3000 volts	d. c. current: 1500 volts	d. c. current: other	Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)	Used for: Passenger traffic only	Used for: Freight traffic only	Track length at the end (After 1996): Total	of which electrified	Other Operations — Road services: Passenger Traffic	Road services: Freight traffic	Shipping Services: Passenger Traffic	Shipping Services: Freight traffic
				in kilometres																			
1985	BDZ	D	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985			E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985			TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	BR	G	N	12823	4751	2042						1864	3906	3689	16729	1516	2387					.	.
1985	CFF	G	N	15	15	2	2879		0	16			2879	1488	2912	24	61					.	.
1985			E				74						74		74								
1985			total	15	15	2	2953		0	16			2971	1488	2986	24	61			58	58	53	
1985	CFL	D-G	N	108	38	143			19				162	92	270		39			.	.		
1985	CFR	D	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985			N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985			E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985			TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	CH	D	N	1569	1400										1569								
1985			E	892	868										892								
1985			TOTAL	2461	2268										2461					1602			
1985	CIE	G	L	1907	1424					37			37	37	1944		300			.	.	.	.
1985	CP	G	L	2390	2375	432				26			458	404	2848								
1985			E	755	749										755								
1985			TOTAL	3145	3124	432				26			458	404	3603					134		10	
1985	CSD	D	L	8	8				92				92		100		100						
1985			N	9516	8965	1264			2104				3368	2356	12884	5							
1985			E	99	99					47			47		146								
1985			TOTAL	9623	9072	1264			2196	47			3507	2356	13130	5	100						
1985	DB	D	N	16232	13241	1	11258		7	20		110	11396	9258	27628	614	6323						
1985			E	6	6										6		2						
1985			TOTAL	16238	13247	1	11258		7	20		110	11396	9258	27634	614	6325			91128	.	164	25
1985	DR	D	N	11254	9062	27	2298				8	184	2517	1981	13777	338	1324						
1985			E	277	277										277	49	53						
1985			TOTAL	11531	9339	27	2298				8	184	2517	1981	14054	387	1377					183	150
1985	DSB	D	N	2318	1569					153			153	152	2471	51	365			7116	.	265	295
1985	FS	G	N	7176	7101				8938				8938	5399	16114		456						
1985	FS		E	71	71										71		8						
1985	FS		TOTAL	7247	7172				8938				8938	5399	16185		464			463	50	237	237
1985	JZ	D	N	5749	5741	2779			755				3534	890	9283					.	.		
1985	MAV	D	L	35	35										35		34						
1985			N	5489	5416	1917						1833	1917	1007	7406		61						
1985			E	176	176										176	11							
1985			TOTAL	5700	5627	1917						1833	1917	1007	7617	11	95						
1985	NS	D	N	1000	924		3		13	1790	18		1824	1608	2824	371	266						
1985	NSB	D	N	1791	1791		2451						2451	95	4242		143			.	.		
1985	OBB	D-G	N	2364	2362		3021		2				3023	1569	5387	3	227						
1985			E	288	288			91					91		379	8							
1985			TOTAL	2652	2650		3021	91	2				3114	1569	5766	11	227			9642	17785	77	
1985	PKP	D	N	15459	13499				8867		35		8902	7028	24361								
1985			E	.	.				.		.		.	.	.								
1985			TOTAL	.	.				.		.		.	.	.								
1985	RENFE	D-G	L	6510	6499				6152	29			6181	2518	12691	204	1387						
1985			E							19			19		19	19							
1985			TOTAL	6510	6499				6152	48			6200	2518	12710	223	1387			.			
1985	SJ	G	N	4137	4137		6995						6995	1172	11132		1741						
1985	SJ		E	134	134										134								
1985	SJ		TOTAL	4271	4271		6995						6995	1172	11266		1741			20800	.	56	159

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

After 1996

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year																			
				Rail based operations														Track length at the end		Other Operations			
				Lines not electrified		Electrified Lines									Total (col.4 to 13)	Used for				Road services		Shipping Services	
						Catenary supplied						Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more									
						Type of electric current																	
						a. c. current			d. c. current														
				Total	Single track	25000 volts; 50 cycles	15000 volts, 16 2/3 cycles	other	3000 volts	1500 volts	other					Passenger traffic only	Freight traffic only	Total	of which electrified	Passenger Traffic	Freight traffic	Passenger Traffic	Freight traffic
				in kilometres																			
1985	SNCB/NMI	G	N	1689	908				1978				1978	1834	3667	26	795						
1985	SNCF	G	N	23087	17453	5636	1			5736		18	11391	9873	34478	659	10774						
1985			E	101	101							97	97		198	97							
1985			TOTAL	23188	17754	5536	1			5736		115	11488	9873	34676	756	10774			.	.	164	347
1985	VR	D	L	4453	4413	1447							1447	438	5900	2	1416				4000		
1985	TCDD	D	N	7878	7878	291							291	188	8169								
1986	BDZ	D	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	BR	G	N	12516	4758	2295						1859	4154	3924	16670	1703	2366	.	.				
1986	CFF	G	N	15	15	2	2877		0	18			2897	1490	2912	24	61	.	.	.	.	.	
1986			E										74		74			.	.	.	.	.	
1986			total	15	15	2	2877		0	18			2971	1490	2986	24	61	.	.	58	58	53	
1986	CFL	D-G	N	108	38	143			19				162	92	270		39	.	.	395	262		
1986	CFR	D	TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	CH	D	N	1569	1400										1569					.			
1986			E	892	868										892					.			
1986			TOTAL	2461	2268										2461			.	.	1600			
1986	CIE	G	L	1907	1424					37			37	37	1944		300	.	.	.	.	.	.
1986	CP	G	L	2390	2375	432				26			458	404	2848			.	.	.		.	
1986			E	755	749										755			.	.	.		.	
1986			TOTAL	3145	3124	432				26			458	404	3603			.	.	134		10	
1986	CSD	D	L	8	8				92				92		100		100	.	.				
1986			N	9479	8946	1318			2073				3391	2371	12870	5		.	.				
1986			E	99	99					47			47		146			.	.				
1986			TOTAL	9586	9053	1318			2165	47			3530	2371	13116	5	100	.	.				
1986	DB	D	N	16051	13147	1	11295		7	20		110	11433	9295	27484	614	6466	.	.	.	.	.	.
1986			E	6	6										6		2	.	.	.	.	.	.
1986			TOTAL	16057	13153	1	11295		7	20		110	11433	9295	27490	614	6468	.	.	92616	.	164	25
1986	DR	D	N	10976	8976	27	2535				8	184	2754	2192	13730	332	1306	.	.			.	.
1986			E	275	275										275	49	33	.	.			.	.
1986			TOTAL	11251	9251	27	2535				8	184	2754	2192	14005	381	1339	.	.			183	150
1986	DSB	D	N	2272	1669	46				153			199	198	2471	51	365	.	.	7221	.	265	304
1986	FS	G	N	6995	6920				9073				9073	5451	16068		517	.	.	718	50	237	237
1986	JZ	D	N	5715	5707	2776			755				3531	890	9246			.	.	.	.		
1986	MAV	D	L	35	35										35		34	.	.				
1986			N	5485	5372	1920							1920	1022	7405		61	.	.				
1986			E	176	176										176	11		.	.				
1986			TOTAL	5696	5583	1920							1920	1022	7616	11	95	.	.				
1986	NS	D	N	976	900		3		13	1807	18		1841	1629	2817	415	250	.	.				
1986	NSB	D	N	1753	1753		2463						2463	89	4216		143	.	.	.	.		
1986	OBB	D-G	N	2339	2339		3025		2				3027	1580	5366	3	302	.	.	.	.	.	
1986			E	288	288			91					91		379	8	38	.	.	.	.	.	
1986			TOTAL	2627	2627		3025	91	2				3118	1580	5745	11	340	.	.	9470	17197	77	
1986	PKP	D	N	14881	13040				9417		35		9452	7145	24333			.	.				
1986			E	.	.				.		.		.	.	.			.	.				
1986			TOTAL															.	.				
1986	RENFE	D-G	L	6513	6492				6160	29			6189	2542	12702	204	1391	.	.	.			
1986			E							19			19		19	19		.	.	.			
1986			TOTAL	6513	6492				6160	48			6208	2542	12721	221	1391	.	.	.			
1986	SJ	G	N	4144	4144		6995						6995	1179	11139		1702	.	.	.		.	.
1986			E	97	97										97		97	.	.	.		.	.
1986			total	4241	4241		6995						6995	1179	11236		1799	.	.	20800		56	164
1986	SNCB/NMI	G	N	1462	852				2156				2156	2015	3618	26	766	.	.				

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

After 1996

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year																			
				Rail based operations														Track length at the end		Other Operations			
				Lines not electrified		Electrified Lines										Used for				Road services		Shipping Services	
						Catenary supplied																	
						Type of electric current																	
						a. c. current			d. c. current														
				Total	Single track	25000 volts; 50 cycles	15000 volts, 16 2/3 cycles	other	3000 volts	1500 volts	other	Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)	Passenger traffic only	Freight traffic only	Total	of which electrified	Passenger Traffic	Freight traffic	Passenger Traffic	Freight traffic
				in kilometres																			
1986	SNCF	G	N	22955	17336	5725	1			5742		18	11486	9891	34441	657	10742	.	.	.	.	.	.
1986			E	101	101							97	97		198	97		.	.	.	.	.	.
1986			TOTAL	23056	17437	5725	1			5742		115	11583	9891	34639	754	10742	.	.	.	.	164	221
1986	VR	D	L	4454	4414	1445							1445	441	5899	1	1396	.	.		4000		
1986	TCDD	D	N	7879	7879	291							291	188	8170			.	.				
1987	BDZ	D	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	BR	G	N	12423	4739	2295						1912	4207	3976	16630	1704	2330	.	.				
1987	CFF	G	N	15	15		2883			18			2901	1494	2916	24	61	.	.	.	.	.	
1987			E				74						74		74			.	.	.	.	.	
1987			total	15	15		2957			18			2975	1494	2990	24	61	.	.	58	58	53	
1987	CFL	D-G	N	108	38	143			19				162	92	270		39	.	.	395	262		
1987	CFR	D	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987			N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987			E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987			TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	CH	D	N	1565	1330										1565			.	.	.			
1987			E	914	890										914			.	.	.			
1987			TOTAL	2479	2220										2479			.	.	1600			
1987	CIE	G	L	1907	1424					37			37	37	1944		291	.	.	.	.	.	.
1987	CP	G	L	2388	2372	436				26			462	404	2850			.	.	.		.	
1987			E	758	752										758			.	.	.		.	
1987			TOTAL	3146	3124	436				26			462	404	3608			.	.	134		10	
1987	CSD	D	L	7	7				92				92		99		99	.	.				
1987			N	9280	8891	1510			2066				3576	2517	12857	5		.	.				
1987			E	99	99					47			47		146			.	.				
1987			TOTAL	9387	8998	1510			2158	47			3715	2517	13102	5	99	.	.				
1987	DB	D	N	15920	13032	1	11362		7	20		110	11501	9359	27421	613	6564	.	.	.	.	.	.
1987			E	6	6										6		2	.	.	.	.	.	.
1987			TOTAL	15926	13038	1	11362		7	20		110	11501	9359	27427	613	6566	.	.	91987	.	164	25
1987	DR	D	N	10641	8934	26	2874				8	184	3092	2491	13733	337	1323	.	.			.	.
1987			E	275	275										275	49	30	.	.			.	.
1987			TOTAL	10916	9209	26	2874				8	184	3092	2491	14008	386	1353	.	.			245	150
1987	DSB	D	N	2277	1564	46				153			199	198	2476	51	365	.	.	7249	.	265	304
1987	FS	G	N	6888	6788				9095				9095	5494	16983		487	.	.	380	50	237	237
1987	JZ	D	N	5499	5473	3016			755				3771	918	9270			.	.	.	.		
1987	MAV	D	L	35	35										35		34	.	.				
1987			N	5411	5351	1997							1997	1068	7408		61	.	.				
1987			E	176	176										176	11		.	.				
1987			TOTAL	5622	5562	1997							1997	1068	7619	11	95	.	.				
1987	NS	D	N	878	802		3		13	1897	18		1931	1673	2809	435	267	.	.				
1987	NSB	D	N	1769	1769		2448						2448	95	4217		149	.	.	.	.		
1987	OBB	D-G	N	2338	2338		3036		2				3038	1604	5376	3	311	.	.	.	.	.	
1987			E	280	280			91					91		371	8	38	.	.	.	.	.	
1987			TOTAL	2618	2618		3036	91	2				3129	1604	5747	11	349	.	.	9485	22533	77	
1987	PKP	D	N	14263	12643				9943		35		9978	7370	24241			.	.				
1987			E	2396	.										2396			.	.				
1987			TOTAL	16659	.				9943		35		9978	7370	26637			.	.				
1987	RENFE	D-G	L	6386	6367				6252	29			6281	2583	12667	160	1397	.	.	.			
1987			E							19			19		19	19		.	.	.			
1987			TOTAL	6386	6367				6252	48			6300	2583	12686	179	1397	.	.	.			
1987	SJ	G	N	4162	4162		6995						6995	1179	11157		1720	.	.	.			
1987			E	37	37										37		37	.	.	.			

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

After 1996

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year: Rail based operations: Lines not electrified: Total	Single track	Electrified Lines: Catenary supplied: Type of electric current: a. c. current: 25000 volts; 50 cycles	15000 volts, 16 2/3 cycles	other	d. c. current: 3000 volts	1500 volts	other	Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)	Used for: Passenger traffic only	Freight traffic only	Track length at the end: Total	of which electrified	Other Operations: Road services: Passenger Traffic	Freight traffic	Shipping Services: Passenger Traffic	Freight traffic
				in kilometres																			
1987			total	4199	4199		6995						6995	1179	11194		1757	.	.	20800		56	162
1987	SNCB/NMBS	G	N	1368	776				2200				2200	2038	3568	26	740	.	.				
1987	SNCF	G	N	22853	17343	5825	1			5747		22	11595	10003	34448	670	10760	.	.	.	.		
1987			E	101	101							97	97		198	97		.	.	.	.		
1987			TOTAL	22954	17444	5825	1			5747		119	11692	10003	34646	767	10760	.	.	.	.	164	196
1987	VR	D	L	4439	4399	1445							1445	441	5884		1470	.	.		4000		
1987	TCDD	D	N	7878	7878	291							291	188	8169			.	.				
1988	BDZ	D	N	1467	1467	2588							2588	942	4055			.	.				
1988			E	245	245										245			.	.				
1988			TOTAL	1712	1712	2588							2588	942	4300			.	.				
1988	BR	G	N	12217	4737	2470						1912	4382	4152	16599	1701	2290	.	.				
1988	CFF	G	N	15	15		2883			18			2901	1494	2916	35	56	.	.	.		.	
1988			E				74						74		74			.	.	.		.	
1988			total	15	15		2957			18			2975	1494	2990	35	56	.	.	58		58	
1988	CFL	D-G	N	110	39	143			19				162	92	272		39	.	.	395	262		
1988	CFR	D	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988			N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988			E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988			TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	CH	D	N	1565	1320										1565			.	.				
1988			E	914	890										914			.	.				
1988			TOTAL	2479	2210										2479			.	.	1600			
1988	CIE	G	L	1907	1424					37			37	37	1944		291	.	.	.	.	.	.
1988	CP	G	L	2388	2372	436				26			462	404	2850			.	.				
1988			E	758	752										758			.	.				
1988			TOTAL	3146	3124	436				26			462	404	3608			.	.	134		10	
1988	CSD	D	L	10	10				92				92		102		99	.	.				
1988			N	9196	3809	1559			2101				3660	2525	12856	5		.	.				
1988			E	99	99					47			47		146			.	.				
1988			TOTAL	9305	8918	1559			2193	47			3799	2525	13104	5	99	.	.				
1988	DB	D	N	15609	12681	1	11531		7	20		110	11669	9486	27278	689	6320	.	.				
1988			E	6	6										6		2	.	.				
1988			TOTAL	15615	12687	1	11531		7	20		110	11669	9486	27284	689	6322	.	.	96884	.	164	25
1988	DR	D	N	10275	8849	26	3255		2		8	184	3475	2784	13750	337	1335	.	.				
1988			E	274	274										274	49	29	.	.				
1988			TOTAL	10549	9123	26	3255		2		8	184	3475	2784	14024	386	1364	.	.			245	150
1988	DSB	D	N	2246	1558	77				153			230	229	2476	51	365	.	.	7363	.	265	304
1988	FS	G	N	6704	6604				9311				9311	5515	16015		443	.	.	.	.	237	237
1988	JZ	D	N	5589	5405	3004			756				3760	924	9349			.	.	.	.		
1988	MAV	D	L	35	35										35		34	.	.				
1988			N	5336	5296	2067							2067	1106	7403		61	.	.				
1988			E	176	176										176	11		.	.				
1988			TOTAL	5547	5507	2067							2067	1106	7614	11	95	.	.				
1988	NS	D	N	871	795		3		13	1923	18		1957	1716	2828	438	269	.	.				
1988	NSB	D	N	1750	1750		2424						2424	95	4175		106	.	.	.	.		
1988	OBB	D-G	N	2174	2174		3100		2				3102	1613	5276	4	499	.	.				
1988			E	270	270			84					84		354	49	38	.	.				
1988			TOTAL	2444	2444		3100	84	2				3186	1613	5630	53	537	.	.	9667	23726	77	
1988	PKP	D	N	13680	12238				10473		35		10508	7550	24188			.	.				
1988			E	2357											2357			.	.				
1988			TOTAL	16037	12238				10473		35		10508	7550	26545			.	.				
1988	RENFE	D-G	L	6235	6215				6267	29			6296	2592	12531	179	1405	.	.				

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

After 1996

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year – Rail based operations – Lines not electrified – Total	Lines not electrified – Single track	Electrified Lines – Catenary supplied – a. c. current – 25000 volts; 50 cycles	a. c. current – 15000 volts, 16 2/3 cycles	a. c. current – other	d. c. current – 3000 volts	d. c. current – 1500 volts	d. c. current – other	Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)	Used for – Passenger traffic only	Used for – Freight traffic only	Track length at the end – Total	Track length at the end – of which electrified	Other Operations – Road services – Passenger Traffic	Road services – Freight traffic	Shipping Services – Passenger Traffic	Shipping Services – Freight traffic
				in kilometres																			
1988			E							19			19		19	19		.	.				
1988			TOTAL	6235	6215				6267	48			6315	2592	12550	198	1405	.	.	.			
1988	BV (SJ)	G	N	4081	4081		6995						6995	1179	11076		1690	.	.				
1988			E															.	.				
1988			TOTAL	4081	4081		6995						6995	1179	11076		1690	.	.	20800	.	56	162
1988	SNCB/NMB	G	N	1290	762				2264				2264	2117	3554	26	755	.	.				
1988	SNCF	G	N	22454	17179	6056	1			5838		16	11911	10222	34365	698	10781	.	.				
1988			E	101	101							97	97		198	97		.	.				
1988			TOTAL	22556	17281	6056	1			5838		113	12008	10222	34563	795	10781	.	.	.	.	164	171
1988	VR	D	L	4248	4208	1636							1636	441	5884		1444	.	.		4300		
1988	TCDD	D	N	7873	7873	291							291	188	8164			.	.				
1989	BDZ	D	N	1446	1446	2609							2609	957	4055			.	.				
1989			E	245	245										245			.	.				
1989			TOTAL	1691	1691	2609							2609	957	4300			.	.				
1989	BR	G	N	12042	4720	2588						1958	4546	4311	16588	1703	2269	.	.				
1989	CFF	G	N	15	15		2887			18			2905	1508	2920	35	56	.	.				
1989			E				74						74		74			.	.				
1989			total	15	15		2961			18			2979	1508	2994	35	56	.	.	56		53	
1989	CFL	D-G	N	75	23	178			19				197	123	272		39	.	.	395	262		
1989	CFR	D	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989			N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989			E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989			TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	CH	D	N	1565	1320										1565			.	.				
1989			E	914	890										914			.	.				
1989			TOTAL	2479	2210										2479			.	.	1600			
1989	CIE	G	L	1907	1424					37			37	37	1944		291	.	.	.	.	.	.
1989	CP	G	L	2207	2191	435				26			461	404	2668			.	.				
1989			E	396	396										396			.	.				
1989			TOTAL	2603	2587	435				26			461	404	3064			.	.	134		10	
1989	CSD	D	L	10					.				.			.	.	.	.				
1989			N	9180	8792	.			.				.	2547	.	.	.	.	.				
1989			E	99						.			.		.	.	.	.	.				
1989			TOTAL	9289	8792	.			.	.			.	2547	.	.	.	.	.				
1989	DB	D	N	15351	12473	1	11550		7	20		110	11688	9506	27039	698	6201	.	.				
1989			E	6	6										6		2	.	.				
1989			TOTAL	15357	12479	1	11550		7	20		110	11688	9506	27045	698	6203	.	.	53658	.	164	25
1989	DR	D	N	9932	8679	26	3610		2		8	183	3829	2970	13761	337	1337	.	.				
1989			E	274	274										274	49	29	.	.				
1989			TOTAL	10206	8953	26	3610		2		8	183	3829	2970	14035	386	1366	.	.			245	150
1989	DSB	D	N	2114	1461	77				153			230	229	2344	51	365	.	.	7373	.	265	304
1989	FS	G	N	6587	6495				9443				9443	5593	16030		429	.	.	.	.	237	237
1989	JZ	D	N	5785	5452	3004			778				3782	943	9567			.	.	.	.		
1989	MAV	D	L	35	35										35		34	.	.				
1989			N	5279	5199	2129							2129	1112	7408		61	.	.				
1989			E	176	176										176	11		.	.				
1989			TOTAL	5490	5410	2129							2129	1112	7619	11	95	.	.				
1989	NS	D	N	871	795			3	13	1923	18		1957	1716	2828	438	269	.	.				
1989	NSB	D	N	1618	1618		2426						2426	99	4044		202	.	.	.	.		
1989	OBB	D-G	N	2133	2133		3152		2				3154	1636	5287	4	491	.	.				
1989			E	270	270			84					84		354	49	38	.	.				
1989			TOTAL	2403	2403		3152	84	2				3238	1636	5641	53	529	.	.	10712	27593	77	

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

After 1996

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year																			
				Rail based operations														Track length at the end		Other Operations			
				Lines not electrified		Electrified Lines									Total (col.4 to 13)	Used for				Road services		Shipping Services	
						Catenary supplied						Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more									
						Type of electric current																	
						a. c. current			d. c. current														
				Total	Single track	25000 volts; 50 cycles	15000 volts, 16 2/3 cycles	other	3000 volts	1500 volts	other					Passenger traffic only	Freight traffic only	Total	of which electrified	Passenger Traffic	Freight traffic	Passenger Traffic	Freight traffic
				in kilometres																			
1989	PKP	D	N	13271	11966				10981		35		11016	7682	24287			.	.				
1989			E	2357											2357			.	.				
1989			TOTAL	15628	11966				10981		35		11016	7682	26644			.	.				
1989	RENFE	D-G	L	6143	6143				6374	29			6403	2611	12546	160	1407	.	.				
1989			E							19			19		19	19		.	.				
1989			TOTAL	6143	6123				6374	48			6422	2611	12565	179	1407	.	.	.			
1989	BV (SJ)	G	N	4027	4027		6995						6995	1183	11022		1690	.	.	15400		56	162
1989	SNCB/NMI	G	N	1247	733				2266				2266	2104	3513	26	716	.	.				
1989	SNCF	G	N	21791	16750	6466	1			5850		16	12333	10645	34124	845	10440	.	.				
1989			E	101	101							97	198		198	97		.	.				
1989			TOTAL	21892	16852	6466	1			5850		113	34322	10645	34322	942	10440	.	.	.	.	164	171
1989	VR	D	L	4248	4208	1636							1636	441	5884		1444	.	.		5200		
1989	TCDD	D	N	7951	7951	479							479	187	8430			.	.			.	.
1990	BDZ	D	N	1414	1414	2640					2640	960	4054					.	.				
1990			E	245	245								245					.	.				
1990			TOTAL	1659	1659	2640					2640	960	4299					.	.				
1990	BR	G	N	11672	4717	2953						1959	4912	4677	16584	1702	2267	.	.				
1990	CFF	G	N	13	13		2875			16			2891	1518	2904	54	64	.	.				
1990			E				74						74		74			.	.				
1990			total	13	13		2949			16			2965	1518	2978	54	64	.	.	58		53	
1990	CFL	D-G	N	74	23	178			19				197	123	271		39	.	.	395	262		
1990	CFR	D	L	45	.										45			.	.	.	.	.	.
1990			N	7155	.	3721							3721	2949	10876			.	.	.	.	.	.
1990			E	427	.										427			.	.	.	.	.	.
1990			TOTAL	7627	.	3721							3721	2949	11348			.	.	.	.	.	.
1990	CH	D	N	1565	1288										1565	.	.	.	.				
1990			E	919	896										919	.	.	.	.				
1990			TOTAL	2484	2184										2484	.	.	.	.				
1990	CIE	G	L	1907	1424				37				37	37	1944		291	.	.	.	.	.	.
1990	CP	G	L	2207	2191	435				26			461	404	2668			.	.				
1990			E	396	396										396			.	.				
1990			TOTAL	2603	2587	435				26			461	404	3064			.	.	134		10	
1990	CSD	D	L	10	10				92				92		102	.	102	.	.				
1990			N	9092	8711	1565			2206				3771	2566	12863	5		.	.				
1990			E	99	99					47			47		146			.	.				
1990			TOTAL	9201	8820	1565			2298	47			3910	2566	13111	5	102	.	.				
1990	DB	D	N	15250	12376	1	11555		7	20		110	11693	9506	26943	710	6135	.	.				
1990			E	6	6										6		2	.	.				
1990			TOTAL	15256	12382	1	11555		7	20		110	11693	9506	26949	710	6137	.	.	.	.	164	25
1990	DR	D	N	9732	8651	26	3806		2		8	183	4025	3145	13757	339	1333	.	.				
1990			E	274	274										274	49	29	.	.				
1990			TOTAL	10006	8925	26	3806		2		8	183	4025	3145	14031	388	1362	.	.			245	150
1990	DSB	D	N	2114	1416	77				153			230	229	2344	51	365	.	.	8131	.	265	304
1990	FS	G	N	6554	6462				9512				9512	5679	16066		383	.	.	.	.	237	237
1990	JZ	D	N	5700	5458	3018			772				3790	845	9490			.	.	.	.		
1990	MAV	D	L	35	35										35		34	.	.				
1990			N	5253	5006	2154							2154	1072	7407		11	.	.				
1990			E	176	176										176	11		.	.				
1990			TOTAL	5464	5217	2154							2154	1071	7618	11	95	.	.				
1990	NS	D	N	841	765		3		13	1923	18		1957	1716	2798	438	239	.	.				
1990	NSB	D	N	1618	1618		2426						2426	99	4004		202	.	.	.	.		
1990	OBB	D-G	N	2107	2107		3160		2				3162	1660	5269	4	492	.	.				

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year														After 1996					
				Rail based operations														Track length at the end		Other Operations			
				Lines not electrified		Electrified Lines									Total (col.4 to 13)	Used for				Road services		Shipping Services	
						Catenary supplied						Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more									
						Type of electric current																	
						a. c. current			d. c. current														
				Total	Single track	25000 volts; 50 cycles	15000 volts, 16 2/3 cycles	other	3000 volts	1500 volts	other					Passenger traffic only	Freight traffic only	Total	of which electrified	Passenger Traffic	Freight traffic	Passenger Traffic	Freight traffic
				in kilometres																			
1990			E	271	271			84					84		355	49	38	.	.				
1990			TOTAL	2378	2378		3160	84	2				3246	1660	5624	53	530	.	.	10982	27418	77	
1990	PKP	D	N	12606	11439				11352		35		11387	7826	23993			.	.				
1990			E	2235											2235			.	.				
1990			TOTAL	14841	11439				11352		35		11387	7826	26228			.	.				
1990	RENFE	D-G	L	6144	6051				6368	29			6397	2611	12541	160	1407	.	.				
1990			E							19			19		19	19		.	.				
1990			TOTAL	6144	6051				6368	48			6416	2611	12560	179	1407	.	.				
1990	BV (SJ)	G	N	3806	3806		6995						6995	1191	10801		1730	.	.	.		56	162
1990	SNCB/NMBS	G	N	1185	733				2294				2294	2132	3479	26	680	.	.				
1990	SNCF	G	N	21360	16395	6626	1			5869		16	12512	10822	33872	1606	10195	.	.	.	.	.	.
1990			E	101	101							97	97		198	97		.	.	.	.	.	.
1990			TOTAL	21461	16496	6626	1			5869		113	12609	10822	34070	1703	10195	.	.	.	.	.	.
1990	VR	D	L	4204	4164	1663							1663	441	5867		1532	.	.		5200		
1990	TCDD	D	N	7826	7826	603							603	189	8429			.	.				
1991	BDZ	D	N	1414	1414	2640							2640	960	4054			.	.				
1991			E	245	245										245			.	.				
1991			TOTAL	1659	1659	2640							2640	960	4299			.	.				
1991	BR	G	N	11672	4717	2953						1959	4912	4677	16584	1702	2267	.	.				
1991	CFF	G	N	13	13		2880			15			1895	1525	2908	55	67	.	.				
1991			E				74						74		74			.	.				
1991			total	13	13		2954			15			2969	1525	2982	55	67	.	.	58		53	
1991	CFL	D-G	N	51	23	201			19				220	127	271		39	.	.	395	262		
1991	CFR	D	L	45	45										45			.	.				
1991			N	7321	6537	3572							3572	2165	10893			.	.				
1991			E	319	319	108							108		427			.	.				
1991			TOTAL	7689	6901	3680							3680	2165	11365			.	.	.	.	.	
1991	CH	D	N	1565	1288										1565	.	.	.	.				
1991			E	919	896										919	.	.	.	.				
1991			TOTAL	2484	2184										2484	.	.	.	.				
1991	CIE	G	L	1907	1424					37			37	37	1944		291	.	.	.	.	.	.
1991	CP	G	L	2262	2247	436				25			461	408	2723			.	.				
1991			E	393	387										393			.	.				
1991			TOTAL	2655	2634	436				25			461	408	3116			.	.	134		10	
1991	CSD	D	L	10	10				92				92		102		102	.	.				
1991			N	9036	8668	1626			2205				3831	2583	12867	5		.	.				
1991			E	99	99					48			48		147			.	.				
1991			TOTAL	9145	8777	1626			2297	48			3971	2583	13116	5	102	.	.				
1991	DB	D	N	15025	12201	1	11910		7	20		110	12048	9846	27073	745	6115	.	.				
1991			E	6	6										6		2	.	.				
1991			TOTAL	15031	12207	1	11910		7	20		110	12048	9846	27079	745	6117	.	.		.	164	25
1991	DR	D	N	9520	8545	26	4022		2		8	183	4241	3292	13761	339	1322	.	.				
1991			E	273	273										273	49	28	.	.				
1991			TOTAL	9793	8818	26	4022		2		8	183	4241	3292	14034	388	1350	.	.			250	154
1991	DSB	D	N	2091	1416	100				153			253	229	2344	51	365	.	.	8453		260	299
1991	FS	G	N	6365	6274				9701				9701	5683	16066		390	.	.	467		237	237
1990	JZ	D	N	5700	5458	3018			772				3790	945	9490			.	.	.	.		
1991	MAV	D	L	35	35										35		35	.	.				
1991			N	5312	4998	2162							2162	1071	7474		221	.	.				
1991			E	176	176										175	12		.	.				
1991			TOTAL	5523	5209	2162							2162	1071	7685	12	256	.	.				
1991	NS	D	N	841	765		3		13	1923			1939	1698	2780	420	252	.	.				

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year														After 1996					
				Rail based operations														Track length at the end		Other Operations			
				Lines not electrified		Electrified Lines										Used for				Road services		Shipping Services	
						Catenary supplied						Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)								
						Type of electric current																	
						a. c. current			d. c. current														
				Total	Single track	25000 volts; 50 cycles	15000 volts, 16 2/3 cycles	other	3000 volts	1500 volts	other					Passenger traffic only	Freight traffic only	Total	of which electrified	Passenger Traffic	Freight traffic	Passenger Traffic	Freight traffic
				in kilometres																			
1991	NSB	D	N	1601	1601		2426						2426	99	4027		202	.	.	.	.		
1991	OBB	D-G	N	2107	2107		3159		2				3161	1675	5268	4	498	.	.				
1991			E	271	271			84					84		355	49	38	.	.				
1991			TOTAL	2378	2378		3159	84	2				3245	1675	5623	53	536	.	.	10958	.	77	
1991	PKP	D	L	657	652				2				2		659			.	.				
1991			N	11685	10594				11473		35		11508	7886	23193	.	.	.	.				
1991			E	1996	1996										1996	.	.	.	.				
1991			TOTAL	14338	13242				11475		35		11510	7886	25848	.	.	.	.				
1991	RENFE	D-G	L	6144	6051				6407				6407	2621	12551	162	1407	.	.				
1991			E							19			19		19	19		.	.				
1991			TOTAL	6144	6051				6407	19			6426	2621	12570	181	1407	.	.				
1991	BV (SJ)	G	N	3718	3718		7252						7252	1280	10970		1279	.	.				
1991	SNCB/NM	G	N	1175	731				2291				2291	2129	3466	26	669	.	.				
1991	SNCF	G	N	20550	15844	6844	1			5871		16	12732	11032	33282	1752	9645	.	.				
1991			E	67	67							97	97		164	97		.	.				
1991			TOTAL	20617	15911	6844	1			5871		113	12829	11032	33446	1849	9645	.	.	.	.		
1991	VR	D	L	4210	4170	1664							1664	442	5874		1539	.	.	.	5200		
1991	TCDD	D	N	7762	7762	667							667	189	8429			.	.				
1992	BR	G	N	11618	.	2966						1944	4910	.	16528	1701	2211	.	.				
1992	CFL	D-G	N	56	25	201			19				220	127	275		38	.	.	395	262		
1992	CH	D	N	1565	1320										1565	.	.	.	.				
1992			E	919	896										919	.	.	.	.				
1992			TOTAL	2484	2216										2484	.	.	.	.				
1992	CIE	G	L	1907	1424					37			37	37	1944		291	.	.	.	.	.	.
1992	CP	G	L	2298	2282	436				25			461	411	2759			.	.	.		.	
1992			E	303	297										303			.	.	.		.	
1992			TOTAL	2601	2580	436				25			461	411	3062			.	.	.		.	
1992	DB	D	N	14624	11822	1	12011		7	20		110	12149	9880	26773	798	5851	.	.	.		.	
1992			E	6	6										6		2	.	.				
1992			TOTAL	14630	11828	1	12011		7	20		110	12149	9880	26779	798	5853	.	.		.	164	25
1992	DR	D	N	9449	8451	26	4095		2		8	201	4332	3324	13781	334	1331	.	.				
1992			E	273	273										273	49	28	.	.				
1992			TOTAL	9722	8724	26	4095		2		8	201	4332	3324	14054	383	1359	.	.			204	108
1992	DSB	D	N	2026	1467	113				167			280	255	2306	222	269	.	.	8499		265	304
1992	FS	G	N	6176	6085				9936				9936	5781	16112		394	.	.	467		237	
1992	NS	D	N	766	693		3		13	1971			1987	1698	2753	420	232	.	.				
1992	RENFE	D-G	L	6147	6147				6404				6404	2592	12551	216	1163	.	.				
1992			N				471						471	471	471	471		.	.				
1992			E							19			19		19	19		.	.				
1992			TOTAL	6147	6147		471		6404	19			6894	3063	13041	706	1163	.	.				
1992	SNCB/NM	G	N	1141	700				2291				2291	2132	3432	26	632	.	.				
1992	SNCF	G	N	19678	15068	6976	1			5896		16	12889	11156	32567	1846	8934	.	.				
1992			E	67	67							97	97		164	97		.	.				
1992			TOTAL	19745	15135	6976	1			5896		113	12986	11156	32731	1943	8934	.	.	.	.		
1992	CFF	G	N	16	16		2880			15			2895	1527	2911	56	77	.	.				
1992			E				74						74		74			.	.				
1992			total	16	16		2954			15			2969	1527	2985	56	77	.	.			53	
1992	NSB	D	N	1601	1601		2426						2426	99	4027	202		.	.	.	.		
1992	OBB	D-G	N	2101	2101		3160		2				3162	1680	5263	4	509	.	.				
1992			E	258	258			84					84		342	49	50	.	.				
1992			TOTAL	2359	2359		3160	84	2				3246	1680	5605	53	559	.	.	10536	.	77	
1992	BV (SJ)	G	N	2578	2578		7268							7268	1298	9846	1707	.	.				

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

After 1996

Length of Lines worked at end of year (in kilometres)

Year	Railway	Direction of Running	Rail Gauge	Rail based operations: Lines not electrified: Total	Lines not electrified: Single track	Electrified Lines: Catenary supplied: a. c. current: 25000 volts; 50 cycles	a. c. current: 15000 volts, 16 2/3 cycles	a. c. current: other	d. c. current: 3000 volts	d. c. current: 1500 volts	d. c. current: other	Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)	Used for: Passenger traffic only	Used for: Freight traffic only	Track length at the end: Total	Track length at the end: of which electrified	Other Operations: Road services: Passenger Traffic	Road services: Freight traffic	Shipping Services: Passenger Traffic	Shipping Services: Freight traffic
1992	VR	D	L	4210	4170	1664							1664	471	5874		1539	.	.		6786		
1992	BC	D	L	4616		847			6				853	.	5468	.	.	.	.				
1992			N						20				20	.	20	.	.	.	.				
1992			TOTAL	4616		847			26				873	.	5488	.	.	.	.				
1992	BDZ	D	N	1399	1399	2650							2650	960	4049			.	.				
1992			E	245	245										245			.	.				
1992			TOTAL	1644	1644	2650							2650	960	4294			.	.				
1992	CFR	D	L	60	60										60			.	.				
1992			N	7269	6488	3674							3674	2185	10943			.	.				
1992			E	319	319	108							108		427			.	.				
1992			TOTAL	7648	6867	3782							3782	2185	11430			.	.				
1992	CSD	D	L	10	10				92				92		102		102	.	.				
1992			N	9025	8656	1628			2197				3825	2585	12850	5		.	.				
1992			E	99	99					48			48		147			.	.				
1992			TOTAL	9134	8765	1628			2289	48			3965	2585	13099	5	102	.	.				
1992	EVR	D	L	887					132				132		1018			.	.				
1992	LDZ	D	L	2102	2069				271				271	216	2373			.	.				
1992			E	33	33										33			.	.				
1992			TOTAL	2135	2102				271				271	216	2406			.	.				
1992	MAV	D	L	37	37								122		159		37	.	.	.	.		
1992			N	5208	5139	2184							2184	1106	7392		250	.	.				
1992			E	176	176										176	12		.	.				
1992			TOTAL	5421	5352	2184							2306	1106	7727	12	287	.	.				
1992	PKP	D	L	657	652				2				2		659			.	.				
1992			N	11246	10246				11459		35		11494	7885	22470	.	.	.	.				
1992			E	1855	1855										1855	.	.	.	.				
1992			TOTAL	13758	12753				11461		35		11496	7885	25254	.	.	.	.				
1992	SZ	D	N	702	702	9	1		489				499	332	1201	7	110	.	.				
1992	TCDD	D	N	7525	7525	905							905	189	8430			.	.				
1993	BR	G	N	11568	.	3011						1957	4968	.	16536	1709	2179	.	.				
1993	CFL	D-G	N	13	13	243			19				262	140	275		38	.	.	395	262		
1993	CH	D	N	1565	1320										1565	.	.	.	.				
1993			E	932	909										932	.	.	.	.				
1993			TOTAL	2497	2229										2497	.	.	.	.				
1993	CIE	G	L	1910	1467								37	37	1947		267	.	.	.	.	.	.
1993	CP	G	L	2298	2264	436				25			461	411	2759	.	.	.	.				
1993			E	303	297										303	.	.	.	.				
1993			TOTAL	2601	2561	436				25			461	411	3062	.	.	.	.	.		.	
1993	DB	D	N	14211	11458	1	12032		7	20		110	12170	9931	26381	808	5588	.	.				
1993			E	6	6										6		2	.	.				
1993			TOTAL	14217	11464	1	12032		7	20		110	12170	9931	26387	808	5590	.	.		.	164	25
1993	DR	D	N	9383	8321	26	4361		2		8	226	4623	3458	14006	456	1150	.	.				
1993			E	141	141										141	49	15	.	.				
1993			TOTAL	9524	8462	26	4361		2		8	226	4623	3458	14147	505	1165	.	.			.	.
1993	DSB	D	N	1986	1488	158				167			325	298	2311	218	166	.	.	.		.	.
1993	FS	G	N	5912	5810				10030				10030	5830	15942	.	.	.	.	2056		237	
1993	NS	D	N	766	680		3		13	1975			1991	1708	2757	.	229	.	.				
1993	RENFE	D-G	L	5707	5707				6404				6404	2761	12111	354	734	.	.				
1993			N				471						471	471	471	471		.	.				
1993			E							19			19		19	19		.	.				
1993			TOTAL	5707	5707		471		6404	19			6894	3232	12601	844	734	.	.				
1993	SNCB/NMI	G	N	1048	659				2362				2362	2176	3410	26	610	.	.				

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

After 1996

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year (in kilometres) – Rail based operations – Lines not electrified: Total	Lines not electrified: Single track	Electrified Lines – Catenary supplied – a. c. current: 25000 volts; 50 cycles	a. c. current: 15000 volts, 16 2/3 cycles	a. c. current: other	d. c. current: 3000 volts	d. c. current: 1500 volts	d. c. current: other	Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)	Used for: Passenger traffic only	Used for: Freight traffic only	Track length at the end: Total	Track length at the end: of which electrified	Other Operations – Road services: Passenger Traffic	Road services: Freight traffic	Shipping Services: Passenger Traffic	Shipping Services: Freight traffic
1993	SNCF	G	N	18939	14582	7565	1			5894		16	13476	11683	32415	2245	8486	.	.				
1993			E	67	67							97	97		164	97		.	.				
1993			TOTAL	19006	14649	7565	1			5894		113	13573	11683	32579	2342	8486	.	.	.	.		
1993	CFF	G	N	16	16		2878			15			2893	1531	2909	56	79	.	.				
1993			E				74						74		74			.	.				
1993			total	16	16		2952			15			2967	1531	2983	56	79	.	.			53	
1993	NSB	D	N	1601	1601		2422						2422	99	4023		202	.	.	.	.		
1993	OBB	D-G	N	2069	2069		3187		2				3189	1687	5258	4	493	.	.				
1993			E	258	258			84					84		342	49	48	.	.				
1993			TOTAL	2327	2327		3187	84	2				3273	1687	5600	53	541	.	.	10562	.	77	.
1993	BV (SJ)	G	N	3175	3175		7186						7186	1303	10361	512	2083	.	.				
1993	VR	D	L	4172	4132	1713							1713	457	5885		1886	.	.		8438		
1993	BC	D	L	4621	.	847			6				853	.	5473	.	.	.	.				
1993			N						20				20	.	20	.	.	.	.				
1993			TOTAL	4621	.	847			26				873	.	5493	.	.	.	.				
1993	BDZ	D	N	1399	1399	2650							2650	960	4049	.	.	.	.				
1993			E	245	245										245	.	.	.	.				
1993			TOTAL	1644	1644	2650							2650	960	4294	.	.	.	.				
1993	CD	D	N	6639	6395	1014			1692				2706	1707	9345	5	108	.	.				
1993			E	96	96										96	.	.	.	.				
1993			TOTAL	6735	5491	1014			1692				2706	1707	9441	5	108	.	.				
1993	CFR	D	L	60	60										60	.	.	.	.				
1993			N	7135	6374	3758							3758	2205	10893	.	.	.	.				
1993			E	427	427										427	.	.	.	.				
1993			TOTAL	7622	6861	3758							3758	2205	11380	.	.	.	.				
1993	EVR	D	L	892	853				132				132	68	1024	.	.	.	.				
1993	LDZ	D	L	2109	2076				271				271	216	2380	.	.	.	.				
1993			E	33	33										33	.	.	.	.				
1993			TOTAL	2142	2109				271				271	216	2413	.	.	.	.				
1993	MAV	D	L	37	37										37		37	.	.				
1993			N	5210	5141	2184							2184	1106	7394		250	.	.				
1993			E	176	176										176	12		.	.				
1993			TOTAL	5423	5354	2184							2184	1106	7607	12	287	.	.	196			
1993	PKP	D	L	654	654				2				2		656	.	.	.	.				
1993			N	11176	10079				11445		35		11480	7842	22656	.	.	.	.				
1993			E	1614	1614										1614	.	.	.	.				
1993			TOTAL	13444	12347				11447		35		11482	7842	24926	.	.	.	.				
1993	SZ	D	N	702	702	9	1		489				499	332	1201	7	110	.	.		.		
1993	ZSR	D	L	10	10				92				92		102		102	.	.				
1993			N	2218	2097	695			595				1290	1290	3508		63	.	.				
1993			E	3	3				48				48		51	51		.	.				
1993			TOTAL	2231	2110	695			735				1430	1290	3661	51	165	.	.				
1993	TCDD	D	N	7525	7448	905							905	189	8430	.	.	.	.				
1994																		.	.				
1994	Railtrack	G	N	11474	4717	3036						2054	5090	4855	16564	.	.	.	.				
1994	CFL	D-G	N	13	13	243			19				262	140	275		38	.	.	395	262		
1994	CH	D	N	1565	1294										1565			.	.				
1994			E	909	887										909			.	.				
1994			TOTAL	2474	2181										2474			.	.				
1994	CIE	G	L	1910	1467					37			37	37	1947		267	.	.	.	.	.	.
1994	CP	G	L	1935	1895	436				25			461	411	2396	.	.	.	.				
1994			E	303	297										303	.	.	.	.				

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

After 1996

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year																			
				Rail based operations														Track length at the end		Other Operations			
				Lines not electrified		Electrified Lines									Total (col.4 to 13)	Used for				Road services		Shipping Services	
						Catenary supplied						Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more									
						Type of electric current																	
						a. c. current			d. c. current														
				Total	Single track	25000 volts; 50 cycles	15000 volts, 16 2/3 cycles	other	3000 volts	1500 volts	other					Passenger traffic only	Freight traffic only	Total	of which electrified	Passenger Traffic	Freight traffic	Passenger Traffic	Freight traffic
				in kilometres																			
1994			TOTAL	2238	2192	436				25			461	411	2699	.	.	.	.	.			
1994	DBAG	D	N	23508	20195	24	17355		17	20		332	17748	13926	41256	922	7466	.	.	.			
1994			E	145	145										145	40	17	.	.				
1994			TOTAL	23653	20340	24	17355		17	20		332	17748	13926	41401	962	7483	.	.			145	6
1994	DSB	D	N	1979	1429	175	195						370	347	2349	262	255	.	.	.		.	.
1994	FS	G	N	5878	5766				10124				10124	5878	16002	.	.	.	.	.		237	
1994	NS	D	N	766	680		3		13	1975			1991	1721	2757	.	229	.	.				
1994	RENFE	D-G	L	5647	5647				6492				6492	2790	12139	365	655	.	.				
1994			N				488						488	479	488	488		.	.				
1994			E							19			19		19	19		.	.				
1994			TOTAL	5647	5647		488		6492	19			6999	3269	12646	872	655	.	.				
1994	SNCB/NMB	G	N	1033	644				2363				2363	2177	3396	26	596	.	.				
1994	SNCF	G	N	18466	14237	7760	1			5880		4	13645	11868	32111	2384	8129	.	.				
1994			E	67	67							97	97		164	97		.	.				
1994			TOTAL	18533	14304	7760	1			5880		101	13742	11868	32275	2481	8129	.	.	.	.		
1994	CFF/SBB/F	G	N	16	16		2877			16			2893	1538	2909	.	.	.	.				
1994			E				74						74		74	.	.	.	.				
1994			total	16	16		2951			16			2967	1538	2983	.	.	.	.			.	
1994	NSB	D	N	1601	1601		2422						2422	111	4023		202	.	.	.	.		
1994	OBB	D-G	N	2070	2070		3222		2				3224	1725	5294	4	509	.	.				
1994			E	258	258			84					84		342	49	50	.	.				
1994			TOTAL	2328	2328		3222	84	2				3308	1725	5636	53	559	.	.	11069	.	77	.
1994	BV	G	N	2479	2479		7182						7182	1338	9661	380	1654	.	.				
1994	VR	D	L	3930	3930	1950							1950	496	5880		1903	.	.		8136		
1994	BC	D	L	4668	4567	847			9				855	855	5523	.	.	.	.				
1994			N						20				20	20	20	.	.	.	.				
1994			TOTAL	4668	4567	847			29				875	875	5543	.	.	.	.				
1994	BDZ	D	N	1401	1401	2645							2645	964	4046			.	.				
1994			E	245	245										245			.	.				
1994			TOTAL	1646	1646	2645							2645	964	4291			.	.				
1994	CD	D	N	6676	6318	975	46		1619				2640	1669	9316	5	108	.	.				
1994			E	97	97										97			.	.				
1994			TOTAL	6773	6415	975	46		1619				2640	1669	9413	5	108	.	.				
1994	CFR	D	L	60	60										60			.	.				
1994			N	7021	6371	3866							3866	2316	10887			.	.				
1994			E	427	427										427			.	.				
1994			TOTAL	7508	6858	3866							3866	2316	11374	.	.	.	.				
1994	EVR	D	L	892	853				132				132	68	1024			.	.				
1994	LDZ	D	L	2109	2021				271				271	216	2380			.	.				
1994			E	33	33										33			.	.				
1994			TOTAL	2142	2054				271				271	216	2413			.	.				
1994	MAV	D	L	37	37										37			.	.				
1994			N	5203	5129	2191							2191	1112	7394		250	.	.				
1994			E	176	176										176	12		.	.				
1994			TOTAL	5416	5342	2191							2191	1112	7607	12	287	.	.	156			
1994	PKP	D	L	650	650				2				2		652	.	.	.	.				
1994			N	10632	9637				11576		35		11611	7938	22243	.	.	.	.				
1994			E	1418	1418										1418	.	.	.	.				
1994			TOTAL	12700	11705				11578		35		11613	7938	24313	.	.	.	.				
1994	SZ	D	N	702	702	9	1		489				499	331	1201	7	110	.	.				
1994	ZSR	D	L						106				106		106		106	.	.				
1994			N	2205	2075	712			590				1302	893	3507			.	.				

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

After 1996

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year																			
				Rail based operations														Track length at the end		Other Operations			
				Lines not electrified		Electrified Lines										Used for				Road services		Shipping Services	
						Catenary supplied						Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)	Passenger traffic only	Freight traffic only	Total	of which electrified	Passenger Traffic	Freight traffic	Passenger Traffic	Freight traffic
						Type of electric current																	
						a. c. current			d. c. current														
				Total	Single track	25000 volts; 50 cycles	15000 volts, 16 2/3 cycles	other	3000 volts	1500 volts	other												
				in kilometres																			
1994			E	4	4				48				48		52	14		.	.				
1994			TOTAL	2209	2079	712			744				1456	893	3665	14	106	.	.				
1994	TCDD	D	N	7513	7450	939							939	225	8452			.	.				
1995																		.	.				
1995	Railtrack94	G	N	11474	4717	3036						2054	5090	4855	16564	.	.	.	.				
1995	CFL	D-G	N	13	13	243			19				262	140	275		38	.	.	395	262		
1995	CH	D	N	1565	1261										1565			.	.				
1995			E	909	909										909			.	.				
1995			TOTAL	2474	2170										2474			.	.	.			
1995	CIE	G	L	1917	1515					37			37	37	1954	6	246	.	.	.	.	.	.
1995	CP	G	L	2054	2013	496	26						522	408	2576	102	182	.	.				
1995			E	274	268										274	274		.	.				
1995			TOTAL	2328	2281	496	26						522	408	2850	376	182	.	.	.			
1995	DBAG	D	N	23409	20109	24	17700		17	20		403	18164	14328	41573	897	6844	.	.				
1995			E	145	145										145	40	17	.	.				
1995			TOTAL	23554	20251	24	17700		17	20		403	18164	14328	41718	937	6861	.	.			145	6
1995	DSB	D	N	1915	1367	434							434	410	2349	.	.	.	.	.		.	.
1995	FS	G	N	5800	5689				10203				10203	5909	16003	.	.	.	.	.		237	
1995	NS	D	N	748	662		3		13	1975			1991	.	2739	.	.	.	.				
1995	OBB	D-G	N	2002	2002		3332		2				3334	1767	5336	4	524	.	.				
1995			E	252	252			84					84		336	49	50	.	.				
1995			TOTAL	2254	2254		3332	84	2				3418	1767	5672	53	574	.	.	11094	.	78	.
1995	RENFE	D-G	L	5426	5426				6355				6355	2790	11781	373	524	.	.				
1995			N				480						480	471	480	480		.	.				
1995			E							19			19		19	19		.	.				
1995			TOTAL	5426	5426		480		6355	19			6854	3261	12280	872	524	.	.				
1995	BV	G	N	2465	2465		7317						7317	1410	9782	422	1762	.	.				
1995	SNCB/NMB	G	N	997	625				2371				2371	2186	3368	26	597	.	.				
1995	SNCF	G	N	18073	13972	7864	1			5833		4	13702	11888	31775	2297	7791	.	.				
1995			E	67	67							97	97		164	97		.	.				
1995			TOTAL	18140	14039	7864	1			5833		101	13799	11888	31939	2394	7791	.	.	.	.		
1995	RHK(VR)	D	L	3826	3826	2054							2054	496	5880		1909	.	.				
1995	CFF/SBB/F	G	N	16	16		2897						2897	1557	2913	.	.	.	.				
1995			E				74						74		74	.	.	.	.				
1995			total	16	16		2971						2971	1557	2987	.	.	.	.		.		
1995	NSB	D	N	1601	1601		2422						2422	115	4023		202	.	.	.	.		
1995	BC	D	L	4668	3822	847			9				855	855	5523	.	.	.	.				
1995			N						20				20	20	20	.	.	.	.				
1995			TOTAL	4668	3822	847			29				875	875	5543	.	.	.	.				
1995	BDZ	D	N	1393	1393	2656							2656	969	4049			.	.				
1995			E	245	245										245			.	.				
1995			TOTAL	1638	1638	2656							2656	969	4294			.	.				463
1995	CD	D	N	6593	6345	1086			1610	47			2743	1685	9336	40	48	.	.				
1995			E	94											94			.	.				
1995			TOTAL	6687	6345	1086			1610	47			2743	1685	9430	40	48	.	.				
1995	CFR	D	L	60	60										60			.	.				
1995			N	7023	6373	3866							3866	2316	10889			.	.				
1995			E	427	427										427			.	.				
1995			TOTAL	7510	6860	3866							3866	2316	11376	.	.	.	.				.
1995	EVR	D	L	889	853				132				132	68	1021	3		.	.				
1995	LDZ	D	L	2190	2021				271				271	216	2380			.	.				
1995			E	33	33										33			.	.				

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year (in kilometres) — Rail based operations — Lines not electrified: Total	Lines not electrified: Single track	Electrified Lines — Catenary supplied — a. c. current: 25000 volts; 50 cycles	a. c. current: 15000 volts, 16 2/3 cycles	a. c. current: other	d. c. current: 3000 volts	d. c. current: 1500 volts	d. c. current: other	Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)	Used for: Passenger traffic only	Used for: Freight traffic only	After 1996 — Track length at the end: Total	Track length at the end: of which electrified	Other Operations — Road services: Passenger Traffic	Road services: Freight traffic	Shipping Services: Passenger Traffic	Shipping Services: Freight traffic
1995			TOTAL	2142	2054				271				271	216	2413			.	.				
1995	MAV	D	L	37	37										37		37	.	.				
1995			N	5133	5070	2260							2260	1122	7393		250	.	.				
1995			E	176	176										176	12		.	.				
1995			TOTAL	5346	5283	2260							2260	1122	7606	12	287	.	.	117			
1995	PKP	D	L	631	631				16				16		647	.	.	.	.				
1995			N	10340	9373				11576		35		11611	7938	21951	.	.	.	.				
1995			E	1388	1388										1388	.	.	.	.				
1995			TOTAL	12359	11392				11592		35		11627	7938	23986	.	.	.	.				
1995	SZ	D	N	702	702	9	1		489				499	331	1201	7	110	.	.				
1995	ZSR	D	L						106				106		106		106	.	.				
1995			N	2192	2075	728			590				1318	908	3510			.	.				
1995			E	4	4				48				48		52	14		.	.				
1995			TOTAL	2196	2079	728			744				1472	908	3668	14	106	.	.				
1995	TCDD	D	N	7610	7516	939							939	225	8549			.	.				
1996	Railtrack	G	N	11490	.	.						.	5176	.	16666	15034	1632	.	.	.	.		
1996	BK	G	N	1050	.		52						52	.	1102	1102		.	.	.	.	.	.
1996	CFL	D-G	N	13	13	242			19				261	140	274		38	618	526				
1996	CH	D	N	1565	1262										1565			.					
1996			E	909	909										909			.					
1996			TOTAL	2474	2171										2474			.					
1996	CIE	G	L	1917	.					37			37	.	1954	.	.	.	.	.	.	.	.
1996	CP	G	L	1952	1918	598				26			624	431	2576	114	188	.	.				
1996			E	274	268										274	274		.					
1996			TOTAL	2226	2186	598				26			624	431	2850	388	188	.		.			
1996	DBAG	D	N	22266	19228	24	17985		8	20		423	18460	14616	40726	1815	7109	82065	43494				
1996			E	100	100										100		17						
1996			TOTAL	22366	19328	24	17985		8	20		423	18460	14616	40826	1815	7126	82065	43494			83	6
1996	DSB	D	N	1915	1367	261			173				434	410	2349	196	211	3197	808				.
1996	FS SpA	G	N	5695	5650				10319				10319	5999	16014			22058	16317			237	
1996	NS	D	N	748	662		3		13	1975			1991	1721	2739	.	.	.	.				
1996	OBB	D-G	N	2002	2002		3332		2				3334	1767	5336	4	524	7115	5107				
1996			E	252	252			84					84		336	49	50	336	84				
1996			TOTAL	2254	2254		3332	84	2				3418	1767	5672	53	574	7451	5191	.	.	58	.
1996	RENFE	D-G	L	5427	5404				6358				6358	2850	11785	403	526	.	.				
1996			N			480							480	471	480	480		.	.				
1996			E							19			19		19	19		.	.				
1996			TOTAL	5427	5404	480			6358	19			6857	3321	12284	902	526	.	.				
1996	BV	G	N	2436	2436		7385						7385	1450	9821	384	1730	11000	.				
1996	SNCB/NMI	G	N	921	598	12			2447				2459	2252	3380	38	594	9749	5973				
1996	SNCF	G	N	17608	13851	8240	1			5838			14079	12242	31687	2231	7690	.	.				
1996			E	67	67							97	97		164	97		.	.				
1996			TOTAL	17675	13918	8240	1			5838		97	14176	12242	31851	2328	7690	66252	34795	.	.		
1996	RHK(VR)	D	L	3802	3802	2057							2057	496	5859		1886	.	.				
1996	CFF/SBB/I	G	N	14	14		2901						2901	1538	2915	56	101	7359	4494				
1996			E				74						74		74			103	74				
1996			total	14	14		2975						2975	1538	2989	56	101	7462	4568				
1996	JBV (NSB)	D	N	1565	1565		2456						2456	131	4021		202	.	.				
1996	BC	D	L	4672	3828	847			9				855	829	5527	.	.	7197	2344				
1996			N						20				20		20	.	.	189	50				
1996			TOTAL	4672	3828	847			29				875	829	5547	.	.	7386	1393				
1996	BDZ	D	N	1338	1338	2710							2710	969	4048			7131	3796				

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year — Rail based operations — Lines not electrified: Total	Lines not electrified: Single track	Electrified Lines — Catenary supplied — a. c. current: 25000 volts; 50 cycles	a. c. current: 15000 volts, 16 2/3 cycles	a. c. current: other	d. c. current: 3000 volts	d. c. current: 1500 volts	d. c. current: other	Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)	Used for: Passenger traffic only	Used for: Freight traffic only	After 1996 — Track length at the end: Total	Track length: of which electrified	Other Operations — Road services: Passenger Traffic	Road services: Freight traffic	Shipping Services: Passenger Traffic	Shipping Services: Freight traffic
				in kilometres																			
1996			E	245	245										245			298					
1996			TOTAL	1583	1583	2710							2710	969	4293			7459	3796				463
1996	CD	D	N	6482	6266	1193			1620	46			2859	1725	9341	40	48	16714	6699				
1996			E	94	94										94			94					
1996			TOTAL	6576	6360	1193			1620	46			2859	1725	9435	40	48	16808	6699				
1996	CFR	D	L	60	60										60			155					
1996			N	7010	6382	3888							3888	2338	10898			21732	6327				
1996			E	427	427										427			469					
1996			TOTAL	7497	6869	3888							3888	2338	11385			22356	6327				
1996	EVR	D	L	888	853				132				132	68	1020	3	77	.	.				
1996	LDZ	D	L	2109	2021				271				271	216	2380			.	.				
1996			E	33	33										33			33					
1996			TOTAL	2142	2054				271				271	216	2413			.	.				
1996	MAV Rt.	D	L	37	37										37		37	35					
1996			N	5134	5070	2260							2260	1117	7394		250	.	.				
1996			E	176	176										176	12		176					
1996			TOTAL	5347	5283	2260							2260	1117	7607	12	287	.	.				
1996	PKP	D	L	630	628				16				16		646			650	16				
1996			N	10029	9090				11575		35		11610	7943	21639	.	.	45278	26853				
1996			E	1135	1135										1135	.	.	.					
1996			TOTAL	11794	10853				11591		35		11626	7943	23420	.	.	45928	26869				
1996	SZ	D	N	702	702	9	1		489				499	331	1201	2	97	2196	1094				
1996	ZSR	D	L	11	11				95				95		106		106	106	95				
1996			N	2140	2032	730			645				1375	907	3515	37	33	6994	3350				
1996			E	6	6				46				46		52	52		52	46				
1996			TOTAL	41763	1049	730			786				1516	907	43279	89	139	7152	3491				
1996	TCDD	D	N	7083	6944	1524							1524	228	8607			.	.				
1997	Railtrack	G	N	11490	.	.						.	5166	.	16656	.	1632	.	.				
1997	BK	G	N	639	.		301						301	.	940	940	0	.	.				
1997	CFL	D-G	N	13	13	242			19				261	140	274		38	618	526	.	.		
1997	CH	D	N	1565	1261										1565			.					
1997			E	938	938										938			938					
1997			TOTAL	2503	2199										2503			.		.			
1997	CIE	G	L	1908	.					37			37	37	1945	.	.	.	.	.	.	.	.
1997	CP (REFE	G	L	1726	.	856							856	.	2582	151	196	.	.				
1997			E	274	268										274	274		726					
1997			TOTAL	2000	.	856							856	.	2856	425	196	.	.				
1997	DBAG	D	N	19732	17026	24	18204		8	20		396	18652	14604	38384	1673	5640	78854	44117				
1997			E	66	66										66		2	80					
1997			TOTAL	19798	17092	24	18204		8	20		396	18652	14604	38450	1673	5642	78934	44117				
1997	BS	D	N	1607	1360	.			.				625	601	2232	.	.	.	.				
1997	FS SpA	G	N	5627	5627				10358				10358	6061	16030			22136	16420			237	
1997	NS B.V.	D	N	747	662		3		13	2042			2058	1853	2805	.	.	.	.				
1997	OBB	D-G	N	2002	2002		3332		2				3334	1767	5336	4	524	7115	5107				
1997			E	252	252			84					84		336	49	50	336	84				
1997			TOTAL	2254	2254		3332	84	2				3418	1767	5672	53	574	7451	5191	10287	.	83	.
1997	RENFE	D-G	L	5360	5339				6434				6434	2924	11794	554	657	.	.				
1997			N			481							481	470	481	481		.	.				
1997			E							19			19		19	19		.	.				
1997			TOTAL	5360	5339	481			6434	19			6934	3394	12294	1054	657	.	.				
1997	BV	G	N	2901	2901		7327						7327	.	10228	.	.	.	.				
1997	SNCB/NMI	G	N	915	594	71			2436				2507	2301	3422	109	571	9319	5883		.		.

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year																			
				Rail based operations														After 1996: Track length at the end		Other Operations			
				Lines not electrified		Electrified Lines										Used for				Road services		Shipping Services	
						Catenary supplied: Type of electric current						Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)								
						a. c. current			d. c. current														
				Total	Single track	25000 volts; 50 cycles	15000 volts, 16 2/3 cycles	other	3000 volts	1500 volts	other					Passenger traffic only	Freight traffic only	Total	of which electrified	Passenger Traffic	Freight traffic	Passenger Traffic	Freight traffic
				in kilometres																			
1997	RFF	G	N	17574	13891	8216	1			5864			14081	12276	31655	2150	7699	.	.				
1997			E	67	67							99	99		166	99		166	99				
1997			TOTAL	17641	13958	8216	1			5864		99	14180	12276	31821	2249	7699	.	.				
1997	RHK(VR)	D	L	3804	3804	2061							2061	507	5865		1888	8730	3396				
1997	CFF/SBB/F	G	N	8	8		2857						2857	1583	2865	56	96	.	.				
1997			E				74						74		74			103	74				
1997			total	8	8		2931						2931	1583	2939	56	96	103	74				
1997	JBV (NSB)	D	N	1565	1565		2456						2456	131	4021	94	160	.					
1997	BC	D	L	4667	3831	847			9				855	829	5522	.	.	.	.				
1997			N						20				20		20	.	.	189	50				
1997			TOTAL	4667	3831	847			29				875	829	5542	.	.	7386	2393				
1997	BDZ	D	N	1335	1335	2712							2712	969	4047			7125	3845				
1997			E	245	245										245			298					
1997			TOTAL	1580	1580	2712							2712	969	4292			7453	3845				463
1997	CD	D	N	6477	6261	1193			1620	46			2859	1724	9336	41	37	16620	6733				
1997			E	94	94										94			94					
1997			TOTAL	6571	6355	1193			1620	46			2859	1725	9430	41	37	16714	6733				
1997	CFR	D	L	57	57										57			57					
1997			N	6955	6555	3943							3943	2323	10898			21732	.				
1997			E	425	425										425			425					
1997			TOTAL	7437	7037	3943							3943	2323	11380			22214	.				
1997	EVR	D	L	834	798				132				132	68	966	3	84	.	.				
1997	LDZ	D	L	2109	2022				271				271	216	2380			.	.				
1997			E	33	33										33			33					
1997			TOTAL	2142	2055				271				271	216	2413			.	.				
1997	MAV Rt.	D	L	37	37										37		37	37					
1997			N	5105	5011	2288							2288	1126	7393		283	.	.				
1997			E	176	176										176	12		176					
1997			TOTAL	5318	5224	2288							2288	1126	7606	12	320	.	.				
1997	PKP	D	L	630	628				16				16		646	.	.	650	24				
1997			N	10033	9089				11575		35		11610	7946	21643	.	.	45196	26807				
1997			E	1039	1039										1039	.	.	1039					
1997			TOTAL	11702	10756				11591		35		11626	7946	23328	.	.	46885	26831				
1997	SZ	D	N	702	702	2	8		489				499	331	1201	2	106	2193	1095				
1997	ZSR	D	L	11	11				95				95		106		106	106	95				
1997			N	2113	2032	737			657				1394	907	3507	37	33	7152	3491				
1997			E	6	6				46				46		52	52		52	46				
1997			TOTAL	2130	2049	737			798				1535	907	3665	89	139	7310	3632				
1997	TCDD	D	N	6901	6762	1706							1706	228	8607			.	.				
1998	Railtrack	G	N	11490	.	.						.	5166	.	16656	.	1632	.	.				
1998	CFL	D-G	N	13	13	242			19				261	140	274		38	618	526				
1998	CH	D	N	1565	1244										1565			.					
1998			E	734	734										734			734					
1998			TOTAL	2299	1978										2299								
1998	CIE	G	L	1872	1419					37			37	37	1909	6	246	.	.				
1998	REFER	G	L	1707	1673	848				25			873	431	2580	261	186	.	.				
1998			E	214	214										214	214		214					
1998			TOTAL	1921	1887	848				25			873	431	2794	475	186	.	.				
1998	DBAG	D	N	19220	16501	24	18396		8	20		409	18857	.	38077	1711	5237	76774	45754				
1998			E	49	49										49		2	66					
1998			TOTAL	19269	16550	24	18396		8	20		409	18857	.	38126	1711	5239	76840	45754				
1998	GVG	D	N																				

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

After 1996

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year																			
				Rail based operations														Track length at the end		Other Operations			
				Lines not electrified		Electrified Lines										Used for				Road services		Shipping Services	
						Catenary supplied						Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)								
						Type of electric current																	
						a. c. current			d. c. current														
				Total	Single track	25000 volts; 50 cycles	15000 volts, 16 2/3 cycles	other	3000 volts	1500 volts	other					Passenger traffic only	Freight traffic only	Total	of which electrified	Passenger Traffic	Freight traffic	Passenger Traffic	Freight traffic
				in kilometres																			
1998	BS	D	N	1816	1439	.			.				448	372	2264	.	.	.	.				
1998	FS SpA	G	N	5592	5551				10488				10488	6094	16080	.	.	22215	16582				
1998	NS B.V.	D	N	747	664					2061			2061	1877	2808	.	.	6432	.				
1998	OBB	D-G	N	2002	2002		3341		2				3343	1767	5345	.	.	.	.				
1998			E	214	214			84					84		298	.	.	.	84				
1998			TOTAL	2216	2216		3341	84	2				3427	1767	5643	.	.	.	.				
1998	RENFE	D-G	L	5353	5332				6450				6450	2914	11803	1185	715	.	.				
1998			N			481							481	470	481	481		.	.				
1998			E							19			19		19	19		19	19				
1998			TOTAL	5353	5332	481			6450	19			6950	3384	12303	1685	715	.	.				
1998	FEVE	D-G	E	957	957					236			236	68	1193	.	.	.	.				
1998	FGC	D-G	N							45			45	.	45	.	.	.	.				
1998			E	40	.					98			98	.	138	.	.	.	.				
1998			Total	40						143			143	.	183	.	.	.	.				
1998	BV	G	N	2582	.		7483						7483	.	10065	.	.	.	.				
1998	BK	G	N	566			508						508		1074	1074		.	508				
1998	SNCB/NMI	G	N	899	588	71			2440				2511	2292	3410	15	569	8926	5706				
1998	RFF	G	N	17531	13864	8203	12		11	5812			14038	12242	31569	4883	5020	48937	27733				
1998			E	67	67							99	99		166	99		166	99				
1998			TOTAL	17598	13931	8203	12		11	5812		99	14137	12242	31735	1982	5020	49103	27832				
1998	RHK(VR)	D	L	3670	3670	2197							2197	507	5867		1889	8725	3578				
1998	CFF/SBB/F	G	N	8	8		2828						2828	.	2836	.	.	.	.				
1998			E				74						74	.	74	.	.	.	.				
1998			total	8	8		2902						2902	.	2910	.	.	.	.				
1998	JBV (NSB)	D	N	1550	1550		2456						2456	.	4006	.	.	.	.				
1998	BC	D	L	4655	3866	847			9				856	820	5511	.	.	7173	2346				
1998			N						20				20		20	.	.	180	50				
1998			TOTAL	4655	3866	847			29				876	820	5531	.	.	7353	2396				
1998	BDZ	D	N	1337	1247	2708							2708	965	4045	50	150	7190	4807				
1998			E	245	245										245			298					
1998			TOTAL	1582	1492	2708							2708	965	4290	50	150	7518	4807				
1998	CD	D	N	6352	6234	1193			1745	46			2984	1822	9336	41	37	17001	6929				
1998			E	94	94										94			94					
1998			TOTAL	6446	6328	1193			1745	46			2984	1822	9430	41	37	17095	6929				
1998	CFR	D	L	57	57										57			57					
1998			N	6953	6555	3929							3929	2309	10882	.	.	.	.				
1998			E	425	425										425			425					
1998			TOTAL	7435	7037	3929							3929	2309	11364	.	.	.	.				
1998	EVR	D	L	834	787				132				132	68	966	3	86	.	.				
1998	LDZ	D	L	2109	2022				271				271	216	2380			.	.				
1998			E	33	33										33			33					
1998			TOTAL	2142	2055				271				271	216	2413			.	.				
1998	MAV Rt.	D	L	37	37										37		37	37					
1998			N	5052	4996	2504							2504	1239	7556		201	.	.				
1998			E	176	176										176	12		176					
1998			TOTAL	5265	5209	2504							2504	1239	7769	12	238	.	.				
1998	PKP	D	L	606	604				16				16		622		.	647	24				
1998			N	9893	8968				11563		35		11598	7946	21491	.	.	44529	26673				
1998			E	1097	1097										1097	.	.	1097					
1998			TOTAL	11596	10669				11579		35		11614	7946	23210	.	.	46273	26697				
1998	SZ	D	N	702	702	2	8		489				499	331	1201	2	106	2193	1095				
1998	ZSR	D	L	11	11				95				95		106		95	106	95				

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

After 1996

Length of Lines worked at end of year — in kilometres

Year	Railway	Direction of Running	Rail Gauge	Rail based operations: Lines not electrified: Total	Lines not electrified: Single track	Electrified Lines: Catenary supplied: a. c. current: 25000 volts; 50 cycles	a. c. current: 15000 volts, 16 2/3 cycles	a. c. current: other	d. c. current: 3000 volts	d. c. current: 1500 volts	d. c. current: other	Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)	Used for: Passenger traffic only	Used for: Freight traffic only	Track length at the end: Total	Track length at the end: of which electrified	Other Operations: Road services: Passenger Traffic	Road services: Freight traffic	Shipping Services: Passenger Traffic	Shipping Services: Freight traffic
1998			N	2117	2009	737			657				1394	911	3511		38	.	.				
1998			E	4	4				46				46		50	50		50	46				
1998			TOTAL	2132	2024	737			798				1535	911	3667	50	133	.	.				
1998	TCDD	D	N	6901	6762	1706							1706	228	8607			10508	2065				
1999	GKE	D-G	N	97	97										97	.	.	97					
1999	OBB	D-G	N	1973	1973		3370		2				3372	1767	5345	.	.	.	.				
1999			E	214	214			84					84		298	.	.	.	84				
1999			TOTAL	2187	2187		3370	84	2				3456	1767	5643	.	.	10595	6796				
1999	SNCB/NMI	G	N	771	500	76			2625				2701	2356	3472			6145	4791				
1999	AAE	D	N	10	10										10		10	10					
1999	DB AG	D	N	18542	15827	24	18449		8	20		433	18934	14840	37476	1764	4800	75043	45300				
1999			E	49	49										49		2	66					
1999			TOTAL	18591	15876	24	18449		8	20		433	18934	14840	37525	1764	4802	75109	45300				
1999	KEG 98	D	N	24	.										24	.	.	.					
1999	BS	D	N	1711	1330	.			.				613	513	2324	.	.	.	.				
1999	EusKotren	D-G	E	5	5					176			176	30	181	28	.	180	176				
1999	FEVE	D-G	E	944	.					250			250	.	1194	.	.	.	.				
1999	FGC	D-G	N							45			45	44	45	45		94	94				
1999			E	41	41					98			98	19	139	45	41	160	121				
1999			Total	41	41					143			143	63	184	90	41	254	215				
1999	RENFE	D-G	L	5360	5339				6459				6459	2923	11819	1061	708	.	.				
1999			N			451			30	19			481	470	481	481		.	.				
1999			E						6489	19			19		19	19		.	.				
1999			TOTAL	5360	5339	451							6959	3393	12319	1561	708	.	.				
1999	RHK	D	L	3602	3602	2234							2234	507	5836		1858	8680	3623				
1999	RFF	G	N	17334	.	.	.		.	.			14089	.	31423	.	.	.	.				
1999			E	67	67							99	99		166	99		166	99				
1999			TOTAL	17401	.	.	.		.	.		99	14188	.	31589	.	.	.	.				
1999	Railtrack	G	N	11483	.	.						.	5166	.	16649	15038	1611	.	.				
1999	CH	D	N	1565	1244										1565			.					
1999			E	734	734										734			734					
1999			TOTAL	2299	1978										2299								
1999	CIE	G	L	1872	1419					48			48	48	1919	6	246	.	.				
1999	FS SpA	G	N	5420	5386				10688				10688	6139	16108	.	.	22281	16826				
1999	CFL	D-G	N	13	13	242			19				261	140	274		38	618	526				
1999	NS B.V.	D	N	747	664					2061			2061	1877	2808	.	.	6432	.				
1999	REFER	G	L	1698	1664	876				25			901	464	2599	128	193	.	.				
1999			E	214	214										214	214		214					
1999			TOTAL	1912	1878	876				25			901	464	2813	342	193	.	.				
1999	BK	G	N	291			530						530		821	.		.	530				
1999	BV	G	N	2451	2451		7527						7527	1631	9978	.	.	.	.				
1999	CFF/SBB/F	G	N	8	8		2820						2820	.	2828	.	110	.	.				
1999			E				74						74		74			74	74				
1999			total	8	8		2894						2894	.	2902	.	110	7369	.				
1999	JBV (NSB)	D	N	1660	1660		2519						2519	185	4179	.	.	.	.				
1999	BDZ	D	N	1337	1247	2708							2708	965	4045	50	150	6139	3839				
1999			E	245	245										245			298					
1999			TOTAL	1582	1492	2708							2708	965	4290	50	150	6467	3839				
1999	BC	D	L	4647	3807	847							847	820	5494	.	.	11700	2325				
1999			N						29				29		29	.	.	369	50				
1999			TOTAL	4647	3807	847			29				876	820	5523	.	.	12069	2375				
1999	CD	D	N	6499	6283	1152			1645	46			2843	1713	9342	.	.	16925	6760				

A.1.3.2.Lines and Track - Length

D-G no general running direction
L wide; E narrow
D - running generally on the right

After 1996

Year	Railway	Direction of Running	Rail Gauge	Length of Lines worked at end of year																			
				Rail based operations														Track length at the end		Other Operations			
				Lines not electrified		Electrified Lines										Used for				Road services		Shipping Services	
						Catenary supplied																	
						Type of electric current						Supplied by direct-current contact rail	Total (col.6 to 12)	double track or more	Total (col.4 to 13)								
						a. c. current			d. c. current														
				Total	Single track	25000 volts; 50 cycles	15000 volts, 16 2/3 cycles	other	3000 volts	1500 volts	other					Passenger traffic only	Freight traffic only	Total	of which electrified	Passenger Traffic	Freight traffic	Passenger Traffic	Freight traffic
				in kilometres																			
1999			E	23	23										23			23					
1999			TOTAL	6522	6306	1152			1645	46			2843	1713	9365	427	185	16948	6760				
1999	EVR	D	L	836	799				132				132	68	968	3	86	1811	264				
1999	MAV Rt.	D	L	37	37										37		37	37					
1999			N	4983	4929	2530							2530	1239	7513	12	201	.					
1999			E	218	218										218			.					
1999			TOTAL	5238	5184	2530							2530	1239	7768	12	238	.					
1999	LDZ	D	L	2122	2022				258				258	204	2380	51	215	3786	687				
1999			E	33	33										33			33					
1999			TOTAL	2155	2056				258				258	204	2413	51	215	3819	687				
1999	PKP	D	L	544	544				15				15	.	559		.	559	15				
1999			N	9395	8508				11917		35		11952	8011	21347	.	.	42871	25991				
1999			E	985	985										985	.	.	985					
1999			TOTAL	10924	10037				11932		35		11967	8011	22891	.	.	44415	26006				
1999	CFR	D	L	57	57										57			57					
1999			N	6953	6555	3929							3929	2309	10882			.	.				
1999			E	425	425										425			425					
1999			TOTAL	7435	7037	3929							3929	2309	11364			.	.				
1999	SZ	D	N	698	697	2	8		494				504	330	1202	2	107	2102	1294				
1999	ZSR	D	L	5	5				95				95		100		95	.	95				
1999			N	2117	2008	737			658				1395	911	3512		39	.	.				
1999			E	4	4				46				46		50	50		50	46				
1999			TOTAL	2126	2017	737			799				1536	911	3662	50	134	.	.				
1999	TCDD	D	N	6919	6778	1763							1763	284	8682			10933	2133				

A1.3.3.Tractive Stock- Stock and Power

Year	Railway	Rail-Gauge	Fleet Strength at end of year											Annual mean fleet strength														
			Steam Locomotives	Diesel Locomotives		Electric Locomotive		Diesel Railcars			Electric railcars			Steam Locomotives			Diesel Locomotive			Electric Locomotives			Diesel Railcars			Electric Railcars		
								Single unit	Permanently-coupled train sets		Single unit	Permanently-coupled train sets																
			Total Number	Total Number	Above 1500 KW	Total Number	Above 3000 KW	Total Number	Number	total number of	Total Number	Number	total number of	total	In Working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for
1985	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	BR	N		2535	1003	249	36	5	946	2744	10	2294	6984		0		1998	1440	558	249	194	55	1642	1357	285	2300	1961	339
1985	CFF	N		267	6	1143	504				141	27	100		0		111	96	15	885	807	78		0		168	140	28
1985		E		4		7					16				0			0		2	2	0		0		16	14	2
1985		total													0			0			0			0			0	
1985	CFL	N		66		19			8	16		8	18		0		.	.	.	.	.	.	.	.	.	.	.	.
1985	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	CH	N		174	81			52		52					0		171	79	92		0		52	22	30		0	
1985		E		43				38	27	65					0		43	12	31		0		65	33	32		0	
1985		TOTAL													0			0			0			0			0	
1985	CIE	L		153	18							40	80		0		156	126	30		0			0		78	74	4
1985	CP	L		255	52	46		35	39	78		156	486		0		255	209	46	46	39	7	74	64	10	156	132	24
1985		E	4	17				10	32	83				4	3	1	17	15	2		0		42	35	7		0	
1985		TOTAL													0			0			0			0			0	
1985	CSD	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	DB	N		3984	48	2614	2155	398			173	1606	1728		0		2952	2736	216	2617	2461	156	406	380	26	1798	1674	124
1985		E		4											0		4	4			0			0			0	
1985		TOTAL													0			0			0			0			0	
1985	DR	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	DSB	N		417	98	6	6		110	212		283	283		0		415	415		4	4		198	198		283	283	
1985	FS	N	51	1162	72	2120	884	1076	4	8	633	24	105	56	54	2	1120	858	262	2083	1670	413	1071	903	168	667	495	172
1985		E	1	2				16						1	1			0			0		12	8	4		0	
1985		TOTAL													0			0			0			0			0	
1985	JZ	N	118	801	135	491	364	6	341	774		118	403	46	.	.	569	.	.	391	.	.	237	.	.	105	.	.
1985	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	NS	N		424		158	58	20	98	238	27	544	1387		0		424	343	81	160	106	54	124	96	28	567	435	132
1985	NSB	N		95	5	166	54	34	15	49	70	74	144		0		89	78	11	168	140	28	47	40	7	145	126	19
1985	OBB	N		465		690	436	61	16	32		208	769		0		464	425	39	690	625	65	78	70	8	201	179	22
1985		E	18	33		15		2						18	11	7	33	28	5	15	12	3	2	1	1		0	
1985		TOTAL													0			0			0			0			0	
1985	PKP	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	RENFE	L		760	215	625	328		219	570		498	1403		0		760	686	74	620	561	59	221	200	21	491	445	46
1985		E									6				0			0	0	0	0	0	0	0	0	6	5	1
1985		TOTAL													0			0			0			0			0	
1985	SJ	N		516		710	391	137	3	12	10	164	343		0		516	.	.	718	604	114	148	.	.	176	.	.
1985	BV	N		14											0		15	15			0			0			0	
1985	SNCB/NMBS	N		815		332	126	64				666	1420		0		776	681	95	319	274	45	38	34	4	651	574	77
1985	SNCF	N		3447	428	2411	954	303	504	1169	35	777	3069		0		3395	3219	176	2316	2182	134	815	778	37	780	740	40
1985		E									14	4	12		0			0			0			0		18	18	
1985		TOTAL													0			0			0			0			0	
1985	VR	L		622	48	110	110	68	36	54		100	200		0		384	348	36	110	97	13	113	100	13	100	87	13
1985	TCDD	N	429	604	433	18	15		25	77		78	263	429	132	297	604	167	437	18	14	4	25	14	11	78	67	11
1986	BDZ	total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	BR	N		2398	971	244	40	26	905	2625	10	1916	7034		0		1890	1424	466	216	163	53	2047	1591	456	2520	2233	287
1986	CFF	N		267	6	1139	504				141	27	100		0		111	96	15	882	802	80		0		167	141	26
1986		E		4		9					16				0			0		4	3	1		0		16	14	2
1986		total													0			0			0			0			0	
1986	CFL	N		66		19			8	16		8	18		0		66	55	11	19	17	2	8	7	1	8	7	1
1986	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	CH	N		171	81			52		52					0		171	111	60		0		52	17	35		0	
1986		E		43				40	27	67					0		43	19	24		0		67	48	19		0	
1986		TOTAL													0			0			0			0			0	
1986	CIE	L		130	18							40	80		0		142	112	30		0			0		78	74	4
1986	CP	L		250	52	44		35	39	78		156	485		0		250	202	48	44	34	10	74	59	15	156	125	31
1986		E	4	17				10	32	83				4	4	0	17	15	2		0		42	35	7		0	
1986		TOTAL													0			0			0			0			0	
1986	CSD	L		37		22	22	5							0		38	31	7	22	18	4	5	2	3		0	
1986		N	5	3236		1407	967	1322				110	502	6	6		3219	2655	564	1380	1164	216	1343	1176	167	110	66	44
1986		E		22				1			26				0		22	15	7		0		1	0	1	26	22	4
1986		total													0			0			0			0			0	
1986	DB	N		3880	48	2597	2138	396			167	1590	1825		0		3928	3693	235	2612	2454	158	399	369	30	1725	1608	117
1986		E		4											0			0			0			0			0	
1986		TOTAL													0			0			0			0			0	
1986	DR	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	DSB	N		390	98	10	10		112	249		299	600		0		404	404		8	8		249	249		291	291	
1986	FS	N	48	1138		2089	976	1034	3	6	608	24	105	51	48	3	1134	875	259	2034	1700	334	1048	882	166	640	469	171
1986		E		1				13							0		0	0			0		12	10	2		0	
1986		TOTAL													0			0			0			0			0	
1986	JZ	N	105	811	143	495	368	10	320	692		120	419	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	NS	N		419		150	58	20	98	238	27	549	1404		0		422	355	67	154	117	37	118	99	19	575	479	96
1986	NSB	N		204	5	166	54	30	15	45	68	74	142		0		204	177	27	170	156	14	45	39	6	142	131	11
1986	OBB	N		465		693	441	59	16	32		220	804		0		465	423	42	693	612	81	76	66	10	214	192	22
1986		E	17	33		15		7						17	10	7	33	28	5	15	12	3	6	5	1		0	

A1.3.3.Tractive Stock- Stock and Power

Year	Railway	Rail-Gauge	Fleet Strength at end of year											Annual mean fleet strength														
			Steam Locomotives	Diesel Locomotives		Electric Locomotive		Diesel Railcars			Electric railcars			Steam Locomotives			Diesel Locomotive			Electric Locomotives			Diesel Railcars			Electric Railcars		
								Single unit	Permanently-coupled train sets		Single unit	Permanently-coupled train sets																
			Total Number	Total Number	Above 1500 KW	Total Number	Above 3000 KW	Total Number	Number	total number of	Total Number	Number	total number of	total	In Working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for
1986		TOTAL													0			0			0			0			0	
1986	PKP	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	RENFE	L		775	215	623	327		215	562		497	1399		0		768	693	75	624	557	67	217	195	22	498	452	46
1986		E									6				0			0			0			0		6	5	1
1986		TOTAL													0			0			0			0			0	
1986	SJ	N		532		694	410	122	3	12	9	171	344		0		523	.	.	702	601	101	129	.	.	177	.	.
1986		E		8											0		11	11			0			0			0	
1986		total													0			0			0			0			0	
1986	SNCB/NM	N		770		354	148	38				665	1418		0		673	578	95	329	279	50	30	27	3	661	586	75
1986	SNCF	N		3444	428	2363	959	283	504	1165	1	855	3354		0		3376	3209	167	2294	2169	125	798	761	37	835	795	40
1986		E									14	4	12		0			0			0			0		18	18	
1986		TOTAL													0			0			0			0			0	
1986	VR	L		627	49	110	110	57	29	32		100	200		0		382	348	34	110	98	12	99	86	13	100	90	10
1986	TCDD	N	380	630	552	18	15		24	76		86	287	380	122	258	630	428	202	18	11	7	24	11	13	86	64	22
1987	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	BR	N		2237	911	232	38	26	822	2382	10	2499	7022		0		1542	1152	390	184	143	41	.	.	.	.	.	.
1987	CFF	N		266		1130	504				158	27	100		0		111	95	16	880	801	79		0		195	164	31
1987		E		4		9					16				0			0		4	3	1		0		16	14	2
1987		total													0			0			0			0			0	
1987	CFL	N		66		19			8	16		8	18		0		66	55	11	19	17	2	8	7	1	8	7	1
1987	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	CH	N		171	81			52		52					0		171	118	53		0		52	22	30		0	
1987		E		43				40	27	67					0		43	22	21		0		67	52	15		0	
1987		TOTAL													0			0			0			0			0	
1987	CIE	L		126	18							40	80		0		126	101	25		0			0		40	38	2
1987	CP	L		250	52	48		35	39	78		111	332		0		250	205	45	48	42	6	74	62	12	111	92	19
1987		E	4	17				10	32	51				4	3	1	17	15	2		0		42	32	10		0	
1987		TOTAL													0			0			0			0			0	
1987	CSD	L		33		22	22	5							0		33	26	7	22	19	3	5	2	3		0	
1987		N	7	3188		1433	566	1290				111	504	6	6		3216	2585	631	1431	1186	245	1303	1068	235	111	66	45
1987		E		22							25				0		22	15	7		0			-1	1	25	21	4
1987		total													0			0			0			0			0	
1987	DB	N		3658	21	2564	2106	433			157	1587	1822		0		3767	3547	220	2577	2403	174	405	372	33	1696	1562	134
1987		E		4											0			0			0			0			0	
1987		TOTAL													0			0			0			0			0	
1987	DR	L		12											0		12	11	1		0			0			0	
1987		N	351	4480	1161	1019	611	156	8	33	5	539	1078	313	248	65	4517	3514	1003	954	853	101	165	113	52	544	431	113
1987		E	88	8										87	59	28	8	4	4		0			0			0	
1987		total													0			0			0			0			0	
1987	DSB	N		381	98	10	10		112	249		299	598		0		385	385		10	10		249	249		291	291	
1987	FS	N	32	1152		2049	1013	1010	3	6	620	24	105	40	37	3	1143	898	245	2068	1730	338	1025	848	177	631	474	157
1987		E		2				6							0			0			0			0			0	
1987		TOTAL													0			0			0			0			0	
1987	JZ	N	81	832	211	504	378	11	320	754		123	447	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	NS	N		397		147	58	20	98	238	27	563	1449		0		406	346	60	148	114	34	118	101	17	581	492	89
1987	NSB	N		222	5	162	54	45	15	45	68	74	142		0		272	243	29	166	147	19	37	31	6	142	126	16
1987	OBB	N		463		697	443	65	16	32		223	787		0		464	420	44	694	613	81	76	66	10	223	201	22
1987		E	17	33		15		7						17	9	8	33	27	6	15	12	3	7	5	2		0	
1987		TOTAL													0			0			0			0			0	
1987	PKP	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	RENFE	L		741	191	621	329		206	543		504	1415		0		756	.	.	623	.	.	212	.	.	501	.	.
1987		E									6				0			0			0			0		6	6	
1987		TOTAL													0			0			0			0			0	
1987	SJ	N		527		694	425	110	3	12		179	358		0		525	.	.	694	594	100	120	.	.	180	.	.
1987		E		4											0		7	7			0			0			0	
1987		total													0			0			0			0			0	
1987	SNCB/NM	N		714		324	168	29				663	1414		0		638	548	90	354	298	56	25	22	3	663	587	76
1987	SNCF	N		3443	428	2325	959	267	504	1165	1	874	3411		0		3395	3221	174	2290	2157	133	775	684	91	864	756	108
1987		E									14	4	12		0			0			0			0		18	18	
1987		TOTAL													0			0			0			0			0	
1987	VR	L		486	48	110	110	52	8	8		100	200		0		488	440	48	110	97	13	69	64	5	100	88	12
1987	TCDD	N	322	650	440	18	1		21	68		87	292	322	120	202	650	411	239	18	10	8	21	11	10	87	69	18
1988	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	BR	N		2117	878	260	73	27	815	2361	10	2418	7256		0		.	.	.	.	.	.	.	.	.	.	.	.
1988	CFF	N		266		1125	504				172	27	100		0		114	98	16	872	788	84		0		216	175	41
1988		E		4		9					16				0			0		4	3	1		0		16	15	1
1988		total													0			0			0			0			0	
1988	CFL	N		65		19			8	16		8	18		0		65	55	10	19	17	2	8	7	1	8	7	1
1988	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	CH	N		171	81			52		52					0		171	112	59		0		52	19	33		0	
1988		E		43				40	27	67					0		43	23	20		0		67	51	16		0	
1988		TOTAL													0			0			0			0			0	
1988	CIE	L		126	18				3	9		40	80		0		126	96	30		0		3	2	1	38	36	2
1988	CP	L		250	52	54		35	39	78		156	484		0		250	207	43	54	47	7	74	62	12	152	134	18
1988		E		17				10	32	83					0		17	16	1		0		42	34	8		0	
1988		TOTAL													0			0			0			0			0	
1988	CSD	L		32		21	21	2		2					0		32	28	4	21	18	3	2	2	0		0	
1988		N	3	2976		1492	888	1044		1044		108	108	3	3		3016	2564	452	1469	1266	203	1046	888	158	108	90	18
1988		E		20							24				0		20	17	3		0			0		24	20	4

A1.3.3.Tractive Stock- Stock and Power

Year	Railway	Rail-Gauge	Fleet Strength at end of year											Annual mean fleet strength														
			Steam Locomotives	Diesel Locomotives		Electric Locomotive		Diesel Railcars: Single unit	Diesel Railcars: Permanently-coupled train sets		Electric railcars: Single unit	Electric railcars: Permanently-coupled train sets		Steam Locomotives			Diesel Locomotive			Electric Locomotives			Diesel Railcars			Electric Railcars		
			Total Number	Total Number	Above 1500 KW	Total Number	Above 3000 KW	Total Number	Number	total number of	Total Number	Number	total number of	total	In Working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for
1988		total													0			0			0			0			0	
1988	DB	N		3472	.	2545	2100	157	327	808	73	1585	1747		0		.	.	152	.	.	175	.	.	41	.	.	132
1988		E		4				1							0			0			0			0			0	
1988		TOTAL													0			0			0			0			0	
1988	DR	L		13											0		13	9	4		0			0			0	
1988		N	338	4472	1174	1109	715	155	8	33	6	538	1076	214	185	29	4498	3570	928	1055	955	100	164	120	44	543	435	108
1988		E	86	10										87	56	31	9	5	4		0			0			0	
1988		total													0			0			0			0			0	
1988	DSB	N		357	98	10	10		112	249		299	598		0		369	369		10	10		249	249		299	299	
1988	FS	N	29	1187		2046	935	989	1	2	643	31	155	31	27	4	1172	917	255	2039	1694	345	1003	846	157	639	499	140
1988		E		2				5							0			0			0			0			0	
1988		TOTAL													0			0			0			0			0	
1988	JZ	N	52	851	220	514	389	17	334	745		128	471	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	NS	N		372		147	58	20	98	238	27	571	1478		0		384	337	47	147	114	33	118	100	18	592	505	87
1988	NSB	N		194	5	158	54	22	15	37	61	74	135		0		213	191	22	159	138	21	37	31	6	135	120	15
1988	OBB	N		457		697	443	68	16	32		223	787		0		460	417	43	698	633	65	83	70	13	223	203	20
1988		E	17	32		15		7						17	10	7	32	28	4	15	12	3	7	6	1		0	
1988		TOTAL													0			0			0			0			0	
1988	PKP	N	915	4106	.	2355	.		.	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988		E	32	207	.				.	.				.	.	.	.	.	.		0		.	.	.		0	
1988		total													0			0			0			0			0	
1988	RENFE	L		733	191	621	330		151	433		483	1369		0		738	659	79	621	540	81	186	170	16	501	443	58
1988		E									6				0			0			0			0		6	5	1
1988		TOTAL													0			0			0			0			0	
1988	SJ	N		520		680	428	110	2	15		186	400		0		524	.	.	686	590	96	110	.	.	188	.	.
1988		E													0		2	2			0			.	.		0	
1988		total													0			0			0			0			0	
1988	SNCB/NM	N		674		381	175	26				672	1432		0		676	582	94	380	323	57	26	23	3	665	591	74
1988	SNCF	N		3412	428	2297	960	259	501	1167	1	902	3469		0		3373	3170	203	2250	2118	132	762	710	52	883	795	88
1988		E									14	4	12		0			0			0			0		18	18	
1988		TOTAL													0			0			0			0			0	
1988	VR	L		483	50	110	110		8	8		100	200		0		484	455	29	110	100	10	34	33	1	100	89	11
1988	TCDD	N	242	669	447	22	6		21	68		86	292	242	42	200	669	421	248	22	17	5	21	11	10	86	70	16
1989	BDZ	N	3	608	231	368	364		19	57		79	316	3	3		606	560	46	367	344	23	15	3	12	79	74	5
1989		E		43											0		43	34	9		0			0			0	
1989		total													0			0			0			0			0	
1989	BR	N	0	2032	861	260	83	28	762	2149	10	2408	7225		0		.	.	.	.	.	.	.	.	.	.	.	.
1989	CFF	N		274		1132	516				192	27	100		0		118	101	17	869	783	86		0		208	166	42
1989		E		4		12					16				0			0		4	4	0		0		16	14	2
1989		total													0			0			0			0			0	
1989	CFL	N		61		19			6	12		10	24		0		61	52	9	19	17	2	6	5	1	10	9	1
1989	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	CH	N		178	88			70		70					0		178	122	56		0		70	39	31		0	
1989		E		43				40	27	67					0		43	25	18		0		67	52	15		0	
1989		TOTAL													0			0			0			0			0	
1989	CIE	L		126	18				3	9		40	80		0		126	90	36		0		3	2	1	40	38	2
1989	CP	L		244	42	53		35	45	104		107	334		0		244	208	36	53	48	5	80	72	8	107	96	11
1989		E		17				10	32	73					0		17	15	2		0		42	36	6		0	
1989		TOTAL													0			0			0			0			0	
1989	CSD	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	DB	N		3465	.	2536	2099	128	359	807	41	1589	1715		0		.	.	149	.	.	185	.	.	64	.	.	143
1989		E		4				1							0		.	.			0			0			0	
1989		TOTAL													0			0			0			0			0	
1989	DR	L		14											0		14	7	7		0			0			0	
1989		N	301	4423	1167	1224	834	154	7	29	6	525	1050	183	162	21	4410	3552	858	1163	1048	115	163	119	44	536	445	91
1989		E	86	12										83	49	34	12	8	4		0			0			0	
1989		total													0			0			0			0			0	
1989	DSB	N		331	98	10	10		117	264		299	598		0		334	334		10	10		257	257		299	299	
1989	FS	N	26	1177		1976	968	985	1	2	637	32	185	30	24	6	1185	926	259	1977	1630	347	994	836	158	671	539	132
1989		E		2				5							0			0			0			0			0	
1989		TOTAL													0			0			0			0			0	
1989	JZ	N	28	836	212	522	398	16	312	670		133	474	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	MAV	L.N.E.	26	1078	6	497	45	20	218	218		4	4	26	10	16	1078	884	194	497	422	75	218	183	35	4	.	.
1989	NS	N	0	378	0	147	58	20	98	238	27	588	1531	0	0	0	376	324	52	147	111	36	118	102	16	581	493	88
1989	NSB	N		194	5	154	54	21	15	36	56	73	129		0		194	175	19	157	137	20	36	31	5	129	116	13
1989	OBB	N		456		705	451	75	15	30		223	798		0		455	413	42	700	629	71	86	75	11	223	203	20
1989		E	17	32		15		7						17	10	7	32	28	4	15	13	2	7	6	1		0	
1989		TOTAL													0			0			0			0			0	
1989	PKP	N	733	4105	1837	2294	279		58	58		1337	3975	537	198	339	3592	2503	1089	2282	1920	362	74	32	42	1256	1042	214
1989		E	28	200					44	44				15	5	10	134	73	61		0		38	23	15		0	
1989		total													0			0			0			0			0	
1989	RENFE	L		691	191	606	332		151	434		516	1410		0		700	607	93	610	528	82	151	133	18	492	440	52
1989		E									6		12		0			0			0			#VALOR!		6	5	1
1989		TOTAL													0			0			0			0			0	
1989	SJ	N	0	410	0	666	428	100	2	15	0	185	398	0	0		465	.	.	673	577	96	107	.	.	186	.	.
1989	BV	N		82											0		56	.	.		0			0			0	

A1.3.3.Tractive Stock- Stock and Power

Year	Railway	Rail-Gauge	Fleet Strength at end of year											Annual mean fleet strength														
			Steam Locomotives	Diesel Locomotives		Electric Locomotive		Diesel Railcars: Single unit	Diesel Railcars: Permanently-coupled train sets		Electric railcars: Single unit	Electric railcars: Permanently-coupled train sets		Steam Locomotives			Diesel Locomotive			Electric Locomotives			Diesel Railcars			Electric Railcars		
			Total Number	Total Number	Above 1500 KW	Total Number	Above 3000 KW	Total Number	Number	total number of	Total Number	Number	total number of	total	In Working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for
1989	SNCB/NMB	N		664		381	175	25				670	1428		0		662	550	112	381	320	61	24	22	2	670	584	86
1989	SNCF	N		3412	428	2287	960	255	500	1165		950	3724		0		3338	3122	216	2222	2048	174	753	702	51	912	832	80
1989		E									14	4	12		0			0			0			0		18	18	
1989		TOTAL													0			0			0			0			0	
1989	VR	L		465	52	110	110		8	8		100	200		0		474	435	39	110	103	7	9	8	1	100	92	8
1989	TCDD	N	242	675	449	32	16	24	12	36	58	28	112	242	42	200	678	439	239	24	17	7	27	16	11	86	72	14
1990	BDZ	N	3	594	251	365	361	1	11	33		83	332	3	3		594	534	60	365	269	96	12	7	5	83	78	5
1990		E		43											0		43	36	7		0			0			0	
1990		total													0			0			0			0			0	
1990	BR	N		1949	844	278	118	4	912	2136	10	2411	7234		0		.	.	.	.	.	.	.	.	.	.	.	.
1990	CFF	N		273		1143	532				209	27	100		0		120	100	20	882	794	88		0		226	188	38
1990		E		4		15					16				0			0		10	9	1		0		16	13	3
1990		total													0			0			0			0			0	
1990	CFL	N		61		19			6	12		13	28		0		61	52	9	19	18	1	6	5	1	11	10	1
1990	CFR	L	29	44										29	0	29	44	25	19		0			0			0	
1990		N	954	2217	1440	1049	1049	145			6			954	-27	981	2217	1428	789	1055	805	250	145	95	50	4	4	
1990		E	12	29	12									12	0	12	29	20	9		0			0			0	
1990		total													0			0			0			0			0	
1990	CH	N		189	84			70	30	100					0		189	111	78		0		100	43	57		0	
1990		E		43				40	28	68					0		43	26	17		0		68	29	39		0	
1990		TOTAL													0			0			0			0			0	
1990	CIE	L		126	18							40	80		0		126	90	36		0			0		40	38	2
1990	CP	L		249	42	54		35	45	116		152	476		0		186	165	21	54	49	5	80	70	10	152	140	12
1990		E		17				10	31	70					0		17	16	1		0		41	37	4		0	
1990		TOTAL													0			0			0			0			0	
1990	CSD	L		33		21	21	5							0		33	29	4	21	18	3	5	4	1		0	
1990		N	11	3029		1528	926	1207				108	108	11	11		3057	2598	459	1517	1308	209	1211	1028	183	108	90	18
1990		E		22							25				0		22	19	3		0			0		25	21	4
1990		total													0			0			0			0			0	
1990	DB	N		3413	.	2535	2099	127	359	804	34	1650	1773		0			0		2536	2340	196		0		1638	1504	134
1990		E		4				1							0			0			0			0			0	
1990		TOTAL													0		3444	3084	360		0		488	454	34		0	
1990	DR	L		14											0		14	8	6		0			0			0	
1990		N	175	4293	1195	1313	929	152	5	23	6	561	1122	183	164	19	4339	3625	714	1263	1169	94	157	118	39	544	456	88
1990		E	80	18										83	49	34	14	10	4		0			0			0	
1990		total													0			0			0			0			0	
1990	DSB	N		318	98	10	10		125	275		299	598		0		331	331		10	10		270	270		299	299	
1990	FS	N	26	1163		1974	882	978	1	1	609	34	201	26	23	3	1166	931	235	1978	1673	305	979	839	140	662	523	139
1990		E		2				5							0		2	2			0		5	5			0	
1990		TOTAL													0			0			0			0			0	
1990	JZ	N	3	846	210	523	399	16	308	660		133	474	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	NS	N		376		146	58	20	98	238		604	1592		0		374	312	62	146	110	36	118	97	21	597	470	127
1990	NSB	N		177	5	149	66	15	14	29	78	53	131		0		188	169	19	153	136	17	30	23	7	131	120	11
1990	OBB	N		458		710	453	77	15	30		223	795		0		456	409	47	701	620	81	93	82	11	222	201	21
1990		E	17	31		15		7						18	10	8	31	28	3	15	13	2	7	6	1		0	
1990		TOTAL													0			0			0			0			0	
1990	PKP	N	413	3983	1796	2508	276		39	39		1368	4068	286	100	186	3004	2268	736	2052	1706	346	34	24	10	1277	1076	201
1990		E	25	196					44	44				14	3	11	95	53	42		0		36	22	14		0	
1990		total													0			0			0			0			0	
1990	RENFE	L		694	191	593	332		150	433		629	1598		0		630	561	69	593	522	71	151	131	20	542	492	50
1990		E									6		12		0			0			0			0		6	5	1
1990		TOTAL													0			0			0			0			0	
1990	SJ	N		386		629	418	100				189	384		0		414	.	.	648	.	.	101	.	.	187	.	.
1990	BV	N		109											0		109	.	.		0			0			0	
1990	SNCB/NMB	N		659		381	175	24				663	1414		0		657	506	151	381	322	59	24	21	3	665	585	80
1990	SNCF	N		3356	428	2298	988	255	500	1165		995	4358		0		3308	3063	245	2234	2031	203	751	697	54	968	880	88
1990		E									14	4	12		0			0			0			0		18	18	
1990		TOTAL													0			0			0			0			0	
1990	VR	L		452	51	110	110					100	200		0		457	399	58	110	95	15	2	2	0	100	89	11
1990	TCDD	N	58	668	436	37	17	25	12	37	73	28	101	58	32	26	678	478	200	33	26	7	34	26	8	88	76	12
1991	BDZ	N	3	594	251	365	361	1	11	33		83	332	3	3		594	534	60	365	269	96	12	7	5	83	78	5
1991		E		43											0		43	36	7		0			0			0	
1991		total													0			0			0			0			0	
1991	BR	N	56	2243	949	263		84	895	2066	12	2405	7215	56	56		2243	1660	583	263	203	60	.	.	475	.	.	363
1991	CFF	N		273		1157	550				206	27	100		0		119	100	19	894	814	80		0		231	195	36
1991		E		4		15					14				0			0		10	9	1		0		15	13	2
1991		total													0			0			0			0			0	
1991	CFL	N		61		19			6	12		26	54		0		61	51	10	19	16	3	6	5	1	26	24	2
1991	CFR	L	12	26	12									12	.	.	26	.	.		0			0			0	
1991		N	948	2233	1485	1061	1060	135				6	36	948	.	.	2233	.	.	1061	.	.	135	.	.	6	.	.
1991		E	29	44										29	.	.	44	.	.		0			0			0	
1991		total													0			0			0			0			0	
1991	CH	N		190	85			71	30	101					0		190	105	85		0		101	39	62		0	
1991		E		43				40	37	77					0		43	21	22		0		77	37	40		0	
1991		TOTAL													0			0			0			0			0	
1991	CIE	L		126	18							40	80		0		126	87	39		0			0		40	38	2
1991	CP	L		254	42	54		35	45	116		149	475		0		254	219	35	54	48	6	80	71	9	149	141	8
1991		E		17				10	37	74					0		17	16	1		0		47	42	5		0	
1991		TOTAL													0			0			0			0			0	

A1.3.3.Tractive Stock- Stock and Power

Year	Railway	Rail-Gauge	Fleet Strength at end of year											Annual mean fleet strength														
			Steam Locomotives	Diesel Locomotives		Electric Locomotive		Diesel Railcars			Electric railcars			Steam Locomotives			Diesel Locomotive			Electric Locomotives			Diesel Railcars			Electric Railcars		
								Single unit	Permanently-coupled train sets		Single unit	Permanently-coupled train sets																
			Total Number	Total Number	Above 1500 KW	Total Number	Above 3000 KW	Total Number	Number	total number of	Total Number	Number	total number of	total	In Working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for
1991	CSD	L		31		21	21	5							0		32	28	4	21	18	3	5	4	1		0	
1991		N	15	2892		1575	1078	1188				108	108	13	13		2509	2179	330	1565	1388	177	1197	1056	141	108	91	17
1991		E	1	21							25			1	1		21	18	3		0			0		25	21	4
1991		total													0			0			0			0			0	
1991	DB	N		3406		2534	2098	114	355	786	29	1737	2355		0			0		2626	2394	232		0		1736	1601	135
1991		E		4				1							0			0			0			0			0	
1991		TOTAL													0		3416	3039	377		0		488	447	41		0	
1991	DR	L		14											0		14	6	8		0			0			0	
1991		N	91	3996	1231	1359	987	151	4	16	6	603	1206	164	154	10	4208	3640	568	1333	1246	87	156	120	36	577	515	62
1991		E	79	18				2						80	51	29	18	16	2		0		1	1			0	
1991		total													0			0			0			0			0	
1991	DSB	N		302	98	10	10		155	365		299	598		0		310	.	.	10	.	.	289	.	.	299	299	
1991	FS	N	26	1158		1986	1131	973	1	2	720	18	75	26	24	2	1167	913	254	1976	1624	352	976	810	166	725	581	144
1990	JZ	N	3	846	210	523	399	16	308	660		133	474	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
1991	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
1991	NS	N		345		141	58	19	97	235		619	1652		0		353	298	55	144	103	41	117	96	21	614	489	125
1991	NSB	N		177	5	147	66	15	13	28	77	53	130		0		177	151	26	149	133	16	29	22	7	131	121	10
1991	OBB	N	2	468		730	465	85	15	30		223	795		0		459	412	47	717	629	88	103	92	11	223	200	23
1991		E	18	30		15		9						17	8	9	30	25	5	15	12	3	7	6	1		0	
1991		TOTAL													0			0			0			0			0	
1991	PKP	N	216	3923	450	2477	276	28	5	10		1387	4162	156	49	107	2516	1823	693	1856	1508	348	28	21	7	1279	1111	168
1991		E	21	193				42						12	3	9	72	43	29		0		34	19	15		0	
1991		total													0			0			0			0			0	
1991	RENFE	L		638	190	592	372		150	433		547	1651		0		666	543	123	593	448	145	150	119	31	545	473	72
1991		E									6		12		0			0			0			0		6	5	1
1991		TOTAL													0			0			0			0			0	
1991	SJ	N		359		553	417	100	6	18		210	447		0		373	.	.	591	.	.	103	.	.	200	200	
1991	BV	N		105											0		105	105			0			0			0	
1991	SNCB/NMB	N		660		380	175	24				674	1436		0		653	544	109	381	326	55	24	21	3	669	598	71
1991	SNCF	N		3360	428	2307	1020	255	500	1165		1035	4658		0		3297	3022	275	2244	2037	207	748	686	62	1002	902	100
1991		E									14	4	12		0			0			0			0		18	18	
1991		TOTAL													0			0			0			0			0	
1991	VR	L		582	64	110	110					100	200		0		575	501	74	110	96	14		0		100	86	14
1991	TCDD	N	58	658	453	48	32	26	11	37	73	28	101	58	32	26	658	513	145	46	35	11	37	28	9	101	85	16
1992	BR	N		1756	1090	235	117	84	860	1925	15	1803	6629		0		1794	.	.	249	.	.	2000	.	.	6769	.	.
1992	CFL	N		61		19			6	12		30	62		0		61	49	12	19	17	2	6	5	1	30	28	2
1992	CH	N		191	86			71	30	101					0		191	97	94		0		101	34	67		0	
1992		E		43				40	42	82					0		43	12	31		0		82	33	49		0	
1992		TOTAL													0			0			0			0			0	
1992	CIE	L		126	18							40	80		0		126	76	50		0			0		40	38	2
1992	CP	L		239	42	54		35	45	116		153	491		0		239	204	35	54	48	6	80	71	9	153	145	8
1992		E		17				10	38	75					0		17	16	1		0		48	43	5		0	
1992		TOTAL													0			0			0			0			0	
1992	DB	N		3353		2537	2101	101	394	802	27	1779	2583		0			0		2704	2431	273		0		1781	1633	148
1992		E		6				1							0			0			0			0			0	
1992		TOTAL													0		3396	3002	394		0		479	437	42		0	
1992	DR	N		14											0		14	6	8		0			0			0	
1992	(=1991)	E	91	3996	1231	1359	987	151	4	16	6	603	1206	164	154	10	4208	3640	568	1333	1246	87	156	120	36	577	515	62
1992		TOTAL	79	18				2						80	51	29	18	16	2		0		1	1			0	
1992	DSB	N		286	98	10	10		177	431		299	598		0		294	.	.	10	.	.	329	.	.	299	.	.
1992	FS	N	27	1180		2001	1196	971	1	2	624	33	135	27	24	3	1166	918	248	1995	1632	363	973	811	162	648	503	145
1992	NS	N		340		166	87	19	97	235		616	1644		0		337	286	51	153	116	37	116	101	15	617	526	91
1992	RENFE	L		622	190	558	372		150	430		540	1640		0		630	547	83	575	440	135	150	121	29	543	471	72
1992		N				12	12					13	104		0			0			0			0			0	
1992		E										6	12		0			0			0			0		6	6	
1992		TOTAL													0			0			0			0			0	
1992	SNCB/NMB	N		653		378	174	24				663	1414		0		653	542	111	380	330	50	24	19	5	663	591	72
1992	SNCF	N		3354	427	2310	1055	254	499	1161		1044	4684		0		3320	3098	222	2250	2048	202	749	693	56	1030	933	97
1992		E									14	4	12		0			0			0			0		18	18	
1992		TOTAL													0			0			0			0			0	
1992	CFF	N		277		1173	583				204	27	100		0		120	103	17	905	826	79		0		230	195	35
1992		E		4		15					13				0			0		10	10	0		0		14	10	4
1992		total													0			0			0			0			0	
1992	NSB	N		177	5	147	50	14	14	28	79	53	132		0		177	164	13	147	129	18	28	24	4	136	130	6
1992	OBB	N		478		736	486	104	15	30		223	794		0		504	416	88	742	647	95	111	99	12	223	198	25
1992		E	19	29		15		9						17	8	9	29	24	5	15	12	3	9	7	2		0	
1992		TOTAL													0			0			0			0			0	
1992	BV (SJ)	N		83											0		83	83			0			0			0	
1992	SJ	N		370		484	377	73	7	21		231	501		0		372	.	.	519	.	.	87	.	.	221	.	.
1992	VR	L		561	62	110	110					100	200		0		571	.	.	110	98	12		0		100	86	14
1992	BC	L	339	1017	197	68	53		183	549		260	520	82	81	1	985	908	77	68	63	5	182	166	16	260	248	12
1992		N	58	26											0		26	25	1		0			0			0	
1992		TOTAL													0			0			0			0			0	
1992	BDZ	N	4	554	220	347	343	1	5	15		85	340	4	4		566	480	86	350	263	87	7	4	3	85	78	7
1992		E		42											0		42	34	8		0			0			0	
1992		TOTAL													0			0			0			0			0	
1992	CFR	L	12	26	12									12	.	.	26	.	.		0			0			0	
1992		N	936	2235	1440	1061	1060		133			6	36	936	.	.	2235	.	.	1061	.	.	133	.	.	6	.	.
1992		E	29	44										29	.	.	44	.	.		0			0			0	
1992		TOTAL													0			0			0			0			0	

A1.3.3.Tractive Stock- Stock and Power

Year	Railway	Rail-Gauge	Fleet Strength at end of year											Annual mean fleet strength														
			Steam Locomotives	Diesel Locomotives		Electric Locomotive		Diesel Railcars			Electric railcars			Steam Locomotives			Diesel Locomotive			Electric Locomotives			Diesel Railcars			Electric Railcars		
								Single unit	Permanently-coupled train sets		Single unit	Permanently-coupled train sets																
			Total Number	Total Number	Above 1500 KW	Total Number	Above 3000 KW	Total Number	Number	total number of	Total Number	Number	total number of	total	In Working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for
1992	CSD	L		28		42		5							0		30	26	4	42	38	4	5	4	1		0	
1992		N	18	2866		1614	692	1179				108	108	17	17		2879	2532	347	1065	896	169	1184	1035	149	108	78	30
1992		E	1	21								25	25	1	1		21	18	3		0			0		25	18	7
1992		TOTAL													0			0			0			0			0	
1992	EVR	L	35	119	7				58	146		64	129	35	35		115	88	27		0		58	51	7	64	63	1
1992	LDZ	L	75	355	81	1			67	200		190	394	57	56	1	303	281	22	1	1		67	61	6	190	178	12
1992		E		3											0		3	3			0			0			0	
1992		TOTAL													0			0			0			0			0	
1992	MAV	L		15											0		15	14	1		0			0			0	
1992		N	23	939		490	56	205	40	240		20	80	24	20	4	970	753	217	4937	4864	73	259	207	52	14	9	5
1992		E		49											0		19	14	5		0			0			0	
1992		TOTAL													0			0			0			0			0	
1992	PKP	N	108	3810	437	2404	274	19	5	10		1363	4094	67	11	56	2208	1492	716	1762	1354	408	22	12	10	1214	1044	170
1992		E	21	192				39						10	2	8	56	28	28		0		31	16	15		0	
1992		TOTAL													0			0			0			0			0	
1992	SZ	N	4	129	20	228		1	84	167		30	107	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1992	TCDD	N	58	653	451	52	36	26	11	37	72	28	100	58	18	40	653	498	155	52	35	17	37	20	17	101	79	22
1993	BR	N		1625	804	260	215	74	826	1792	18	1788	6584		0		1691	.	.	260	.	.	1873	.	.	6600	.	.
1993	CFL	N		61		19			6	12		30	62		0		61	50	11	19	15	4	6	5	1	30	28	2
1993	CH	N		191	86			71	30	.					0		191	86	105		0		101	50	51		0	
1993		E		43				40	46	.					0		43	18	25		0		86	50	36		0	
1993		TOTAL													0			0			0			0			0	
1993	CIE	L		112	18							40	80		0		112	76	36		0			0		40	36	4
1993	CP	L		239	42	60	8	35	45	116		166	539		0		239	213	26	60	56	4	80	75	5	166	154	12
1993		E		17				10	36	71					0		17	16	1		0		46	40	6		0	
1993		TOTAL													0			0			0			0			0	
1993	DB	N		3210		2499	2077	98	494	996	27	1805	2619		0			0		2704	2431	273		0		1781	1633	148
1993		E		6				1							0			0			0			0			0	
1993		TOTAL													0		3396	3002	394		0		479	437	42		0	
1993	DR	L		13											0		13	8	5		0			0			0	
1993	DR	N	48	2009	1143	1263	1040	151	3	12		641	1282	48	.	.	3437	.	.	1302	.	.	157	117	40	641	.	.
1993		E	53											53	38	15		0			0			0			0	
1993		TOTAL													0			0			0			0			0	
1993	DSB	N		286	98	22	22		187	461		303	606		0		277	.	.	16	.	.	361	.	.	301	.	.
1993	FS	N	25	1171		1934	1210	910	1	2	603	33	135	25	18	7	1172	931	241	1970	1672	298	931	798	133	642	523	119
1993	NS	N		342		203	134	19	97	235		549	1458		0		340	289	51	183	154	29	116	102	14	593	518	75
1993	RENFE	L		580	190	558	392		143	416		581	1736		0		601	516	85	556	433	123	147	122	25	560	509	51
1993		N				15	15					16	128		0			0		14	14			0		14	14	
1993		E										6	12		0			0			0			0		6	6	
1993		TOTAL													0			0			0			0			0	
1993	SNCB/NMI	N		663		377	174	24				633	1430		0		654	548	106	378	328	50	24	19	5	646	580	66
1993	SNCF	N		3140	425	2250	1071	253	497	1154		1098	5072		0		3184	2965	219	2191	1982	209	746	689	57	1059	944	115
1993		E									14	4	12		0			0			0			0		18	18	
1993		TOTAL													0			0			0			0			0	
1993	CFF	N		277		1220	650				203	27	100		0		120	101	19	950	851	99		0		228	193	35
1993		E		4		15					13				0			0		10	9	1		0		13	10	3
1993		total													0			0			0			0			0	
1993	NSB	N		159	5	141	66	13	15	.		145	.		0		172	.	.	144	.	.	28	.	.	189	.	.
1993	OBB	N		463		722	496	114	12	24		223	792		0		467	412	55	721	648	73	121	110	11	223	199	24
1993		E	16	29		15		9						17	9	8	29	24	5	15	12	3	9	7	2		0	
1993		TOTAL													0			0			0			0			0	
1993	BV	N		94											0		94	.	.		0			0			0	
1993	SJ	N		271		452	376	57	9	27		249	611		0		321	.	.	468	.	.	65	.	.	240	.	.
1993	VR	L		559	62	111	111					100	200		0		560	496	64	110	98	12		0		100	86	14
1993	BC	L	94	951	194	68	53		187	561		260	520	94	94	0	959	889	70	68	63	5	187	171	16	260	247	13
1993		N		24											0		25	25	0		0			0			0	
1993		TOTAL													0			0			0			0			0	
1993	BDZ	N		550	218	347	343	1	3	10		85	340		0		554	341	213	347	230	117	4	3	1	85	64	21
1993		E		42											0		42	20	22		0			0			0	
1993		TOTAL													0			0			0			0			0	
1993	CD	N	14	1888		1067	426	787				83	167	14	14		2041	1874	167	1133	917	216	800	599	201	156	110	46
1993		E	1	15		0	0	0						1	1		15	15			0			0			0	
1993		TOTAL													0			0			0			0			0	
1993	CFR	L	10	29	11									10	.	.	29	.	.		0			0			0	
1993		N	929	2226	1441	1061	1060	133				6	36	929	.	.	2226	.	.	1061	.	.	133	.	.	6	6	
1993		E	28	44										28	.	.	44	.	.		0			0			0	
1993		TOTAL													0			0			0			0			0	
1993	EVR	L	28	120	11				60	152		56	113	28	28		117	87	30		0		60	49	11	56	54	2
1993	LDZ	L	72	338	77	1			65	194		189	392	44	43	1	294	274	20	1	1		65	56	9	189	170	19
1993		E		3											0		3	3			0			0			0	
1993		TOTAL													0			0			0			0			0	
1993	MAV	L		15											0		15	14	1		0			0			0	
1993		N	24	906		489	56	220	44	249		20	80	23	10	13	924	672	252	490	370	120	259	208	51	15	10	5
1993		E	2	45				1						2	2		45	31	14		0		1	1			0	
1993		TOTAL													0			0			0			0			0	
1993	PKP	N	85	3719	433	2341	248	16	8	16		1341	4030	40	7	33	2306	1505	801	1837	1384	453	20	10	10	1216	1033	183
1993		E	20	182				39						30	22	8	57	28	29		0		30	16	14		0	
1993		TOTAL													0			0			0			0			0	
1993	SZ	N	4	123	20	95			83	166		30	107	4	3	1	125	101	24	95	86	9	83	68	15	30	26	4
1993	ZSR	L		29		42		5							0		29	29		42	42		5	5			0	

A1.3.3.Tractive Stock- Stock and Power

Year	Railway	Rail-Gauge	Fleet Strength at end of year: Steam Locomotives	Diesel Locomotives		Electric Locomotive		Diesel Railcars: Single unit	Diesel Railcars: Permanently-coupled train sets		Electric railcars: Single unit	Electric railcars: Permanently-coupled train sets		Annual mean fleet strength: Steam Locomotives			Diesel Locomotive			Electric Locomotives			Diesel Railcars			Electric Railcars		
			Total Number	Total Number	Above 1500 KW	Total Number	Above 3000 KW	Total Number	Number	total number of	Total Number	Number	total number of	total	In Working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for
1993		N	1	784		538	320	303				24	96	1	1		787	698	89	538	471	67	301	241	60	24	14	10
1993		E		6							2	25			0		6	6			0			0		25	22	3
1993		TOTAL													0			0			0			0			0	
1993	TCDD	N	58	644	444	59	43	46	11	.	72	28	100	58	14	44	648	481	167	56	37	19	39	19	20	100	77	23
1994	BR	N		1619	795	258	215	74	787	1720		1743	6403		0		1622	.	.	259	.	.	861	.	.	1743	.	.
1994	Railtrack	N		.										.	.	.		0			0			0			0	
1994	CFL	N		57		19			2	4		32	68		0		57	48	9	19	15	4	2	2		32	30	2
1994	CH	N		191	86			71	30	.					0		191	84	107		0		101	60	41		0	
1994		E		43				40	47	.					0		43	29	14		0		87	64	23		0	
1994		TOTAL													0			0			0			0			0	
1994	CIE	L		112	28				8	17		40	80		0		112	90	22		0		9	8	1	40	38	2
1994	CP	L		231	42	71	19	35	45	116		180	595		0		231	207	24	71	66	5	80	73	7	180	175	5
1994		E		10				10	38	82					0		10	10			0		48	44	4		0	
1994		TOTAL													0			0			0			0			0	
1994	DBAG	N		6300	676	3600	3091	230	615	1339	27	2787	3546		0			0		3117	2805	312	610	555	55	1859	1720	139
1994		E		10											0			0			0			0			0	
1994		TOTAL													0		4239	3806	433		0			0			0	
1994	DSB	N		261		22				371		312	966		0		261	.	.	22	.	.	.	.	.	312	.	.
1994	FS	N	23	1171		2015	1234	844	1	2	597	35	153	25	16	9	1171	917	254	2010	1660	350	874	754	120	633	525	108
1994	NS	N		333		200	139	19	97	235		561	1488		0		333	292	41	202	182	20	116	106	10	559	496	63
1994	RENFE	L		580	188	533	400		136	402		581	1800		0		580	502	78	543	441	102	140	118	22	581	533	48
1994		N				15	15					16	128		0			0		15	15			0		16	16	
1994		E										6	12		0			0			0			0		6	6	
1994		TOTAL													0			0			0			0			0	
1994	SNCB/NM	N		587		376	174	20				624	1456		0		621	521	100	377	320	57	21	15	6	629	567	62
1994	SNCF	N		3082	421	2203	1093	253	491	1125		1136	5469		0		2932	2738	194	2124	1919	205	744	691	53	1101	990	111
1994		E									14	4	12		0			0			0			0		18	18	
1994		TOTAL													0			0			0			0			0	
1994	CFF/SBB/F	N		271		1224	696				213	27	95		0		271	246	25	1224	1103	121		0		233	197	36
1994		E		4		14					11				0		4	4	0	15	14	1		0		11	10	1
1994		total													0			0			0			0			0	
1994	NSB	N		131	5	138	54	13	15	43		145	405		0		138	.	.	141	.	.	28	.	.	146	.	.
1994	OBB	N		459		721	513	111	15	66		223	792		0		456	405	51	717	651	66	127	114	13	223	199	24
1994		E	16	29		15		11						16	9	7	29	25	4	15	12	3	9	8	1		0	
1994		TOTAL													0			0			0			0			0	
1994	BV	N		100		2									0		97	.	.	2	2			0			0	
1994	SJ	N		251		450	374	83	9	27		263	691		0		261	.	.	451	.	.	70	.	.	266	.	.
1994	VR	L		554	62	111	111					100	200		0		557	497	60	111	98	13		0		100	85	15
1994	BC	L	100	904	194	68	53		96	584		260	520	93	92	1	927	857	70	68	63	5	93	76	17	260	247	13
1994		N		24											0		24	23	1		0			0			0	
1994		TOTAL													0			0			0			0			0	
1994	BDZ	N		494	192	348	319	1	3	9		83	332		0		517	336	181	365	256	109	4	2	2	83	60	23
1994		E		36											0		37	22	15		0			0			0	
1994		TOTAL													0			0			0			0			0	
1994	CD	N	15	1839		1059	382	791				83	498	15	14	1	1822	1416	406	1050	856	194	789	636	153	85	67	18
1994		E		15											0		15	12	3		0			0			0	
1994		TOTAL													0			0			0			0			0	
1994	CFR	L	10	29	11									10	.	.	29	.	.		0			0			0	
1994		N	929	2226	1441	1060	1060	133				6	36	929	.	.	2226	.	.	1060	.	.	133	.	.	6	.	.
1994		E	28	44										28	.	.	44	.	.		0			0			0	
1994		TOTAL													0			0			0			0			0	
1994	EVR	L	27	120	11				26	150		52	105	27	27		115	90	25		0		27	16	11	55	52	3
1994	LDZ	L	58	310	68	1			65	194		189	392	40	40		294	272	22	1	1		65	52	13	189	148	41
1994		E		3											0		3	3			0			0			0	
1994		TOTAL													0			0			0			0			0	
1994	MAV	L		15											0		15	14	1		0			0			0	
1994		N	23	834		482	1	217	44	261		19	76	23	10	13	875	683	192	483	379	104	259	210	49	19	15	4
1994		E	2	43				1		1				2	2		24	24			0		1	1			0	
1994		TOTAL													0			0			0			0			0	
1994	PKP	N	86	3665	429	2272	272	10	9	19		1345	4050	30	6	24	2467	1506	961	1850	1403	447	16	7	9	1146	1024	122
1994		E	17	172				38						11	3	8	62	25	37		0		30	15	15		0	
1994		TOTAL													0			0			0			0			0	
1994	SZ	N	5	123	20	95			83	166		30	107	5	5		123	109	14	95	84	11	83	74	9	30	26	4
1994	ZSR	L		29		42		5							0		29	29		42	42		5	5			0	
1994		N	1	779		536	213	302				48	104	1	1		779	671	108	536	459	77	302	228	74	48	36	12
1994		E		6							25				0		6	6			0			0		25	25	
1994		TOTAL													0			0			0			0			0	
1994	TCDD	N	58	642	422	59	43	57	11	68	71	28	99	58	11	47	643	456	187	59	35	24	65	38	27	100	78	22
1995	BR	N		350	.	250	.	74	750	1640		.	4995		0		.	.	.	.	.	.	.	.	.	.	.	.
1995	Railtrack	N		.											0		.	.	.		0			0			0	
1995	CFL	N		57		19			2	4		32	68		0		57	49	8	19	16	3	2	2		32	30	2
1995	CH	N		191	86			71	38	.					0		191	84	107		0		109	98	11		0	
1995		E		43				40	47	.					0		43	29	14		0		87	64	23		0	
1995		TOTAL													0			0			0			0			0	
1995	CIE	L		114	50				8	17		40	80		0		114	94	20		#VALOR!		17	16	1	40	38	2
1995	CP	L		224	42	81	29	35	45	116		190	634		0		224	195	29	81	73	8	80	74	6	190	176	14
1995		E		10				10	38	82					0		10	10			0		48	45	3		0	
1995		TOTAL													0			0			0			0			0	
1995	DBAG	N	31	5350	600	3569	3090	165	702	1418	4	1913	2717	.	.	.		0		3754	3348	406	704	643	61	1909	1777	132
1995		E	22	7										.	.	.		0			#VALOR!			0			0	

A1.3.3.Tractive Stock- Stock and Power

Year	Railway	Rail-Gauge	Fleet Strength at end of year											Annual mean fleet strength														
			Steam Locomotives	Diesel Locomotives		Electric Locomotive		Diesel Railcars			Electric railcars			Steam Locomotives			Diesel Locomotive			Electric Locomotives			Diesel Railcars			Electric Railcars		
								Single unit	Permanently-coupled train sets		Single unit	Permanently-coupled train sets																
			Total Number	Total Number	Above 1500 KW	Total Number	Above 3000 KW	Total Number	Number	total number of	Total Number	Number	total number of	total	In Working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for
1995		TOTAL													0		5566	5106	460		0			0			0	
1995	DSB	N		255	98	22	22		187	558		319	645		0		.	.	.	.	.	.	.	.	.	.	.	.
1995	FS	N	23	1168		2033	1291	838			572	41	225	23	15	8	1169	925	244	2012	1697	315	840	719	121	616	507	109
1995	NS 94	N		333		200	139	19	97	235		561	1488		0		333	292	41	202	182	20	116	106	10	559	496	63
1995	OBB	N		454		703	524	116	13	45		221	790		0		442	395	47	680	621	59	123	110	13	223	201	22
1995		E	16	24		15		17				3	7	15	9	6	27	23	4	15	12	3	15	13	2	2	2	
1995		TOTAL													0			0			0			0			0	
1995	RENFE	L		580	176	486	427		136	402		603	1869		0		580	502	78	510	416	94	136	117	19	592	554	38
1995		N				15	15					17	136		0			0		15	15			0		17	17	
1995		E										6	12		0			0			0			0		6	6	
1995		TOTAL													0			0			0			0			0	
1995	SJ	N		245		428	366	82	9	27		281	713		0		248	.	.	438	.	.	81	.	.	272	.	.
1995	BV	N		101		2									0		100	100		2	2			0			0	
1995	SNCB/NMI	N		601		376	174	20				577	1371		0		593	508	85	376	322	54	20	15	5	590	529	61
1995	SNCF	N		3085	420	2210	1116	253	480	1085		1170	5852		0		2980	2774	206	2134	1915	219	738	683	55	1139	1026	113
1995		E									14	4	12		0			0			0			0		18	18	
1995		TOTAL													0			0			0			0			0	
1995	VR	L		545	60	111	111					100	200		0		550	484	66	111	99	12		0		100	85	15
1995	RHK	L		.	.										0			0			0			0			0	
1995	CFF/SBB/F	N		262		1192	716				220	25	85		0		267	241	26	1211	1108	103		0		238	201	37
1995		E		4		14					11				0		4	4	0	14	13	1		0		11	9	2
1995		total													0			0			0			0			0	
1995	NSB	N		120	5	115	54	7	15	42		123	366		0		118	.	.	127	.	.	26	.	.	138	.	.
1995	BC	L	100	904	194	68	53		96	584		260	520	93	92	1	927	857	70	68	63	5	93	76	17	260	247	13
1995		N		24											0		24	23	1		0			0			0	
1995		TOTAL													0			0			0			0			0	
1995	BDZ	N	3	495	193	342	319	1	3	9		83	332	3	3		495	389	106	339	269	70	3	3		83	67	16
1995		E		36											0		36	36			0			0			0	
1995		TOTAL													0			0			0			0			0	
1995	CD	N	16	1758	1	1097	514	786				83	369	16	14	2	1760	1520	240	1085	987	98	786	631	155	83	68	15
1995		E		15											0		15	11	4		0			0			0	
1995		TOTAL													0			0			0			0			0	
1995	CFR	L	9	29	11									.	.		9	9			0			0			0	
1995		N	917	2225	1441	1060	1060	133				6	36	.	.	.	454	.	.	579	.	.	55	.	.	0	.	.
1995		E	27	44										.	.		15	15			0			0			0	
1995		TOTAL													0			0			0			0			0	
1995	EVR	L	27	117	9				56	141		53	106	17	17		116	93	23		0		42	42		53	51	2
1995	LDZ	L	46	302	66	1			63	191		183	376	44	44		303	267	36	1	1		63	50	13	183	139	44
1995		E		3											0		3	3			0			0			0	
1995		TOTAL													0			0			0			0			0	
1995	MAV	L		15											0		15	12	3		0			0			0	
1995		N	22	763		480	56	216	44	260		21	76	22	10	12	819	523	296	481	350	131	262	209	53	20	12	8
1995		E	2	41				1		1				2	1	1	41	23	18		0		1	1	0		0	
1995		TOTAL													0			0			0			0			0	
1995	PKP	L		105											0			0			0			0			0	
1995		N	95	3488	421	2228	268	8	9	19		1319	3983	44	5	39	2526	1410	1116	1785	1412	373	13	5	8	1119	1012	107
1995		E	17	161				36						10	2	8	63	21	42		0		28	14	14		0	
1995		TOTAL													0			0			0			0			0	
1995	SZ	N	5	123	20	95			83	166		30	107	5	5		123	109	14	95	84	11	83	74	9	30	26	4
1995	ZSR	L		25		42		5							0		25	25		42	42		5	5			0	
1995		N	1	744		532	212	295				48	104	1	1		744	641	103	532	456	76	295	223	72	48	36	12
1995		E		6							25				0		6	6			0			0		25	25	
1995		TOTAL													0			0			0			0			0	
1995	TCDD	N	50	626	414	59	43	49	11	60	70	28	98	50	13	37	634	449	185	59	35	24	60	34	26	99	77	22
1996	ATOC	N		.	.	.	.	.	.	.	.	.	.		0		.	.	.	.	.	.	.	.	.	.	.	.
1996	Railtrack	N		.											0		.	.	.		0			0			0	
1996	RfD Ltd	N		.	.	.	.	.	.	.	.	.	.		0		.	.	.	.	.	.	.	.	.	.	.	.
1996	BK	N		.	.	.	.	.	.	.	.	.	.		0		.	.	.	.	.	.	.	.	.	.	.	.
1996	CFL	N		57		19			2	4		32	68		0		57	50	7	19	17	2	2	2		32	30	2
1996	CH	N		191	86			71	38	109					0		191	96	95		0		109	44	65		0	
1996		E		43				40	47	87					0		43	27	16		0		87	27	60		0	
1996		TOTAL													0			0			0			0			0	
1996	CIE	L		114	50				8	17		40	80		0		114	94	20		0		8	.	.	40	.	.
1996	CP	L		220	42	82	30	35	45	116		195	647		0		220	182	38	82	72	10	80	73	7	195	182	13
1996		E		10				12	38	82					0		10	9	1		0		50	47	3		0	
1996		TOTAL													0			0			0			0			0	
1996	DB AG	N	31	5095	1329	3675	3223	141	726	1276		722	2560	31	.	.	5229	4768	461	3682	3354	328	.	.	.	1861	1776	85
1996		E	22	6										.	.	.	.	.			0		.	.	.		0	
1996		TOTAL													0			0			0			0			0	
1996	DSB	N		121	.	22	.		186	461		337	754		0		.	.	.	.	.	.	.	.	.	.	.	.
1996	FS SpA	N	24	1165		1951	.	833			529	53	357	24	17	7	1166	968	198	1992	1664	328	835	692	143	550	451	99
1996	NS	N		369	3	186	38	19	117	275		596	1634		0		309	263	46	186	146	40	122	104	18	596	524	72
1996	OBB	N		450		702	527	116	13	26		221	790		0		451	405	46	702	635	67	107	85	22	219	215	4
1996		E	19	24		15		19				3	7	19	17	2	24	21	3	15	12	3	17	15	2	3	3	
1996		TOTAL													0			0			0			0			0	
1996	RENFE	L	0	498	168	472	433	0	128	383	0	635	1977	0	0		539	465	74	479	392	87	132	113	19	619	583	36
1996		N	0	0	0	11	11	0	0	0	0	18	144	0	0			0		13	13			0		18	18	
1996		E	0	0	0	0	0	0	0	0	0	6	12	0	0			0			0			0		6	6	
1996		TOTAL													0			0			0			0			0	
1996	SJ	N		241		395	356	59	17	51		277	709		0		243	.	.	411	.	.	74	.	.	279	.	.

A1.3.3.Tractive Stock- Stock and Power

Year	Railway	Rail-Gauge	Fleet Strength at end of year: Steam Locomotives	Diesel Locomotives		Electric Locomotive		Diesel Railcars: Single unit	Diesel Railcars: Permanently-coupled train sets		Electric railcars: Single unit	Electric railcars: Permanently-coupled train sets		Annual mean fleet strength: Steam Locomotives			Diesel Locomotive			Electric Locomotives			Diesel Railcars			Electric Railcars		
			Total Number	Total Number	Above 1500 KW	Total Number	Above 3000 KW	Total Number	Number	total number of	Total Number	Number	total number of	total	In Working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for
1996	BV	N		.		.									0		.	.	.	.	.	.		0			0	
1996	SNCB/NMB	N		591		376	174	20				586	1396		0		594	468	126	376	312	64	20	14	6	575	496	79
1996	SNCF	N		3027	418	2219	1146	222	509	1365		1203	6131		0		2941	2715	226	2133	1937	196	727	675	52	1179	1084	95
1996		E									14	4	12		0			0			0			0		18	18	
1996		TOTAL													0			0			0			0			0	
1996	VR	L		535	54	113	113					100	200		0		540	472	68	113	100	13		0		100	88	12
1996	RHK	L													0			0			0			0			0	
1996	CFF/SBB/F	N		261		1133	732				224	25	85		0		222	199	23	1141	1033	108		0		222	196	26
1996		E		4		13					11				0		4	4	0	13	12	1	.	.	.	11	9	2
1996		total													0			0			0			0			0	
1996	NSB BA	N		64	12	101	56		15	30		119	354		0		116	.	.	104	.	.	20	.	.	120	.	.
1996	JBV	N		.	.	.	.								0		.	.	.	.	.	.		0			0	
1996	BC	L	.	.	.	.	.		.	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1996		N		.											0		.	.	.		0			0			0	
1996		TOTAL													0			0			0			0			0	
1996	BDZ	N		448	181	335	312	1	3	9		83	332		0		472	307	165	338	237	101	3	3		83	54	29
1996		E		28											0		32	21	11		0			0			0	
1996		TOTAL													0			0			0			0			0	
1996	CD	N	16	1715	1	1091	508	803				83	369	16	12	4	1715	1286	429	1087	870	217	784	588	196	83	66	17
1996		E		14											0		15	11	4		0			0			0	
1996		TOTAL													0			0			0			0			0	
1996	CFR	L	9	29	11									.	.	.	9	.	.		0			0			0	
1996		N	879	2224	1441	1060	1060	132				6	36	.	.	.	454	.	.	579	.	.	55	.	.	.	.	.
1996		E	27	44										.	.	.	15	.	.		0			0			0	
1996		TOTAL													0			0			0			0			0	
1996	EVR	L	19	116	9				52	137		53	106	15	15		115	105	10		0		55	41	14	53	52	1
1996	LDZ	L	26	295	59	1			56	170		171	352	28	28		301	260	41	1	1		56	48	8	171	138	33
1996		E		3											0		3	3			0			0			0	
1996		TOTAL													0			0			0			0			0	
1996	MAV Rt.	L		15											0		15	15			0			0			0	
1996		N	22	773		480	56	0	281	281		24	.	20	20		726	691	35	476	445	31	273	235	38	23	20	3
1996		E	2	41				1							0		41	41			0			0			0	
1996		TOTAL													0			0			0			0			0	
1996	PKP	L		105											0		.	.	.		0			0			0	
1996		N	94	3384	408	2186	268	3	12	27		1309	3955	51	4	47	2530	1353	1177	1761	1424	337	11	7	4	1122	1005	117
1996		E	17	150				36						9	2	7	56	22	34		0		21	10	11		0	
1996		TOTAL													0			0			0			0			0	
1996	SZ	N	5	110	20	95			83	166		30	107	5	5		110	69	41	95	57	38	83	57	26	30	22	8
1996	ZSR	L		27		42	42	2							0		26	21	5	42	37	5	2	1	1		0	
1996		N	1	696		524	460	263				48	108	1	1		701	604	97	567	499	68	263	217	46	.	.	.
1996		E		6							25	25	62		0		6	5	1		0			0		25	21	4
1996		TOTAL													0			0			0			0			0	
1996	TCDD	N	50	605	401	59	43	46	10	56	71	28	98	50	8	42	614	441	173	59	39	20	58	38	20	99	86	13
1997	ATOC	N		.	.	.	.	.	.	.	.	.	.		0		.	.	.	.	.	.	.	.	.	.	.	.
1997	EW&S	N		.	.	.	.	.	.			.			0		.	.	.	.	.	.	.	.	.	.	.	.
1997	BK	N		7	.	.	.	8	.	.	.	.	.		0		.	.	.	.	.	.	.	.	.	.	.	.
1997	CFL	N		56		18			2	4		32	68		0		46	40	6	19	17	2	2	2		30	28	2
1997	CH	N	30	191	86	6	6	111	90	201				30	1	29	191	119	72	6	0	6	111	79	32		0	
1997		E	60	43				81	63	144				60	3	57	43	35	8		0		81	62	19		0	
1997		TOTAL													0			0			0			0			0	
1997	CIE	L		110	50				8	17		40	80		0		110	88	22		0		8	.	.	40	.	.
1997	CP	L		207	42	82	30	35	44	113		195	647		0		207	173	34	82	66	16	79	65	14	195	177	18
1997		E		7				12	36	78					0		7	6	1		0		48	46	2		0	
1997		TOTAL													0			0			0			0			0	
1997	DB AG	L		7											0		7	7			0			0			0	
1997		N	31	4807	1293	3747	3304	138	652	1342		753	1951	31	.	.	5018	4448	570	3711	3528	183	1309	1257	52	2705	2699	6
1997		E	22	6										22	.	.	6	.	.		0			0			0	
1997		TOTAL													0			0			0			0			0	
1997	DSB	N		121	.	22	.		.	.		.	.		0		.	.	.	.	.	.	.	.	.	.	.	.
1997	FS SpA	N	22	1167		1924	.	836			529	77	662	22	.	.	1165	.	.	1938	1605	333	835	598	237	529	287	242
1997	NS N. V.	N		317	.	178	.	658	.	.	.	.	.		#VALOR!		317	.	.	178	.	.	.	.	.	.	.	.
1997	OBB	N		445		702	527	110	10	20		221	790		0		448	390	58	702	625	77	112	104	8	219	215	4
1997		E	17	24		15		19				3	7	17	.	.	24	21	3	15	12	3	17	15	2	3	3	
1997		TOTAL													0			0			0			0			0	
1997	RENFE	L		500	165	461	435		135	394		627	1959		0		499	428	71	467	375	92	132	119	13	631	591	40
1997		N				13	11					18	144		0			0		12	12			0		18	18	
1997		E										5	10		0			0			0			0		5	0	5
1997		TOTAL													0			0			0			0			0	
1997	BV	N		105		.									0		.	.	.	.	.	.		0			0	
1997	MTAB	N				31	.								0			0		.	.	.		0			0	
1997	SJ	N		213		370	347	60	18	54		281	749		0		224	.	.	370	.	.	77	.	.	279	.	.
1997	SNCB/NMB	N		575		375	173	19				620	1609		0		584	473	111	375	322	53	20	15	5	600	525	75
1997	SNCF	N		3006	417	2151	1154	221	517	1376		1246	6416		0		2897	2654	243	2095	1901	194	717	661	56	1211	1102	109
1997		E									14	9	18		0			0			0			0		32	32	
1997		TOTAL													0			0			0			0			0	
1997	VR	L		645	.	.	.					102	212		0		.	.	.	.	.	.		0		.	.	.
1997	CFF/SBB/F	N		258		1098	737				215	22	77		0		.	.	.	.	.	.	.	.	.	.	.	.
1997		E		4		13					11				0		.	.	.	.	.	.	.	.	.	.	.	.
1997		total													0			0			0			0			0	
1997	NSB BA	N		104	37	95	70		15	30		119	333		0		111	.	.	103	.	.	15	.	.	119	.	.

A1.3.3.Tractive Stock- Stock and Power

Year	Railway	Rail-Gauge	Fleet Strength at end of year: Steam Locomotives Total Number	Diesel Locomotives Total Number	Diesel Locomotives Above 1500 KW	Electric Locomotive Total Number	Electric Locomotive Above 3000 KW	Diesel Railcars Single unit Total Number	Diesel Railcars Permanently-coupled train sets Number	Diesel Railcars Permanently-coupled train sets total number of	Electric railcars Single unit Total Number	Electric railcars Permanently-coupled train sets Number	Electric railcars Permanently-coupled train sets total number of	Annual mean fleet strength: Steam Locomotives total	Steam Locomotives In Working	Steam Locomotives Out-of Service for	Diesel Locomotive total	Diesel Locomotive In working	Diesel Locomotive Out-of Service for	Electric Locomotives total	Electric Locomotives In working	Electric Locomotives Out-of Service for	Diesel Railcars total	Diesel Railcars In working	Diesel Railcars Out-of Service for	Electric Railcars total	Electric Railcars In working	Electric Railcars Out-of Service for
1997	JBV	N													0			0			0			0			0	
1997	BC	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997		TOTAL													0			0			0			0			0	
1997	BDZ	N		417	169	322	299	1	3	9		85	340		0		324	239	85	228	182	46	3	3		68	13	55
1997		E		28											0		17	11	6		0			0			0	
1997		TOTAL													0			0			0			0			0	
1997	CD	N	18	1720	1	1085	509	811				83	369	18	0	18	1717	1543	174	1088	985	103	806	781	25	83	82	1
1997		E		15											0		15	15			0			0			0	
1997		TOTAL													0			0			0			0			0	
1997	CFR	L	9	29	11									.	.	.	9	.	.		0			0			0	
1997		N	595	2223	1441	1061	1061	133				6	36	.	.	.	454	.	.	579	.	.	35	.	.	0	.	.
1997		E	23	44										.	.	.	15	.	.		0			0			0	
1997		TOTAL													0			0			0			0			0	
1997	EVR	L	2	114	9				44	119		41	83	2	2		113	99	14		0		44	38	6	41	.	.
1997	LDZ	L	22	286	53			1	55	165		161	333	20	20		296	255	41		0		55	49	6	161	133	28
1997		E		5											0		5	5			0			0			0	
1997		TOTAL													0			0			0			0			0	
1997	MAV Rt.	L		15											0		14	9	5		0			0			0	
1997		N	13	704		419	53	0	291	291		24	.	15	0	15	691	623	68	471	396	75	281	256	25	24	21	3
1997		E	2	35				1						2	0	2	35	33	2		0		1	1			0	
1997		TOTAL													0			0			0			0			0	
1997	PKP	L		107											0		79	50	29		0			0			0	
1997		N	95	3348	396	2163	267	3	12	27		1289	3924	59	4	55	2699	1317	1382	1849	1404	445	11	5	6	1194	989	205
1997		E	17	148				34						13	2	11	55	18	37		0		16	7	9		0	
1997		TOTAL													0			0			0			0			0	
1997	SZ	N	5	110	20	95			83	166		30	107	5	4	1	110	59	51	95	59	36	83	57	26	30	22	8
1997	ZSR	L		27		42	42	5							0		27	21	6	42	36	6	5	3	2		0	
1997		N	1	693		521	457	297				48	104	1	1		695	599	96	523	458	65	297	252	45	48	28	20
1997		E		6							25				0		6	5	1		0			0		25	22	3
1997		TOTAL													0			0			0			0			0	
1997	TCDD	N	50	603	409	60	44	49	10	59	71	28	98	50	8	42	602	445	157	60	37	23	58	40	18	97	86	11
1998	ATOC	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	EW&S	N		.	.	.	.								0		.	.	.	.	.			0			0	
1998	CFL	N		56		23			2	4		32	68		0		51	47	4	21	19	2	2	2		30	27	3
1998	CH	N	30	217	102	6	6	111	90	.				30	1	29	217	119	98	6	0	6	201	169	32		0	
1998		E	60	43				81	63	.				60	3	57	43	35	8		0		81	62	19		0	
1998		TOTAL													0			0			0			0			0	
1998	CIE	L		110	50				8	17		40	80		0		110	91	19		0		8	.	.	40	.	.
1998	CP	L		198	42	82	30	35	44	113		204	473		0		198	162	36	82	65	17	79	68	11	204	179	25
1998		E		7				12	36	78					0		7	7			0		48	45	3		0	
1998		TOTAL													0			0			0			0			0	
1998	DB AG	L	37	4065	1454	3773	3383	133	828	1391	7	643	1929	37	.	.	4436	.	.	3760	.	.	.	.	.	.	.	.
1998		N	16	6										16	.	.	6	.	.		0			0			0	
1998		E													0			0			0			0			0	
1998		TOTAL													0			0			0			0			0	
1998	GVG	N						.	.	.	.	.	.		0			0			0		.	.	.	.	.	.
1998	DSB	N		121	.	22	.		.	.		.	.		0		.	.	.	.	.	.	.	.	.	.	.	.
1998	FS SpA	N	23	1165	.	1876	.	818			550	80	690	22	.	.	1166	.	.	1900	.	.	827	.	.	539	.	.
1998	NS N. V.	N		183	.	147	.	.	.	.	.	.	.		0		183	.	.	178	.	.	.	.	.	.	.	.
1998	OBB	N		443		700	529	100	10	20	2	221	750		0		444	378	66	703	623	80	102	94	8	219	215	4
1998		E		20		15		19				3	7		0		22	19	3	15	12	3	17	15	2	2	1	1
1998		TOTAL													0			0			0			0			0	
1998	RENFE	L		483	104	438	423		147	400		595	1878		0		492	427	65	450	352	98	141	128	13	611	576	35
1998		N				13	11					18	144		0			0		13	13			0		18	18	
1998		E										5	10		0			0			0			0		5	.	.
1998		TOTAL													0			0			0			0			0	
1998	FEVE	E		77	.				.	.		.	.		0		.	.	.		0		.	.	.	.	.	.
1998	FGC	N.E		.	.	.	.		.	.		.	.		0		.	.	.	.	.	.	.	.	.	.	.	.
1998	BV 97	N		105		.									0		.	.	.	.	.	.		0			0	
1998	BK 97	N		7	.	2	.	8							0		.	.	.	.	.	.	.	.	.		0	
1998	MTAB 97	N		6		23	.								0		.	.	.	.	.	.		0			0	
1998	SJ	N		237		376	359	40	20	60		281	750		0		225	.	.	373	.	.	69	.	.	281	.	.
1998	SNCB/NMI	N		570		372	173	17				638	1699		0		570	462	108	374	318	56	17	13	4	634	562	72
1998	SNCF	N		2999	417	2126	1165	210	531	1350		1314	6675		0		2877	2584	293	2085	1883	202	725	670	55	1253	1137	116
1998		E									14	9	18		0			0			0			0		32	32	
1998		TOTAL													0			0			0			0			0	
1998	VR	L		512	40	129	129					102	212		0		517	457	60	127	115	12		0		102	90	12
1998	CFF/SBB/F	N		271		1092	745				215	21	69		0		273	238	35	1096	1022	74		0		215	202	13
1998		E		4		13					11				0		4	4	0	13	12	1		0		11	9	2
1998		total													0			0			0			0			0	
1998	JBV	N													0			0			0			0			0	
1998	MTAS	N				.	.								0			0		.	.	.		0			0	
1998	NSB BA	N		105	37	92	82		15	30		118	331		0		104	.	.	93	.	.	15	.	.	118	.	.
1998	BC	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	BDZ	N		387	152	305	283	1	3	9		80	320		0		402	291	111	313	236	77	3	3		80	57	23
1998		E		23											0		26	23	3		0			0			0	
1998		TOTAL													0			0			0			0			0	

A1.3.3.Tractive Stock- Stock and Power

Year	Railway	Rail-Gauge	Fleet Strength at end of year											Annual mean fleet strength														
			Steam Locomotives	Diesel Locomotives		Electric Locomotive		Diesel Railcars			Electric railcars			Steam Locomotives			Diesel Locomotive			Electric Locomotives			Diesel Railcars			Electric Railcars		
								Single unit	Permanently-coupled train sets		Single unit	Permanently-coupled train sets																
			Total Number	Total Number	Above 1500 KW	Total Number	Above 3000 KW	Total Number	Number	total number of	Total Number	Number	total number of	total	In Working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for
1998	CD	N	18	1682	1	1072	509	802				83	369	18	13	5	1701	1483	218	1078	1000	78	807	733	74	83	83	
1998		E		4											0		10	9	1		0			0			0	
1998		TOTAL													0			0			0			0			0	
1998	CFR	L	10	9	8									.	.	.	8	0	8		0			0			0	
1998		N	77	2223	1423	1061	1061	119	4	60		7	41	.	.	.	1850	711	1139	975	667	308	60	0	60	48	7	41
1998		E	20	44										.	.	.	43	4	39		0			0			0	
1998		TOTAL												.	.	.		0			0			0			0	
1998	EVR	L	2	111	9				42	115		41	82	2	2		111	98	13		0		44	29	15	41	30	11
1998	LDZ	L	15	273	52			1	52	162		147	305	15	15		280	245	35		0		52	48	4	147	132	15
1998		E		4											0		4	4			0			0			0	
1998		TOTAL													0			0			0			0			0	
1998	MAV Rt.	L		13											0		13	12	1		0			0			0	
1998		N	12	649		470	53	257	42	299		24	.	12	10	2	350	251	99	470	386	84	291	245	46	24	17	7
1998		E	1	14				1						1	1		14	12	2		0		1	1			0	
1998		TOTAL													0			0			0			0			0	
1998	PKP	L		101											0		80	45	35		0			0			0	
1998		N	62	2305	289	1940	262	2	12	27		1257	3801	62	3	59	2568	1277	1291	1825	1332	493	12	6	6	1218	981	237
1998		E	18	142				32						14	3	11	56	18	38		0		19	8	11		0	
1998		TOTAL													0			0			0			0			0	
1998	SZ	N	5	110	20	95			83	166		30	107	5	4	1	110	78	32	95	70	25	83	66	17	30	24	6
1998	ZSR	L		27		42	42	5							0		27	21	6	42	34	8	5	4	1		0	
1998		N	1	660		522	457	292				48	104	1	1		665	571	94	521	459	62	291	250	41	48	33	15
1998		E		6								25	50		0		6	5	1		0			0		25	16	9
1998		TOTAL													0			0			0			0			0	
1998	TCDD	N	50	586	397	68	45	47	10	35	70	23	209	50	8	42	593	438	155	66	49	17	58	39	19	97	86	11
1999	GKE	N	.	.	.				.	.				.	.	.	.	.	.		0		.	.	.		0	
1999	OBB	N		430		699	528	100	5	10	2	221	750		0		437	376	61	699	620	79	100	95	5	215	207	8
1999		E	19	18		15		19				3	7	.	.	.	19	17	2	15	12	3	17	.	.	3	.	.
1999		TOTAL													0			0			0			0			0	
1999	SNCB/NMI	N		556		383	184	17				665	1765		0		565	465	100	380	327	53	17	14	3	655	581	74
1999	AAE	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	DB AG	N	2	3716	1911	3709	3376	148	725	1648	8	1482	3740	20	.	.	3902	.	.	3657	.	.	917	.	.	1480	.	.
1999		E	16	6										16	.	.	6	.	.		0			0			0	
1999		TOTAL													0			0			0			0			0	
1999	GVG	N						.	.	.	.	.	.		0			0			0		.	.	.	.	.	.
1999	KEG 98	N		24	.				9	.					0		.	.	.		0		.	.	.		0	
1999	DSB 98	N		121	.	22	.		.	.		.	.		0		.	.	.	.	.	.	.	.	.	.	.	.
1999	EusKotren	E	4	4	.	3	.				3	50	148	4	4		4	4		3	3			0		53	53	
1999	FEVE	E		65	.			.	.	.		.	.		0		.	.	.		0		.	.	.	.	.	.
1999	FGC	N										36	124		0			0			0			0		36	.	.
1999		E		11	.							33	94		0		.	.	.		0			0		.	.	.
1999		Total													0			0			0			0			0	
1999	RENFE	L		479	104	429	414		149	388		618	1942		0		481	423	58	434	336	98	148	132	16	607	566	41
1999		N				20	19					18	144		0			0		17	17			0		18	18	
1999		E										5	10		0			0			0			0		5	5	
1999		TOTAL													0			0			0			0			0	
1999	VR	L		510	39	130	130					102	212		0		511	454	57	130	117	13		0		102	90	12
1999	SNCF	N		2982	416	2024	1162	184	552	1350		1364	6811		0		2909	2581	328	2051	1846	205	724	660	64	1318	1197	121
1999		E									14	9	17		0			0			0			0		31	31	
1999		TOTAL													0			0			0			0			0	
1999	ATOC	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	EW&S	N		.	.	.	.								#VALOR!		.	.	.	.	.	.		0			0	
1999	CH	N	2	114	57	6	6	26	28	104				2	2		99	76	23	4	3	1	51	43	8		0	
1999		E	2	35					31	82				2	2		33	25	8		0		25	19	6		0	
1999		TOTAL													0			0			0			0			0	
1999	CIE	L		110	50			2	20	42		40	80		0		110	92	18		0		22	18	4	40	37	3
1999	FS SpA	N	23	1165	.	1927	.	818			610	80	690	23	23		1165	1165		1897	1897		818	818		580	580	
1999	CFL 98	N		56		23			2	4		32	68		0		51	47	4	21	19	2	2	2		30	27	3
1999	NS B.V.98	N		183	.	147	.	.	.	.	.	.	.		0		183	.	.	178	.	.	.	.	.	.	.	.
1999	CP	L		196	42	81	30	35	44	113		215	752		0		196	166	30	81	69	12	79	65	14	215	192	23
1999		E		7				11	35	76					0		7	7			0		46	40	6		0	
1999		TOTAL													0			0			0			0			0	
1999	BK	N		.	.	.	.	.							0		.	.	.	.	.	.	.	.	.		0	
1999	BV	N		.		.									0		.	.	.	.	.	.	.	.	.	.	.	.
1999	MTAB	N		.	.	.	.								0		.		.	.	.	.		0			0	
1999	SJ	N		235		372	359	32	20	60		270	725		0		236	.	.	374	.	.	38	.	.	276	.	.
1999	CFF/SBB/F	N		249		1072	737				214	23	84		0		251	.	.	1078	.	.		0		215	.	.
1999		E		4		13					11				0		4	.	.	13	.	.		0		11	.	.
1999		total													0			0			0			0			0	
1999	JBV	N													0			0			0			0			0	
1999	MTAS	N				.	.								0			0		.	.	.		0			0	
1999	NSB BA	N		93	25	92	82		15	30		130	372		0		95	.	.	92	.	.	15	.	.	128	.	.
1999	BDZ	N		386	152	302	282	1	3	9		78	312		0		394	286	108	303	228	75	3	3		78	57	21
1999		E		23											0		23	20	3		0			0			.	.
1999		TOTAL													0			0			0			0			0	
1999	BC	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999		N		.											0		.	.	.		0			0			0	
1999		TOTAL													0			0			0			0			0	
1999	CD	N	18	1647	1	1049	509	811				83	369	18	13	5	1664	1425	239	1060	989	71	801	717	84	83	82	1
1999		E		4											0		4	3	1		0			0			0	

A1.3.3.Tractive Stock- Stock and Power

Year	Railway	Rail-Gauge	Fleet Strength at end of year											Annual mean fleet strength														
			Steam Locomotives	Diesel Locomotives		Electric Locomotive		Diesel Railcars			Electric railcars			Steam Locomotives			Diesel Locomotive			Electric Locomotives			Diesel Railcars			Electric Railcars		
								Single unit	Permanently-coupled train sets		Single unit	Permanently-coupled train sets																
			Total Number	Total Number	Above 1500 KW	Total Number	Above 3000 KW	Total Number	Number	total number of	Total Number	Number	total number of	total	In Working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for	total	In working	Out-of Service for
1999		TOTAL													0			0			0			0			0	
1999	EVR	L	2	117	18				40	111		36	73	2	2		112	104	8		0		42	34	8	39	30	9
1999	MAV Rt.	L		11											0		11	7	4		0			0			0	
1999		N	9	609		466	53	262	47	309		24	.	9	4	5	609	398	211	466	352	114	309	241	68	24	17	7
1999		E	2	30				1						2	2		30	15	15		0		1	1			0	
1999		TOTAL													0			0			0			0			0	
1999	LDZ	L	9	261	50			1	50	155		141	293	9	9		268	234	34		0		50	46	4	141	123	18
1999		E		4											0		4	4			0			0			0	
1999		TOTAL													0			0			0			0			0	
1999	PKP	L		91											0		86	53	33		0			0			0	
1999		N	61	2045	246	1796	256	2	12	27		1233	3731	56	17	39	2201	1525	676	1891	1457	434	12	6	6	1330	1069	261
1999		E	16	139				30						14	2	12	71	16	55		0		20	8	12		0	
1999		TOTAL													0			0			0			0			0	
1999	CFR	L	10	25	12									.	.	.	8	0	8		0			0			0	
1999		N	43	2196	1630	1054	1054	105	4	60		7	41	62	.	.	2005	1874	131	886	804	82	58	58		7	7	
1999		E	19	43										.	.	.	.	.	.		0			0			0	
1999		TOTAL													0			0			0			0			0	
1999	SZ	N	5	94	20	88			81	162		29	104	5	.	.	102	69	33	92	56	36	82	50	32	30	0	30
1999	ZSR	L		27		42	42	5							0		27	21	6	42	36	6	5	4	1		0	
1999		N	1	656		522	457	305				48	104	1	1		665	571	94	521	459	62	291	250	41	48	33	15
1999		E		6								25	50		0		6	5	1		0			0		25	22	3
1999		TOTAL													0			0			0			0			0	
1999	TCDD	N	50	568	384	77	62	41	13	42		93	279	50	11	39	577	432	145	72	60	12	55	38	17	93	84	9

A1.3.4. Passenger Transport Stock - Available and Out of Service

			STOCK AT THE END OF THE YEAR – RAILWAY - OWNED VEHICLES – coaches, railcars, and trailers – Fleet strength										Number of places							Available annual mean fleet		
						Including							Seats		Sleeping accommodation		Seats and Sleeping	Vans	Coaches		Railcars and railcars trailers
						RIC		air-conditioned													
YEAR	Railway	rail gauge	Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Coaches	railcars and trailers	Coaches	railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	1º class	2ºclass	Couchettes	Sleeping cars	Total col.14 to 17	Total Stock	Total Stock	Out of service for maintenance and repair	Total Stock
1985	BDZ	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	BR	N	4334	9738	14072			2199	.	330		204	79368	841683		5018	926069	3102	4535	753	9717
1985	CFF	N	3663	224	3887	654	25	481	25	52	98	23	40928	212956	5700	803	260387	470	3924	188	168
1985		E	115		115								860	5816			6676	29	115	6	16
1985		total																			
1985	CFL	N	75	34	109	15		12					488	9182			9670		75	5	34
1985	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	CH	N	325	99	424	229				10	28	12	2214	23750	180	75	26219	120	325	74	99
1985		E	143	120	263					15			1313	16955			18268	56	143	68	120
1985		TOTAL																			
1985	CIE	L	238	80	318			105		22			468	19825			20293	86	243	24	78
1985	CP	L	469	599	1068	291				8		9	15156	69067		164	84387	123	469	37	599
1985		E	40	93	133								802	6094			6896	8	40	4	93
1985		TOTAL																			
1985	CSD	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	DB	N	13515	2872	16837	.	.	1877		123	705	164	145066	1012420	42300	5426	1205212	698	13709	1028	2911
1985		E	16		16									768			768	1	16	.	
1985		TOTAL																			
1985	DR	N	.	.	9990	.	.	.	.	.	.	.	.	.	.	.	.	405	.	.	.
1985		E	.	.	292								.	.			.	66	.	.	.
1985		total																			
1985	DSB	N	830	805	1635	81		12	32		12	2	4346	99615	792	68	104821	14	860		791
1985	FS	N	12447	2617	15064	4601		1378	126	80	899	178	143859	891054	50582	6224	1091719	1898	15362	2858	2655
1985		E		19	19									1056			1056				19
1985		TOTAL																			
1985	JZ	N	2616	1183	3799	1325	445			14	145	193	35631	187945	8114	5811	237501	382	2594		.
1985	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	NS	N	492	1672	2164			2		35		3	25346	120255		104	145705	4	475	93	691
1985	NSB	N	520	402	922					17		72	946	37765		2348	41059	47	528	50	419
1985	OBB	N	2654	959	3613	743		280		25	124	8	13623	214360	6985	278	235246	617	2581	276	250
1985		E	170	2	172								80	7162			7242	21	174	5	2
1985		TOTAL																			
1985	PKP	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	RENFE	L	2057	1975	4032		1243	633	601	30	189	181	19364	241941	11256	3810	276371	496	2027	170	1951
1985		E		12	12									528			528				12
1985		TOTAL																			
1985	SJ	N	1519	536	2055	6				45	105	175	10976	100214	4989	6014	122193	202	1531	99	542
1985	SNCB/NMBS	N	2138	1494	3632	346		103			85	6	47988	267943	4860	216	321007	104	2171	214	1439
1985	SNCF	N	10439	5144	15553	2869		3874	1027	102	1471	225	158443	926170	80408	7459	1172480	718	10634	1106	5005
1985		E		40	40								160	1673			1833	3			40
1985		TOTAL																			
1985	VR	L	696	360	1056			6		36		123	2640	64252		4161	71053	76	1057	114	.
1985	TCDD	N	1095	340	1435	276	137			14	103	49	20408	71104	6768	1034	99314	330	834	261	226
1986	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	BR	N	4018	9695	13713			2129		296		198	73456	818515		4758	896729	1659	4378	701	9853
1986	CFF	N	3619	224	3843	623	25	492	25	52	98	23	41431	209943	5520	803	257697	461	3826	221	167
1986		E	115		115								860	5816			6676	29	115	7	16
1986		total																			

A1.3.4. Passenger Transport Stock - Available and Out of Service

			STOCK AT THE END OF THE YEAR																Available annual mean fleet		
			RAILWAY - OWNED VEHICLES																		
			coaches, railcars, and trailers																		Railcars and railcars
			Fleet strength										Number of places								
						Including							Seats		Sleeping accommodation		Seats and	Vans	Coaches		trailers
				Railcars	Total	RIC		air-conditioned									Sleeping			Out of	
YEAR	Railway	rail gauge	Coaches	and railcar trailers	stock col. 4 and 5)	Coaches	railcars and trailers	Coaches	railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	1º class	2ºclass	Couchettes	Sleeping cars	Total col.14 to 17	Total Stock	Total Stock	service for maintenance and repair	Total Stock
1986	CFL	N	75	34	109	15		12					476	9170			9646	12	75	5	34
1986	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	CH	N	324	99	423	207				25	28	12	2190	23710	180	75	26155	136	324	79	99
1986		E	143	126	269					15			1337	13942			15279	32	143	71	126
1986		TOTAL																			
1986	CIE	L	246	80	326			123		24			398	20390			20788	79	242	27	78
1986	CP	L	508	598	1106	45		45		8		9	15546	70697		164	86407	123	508	60	598
1986		E	33	93	126								802	5627			6429	8	33	6	93
1986		TOTAL																			
1986	CSD	L																			
1986		N	7630	1990	9620	640				106	347	174	19248	400894	18864	4682	443688	764	.	.	.
1986		E	50		50									2000			2000		.	.	.
1986		total																			
1986	DB	N	13103	2838	15941	.	.	1960		123	652	157	141044	985641	39120	5195	1171000	675	13309	1072	2855
1986		E	16		16									768			768	1	16		
1986		TOTAL																			
1986	DR	N	.	.	9876	.	.	.	.	.	.	.	.	.	.	.	.	534	.	.	.
1986		E	.	.	275								.	.			.	66	.	.	.
1986		total																			
1986	DSB	N	766	849	1615	85		17	32		12	7	4202	98263	720	233	103418	71	798		827
1986	FS	N	12101	2534	14635	4792		1443	126	87	946	192	147746	858636	53402	6728	1066512	1890	12303	2788	2562
1986		E		14	14									812			812				16
1986		TOTAL																			
1986	JZ	N	2657	1190	3847	1081	145			15	143	193	36859	191190	8024	5803	241876	382	2636		.
1986	MAV	L.N.E.	.	.	.	.	.	.		.		.	.	.	.	.	.	.	.	.	.
1986	NS	N	501	1689	2190					25		3	25883	122901		104	148888		489	66	693
1986	NSB	N	577	399	976					13		84	1076	51183		2708	54967	43	521	35	398
1986	OBB	N	2633	987	3620	750		322		25	127	11	13623	215531	7005	344	236503	600	2628	300	973
1986		E	161	7	168								80	7250			7330	19	166	5	6
1986		TOTAL																			
1986	PKP	NE	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
1986	RENFE	L	2091	1963	4054		1239	625	601	30	208	186	19796	242733	12396	3975	278900	405	2084	210	1969
1986		E		12	12									528			528				12
1986		TOTAL																			
1986	SJ	N	1444	538	1982	6				45	128	166	10383	97498	6144	5774	119799	208	1480	95	537
1986		E																			
1986		total																			
1986	SNCB/NMB	N	2058	1463	3521	343		103			85	6	46766	257487	4860	216	309329	86	2110	188	1451
1986	SNCF	N	10345	5224	15569	2913		4025	1062	103	1455	189	155494	941690	79488	6661	1183333	671	10360	1004	5174
1986		E		40	40								160	1673			1833				40
1986		TOTAL																			
1986	VR	L	733	318	1051			6		46		122	2527	64136		4149	70812	73	763	59	352
1986	TCDD	N	1101	363	1464	337	.			14	103	49	21582	71840	6768	1034	101224	401	757	344	245
1987	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	BR	N	3609	9404	13013			2108		276		192	69111	804994		4758	878863	1635	.	.	.
1987	CFF	N	3613	242	3855	617	25	504	32	51	98	23	41420	210506	5520	803	258249	453	3822	180	195
1987		E	115		115								860	5816			6676	29	115	9	16
1987		total																			
1987	CFL	N	75	34	109	15		15					476	9170			9646	10	75	6	34
1987	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	CH	N	324	99	423	207				25	28	12	2190	23710	180	75	26155	136	324	132	99
1987		E	143	126	269					15			1337	13942			15279	32	143	28	126
1987		TOTAL																			

A1.3.4. Passenger Transport Stock - Available and Out of Service

YEAR	Railway	rail gauge	STOCK AT THE END OF THE YEAR – RAILWAY - OWNED VEHICLES – coaches, railcars, and trailers – Fleet strength: Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Including RIC: Coaches	Including RIC: railcars and trailers	Including air-conditioned: Coaches	Including air-conditioned: railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	Number of places – Seats: 1º class	Seats: 2ºclass	Sleeping accommodation: Couchettes	Sleeping accommodation: Sleeping cars	Seats and Sleeping Total col.14 to 17	Vans Total Stock	Available annual mean fleet – Coaches: Total Stock	Coaches: Out of service for maintenance and repair	Railcars and railcars trailers: Total Stock
1987	CIE	L	250	80	330			121		27			276	20628			20904	74	238	22	78
1987	CP	L	524	445	969	58		58		8		9	16064	59669		164	75897	120	524	29	445
1987		E	36	93	129								762	5974			6736	8	36	6	93
1987		TOTAL																			
1987	CSD	L																			
1987		N	8097	1957	10045	631				109	345	173	21029	406017	18755	4656	450457	758	.	.	.
1987		E	50		50									2000			2000				
1987		total																			
1987	DB	N	12670	2862	15532	.	.	1984		121	616	156	138708	961491	36960	5162	1142321	648	12887	972	2850
1987		E	16		16									768			768	1	16		
1987		TOTAL																			
1987	DR	N	8266	1396	9662	2039	25	10		93	139	81	27618	624656	7806	2403	662483	521	8344	970	1421
1987		E	275		275									10175			10175	66	275	27	
1987		total																			
1987	DSB	N	817	647	1464	86		17	32		25	17	4198	98071	1524	493	104286	79	792		837
1987	FS	N	11894	2536	14430	4856		1403	126	96	968	201	146280	840959	54722	7038	1048999	2106	12014	2720	2526
1987		E		6	6									360			360				7
1987		TOTAL																			
1987	JZ	N	2618	1201	3819	1084	154			15	142	190	33687	192977	7970	5755	240389	375	2638		.
1987	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	NS	N	464	1734	2198					23		3	26274	123107		104	149485		482	50	1706
1987	NSB	N	516	405	921					13		85	1004	51753		2739	55496	47	519	35	401
1987	OBB	N	2602	967	3569	747		322		25	120	11	13581	212817	6535	344	233277	565	2627	300	976
1987		E	157	7	164								80	7112			7192	18	159	5	7
1987		TOTAL																			
1987	PKP	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	RENFE	L	1996	1960	3956		1230	1065	614	26	281	.	17966	219041	17226	4582	258815	332	2043	.	1961
1987		E		12	12									528			528				12
1987		TOTAL																			
1987	SJ	N	1450	520	1971					49	117	151	10923	98992	5802	5250	120967	200	1477	90	530
1987	SNCB/NMB	N	2035	1450	3485	375		103			85	6	46108	258999	4860	216	310183	60	2044	161	1442
1987	SNCF	N	10217	5197	15414	2882		4073	1062	97	1455	176	154866	939059	79410	6336	1179671	615	10307	788	5205
1987		E		40	40								160	1673			1833				40
1987		TOTAL																			
1987	VR	L	801	280	1081			6		46		122	2405	60447		4149	67001	71	740	51	316
1987	TCDD	N	1075	360	1435	351	.			14	133	49	21252	67692	8568	1034	98546	380	788	287	282
1988	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	BR	N	3307	9617	12924			2080	194	188		194	68656	809290		4850	882796	1284	.	.	.
1988	CFF	N	3568	267	3835	608	25	572	32	57	98	28	42344	215237	5520	968	264069	441	3809	184	214
1988		E	119	16	135					1			842	5941			6783	13	119	9	39
1988		total																			
1988	CFL	N	75	34	109	15		15					476	9170			9646	10	75	4	34
1988	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	CH	N	327	99	426	207				25	28	12	2289	23710	180	75	26254	136	327	128	99
1988		E	143	126	269					15			1337	13942			15279	32	143	25	126
1988		TOTAL																			
1988	CIE	L	246	89	335			123		25			468	21440			21908	65	234	22	86
1988	CP	L	517	597	1114	58		58		8		9	16106	71554		164	87824	127	517	53	597
1988		E	30	93	123								734	5734			6468	7	30	3	93
1988		TOTAL																			
1988	CSD	L		2	2									114			114				.
1988		N	7421	3489	10910					114	348	220	21702	598942	18152	4350	643146	715	.	.	.
1988		E	23	52	75									2967			2967			.	.

A1.3.4. Passenger Transport Stock - Available and Out of Service

YEAR	Railway	rail gauge	STOCK AT THE END OF THE YEAR – RAILWAY - OWNED VEHICLES – coaches, railcars, and trailers – Fleet strength: Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Including RIC: Coaches	Including RIC: railcars and trailers	Including air-conditioned: Coaches	Including air-conditioned: railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	Number of places – Seats: 1º class	Seats: 2ºclass	Sleeping accommodation: Couchettes	Sleeping accommodation: Sleeping cars	Seats and Sleeping Total col.14 to 17	Vans: Total Stock	Available annual mean fleet – Coaches: Total Stock	Coaches: Out of service for maintenance and repair	Railcars and railcars trailers: Total Stock
1988		total																			
1988	DB	N	12169	2786	14855	.	.	1965		120	584	147	133021	928257	35040	4865	1101183	620	12420	837	2824
1988		E	16		16									768			768	1	16		
1988		TOTAL																			
1988	DR	N	8251	1415	9666	2035	25	10		92	138	81	28878	623188	7752	2403	662221	506	8259	881	1404
1988		E	275		275									10175			10175	66	275	27	
1988		total																			
1988	DSB	N	770	847	1617	85		17	32		25	17	3584	95005	1500	493	100582	57	794		847
1988	FS	N	11417	2618	14035	4895		1577	257	96	973	212	138743	808078	53948	7412	1008181	2078	11680	2572	2572
1988		E		5	5									300			300				5
1988		TOTAL																			
1988	JZ	N	2560	1224	3784	805	165			15	142	191	32180	192270	7902	5788	238140	370	2571		.
1988	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	NS	N	446	1763	2209				10			3	26619	123890		104	150613		453	59	1744
1988	NSB	N	505	398	903					13		85	968	51733		2739	55440	48	510	34	402
1988	OBB	N	2592	951	3543	734		293		36	118	11	13320	209741	6231	344	229636	548	2596	254	960
1988		E	156	7	163								80	7070			7150	18	156	5	7
1988		TOTAL																			
1988	PKP	N	8640	.	.	.	.	.	.	20	339	364	.	.	.	.	.	115	.	.	.
1988		E	241	.	.	.	.	.	.	.			.	.	.	.	.	.	.	.	.
1988		total																			
1988	RENFE	L	2006	1803	3809		1175	1208	568	26	356	251	15634	180920	22104	5414	224072	315	2001	286	1881
1988		E		12	12									528			528				12
1988		TOTAL																			
1988	SJ	N	1377	545	1922					52	116	150	10808	94325	5754	5137	116024	214	1414	90	533
1988	SNCB/NMB	N	1911	1465	3376	363		101			85	6	43064	251355	4860	216	299495	61	1987	142	1452
1988	SNCF	N	10084	5216	15300	2868		4067	1046	93	1470	176	155126	935299	80004	6336	1176765	571	10206	666	5199
1988		E		40	40								94	1732			1796				40
1988		TOTAL																			
1988	VR	L	828	209	1037			6		46		122	2633	58278		4163	65074	87	815	48	244
1988	TCDD	N	1006	338	1344	374	.			11	132	48	20440	64270	7476	1036	93222	357	793	213	.
1989	BDZ	N	1842	373	2215	301				18	89	76	7212	133284	5040	2280	147816	106	.	.	.
1989		E	97		97									3600			3600	22	.	.	.
1989		total																			
1989	BR	N	3292	9331	12623	.	.	2113	198	301		194	65841	790782		2379	859002	1276	.	.	.
1989	CFF	N	3606	287	3893	603	25	606	32	63	98	28	43502	218904	5520	968	268894	418	3732	171	208
1989		E	119	16	135					1			842	5969			6811	13	119	8	16
1989		total																			
1989	CFL	N	75	36	111	15		15					556	9060			9616	6	75	4	36
1989	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	CH	N	369	135	504	207			36	25	41	15	2190	25870	310	102	28472	136	369	132	135
1989		E	143	126	269					15			1337	13942			15279	32	143	28	126
1989		TOTAL																			
1989	CIE	L	265	89	354			123		24			578	22540			23118	65	241	39	107
1989	CP	L	505	433	938			58		8		8	12996	64614		164	77774	129	505	25	433
1989		E	28	73	101								706	5256			5962	5	28	1	73
1989		TOTAL																			
1989	CSD	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	DB	N	11814	2692	14506	.	.	2006		120	530	144	124062	907429	31800	4766	1068057	608	11993	872	2753
1989		E	16		16									768			768	1	16		

A1.3.4. Passenger Transport Stock - Available and Out of Service

			STOCK AT THE END OF THE YEAR																Available annual mean fleet		
			RAILWAY - OWNED VEHICLES																		
			coaches, railcars, and trailers																		Railcars and railcars trailers
			Fleet strength										Number of places					Vans	Coaches		
						Including							Seats		Sleeping accommodation		Seats and Sleeping				
						RIC		air-conditioned													
YEAR	Railway	rail gauge	Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Coaches	railcars and trailers	Coaches	railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	1º class	2ºclass	Couchettes	Sleeping cars	Total col.14 to 17	Total Stock	Total Stock	Out of service for maintenance and repair	Total Stock
1989		TOTAL																			
1989	DR	N	8136	1390	9526	2234	23	10		92	138	81	34764	612015	7752	2403	656954	457	8194	928	1402
1989		E	265		265									9805			9805	66	270	27	
1989		total																			
1989	DSB	N	749	862	1611	85		20	47		25	17	4034	92159	1500	493	98186	34	760		865
1989	FS	N	11377	2652	14029	4970		1863	287	103	971	214	149899	802473	54968	7480	1014820	2071	11368	2581	2644
1989		E		5	5									300			300				5
1989		TOTAL																			
1989	JZ	N	2533	1169	3702	890	172			14	155	185	31485	187957	8682	5608	233732	362	.		.
1989	MAV	L.N.E.	3497	583	4080	220		16		29	48	29	25974	231520	2472	870	260836	99	3641	837	581
1989	NS	N	447	1816	2263					10		3	27057	127291		104	154452		452	43	1766
1989	NSB	N	505	388	893					13		85	962	50779		2739	54480	49	510	31	390
1989	OBB	N	2592	935	3527	732		306		45	117	11	13820	207428	6157	344	227749	514	2579	251	942
1989		E	155	7	162								80	7030			7110	18	155	5	7
1989		TOTAL																			
1989	PKP	N	8753	4033	12876	.	.	.	.	37	337	353	.	.	18252	9068	.	111	8005	2087	3816
1989		E	245	44	289	.	.	.	.				.	.			.		159	36	44
1989		total																			
1989	RENFE	L	1914	1844	3758	.	.	1444	654	39	316	329	18720	179774	19800	6557	224851	294	1960	215	1824
1989		E		12	12									528			528				.
1989		TOTAL																			
1989	SJ	N	1281	513	1794					52	116	149	9654	88523	5754	4942	108873	199	1329	130	529
1989	SNCB/NMI	N	1843	1460	3303	330		101			85	6	41936	247178	4950	216	294280	53	1887	136	1459
1989	SNCF	N	9978	5568	15546	2857		4066	1346	93	1460	176	160622	949002	79498	6336	1195458	568	10077	753	5306
1989		E		40	40								64	1772			1836				40
1989		TOTAL																			
1989	VR	L	749	208	957			6		48		122	3021	58138		4169	65328	36	742	46	208
1989	TCDD	N	1037	383	1420	398	.			11	153	48	21125	66245	7520	1036	95926	352	1020	238	.
1990	BDZ	N	1932	84	2016	327		1605	84	18	113	76	.	.	.	.	.	105	1932	554	84
1990		E	92		92			92						.			.	20	92	10	
1990		total																			
1990	BR	N	3100	9351	12451			2285	362	246		194	66481	780130		2379	848990	1147	.	.	.
1990	CFF	N	3686	304	3990	636	25	660	32	61	97	28	46450	226444	5472	968	279334	408	3778	166	226
1990		E	118	16	134					1			842	5905			6747	13	116	11	16
1990		total																			
1990	CFL	N	76	40	116	16		16					592	9558			10150	6	74	4	40
1990	CFR	L	4		4									120			120		4		
1990		N	6146	191	6337	586				50	49	129	43733	411164	3528	3618	462043	413	6187	718	41
1990		E	120		120									3379			3379	12	120		
1990		total																			
1990	CH	N	369	171	540	107			36	25	41	17	3045	32757	310	102	36214	136	369	127	171
1990		E	143	127	270								1337	14040			15377	32	143	24	127
1990		TOTAL																			
1990	CIE	L	253	80	333			123		24			578	21379			21957	65	236	32	78
1990	CP	L	507	627	1134			58		11		7	13084	77765		112	90961	85	507	25	627
1990		E	28	70	98								706	5132			5838	5	28	2	70
1990		TOTAL																			
1990	CSD	L																			
1990		N	5202	2881	8083	489				116	336	174	21792	609145	18144	5220	654301	692	5691	1435	2881
1990		E	5	25	30									1590			1590				25
1990		total																			
1990	DB	N	11703	2738	14441	.	.	2116		144	515	144	122320	899517	30900	4766	1057503	587	11759	958	2729
1990		E	16		16									768			768	1	16		

A1.3.4. Passenger Transport Stock - Available and Out of Service

			STOCK AT THE END OF THE YEAR																Available annual mean fleet		
			RAILWAY - OWNED VEHICLES																		
			coaches, railcars, and trailers															Vans	Coaches		Railcars and railcars trailers
			Fleet strength										Number of places								
						Including							Seats		Sleeping accommodation		Seats and Sleeping				
						RIC		air-conditioned													
YEAR	Railway	rail gauge	Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Coaches	railcars and trailers	Coaches	railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	1º class	2ºclass	Couchettes	Sleeping cars	Total col.14 to 17	Total Stock	Total Stock	Out of service for maintenance and repair	Total Stock
1990		TOTAL																			
1990	DR	N	7777	1438	9215	2417	21	10		92	137	81	34320	585538	7698	2403	630384	328	7956	787	1409
1990		E	275		275									9520			9520	73	270	28	
1990		total																			
1990	DSB	N	702	873	1575	85		30	69		25	17	3727	91072	1500	493	96792	14	726		868
1990	FS	N	11437	2661	14098	5154		2487	303	105	967	246	157444	852785	55872	8632	1074733	2023	11344	2433	2676
1990		E		5	5									300			300				5
1990		TOTAL																			
1990	JZ	N	2487	1142	3629	1106	151			13	155	188	29957	184460	8878	5823	229118	395	.		.
1990	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	NS	N	448	1850	2298					11		3	27895	126085		104	154084		448	62	1820
1990	NSB	N	472	383	855					22		82	754	38938		2629	42321	33	510	31	390
1990	OBB	N	2657	981	3638	832		417		69	114	11	14107	213026	5938	344	233415	507	2584	251	943
1990		E	155	7	162								80	6930			7010	18	155	5	7
1990		TOTAL																			
1990	PKP	N	8761	4107	12868	.	.	.		37	336	341	.	.	18198	8651	.	108	7921	2047	3834
1990		E	231	44	275									7097			7097	58	137	42	36
1990		total																			
1990	RENFE	L	1864	2031	3895	.	.	1560	851	42	331	329	18624	196688	20694	6557	242563	545	1889	91	1938
1990		E		12	12									528			528				12
1990		TOTAL																			
1990	SJ	N	1214	484	1698				8	52	103	147	9028	84685	5130	4778	103621	198	1248	.	499
1990	SNCB/NMB	N	1826	1445	3271	330		101			85	6	41452	244732	4950	216	291350	42	1837	121	1449
1990	SNCF	N	9720	6011	15731	2837		4031	1766	85	1441	176	176083	1038916	78474	6336	1299809	551	9921	818	5787
1990		E		40	40								64	1772			1836				40
1990		TOTAL																			
1990	VR	L	790	200	990			6		52		121	3089	58708		4140	65937	36	753	42	204
1990	TCDD	N	1049	394	1443	446	.			11	113	82	20812	68680	6552	1716	97760	340	1037	181	.
1990	BDZ	N	1932	84	2016	327		1605	84	18	113	76	.	.	.	.	.	105	1932	554	84
1991		E	92		92			92						.			.	20	92	10	
1991		total																			
1991	BR	N	2796	8983	11779			1789	445	269		193	63060	739925		4734	807719	1105	2722	310	7530
1991	CFF	N	3709	301	4010	677	25	719	32	61	97	28	49680	229805	5472	968	285925	428	3817	193	234
1991		E	118	14	132								842	5877			6719	13	118	9	15
1991		total																			
1991	CFL	N	76	66	142	16		16					952	11330			12282	6	76	9	66
1991	CFR	L																			
1991		N	6115	44	6159	586				50	49	129	47871	391556	3528	3190	446145	385	6159	1231	44
1991		E	138		138								222	3795			4017	10	138	28	
1991		total																			
1991	CH	N	369	172	541	207			36	25	41	17	3045	32829	310	102	36286	136	369	130	172
1991		E	143	136	279								1337	14922			16259	42	143	29	136
1991		TOTAL																			
1991	CIE	L	263	80	343			123		26			578	21923			22501	65	239	30	78
1991	CP	L	515	626	1141			58		13		11	13313	75202		232	88747	74	515	26	626
1991		E	27	84	111								706	5289			5995	1	27	3	84
1991		TOTAL																			
1991	CSD	L																			
1991		N	6245	2826	9071	721				113	336	174	21600	683964	18144	5220	728928	643	6245	1516	2826
1991		E	5	26	31									1620			1620	18	5		26
1991		total																			
1991	DB	N	11537	3284	14821	.	.	2123		114	515	144	127004	909546	30900	4766	1072216	568	11620	1108	3012
1991		E	16	1	17	.	.							802			802	1	16		

A1.3.4. Passenger Transport Stock - Available and Out of Service

			STOCK AT THE END OF THE YEAR																	Available annual mean fleet		
			RAILWAY - OWNED VEHICLES																			
			coaches, railcars, and trailers																			Railcars and railcars trailers
			Fleet strength										Number of places					Vans	Coaches		
						Including							Seats		Sleeping accommodation		Seats and Sleeping				
						RIC		air-conditioned													
YEAR	Railway	rail gauge	Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Coaches	railcars and trailers	Coaches	railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	1º class	2ºclass	Couchettes	Sleeping cars	Total col.14 to 17	Total Stock	Total Stock	Out of service for maintenance and repair	Total Stock
1991		TOTAL																			
1991	DR	N	7310	1524	8834	2347	16	10		89	125	78	35236	581112	6750	2280	625378	305	7544	875	1481
1991		E	275	2	277									9600			9600		275	27	1
1991		total																			
1991	DSB	N	692	905	1597	99		31	159	3	25	17	2951	94757	1500	493	99701		697		889
1991	FS	N	11512	2663	14175	5235		2422	289	105	967	259	158513	859330	55872	9100	1080815	1774	11325	2419	2634
1990	JZ	N	2487	1142	3629	1106	151			13	155	188	29957	184460	8878	5823	229118	395	.		.
1991	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1991	NS	N	47	1906	2353					10		3	28743	128843		104	157690		447	54	1885
1991	NSB	N	542	381	923					22		82	774	50710		2627	54111	28	713	22	381
1991	OBB	N	2743	974	3717	932		542		86	123	11	14239	217773	6424	344	238780	469	2719	195	953
1991		E	155	9	164								80	7008			7088	18	155	2	6
1991		TOTAL																			
1991	PKP	N	8307	4200	12507	.	.	.	.	90	330	336	65724	792990	17820	8589	885123	229	7611	2104	3870
1991		E	161	42	203									8313			8313	55	114	27	34
1991		total																			
1991	RENFE	L	1891	2084	3975	.	.	1671	989	60	320	404	17711	201278	20034	7518	246541	549	1878	85	2058
1991		E		12	12									528			528				12
1991		TOTAL																			
1991	SJ	N	1152	565	1717				41	54	102	142	9292	84869	5082	4428	103671	189	1183	108	525
1991	SNCB/NMBS	N	1777	1467	3244	317		102			81	6	41660	242265	4644	216	288785	42	1794	124	1458
1991	SNCF	N	9496	6281	15777	2727		4017	2008	75	1436	176	176966	1036023	77676	6336	1297001	548	9647	782	6117
1991		E		40	40								64	1772			1836				
1991		TOTAL																			
1991	VR	L	784	200	984			6		53		123	3458	59303		4176	66937	36	771	40	200
1991	TCDD	N	1056	438	1494	493	.			46	122	81	20536	68760	7152	1696	98144	316	1038	227	.
1992	BR	N	2630	8554	11184			2137	567	286		176	59870	689653		4324	753847	1125	2736	.	8769
1992	CFL	N	76	74	150	16		16					1024	11914			12938	6	76	10	74
1992	CH	N	374	172	546	212			36	25	41	17	3045	33129	310	102	36586	136	374	152	172
1992		E	143	141	284								1337	14927			16264	52	143	38	141
1992		TOTAL																			
1992	CIE	L	248	80	328			123		25			578	21144			21722	64	244	32	78
1992	CP	L	515	642	1157			58		15		11	13313	76466		232	90011	74	515	26	626
1992		E	27	86	113								706	5382			6088	1	27	3	84
1992		TOTAL																			
1992	DB	N	11295	3513	14808	.	.	2126		109	510	142	.	.	30600	4700	.	724	11416	.	3400
1992		E	17	1	18									850			850	1	17		
1992		TOTAL																			
1992	DR	N	7310	1524	8834	2347	16	10		89	125	78	35236	581112	6750	2280	625378	305	7544	875	1481
1992	(=1991)	E	275	2	277									9600			9600		275	27	1
1992		TOTAL																			
1992	DSB	N	649	1029	1678	99		21	225	3	25	17	3359	93695	1500	493	99047		670	.	996
1992	FS	N	11404	2687	14091	5170		2412	303	105	965	259	155864	849899	54636	9100	1069499	1693	11465	2100	2683
1992	NS	N	665	1898	2563					10	20	6	31862	144041	1320	194	177417		514	52	1901
1992	RENFE	L	1871	2074	3945	.	.	1804	1108	57	311	475	16045	201394	19554	9678	246671	544	1881	84	2079
1992		N		104	104																
1992		E		12	12										528		528				12
1992		TOTAL																			
1992	SNCB/NMBS	N	1764	1445	3209	305		113			81	6	41280	242654	4734	216	288884	39	1774	144	1457
1992	SNCF	N	9171	6372	15543	2337		4001	2038	70	1348	175	174587	1038035	72876	6300	1291798	445	9373	658	6309
1992		E		40	40								72	1786			1858				
1992		TOTAL																			
1992	CFF	N	3658	299	3984	680	25	735	32	58	95	27	51338	229246	5376	932	286892	415	3773	183	230

A1.3.4. Passenger Transport Stock - Available and Out of Service

YEAR	Railway	rail gauge	STOCK AT THE END OF THE YEAR – RAILWAY - OWNED VEHICLES – coaches, railcars, and trailers – Fleet strength: Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Including RIC: Coaches	Including RIC: railcars and trailers	Including air-conditioned: Coaches	Including air-conditioned: railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	Number of places – Seats: 1º class	Seats: 2ºclass	Sleeping accommodation: Couchettes	Sleeping accommodation: Sleeping cars	Seats and Sleeping Total col.14 to 17	Vans: Total Stock	Available annual mean fleet – Coaches: Total Stock	Coaches: Out of service for maintenance and repair	Railcars and railcars trailers: Total Stock
1992		E	118	13	131					1			842	5877			6719	13	118	11	14
1992		total																			
1992	NSB	N	610	310	920					22		82	978	41067		2629	44674	28	778		310
1992	OBB	N	2735	962	3697	961		566		85	122	11	14473	220078	6354	344	241249	440	2704	247	966
1992		E	155	9	164								80	7008			7088	18	155	14	9
1992		TOTAL																			
1992	SJ	N	973	622	1595				77	52	87	115	10249	83526	4362	3370	101507	185	1063		594
1992	VR	L	791	200	991			9		62		123	3446	59260		4176	66882	36	779	40	200
1992	BC	L	2260	1069	3329	30				54	1730	26		310	83124	468	83902	237	2261	139	1069
1992		N																			
1992		TOTAL																			
1992	BDZ	N	1885	356	2241	274				18	119	75	7191	139674	7122	2250	156237	101	1784	466	92
1992		E	72		72									2880			2880	20	92	11	
1992		TOTAL																			
1992	CFR	L																			
1992		N	6166	44	6210	610				50	49	136	47871	392335	3528	3355	447089	385	6210	975	44
1992		E	138		138								472	3537			4009	10	138	42	
1992		TOTAL																			
1992	CSD	L																			
1992		N	6164	2807	8971	721				113	323	163	21300	676424	17442	4400	719566	627	6164	1827	2807
1992		E	5	24	29								240	1490			1730	18	5		24
1992		TOTAL																			
1992	EVR	L	321	275	596			41		15	274	9	.	.	22046	163	51526	6	321	106	275
1992	LDZ	L	599	594	1193	7		139	.	27	523	9	.	.	24110	288	.	15	468	13	540
1992		E																			
1992		TOTAL																			
1992	MAV	L																			
1992		N	3096	891	3987	356		24		95	51	30	26752	245871	2940	900	276463	95	3146	1126	891
1992		E	.	.										.			.	.	.	.	.
1992		TOTAL																			
1992	PKP	N	7941	4123	12064	.	.	.	.	125	345	317	66584	766580	18756	7864	859784	137	7030	2135	3671
1992		E	157	39	196									8104			8104	53	109	22	31
1992		TOTAL																			
1992	SZ	N	308	274	582	180	274	6	20	7	2	35	1681	17368	84	1122	20255	63	.	.	.
1992	TCDD	N	1086	438	1524	529	.			45	114	92	21448	69819	6756	1804	99827	323	1069	266	.
1993	BR	N	2502	8436	10938			2250	630	326		174	58093	694767		4324	757184	910	.	.	.
1993	CFL	N	74	74	148	16		16					1072	11710			12782	6	74	11	74
1993	CH	N	394	172	566	232			48	25	49	17	3045	34089	790	102	38026	136	394	135	172
1993		E	143	145	288				27				1409	15375			16784	52	143	37	145
1993		TOTAL																			
1993	CIE	L	244	80	324			123		25			698	20109			20807	64	239	27	76
1993	CP	L	504	690	1194			82		15		11	13313	78321		232	91866	72	504	50	649
1993		E	16	81	97								706	4677			5383		16	2	75
1993		TOTAL																			
1993	DB	N	10079	3740	13819	.	.	2119		111	488	132	109181	854691	29280	4370	997522	596	10687	1178	3628
1993		E	14	1	15									706			706	1	16		1
1993		TOTAL																			
1993	DR	N	5728	1438	7166	1992	.	17		25	102	62	28945	461707	5790	1890	498332	341	7125	.	1404
1993		E	248		248									7013			7013		248	.	
1993		TOTAL																			
1993	DSB	N	600	1051	1651	80		21	333	3	25	17	3675	94467	1500	493	100135		625	.	1040
1993	FS	N	11234	2583	13817	5087		2406	312	105	965	259	152036	833674	54636	9100	1049446	1609	11277	2134	2616
1993	NS	N	783	1712	2495					11	35	8	31818	146956	2070	204	181048		635	46	1833

A1.3.4. Passenger Transport Stock - Available and Out of Service

YEAR	Railway	rail gauge	STOCK AT THE END OF THE YEAR – RAILWAY - OWNED VEHICLES – coaches, railcars, and trailers – Fleet strength – Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Including – RIC – Coaches	RIC – railcars and trailers	air-conditioned – Coaches	air-conditioned – railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	Number of places – Seats – 1º class	Seats – 2ºclass	Sleeping accommodation – Couchettes	Sleeping accommodation – Sleeping cars	Seats and Sleeping Total col.14 to 17	Vans – Total Stock	Available annual mean fleet – Coaches – Total Stock	Coaches – Out of service for maintenance and repair	Railcars and railcars trailers – Total Stock
1993	RENFE	L	1893	2152	4045	.	.	1607	1232	53	311	475	17007	208391	19554	9678	254630	528	1882	160	2113
1993		N		128	128				128				5248				5248				112
1993		E		12	12									528			528				12
1993		TOTAL																			
1993	SNCB/NMB	N	1751	1461	3212	295		113			72	6	40355	242437	3348	216	286356	33	1763	148	1410
1993	SNCF	N	8708	6759	15467	2078		3941	2358	47	1161	175	167204	1014568	62004	6300	1250076	425	9069	599	6559
1993		E		40	40								72	1776			1848				
1993		TOTAL																			
1993	CFF	N	3658	298	3956	698	25	786	32	54	77	27	51326	232141	4476	932	288875	411	3747	159	228
1993		E	118	13	131					1			842	5877			6719	13	118	11	13
1993		total																			
1993	NSB	N	517	430	947					21		81	996	55044		2581	58621	32	.	.	.
1993	OBB	N	2735	965	3700	909		509		85	122	11	12685	221573	6345	344	240947	408	2700	241	965
1993		E	157	9	166								80	7118			7198	17	158	13	9
1993		TOTAL																			
1993	SJ	N	898	674	1572				98	51	95	94	10585	82730	4746	2653	100714	176	936	.	648
1993	VR	L	768	200	968			13		65		123	3358	57161		4184	64703	35	779	42	200
1993	BC	L	2295	1081	3376					52	1768	26	.	.	83484	1368	.	236	.	.	1081
1993		N	.		.								.	.			.		.	.	
1993		TOTAL																			
1993	BDZ	N	1926	350	2276	341				18	121	79	7356	137839	6756	2392	154343	101	1926	385	350
1993		E	92		92									3402			3402		92	19	
1993		TOTAL																			
1993	CD	N	4473	1517	5990	398				54	135	81	12300	403120	7290	2187	424897	809	4473	552	1517
1993		E	4	15	19								96	1044			1140	12	4	1	15
1993		TOTAL																			
1993	CFR	L																			
1993		N	6244	44	6288	671				50	49	156	47458	398434	3528	4049	453469	384	6288	1025	44
1993		E	138		138								222	3787			4009	10	138	51	
1993		TOTAL																			
1993	EVR	L	319	265	584			44		15	272	9		27073	21974	163	49210	6	319	96	265
1993	LDZ	L	579	589	1168			137	.	23	496	24	.	.	22922	432	.	9	469	.	551
1993		E																			
1993		TOTAL																			
1993	MAV	L																			
1993		N	3087	644	3731	356		24		92	49	30	25230	219496	2820	900	248446	105	3102	1287	644
1993		E	90	1	91								.	.			.	10	.	.	1
1993		TOTAL																			
1993	PKP	N	7598	4062	11660	.	.	.	.	149	345	303	64266	745654	18756	7631	836307	99	6707	1930	3384
1993		E	169	39	208									8476			8476	55	100	22	30
1993		TOTAL																			
1993	SZ	N	272	273	545	160	273	6	20	7	2	35	2641	31382	84	1122	35229	57	290	81	273
1993	ZSR	L		2	2									57			57				2
1993		N	2062	723	2785	443				48	156	92	8580	196811	8766	2760	216917	127	1968	310	673
1993		E	7	25	32									589			589				32
1993		TOTAL																			
1993	TCDD	N	1094	421	1515	535	.	6		45	102	96	21604	72797	6096	1875	102372	440	1085	340	407
1994	BR	N	2468	8197	10665			1462	2499	327		171	56491	675083		4318	735892	818	2485	.	8294
1994	CFL	N	74	72	146	16		16					1160	11248			12408	6	74	11	72
1994	CH	N	400	172	572	238			48	25	49	17	3153	34395	790	102	38440	136	400	128	172
1994		E	143	146	289				30				1427	15487			16914	52	143	39	146
1994		TOTAL																			
1994	CIE	L	234	97	331	.		123		25			746	20523			21269	50	226	22	92

A1.3.4. Passenger Transport Stock - Available and Out of Service

YEAR	Railway	rail gauge	STOCK AT THE END OF THE YEAR — RAILWAY - OWNED VEHICLES — coaches, railcars, and trailers — Fleet strength: Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Including — RIC: Coaches	RIC: railcars and trailers	air-conditioned: Coaches	air-conditioned: railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	Number of places — Seats: 1º class	Seats: 2ºclass	Sleeping accommodation: Couchettes	Sleeping accommodation: Sleeping cars	Seats and Sleeping Total col.14 to 17	Vans: Total Stock	Available annual mean fleet — Coaches: Total Stock	Coaches: Out of service for maintenance and repair	Railcars and railcars trailers: Total Stock
1994	CP	L	493	746	1239			104		15		11	14300	81009		244	95553	69	493	30	746
1994		E	15	92	107								877	4655			5532		15	1	92
1994		TOTAL																			
1994	DBAG	N	15125	5887	21012			2967	.	140	591	217	138510	1260340	32754	6190	1437794	409	15466	.	3915
1994		E	208		208									5905			5905	46	235		
1994		TOTAL																			
1994	DSB	N	540	1083	1623	.		.	.	3	43	.	3963	67185	1933	.	96472	1	540	.	1083
1994	FS	N	11136	2507	13643	5034		2406	310	105	964	259	149274	824631	54576	9100	1037581	1570	11208	2134	2536
1994	NS	N	886	1742	2628			82		11	49	8	32878	155513	2650	204	191245		773	34	1737
1994	RENFE	L	1859	2202	4061	.	.	1815	1572	40	303	454	16567	216995	19050	8922	261534	494	1876	171	2177
1994		N		128	128				128				5248				5248				128
1994		E		12	12									624			624				12
1994		TOTAL																			
1994	SNCB/NMBS	N	1726	1483	3209	298		94			71	6	40583	243869	3294	216	287962	30	1735	121	1374
1994	SNCF	N	8430	7122	15552	1905		3926	2670	43	1120	175	170033	992398	59714	6300	1228445	415	8613	598	6936
1994		E		40	40								72	1826			1898				40
1994		TOTAL																			
1994	CFF/SBB/FFS	N	4063	308	4371	680	25	835	25	53	60	25	49460	198758	3600	860	252678	341	.	.	300
1994		E	112	11	123					1			830	4795			5625	8	.	.	11
1994		total																			
1994	NSB	N	508	447	955	.	.	.	.	22		78	1116	55720		2481	59317	32	.	.	.
1994	OBB	N	2686	974	3660	844		623		84	122	11	10887	219385	6345	344	236961	369	2650	238	963
1994		E	157	11	168								80	7246			7326	15	157	11	9
1994		TOTAL																			
1994	SJ	N	874	801	1675			33	176	52	95	99	11385	82284	4746	2857	101272	169	886	.	737
1994	VR	L	767	200	967			13		65		123	3350	56656		4176	64182	35	768	45	200
1994	BC	L	2295	1081	3376					52	1768	26	.	.	83484	1368	.	236	.	.	1081
1994		N	.		.								.	.			.		.	.	
1994		TOTAL																			
1994	BDZ	N	1760	242	2002	80				17	121	75	7066	98442	6774	2250	114532	100	1760	350	242
1994		E	69		69									3450			3450	10	69	9	
1994		TOTAL																			
1994	CD	N	4372	1158	5530	544				53	131	94	11196	541128	6588	2024	560936	741	4460	1458	1164
1994		E	39		39									1326			1326	16	30		
1994		TOTAL																			
1994	CFR	L																			
1994		N	5903	44	5947	682				50	49	156	46186	403076	2646	4085	455993	378	4892	1587	44
1994		E	128		128								222	3787			4009	10	138	48	
1994		TOTAL																			
1994	EVR	L	319	255	574			41		15	236	9		25981	21974	163	48118	6	319	152	245
1994	LDZ	L	556	589	1145			132		22	471	25		61667	21752	450	83869	9	567	151	451
1994		E																			
1994		TOTAL																			
1994	MAV	L																			
1994		N	3072	689	3761	507		141	12	106	56	36	27500	224946	3360	1098	256904	98	3072	1349	689
1994		E	82		82								.	.			.	.	.	.	
1994		TOTAL																			
1994	PKP	N	7381	4079	11460	2695		26		188	344	292	62062	733409	18702	7444	821617	95	6630	1897	3479
1994		E	168	38	206									8323			8323	52	162	18	30
1994		TOTAL																			
1994	SZ	N	245	273	518	146	273	6	20	7	4	32	2532	29662	150	1023	33367	7	268	39	273
1994	ZSR	L		5	5									.			.				.
1994		N	2251	406	2657	443				30	151	85	8142	143678	7794	2550	162164	116	2366	839	406

A1.3.4. Passenger Transport Stock - Available and Out of Service

			STOCK AT THE END OF THE YEAR																Available annual mean fleet		
			RAILWAY - OWNED VEHICLES																		
			coaches, railcars, and trailers																		Railcars and railcars trailers
			Fleet strength										Number of places					Vans	Coaches		
						Including							Seats		Sleeping accommodation		Seats and Sleeping				
						RIC		air-conditioned													
YEAR	Railway	rail gauge	Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Coaches	railcars and trailers	Coaches	railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	1º class	2ºclass	Couchettes	Sleeping cars	Total col.14 to 17	Total Stock	Total Stock	Out of service for maintenance and repair	Total Stock
1994		E	7	25	32									.			.		7		25
1994		TOTAL																			
1994	TCDD	N	1100	433	1533	471		26		48	101	96	22916	72580	6036	1875	103407	439	1088	334	427
1995	BR	N	1605	6709	8314			.	.	191		57	.	.		.	.	190	.	.	.
1995	CFL	N	74	72	146	16		16					1184	11200			12384	6	74	7	72
1995	CH	N	400	180	580	238			48	25	49	17	3753	35547	790	102	40192	136	400	128	180
1995		E	143	146	289				30				1427	15487			16914	52	143	39	146
1995		TOTAL																			
1995	CIE	L	234	97	331			123		25			746	20523			21269	50	226	22	92
1995	CP	L	488	785	1273			111		14		11	13555	84300		244	98099	45	488	32	746
1995		E	15	92	107								739	4793			5532	1	15	1	92
1995		TOTAL																			
1995	DBAG	N	14483	4280	18769	.	.	2231	814	184	512	204	137454	1118651	30720	5827	1292652	327	14804	.	4087
1995		E	175		175									5956			5956	46	192		
1995		TOTAL																			
1995	DSB	N	485	1203	1688	51		19	415		23	7	4868	94921	1320	493	101602		.	.	.
1995	FS	N	10897	2597	13494	4972		2373	373	105	962	259	146552	815706	54468	9100	1025825	1485	11032	2134	2495
1995	NS	N	792	1819	2611			.		.	.	.	.	.	.	.	196000		.	.	.
1995	OBB	N	2668	951	3619	840		661		75	122	11	10101	218688	6345	344	235478	349	2623	690	947
1995		E	153	20	173								80	7870			7950	15	153	20	17
1995		TOTAL																			
1995	RENFE	L	1854	2271	4125			1810	1756	40	298	448	16839	229963	18738	8825	274366	435	1857	170	2237
1995		N		136	136				136				5423				5423				136
1995		E		12	12									624			624				12
1995		TOTAL																			
1995	SJ	N	831	802	1633	.	.	83	198	47	95	93	11100	80221	4746	2684	98751	170	853	.	802
1995	SNCB/NMI	N	1741	1398	3139	288		94			60	6	39452	238763	3600	216	282031	33	1740	113	1370
1995	SNCF	N	8323	7436	15759	1892		3898	2906	39	1113	161	173522	1014015	59180	5796	1252513	277	8388	585	7267
1995		E		40	40								72	1426			1498				
1995		TOTAL																			
1995	VR	L	757	200	957			13		64		123	3290	54975		4176	62441	35	777	45	200
1995	CFF/SBB/F	N	3967	305	4272	651	15	852	15	53	80	13			3600	443		32	.	.	300
1995		E	109	11	120													8	.	.	11
1995		total											51774	211729			267546				
1995	NSB	N	489	408	897					20		77	1080	41366		2448	44894	28	.	.	.
1995	BC	L	2021	1179	3200	29				44	1777	26		.	.	1338	.	80	.	.	1179
1995		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1995		TOTAL																			
1995	BDZ	N	1769	342	2111	107				17	121	75	7338	100819	6756	2250	117163	101	1765	977	342
1995		E	79		79									3450			3450	10	74	37	
1995		TOTAL																			
1995	CD	N	3730	2243	5973	674		3		47	78	73	9966	380778	3852	1825	396421	728	3822	1503	2315
1995		E	23		23									1058			1058	16	23	4	
1995		TOTAL																			
1995	CFR	L																			
1995		N	5900	44	5944	682				50	49	156	46186	402836	2646	4085	455753	379	4104	1608	44
1995		E	138		138								222	3787			4009	10	138	38	
1995		TOTAL																			
1995	EVR	L	265	247	512			36		12	96	111		30979	7311	163	38453	6	265	146	247
1995	LDZ	L	502	567	1069	3		123		19	239	204		60841	12906	6812	80559	9	.	.	421
1995		E																			
1995		TOTAL																			
1995	MAV	L																			

A1.3.4. Passenger Transport Stock - Available and Out of Service

YEAR	Railway	rail gauge	STOCK AT THE END OF THE YEAR – RAILWAY - OWNED VEHICLES – coaches, railcars, and trailers – Fleet strength: Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Including RIC: Coaches	RIC: railcars and trailers	air-conditioned: Coaches	air-conditioned: railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	Number of places – Seats: 1º class	Seats: 2ºclass	Sleeping accommodation: Couchettes	Sleeping accommodation: Sleeping cars	Seats and Sleeping Total col.14 to 17	Vans: Total Stock	Available annual mean fleet – Coaches: Total Stock	Coaches: Out of service for maintenance and repair	Railcars and railcars trailers: Total Stock
1995		N	2938	690	3628	510		130	12	107	56	35	22590	215384	2790	1115	241879	104	2938	915	690
1995		E	82		82														82		
1995		TOTAL																			
1995	PKP	N	7326	4010	11336	2707		33		186	344	290	60151	716874	18660	8700	804385	84	6487	1917	3378
1995		E	162	36	198									7996			7996	51	85	14	28
1995		TOTAL																			
1995	SZ 94	N	245	273	518	146	273	6	20	7	4	32	2532	29662	150	1023	33367	7	268	39	273
1995	ZSR	L		5	5									310			310				5
1995		N	2075	393	2468	422				21	125	63	7758	139002	6384	1890	155034	104	2185	595	397
1995		E	7	25	32									1710			1710				25
1995		TOTAL																			
1995	TCDD	N	1100	409	1509	488		46		53	100	96	23095	69927	5988	1875	100885	425	1088	390	410
1996	ATOC	N	.	.	.			.	.	.		.	.	.		.	.	.	.	.	.
1996	BK	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1996	CFL	N	74	72	146	16		16					1184	11200			12384	8	74	3	72
1996	CH	N	400	180	580	238			48	25	49	17	3753	35547	790	102	40192	136	400	135	180
1996		E	143	146	289				30				1437	15487			16924	42	143	42	146
1996		TOTAL																			
1996	CIE	L	237	97	334			123		26			746	20695			21441	50	229	22	92
1996	CP	L	487	798	1285			111		13		11	14047	84760		244	99051	42	487	32	798
1996		E	15	94	109				2				739	4889			5628		15	1	94
1996		TOTAL																			
1996	DB AG	N	13912	4138	18050	.	.	2140	632	251	509	274	148698	1120124	25030	6040	1299892	559	14217	.	4212
1996		E	113		113									4590			4590	29	144	.	
1996		TOTAL																			
1996	DSB	N	443	1091	1534	.		.	.	.	17	17	.	.	17	17	34	1568	.	.	.
1996	FS SpA	N	10486	2582	13068	4835		2421	486	105	972	259	144697	790787	54756	9100	999340	1343	10707	2132	2543
1996	NS	N	763	1928	2691	106		63	290	11	49	28	34200	162600	2418	952	200170		791	71	1879
1996	OBB	N	2216	924	3140	840		661	20	50	99	21	7098	218450	5520	734	231802	138	2152	650	901
1996		E	121	26	147								62	7646			7708	12	115	20	23
1996		TOTAL																			
1996	RENFE	L	1940	2352	4292																
1996		N		144	144			1940	2032	50	292	420	11749	248325	18342	8378	286794	290	1821	146	2312
1996		E		12	12				144				2530	3834			6364				144
1996		TOTAL												624			624				12
1996	SJ	N	770	819	1589			83	274	40	99	93	8170	80903	4938	2650	96661	143	801	.	811
1996	SNCB/NMI	N	1812	1459	3271	380		128			60	6	40417	244283	3600	216	288516	31	1801	110	1434
1996	SNCF	N	8147	7577	15724	1794		3879	2962	33	1063	150	175111	1018107	56532	5400	1255150	261	8241	569	7541
1996		E		40	40								72	1646			1718				
1996		TOTAL																			
1996	VR	L	747	200	947			13		63		122	3230	54537		4141	61908	35	752	47	200
1996	CFF/SBB/F	N	3672	249	3921	637		903		52	60	13	51212	234329	3600	528	289669	342	.	.	.
1996		E	115		115			2		1			939	5834			6773	8	.	.	.
1996		total																			
1996	NSB BA	N	430	384	814					18		76	1198	37155		2328	40681	25	.	.	.
1996	BC	L	.	.	.	.				.	.	.		.	.	.	.	.	.	.	.
1996		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1996		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1996	BDZ	N	1758	342	2100	206				17	100	75	8688	126499	5622	2250	143059	100	1763	696	342
1996		E	77		77									3450			3450	8	78	24	
1996		TOTAL																			
1996	CD	N	3497	2256	5753	658		3		46	48	65	10326	371515	2642	1625	386108	725	3689	1451	2239
1996		E	23		23									1058			1058	16	23	4	

A1.3.4. Passenger Transport Stock - Available and Out of Service

			STOCK AT THE END OF THE YEAR																Available annual mean fleet		
			RAILWAY - OWNED VEHICLES																		
			coaches, railcars, and trailers															Vans	Coaches		Railcars and railcars trailers
			Fleet strength										Number of places								
						Including							Seats		Sleeping accommodation		Seats and Sleeping				
						RIC		air-conditioned													
YEAR	Railway	rail gauge	Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Coaches	railcars and trailers	Coaches	railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	1º class	2ºclass	Couchettes	Sleeping cars	Total col.14 to 17	Total Stock	Total Stock	Out of service for maintenance and repair	Total Stock
1996		TOTAL																			
1996	CFR	L																			
1996		N	5892	138	6030	635				50	49	154	46186	401568	2646	3920	454320	371	4184	1708	138
1996		E	138		138								222	3787			4009	10	138	38	
1996		TOTAL																			
1996	EVR	L	256	236	492			41		13	96	98		28960	5184	3528	37672	9	.	.	236
1996	LDZ	L	385	532	917			113		17	163	165		57393	8802	5462	71657	9	.	.	400
1996	MAV Rt.	L																			
1996		N	3017	527	3544	331		139	12	89	56	35	23102	215511	3756	1068	243437	80	3017	600	527
1996		E	82		82														82		
1996		TOTAL																			
1996	PKP	N	7128	3985	11113	2715		76		185	342	288	60703	698868	18552	8640	786763	91	6320	1838	3417
1996		E	160	36	196									7868			7868	48	73	11	21
1996		TOTAL																			
1996	SZ	N	225	273	498	127	273	6	20	6	4	27	2320	26584	150	852	29906	14	233	33	273
1996	ZSR	L		2	2									110			110				2
1996		N	1771	760	2531	405				21	118	63	7518	164182	6006	1890	179596	100	1785	407	760
1996		E	5	62	67									3275			3275				62
1996		TOTAL																			
1996	TCDD	N	1082	405	1487	528		66		67	103	81	25707	66598	6096	1981	100382	406	1074	427	404
1997	ATOC	N	.	.	.			.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	BK	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	CFL	N	74	72	146	16		16					1280	11104			12384	8	74	3	72
1997	CH	N	331	201	532	268			88	17	53	17	3594	21284	3030	387	28295	136	268	94	59
1997		E	111	144	255				30			4	1095	10486		68	11649	42	95	53	26
1997		TOTAL																			
1997	CIE	L	250	97	347			135		28			840	21287			22127	50	241	21	91
1997	CP	L	467	795	1262			111	8	13		4	13702	84639		132	98473	21	467	27	795
1997		E	15	90	105				2				739	4737			5476		15	1	90
1997		TOTAL																			
1997	DB AG	N	15004	3431	18435	.		3284		296	482	282	143972	1012909	24730	7590	1189201	486	.	.	.
1997		E	113		113									4590			4590	29	113	.	
1997		TOTAL																			
1997	DSB	N	.	.	1375	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	FS SpA	N	10148	2125	12273	4633		2168	.	106	1024	258	108718	683271	56454	9066	857509	1111	12671	.	2684
1997	NS	N	767	1921	2688	85				11	49	20	34400	163520	2400	680	201000	.	765	.	1925
1997	OBB	N	2266	904	3170	828		659	20	50	98	21	7259	217310	5466	734	230769	132	2181	620	904
1997		E	121	24	145								62	7518			7580	11	115	20	24
1997		TOTAL																			
1997	RENFE	L	1572	2353	3925	.	.	1572	2121	33	197	334	14436	234099	12090	6676	267301	276	1756	84	2352
1997		N		144	144				144				2088	3834			5922				144
1997		E		10	10									500			500				11
1997		TOTAL																			
1997	SJ	N	756	863	1619			81	317	39	95	93	9692	80882	4746	2650	97970	127	763	.	841
1997	SNCB/NMI	N	1799	1631	3430	383		128		5	60	6	42440	149810	3600	216	296066	30	1809	99	1562
1997	SNCF	N	7880	7816	15696	1690		3811	3097	24	1023	132	178048	1025310	54190	4752	1262300	238	8026	566	7688
1997		E		50	50									2255			2255				
1997		TOTAL																			
1997	VR	L	747	212	959			32	0	63		122	3274	54913		4141	62328	35	747	46	206
1997	CFF/SBB/F	N	3613	336	3949	690		915		49	60	13	53309	237860	3600	443	295212	271	.	.	.
1997		E	95		95					2			750	4335			5085				
1997		total																			
1997	NSB BA	N	439	363	802	.	.	.	.	13		71	1118	36419		2261	39798	20	.	.	.

A1.3.4. Passenger Transport Stock - Available and Out of Service

			STOCK AT THE END OF THE YEAR																Available annual mean fleet		
			RAILWAY - OWNED VEHICLES																		
			coaches, railcars, and trailers																		Railcars and railcars trailers
			Fleet strength										Number of places								
						Including							Seats		Sleeping accommodation		Seats and Sleeping	Vans	Coaches		
				Railcars	Total	RIC		air-conditioned												Out of	
YEAR	Railway	rail gauge	Coaches	and railcar trailers	stock col. 4 and 5)	Coaches	railcars and trailers	Coaches	railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	1º class	2ºclass	Couchettes	Sleeping cars	Total col.14 to 17	Total Stock	Total Stock	service for maintenance and repair	Total Stock
1997	BC	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997		TOTAL																			
1997	BDZ	N	1749	350	2099	216				17	100	75	9390	125845	5622	2250	143107	98	1754	775	350
1997		E	77		77									3450			3450	8	77	20	
1997		TOTAL																			
1997	CD	N	3585	2286	5871	726		3		46	48	63	11682	377564	2592	2225	394063	764	3585	1121	2273
1997		E		23	23									1058			1058	16			23
1997		TOTAL																			
1997	CFR	L																			
1997		N	5891	132	6023	635				50	49	154	46276	400832	2646	3910	453664	370	.	.	.
1997		E	138		138								222	3787			4009	10	.	.	.
1997		TOTAL																			
1997	EVR	L	140	202	342			33		11	36	54		23346	1673	2052	27071	9	140	33	202
1997	LDZ	L	311	503	814			95		15	125	136		54038	6750	4418	65206	6	157	.	353
1997	MAV Rt.	L																			
1997		N	2361	556	2917	334		145	12	77	59	35	24984	183618	3756	1068	213426	80	2361	570	556
1997		E	82		82														82		
1997		TOTAL																			
1997	PKP	N	6854	3954	10808	2703		99		186	338	288	60679	681747	18336	8640	769402	91	6333	2118	3652
1997		E	157	34	191									7657			7657	48	60	15	16
1997		TOTAL																			
1997	SZ	N	207	273	480	111	273	6	20	6	4	27	2320	25707	150	873	29050	8	225	88	273
1997	ZSR	L		2	2									110			110				2
1997		N	1749	750	2499	435		10		37	85	72	7668	146021	4536	2190	160415	96	1756	396	750
1997		E	7	25	32									3065			3065			.	62
1997		TOTAL																			
1997	TCDD	N	1059	401	1460	552		116		77	101	71	24931	64046	5988	1588	96553	389	1062	310	401
1998	ATOC	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	CFL	N	74	72	146	16		16					1280	11104			12384	8	74	3	72
1998	CH	N	219	.	.	219			.	.	53	6	708	10100	3024	198	14030	18	.	.	.
1998		E	60	.	.				.	.		4	117	2963		15	3095	17	.	.	.
1998		TOTAL																			
1998	CIE	L	250	97	347			134		28			840	21287			22127	50	250	21	91
1998	CP	L	465	837	1302			111	48	13		4	13688	87378		132	101198	21	465	23	837
1998		E	15	89	104				2				731	4709			5440		15	1	89
1998		TOTAL																			
1998	DB AG	N	14640	3460	18100	.		3368		238	397	224	140558	1151533	20480	6140	1318711	295	14822	.	3446
1998		E	79		79						.			3427			3427	16	96		
1998		TOTAL																			
1998	GVG	N		9	9		.		.				.	.			.	.			.
1998	DSB	N	287	637	924	.		.	.	.	17	2	.	.	.	.	.	.	.	.	.
1998	FS SpA	N	9989	2148	12137	4509	.	2231	.	106	1050	280	125224	731485	56838	9754	923301	1420	10081		2137
1998	NS N.V.	N	767	1956	2723	98		6		4	49	20	39184	156737	2401	680	199002	.	2705	.	2705
1998	OBB	N	2563	890	3453	796		712	34	45	88	21	7145	216615	4866	737	229363	132	2582	516	897
1998		E	106	24	130								62	6067			6129	2	114	23	24
1998		TOTAL																			
1998	RENFE	L	1381	2278	3659			1381	2133	35	136	311	13256	230308	8160	6176	257900	167	1477	68	2316
1998		N		144	144				144				1944	3834			5778				144
1998		E		10	10									500			500				10
1998		TOTAL																			
1998	FEVE	E	32	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	FGC	N.E	.	.	192	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

A1.3.4. Passenger Transport Stock - Available and Out of Service

			STOCK AT THE END OF THE YEAR																Available annual mean fleet		
			RAILWAY - OWNED VEHICLES																		
			coaches, railcars, and trailers																		Railcars and railcars
			Fleet strength										Number of places								
						Including							Seats		Sleeping accommodation		Seats and Sleeping	Vans	Coaches		trailers
						RIC		air-conditioned													
YEAR	Railway	rail gauge	Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Coaches	railcars and trailers	Coaches	railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	1º class	2ºclass	Couchettes	Sleeping cars	Total col.14 to 17	Total Stock	Total Stock	Out of service for maintenance and repair	Total Stock
1998	BK	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	SJ	N	721	850	1571			64	324	22	85	88	9622	79797	4266	2550	96235	126	739	.	856
1998	SNCB/NMI	N	1681	1708	3389	390		128		5	60	6	42790	243960	3600	216	290566	29	1766	93	1649
1998	SNCF	N	7723	8066	15789	1600		3794	3271	21	987	125	180648	1035116	52270	4500	1272534	236	7827	565	7912
1998		E		41	41									1710			1710				
1998		TOTAL																			
1998	VR	L	756	212	968			42		63		122	3126	55756		4141	63023	35	752	46	212
1998	CFF/SBB/F	N	3229	237	3466	656		974		44	60	13	55356	229371	3600	443	288770	245	.	.	.
1998		E	95		95					2			750	4335			5085	8	.	.	
1998		total																			
1998	NSB BA	N	440	361	801	.	.	.	.	13		71	1118	36419		2261	39798	20	440	.	362
1998	BC	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	BDZ	N	1721	330	2051	346				17	100	87	8388	120059	5622	2610	136679	98	1735	609	340
1998		E	77		77									3450			3450	8	77	39	
1998		TOTAL																			
1998	CD	N	3501	2247	5748	770		13		56	48	57	11352	365003	2592	1695	380642	562	3544	1178	2267
1998		E		8	8									368			368	6			15
1998		TOTAL																			
1998	CFR	L																.			
1998		N	5881	136	6017	634				50	49	153	46134	400438	2646	3880	453098	342	.	.	.
1998		E	138		138								222	3787			4009	10	.	.	
1998		TOTAL																			
1998	EVR	L	132	196	328			36		11	32	54		19622	1843	1702	23167	7	132	9	196
1998	LDZ	L	301	468	769			93		15	122	129		48962	6588	4186	59736	6	124	.	319
1998	MAV Rt.	L																			
1998		N	2379	556	2935	363		151	24	83	63	35	25344	184554	3972	1068	214938	72	3207	584	556
1998		E	82		82													.	79		
1998		TOTAL																			
1998	PKP	N	6256	3830	10086	2520		110		180	319	287	60067	627618	17418	8610	713713	90	6029	1972	3714
1998		E	146	32	178									7059			7059	37	76	30	19
1998		TOTAL																			
1998	SZ	N	194	273	467	99	273	6	20	6	4	16	2314	25502	150	528	28494	8	194	59	273
1998	ZSR	L		2	2									110			110				2
1998		N	1727	763	2490	421		10		36	74	64	7694	146673	3996	1950	160313	95	1734	343	761
1998		E	7	25	32									2967			2967				25
1998		TOTAL																			
1998	TCDD	N	1046	378	1424	525		125		75	101	96	23118	62012	5988	2121	93239	389	1048	253	377
1999	GKE 98	N	29	.	.			.	.	.			.	.			.	.	.	.	.
1999	OBB	N	2567	877	3444	790		742	34	45	83	21	7103	218831	4566	737	231237	128	2575	386	880
1999		E	103	24	127								62	5911			5973	2	105	19	24
1999		TOTAL																			
1999	SNCB/NMI	N	1683	1785	3468	392		287	231	5	60	6	43799	247004	3600	216	294619	29	1673	102	1724
1999	AAE	N	.	.	.			.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	DB AG	N	14679	5631	20310	8485		2832	.	251	382	223	141630	1406331	19730	6115	1573806	151	.	.	.
1999		E	132		132									3427			3427	16	.		
1999		TOTAL																			
1999	GVG 98	N		9	9				.				.	.			.	.			.
1999	KEG	N		.	.				.				.	.			.	.			.
1999	DBS 98	N	287	637	924	.		.	.	.	17	2	.	.	.	.	.	.	.	.	.
1999	EusKotren	E	5	151	156			.	.					8012			8012		5		151
1999	FEVE	E	.	.	231			.	.	.	.	.	.	.	.	.	.	.	.	.	.

A1.3.4. Passenger Transport Stock - Available and Out of Service

YEAR	Railway	rail gauge	Stock at end of year – Fleet strength: Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Including RIC: Coaches	RIC: railcars and trailers	Air-conditioned: Coaches	Air-conditioned: railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	Number of places – Seats: 1º class	Seats: 2ºclass	Sleeping accommodation: Couchettes	Sleeping accommodation: Sleeping cars	Seats and Sleeping Total col.14 to 17	Vans: Total Stock	Available annual mean fleet – Coaches: Total Stock	Coaches: Out of service for maintenance and repair	Railcars and railcars trailers: Total Stock
1999	FGC	N		124	124				124					7232			7232				124
1999		E		94	94				94					3382			3382				85
1999		Total																			
1999	RENFE	L	1345	2330	3675	.	.	1345	2210	34	123	300	15824	231747	7380	6010	260961	163	1363	65	2254
1999		N		144	144				144				1944	3834			5778				144
1999		E		10	10									500			500				10
1999		TOTAL																			
1999	VR	L	782	212	994			61		63		122	3063	58639		4141	65843	35	769	47	212
1999	SNCF	N	7493	8232	15725	1329		3744	3577	21	927	109	126696	1097081	49560	3924	1277261	236	7629	572	8133
1999		E		39	39									1590			1590				
1999		TOTAL																			
1999	ATOC	N	.	.	.			.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	CH	N	218	132	350	218	88		88		.	63	.	.	.	.	16710	.	218	.	108
1999		E	81	86	167				30		.	.	.	.		.	3990	.	81	.	68
1999		TOTAL																			
1999	CIE	L	251	122	373			142		28			840	22818			23658	49	251	21	108
1999	FS SpA	N	9620	2270	11890	4278		2287	.	106	1031	282	117395	730424	55730	9800	913349	1362	9805		2209
1999	CFL 98	N	74	72	146	16		16					1280	11104			12384	8	74	3	72
1999	NS B.V.	N	871	1905	2776	.		.		.	.	.	.	.		.	201000	.	.	.	.
1999	CP	L	429	900	1329			107	135	9		4	13888	85246		132	99266	25	429	21	900
1999		E	15	87	102				2				751	4633			5384		15	1	87
1999		TOTAL																			
1999	BK	N	.	.	.			.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	SJ	N	695	817	1512	.	.	64	327	23	85	83	9060	77474	4266	2450	93250	136	708	.	834
1999	CFF/SBB/F	N	3120	237	3357	632		1031	1	43	59	16	56334	234847	3540	551	295272	222	.	.	.
1999		E	89		89					2			695	4117			4812	8	.	.	
1999		total																			
1999	NSB BA	N	440	409	849	.	.	.	.	13		71	1118	36411		2261	39790	.	.	.	401
1999	BDZ	N	1686	322	2008	345				17	96	76	8086	121871	5388	2280	137625	97	1703	544	326
1999		E	77		77									3450			3450	8	77	38	
1999		TOTAL																			
1999	BC	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	CD	N	3323	2244	5567	778		22		54	48	57	11982	356639	2592	1215	372428	600	3412	1275	2246
1999		E		8	8									368			368	6			8
1999		TOTAL																			
1999	EVR	L	61	181	242			24		6		37		17014		1252	18266	1	61		181
1999	MAV Rt.	L																			
1999		N	2452	637	3089	331		184	9	79	63	25	22232	182202	3122	768	208324	55	2452	578	637
1999		E	81		81												.		81		
1999		TOTAL																			
1999	LDZ	L	267	449	716			89	.	15	109	108		46188	5886	3502	55576	6	91	.	301
1999	PKP	N	6117	3760	9877	2345		115		180	318	287	59452	610181	17256	8610	695499	89	5397	1435	3944
1999		E	162	30	192									7487			7487	38	69	30	22
1999		TOTAL																			
1999	CFR	N	6040	4117	10157	4270				.	.	42	41554	391708	.	1230	.	315	.	.	.
1999		E	107	17	124									2733			2733	.	90	.	.
1999		TOTAL																			
1999	SZ	N	191	266	457	97	266	6	18	6	4	15	2222	25002	150	528	27902	8	191	88	265
1999	ZSR	L		2	2									110			110				2
1999		N	1703	748	2451	423		10		35	72	64	7694	141378	3888	1950	154910	81	1713	320	748
1999		E		27	27									3051			3051				27

A1.3.4. Passenger Transport Stock - Available and Out of Service

			STOCK AT THE END OF THE YEAR																Available annual mean fleet		
			RAILWAY - OWNED VEHICLES																		
			coaches, railcars, and trailers															Vans	Coaches		Railcars and railcars trailers
			Fleet strength										Number of places								
						Including							Seats		Sleeping accommodation		Seats and Sleeping				
						RIC		air-conditioned													
YEAR	Railway	rail gauge	Coaches	Railcars and railcar trailers	Total stock col. 4 and 5)	Coaches	railcars and trailers	Coaches	railcars and trailers	Dining cars	Couchette coaches	Sleeping cars	1º class	2ºclass	Couchettes	Sleeping cars	Total col.14 to 17	Total Stock	Total Stock	Out of service for maintenance and repair	Total Stock
1999		TOTAL																			
1999	TCDD	N	1040	385	1425	562		154		74	101	110	23058	59790	5988	2385	91221	312	1044	168	381

A.1.3.5. Freight transport stock

YEAR	Railway	rail gauge	Stock at the end of the year																		Available annual mean fleet strength			
			Railway-owned Vehicles															PRIVATE OWNER'S VEHICLES		Railway-owned and private-owner's 'vehicles			
			Covered Wagons			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			Total number of wagons			Wagons		wagons			
			STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK (col.4+7+10+13)	Bogies wagons (col. 5+8+11+1	Total capacity (tonnes)(col.6+9+12	Total Stock	Total capacity (tonnes)	Total Stock	Out of service for maintenance and repair	Mean daily balance of RIV (or PPW) and EUROP (or OPW) wagons	Used exclusively for departmental traffic
1985	BDZ	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985		total	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	BR	N	2132	3	44302	28927		772926	7009	5572	343335	939	133	24754	39007	5708	1185317	14519	568212	57750	.	.	28285
1985	CFF	N	12730	393	322283	4292	1262	155332	3704	1929	156202	1082	361	39413	21808	3945	673230	6798	282258	29232	294	1885	4218
1985		E	89		1229	20	20	380	25	20	440	59	39	2604	193	99	4653	3	36	196	5		54
1985		total																					
1985	CFL	N	802		22287	521	125	18129	1400	956	65176	1	1	52	2724	1082	105644	140	8115	2864	165	354	289
1985	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	CH	N	6478	286	156119	1361	597	40830	773	330	23963	292	154	10151	8904	1367	231063			8904	980	7059	
1985		E	1194	114	16318	250	25	2840	155	37	1672	88	39	1243	1687	215	22073			1687	110		
1985		TOTAL																					
1985	CIE	L							975	321	26335	963	175	23010	1938	496	49345	53	1046	1950	180		260
1985	CP	L	2877	198	67353	1025	381	35560	853	202	23044	252	210	11858	5007	991	137815	133	5474	5140	307	264	1302
1985		E	122	51	1548	171	52	1966	91	73	1380	14	8	299	398	184	5193			398	13		40
1985		TOTAL																					
1985	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	DB	N	105610	6014	3011433	75366	18642	2671175	72026	36056	2964826	2130		64816	255132	60712	8712250	50196	2184617	301281	18890	-12010	4281
1985		E	7		70	16		320	22		350				45		740			45			
1985		TOTAL																					
1985	DR	N	.	.	.	.	.	.	.	.	.	.	.	.	162996	.	.	.	.	.	.	.	.
1985		E	.	.	.	.	.	.	.	.	.	.	.	.	410	.	.			.	.		.
1985		total	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
1985	DSB	N	3470		93696	569		16846	1199	519	49986	102		2649	5340	519	163177	518	13554	5870			
1985	FS	N	45526	5549	1222043	27405	3529	873612	21142	16415	1060063	2267	97	81949	96340	25590	3237667	13627	381421	109377	9729	13594	7473
1985		E	27		345	14		170	25		405				66		920			59	7		11
1985		TOTAL																					
1985	JZ	N	20587	9842	819311	24226	12338	1053651	5124	3134	215979	3185	2240	137515	53122	27554	2226456	.	.	52656	.	-1505	.
1985	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	NS	N	3216	138	88119	1901	380	64634	1812	288	59986	383	2	11065	7317	808	223804	1125	48958	8902	750	-168	2345
1985	NSB	N	2826	23	74651	280		6940	3634	562	113786	196	28	5679	6939	613	201056	378	12703	7404	656	1028	
1985	OBB	N	19269	1741	546268	7003	1492	245005	5991	3226	259834	864	509	37715	33127	6968	1088822	3548	122062	36937	1879	-132	1899
1985		E	102	57	1479	198	33	2415	210	46	2522	216	109	5988	726	245	12404			730	10		20
1985		TOTAL																					
1985	PKP	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	RENFE	L	13538	1606	361885	8559	3381	288410	9774	5357	393023	116	116	5251	31987	10460	1048569	10045	401407	42115	2274		2904
1985		E																					
1985		TOTAL																					
1985	SJ	N	11934	109	320875	1401	136	46410	19646	1805	613146	3327	1077	159908	36308	3127	1140339	2013	74964	38960	4659	-1486	2851
1985	SNCB/NMB	N	12117	2482	378913	9892	4726	412815	12990	8247	583519	754	388	32518	35753	15841	1407765	3021	142106	38626	3429	-498	5080
1985	SNCF	N	62930	19697	2217193	25530	12528	1093127	54979	35965	2519263	514	148	17002	143953	68338	5846585	75587	3300013	192100	15400	-1100	13200
1985	VR	L	6305	297	173214	2545	1402	102525	8213	3199	300896	759	757	42099	17822	5655	618734	357	11946	18488	645		2334
1985	TCDD	N	8410	349	204616	8612	3608	322245	3750	1413	135797	362	162	12767	21134	5532	675425	1515	67979	22649	3397	.	3021
1986	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	BR	N	2027	3	43196	24866		670497	6297	5374	334628	459	127	13545	33659	5504	1061868	14071	559529	51197	.	.	26570
1986	CFF	N	11711	393	303440	4403	1400	162676	3664	1937	155280	1085	361	39497	20863	4091	660893	6726	282473	28808	427	2266	4139
1986		E	88		1218	20	20	380	25	20	440	59	59	2604	192	99	4642	3	36	196	5		54
1986		total																					
1986	CFL	N	642		17835	520	125	18050	1392	948	64840	1	1	52	2555	1074	100777	113	6613	2668	185	315	290
1986	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	CH	N	6475	286	156044	1361	597	40830	773	330	23963	292	154	10151	8901	1367	230988	.	.	8901	948	7059	230
1986		E	1194	114	16318	250	25	2840	155	37	1672	88	39	1243	1687	215	22073	.	.	1687	128		30
1986		TOTAL																					
1986	CIE	L							973	321	26294	939	175	23010	1912	496	49304	47	948	1948	190		261
1986	CP	L	2849	198	66804	990	381	34910	860	202	23252	234	206	11252	4933	987	136218	132	5463	5065	200	.	1317
1986		E	121	51	1538	171	58	1966	91	73	1380	14	3	299	397	184	5183			397	15		41
1986		TOTAL																					
1986	CSD	L.N.E.	36467	10856	1226499	66909	40425	2845050	9333	6761	429394	25045	19423	1189392	137754	77465	5690335	13977	638439	.	.	.	.
1986	DB	N	101847	5759	2908496	73954	17869	2632833	70966	37095	2942248	2109		63540	248876	60723	8547117	50122	2195085	295453	19146	-8899	4380
1986		E	7		70	16		320	22		350				45		740						
1986		TOTAL																					
1986	DR	N	.	.	.	.	.	.	.	.	.	.	.	.	169209	.	.	.	.	.	.	.	.
1986		E	.	.	.	.	.	.	.	.	.	.	.	.	410	.	.			.	.		.
1986		total																					
1986	DSB	N	3171		84059	514		15241	1095	499	47126	101		2622	4881	499	149048	532	12861	5642			
1986	FS	N	46050	5997	1250804	27855	4273	915116	21848	16657	1083303	2245	97	52655	97998	27024	3301878	12833	362691	111205	7938	10396	7385

A.1.3.5. Freight transport stock

YEAR	Railway	rail gauge	Stock at the end of the year																		Available annual mean fleet strength			
			Railway-owned Vehicles															PRIVATE OWNER'S VEHICLES		Railway-owned and private-owner's 'vehicles			
			Covered Wagons			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			Total number of wagons			Wagons		wagons			
			STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK (col.4+7+10+13)	Bogies wagons (col. 5+8+11+1	Total capacity (tonnes)(col.6+9+12	Total Stock	Total capacity (tonnes)	Total Stock	Out of service for maintenance and repair	Mean daily balance of RIV (or PPW) and EUROP (or OPW) wagons	Used exclusively for departmental traffic
1986		E	13		166	10		121	17		275				40		562			40	6		1
1986		TOTAL																					
1986	JZ	N	20717	10004	832275	24303	12747	1077865	5112	3014	217344	3048	2270	138587	53180	28035	2266071	.	.	53151	.		.
1986	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	NS	N	2857	138	78564	1785	380	61423	1810	286	59902	380	2	10837	6832	806	210726	1401	62959	8426	451	-394	2231
1986	NSB	N	2817	23	74608	215		5448	3619	562	113667	197	31	5666	6848	616	199389	385	12865	6823	141	.	.
1986	OBB	N	18787	1889	542177	6713	1459	235877	5239	3510	273888	854	509	27521	32593	7367	1089463	3543	123335	36397	1771	655	2263
1986		E	95	51	1374	180	18	2058	229	66	2921	222	115	6180	726	250	12533			726	10		20
1986		TOTAL																					
1986	PKP	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	RENFE	L	13470	1606	364567	8550	3416	289544	9711	5439	393399	97	97	4198	31828	10558	1051708	9397	378848	41629	2207	.	2858
1986	SJ	N	11047	109	300329	1225	129	40041	19180	2050	539525	2807	1111	140165	34259	3399	1020060	2039	74824	37309	4100	-1437	2793
1986	SNCB/NMBS	N	11604	2457	378483	9610	4844	408298	12881	8324	594605	696	358	29724	34791	15983	1411110	2854	134401	36532	3208	-404	4757
1986	SNCF	N	52997	18572	1911736	22351	12348	996651	50827	33786	2345031	471	209	16202	126646	64915	5269620	73369	3229254	183300	13600	429	13100
1986	VR	L	6538	307	179568	2438	1047	100141	8150	3206	304397	762	760	42238	17888	5320	626344	288	9790	18269	672		2304
1986	TCDD	N	7945	336	197930	8360	3620	317829	3810	1371	137487	353	158	12477	20468	5485	665723	1498	67865	21966	2580	.	3074
1987	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	BR	N	2340		54299	19720		574259	6732	4923	327977	92	91	3316	28884	5014	959851	14072	569157	.	.	.	.
1987	CFF	N	11151	392	294363	4260	1400	160782	3674	1972	157089	1108	385	40947	20193	4149	653181	6711	286609	26904	346	.	4087
1987		E	70		1020	20	20	380	25	20	440	59	59	2604	174	99	4444	3	36	177	6		58
1987		total																					
1987	CFL	N	638		17689	516	125	17814	1388	945	64644	1	1	52	2543	1071	100199	120	7317	2578	67	78	267
1987	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	CH	N	6472	286	155969	1361	597	40830	773	330	23963	292	154	10151	8898	1367	230913	.	.	8898	989	7059	232
1987		E	1194	114	16318	250	25	2840	155	37	1672	88	39	1243	1687	215	22073	.	.	1687	99		30
1987		TOTAL																					
1987	CIE	L							970	321	26141	919	174	22616	1889	495	48757	47	903	1746	167		261
1987	CP	L	2832	197	66177	969	381	34527	948	314	28923	242	186	12493	4991	1078	142120	114	5040	5105	249	.	1300
1987		E	120	51	1528	164	52	1896	89	73	1360	14	8	298	387	184	5082			387	13	.	40
1987		TOTAL																					
1987	CSD	L.N.E.	37104	11827	.	64461	40317	.	9280	6739	.	24970	19441	.	135815	78324	.	14436	659725	.	.	.	.
1987	DB	N	94194	5758	2701202	68226	17886	2479897	68643	35429	2863111	2079	226	62408	233142	592199	8106618	50580	2258453	274929	19224	-8811	4552
1987		E	7		70	16		320	22		350				45		740						
1987		TOTAL																					
1987	DR	N	46975	4732	1288678	76294	17105	2647827	19021	12483	978815	28195	12910	1097878	170485	47230	6013198	.	.	172152	14495	-7028	1324
1987		E				50		620				360	360	10080	410	360	10700			410	40		50
1987		total																					
1987	DSB	N	2978		79758	420		12447	1076	499	45206	97		2514	4571	499	139925	343	9518	4516			
1987	FS	N	42679	5997	1161349	28313	4847	918172	21850	16738	1092949	2209	100	51846	95051	27682	3224316	12366	376388	109233	9173	11716	7425
1987		E	13		166	9		109	17		275				39		550			39	6		1
1987		TOTAL																					
1987	JZ	N	20686	10025	841674	24225	13350	1081009	5028	3006	213475	2986	2286	134035	52925	28677	2270193	.	.	53053	.		
1987	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	NS	N	2616	138	72346	1736	380	60081	1808	285	59812	371	1	10551	6531	804	202790	1490	75829	8161	437	-501	2054
1987	NSB	N	2752	23	76729	175		1475	3588	561	113105	195	31	5619	6710	615	196928	377	12693	6779	97	.	.
1987	OBB	N	18213	2050	534810	6510	1452	230039	6232	3583	277210	963	541	42495	31918	7626	1084554	3688	129344	36028	1812	368	2175
1987		E	89	52	1326	160	17	1847	207	66	2714	164	164	6650	620	299	12537			673	10		20
1987		TOTAL																					
1987	PKP	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	RENFE	L	12953	1665	351647	8646	3507	299216	9353	5491	388160	57	57	2347	31009	10720	1041370	8787	354846	40511	.		2865
1987	SJ	N	9732	100	268289	1239	106	39893	18886	2157	588157	1681	1068	106534	31538	3431	1002873	3120	111764	35478	2780	-1385	2821
1987	SNCB/NMBS	N	11031	2429	358240	9313	4834	400097	12381	8480	588100	658	351	28638	33383	16094	1375075	3005	151236	34604	2614	-659	4154
1987	SNCF	N	43608	15988	1585334	20518	11612	930497	44363	30145	2060185	165	142	7470	108654	57887	4583486	71547	3182564	169400	10800	1220	13700
1987	VR	L	5996	306	165833	2442	1438	102134	7641	3268	299537	765	763	42388	16844	5775	609892	284	9682	17675	533		2519
1987	TCDD	N	7321	326	186250	8120	3429	319093	4155	1342	146248	344	157	12232	19940	5254	663823	1496	67564	21436	2224	.	3006
1988	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	BR	N	2249		51973	16570		516538	6078	4505	310695	75	39	2327	24972	4544	881533	14341	570615	.	.	.	.
1988	CFF	N	10938	392	290609	4166	1436	159866	3768	2090	163111	1157	434	43677	20029	4352	657263	6734	288843	19206	388	3064	4051
1988		E	67		987	15	15	285	25	20	440	59	59	2604	166	94	4316	3	36	169	6		59
1988		total																					
1988	CFL	N	635		17606	515	125	17786	1388	945	64644	1	1	52	2539	1071	100088	121	7344	2574	54	442	264
1988	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	CH	N	6479	286	156144	1461	641	43830	773	330	23963	292	154	10151	9005	1411	234088	.	.	9005	946	7059	232
1988		E	1194	114	16318	250	25	2840	155	37	1672	88	39	1243	1687	215	22073	.	.	1687	110		30
1988		TOTAL																					
1988	CIE	L							970	321	26141	919	174	22642	1889	495	48783	47	903	1743	170		261

A.1.3.5. Freight transport stock

YEAR	Railway	rail gauge	Stock at the end of the year																		Available annual mean fleet strength			
			Railway-owned Vehicles															PRIVATE OWNER'S VEHICLES		Railway-owned and private-owner's 'vehicles			
			Covered Wagons			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			Total number of wagons			Wagons		wagons			
			STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK (col.4+7+10+13)	Bogies wagons (col. 5+8+11+1	Total capacity (tonnes)(col.6+9+12	Total Stock	Total capacity (tonnes)	Total Stock	Out of service for maintenance and repair	Mean daily balance of RIV (or PPW) and EUROP (or OPW) wagons	Used exclusively for departmental traffic
1988	CP	L	2772	197	65270	919	381	33676	945	354	31264	303	186	15501	4939	1118	145711	97	4754	5036	450	48	1352
1988		E	119	51	1520	161	52	1860	89	73	1360	14	8	273	383	184	5013			383	16		40
1988		TOTAL																					
1988	CSD	L.N.E.	37775	13169	1449752	62286	40275	2827946	19116	14921	793719	14875	11101	621803	134052	79466	5693220	16191	695124	150243	13815	326	12082
1988	DB	N	88096	6207	2539066	64605	18796	2374150	65607	33163	2733429	2049	205	61444	220357	58371	7708089	50917	2292037	266695	17568	-7892	4720
1988		E	7		70	16		320	21		334				44		724						
1988		TOTAL																					
1988	DR	N	46765	4544	1292442	74383	17094	2596777	18925	12616	980906	27910	12963	1091894	167983	47217	5962019	.	.	169698	14859	-10249	1350
1988		E				50		620				359	359	10052	409	359	10672			409	40		50
1988		total																					
1988	DSB	N	2809		75850	293		8646	1104	518	46678	97		2514	4303	518	133688	370	10485	4227			
1988	FS	N	39273	5997	1140042	27925	4979	922032	21619	16861	1102794	344	106	11029	89161	27943	3175897	12192	345033	102755	9145	16418	9678
1988		E	13		166	11		133	18		291				42		590			36	6		1
1988		TOTAL																					
1988	JZ	N	20499	10065	829998	24101	13089	1079038	4945	3150	217605	2841	2215	129515	52386	28519	2256156	.	.	52641	.	.	
1988	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	NS	N	2406	138	66888	2079	580	77472	1860	285	62124	284	1	8066	6629	1004	214550	1481	75077	8102	268	-466	1819
1988	NSB	N	2449	23	66970	99		2581	3534	550	111759	186	33	5447	6268	606	186757	371	12664	6498	106	.	.
1988	OBB	N	17411	2081	515745	5846	1421	209802	6497	3891	295046	978	559	43556	30732	7952	1064149	3882	140257	34891	1803	644	2049
1988		E	53	42	892	8	2	90	92	67	1622	164	164	6801	317	275	9405			468	10		24
1988		TOTAL																					
1988	PKP	N	44655	.	.	118977	.	.	29719	.	.	51181	.	.	244532	.	.	.	.	.	.	.	.
1988		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988		total																					
1988	RENFE	L	12297	1834	344272	8632	3541	297284	9396	5383	387624	56	56	2313	30381	10814	1031493	8549	345230	39558	1464		3057
1988	SJ (BV)	N	8278	11	235757	998	68	31546	17893	2032	517448	1272	1176	70678	28441	3287	855429	2801	100336	32950	2300	-1052	2859
1988	SNCB/NMB	N	10227	2257	335257	9110	4895	395657	11912	8437	571446	723	434	32857	31972	16023	1335217	3137	175527	33103	2920	-637	3634
1988	SNCF	N	40258	16934	1497130	19199	10433	857457	40784	29564	1943054	414	204	15100	100655	56135	4312741	73081	3208099	152800	9900	-12296	15600
1988	VR	L	5843	312	162064	2061	1171	84824	7662	3569	313339	750	748	41659	16316	5800	601886	272	9384	16584	476		2489
1988	TCDD	N	6829	310	176443	8760	3144	346005	4327	1285	148592	339	170	11857	20255	4909	682897	1368	63308	21623	1978	.	3027
1989	BDZ	N	8765	3258	315058	15137	15053	507614	5973	5807	339853	10953	10889	615092	40828	35007	1777617	.	.	.	.	.	.
1989		E	285	285	4875	488	488	8985	124	124	2520	152	152	3258	1049	1049	20738	.	.	.	.	.	.
1989		total																					
1989	BR	N	2139		49392	14438		467154	5340	4264	284268	96	53	3051	22013	4317	803865	13995	595918	.	.	.	.
1989	CFF	N	10866	392	290064	4277	1599	167777	3739	2087	162041	1157	434	43677	20039	4512	663559	6747	292776	26787	367	6133	4182
1989		E	67		987	14	14	266	25	20	440	59	59	2604	165	93	4297	3	36	169	5		60
1989		total																					
1989	CFL	N	606		16791	515	125	17658	1417	945	65457	1	1	52	2539	1071	99958	132	1816	2576	81	519	264
1989	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	CH	N	6622	286	158928	1461	641	43830	773	330	23963	292	154	10151	9148	1411	236872	.	.	9148	946	7059	232
1989		E	1194	114	16318	250	25	2840	155	37	1672	88	39	1243	1687	215	22073	.	.	1687	110		30
1989		TOTAL																					
1989	CIE	L							968	321	26101	919	174	22642	1887	495	48743	47	903	1830	183		191
1989	CP	L	2732	198	64508	903	381	33378	972	374	33113	324	186	15822	4931	1139	146921	96	4736	5027	251	740	1342
1989		E	106	51	1390	125	51	1495	89	73	1360	14	8	273	334	183	4518			334	17		39
1989		TOTAL																					
1989	CSD	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	DB	N	83464	5895	2412217	61340	18630	2285834	62089	32970	2601047	2031	190	60909	208924	57421	7360007	51478	2349535	257537	27033	-8816	4733
1989		E	5		50	17		340	24		390				46		780						
1989		TOTAL																					
1989	DR	N	45723	3717	1251496	72756	17590	2566299	18840	12729	981458	27822	13041	1085877	165141	47077	5885132	.	.	166693	11851	-9589	1427
1989		E				44		546				355	355	9940	399	355	10486			405	40		50
1989		total																					
1989	DSB	N	2737		73954	238		6996	1175	519	48919	107		2784	4257	519	132653	341	9894	4280			
1989	FS	N	37683	6203	1138670	28191	5617	941335	21500	16975	1074122	403	106	11424	87777	28901	3165551	11898	339315	100029	11725	14239	8571
1989		E	13		166	11		133	18		291				42		590			42	6		3
1989		TOTAL																					
1989	JZ	N	20591	10122	782172	23984	13122	1064261	4857	3213	212375	2858	2230	130767	52290	28687	2189575	.	.	52338	.	.	
1989	MAV	L.N.E.	25590	5770	743499	2697	2061	110415	8758	3336	347104	31816	8253	1204972	68861	19420	2405990	4906	.	71653	8957	4218	.
1989	NS	N	2052	138	58028	1248	561	44541	1722	297	57640	240	1	6854	5262	997	167065	1441	69460	6602	364	-715	2622
1989	NSB	N	2281	21	62376	136		3546	3478	541	109988	191	34	5593	6086	596	181503	340	11606	6436	99	.	.
1989	OBB	N	16743	2075	498078	5820	1345	206474	6629	4012	303673	875	510	39385	30067	7942	1047610	3829	137534	34260	1937	1030	2062
1989		E	52	40	864	8	2	90	91	67	1616	164	164	6801	315	273	9371			316	10		27
1989		TOTAL																					
1989	PKP	N	39780	.	1495728	117134	.	6278382	30874	.	1305547	50729	.	1176913	238507	.	10256570	.	.	171720	35592	.	8322
1989		E	.	.	.	.	.	.	.	.	.	.	.	.	6162	.	.	.	.	3715	1259		.

A.1.3.5. Freight transport stock

YEAR	Railway	rail gauge	Stock at the end of the year																	Available annual mean fleet strength			
			Railway-owned Vehicles															PRIVATE OWNER'S VEHICLES		Railway-owned and private-owner's 'vehicles			
			Covered Wagons			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			Total number of wagons			Wagons		wagons			
			STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK (col.4+7+10+13)	Bogies wagons (col. 5+8+11+1	Total capacity (tonnes)(col.6+9+12	Total Stock	Total capacity (tonnes)	Total Stock	Out of service for maintenance and repair	Mean daily balance of RIV (or PPW) and EUROP (or OPW) wagons	Used exclusively for departmental traffic
1989		total																					
1989	RENFE	L	11072	1834	316748	8607	3576	297895	10097	5630	414096	42	39	1554	29818	11079	1030293	8505	343644	39127	2347	.	3265
1989		E																					
1989		TOTAL																					
1989	SJ	N	8625	11	245813	942	97	30083	15175	1859	442893	1160	1005	56156	25902	2972	774945	3520	126016	30332	4396	-319	
1989	BV	N																					2751
1989	SNCB/NMBS	N	8898	2121	295640	8670	4882	383740	11464	8416	559082	720	435	32781	29752	15854	1271243	3298	180082	31523	3042	-1569	3261
1989	SNCF	N	37518	16132	1428440	18234	10229	825231	39870	29905	1927987	775	416	29813	96397	56682	4211471	71490	3177807	152900	9800	-11611	15800
1989	VR	L	5514	246	152855	1960	1121	80390	7459	3686	313395	789	728	40787	15722	5781	587427	273	9472	16036	480		2378
1989	TCDD	N	7141	309	184624	8935	3878	358068	4293	1090	147431	350	168	12392	20719	5445	702515	1355	63257	21820	2343	.	3040
1990	BDZ	N	7949	2983	288697	14596	14539	777011	5839	5839	337822	11525	11525	647633	39909	34886	2051163	5862	277420	45764	4707	.	.
1990		E	274	274	4710	460	460	8565	124	124	2520	151	151	3258	1009	1009	19053			1009	39	.	.
1990		total																					
1990	BR	N	1957		45034	13522		445457	5225	4013	280221	59	53	3207	20763	4066	773919	13640	594576	.	.	.	.
1990	CFF	N	10932	392	291844	4289	1633	168957	3778	2086	162579	1157	434	43677	20156	4545	667057	6780	297441	26936	369	950	4306
1990		E	67		987	14	14	266	25	20	440	59	59	2604	165	93	4297	3	36	168	5		60
1990		total																					
1990	CFL	N	583	40	17341	464	125	16231	1467	995	68482	1	1	52	2515	1161	102106	132	8186	2719	49	530	263
1990	CFR	L							27		702				27		702						
1990		N	31823	12245	1185798	42744	42744	2477805	21307	12326	929647	47303	24014	1888040	143177	91329	6481290	22909	1047355	166086	20200	9331	1147
1990		E	73	71	750				380	380	7344	731	729	12183	1184	1180	20277	.	.	.	.	.	
1990		total																					
1990	CH	N	6629	286	159103	1481	641	43930	773	330	23963	292	154	10151	9175	1411	237147	.	.	9175	946	7059	232
1990		E	1299	114	28208	250	25	2840	155	37	1672	88	39	1243	1792	215	23963	.	.	1792	110		30
1990		TOTAL																					
1990	CIE	L							968	321	26424	919	174	22952	1887	495	49376	47	903	1830	183		191
1990	CP	L	2131	246	56470	757	381	30576	930	369	34175	283	167	14733	4101	1163	135954	144	6191	4245	212	250	1348
1990		E	106	51	1390	125	51	1495	89	73	1360	14	8	273	334	183	4518			334	30		38
1990		TOTAL																					
1990	CSD	N	36833	15288	1431482	60812	40361	2724763	18826	14483	946136	11987	10191	569637	128458	80323	5672018	16273	.	144731	11139	.	.
1990	DB	N	81629	6111	2363557	58301	19181	2201584	61240	31949	2576296	1997	183	59859	203167	57424	7201296	52098	2397058	251029	26384	-7076	4730
1990		E	5		50	17		340	24		390				46		780						
1990		TOTAL																					
1990	DR	N	43372	3152	1182802	70536	17617	2504711	18736	12775	974784	27759	13220	1091888	160403	46764	5754185	.	.	162772	12354	-14906	1411
1990		E										367	367	10276	367	367	10276			386	39		
1990		total																					
1990	DSB	N	2677		72798	251		8226	1254	568	53203	79		2044	4261	568	136271	371	11568	4632			
1990	FS	N	36771	6704	1142057	28454	6108	949487	21612	16988	1079889	379	100	10925	87216	29900	3182358	11610	333290	99686	10441	14350	8404
1990		E	13		166	11		133	18		291				42			590		42	6		3
1990		TOTAL																					
1990	JZ	N	20386	10204	837465	23734	12973	1051822	4725	3185	213432	2890	2279	132857	51735	28641	2235576	.	.	52013	.	.	
1990	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	NS	N	2222	138	62357	789	417	35621	1803	298	61486	207	1	5885	5021	854	165349	1475	75419	6697	390	-684	2547
1990	NSB	N	2038	23	56526	135	15	4215	3449	546	109786	197	33	5700	5819	617	176227	327	11513	6136	75		.
1990	OBB	N	16817	2073	499840	5831	1526	212079	7066	4252	322612	878	516	39643	30592	8367	1074174	3780	166582	34017	1680	2037	2016
1990		E	49	38	816	8	2	90	91	67	1616	163	163	6769	311	270	9291			313	10		37
1990		TOTAL																					
1990	PKP	N	33151	.	1230897	110423	.	5918673	29832	.	1255927	49652	.	1141996	223058	.	9547493	46586	.	126202	36262	.	8215
1990		E	450	.	7200	3969	.	59535	194	.	3298	1325	.	42400	5938	.	112433			2198	1242		
1990		total																					
1990	RENFE	L	9985	1850	291666	8185	3601	290061	10543	5837	434651	79	79	3421	28792	11367	1019799	8443	342433	37687	1771	.	3489
1990		E																					
1990		TOTAL																					
1990	SJ	N	7290	11	209107	830	96	27665	13201	1953	399888	1087	1063	82363	22409	3123	719023	3108	119008	24470	3550	-452	
1990	BV	N																					1654
1990	SNCB/NMBS	N	7872	2000	266069	8345	4747	370803	11207	8495	555371	722	437	32889	28146	15679	1225132	3221	178448	30332	2379	-1122	2521
1990	SNCF	N	32689	14324	1253560	17877	10204	814224	37873	28131	1821896	707	394	27467	89146	53053	3917147	72903	3306575	148100	9300	-11078	16400
1990	VR	L	5097	249	142179	1802	1144	77429	7239	3706	310370	741	708	40640	14879	5807	570618	401	17799	15200	440		2309
1990	TCDD	N	6842	309	177810	9048	4549	368514	4223	1181	144041	340	171	12245	20453	6210	702610	1346	62485	21941	2218	.	3053
1991	BDZ	N	7949	2983	288697	14596	14539	777011	5839	5839	337822	11525	11525	647633	39909	34886	2051163	5862	277420	45764	4707	.	.
1991		E	274	274	4710	460	460	8565	124	124	2520	151	151	3258	1009	1009	19053			1009	39	.	.
1991		total																					
1991	BR	N	1522		37000	668		19427	4088		246982	12663		421448	18941		724857	11947	518271	.	.	.	.
1991	CFF	N	10901	391	292379	4206	1633	166592	4001	2282	173699	1150	434	43501	20258	4740	676171	6882	305283	27140	343	672	4400
1991		E	67		987	14	14	266	25	20	440	65	65	2856	171	99	4549	3	36	174	9		60
1991		total																					

A.1.3.5. Freight transport stock

YEAR	Railway	rail gauge	Stock at the end of the year																	Available annual mean fleet strength			
			Railway-owned Vehicles															PRIVATE OWNER'S VEHICLES		Railway-owned and private-owner's 'vehicles			
			Covered Wagons			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			Total number of wagons			Wagons		wagons			
			STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK (col.4+7+10+13)	Bogies wagons (col. 5+8+11+1	Total capacity (tonnes)(col.6+9+12	Total Stock	Total capacity (tonnes)	Total Stock	Out of service for maintenance and repair	Mean daily balance of RIV (or PPW) and EUROP (or OPW) wagons	Used exclusively for departmental traffic
1991	CFL	N	484	40	14522	416	125	14957	1567	1095	75032	1	1	52	2468	1261	104563	132	8186	2491	81	274	263
1991	CFR	L							27		702				27		702			27			
1991		N	35536	13175	1290798	58450	51787	3144145	21177	12258	923711	25862	13345	1053039	141025	90565	6411693	22990	1051405	164015	10061	5792	879
1991		E	67	65	690				380	380	7344	723	721	12078	1170	1166	20112			1170			
1991		total																					
1991	CH	N	6629	286	159103	1481	641	43930	789	346	25083	292	154	10151	9191	1427	238267	.	.	9191	970	7059	239
1991		E	1344	114	18883	250	25	2840	155	37	1672	88	39	1243	1837	215	24638	.	.	1837	119	.	33
1991		TOTAL																					
1991	CIE	L							968	321	26424	919	174	22952	1887	495	49376	47	903	1830	183		191
1991	CP	L	2120	246	56237	714	381	29889	973	369	35240	286	167	14732	4093	1163	136098	143	6191	4236	338	147	1318
1991		E	58	46	885	59	41	785	73	68	1175	13	8	273	203	163	3118			203	.		36
1991		TOTAL																					
1991	CSD	N	32374	13037	1214561	55646	38823	2608302	18383	14239	931902	11420	9690	546982	117823	75789	5301747	16254	.	134074	10956	.	.
1991	DB	N	78365	6188	2274510	51263	18828	1989160	55600	32019	2351327	1978	180	59232	187206	57215	6674229	59188	2621024	244241	27712	-2353	4786
1991		E	5		50	17		340	24		390				46		780			46			
1991		TOTAL																					
1991	DR	N	39542	3557	1106929	62265	15441	2209265	17244	12238	894418	2060	727	82105	121111	31963	4292717	5490	228509	143502	11600		2495
1991		E										367	367	10276	367	367	10276			367	41		
1991		total																					
1991	DSB	N	2605		70682	221		7329	1537	599	63003	51		2656	4414	599	143670	341	11165	4461	.	.	.
1991	FS	N	34631	6768	1113880	28070	6062	999535	21477	16936	1093847	324	100	10448	84502	29866	3217710						
1991		E	13		166	11		133	18		291				42		590	11925	347607	97323	9784	12952	8179
1991		TOTAL																		42			3
1990	JZ	N	20386	10204	837465	23734	12973	1051822	4725	3185	213432	2890	2279	132857	51735	28641	2235576	.	.	52013	.		
1991	MAV	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1991	NS	N	1998	138	56573	774	492	37075	1803	298	61486	187	1	5297	4762	929	160431	1490	76470	6384	362	-470	2551
1991	NSB	N	1779	23	49929	144	15	4451	3459	569	110568	188	33	5480	5570	640	170428	330	11048	5976	107		.
1991	OBB	N	16777	2077	498939	5951	1858	227372	7350	4525	339850	859	523	39357	30937	8983	1105518	3771	170713	34515	1538	892	1979
1991		E	47	38	800	8	2	90	91	67	1616	163	163	6769	309	270	9275			310	40		51
1991		TOTAL																					
1991	PKP	N	27685	.	1259668	88357	.	4903814	24444	.	1117091	45948	.	1390830	186434	.	8671403	43189	.	107911	42541	179	7990
1991		E	358		5728	3694		55410	191		3247	1429		45728	5672		110113			2877	1203		
1991		total																					
1991	RENFE	L	9876	1857	289194	7411	3601	274344	10456	5840	433983	79	79	3421	27822	11377	1000942	7090	287145	36073	1623	.	3672
1991		E	.									.											
1991		TOTAL																					
1991	SJ	N	5757	11	166462	698	85	24703	13034	2025	412491	1082	1060	81984	20571	3181	685640	3778	138737	24993	3290	-231	
1991	BV	N																					1521
1991	SNCB/NMB	N	7448	1944	252604	8213	4668	364813	11175	8549	555039	677	399	30418	27513	15560	1202874	3259	186655	29560	3488	-714	1887
1991	SNCF	N	28663	12970	1107878	17548	10218	798181	37484	27934	1805014	378	266	16335	84073	51388	3727408	73821	3370377	141800	9160	-13509	17400
1991	VR	L	5220	345	148105	2063	1180	85673	7393	3807	318748	794	792	44066	14470	6124	596592	423	18541	14700	450		2310
1991	TCDD	N	6276	301	166983	9160	4621	384704	4089	1072	136596	307	167	11640	19832	6161	699923	1256	58934	21571	1785	.	3051
1992	BR	N	617	.	.	10163	.	.	4889	.	.	243	.	.	15912	.	614006	12288	.	21235	.	.	.
1992	CFL	N	443	13	12564	456	165	17277	1566	1094	74976	1	1	52	2466	1273	104869	130	8066	2564	61	281	268
1992	CH	N	6639	286	159353	1481	641	43930	789	346	25083	292	154	10151	9201	1427	238517	.	.	9201	1050	7059	
1992		E	1344	114	18883	250	25	2840	155	37	1672	88	39	1243	1837	215	24638	.	.	1837	132		
1992		TOTAL																					
1992	CIE	L							969	322	26465	919	174	22952	1888	496	49417	47	903	1828	180		
1992	CP	L	2120	246	56237	714	381	29889	973	369	35240	286	167	14732	4093	1163	136098	143	6191	4236	338	.	1318
1992		E	58	46	885	59	41	785	73	68	1175	13	8	273	203	163	3118			203			36
1992		TOTAL																					
1992	DB	N	75137	6304	2188620	46725	18744	1856603	53705	26265	2280108	1943	125	58029	177510	51438	6383360	60378	2942412	235635	25651	-4716	4914
1992		E	5		50	17		340	24		390				46		780			46			
1992		TOTAL																					
1992	DR	N	39542	3557	1106929	62265	15441	2209265	17244	12238	894418	2060	727	82105	121111	31963	4292717	5490	228509	143502	11600		2495
1992	(=1991)	E										367	367	10276	367	367	10276			367	41		
1992		TOTAL																					
1992	DSB	N	2588		70155	197		6610	1599	644	63288	60		1555	4444	644	141608	251	9438	4725	.	.	.
1992	FS	N	32732	6793	1032629	27173	6034	981518	21471	17092	1124972	239	100	9336	81615	30019	3148455	11835	347221	94941	8108	15570	8039
1992		E	13			9			18						40					40			3
1992		TOTAL																					
1992	NS	N	1914	74	52380	771	492	36925	1901	418	68563	181	1	5140	4767	985	163008	1564	83070	5878	414	-289	2480
1992	RENFE	L	9722	1828	289904	7295	3544	274344	10293	5748	435040	78	78	3421	27388	11198	1002709	7599	287810	34987	1556		3672
1992		N E																					
1992		TOTAL																					
1992	SNCB/NMB	N	7296	1972	249946	8207	4663	364476	11324	8654	560878	671	397	30251	27498	15686	1205551	3487	206922	28648	3903	-469	1516

A.1.3.5. Freight transport stock

YEAR	Railway	rail gauge	Stock at the end of the year																		Available annual mean fleet strength			
			Railway-owned Vehicles															PRIVATE OWNER'S VEHICLES		Railway-owned and private-owner's 'vehicles			
			Covered Wagons			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			Total number of wagons			Wagons		wagons			
			STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK (col.4+7+10+13)	Bogies wagons (col. 5+8+11+1	Total capacity (tonnes)(col.6+9+12	Total Stock	Total capacity (tonnes)	Total Stock	Out of service for maintenance and repair	Mean daily balance of RIV (or PPW) and EUROP (or OPW) wagons	Used exclusively for departmental traffic
1992	SNCF	N	25709	11822	996528	16705	9903	763751	36944	27940	1815746	339	266	15304	79697	49931	3591329	72414	3273800	138200	8747	-11818	18300
1992	CFF	N	10716	391	288978	4100	1665	164359	4186	2468	184864	1142	426	42896	20144	4950	681097	6781	302648	26295	305	437	4475
1992		E	57		877	14	14	266	25	20	440	65	65	2856	161	99	4439	3	36	164	7		60
1992		total																					
1992	NSB	N	1659	23	44838	128	17	4313	3400	525	106399	171	31	4981	5358	596	160531	329	11048	5690	.	.	.
1992	OBB	N	16474	2076	489074	6487	2007	232148	8440	5842	412519	758	516	35017	32159	10441	1168758	5464	253406	36322	2067	113	2007
1992		E	47	38	800	8	2	90	91	67	1616	162	162	6737	308	269	9243			309	40		55
1992		TOTAL																					
1992	BV	N																					1521
1992	SJ	N	4888	11	138093	444	83	18137	10626	1354	348334	1079	1017	81729	17037	2465	586293	5699	234751	23543	900	-24	
1992	VR	L	5278	405	151349	2069	1197	86352	7157	3777	313732	782	780	43400	15286	6159	594833	425	18657	14100	393		2300
1992	BC	L	7949	7949	.	8855	8855	.	6097	6097	.	25146	25146	.	48047	48047	.	4387	.	49658	4743		193
1992		N	168	168	.	44	44	.	96	96	.	760	760	.	1068	1068	.			917		492	
1992		TOTAL																					
1992	BDZ	N	7426	2545	264979	15886	15834	946756	5856	5856	343268	7866	7866	455217	37034	32101	2010220	5678	283800	42710	3980	.	.
1992		E	261	261	4110	394	394	7875	123	123	2500	149	149	3197	927	927	17682			927	396	510	21
1992		TOTAL																					
1992	CFR	L							27		675				27		675			27			
1992		N	35416	13108	1286128	58174	51596	3116092	21147	12262	922895	24867	13022	1049382	139604	89988	6374497	17281	798524	160987	6340	1627	905
1992		E	67	65	690	673	671	11108	380	380	7344	50	50	970	1170	1166	20112			1170			
1992		TOTAL																					
1992	CSD	N	27787	13078	1042472	53291	34443	2485915	16494	13416	851141	9436	8318	471954	107008	69255	4851482	16105	.	123113	11327	.	.
1992	EVR	L	882		56977	2061		139324	528		35112	4019		246365	7490		477778	1174	.	8469	731		131
1992	LDZ	L	1732		111887	2067		139729	1225		81463	5303		325074	10327		658153	1492	.	8138	472		178
1992	MAV	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1992		N	20473	5646	656510	19564	12762	905128	8544	3124	306492	4197	3434	191348	52778	24966	2059478	2095	39643	54882	26912	.	3430
1992		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1992	PKP	N	24334	.	1041495	78997	.	4423832	21565	.	1022181	42920	.	1303466	167816	.	7790974	40264	.	98984	42629	248	7860
1992		E	301		4816	3082		46230	172		2924	1350		43200	4905		97170			1479	1162		
1992		TOTAL																					
1992	SZ	N	3655	1610	142739	3440	2461	169396	1079	683	48130	306	291	16611	8480	5045	376876	308	16388	8839	.	.	.
1992	TCDD	N	6176	303	164424	9398	5287	399098	3979	1003	133112	294	182	11787	19847	6775	708421	1210	58560	19875	2291	.	2973
1993	BR	N	452	.	.	8470	.	.	4647	.	.	366	.	.	13935	.	577106	13734	.	.	.	.	.
1993	CFL	N	422	13	11976	452	165	17177	1618	1148	77674	1	1	52	2493	1327	106879	129	8039	2512	52	529	270
1993	CH	N	6639	286	159353	1546	706	47180	789	346	25083	292	154	10151	9266	1492	241767			9266	1120	7059	
1993		E	1344	114	18883	250	25	2840	155	37	1672	88	39	1243	1837	215	24638			1837	129		
1993		TOTAL																					
1993	CIE	L							967	322	26424	918	173	22902	1885	495	49326	47	903	1827	182		157
1993	CP	L	1990	246	48385	714	381	29889	1043	439	42233	285	167	14732	4033	1233	135239	143	6191	4176	253	.	602
1993		E	5	5	75	6	6	90	10	10	150				21	21	315			21	1		20
1993		TOTAL																					
1993	DB	N	66905	6191	1958996	39002	18212	1616860	46062	22805	1987132	1887	116	56283	153856	47324	5619271	60295	3031083	226381	24070	-1179	4933
1993		E	5		50	17		340	24		390				46		780			46			
1993		TOTAL																					
1993	DR	NE	21993	2070	622229	35683	14643	1425641	14435	11264	814555	514	514	28700	72625	28491	2891125	25387	1387255	.	.	.	2630
1993	DSB	N	2293		61058	189		6101	1569	635	64950	57		1555	4108	635	133664	306	10145	4588	.	.	.
1993	FS	N	31686	7148	1021259	25926	6180	948927	21665	17672	1150486	187	95	7974	79464	31095	3128646	11121	330240	91538	5180	14686	8522
1993		E	13			9		.	18						40					40			3
1993		TOTAL																					
1993	NS	N	1909	147	54455	801	522	38701	2100	738	88797	158		4474	4968	1407	186427	1273	68403	6421	375	-508	2740
1993	RENFE	L	6141	772	177457	5941	3610	260435	10491	6067	450352	1212	870	82034	23785	11319	970278	7699	311350	31484	1354		1357
1993	SNCB/NMBS	N	3255	1312	123500	4563	3313	222836	8021	6735	425543	367	316	19695	16206	11676	791574	3721	221403	20846	3770	106	1599
1993	SNCF	N	24077	11247	937722	15147	9385	703976	36798	27989	1813680	326	261	14841	76348	48882	3470219	69800	3217788	134300	7733	-10813	19100
1993	CFF	N	9990	390	270589	4082	1717	165141	4271	2564	189847	1131	416	42358	19474	5087	667935	6649	301953	26123	227	325	4574
1993		E	57		877	14	14	266	25	20	440	65	65	2856	161	99	4439	3	36	164	7		60
1993		total																					
1993	NSB	N	1340	23	39011	146	15	4494	2949	493	94698	125	18	3826	4560	549	142029	320	10885	5139	.	.	.
1993	OBB	N	15663	2066	470040	4974	1948	202840	6725	4917	349669	731	526	36187	28093	9457	1058736	6051	306238	34419	2621	693	2073
1993		E	45	38	786	6	2	74	87	66	1574	162	162	6737	300	268	9171			304	40		55
1993		TOTAL																					
1993	BV	N																					1520
1993	SJ	N	4444	11	116881	433	83	14966	9741	1220	289825	1177	1041	80999	15795	2355	502671	6227	251683	22379	.	-150	
1993	VR	L	5394	554	158381	1485	1137	70508	7029	3686	308168	782	780	43402	14690	6157	580459	420	18599	14000	387	338	2292
1993	BC	L	6448	6448	208851	6459	6459	308869	4027	4027	143683	24438	24438	1280185	41372	41372	1941588	5860	.	46628	2604	-275	957
1993		N	2	2	65	15	15	717	14	14	500	491	491	23215	522	522	24497			725	2	333	
1993		TOTAL																					

A.1.3.5. Freight transport stock

YEAR	Railway	rail gauge	Stock at the end of the year																	Available annual mean fleet strength			
			Railway-owned Vehicles															PRIVATE OWNER'S VEHICLES		Railway-owned and private-owner's 'vehicles			
			Covered Wagons			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			Total number of wagons			Wagons		wagons			
			STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK (col.4+7+10+13)	Bogies wagons (col. 5+8+11+1	Total capacity (tonnes)(col.6+9+12	Total Stock	Total capacity (tonnes)	Total Stock	Out of service for maintenance and repair	Mean daily balance of RIV (or PPW) and EUROP (or OPW) wagons	Used exclusively for departmental traffic
1993	BDZ	N	7201	2436	261630	15277	15277	920744	5767	5767	341956	7893	7893	441497	36138	31373	1965827			36793	10500		252
1993		E	275	275	4350	438	438	8535	123	123	2500	151	151	3177	987	987	18562			987	218		
1993		TOTAL																					
1993	CD	N	16871	8275	602662	25010	12677	1029660	5564	4947	226620	22668	19738	1054515	70113	45637	2913457	14516	547905	71036	21233	.	.
1993	CFR	L							27		702				27		702			27	.	.	
1993		N	35373	13089	1284678	58052	51518	3125689	21136	12234	922265	25700	13359	1047210	140261	90200	6379842	19972	910954	160233	.	.	918
1993		E	67	65	690	673	673	11108	380	380	7344	50	48	970	1170	1165	20112			1170	.		
1993		TOTAL																					
1993	EVR	L	882		56977	2061		139324	528		35112	4019		246365	7490		477778	1055	.	8252	1100		103
1993	LDZ	L	1666		108290	1953		132804	1168		77672	5211		326730	9998		645496	1221	.	7999	719		132
1993	MAV	L																					
1993		N	16679	4662	548078	17180	8794	726792	7850	3048	294320	3700	3047	166105	45409	19551	1735295	2104	70201	49083	26091		2885
1993		E	58			143			6			140			347								
1993		TOTAL																					.
1993	PKP	N	20051	.	920341	69727	.	4016275	16994	.	902381	38699	.	1155515	145471	.	6994512	37776	.	90591	35013	1064	6737
1993		E	290		4640	2896		43440	166		2822	1322		42304	4674		93206			1276	1073		
1993		TOTAL																					
1993	SZ	N	3606	1610	141525	3420	2453	168603	1071	680	47703	304	290	16525	8401	5033	374356	318	16934	.	.	.	.
1993	ZSR	N	9856	4940	345200	15751	9636	548878	2381	1842	105036	9350	7231	440085	37338	23649	1439199	4743	.	.	.	.	.
1993	TCDD	N	5952	303	158452	9178	5025	393964	4101	1140	140634	282	181	11483	19513	6649	704533	1168	56273	20904	2645	344	3005
1994	BR	N	549	.	14626	8216	.	270064	4614	.	272558	585	.	8588	13964	.	565836	.	.	14210	.	.	.
1994	Railtrack	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.			.
1994	CFL	N	316	42	9948	408	139	15265	1662	1201	81213				2386	1382	106426	204	12051	2611	65	467	261
1994	CH	N	6639	286	159353	1560	720	47880	789	346	25083	292	154	10151	9280	1506	242467			9280	1208	7112	
1994		E	1344	114	18883	250	25	2840	155	37	1672	88	39	1243	1837	215	24638			1837	152		
1994		TOTAL																					
1994	CIE	L							965	322	26384	919	174	22951	1884	496	49335	47	903	1826	182		157
1994	CP	L	1465	246	43355	631	381	27966	1197	509	51273	274	15	14260	3567	1151	136854	215	10705	4176	253		597
1994		E	6	5	90	6	6	90	14	14	210				26	25	390			21	1		20
1994		TOTAL																					
1994	DB AG	N	71405	5685	2090024	64700	22273	2726458	49533	40463	2330032	2633	558	85651	188271	68979	7232165	83187	.	.	.	550	.
1994		E	5		50	17		340	24		390				46		780			46			
1994		TOTAL																					
1994	DSB	N	1800	.	43800	186	.	6300	1541	.	61800	353	.	9200	3880	.	121100	320	10300	4200	.	.	.
1994	FS	N	31026	7502	1017424	24512	6330	914354	22085	18089	1171414	144	94	6933	77767	32015	3110125	10817	325155	89993	5181	16919	8212
1994	NS	N	1651	139	47465	814	554	40035	2246	974	102278	107		3037	4818	1667	192815	1143	59710	6040	392	-325	2808
1994	RENFE	L	6339	1514	205771	5947	3622	245590	9968	5852	406600	2938	1296	132018	25192	12284	989979	7785	315837	32977	1286		2319
1994		NE																					
1994		TOTAL																					
1994	SNCB/NME	N	3244	1293	122913	4471	3220	217498	8229	6694	426629	155	140	8343	16099	11347	775383	4054	241516	19990	2467	-436	4935
1994	SNCF	N	18428	9340	737757	13097	8161	608939	34547	27427	1734301	310	248	14043	66382	45176	3095040	68700	3198052	124600	3817	-10243	19000
1994	CFF/SBB/F	N	1567	390	217235	4031	1762	164808	4218	2603	189480	1146	415	42853	10962	5170	614376	6665	310045	.	.	.	.
1994		E	54		844	10	10	180	25	20	440	50	50	2856	139	80	4320	3	36	.	.		.
1994		total																					
1994	NSB	N	1206	16	30706	204	15	5795	2698	575	94277	82	26	2686	4190	632	133464	313	10745	4704	.	.	.
1994	OBB	N	12983	2044	398731	3693	1940	166278	6470	4861	341545	725	523	35934	23871	9368	942488	6294	333108	31636	1780	993	2108
1994		E	32	25	541	3	2	48	67	54	1202	162	162	6737	264	243	8528			282	40		54
1994		TOTAL																					
1994	BV	N	.	.	.	.	.	.	.	.	.	.	.	.	1500	.	.			1500			1500
1994	SJ	N	4503	11	113333	474	202	18433	9543	1317	297606	1091	975	80392	15611	2505	509764	5069	212766	21012	.	-198	1198
1994	VR	L	5472	590	161385	1455	1141	69852	6947	3652	305392	782	780	43639	14656	6163	580268	410	18376	14000	588	349	2270
1994	BC	L	4520	4520	96412	6834	6834	196888	4141	4141	182204	23280	23280	798255	38775	38775	1273759	6250	.	40117	2876		545
1994		N	12	12	256				1	1	44	644	644	21283	657	657	21583			537	2	259	
1994		TOTAL																					
1994	BDZ	N	5504	2158	206874	10004	10004	610244	5704	5704	337725	9693	9693	563468	30905	27559	1718311	8893	494451	39798	9560	32	262
1994		E	168	168	3138	323	323	6285	123	123	2460	139	139	3058	753	753	14941			753	216		25
1994		TOTAL																					
1994	CD	N	15320	7311	556882	24452	12629	1027874	5059	4634	226036	20496	18562	957163	65327	43136	2767955	11299	432865	67926	19654	.	358
1994		E																					
1994		TOTAL																					
1994	CFR	L							27		702				27		702			.	.	.	.
1994		N	35357	13089	1284421	57801	51344	3115157	21076	12228	922034	25625	13319	1045213	139859	89980	6366825	18089	806914	115076	.	.	907
1994		E	67	65	690	673	673	11108	380	380	7344	50	48	970	1170	1166	20112			.	.		.
1994		TOTAL																					
1994	EVR	L	880		56848	2050		138580	528		35112	3985		244281	7443		474821	1707	.	7698	982		94
1994	LDZ	L	1648		108274	1901		129458	1159		77074	5177		324598	9885		639404	1633	.	11518	824		128

A.1.3.5. Freight transport stock

YEAR	Railway	rail gauge	Stock at the end of the year																	Available annual mean fleet strength			
			Railway-owned Vehicles															PRIVATE OWNER'S VEHICLES		Railway-owned and private-owner's 'vehicles			
			Covered Wagons			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			Total number of wagons			Wagons		wagons			
			STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK (col.4+7+10+13)	Bogies wagons (col. 5+8+11+14)	Total capacity (tonnes)(col.6+9+12	Total Stock	Total capacity (tonnes)	Total Stock	Out of service for maintenance and repair	Mean daily balance of RIV (or PPW) and EUROP (or OPW) wagons	Used exclusively for departmental traffic
1994		E																					
1994		TOTAL																					
1994	MAV	L																					
1994		N	11753	2594	385498	16222	7558	686190	6813	3000	255487	3603	2951	158919	38391	16103	1486094	2305	76756	41799	20150		2747
1994		E	49		.	124		.	146		.				319		.			333			
1994		TOTAL																					
1994	PKP	N	19815	14594	921398	69895	62519	3942078	17240	13944	941304	38948	29297	1807187	145898	120354	7611967	36802	1751805	90093	27650	167	.
1994		E	239		3824	2640		39600	160		2720	1230		39360	4269		85504			1562	946		
1994		TOTAL																					
1994	SZ	N	3538	1549	137850	3365	2413	166924	1063	673	47559	303	289	16428	8269	4924	368761	327	17446	8661	315	422	44
1994	ZSR	L																					.
1994		N	10061	4602	388483	14614	9569	676309	4941	4215	249090	3378	2753	170528	32994	21139	1484410	4743	251320	37737	6664	2888	.
1994		E																					
1994		TOTAL																					.
1994	TCDD	N	5696	296	151491	9029	5298	389253	4064	1122	139306	343	254	15173	19132	6970	695223	1083	52058	20387	2090	137	2979
1995	BR	N	.	.	.	.	.	.	.	.	.	.	.	.	1353.	.		.	.	.	.	.	.
1995	Railtrack	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.				.	.	.	.
1995	CFL	N	245	42	7942	405	139	15217	1627	1186	79804				2277	1367	102963	189	11162	2437	80	437	260
1995	CH	N	6639	286	159353	1561	721	47980	789	346	25083	292	154	10151	9281	1507	242567			9281	1208	7112	
1995		E	1344	114	18883	250	25	2840	155	37	1672	88	39	1243	1837	215	24638			1837	152		
1995		TOTAL																					
1995	CIE	L							965	322	26384	919	174	22951	1884	496	49335	47	903	1826	200		157
1995	CP	L	1554	246	45374	628	381	27903	1249	509	52806	269	150	13842	3700	1286	139925	233	11734	3933	248		548
1995		E	4	4	60				1	1	15	6	6	180	11	11	255			11	1		14
1995		TOTAL																					
1995	DB AG	N	60821	5487	1811756	57978	21284	2525977	47408	38760	2199607	2207	207	67075	168414	65738	6604415	77487	.	.	.	-571	.
1995		E	5		50	17		340	24		390				46		780			46			
1995		TOTAL																					
1995	DSB	N	1790		43827	188	50	6902	1490	674	61171	353		9162	3821	724	121062	295	9767	.	.	.	.
1995	FS	N	30703	7491	1013827	21226	6360	822951	22964	18722	1113970	266	196	13802	75159	32769	2964550	1032	306164	89108	5181	.	6831
1995	NS 94	N	1651	139	47465	814	554	40035	2246	974	102278	107		3037	4818	1667	192815	1143	59710	6040	392	-325	2808
1995	OBB	N	11473	2005	358506	3184	1916	150616	6214	4673	321534	507	301	23317	21378	8895	853973	6748	353743	28660	1551	-13376	2321
1995		E	32	25	541	3	2	48	64	51	1139	162	162	6737	261	240	8465			263	40		54
1995		TOTAL																					
1995	RENFE	L	5619	1800	191096	5291	3487	224238	9077	6069	414143	1561	956	57515	21548	12312	886992	8155	332397	29703	1040		1840
1995		NE																					
1995		TOTAL																					
1995	SJ	N	4439	181	116724	332	241	15789	8999	1459	274386	1085	971	81968	14855	2852	488867	5330	213223	20432	.	146	237
1995	BV	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.				1270			1270
1995	SNCB/NMBS	N	2924	1004	112320	4468	3218	222907	8599	7013	452753	62	47	2962	16053	11282	790942	4331	252968	20318	2247	-497	1761
1995	SNCF	N	16922	9267	698882	12266	7923	578573	34226	27239	1722189	280	236	13037	63694	44665	3012681	68191	3177799	116100	3208	-11355	19000
1995	VR	L	5574	598	164545	1333	1062	64334	6930	3745	308111	781	779	43893	14618	6184	580883	409	18346	14000	442	425	2244
1995	RHK	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.				.	.		.
1995	CFF/SBB/FFS	NE	7095	388	203263	3729	1761	165123	4148	2622	213426	1139	431	43173	16111	5202	624985	4473	204764	.	.	.	.
1995	NSB	N	1073	11	27241	195	46	6440	2508	564	89396	65	23	2153	3841	644	125230	246	7802	4187	.	.	.
1995	BC	L	4206	4206	144560	6024	6024	316682	4201	4201	166738	21777	21777	1206679	36208	36208	1834659	6720	.	38896	2407		673
1995		N	74	74	2543	258	258	13563	41	41	1627	449	449	23918	822	822	41651			760	1	61	
1995		TOTAL																					
1995	BDZ	N	4917	2145	190811	8402	8402	512210	5636	5636	333387	10227	10227	597644	29182	26410	1634052	8893	494451	38075	2923		262
1995		E	162	162	3048	311	311	6075	117	117	2340	139	139	2058	729	729	14521			729	119		25
1995		TOTAL																					
1995	CD	N	15001	7213	640000	34727	22952	1649739	8220	7476	447000	5701	4530	292000	63649	42171	3028739	11079	552000	74728	11500	.	.
1995		E																					.
1995		TOTAL																					
1995	CFR	L							27		702				27		702			.	.	.	.
1995		N	35338	13089	1284116	57770	51342	3114281	21061	12221	919915	25596	13318	1022499	139765	89970	6340811	18157	809947	106138	.	.	907
1995		E	66	64	680	673	671	11108	380	380	7344	50	50	970	1169	1165	20102			.	.	.	.
1995		TOTAL																					
1995	EVR	L	852	.	55039	1988	.	134389	521	.	34647	3284	.	201309	6645	.	425384	1707	.	7501	1112		83
1995	LDZ	L	1586	.	116571	1767	.	130758	1090	.	59187	5697	.	378281	10140	.	684797	1969	120739	12109	621		146
1995		E																					
1995		TOTAL																					
1995	MAV	L																					
1995		N	9263	2262	300741	15157	7486	667831	6159	2564	238080	3566	2853	160001	34145	15165	1366653	2379	76781	37998	10165		2655
1995		E	18			35			146						199					259			
1995		TOTAL																					

A.1.3.5. Freight transport stock

YEAR	Railway	rail gauge	Stock at the end of the year																		Available annual mean fleet strength			
			Railway-owned Vehicles															PRIVATE OWNER'S VEHICLES		Railway-owned and private-owner's 'vehicles			
			Covered Wagons			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			Total number of wagons			Wagons		wagons			
			STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK (col.4+7+10+13)	Bogies wagons (col. 5+8+11+1	Total capacity (tonnes)(col.6+9+12	Total Stock	Total capacity (tonnes)	Total Stock	Out of service for maintenance and repair	Mean daily balance of RIV (or PPW) and EUROP (or OPW) wagons	Used exclusively for departmental traffic
1995	PKP	N	20918	12986	931401	71284	67636	4108954	17369	15376	957008	1884	147	57518	111455	96145	6054881	36040	1716079	94889	21454	2170	.
1995		E	208		3328	2220		33300	142		2414	1143		34290	3713		73332			1071	864		
1995		TOTAL																					
1995	SZ 94	N	3538	1549	137850	3365	2413	166924	1063	673	47559	303	289	16428	8269	4924	368761	327	17446	8661	315	422	44
1995	ZSR	N	9614	4575	378355	14342	9403	663898	4638	3926	235612	3351	2977	171409	31945	20881	1449274	4649	250520	36594	6834	2793	.
1995	TCDD	N	5339	293	142060	8817	5269	383620	4037	1108	138229	339	252	15042	18532	6922	678951	1031	49493	19863	2491	235	2585
1996	ATOC	N																					
1996	Railtrack	N																					
1996	RfD Ltd	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1996	BK	N																					.
1996	CFL	N	247	43	8100	336	138	13494	1597	1186	78814				2180	1367	100408	171	9768	2302	64	343	253
1996	CH	N	6639	286	159353	1561	722	47980	789	346	25083	292	154	10151	9281	1508	242567			9281	1208	7112	
1996		E	1344	114	18883	250	25	2840	155	37	1672	88	39	1243	1837	215	24638			1837	152		
1996		TOTAL																					
1996	CIE	L							898	322	25010	922	177	23083	1820	499	48093	47	903	1636	98		157
1996	CP	L	1473	246	43435	702	381	29383	1375	554	57767	426	150	21815	3976	1331	152400	221	11501	4197	420		328
1996		E	5	5	75										5	5	75						18
1996		TOTAL																					
1996	DB AG	N	52047	6679	1153725	51805	29644	2101734	57880	41747	2553073	2046	325	55798	163778	78395	5864330	71229	.	240454	.	.	2339
1996		E																					.
1996		TOTAL																					
1996	DSB 95	N	1790		43827	188	50	6902	1490	674	61171	353		9162	3821	724	121062	295	9767	.	.		
1996	FS SpA	N	27955	7492	946309	16440	6353	683989	22807	18767	1225178	277	218	15003	67479	32830	2870479	9381	293722	80557	5181	.	6754
1996	NS	N	1666	.		699	.		2195	.		73	.		4633			1144	.	5777	.	.	.
1996	OBB	N	9028	1277	275220	3098	1912	147751	6192	4723	321836	486	280	22308	18804	8192	767115	6791	364385	26823	2129	1167	2464
1996		E	32	25	541	3	2	48	64	51	1139	162	162	6737	261	240	8465			261	40		58
1996		TOTAL																					
1996	RENFE	L	4797	1900	178753	5185	3486	221702	8935	6034	416469	1455	877	54303	20372	12297	871227	8318	341038	28690	1061		1770
1996		NE																					.
1996		TOTAL																					
1996	SJ	N	4038	181	120185	288	234	15065	8596	1485	289575	1058	968	79671	13980	2868	504496	5572	235078	19868	.	-79	237
1996	BV	N																					.
1996	SNCB/NMBS	N	2515	836	93106	3495	2670	179477	8475	6800	446168	45	45	2330	14530	10351	721081	4070	246405	19590	2142	-427	1665
1996	SNCF	N	15195	8433	633108	9944	7271	493415	33741	26975	1702166	256	255	12702	59136	42934	2841391	67272	3152876	112200	3173	-12101	19900
1996	VR	L	5386	610	160917	1188	948	57437	6987	3876	314306	783	781	44136	14344	6215	576796	408	18318	13729	258	411	2206
1996	RHK	L																					
1996	CFF/SBB/FFS	NE	6565	386	191157	3573	1758	160600	3914	2523	204104	1127	433	42753	15179	5100	598614	6477	256995	.	.	.	.
1996	NSB BA	N	1002	11	25377	177	53	6290	2274	434	80758	56	17	1937	3509	515	114362	245	7779	3870	.	.	.
1996	JBV	N																					
1996	BC 95	L	4206	4206	144560	6024	6024	316682	4201	4201	166738	21777	21777	1206679	36208	36208	1834659	6720	.	38896	2407		673
1996		N	74	74	2543	258	258	13563	41	41	1627	449	449	23918	822	822	41651			760	1	61	
1996		TOTAL																					
1996	BDZ	N	4202	2134	171343	7801	7801	475858	5607	5607	331576	10028	10028	586835	27638	25570	1565612	8846	491838	36484	2659	.	262
1996		E	148	148	2820	301	301	5885	116	116	2320	138	138	3036	703	703	14061			703	107		25
1996		TOTAL																					
1996	CD	N	15788	6991	605000	33102	22427	1544137	7471	6922	401906	4647	4423	271000	61008	40762	2622048	11125	557000	73431	10900	-2165	4802
1996	CFR	L							27		702				27		702			.			
1996		N	35296	13087	1282538	57692	51275	3111488	21040	12174	917108	25596	13338	1012917	139624	89874	6324051	18051	815221	98436	.	.	.
1996		E	66	64	680	673	671	11108	380	380	7344	50	50	970	1169	1165	20102			.	.	.	.
1996		TOTAL																					
1996	EVR	L	822	822	53093	1914	1914	129386	510	510	33915	3059	3059	187517	6305	6305	403911	1687	.	7779	1447		63
1996	LDZ	L	1629	1629	106634	1795	1795	122042	1096	1096	73553	5235	5235	305898	9755	9755	608127	1909	117022	11664	1270		134
1996	MAV Rt.	L																					
1996		N	7240	2185	238382	14063	8226	617183	5819	2609	227970	3569	2904	164533	30691	15924	1248068	2035	80738	32726	1160		2123
1996		E	18			35			68						121					121			
1996		TOTAL																					
1996	PKP	N	20146	12703	904195	69673	65741	4004079	17141	15202	945960	1859	122	56704	108819	93768	5910938	35810	1710017	96539	21678	3168	.
1996		E	194		3104	1568		23520	139		2363	1082		25968	2983		54955			2005	781		
1996		TOTAL																					
1996	SZ	N	3234	1520	128688	2643	1971	133698	1101	727	50346	295	281	16188	7273	4499	328920	276	15600	7569	5056	294	42
1996	ZSR	N	9435	4565	374354	13911	9225	649342	4627	3963	238334	3309	2954	170285	31282	20707	1432315	4616	249700	31667	5991	.	
1996	TCDD	N	4814	283	130338	8443	5234	373473	3857	977	132653	328	255	14863	17442	6749	651327	964	47072	19293	3919	114	2529
1997	Railtrack	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	EW&S	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	BK	N	.	.	.	.	.	.	.	.	.	.	.	.	44	.	.	.	.	.	.	.	.
1997	CFL	N	239	43	7881	306	138	12689	1597	1186	78814				2142	1367	99384	170	9741	2282	64	323	243

A.1.3.5. Freight transport stock

YEAR	Railway	rail gauge	Stock at the end of the year																	Available annual mean fleet strength			
			Railway-owned Vehicles															PRIVATE OWNER'S VEHICLES		Railway-owned and private-owner's 'vehicles			
			Covered Wagons			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			Total number of wagons			Wagons		wagons			
			STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK (col.4+7+10+13)	Bogies wagons (col. 5+8+11+1	Total capacity (tonnes)(col.6+9+12	Total Stock	Total capacity (tonnes)	Total Stock	Out of service for maintenance and repair	Mean daily balance of RIV (or PPW) and EUROP (or OPW) wagons	Used exclusively for departmental traffic
1997	CH	N	3550	100	96070	1084	636	44052	417	262	19114	2303	522	103020	7354	1520	262256			7354	1470		309
1997		E	1047	98	17398	69		1173	86	37	1628	78	78	1439	1280	213	21638			1280	256		
1997		TOTAL																					
1997	CIE	L							897	321	24969	922	177	23083	1819	498	48052	47	903	1632	97		157
1997	CP	L	1471	246	43392	732	411	31393	1370	553	57639	434	158	22320	4007	1368	154744	231	12097	4238	430		205
1997		E	5	5	75										5	5	75			5	0		10
1997		TOTAL																					
1997	DB AG	N	42412	6730	1264473	47386	29137	1970289	55554	41880	2419575	2008	326	56756	147360	78073	5783093	65781	.	224074	.	.	1144
1997		E																					.
1997		TOTAL																					
1997	DSB	N	.	.	.	.	.	.	.	.	.	.	.	.	3192	.	.	.	.	.	.	.	.
1997	FS SpA	N	28241	7577	957755	16256	6349	678506	22741	18756	1223130	277	218	15003	67515	32900	2874394	8994	285000	76685	.	.	6790
1997	NS N.V.	N	.	.	.	.	.	.	.	.	.	.	.	.	3507	.	.	1240	.	4747		.	
1997	OBB	N	8450	1277	258645	3040	1910	145020	6405	4964	330701	512	298	23072	18407	8449	757438	6800	367195	26031	1611	2057	2664
1997		E	29	22	481	3	2	48	63	50	1123	162	162	6737	257	236	8389			259	40		61
1997		TOTAL																					
1997	RENFE	L	4492	1902	170589	5180	3481	221432	9229	6077	425451	1443	291	53787	20344	11751	871259	7967	344174	28501	1104		1770
1997		NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997		TOTAL																					
1997	BV	N																					745
1997	SJ	N	3977	181	118607	307	254	16181	7637	1079	252610	56	29	2982	11977	1543	390380	5967	253290	18279	.	438	242
1997	SNCB/NME	N	1627	131	53227	3079	2254	155423	8182	6809	422712	44	44	2272	12932	9238	633634	5976	345136	18871	2439	-286	4436
1997	SNCF	N	15090	8428	628498	8956	6563	446629	32652	26280	1651872	264	262	12939	56962	41533	2739938	66690	3153379	106043	2264	-13784	20044
1997	VR	L	4664	629	143531	1133	908	54625	6736	3878	309253	782	780	44112	13315	6195	551521	363	15550	13038	173	339	2210
1997	CFF/SBB/F	N	4537	200	125197	3379	1758	149099	3801	2452	173971	2512	612	85493	14229	5022	533760	6459	251846	.	.	.	.
1997		E	14		224	10	10	190	25	20	440	62	62	2730	111	92	3584			.	.	.	.
1997		TOTAL																					
1997	NSB BA	N	934	11	23605	143	57	5464	2185	513	78232	52	23	1841	3314	604	109142	243	7745	3634	.	.	.
1997	BC	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	BDZ	N	3679	2127	157134	7501	4501	457643	5461	5461	322593	9673	9673	567456	26314	24762	1504826	8700	491335	35749	2637	.	.
1997		E	118	118	2370	278	278	5452	116	116	2320	133	133	2926	645	645	13041			674	69		.
1997		TOTAL																					
1997	CD	N	14811	6774	574740	32913	22251	1538816	7107	6633	373632	4863	4285	246164	59694	39943	2733352	11029	551450	73250	18201	.	4990
1997	CFR	L																		.	.	.	.
1997		N	35227	13064	1280668	57159	51085	3093178	20922	12115	912643	25545	13341	1011929	138853	89605	6298418	15330	722599	99574	27178	.	.
1997		E	66	64	680	673	671	11108	380	380	7344	50	50	969	1169	1165	20101			517		.	.
1997		TOTAL																					
1997	EVR	L	744	744	47981	1725	1725	116541	436	436	28985	2565	2565	157235	5470	5470	350742	1748	108921	8041	920		68
1997	LDZ	L	1505	1505	98517	1644	1644	111776	1003	1003	67311	4474	4474	249381	8626	8626	526985	1960	123794	10586	1038		127
1997	MAV Rt.	L																					
1997		N	4918	2039	184396	12608	8273	581655	4610	2448	193380	2243	2055	108364	24379	14815	1067795	2035	80738	26414	97		2328
1997		E	18		.	35		.	68		.				121		.			121			
1997		TOTAL																					
1997	PKP	N	19529	12192	869480	66765	63393	3851822	16478	14723	912614	1843	110	55760	104615	90418	5689676	35849	1713054	100462	23673	4024	.
1997		E	183		2928	1535		23025	128		2176	1005		31652	2851		59781			1735	564		
1997		TOTAL																					
1997	SZ	N	3067	1494	123846	2606	1959	132139	1079	723	52172	285	272	15772	7037	4448	323929	279	15529	7433	.	1835	40
1997	ZSR	N	9280	4546	370210	12671	9035	645720	4502	3836	234300	3270	2933	168950	29723	20350	1419180	4689	251400	28677	5466	.	.
1997	TCDD	N	4736	281	128255	8181	5153	362733	3914	1059	136715	307	264	13992	17138	6757	641695	832	41928	18210	4177	116	2451
1998	Railtrack	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	EW&S	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	CFL	N	234	43	7745	380	208	16963	1587	1176	78491				2201	1427	103199	187	10254	2349	88	105	224
1998	CH	N	938	100	28926	506	506	27256	348	239	15774	651	507	34216	2443	1352	106172			2443	.	.	.
1998		E	160		2880	16		640	11		330	39		738	226		4588			226	.		
1998		TOTAL																					
1998	CIE	L							897	321	24969	922	177	23083	1819	498	48052	47	903	1632	97		.
1998	CP	L	1462	246	43183	720	411	31149	1375	553	57895	487	158	23062	4044	1368	155289	231	12097	4275	390	.	347
1998		E	5	5	75										5	5	75					.	15
1998		TOTAL																					
1998	DB AG	N	36847	6088	1153237	43831	29933	2087062	54067	43711	2682209	1918	260	55855	136663	79992	5978363	61057	.	205431	.	.	460
1998		E																					.
1998		TOTAL																					
1998	GVG	N																					
1998	DSB	N	.	.	.	.	.	.	.	.	.	.	.	.	2869	.	.	.	.	.	.	.	.

A.1.3.5. Freight transport stock

YEAR	Railway	rail gauge	Stock at the end of the year																	Available annual mean fleet strength			
			Railway-owned Vehicles															PRIVATE OWNER'S VEHICLES		Railway-owned and private-owner's 'vehicles			
			Covered Wagons			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			Total number of wagons			Wagons		wagons			
			STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK (col.4+7+10+13)	Bogies wagons (col. 5+8+11+1	Total capacity (tonnes)(col.6+9+12	Total Stock	Total capacity (tonnes)	Total Stock	Out of service for maintenance and repair	Mean daily balance of RIV (or PPW) and EUROP (or OPW) wagons	Used exclusively for departmental traffic
1998	FS SpA	N	28175	7675	974503	16222	6351	677580	22353	18738	1221834	280	219	15068	67570	32983	2888985	8766	277166	76423	.	.	6782
1998	NS N.V.	N	.	.	.	.	.	.	.	.	.	.	.	.	3320	.	.	1240	.	4653	.	.	.
1998	OBB	N	8457	1725	276098	2862	2028	144891	6017	4704	320925	496	294	22950	17832	8751	764864	5978	341122	24184	1961	1585	4447
1998		E	29	22	481	3	2	48	63	50	1123	137	137	5480	232	211	7132			232	29		
1998		TOTAL																					
1998	RENFE	L	4227	1948	165622	4817	3384	218267	8479	5728	403353	1369	222	50637	18892	11282	837879	7767	335534	27485	1064		1765
1998		NE																					
1998		TOTAL																					
1998	FEVE	E	.	.	.	.	.	.	.	.	.	.	.	.	1005	.	.	.	.	.	.	.	.
1998	FGC	NE	.	.	.	.	.	.	.	.	.	.	.	.	182	.	.	.	.	.	.	.	.
1998	BV 97	N																		745			745
1998	BK 97	N	.	.	.	.	.	.	.	.	.	.	.	.	44	.	.	.	.	.	.	.	.
1998	MTAB 97	N	.	.	.	.	.	.	.	.	.	.	.	.	901	.	.	.	.	.	.	.	.
1998	SJ	N	3919	181	117027	424	143	16266	7047	1162	236708	112	29	4579	11502	1515	374580	5713	246218	17215	.	461	198
1998	SNCB/NMBS	N	1559	354	56194	2947	2473	157586	8397	7125	446679	44	39	2264	12947	9991	662723	6150	353306	18992	2498	-613	4445
1998	SNCF	N	12845	7595	542969	8469	6471	430255	29755	24350	1516813	275	275	13358	51344	38691	2503395	65877	3127507	100512	9415	-12810	20853
1998	VR	L	4481	682	141313	982	874	50380	6491	3805	301418	783	781	44193	12737	6142	537304	358	15243	12353	132	333	2246
1998	CFF/SBB/FFS	N	5651	200	146275	3143	1757	122500	3836	2506	158550	836	244	27100	13466	4707	454425	6374	.	.	.	.	.
1998		E	14		224	10	10	190	25	20	440	62	62	2730	111	92	3584			.	.	.	.
1998		TOTAL																					
1998	MTAS	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	NSB BA	N	691	11	21809	69	52	3917	1931	512	76201	44	23	1640	2735	598	103567	239	8171	2850	.	.	.
1998	BC	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	BDZ	N	3512	2107	152109	7358	7358	449053	5241	5241	309775	9568	9568	561734	25679	24274	1472671	6350	355600	33522	1431	-216	.
1998		E	118	118	2370	278	278	5425	116	116	2320	133	133	2926	645	645	13041			645	49		
1998		TOTAL																					
1998	CD	N	14734	6852	574871	32773	22144	1532546	6818	6369	359688	4048	3960	217731	58373	39325	2684836	10588	529400	69707	17321	.	4753
1998	CFR	L																		.	.	.	.
1998		N	34964	13060	1274298	55094	50253	3018290	20566	11913	898019	25287	13341	1028051	135911	88567	6218658	17654	703113	.	78	-60	99
1998		E	66	64	680	673	671	11126	380	380	7400	50	50	970	1169	1165	20176			.			
1998		TOTAL																					
1998	EVR	L	708	708	46020	1613	1613	108942	440	440	29251	2353	2353	156498	5114	5114	340711	1696	105695	7894	656		39
1998	LDZ	L	1442	1442	94364	1566	1566	106488	997	997	66899	4327	4327	241014	8332	8332	508765	1964	125000	10455	885	2427	128
1998	MAV Rt.	L																					
1998		N	4192	1370	147325	10634	7468	485588	4476	2292	162216	4344	3148	196744	23646	14278	991873	2344	82040	25990	6751	18761	1736
1998		E	22	22	165	57	57	570	2	2	20				81	81	755			81	12		5
1998		TOTAL																					
1998	PKP	N	16057	9238	689831	65851	62938	3801614	14998	13609	827890	1833	105	94400	98739	85890	5413735	35924	1954266	86519	21228	5236	.
1998		E	134		2144	1186		17790	103		1751	951		30162	2374		51847			886	489		
1998		TOTAL																					
1998	SZ	N	2880	1451	117296	2526	1905	127910	1073	815	51896	285	272	15778	6764	4443	312880	288	16026	7340	589	322	38
1998	ZSR	N	8766	4827	298600	14764	10839	730800	1346	1312	261000	3146	2876	166200	28022	19854	1456600	4610	249100	27190	5344		
1998	TCDD	N	4502	281	122207	8265	4943	373209	3919	1097	137921	303	244	13845	16989	6565	647182	826	41649	17766	3155	257	2439
1999	GKE	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.		.
1999	OBB	N	8082	1722	276028	2816	2030	143776	5876	4609	311382	492	296	22901	17266	8657	754087	6502	358467	23701	1146	1987	4855
1999		E	29	22	481	3	2	48	63	50	1123	116	116	4640	211	190	5292			211	20		5
1999		TOTAL																					
1999	SNCB/NMBS	N	1630	426	57245	2843	2243	149508	8467	7174	457952	46	41	2381	12986	9884	667086	5702	361471	18632	.	-618	4420
1999	AAE	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	DB AG	N	32498	6124	987146	40961	28785	1812577	53843	41079	2399134	1857	285	52647	129159	76273	5251504	58787	.	192833	.	.	378
1999		E																					
1999		TOTAL																					.
1999	GVG	N																					
1999	KEG	N																					
1999	DBS	N	.	.	.	.	.	.	.	.	.	.	.	.	2330	.	.	.	.	.	.	.	.
1999	EusKotren	E							16	16	672				16	16	672			16			.
1999	FEVE	E	.	.	.	.	.	.	.	.	.	.	.	.	995	.	.	.	.	.	.	.	.
1999	FGC	N																					
1999		E				86		1935				96	96	4320	182	96	6255			182			
1999		Total																					
1999	RENFE	L	4124	1946	161597	4601	3354	206038	8369	5725	393944	1330	190	48777	18424	11215	810356	7991	345211	26537	1078		1752
1999		NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999		TOTAL																					
1999	VR	L	4444	717	142810	948	856	48878	6472	3812	301317	783	781	44187	12647	6166	537192	355	15103	12020	192	394	2240

A.1.3.5. Freight transport stock

YEAR	Railway	rail gauge	Stock at the end of the year																	Available annual mean fleet strength			
			Railway-owned Vehicles															PRIVATE OWNER'S VEHICLES		Railway-owned and private-owner's 'vehicles			
			Covered Wagons			HIGH-SIDED OPEN WAGONS			FLAT WAGONS			OTHER WAGONS			Total number of wagons			Wagons		wagons			
			STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK	Bogies wagons	Total capacity (tonnes)	STOCK (col.4+7+10+13)	Bogies wagons (col. 5+8+11+1	Total capacity (tonnes)(col.6+9+12	Total Stock	Total capacity (tonnes)	Total Stock	Out of service for maintenance and repair	Mean daily balance of RIV (or PPW) and EUROP (or OPW) wagons	Used exclusively for departmental traffic
1999	SNCF	N	11489	7228	496401	7734	6345	405976	28819	23832	1478794	288	288	13837	48330	37693	1395008	64538	3094190	96300	10150	-12394	21055
1999	EW&S	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	Railtrack	N																					
1999	CH	N	1038	100	28915	638	638	34918	348	239	15819	1186	535	35715	3210	1512	115367			.	.	.	.
1999		E	165		2925	65		975	11		330	75		1341	316		5571			.	.	.	.
1999		TOTAL																					
1999	CIE	L							907	331	25379	912	167	22673	1819	498	48052	47	903	1632	97		157
1999	FS SpA	N	28633	7684	975712	16081	6348	673399	22701	18730	1221260	280	219	15068	67695	32981	2885439	8003	255300	76196			6795
1999	CFL 98	N	234	43	7745	380	208	16963	1587	1176	78491				2201	1427	103199	187	10254	2349	88	105	224
1999	NS B.V.98	N	.	.	.	.	.	.	.	.	.	.	.	.	3320	.	.	1240	.	4653	.	.	.
1999	CP	LE	1471	246	43291	722	411	31173	1377	621	57919	443	414	22182	4013	1692	154565	231	12097	4244	212	.	302
1999	BK	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	MTAB	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	SJ	N	3878	181	115923	505	225	20507	6730	1210	230000	55	27	2824	11168	1643	369254	6809	295885	17596	.	584	198
1999	CFF/SBB/F	N	5651	200	146275	3143	1757	122500	3836	2506	158550	836	244	27100	13466	4707	454425	6374	.	.	.	.	.
1999		E	14		224	10	10	190	25	20	440	62	62	2730	111	92	3584			.	.	.	.
1999		total 98																					
1999	MTAS	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	NSB BA	N	628	11	18033	62	52	2930	1799	506	66201	38	23	957	2527	592	88121	239	8171	2710	.	.	.
1999	BDZ	N	3236	2078	143878	7276	7276	444086	5133	5133	303568	9416	9416	553147	25061	23903	1444679	5721	286050	31405	1011	-27	.
1999		E	118	118	2370	278	278	5425	116	116	2320	122	122	2684	634	634	12799			639	34		
1999		TOTAL																					
1999	BC	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999		N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	CD	NE	12773	5648	514084	31102	19753	1480580	6638	5408	354740	3215	3130	172143	53728	33939	2521547	10752	537600	64521	16032	.	4399
1999	EVR	L	1058	1058	68770	1571	1571	106043	581	581	38637	1357	1357	90241	4567	4567	303691	1773	117353	6978	458	2409	28
1999	MAV Rt.	N	3298	1166	113884	10462	7430	508542	4261	2244	171544	3774	2626	169985	21795	13466	963955	2331	81585	24126	1542	-4808	
1999		E	19	19	142	42	42	420	68	68	680				129	129	1242			129			
1999		TOTAL																					
1999	LDZ	L	1403	1403	91910	1477	1477	102356	941	941	63122	4057	4057	225975	7878	7878	483363	1429	90590	9569	813	1804	119
1999	PKP	N	13140	7266	484866	64260	61477	3463614	14357	12271	633582	2168	60	84118	93925	81074	4666180	.	.	82771	19327	6201	.
1999		E	118		1888	951		14265	97		1649	935		29950	2101		47752			815	542		
1999		TOTAL																					
1999	CFR	N	33083	12006	1210266	50667	46513	2789975	19841	11117	867838	24962	12718	1409392	128553	82354	6277471	11854	.	68777	.	190	89
1999		E	44	24	450	555	355	9419	408	144	7823	49	21	958	1056	544	18650			509			
1999		TOTAL																					
1999	SZ	N	2528	1438	108207	2214	1829	116874	1063	807	51413	284	271	15662	6089	4345	292156	288	16040	6788	662	274	37
1999	ZSR	N	7302	4020	250120	10832	8357	572325	3863	3863	169319	3244	2946	120065	25241	19186	1111829	4700	302127	20003	5310	.	.
1999	TCDD	N	4411	280	119819	8602	5934	395276	3872	1095	136593	328	271	14863	17213	7580	666551	847	42464	18040	2569	141	2357

A1.3.6. Staff

YEAR	Railway	Annual mean railway staff strength																				
		GENERAL MANAGEM	RAILWAY OPERATION												Total (col.3+7+12+15)	Other Operations				Total railway staff-strength (col.16 to 20)	Permanent staff	Staff supplied by contractors
			Operating and Traffic				Traction and rolling stock					WAY AND WORKS										
		General manager's Office and Regional	Central and regional offices	Stations Services	Train Services	Total (col. 4 to 6)	Central and regional offices	Motor vehicles driving staff	Main workshops	Other Staff	Total (col.8 to 11)	Central and regional offices	permanent way maintenance and supervision	Total (col.13 to 14)		Road services	Shipping services	Miscellaneous (electric power plants, cartage, hotels etc)	New works, reconstruction			
1985	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	BR	8054	.	.	.	53671	.	20758	24853	19063	64674	.	.	40667	167066		11354			178420	.	.
1985	CFF	2049	501	16553	3191	20245	143	4628	3015	1178	8964	675	4583	5258	36516		53	185	355	37109	35205	
1985	CFL	262	57	1106	131	1294	38	337	420	328	1123	76	694	770	3449	200		36	115	3800	3641	5
1985	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	CH	1213	.	.	.	4074	.	.	.	.	3695	.	.	3062	12044	335				12379	12379	2669
1985	CIE	348	101	2326		2427	164	476	1050	337	2027	114	1507	1621	6423	9009	14	182		15628	13627	
1985	CP	2095	582	5024	1635	7241	382	1586	4377	244	6589	481	4211	4692	20617	66	194		872	21749	21749	
1985	CSD	.	.	.	12043	.	.	24359	.	.	.	.	.	.	.	.	.	.	.	211892	.	.
1985	DB	13987	8293	91235	12080	111608	3751	23568	20397	40558	88274	6524	51481	58005	271874	11001	481			283356	283332	
1985	DR	14195	5220	74474	4693	84387	1041	16785	34815	40163	92804	1072	51554	52626	244012		572	2299		246883	244108	
1985	DSB	930	2258	3877	1240	7375	455	1820	1791	763	4829	497	2794	3291	16426	1403	2952	566	288	21635	14793	
1985	FS	8542	3543	70961	20782	95286	3257	27923	12140	21978	65298	7213	35551	42764	211890		2256	1982	.	216128	22555	15069
1985	JZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	155469	.	.
1985	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	133083			.	.	133083	.	.
1985	NS	2080	706	8232	2214	11152	343	3522	2170	2212	8247	1657	3703	5360	26839					26839	25538	
1985	NSB	1499		3938	754	4692		1674	2270	900	4844		3041	3041	14076	1155			671	16902	15371	
1985	OBB	2542	1487	22961	4468	28916	217	5185	6704	7362	19468	618	16176	16794	67720	2829	80	332	.	70961	52543	2208
1985	PKP	14670	.	.	24733	.	.	38802	.	38087	.	.	.	.	377768			.	.	377768	.	7218
1985	RENFE	8224	4610	16147	419	21176	344	10419	11189	1036	22988	1588	12312	13900	66288	152				66440	66258	
1985	SJ	2000	442	13907	732	15081	440	3572	4193		8205	957	4932	5889	31175	3339	246	314	1426	36500	35568	
1985	SNCB/NMI	2065	1328	16228	2658	20214	802	4117	2643	9111	18673	1033	8308	9341	50293			1699	5972	57964	55217	
1985	SNCF	19969	8778	80497	11386	100661	1839	23981	25536	11913	63269	6321	43281	49602	233501		351	198	8041	242091	237483	
1985	VR	2261	339	3745	3706	7790	899	3346	363	3439	8047	359	5867	6226	24324	548		1602	.	26474	25744	360
1985	TCDD	8635	.	.	.	10394	.	.	.	.	12768	.	.	17082	48879		.	.		65190	29866	
1986	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	BR	7492	.	.	.	52514	.	20049	21446	18818	60313	.	.	39435	159754			11646		171400	.	.
1986	CFF	2070	517	16554	313	20208	144	4721	2986	1167	9015	678	4484	5162	36455		53	185	317	37010	34895	
1986	CFL	264	58	1093	135	1286	40	329	420	327	1116	86	661	747	3413	206		36	130	3785	3635	
1986	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	CH	1180	.	.	.	3926	.	.	.	.	3659	.	.	3244	12009	350			2237	14596	12359	
1986	CIE	342	97	2277		2374	162	498	1078	335	2073	114	1385	1499	6288	8515	13	184		15000	12557	
1986	CP	2064	576	5025	1632	7233	374	1547	4336	245	6502	474	4149	4623	20422	68	191		752	21433	21433	
1986	CSD	.	.	.	12157	.	.	24327	.	.	.	.	.	.	.			.	.	208207	.	
1986	DB	14176	8087	87911	11972	107970	3126	23194	19934	38845	85099	6277	47985	54262	261507	10763	520			272790	272773	
1986	DR	14046	5186	73652	4653	83491	1060	17678	34878	39574	93190	1099	51308	52407	243134		549	2324		246007	242506	
1986	DSB	930	2198	3717	1177	7092	409	1518	1705	637	4269	461	2680	3141	15432	1421	3175	1156	253	21437	14544	.
1986	FS	8495	3523	70573	20668	94764	3239	27770	12073	21858	64940	7173	35356	42529	210728		2318	1901		214947	214947	.
1986	JZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	156198	.	.
1986	MAV	.	.	.	.	.	.	.	.	.	.	.	.	133718	.			.	.	133718	.	
1986	NS	2069	717	8440	2303	11460	353	3771	2151	2262	8537	1674	3734	5408	27474					27474	26126	
1986	NSB	1462		.	752	.		1658	2252	.	.		2966	2966	13984	1181			667	15832	15179	
1986	OBB	2650	1477	22837	4357	28671	207	5330	6651	7226	19414	602	16130	16732	67467	2801	77	330		70675	53846	2113
1986	PKP	14691	.	.	24301	.	.	38025	.	37038	.		.	.	373639					373639	.	8591
1986	RENFE	9294	2458	17095	2041	21594	1354	9924	4025	7172	22475	1331	11582	12913	66276	233				66509	66397	
1986	SJ	1908	452	13594	695	14741	424	3266	4051		7741	917	4767	5684	30074	3424	242	403	1683	35826	34828	
1986	SNCB/NMI	1958	1295	15584	2594	19473	766	6246	4443	6504	17959	1005	7704	8709	48099			1585	5509	55193	53298	
1986	SNCF	18092	8959	78050	11192	98201	1768	22736	25658	11609	61771	6176	42233	48409	226473		352	205	6374	233404	229270	
1986	VR	2127	336	3696	3668	7700	156	3236	2358	2330	8080	346	5240	5586	23493	531		1597	.	25621	25041	.
1986	TCDD	11122	4719	2830	2477	20026	1031	2261	5796	4440	13528	1677	9516	11193	45869					45869	18725	
1987	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	BR	10230	.	.	.	50584	.	18928	16155	18825	53908	.	.	38003	152725			8463		161188	.	.
1987	CFF	2122	513	16853	3025	20391	145	4778	2958	1160	9041	691	4411	5102	36656		51	186	317	37210	34800	
1987	CFL	261	57	1068	131	1256	42	320	428	323	1113	84	638	722	3352	203		36	119	3710	3567	
1987	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

A1.3.6. Staff

YEAR	Railway	General manager's Office and Regional	Central and regional offices	Stations Services	Train Services	Total (col. 4 to 6)	Central and regional offices	Motor vehicles driving staff	Main workshops	Other Staff	Total (col.8 to 11)	Central and regional offices	permanent way maintenance and supervision	Total (col.13 to 14)	Total (col.3+7+12+15)	Road services	Shipping services	Miscellaneous (electric power plants, cartage, hotels etc)	New works, reconstruction	Total railway staff-strength (col.16 to 20)	Permanent staff	Staff supplied by contractors
		Annual mean railway staff strength																				
		GENERAL MANAGEM	RAILWAY OPERATION													Other Operations						
			Operating and Traffic				Traction and rolling stock					WAY AND WORKS										
1987	CH	1184	.	.	.	3848	.	.	.	.	4028	.	.	3328	12388	346			1791	14525	12734	
1987	CIE	388	167	1468	1298	2933	52	181	1281	113	1627	147	1277	1424	6372	7494	102		48	14016	12606	
1987	CP	2037	510	5016	1497	7023	364	1539	4336	324	6563	490	4212	4702	20325	67	191		674	21257	21257	
1987	CSD	.	.	.	12129	.	.	24231	.	.	.	.	.	.	.			.	.	207826	.	.
1987	DB	15396	7139	84536	11722	103397	2544	22455	19390	37431	81820	5826	44992	50818	251431	10406	577			262414	262392	
1987	DR	14174	5410	74985	4704	85099	1061	18023	35161	40368	94613	1100	51430	52530	246416		530	2389		249335	246392	.
1987	DSB	870	2386	3881	1168	7435	196	1498	1710	582	3986	465	2644	3109	15400	1460	3235	1395	246	21736	14750	.
1987	FS	21709	.	65720	21017	86737	.	27329	9957	23103	60389		44411	44411	213246		2325			215571	215571	.
1987	JZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.	155476	.	.
1987	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	129903			.	.	129903	.	
1987	NS	2005	775	8403	2303	11481	366	3868	2071	2213	8518	1833	3544	5377	27381					27381	26146	
1987	NSB	1455		.	760	.		1683	2247	.	.		2844	2844	.	1210			463	15788	15210	
1987	OBB	2645	1473	22356	4145	27974	207	5370	6583	7119	19279	896	15820	16416	66314	2764	76	326		69480	53898	.
1987	PKP	14815	.	.	24120	.	.	36760	.	37292	.	.	.	.	372571					372571	.	8101
1987	RENFE	8877	1991	15486	2177	19654	1152	9272	3622	6801	20847	1131	9995	11126	60504	241				60745	60630	
1987	SJ	2152	1373	12158	679	14210	420	3445	3474		7339	971	4406	5377	29078	3493	289	455	1619	34934	34077	
1987	SNCB/NMB	1812	1403	14921	2577	18901	715	6015	4189	6249	17618	509	7035	7544	45425			1524	5899	52848	51530	
1987	SNCF	16980	8863	74236	10906	94005	1683	21401	24000	10918	58002	6013	10491	46504	215491		328	201	6406	222426	218695	
1987	VR	2005	378	3562	3610	7550	192	3207	2287	2093	7779	340	5034	5374	22708	512		1586	.	24806	24320	.
1987	TCDD	12564	1473	6520	2632	10625	.	2951	.	.	11962	.	.	10045	45196					45196	18545	
1988	BDZ	1767	2075	27786	1884	31745	1371	5022		10927	17320	1978	11754	13732	64564			216	2331	67111	67111	
1988	BR	9730	169	38102	9781	48052	.	17189	12728	13819	43736	3925	38327	42252	143770			6130		149900	149900	.
1988	CFF	2182	530	17023	2884	20437	152	4858	2951	1164	9125	717	4338	5055	36799		53	180	340	37372	34621	
1988	CFL	260	58	1038	141	1237	40	306	417	320	1083	86	689	775	3355	206		36	61	3658	3516	
1988	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	CH	1171	.	.	.	3811	.	.	.	.	4252	.	.	3496	12730	323			1156	14209	13053	
1988	CIE	361	153	1398	1199	2750	48	168	1192	105	1513	137	1188	1325	5949	6767	84		45	12845	11464	
1988	CP	2029	522	5297	1634	7453	367	1564	4315	324	6570	465	4647	5112	21164	69	219		612	22064	22064	
1988	CSD	.	.	.	11881	.	.	24079	.	.	.	.	.	.	.			.	.	207503	.	.
1988	DB	14992	7050	81085	11300	99435	2487	22062	18297	35982	78828	5703	41848	47551	240806	9949	589			251344	251322	
1988	DR	15479	5350	75102	4708	85160	1087	18367	34945	41987	96386	1126	51813	52939	249964		561	2356		252881	250238	.
1988	DSB	776	2562	3820	1170	7552	251	1526	1681	505	3963	416	2614	3030	15321	1490	3216	1442	325	21794	14920	.
1988	FS	21478	.	65954	20904	86858	.	27522	9750	22492	59764	.	43889	43889	211989		.	.	.	214298	214298	.
1988	JZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	153259	.	.
1988	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	129038			.	.	129038	.	
1988	NS	1890	794	8317	2258	11369	347	3727	1942	2075	8091	1811	3421	5232	26591					26591	25502	
1988	NSB	1495		.	745	.		1671	2169	.	.		2203	2203	.	1178			.	15130	14716	
1988	OBB	2639	1464	21689	3899	27052	210	5350	6508	6982	19050	593	15436	16029	64770	2712	70	323		67875	53484	.
1988	PKP	14677	.	.	22799	.	.	34884	.	36263	.	.	.	.	360015					360015	.	6850
1988	RENFE	7423	1478	13720	2030	17228	1151	8274	3245	5959	18629	932	8535	9467	52747	214				52961	52656	
1988	SJ (BV)	2068	1403	11715	679	13797	436	3399	3374		7209	885	3682	4567	27641	3529	288	871	1499	33828	32960	
1988	SNCB/NMB	1860	1460	14212	2419	18091	581	5671	3839	5709	15800	387	8061	8448	44199			1394	4108	49701	48608	
1988	SNCF	17414	8617	70580	10387	89584	1590	20654	22282	10380	54906	5827	36837	42664	204568		330	202	8114	213214	209713	
1988	VR	1795	364	3352	3546	7262	188	3132	2138	1990	7448	311	4602	4913	21418	508		1433	.	23359	22758	.
1988	TCDD	13495	1035	7187	2441	10663	.	2787	.	.	11968	.	.	16722	52848					52848	48623	
1989	BDZ	1979	2135	30140	1683	33958	1347	4932	5360	5716	17,55	1699	14173	15872	68864			152	917	69933	69933	
1989	BR	10943	198	35157	9159	44514		16568	4642	13376	34586	3150	33515	36665	126708			6295	1010	134013	134013	.
1989	CFF	2237	572	16843	2829	20244	152	5053	2947	1166	9318	738	4242	4980	36779		54	181	324	37338	34545	
1989	CFL	248	56	1033	138	1227	43	301	406	315	1065	84	642	726	3266	202		36	85	3589	3455	
1989	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	CH	1322	.	.	.	3675	.	.	.	.	4313	.	.	3396	12706	.		375	889	13970	13081	.
1989	CIE	358	142	1268	1107	2517	44	156	1108	97	1405	136	1121	1257	5537	6270	73		42	11992	10617	
1989	CP	2214	363	5529	1703	7595	341	1564	1842	2227	5974	168	5747	5915	21698	68	226	64		22056	22056	
1989	CSD	.	.	.	12108	.	.	24119	.	.	.	.	.	.	.			.	.	236438	.	.
1989	DB	14464	6994	78046	10885	95925	2486	22386	17147	34841	76860	5528	39524	45052	232301	9428	625			242354	242331	

A1.3.6. Staff

		Annual mean railway staff strength																				
		GENERAL MANAGEM	RAILWAY OPERATION													Other Operations				Total railway staff-strength (col.16 to 20)		Staff supplied by contractors
			Operating and Traffic				Traction and rolling stock					WAY AND WORKS			Total (col.3+7+12+15)			Miscellaneous				
YEAR	Railway	General manager's Office and Regional	Central and regional offices	Stations Services	Train Services	Total (col. 4 to 6)	Central and regional offices	Motor vehicles driving staff	Main workshops	Other Staff	Total (col.8 to 11)	Central and regional offices	permanent way maintenance and supervision	Total (col.13 to 14)		Road services	Shipping services	(electric power plants, cartage, hotels etc)	New works, reconstruction		Permanent staff	
1989	DR	15545	5415	74558	4685	84658	1088	18980	34773	41491	96332	1184	51501	52685	249220		590	2338		252148	249944	
1989	DSB	675	2658	3779	1345	7782	245	2040	1758	581	4624	341	2500	2841	15922	1488	3099	264	344	21117	14694	.
1989	FS	21068	.	63938	20651	84589	.	27293	9452	21805	58550	.	42548	42548	206755		.	.	.	209018	209018	.
1989	JZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	151167	.	.
1989	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	125758			.	.	125758	.	.
1989	NS	1802	779	8328	2347	11484	350	3672	1854	1959	7835	1821	3265	5086	26207					26207	25253	
1989	NSB	1459	.	2923	700	.	.	1577	1448	.	.	.	2162	.	10604	1096		2967		14667	14288	
1989	OBB	2518	1467	21330	3766	26563	211	5309	6455	6884	18859	584	15193	15777	63717	2734	71	438		66960	53372	.
1989	PKP	15385	.	.	21239	107772	.	32853	.	34597	119475	.	.	78587	321219			24454	.	345673	.	2980
1989	RENFE	7099	1520	14260	2091	17871	760	7679	3088	5502	17029	813	7372	8185	50184					50184	694	
1989	SJ	1844	490	8834	1051	10375	434	3360	4179		7973				20192	3489	275	1682		25638	24787	
1989	BV	1031										331	3444	3775	4806			870	1500	7176	6744	
1989	SNCB/NMB	1799	1424	13839	2309	17569	545	5496	3340	4909	14290	557	7466	8023	41681			1398	3624	46703	45867	
1989	SNCF	17394	8454	67524	10348	86326	1535	20400	21221	9934	53090	5527	35429	40956	197766		329	198	8151	206444	202579	
1989	VR	1338	715	2602	3059	6376	230	3040	2416	1960	7646	1185	3566	4751	20111	484		1231	.	21826	21065	.
1989	TCDD	2705	6416	3697	2742	12855	4008	2582	4386	1618	12594	6854	6553	13407	41561		6792	2536		50889	48234	
1990	BDZ	1591	1079	28950	1370	31399	782	4600	5264	5509	16155	734	13434	14168	63313				769	64082	57988	
1990	BR	11217	203	36851	7943	44997	.	16925	5115	.	36157	3296	31127	34423	126794			6255	2272	135321	135321	
1990	CFF	2305	607	17021	2863	20491	160	5170	2922	1185	9437	761	4166	4927	37160		51	180	303	37694	34808	
1990	CFL	242	56	1032	134	1222	44	313	383	315	1055	89	619	708	3227	199		36	81	3543	3416	
1990	CFR	1965	678	66347	4326	71351	373	21243	9458	35309	66383	40	53940	53980	193679	.	.	.	.	247659	247659	
1990	CH	1298	.	.	.	3520	.	.	.	.	4353	.	.	3555	12726			302	296	13324	13028	.
1990	CIE	357	140	1257	1098	2495	43	153	1099	96	1391	134	1110	1244	5487	6188	82		42	11799	10502	
1990	CP	2284	418	7195	1713	9326	321	1609	2173	2029	6132	187	3815	4002	21744	64	231	71		22110	22110	
1990	CSD	.	.	.	12485	.	.	24151	.	.	.	.	.	.	.			.	.	236218	.	.
1990	DB	14020	6982	76285	10618	93885	2496	22640	16484	33917	75537	5406	37848	43254	226696	8653	626			235975	235961	
1990	DR	15128	4666	75454	5168	85288	1066	18914	32804	39312	92096	1037	49961	50998	243510		590	2194		246294	245256	
1990	DSB	637	2368	4217	1234	7819	230	2029	1652	593	4504	324	2360	2684	15644	1470	2628	273	338	20353	14227	.
1990	FS	20190	.	61316	19873	81189	.	26486	8616	20910	56012	.	40803	40803	198194	.	.	.	.	200405	200405	.
1990	JZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	140187	.	.
1990	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	127154			.	.	127154	.	.
1990	NS	1752	881	8432	2395	11708	397	3615	1850	1826	7688	1729	3288	5017	26165					26165	25127	
1990	NSB	1570		2690	702	3392		1483	1340		2823		1717	1717	8502	1097		3374		13973	13576	
1990	OBB	2499	1457	21561	3681	26699	215	5441	6431	6809	18896	573	14983	15556	63650	2761	72	446		66929	53126	.
1990	PKP	14726	.	.	21067	105872	.	31498	.	33609	115648	.	.	77446	313692			22922	.	336614	.	474
1990	RENFE	6636	1302	13769	2134	17205	888	7753	3030	5322	16993	642	8248	8890	49724					49724	914	
1990	SJ	1933	485	8983	1073	10541	383	2782	4059		7224				19698		264	854		20816	20130	
1990	BV	1095										941	3517	4458	5553			589	1500	7642	6902	
1990	SNCB/NMB	1806	1458	13556	2285	17299	553	5364	3122	4652	13691	559	7181	7740	40536			1177	3492	45205	44646	
1990	SNCF	18080	8356	64856	10555	83767	1498	19918	20842	9738	51996	5479	33894	39373	193216		132	199	8534	202081	198716	
1990	VR	1199	606	2520	2829	5955	182	2874	2181	1859	7096	1107	3275	4382	18632	450		1125	.	20207	19825	.
1990	TCDD	2490	6184	4034	2637	12855	4983	2375	5171	748	13277	6415	5190	11605	40227		6522	2536		49285	47285	
1991	BDZ	1591	1079	28950	1370	31399	782	4600	5264	5509	16155	734	13434	14168	63313				769	64082	57988	
1991	BR	17364	1291	35634	7991	44916	450	16827	5284	14308	36869	1573	32700	34273	133422			1653	2713	137788	137788	
1991	CFF	2410	626	17265	2965	20856	156	5353	2932	1199	9640	801	4195	4997	37903		51	179	286	38419	35419	
1991	CFL	246	55	1008	142	1205	44	328	378	316	1066	88	619	707	3224	197		36	86	3543	3424	
1991	CFR	3180	972	60570	5947	67489	649	22553	32509	9379	65090	483	54648	55131	190890			6874		197764	196007	
1991	CH	1285	.	.	.	3489	.	.	.	.	4069	.	.	3366	12209			360	436	13005	12569	.
1991	CIE	354	140	1238	1088	2466	38	158	951	87	1234	134	1087	1221	5275	6154	89			11518	10313	
1991	CP	2495	401	6712	1584	8697	308	1656	2203	2149	6316	165	3506	3671	21179	64	239	65		21547	21547	
1991	CSD	.	.	.	12168	.	.	23397	.	.	.	.	.	.	.				.	221812	.	.
1991	DB	13351	6662	75213	10777	92652	2359	23445	16046	33692	75542	5428	36305	41733	223278	7771	637			231686	231655	
1991	DR	19370	.	58912	5263	64175	.	18260	29792	37830	85882	.	.	38356	207783		438	1954		210175	210175	
1991	DSB	631	2406	3882	1238	7526	248	2065	1593	549	4455	324	2322	2646	15258	1486	2743	306	353	20146	13847	
1991	FS	19091	.	55089	17890	72979	.	24467	7747	18586	50800	.	35080	35080	177950	.	.	.	.	180055	180055	.

A1.3.6. Staff

		Annual mean railway staff strength																				
		GENERAL MANAGEM	RAILWAY OPERATION																			Staff
			Operating and Traffic				Traction and rolling stock					WAY AND WORKS			Total	Other Operations				Total		
YEAR	Railway	General manager's Office and Regional	Central and regional offices	Stations Services	Train Services	Total (col. 4 to 6)	Central and regional offices	Motor vehicles driving staff	Main workshops	Other Staff	Total (col.8 to 11)	Central and regional offices	permanent way maintenance and supervision	Total (col.13 to 14)	(col.3+7+12+15)	Road services	Shipping services	Miscellaneous (electric power plants, cartage, hotels etc)	New works, reconstruction	railway staff-strength (col.16 to 20)	Permanent staff	supplied by contractors
1990	JZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	140187	.	.
1991	MAV	.	.	.	.	.	.	.	.	.	.	.	.	.	113266			.	.	113266	.	.
1991	NS	1859	908	8648	2602	12158	424	3649	1862	1807	7742	1419	3771	5190	26949					26949	25897	
1991	NSB	1571		1539	860	2399		1403	1582		2985		2495	2495	9450	960		1781		12191	12191	
1991	OBB	2435	1389	21617	3831	26837	212	6016	5766	6410	18404	554	14514	15068	62744	2677	66	443		65930	52359	.
1991	PKP	14170	.	.	19207	98965	.	28793	.	29739	105189	.	.	71704	290028			18862	.	308890	.	95
1991	RENFE	5178	2998	12704	2100	17802	1125	7685	2954	5269	17033	643	8267	8910	48923					48923	.	
1991	SJ	2147	858	8209	1020	10087	245	2639	2548		5432				17666			852		18518	17900	
1991	BV	1098										999	3550	4549	5647			600	1518	7765	6825	.
1991	SNCB/NMI	1844	1483	13522	2292	17297	554	5159	2991	4420	13124	552	6979	7531	39796			1034	3649	44479	43948	
1991	SNCF	18170	8296	62582	10877	81755	1466	19494	20378	9542	50880	4441	33203	37644	188449			205	9973	198627	195609	
1991	VR	1180	548	2503	689	5740	180	2749	2098	1780	6807	1091	3260	4351	18078	450		1041	.	19569	19234	.
1991	TCDD	2443	6131	2508	4015	12654	4433	2297	5136	1825	13692	5358	5392	10750	39539		6752	2557		48848	46103	
1992	BR	26678	1205	33137	7607	41949	423	16403	5097	12729	34652	1505	31281	32786	136065			1664		137729	137729	
1992	CFL	245	51	994	142	1187	44	338	355	302	1039	91	594	685	3156	198		36	81	3471	3291	
1992	CH	1303	.	.	.	3364	.	.	.	.	3858	.	.	3065	11590			401	467	12458	11991	.
1992	CIE	380	146	1222	1090	2458	33	113	854	78	1078	96	1151	1247	5163	.	74		58	.	5151	
1992	CP	2153	446	6347	1543	8336	508	1457	3956		5921	223	3047	3270	19680	62	279	248		20269	19564	
1992	DB	12197	4260	76038	11351	91649	1939	26741	15983	31916	76579	4140	32370	36510	216935	7172	651		2096	226854	226839	
1992	DR (1991)	19370	.	58912	5263	64175	.	18260	29792	37830	85882	.	.	0	169427		438	1954		184436	210175	
1992	DSB	616	2433	3755	1275	7463	246	2093	1619	509	4467	319	2312	2631	15177	1485	2649	376	389	20076	13756	
1992	FS	19570	.	50203	16569	66772	.	23366	6941	16937	47244	.	31968	31968	165554	.	.	.	.	167566	167566	.
1992	NS	1986	971	8883	3115	12969	459	3760	1895	1902	8016	1522	3855	5377	28348					28348	27266	
1992	RENFE	3612	2391	13940	2209	18540	1618	7227	2796	5077	16718	678	8319	8997	47867					47867	.	
1992	SNCB/NMI	2145	1534	13102	2286	16922	565	5206	3070	4153	12994	194	7166	7360	39421			1006	3462	43889	43351	
1992	SNCF	18581	8197	62011	10772	80980	1441	19081	20112	9206	49840	4515	33310	37825	187226			47	10805	198078	190608	
1992	CFF	2448	646	16898	3003	20547	154	5443	2917	1189	9703	835	4217	5052	37750		51	181	289	38271	354492	
1992	NSB	251	.	.	653	.	.	1090	.	.	.	.	.	.	.	937		.	.	12450	12450	727
1992	OBB	2441	1325	21661	3722	26708	202	6242	5783	6330	18557	535	14424	14959	62665	2648	41	441		65793	52359	.
1992	BV	1013										923	4109	5032	6045				1511	7556	.	.
1992	SJ	2224	873	7534	951	9358	138	2466	2383		4987				16569			818		17387	17047	
1992	VR	1118	537	2531	2493	5561	176	2632	2011	1700	6519	1076	3236	4312	17510	445		990	.	18945	18608	.
1992	BC	1303	845	27371	6	28222		6139	547	17744	24430		21719	21719	75674			5260	3296	84230	84230	
1992	BDZ	1582	2349	20604	1985	24938	442	4088	5089	4993	14612	622	13826	14448	55580				1005	56585	55613	
1992	CFR	5112	992	57923	5415	64330	407	22992	30558	8781	62738	411	52035	52446	184626			4939		189565	.	
1992	CSD	22424	14682	45986	10871	71539	4113	20954	6881	5788	37736	6457	20305	26762	158461			13992	10773	183226	183226	.
1992	EVR	252	46	3432	55	3533		678		1508	2186		1968	1968	7939			415	176	8530	8530	
1992	LDZ	373	328	6822	65	7215		1655		3828	5483		6532	6532	19603			2391	1104	23098		
1992	MAV	1882	1629	31417	4222	37288	451	6593	8385	14063	29492	491	21259	21750	90392	1569		1693	5981	99635	99635	
1992	PKP	13638	.	.	.	88113	.	24868	.	34258	92877	.	.	67131	261759			13354	.	275113	.	13
1992	SZ	1103	434	4383	1282	6099	233	.		.	1978	298	2594	2892	12072	619				12691	.	3621
1992	TCDD	2367	5656	2312	4012	11980	4045	2453	5260	1631	13389	4902	4471	9373	37109		6673	2687		46469	43256	
1993	BR	12452	7676	28014	7170	42860	377	15351	4393	9214	29335	3114	38494	41608	126255			1953	205	128413	128413	
1993	CFL	241	44	944	148	1136	47	345	345	282	1019	90	559	649	3045	193		36	96	3370	3259	
1993	CH	1338	.	.	.	3266	.	.	.	.	4017	.	.	2705	11326			402	427	12155	11728	.
1993	CIE	428	146	1220	1099	2465	30	112	849	70	1061	86	1116	1202	5156	5987	76		47	11266	10153	
1993	CP	1923	147	5485	1781	7413	503	1440	2577		4520	157	2119	2276	16132	60	281	154		16627	.	
1993	DB	12182	4115	72543	11680	88338	1651	26648	15873	31614	75786	4222	31940	36162	212468	6690	644		2457	222259	222250	
1993	DR	4059	.	60137	4975	65112	.	9318	17476	11876	38670	.	27482	27482	135323			792	996	137111	.	
1993	DSB	714	2522	3573	1231	7326	219	1929	1761	262	4171	238	2140	2378	14589	1498	2537	241	527	19392	13425	
1993	FS	18650	.	49050	15915	64965	.	22550	5810	15350	43710	.	30256	30256	157581	.	.	.	.	159577	159577	.
1993	NS	1935	981	8673	3124	12778	461	3778	1868	1888	7995	1568	3893	5461	28169					28169	27443	
1993	RENFE	3833	2140	12444	2013	16597	926	6510	2252	4565	14253	725	6681	7406	42089					42089	.	
1993	SNCB/NMI	2294	1634	13319	2160	17113	581	4190	3029	4037	11837	149	6907	7056	38300			1314	3890	43504	42948	
1993	SNCF	17961	7956	59101	10626	77683	1398	18536	19073	8862	47869	4693	33507	38200	181713			52	10324	192089	185071	

A1.3.6. Staff

		Annual mean railway staff strength																				
		GENERAL MANAGEM	RAILWAY OPERATION												Total (col.3+7+12+15)	Other Operations				Total railway staff-strength (col.16 to 20)	Permanent staff	Staff supplied by contractors
			Operating and Traffic				Traction and rolling stock					WAY AND WORKS										
YEAR	Railway	General manager's Office and Regional	Central and regional offices	Stations Services	Train Services	Total (col. 4 to 6)	Central and regional offices	Motor vehicles driving staff	Main workshops	Other Staff	Total (col.8 to 11)	Central and regional offices	permanent way maintenance and supervision	Total (col.13 to 14)		Road services	Shipping services	Miscellaneous (electric power plants, cartage, hotels etc)	New works, reconstruction			
1993	CFF	2411	654	16141	2935	19730	154	5303	2864	1172	9493	827	4146	4973	36607		52	182	352	37193	34998	
1993	NSB	1808	.	2417	111	.	.	1330	1532	511	.	.	.	.	.	.		.	.	12386	.	.
1993	OBB	2447	1333	21363	3653	26349	186	6063	5762	6298	18309	532	14382	14914	62019	2594	51	438		65102	50890	
1993	BV	1444										477	3682	4159	5603				1400	7003	6601	3000
1993	SJ	2257	1791	5282	1032	8105	152	2176	2351		4679				15041			735		15776	.	.
1993	VR	1120	535	3066	2397	5998	156	2553	1839	1553	6101	1033	2616	3649	16868	455		954	.	18277	17981	.
1993	BC	1188	807	25362	3	26172		5611	589	16658	22858		20322	20322	70540			5941	3278	79759	79759	
1993	BDZ	1454	772	20916	1165	22853	504	6987	3844	2737	14702	709	11947	12656	51035			847	997	52879	.	
1993	CD	6463	8856	40602	7030	56488	2613	11926	12820	2129	29488	3855	17621	21476	113888			1408	846	116142	116142	
1993	CFR	4603	1272	52574	5402	59248	428	22814	28359	8398	59999	435	49381	49816	173666			5154		178820		
1993	EVR	252	46	3432	55	3533		678		1508	2186		1968	1968	7939			415	176	8530	8530	
1993	LDZ	313	298	6488	53	6839		1560		3740	5300		6319	6319	18771			2139	1242	22152	.	
1993	MAV	2747	1774	29655	4333	35762	399	5843		11242	17484	480	18902	19382	75375	1125		620		77120	77120	
1993	PKP	12984	.	.	.	83068	.	23078	.	32597	73203	.	.	78464	247719			13334	.	261053	.	4
1993	SZ	1088	347	4250	516	5113	256	1661		713	2630	284	2511	2795	11626	358				11979		
1993	ZSR	1490	6720	12478	3410	22608	2431	6336	3905	6969	19641	2828	9449	12277	56016			2104	41	58161	58094	67
1993	TCDD	2231	7900	850	1973	10723	4341	2608	5837	3668	16454	4896	4892	9788	39196		6719	2772		48687	42338	
1994	BR	9813	5534	26780	6479	38793	.	14078	3768	6102	23948	5026	26866	31892	104446			2107	195	106748	106748	
1994	Railtrack	3340		5352	7	5359		4	4		8	512	1665	2177	10884			434		11318	11258	.
1994	CFL	238	46	895	144	1085	46	346	355	273	1020	88	560	648	2991	190		36	72	3289	3180	
1994	CH	1381	.	.	.	3234	.	.	.	.	3990	.	.	2596	11201			390	415	12006	11591	.
1994	CIE	431	150	1214	1045	2409	35	92	837	72	1036	84	1125	1209	5085	6018	71		45	11219	10118	
1994	CP	1890	158	5251	1434	6843	499	1413	1344		3256	149	1946	2095	14084	59		127		14270	.	.
1994	DB AG	19193		123903	16141	140044	7218	34514	53781		95513		68758	68758	323508		234		3334	327076	.	.
1994	DSB	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	20044	.	
1994	FS	16200	.	44831	14021	58852	.	21160	4394	15116	40670	.	22709	22709	138431		1818			140249	139633	.
1994	NS	1693	865	8682	2921	12468	444	3342	1727	1728	7241	1671	3488	5159	26561				.	26561	26246	.
1994	RENFE	2699	2279	12181	2129	16589	1229	6366	2250	4791	14636	700	6513	7213	41137					41137	.	
1994	SNCB/NMB	2258	2171	11804	2316	16291	565	4378	3106	3925	11974	172	7620	7792	38315			1023	3391	42729	42116	
1994	SNCF	12738	7846	51977	10797	70620	1424	19274	19891	8785	49374	5087	34534	39621	172353			6093	7244	185690	178745	
1994	CFF/SBB/F	2295	640	14920	2677	18237	153	5053	2764	1139	9109	789	4059	4848	34489		52	178	507	35226	33649	
1994	NSB	2160	.	2095	110	2205	.	1240	1735	140	3115	.	2148	2148	9628	1008		1046	1222	12904	12137	.
1994	OBB	2388	1319	20982	3515	25816	196	5907	5667	6178	17948	534	14167	14701	60853	2531	50	433				
1994	BV	1593										510	3705	4215	5808				1452	7260	6554	3200
1994	SJ	2143	1123	3858	1225	6206	86	3282	2189		5557				13906			690		14596	13887	.
1994	VR	1104	530	2926	2399	5855	145	2528	1653	1444	5770	1016	2534	3550	16279	392		697	.	17368	16730	.
1994	BC	1369	792	19050	5171	25013		5202	632	17122	22956		20236	20236	69574			5284	3104	77962	77962	
1994	BDZ	1407	704	19023	1247	20974	486	6646	4162	2181	13475	693	11372	12065	47921			1862	833	50616	17262	
1994	CD	6448	8805	39654	7002	55461	2105	11052	8306	1954	23417	3672	16925	20597	105923			1010	464	107397	107397	.
1994	CFR	4273	1096	52147	4950	58193	350	19889	25649	7730	53618	386	46490	46876	162960			4388		167348		
1994	EVR	273	40	2806	564	3410		613		1619	2232		1973	1973	7888			406	201	8495	8495	
1994	LDZ	308	308	6597	54	6959		1529		3823	5352		6423	6423	19042			2340	1246	22628		
1994	MAV	2962	1648	28046	3836	33530	385	5423		10400	16208	461	17854	18315	71015	1015		399		72429	72429	
1994	PKP	10635	.	.	.	79517	.	22572	.	30512	69624	.	.	74813	234589			14172		248761	.	
1994	SZ	901	202	3736	518	4456	191	1587		464	2242	284	2195	2479	10078	231				10309	10309	
1994	ZSR	2552	6301	11440	3408	21149	2197	6033	2914	8067	19211	2241	8962	11203	54115			1845	40	56000	55963	37
1994	TCDD	2474	7571	1647	1835	11053	4280	2344	7024	1469	15117	3031	5456	8487	37131		6364	2448		45943	40231	
1995	BR	8799	.	.	.	55168	53	.	.	.	1059	.	.	23114	88140			2025		90165	90165	
1995	Railtrack	3340		5352	7	5359		4	4		8	512	1665	2177	10884			434		11318	11258	.
1995	CFL	234	46	862	148	1056	46	343	353	267	1009	88	577	665	2964	191		18	39	3212	3108	
1995	CH	1515	.	.	.	3221	.	.	.	.	3905	.	.	2429	11070			387	1053	12510	11457	.
1995	CIE	429	145	1199	1031	2375	32	89	822	69	1012	75	1110	1185	5001	6011	64		45	11121	9951	
1995	CP	1752	198	5285	1523	7006	215	1543	525		2283	147	1742	1889	12930	54		75		13059	.	.
1995	DB AG	16687		113759	14961	128720	6602	33040	49599		89241		56981	56981	291629		220		3062	294911	.	.
1995	DSB	724	2568	3407	1103	7078	624	1894	1441	134	4093	423	1909	2332	14227			980	538	15745	.	.

A1.3.6. Staff

Annual mean railway staff strength

YEAR	Railway	GENERAL MANAGEM: General manager's Office and Regional	RAILWAY OPERATION – Operating and Traffic: Central and regional offices	Operating and Traffic: Stations Services	Operating and Traffic: Train Services	Operating and Traffic: Total (col. 4 to 6)	Traction and rolling stock: Central and regional offices	Traction and rolling stock: Motor vehicles driving staff	Traction and rolling stock: Main workshops	Traction and rolling stock: Other Staff	Traction and rolling stock: Total (col.8 to 11)	WAY AND WORKS: Central and regional offices	WAY AND WORKS: permanent way maintenance and supervision	WAY AND WORKS: Total (col.13 to 14)	Total (col.3+7+12+15)	Other Operations: Road services	Other Operations: Shipping services	Other Operations: Miscellaneous (electric power plants, cartage, hotels etc)	New works, reconstruction	Total railway staff-strength (col.16 to 20)	Permanent staff	Staff supplied by contractors
1995	FS	15200	.	47296	13127	60423	.	21629	4834	6807	33270	.	19258	19258	128151		1688			129839	129839	.
1995	NS94	1693	865	8682	2921	12468	444	3342	1727	1728	7241	1671	3488	5159	26561				.	26561	26246	.
1995	OBB	2327	1273	20104	3307	24684	178	5756	6828	4498	17260	516	13587	14103	58374	2429	50	421		61274	50508	
1995	RENFE	2580	2083	11637	2091	15811	895	6278	2100	4428	13701	724	6142	6866	38958					38958	.	
1995	SJ	2083	1095	3617	1279	5991	53	3268	2172		5493				13567			650		14217	13740	.
1995	BV	1659										467	3820	4287	5946				1486	7432	6478	3500
1995	SNCB/NMB	2193	1727	11647	2288	15662	534	4290	3399	3703	11926	141	7493	7634	37415	1023			3453	41891	41392	
1995	SNCF	12275	7981	50129	10568	68678	1614	19408	19864	8279	49165	4916	32171	37087	167204			5786	8124	181114	174000	
1995	VR	966	504	2650	2261	5415	119	2377	1551	1273	5320	949	2485	3434	15135			93	.	15228	15005	.
1995	RHK				34	34						54		54	88					88	88	
1995	CFF/SBB/F	2184	618	13119	2429	16166	149	4842	2702	1094	8787	772	4116	4888	32025		56	780	668	33529	32311	
1995	NSB	2241	.	2003	88	2091	.	1216	1721	140	3077	.	2193	2193	9602	843		918	1052	12415	11894	.
1995	BC	1278	608	17665	4781	23054		4878	487	16471	21836		20249	20249	66417			6159	2958	75534	75534	
1995	BDZ	1494	799	17666	1653	20118	658	5275	3655	3597	13185	1076	11189	12265	47062			1203	959	49224	49224	
1995	CD	5732	8182	38861	6785	53828	2064	10768	8165	1793	22790	3592	16311	19903	102253			601	395	103249	103249	
1995	CFR	2262	1270	59136	5102	65508	181	14803	15111	4800	34895	519	40589	41108	143773		79	4801		148653		
1995	EVR	294	30	2721	508	3259		598		1622	2220		1962	1962	7735			395	120	8250	8250	
1995	LDZ	327	310	5550	448	6308		1397	2488	1521	5406		6069	6069	18110			2434	731	21275	21275	
1995	MAV	2318	576	24994	3815	29385	380	5289		9940	15609	457	14298	14755	62067	1010		6792		69869	69869	
1995	PKP	10554	.	.	.	77153	.	22260	.	21904	67109	.	.	72579	227395			13240		240635	.	
1995	SZ	.	.	.	.	.	.	.		.	.	.	.	.	9761	.				9761	9761	
1995	ZSR	2889	3218	6508	3480	13206	4788	5885		12338	23011	2175	8664	10839	49945			2980	40	52965	52965	149
1995	TCDD	2383	6827	1438	2396	10661	2666	2333	4585	329	9913	1705	8781	10486	33443		6185	5126		44754	38592	
1996	ATOC	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.
1996	Railtrack	.		.	.	.	.	.	.	.	.		.	.	.				.	11298	.	.
1996	RfD Ltd.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.
1996	BK	.	.	.	.	.	.	.	.	.	.	.	.	.	.				.	25	.	.
1996	CFL	240	44	836	156	1036	41	341	344	269	995	93	513	606	2877	195			89	3161	3058	
1996	CH	1510	.	.	.	3165	.	.	.	.	2646	.	.	3678	10999	.		385	337	11721	11384	.
1996	CIE	402	144	1200	1025	2369	32	86	783	26	927	101	1040	1141	4839	5995	66		51	10951	9518	.
1996	CP	1726	177	5300	1627	7104	233	1508	508		2249	259	1565	1824	12903	51		89		13043	.	.
1996	DB AG	10675	3991	124291	16302	144584	620	30492	42166	5759	79037	408	20048	20456	254752			1904		256656	256656	
1996	DSB	300	.	.	.	6218	.	.	.	.	4197	.	.	3646	14361			1272		15633	15633	
1996	FS SpA	15195	.	39945	12586	52531	.	21363	4764	8994	35121	.	20861	20861	123708		1639			125347	125347	
1996	NS	3200	300	2600	2750	5650	200	3200	3900	.	7300				16150	50		9655		25855	.	.
1996	OBB	1277	916	19433	2972	23321	110	5477	7270	3457	16314	625	12680	13305	54217	2451	24	350		57042	49553	
1996	RENFE	2403	2234	11073	2059	15366	685	6177	2036	4183	13081	720	5841	6561	37411					37411	.	
1996	SJ	2084	700	3401	1313	5414	30	3331	2171		5532				13030			625		13655	13021	.
1996	BV	1663		1047		1047						453	3702	4155	6865				1448	8313	7461	.
1996	SNCB/NMB	2187	2480	10706	2246	15432	319	4367	3362	4065	12113	559	6611	7170	36902	541			3699	41142	40064	
1996	SNCF	12175	7897	49159	10525	67581	1512	19558	19387	8223	48680	4581	31093	35674	164110			5402	8378	177890	170782	
1996	VR	878	510	2479	2348	5337	122	2351	1466	1252	5191	921	2399	3320	14726			94		14820	14428	.
1996	VR Ltd.	566	474	1965	2224	4663	122	2351	1466	1252	5191				10420			94		10514	10335	.
1996	RHK				33	33						54		54	87					87	87	
1996	CFF/SBB/F	2100	612	12629	2260	15501	146	4781	2641	1048	8616	726	4197	4923	31140			645	796	32581	31503	
1996	NSB BA	1455	.	1483	73	1556	.	1175	1522		2697				5708	1066		608		7382	7139	.
1996	JBV	.											.	.	.				.	3558	.	.
1996	BC	1343	261	17498	4676	22435		4925	.	.	22642	.	.	21085	67505			7067	3189	77761	77761	
1996	BDZ	1441	837	16963	1631	19431	645	5238	3613	3584	13080	965	11700	12665	46617			1275	839	48731	48455	
1996	CD	4883	5658	34304	7132	47094	1662	11492		14277	27431	2192	17716	19908	99316			1371		100687	100687	
1996	CFR	2349	1446	60812	5288	67546	242	9024	9426	2793	21485	513	38926	39439	130819		82	6339		137240	.	
1996	EVR	323	14	2505	397	2916	.	559		.	2319	.	.	1976	7534			397	83	8014	8014	
1996	LDZ	326		4789	135	4924		1334	2448	1616	5398		5896	5896	16544			2863	572	19979	19979	
1996	MAV Rt.	851	469	22277	3841	26587	370	5011	7315	2236	14932	515	12047	12562	54932			11691		66623	66623	
1996	PKP	10365	.	.	.	74910	.	21615	.	21065	64443	.	.	71256	220974			12051		233025	.	

A1.3.6. Staff

YEAR	Railway	Annual mean railway staff strength																				Staff supplied by contractors
		GENERAL MANAGEM	RAILWAY OPERATION												Total (col.3+7+12+15)	Other Operations				Total railway staff-strength (col.16 to 20)		
			Operating and Traffic				Traction and rolling stock					WAY AND WORKS										
		General manager's Office and Regional	Central and regional offices	Stations Services	Train Services	Total (col. 4 to 6)	Central and regional offices	Motor vehicles driving staff	Main workshops	Other Staff	Total (col.8 to 11)	Central and regional offices	permanent way maintenance and supervision	Total (col.13 to 14)		Road services	Shipping services	Miscellaneous (electric power plants, cartage, hotels etc)	New works, reconstruction		Permanent staff	
1996	SZ	840	345	3201	566	4112	182	1493		458	2133	267	2225	2492	9577	160				9737	.	
1996	ZSR	1772	4426	9493	3422	17341	5038	5868		8243	19149	2794	8151	10945	49207			3098	40	52345	52345	248
1996	TCDD	2198	6947	1454	2214	10615	2666	2400	2870	515	9451	.	10038	10720	32984		5976	4624		43584	36680	
1997	ATOC	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.
1997	Railtrack	.	.	.	.	.	.	.	.	.	.				.					.	.	.
1997	EW&S	.	.	.	.	.	.	.	.	.	.				.			.		.	.	.
1997	BK	.	.	.	.	.	.	.	.	.	.				.			.	27	.	.	
1997	CFL	234	43	817	154	1014	38	334	315	270	957	92	515	607	2812	195			78	3085	2986	
1997	CH	1493	.	.	.	3154	.	.	.	.	3676	.	.	2427	10750			382	626	11758	11132	.
1997	CIE	.	.	.	.	2737	.	.	.	.	.	.	.	.	4574	241	71	.	53	4939	.	
1997	REFER	.										.	.	.	446					446	2	
1997	CP	1691	187	5100	1656	6943	244	1541	462		2247	256	1546	1802	12683	46		92		12821		
1997	DB AG	.	.	.	.	.	.	.	.	.	.	.	.	.	233266			.	.	233523	.	
1997	BS	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.
1997	DSB	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	11145	.	
1997	FS SpA	15454	.	38897	11953	50850	.	20439	4352	8783	33574	.	20239	20239	120117		1634			121751	121751	.
1997	NS B.V.		.	.	.	1672						.	.	820	2492					2492	.	
1997	NS N.V.	.	.	.	.	9156	.	3195	3784	.	.	.	.	.	23446					23446	.	.
1997	OBB	1601	1040	18466	2869	22375	108	5286	6882	3299	15575	598	12168	12766	52317	2409	22	344		55092	49144	
1997	RENFE	2222	2163	10859	2051	15073	702	5970	1965	4029	12666	797	5624	6421	36382					36382	.	
1997	SJ	1791	953	3228	1161	5342	263	2984	1058	.	4305				11438			634		12072	11583	.
1997	MTAB	.	.	.	.	.	.	.	.	.	.				.					.	.	.
1997	BV	.	.	.		.						.	.	.	.				.	7363	.	.
1997	SNCB/NMI	1968	2328	10343	2191	14862	319	4139	3083	4024	11619	544	6532	7076	3525	550			4097	40172	40064	
1997	RFF	.										.		.	58					58	.	.
1997	SNCF	11610	6492	48552	10788	65832	1112	23389	22019		46520	6612	31933	38545	162507			4590	7915	175012	167835	
1997	RHK				.	.						58		58	95					95	95	
1997	VR	871	484	2275	2328	5087	126	2261	1425	1138	4950	964	2373	3337	14245			101		14346	14104	
1997	CFF/SBB/F	1821	521	13300	1992	15813	284	4056	2516	1474	8330	1490	3633	5123	31087			265	199	31551	31551	
1997	JBV											967	2723	3690	3690					3690	3567	
1997	MTAS	.	.	.	.	.	.	.	.	.	.				.					.	.	.
1997	NSB BA	1602	.	1512	791	2303	.	1140	1449		2589				6494			680		7174	.	.
1997	BC	1566	332	18068	4528	22928		5013	8239	10070	23322		.	21633	69449			6939	3020	79408	79408	
1997	BDZ	1315	759	16839	1649	19247	447	5066	3498	3789	12800	606	12143	12749	46111			980	279	47370	47370	
1997	CD	4801	9647	28760	6547	44954	1253	10943		14206	26402	1787	17749	19536	95693			1252		96945	96945	
1997	CFR	2516	1413	55498	5156	62067	232	7147	7426	2212	17017	716	46282	46998	128598		93	6421		135112		
1997	EVR	328	97	2318	368	2783	22	585	72	1490	2169	3	1498	1501	6781			381		7162	9162	
1997	LDZ	355		4479	333	4812		1382	2341	1484	5207		5288	5288	15662			2291	562	18515	18515	
1997	MAV Rt.	716	448	21633	3567	25648	368	4885	7115	705	13073	509	11680	12189	51626			7603		59229	59229	
1997	PKP	9936	.	.	.	71513	7140	21349		32855	61344	.	.	73086	215879			10490		226369	.	.
1997	SZ	821	293	2918	564	3775	175	1483		444	2102	302	2118	2420	9118	289				9407	.	
1997	ZSR	1364	5791	9371	3293	18455	1535	5957		4730	12222	4739	9199	13938	45979			3419	28	49426	49426	290
1997	TCDD	2220	6125	1332	2099	9556	2824	2397	3739	264	9224	617	9868	10485	31485		5756	5037		42278	40202	
1998	Railtrack	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	10704	.	.
1998	ATOC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	EW&S	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	CFL	214	52	814	152	1018	28	336	336	245	945	91	506	597	2774	181			95	3050	2956	
1998	CH	1391	.	.	.	3085	.	.	.	562	4085	.	.	2313	10874					10874	10678	
1998	CIE	.	.	.	.	.	.	.	.	.	.	.	.	.	4637	215	77		56	4985	.	
1998	REFER	608										322	1571	1893	2501					2501	.	
1998	CP	1708	177	4795	1356	6328	312	1667	457		2436		59	59	10531	19		48		10598	.	.
1998	DB AG	21429	.	.	.	123960		24235	23801		48035	.	.	9631	203055			6547		209602	.	.
1998	GVG	.	.	.	.	.	.	.	.	.	.	.	.	.	.					11	.	.
1998	BS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	DSB	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	10922	.	.

A1.3.6. Staff

Annual mean railway staff strength

YEAR	Railway	GENERAL MANAGEM	RAILWAY OPERATION – Operating and Traffic				Traction and rolling stock					WAY AND WORKS			Total (col.3+7+12+15)	Other Operations				Total railway staff-strength (col.16 to 20)	Permanent staff	Staff supplied by contractors
		General manager's Office and Regional	Central and regional offices	Stations Services	Train Services	Total (col. 4 to 6)	Central and regional offices	Motor vehicles driving staff	Main workshops	Other Staff	Total (col.8 to 11)	Central and regional offices	permanent way maintenance and supervision	Total (col.13 to 14)		Road services	Shipping services	Miscellaneous (electric power plants, cartage, hotels etc)	New works, reconstruction			
1998	FS SpA	14872	.	38269	11326	49595	.	19701	4116	8323	32140	.	19574	19574	116181		1506			11687	.	.
1998	NS B.V.		.	.	.	1672						.	.	820	2492					2492	.	
1998	NS N.V.	.	.	.	.	5276	.	3349	3527	.	.	.	.	.	.					23794	.	.
1998	OBB	1246	1040	18654	2756	22450	93	5165	5550	4196	15004	355	12251	12606	51306	1824	21	344		53495	48479	
1998	RENFE	2098	1871	10912	2046	14829	746	5790	1992	3776	12304	773	5447	6220	35451					35451		
1998	FEVE	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	1987	.	.
1998	FGC	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	1248	.	.
1998	BV 97	.	.	.		.						.	.	.	.				.	7363	.	.
1998	MTAB 97	.	.	.	.	.	.	.	.	.	.				.					261	.	.
1998	BK 97	.	.	.	.	.	.	.	.	.	.				.				.	27	.	.
1998	SJ	1787	939	3130	1252	5321	244	2186	919		3349				10457			677		11134	10670	
1998	SNCB/NMI	.	.	.	.	.	.	.	.	.	.	.	.	.	.	788			.	40019	.	
1998	RFF	.										.		.	100					100	.	.
1998	SNCF	11032	6466	49270	11134	66870	1689	24234	23204		49127	6969	36257	43226	170255			4103	868	175226	.	
1998	RHK				35	35						60		60	95					95	95	
1998	VR	931	484	2085	2291	4860	144	2180	993	1394	4711	994	2348	3342	13844			101	.	13945	13613	.
1998	CFF/SBB/F	2202	1078	12189	1912	15179	189	3927	2461	1508	8085	1307	3667	4974	30440			258	164	30862	30862	.
1998	JBV											.	.	.	.					3731	.	.
1998	MTAS 97	.	.	.	.	.	.	.	.	.	.				.					89	.	.
1998	NSB BA	1447	.	1423	794	2217	.	1108	1359		2467				6131			582		6713	.	
1998	BC	1478	206	15722	4577	20505		5073	8501	10216	23790	2409	21531	23940	69713			7854	2895	80462	80462	.
1998	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	49259	.	
1998	CD	4355	8804	27569	5903	42276	1185	10050		13887	25122	1532	16973	18505	90258			1211		91469	91469	
1998	CFR	1403	3208	27889	3666	34763	255	14601	12351	5161	32368	2896	23195	26091	94625	74	88	10150		104937	104937	
1998	EVR	276	59	2549	327	2935	12	628	74	932	1646	3	1182	1185	6042			363		6405	6405	
1998	LDZ	221	90	4332	331	4753	39	1319	2255	1509	5122	49	5121	5170	15266			2055	704	18025	18025	
1998	MAV Rt.	725	451	20499	3578	24528	375	4555	7040	685	12655	510	11522	12032	49940			7312		57252	57252	
1998	PKP	8006	.	.	.	54391	6344	20265		31343	57952	.	.	92267	212616			5181		217797	.	
1998	SZ	807	282	2902	536	3720	170	1435		429	2034	293	2032	2325	8886	263				9149	.	
1998	ZSR	1592	4355	10010	3241	17606	1501	5847		5925	13273	4520	8990	13510	45981			3424	30	49435	49435	.
1998	TCDD	2402	5528	1471	2005	9004	2315	2454	3623	536	8928	748	10471	11219	31553		5681	.	.	41819	39708	
1999	GKE 98	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	481	.	.
1999	OBB	1195	1035	17990	2627	21652	103	5093	5445	4033	14674	413	11731	12144	49665	1791	17	318		51791	47461	
1999	SNCB/NMI	.	.	.	.	.	.	.	.	.	.	.	.	.	.	815			.	40606		
1999	AAE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	DB AG	22890	.	.	.	250590									273480	6553				280033	.	.
1999	GVG98	.	.	.	.	.	.	.	.	.	.	.	.	.	.					11	.	.
1999	KEG	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.
1999	BS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	DBS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	10470	.	.
1999	EusKotren	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	840	.	.
1999	FEVE	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	1985	.	.
1999	FGC	201		305	38	343		221	226		447	246	5	251	1242					1242		
1999	RENFE	2063	1958	10398	2044	14400	960	5611	1931	3551	12053	786	5235	6021	34537					34537		
1999	RHK98				35	35						60		60	95					95	95	
1999	VR	1049	517	1981	2264	4762	260	2122	877	1046	4305	748	2486	3234	13350			103		13453	12973	.
1999	RFF	.										.		.	142					142	.	.
1999	SNCF	10431	7181	49302	11183	67666	1475	24601	22839		48916	6576	35846	42422	169435			3882	988	174305	.	
1999	ATOC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	EW&S	.	.	.	.	.	.	.	.	.	.				.		.	.	.	.	.	.
1999	Railtrack98	.		.	.	.		.	.		.		.	.	.			.		10704	.	.
1999	CH	1328	239	1862	907	3008	644	149	2405	222	3420	232	1998	2230	9986		197	159	181	10523	11342	.
1999	CIE	264	373	1417	661	2451	43		706	24	773	51	1365	1416	4904	192	79		59	5234	4126	.
1999	FS SpA	14372	.	37155	10995	48150	.	19128	3995	8083	31206	.	19003	19003	112731		1462			114193	.	.
1999	CFL 98	214	52	814	152	1018	28	336	336	245	945	91	506	597	2774	181			95	3050	2956	

A1.3.6. Staff

		Annual mean railway staff strength																				
		GENERAL MANAGEM	RAILWAY OPERATION												Total (col.3+7+12+15)	Other Operations				Total railway staff-strength (col.16 to 20)	Permanent staff	Staff supplied by contractors
			Operating and Traffic				Traction and rolling stock					WAY AND WORKS						Miscellaneous				
YEAR	Railway	General manager's Office and Regional	Central and regional offices	Stations Services	Train Services	Total (col. 4 to 6)	Central and regional offices	Motor vehicles driving staff	Main workshops	Other Staff	Total (col.8 to 11)	Central and regional offices	permanent way maintenance and supervision	Total (col.13 to 14)		Road services	Shipping services	(electric power plants, cartage, hotels etc)	New works, reconstruction			
1999	NS B.V.		.	.	.	1672						.	.	820	2492					2492	.	
1999	NS N.V.98	.	.	.	.	5276	.	3349	3527	.	.	.	.	.	13774					23794	.	.
1999	CP	1398	191	971	1546	2708	112	1652	361		2125		42	42	6273	11		46		6330	.	.
1999	REFER	726	268	3756		4024						304	1432	1736	6486				.	6486	6	.
1999	BK	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.
1999	BV	.	.	.		.						.	.	.	.				.	7363	.	.
1999	MTAB	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	SJ	1701	903	2984	1146	5033	214	2044	813	.	3071				9805			656		10461	10023	
1999	CFF/SBB/F	2490	1198	10683	1997	13878	571	3609	2486	1391	8057	1367	3115	4482	28907			252	43	29202	29202	.
1999	JBV98											.	.	.	.					3731	.	.
1999	MTAS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	NSB BA98	1447	.	1423	794	2217	.	1108	1359		2467				6131			582		6713	.	
1999	BDZ	1279	670	13850	2165	16685	568	5350	3450	2800	12168	618	10165	10783	40915			5324	120	46359	46359	
1999	BC	1503	257	18094	4551	22902		4494	8250	10593	23337	.	.	22230	69972			7116	1438	78526	78526	
1999	CD	4095	8757	27337	5702	41796	831	9528		13826	24185	1540	16453	17993	88069			1151		89220	89220	
1999	EVR	316	80	2206	352	2638	20	699	157	841	1717	5	1184	1189	5860			248		6108	6073	112
1999	MAV Rt.	710	441	20064	3502	24007	367	4458	6891	670	12386	499	11277	11776	48879			7158		56037	56037	
1999	LDZ	180	136	4521	210	4867	47	1219	2077	1266	4609	54	5349	5403	15059			846	645	16550	16550	
1999	PKP	5602	.		.	47865	4530	18915		27931	51376	.	.	94567	199410			4577		203987	.	
1999	CFR	2142	3263	28543	3664	35470	244	13403	11897	7390	32934		27347	27347	97893	107	87	7373		105460	105460	.
1999	SZ	811	273	2886	503	3662	169	1428		428	2025	292	1981	2273	8771	266				9037	.	
1999	ZSR	1924	2941	12187	3138	18266	1561	5665		5994	13220	3592	7640	11232	44642			4240	31	48913	48913	
1999	TCDD	2163	4518	1444	1953	7915	2219	2399	3625	642	8885	562	10480	11042	30005		6044	6672		42721	.	.

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1985	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	BR	N				124360	49679	57201	38010	26858	10577	120145	118745	843	130287	128115	1163	412802	323397	69784
1985	CFF	N				516	29	140	83738	58032	25460	19	19		20933	20772	11	105206	78852	25611
1985		E				1		0	98	89	7				1255	1122	131	1354	1211	138
1985		total																		
1985	CFL	N				1592	750	842	1244	739	505	467	467		1054	1034	20	4357	2990	1367
1985	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	CH	N				8610	6022	2471				3275	3275					11885	9297	2471
1985		E				2177	1892	257				2361	2359					4538	4251	257
1985		TOTAL																		
1985	CIE	L				11750	7445	4305							1891	1891		13641	9336	4305
1985	CP	L				14490	9170	5320	7000	4105	2895	5046	5046		9820	9820		36356	28141	8215
1985		E	23	2	21	807	722	85				2291	2291					3121	3015	106
1985		total																		
1985	CSD	L.N.E.				85903	34004	51899	103233	36930	66303	53828	53703	125	9974	9974		252938	134611	118327
1985	DB	N.E				118520	80475	36781	405380	235182	168273	21879	21651	15	46062	45902		591841	383210	205069
1985	DR	N	6065	1000	5001	166546	84457	80602	77603	40374	36929	8314	8232		15077	15075		273605	149138	122532
1985		E	1382	1013	359													1382	1013	359
1985		total																		
1985	DSB	N				27080	18280	8800				12500	12500		10650	10650		50230	41430	8800
1985	FS	N	5	3	1	23283	17559	4905	196235	135994	51980	53224	51117		32346	30511		305093	235184	56886
1985		E										288	288					288	288	
1985		total																		
1985	JZ	N	893	262	631	34416	14151	20265	59849	25632	34217	25807	25807		19060	19060		140025	84912	55113
1985	MAV	L.N	195	37	158	42140	21979	20161	47785	26479	21306	18855	18163	692				108975	66658	42317
1985		E				834	728	106										834	728	106
1985		Total																		
1985	NS	N				3330	243	3087	27008	20179	6829	14469	14469		68677	66012	2665	113484	100903	12581
1985	NSB	N				4622	2243	2379	16680	8914	7766	2381	2381		9110	9106	4	32793	22644	10149
1985	OBB	N	4	4		11257	6870	3777	68302	34777	33023	4959	4535	31	17535	17013	5	102057	63199	36836
1985		E	87	50	28	1002	783	209	541	423	99	19	19	0				1649	1275	336
1985		TOTAL																		
1985	PKP	N	36688	25828	9986	102889	44931	51385	184564	58833	122352	8728	8080	30	67501	62482		400370	200154	183753
1985		E	727	367	195	3961	1441	1277				904	902					5592	2710	1472
1985		total																		
1985	RENFE	L				22071	10012	11684	62341	22675	37170	19132	19090		51113	51101		154657	102878	48854
1985		E													106	106		106	106	
1985		TOTAL																		
1985	SJ	N				5258	576	4582	81761	45186	36145	7967	7778		10990	10581	0	105976	64121	40727
1985		E				19		19										19		19
1985		total																		
1985	SNCB/NMBS	N				26193	14586	10877	24776	13152	11357	1947	1868	79	42917	42704		95833	72310	22313
1985	SNCF	N				72766	34155	35577	278054	133608	143329	66469	65176	712	69173	67857	416	486462	300796	180034
1985		E													494	486		494	486	
1985		TOTAL																		
1985	VR	L				17707	6759	.	16476	8369	8107	3570	3570		5748	5748		43501	24446	.
1985	TCDD	N	2706	1331	1375	35390	17704	17686	1711	1409	302	1063	1063		4687	4687		45557	26194	19363
1986	BDZ	NE						.	.	.	.	.	.	.	.	.	.	.	.	.
1986	BR	N				117853	45990	55258	38135	27764	9728	123121	120784	1783	134484	131934	1192	413593	326472	67961
1986	CFF	N				556	28	160	83022	57619	25224	17	16	1	21689	21490	18	105284	79153	25403
1986		E				1			106	93	5				1235	1110	122	1342	1203	127
1986		total																		
1986	CFL	N				1887	748	1139	1563	822	741	516	516		1152	1132	20	5118	3218	1900
1986	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	CH	N				9046	6409	2537				2954	2953					12000	9362	2537
1986		E				2305	2020	264				2389	2388					4694	4408	264

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10 +13+16)	Passenger trains (col. 5+8+11+14 +17)	Freight trains (col. 6+9+12+15 +18)
1986		TOTAL																		
1986	CIE	L				12003	7764	4239							1891	1891		13894	9655	4239
1986	CP	L				14891	9371	4720	6575	4114	2461	5022	5022		9658	9658		35346	28165	7181
1986		E	15	2	13	766	703	63				2243	2243					3024	2948	76
1986		total																		
1986	CSD	L.N.E.				82108	31498	50610	109442	40027	69415	54308	54183	125	9764	9764		255622	135472	120150
1986	DB	N.E				117047	80439	35502	408492	240524	166327	21995	21788	12	45316	45139		592850	387890	201841
1986	DR	N	3900	571	3286	163294	83574	78310	84959	43551	41120	8410	8215		15506	15502		276069	151413	122716
1986		E	1373	1032	335													1373	1032	335
1986		total																		
1986	DSB	N				25980	17180	8800	.	.		13580	13580		10415	10415		49975	41175	8800
1986	FS	N	6	4	1	22367	16992	4680	198098	138177	52056	51832	49687		32712	30924		305015	235784	56737
1986	JZ	N	644	211	433	33618	14463	19155	59385	25728	33657	27606	27606		14313	14313		135566	82321	53245
1986	MAV	L.N	50	29	21	40809	20417	20392	48818	26598	22220	19929	19165	764				109606	66209	43297
1986		E				827	738	89										827	738	89
1986		Total																		
1986	NS	N				2977	311	2666	24177	17389	6788	14194	14194		72797	70091	2706	114145	101985	12160
1986	NSB	N				4800	2327	2473	17415	9136	8279	2318	2318		8908	8907	1	33441	22688	10753
1986	OBB	N	3	3	0	11017	6790	3632	67464	34367	32567	4844	4424	25	18615	18092	3	101943	63676	36227
1986		E	72	46	15	882	662	208	545	425	96	160	158	1				1659	1291	320
1986		TOTAL																		
1986	PKP	N	30227	21330	8256	100670	46012	48474	194717	67257	123761	7120	6540	32	71398	66363		404132	207502	180523
1986		E	480	264	86	3965	1468	1211				998	991	6				5443	2723	1303
1986		total																		
1986	RENFE	L				22427	10202	11834	64906	24002	38568	18652	18650		52812	52802		158797	105656	50402
1986		E													85	85		85	85	
1986		TOTAL																		
1986	SJ	N				5113	593	4377	81056	43914	36745	7502	7346	0	11143	10711	0	104813	62563	41122
1986		E				6		6										6		6
1986		total																		
1986	SNCB/NMBS	N				20536	10339	9784	26537	14908	11400	1558	1494		43930	43756		92561	70497	21184
1986	SNCF	N				67529	33315	31328	267679	130530	136057	61683	60452	692	71707	70316	451	468598	294613	168528
1986		E													505	499		505	499	
1986		TOTAL																		
1986	VR	L				15780	6300	9480	14704	7679	7025	2634	2634		5210	5210		38328	21823	16505
1986	TCDD	N	1338	754	584	36516	18152	18364	1594	1387	207	871	871		5013	5013		45332	26177	19155
1987	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	BR	N				109000	40000	44000	40000	30000	6000	135000	132000		143000	140000		427000	342000	50000
1987	CFF	N	.			558	43	167	87942	62709	25064	21	18	3	22103	21881	26	110624	84651	25620
1987		E				2		0	200	181	15				1187	1081	100	1389	1262	115
1987		total																		
1987	CFL	N				1836	750	1086	1529	828	701	530	530		1169	1148	21	5064	3256	1808
1987	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	CH	N				8204	6061	2035				3299	3297					11503	9358	2035
1987		E				2052	1749	278				2604	2604					4656	4353	278
1987		TOTAL																		
1987	CIE	L				12034	7802	4232							1890	1890		13924	9692	4232
1987	CP	L				14698	9582	5116	6766	4141	2625	4920	4920		9795	9795		36179	28438	7741
1987		E	1	1		859	777	82				2147	2147					3007	2925	82
1987		total																		
1987	CSD	L.N.E.				78944	30253	48691	111590	41997	69593	54137	54011	126	9729	9729		254400	135990	118410
1987	DB	N.E				114728	79375	34024	403733	240502	161540	24075	23881	3	44473	44315		586709	388073	195567
1987	DR	N	2009	326	1654	158152	81050	75718	91784	46955	44565	8238	8039		16044	16041		276227	152411	121937
1987		E	1364	1034	323													1364	1034	323
1987		total																		
1987	DSB	N				26060	17360	8700	.	.		14190	14190		10575	10575		50825	42125	8700

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1987	FS	N	5	4		21827	16349	4768	202594	138733	56516	47565	45215		30700	28838		302691	229139	61284
1987	JZ	N	576	261	315	31533	13890	17643	59506	26449	33057	24076	24076		14815	14815		130506	79491	51051
1987	MAV	L.N	26	20	5	40233	21588	18645	49978	26415	23563	19547	18838	710				109784	66861	42923
1987		E				812	732	80										812	732	80
1987		Total																		
1987	NS	N				2664	152	2512	23093	16441	6652	13882	13882		76415	73714	2701	116054	104189	11865
1987	NSB	N				4759	2373	2386	17306	9283	8023	2273	2273		8600	8596	4	32938	22525	10413
1987	OBB	N	24	22	0	10731	6734	3489	67018	34324	32148	4809	4429	11	19384	18859	3	101966	64368	35651
1987		E	59	45	3	748	549	183	534	427	88	254	250	0				1595	1271	274
1987		TOTAL																		
1987	PKP	N	20971	15418	5121	100561	48422	46119	199852	73832	122122	6516	5975	32	73963	68497		401863	212144	173394
1987		E	294	176	118	3634	1232	2402				1260	1258	2				5188	2666	2522
1987		total																		
1987	RENFE	L				21819	9646	11737	65606	26552	36615	17847	17847		53820	53813		159092	107858	48352
1987		E													111	111		111	111	
1987		TOTAL																		
1987	SJ	N				4956	576	4315	78768	42573	35827	7588	7451	0	11000	10594		102312	61194	40142
1987		E				11		11										11		11
1987		total																		
1987	SNCB/NMBS	N				18269	8364	9501	28401	16596	11611	1428	1369		45995	45778		94093	72107	21112
1987	SNCF	N				67045	33633	30676	271349	133320	136817	59990	58829	697	75735	74388	452	474119	300170	168642
1987		E													536	532		536	532	
1987		TOTAL																		
1987	VR	L				18065	7963	10102	16802	8706	8096	1857	1857		5974	5974		42698	24500	18198
1987	TCDD	N	873	502	371	35588	19314	16274	1466	1276	190	854	854		4964	4964		43745	26910	16835
1988	BDZ	N				13967	7783	6184	38407	17632	20775	608	608		8622	8622		61604	34645	26954
1988		E				1878	837	1041										1878	837	1041
1988		total																		
1988	BR	N				96665	30632	55589	41534	31840	8896	152028	149669	1553	148647	145407	1559	438874	357548	67597
1988	CFF	N				534	18	173	91701	65046	26496	33	20	12	24558	24341	31	116826	89425	26712
1988		E				6	4	0	230	211	17				1193	1092	97	1429	1307	114
1988		total																		
1988	CFL	N				1878	743	808	1522	728	476	547	473	0	1192	1130	15	5139	3074	1299
1988	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	CH	N				.	.	.				.	.					.	.	.
1988		E				.	.	.				.	.					.	.	.
1988		TOTAL				.	.	.				.	.					.	.	.
1988	CIE	L				11280	7338	3942							1950	1950		13230	9288	3942
1988	CP	L.E				16221	10578	5643	7022	4167	2855	7372	7372		9937	9937		40552	32054	8498
1988	CSD	L.N.E.				74588	27379	47209	119669	45445	74224	54632	54504	128	9773	9773		258662	137101	121561
1988	DB	N.E				109656	75983	32629	405945	242312	162146	30903	30701	2	43405	43274		589909	392270	194777
1988	DR	N	270	74	195	151273	77668	73136	105093	51525	53261	8297	8087		15887	15883		280820	153237	125592
1988		E	1372	1050	317	2	0	2										1374	1050	319
1988		total																		
1988	DSB	N				24655	16250	8405	.	.		14540	14540		10820	10820		50015	41610	8405
1988	FS	N	5	4	0	21815	16436	4683	210770	144844	58452	46583	44394	30	32331	30324		311504	236002	63165
1988	JZ	N	212	133	79	31205	14586	16619	60230	26690	33540	21293	21293		17080	17080		130020	79782	50238
1988	MAV	L.N	20	17	2	37506	20658	16848	51635	27441	24194	18775	18081	694				107936	66197	41739
1988		E				803	733	70										804	733	70
1988		Total																		
1988	NS	N				2543	45	2498	23001	16562	6439	13632	13632		78551	75839	2712	117727	106078	11649
1988	NSB	N				4494	2407	2087	16017	8914	7103	2215	2215	0	8531	8529	2	31257	22065	9192
1988	OBB	N	19	17	1	10362	6416	3399	68190	34793	32794	4914	4559	3	20410	19798	3	103895	65583	36200
1988		E	59	47	2	702	505	176	511	440	53	296	293	0				1568	1285	231
1988		TOTAL																		
1988	PKP	N	13125	9957	2971	99373	51852	41462	214367	82220	127908	5103	4654	72	79723	74190		411781	222873	172413

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM): Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1988		E	209	135	74	3518	1154	2364				1187	1186	1				4914	2475	2439
1988		total																		
1988	RENFE	L				22764	10050	12185	66321	26983	36774	16688	16688		56165	56157		161938	109878	48959
1988		E													117	117		117	117	
1988		TOTAL																		
1988	SJ	N				4503	292	4135	79135	42041	36643	8053	7896	0	11076	10690		102767	60919	40778
1988		E				13		13				0	0					13	0	13
1988		total																		
1988	SNCB/NMBS	N				16442	7419	8724	28953	16672	12093	1263	1203		46336	46128		92994	71422	20817
1988	SNCF	N				64977	32314	29612	280124	140186	138705	59963	58851	630	78396	77142	419	483460	308493	169366
1988		E													540	533		540	533	
1988		TOTAL																		
1988	VR	L				18556	8411	10145	16712	8700	8012	728	728		6036	6036		42032	23875	18157
1988	TCDD	N	565	296	269	35509	18519	16990	1750	1575	175	924	924	0	4790	4790		43538	26104	17434
1989	BDZ	N				11325	6781	4544	38161	18066	20095	375	375		8478	8478		58339	33700	24639
1989		E				1743	864	879										1743	864	879
1989		total																		
1989	BR	N				89618	25806	63812	41226	32546	8680	160235	158496	1739	148583	145582	3001	439662	362430	77232
1989	CFF	N				516	19	174	91036	63827	27061	29	19	10	26080	25867	18	117661	89782	27263
1989		E				2		0	211	191	16				1178	1090	87	1391	1281	103
1989		total																		
1989	CFL	N				1973	700	886	1599	717	516	498	395		1343	1271		5413	3083	1402
1989	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	CH	N				.	.	.				.	.	.				.	.	.
1989		E				.	.	.				.	.	.				.	.	.
1989		TOTAL										.	.	.				.	.	.
1989	CIE	L				11727	7591	4136				0	0	0	1950	1950		13677	9541	4136
1989	CP	L.E				10936	6600	4336	6096	3496	2600	9161	9161		10302	10302		36495	29559	6936
1989	CSD	L.N.E.				71948	27106	44842	121287	47010	74277	54348	54217	131	9856	9856		257439	138189	119250
1989	DB	N.E				104397	71516	31754	411527	245828	164274	38464	38331	1	41939	41762		596327	397437	196029
1989	DR	N	95	55	35	141918	74181	66372	114576	56263	57916	8306	8096		16320	16316		281215	154911	124325
1989		E	1302	1007	292	66	44	22										1368	1051	314
1989		total																		
1989	DSB	N				22246	14896	7350	.	.		15664	15664		11850	11850		49760	42410	7350
1989	FS	N	7	6	1	20862	15598	4597	214331	145920	61062	44607	42567	0	34265	32360		314072	236451	65660
1989	JZ	N	77	18	59	31900	14911	16989	61199	27137	34062	20919	20919		18724	18724		132819	81709	51110
1989	MAV	L.N	30	27	3	35924	17731	16193	52928	29383	23545	18654	17943	711				107536	67084	40452
1989		E				774	720	54										774	720	54
1989		Total																		
1989	NS	N				2587	50	2587	23636	17409	6227	13624	13624		78296	75581	2715	118143	106664	11479
1989	NSB	N				4759	2156	2603	16200	9242	6958	1773	1773	0	8290	8290	0	31022	21461	9561
1989	OBB	N	18	17	0	10135	6263	3314	71869	37180	34055	5465	5177	2	21751	21156	2	109238	69733	37373
1989		E	57	44	3	845	675	157	546	498	29	352	347					1800	1564	189
1989		TOTAL																		
1989	PKP	N	8792	7047	1610	93948	52952	35237	216572	90004	122406	3740	3410	64	81392	76084		404444	229497	159317
1989		E	150	83	2	3105	1022	873				1345	1345					4600	2450	875
1989		total																		
1989	RENFE	L				22154	10391	11255	64709	25227	36959	16590	16590		57538	57533		160991	109741	48214
1989		E													112	112		112	112	
1989		TOTAL																		
1989	SJ	N				4106	44	3947	77254	40036	36673	8261	8141	0	11287	10950	0	100908	59171	40620
1989	SNCB/NMBS	N				15360	6791	8283	30194	17279	12758	1318	1258		46149	45957		93021	71285	21041
1989	SNCF	N				62775	31743	27994	282379	142211	139053	58251	57412	473	81716	80456	444	485121	311822	167964
1989		E													532	526		532	526	
1989		TOTAL																		
1989	VR	L				16715	7656	9059	17355	9175	8180	159	159		5037	5037		39266	22027	17239

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10 +13+16)	Passenger trains (col. 5+8+11+14 +17)	Freight trains (col. 6+9+12+15 +18)
1989	TCDD	N	219	69	104	35974	19014	16344	1963	1720	242	1646	1646		4510	4510		44312	26959	16690
1990	BDZ	NE				13832	7513	6139	36474	18858	17616	116	116		8774	8774		59196	35261	23935
1990	BR	N				84916	22545	51561	41258	33523	7227	165191	164665	249	153695	151775	502	445060	372508	59539
1990	CFF	N				513	15	205	91125	64152	26828	22	19	3	29273	29118	19	120933	93304	27055
1990		E				1		0	698	663	28				762	693	66	1461	1356	94
1990		total																		
1990	CFL	N				2074	717	959	1733	756	581	395	292		1708	1598		5910	3363	1540
1990	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	CH	N				.	.	.				.	.	.				.	.	.
1990		E				.	.	.				.	.	.				.	.	.
1990		TOTAL				.	.	.				.	.	.				.	.	.
1990	CIE	L				12269	7900	4369							1968	1968		14237	9868	4369
1990	CP	L.E				16182	7267	3733	7729	4546	2531	7470	6590		9359	9026		40740	27429	6264
1990	CSD	L.N.E.				67814	27033	40781	119482	48420	71062	54507	54374	133	9778	9778		251581	139605	111976
1990	DB	N.E				103297	71043	31203	418300	251299	166002	40364	40260	0	41836	41666		603797	404268	197205
1990	DR	N	55	42	11	122273	73475	47608	107764	59218	48118	8074	7886		16007	16004		254173	156625	95737
1990		E	1212	1044	164	100	62	37										1312	1106	201
1990		total																		
1990	DSB	N				22853	15923	6930	.	.		16707	16707		12600	12600		52160	45230	6930
1990	FS	N	5	4	0	20753	15747	4375	215735	146001	62204	42933	40930	0	34829	32965		314255	235647	66579
1990	JZ	N	6	1	5	28673	13484	15189	59889	27813	32076	22352	22352		19662	19662		130582	83312	47270
1990	MAV	L.N	18	16	2	31540	18278	13262	52180	30947	21233	18724	18046	678				102462	67287	35175
1990		E				690	648	42										690	648	42
1990		Total																		
1990	NS	N				2627	112	2515	24833	18390	6443	13360	13360		76494	73880	2614	117314	105742	11572
1990	NSB	N				5825	2217	3608	18432	10631	7801	1986	1986	0	10462	10462	0	36705	25296	11409
1990	OBB	N	12	11	0	10215	6532	3229	76083	39134	36349	6650	6270	2	22323	21813	4	115283	73760	39584
1990		E	56	44	2	932	779	144	552	505	28	378	372	0				1918	1700	174
1990		TOTAL																		
1990	PKP	N	5496	4764	673	79282	50053	23828	201403	97331	100106	2869	2688	11	82581	77382		371631	232218	124618
1990		E	113	94	19	1962	885	1039				1350	1350					3425	2329	1058
1990		total																		
1990	RENFE	L				21175	10049	10565	68463	27735	38063	18436	18436		63939	63933		172013	120153	48628
1990		E													125	125		125	125	
1990		TOTAL																		
1990	SJ	N				3790	3	3719	76708	40096	36089	6963	6850		12173	11802		99634	58751	39808
1990	BV	N				.			.									.		
1990	SNCB/NMBS	N				15428	6530	8638	30446	17499	12777	1334	1275		45594	45391		92802	70695	21415
1990	SNCF	N				60659	31044	26672	277197	139619	136074	57254	56528	400	92055	90724	440	487165	317915	163586
1990		E													505	499		505	499	
1990		TOTAL																		
1990	VR	L				16600	7839	8761	18170	10143	8027	70	70		6186	6186		41026	24238	26788
1990	TCDD	N	79	61	17	36506	18092	17520	2659	2301	346	1440	1440		4413	4413		45097	26307	17883
1990	BDZ	NE				13832	7513	6319	36474	18858	17616	116	116		8774	8774		59196	35261	23935
1991		NE				.	.	.	.	.	.	.	.	.	.	.	.	40834	.	.
1991	BR	N				95607	47770	47837	46667	39853	6814	129912	129912		155795	155795		427981	373330	54651
1991	CFF	N				537	21	184	90932	64421	26359	23	17	6	30680	30556	13	122172	95015	26562
1991		E				1	0	0	879	842	34				625	564	59	1505	1406	93
1991		total																		
1991	CFL	N				2063	668	1002	1754	762	564	359	274		2194	2028		6370	3732	1566
1991	CFR	L	0	0		734	455	279				0	0					734	455	279
1991		N	22	14	8	46686	34742	11944	67845	37900	29945	2695	2695		0	0		117248	75351	41897
1991		E	0	0	0	211	0	211										211	0	211
1991		total																		
1991	CH	N				.	.	.				.	.	.				.	.	.
1991		E				.	.	.				.	.	.				.	.	.

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10 +13+16)	Passenger trains (col. 5+8+11+14 +17)	Freight trains (col. 6+9+12+15 +18)
1991		TOTAL				.	.	.				.	.	.				.	.	.
1991	CIE	L				11835	7693	4142							1922	1922		13757	9615	4142
1991	CP	L.E				16949	7579	4320	8576	4995	2899	8320	7293		9875	9443		43720	29310	7219
1991	CSD	L.N.E.				55273	25670	29603	111047	49689	61358	54315	54187	128	9763	9763		230398	139309	91089
1991	DB	N.E				110228	77537	31730	432443	260203	171260	41854	41620	0	50291	50186		634816	429546	202990
1991	DR	N	82	70	10	97256	69788	26502	94670	61367	32811	7656	7547	9	15931	15931		215595	154702	59332
1991		E	1297	1202	92	106	79	24				.	.					1403	1281	116
1991		total																		
1991	DSB	N				19790	13040	6750	1720	1720		20780	20780		12410	12410		54700	47950	6750
1991	FS	N	9	8	0	20666	15622	4369	220653	150184	62941	40727	38667	0	34352	32616	0	316407	237097	67310
1990	JZ	N	6	1	5	28673	13484	15189	59889	27813	32076	22352	22352		19662	19662		130582	83312	47270
1991	MAV	L.N	16	15	1	27092	16959	10133	48623	32343	16280	19227	18475	752	824	824		95782	68616	27166
1991		E				682	652	31										682	652	31
1991		Total																		
1991	NS	N				2703	104	2599	24772	18267	6505	13591	13591		79790	74412	2378	117856	106374	11482
1991	NSB	N				4548	2235	2313	17257	10777	6480	1942	1942	0	8637	8637	0	32384	23591	8793
1991	OBB	N	12	12	0	10648	7078	3177	83238	45804	36882	7178	6939	2	25839	25294	5	126915	85124	40066
1991		E	50	40	1	987	821	160	664	606	27	315	309	0				2016	1776	188
1991		TOTAL																		
1991	PKP	N	2513	2217	279	64465	44744	15418	178507	91417	83582	2340	2205	5	78481	74026		326306	214609	99284
1991		E	91	77	4	1503	746	293				1122	1122					2716	1945	297
1991		total																		
1991	RENFE	L				20411	9634	9938	66972	28861	35294	17502	17502		71311	71310		176196	127307	45232
1991		E													118	118		118	118	
1991		TOTAL																		
1991	SJ	N				3327	44	3283	74671	38876	35118	5579	5437		13634	13173		97211	57530	38401
1991	SNCB/NMBS	N				14483	6327	7878	31366	17802	12743	1389	1338		46418	46198		93656	71665	20621
1991	SNCF	N				57499	30488	23924	270825	133425	135692	54961	54458	230	100640	99261	438	483925	317632	160284
1991		E													448	439		448	439	
1991		TOTAL																		
1991	VR	L				16010	7893	8117	17900	10618	7282				6204	6204		40114	24715	15399
1991	TCDD	N	13	13		33602	15701	17125	3734	3244	480	2007	2007		4682	4682		44038	25647	17605
1992	BR	N				61683	10871	41269	48052	40017	7703	163228	162962	2	154124	153481	338	427087	367331	49312
1992	CFL	N				2167	822	942	1597	589	570	445	394		3257	3028		7466	4833	1512
1992	CH	N				.	.	.				.	.	.				.	.	.
1992		E				.	.	.				.	.	.				.	.	.
1992		TOTAL																		
1992	CIE	L				11903	7759	4144							1958	1958		13861	9717	4144
1992	CP	LE				16382	7118	4570	8156	4855	2568	9045	7959		10081	9651		43664	29583	7138
1992	DB	NE				114272	82934	30413	434444	264936	168447	44623	44478		62786	62670		656125	455018	198860
1992	DR	N	227	200	25	102917	77071	24990	88397	58831	29105	7505	7459		17493	17490		216539	161051	54120
1992		E	1074	1010	63	241	216	20										1315	1226	83
1992		TOTAL																		
1992	DSB	N				19906	13071	6835	1421	1421		22943	22882	61	13673	13673		57943	51047	6896
1992	FS	N	0	0	0	20850	15950	4245	222750	153350	61155	41100	39490	0	34700	33310	0	319400	242100	65400
1992	NS	N				2706	82	2624	24154	18052	6102	12091	12091		79533	77217	2316	118484	107442	11042
1992	RENFE	L				20767	11038	9729	67267	31530	35737	16361	16361		73626	73626		178021	132555	45466
1992		N							.	.					.	.		.	.	
1992		E													116	116		116	116	
1992		TOTAL																		
1992	SNCB/NMBS	N				14050	6368	7351	31435	18102	13200	1451	1395		46541	46285		93477	72150	20551
1992	SNCF	N				52801	28484	21350	270867	132205	137082	54766	54359	203	106518	105143	440	484952	320191	159075
1992		E													444	435		444	435	
1992		TOTAL																		
1992	CFF	N				586	18	220	90120	64371	25577	20	20		29878	29753	11	120604	94162	25808
1992		E				1	0	0	912	877	31				604	543	60	1517	1420	91

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1992		total																		
1992	NSB	N				7572	2243	2329	17147	10734	6413	1945	1945		9391	9391		36055	24313	8742
1992	OBB	N	11	11	0	10599	7226	2987	88175	50465	37055	9669	9346	1	28066	27439	5	138520	94487	40048
1992		E	60	45	2	940	793	144	746	694	24	503	492					2249	2024	170
1992		TOTAL																		
1992	BV	N				.												.		
1992	SJ	N				3207		3168	69648	37795	31092	6192	6115		15997	15326		95042	59236	34260
1992	VR	L				15901	8124	7777	17898	11052	6846				6398	6398		40197	25574	14623
1992	BC	L				47776	16304	29533	19051	9836	9068	9844	9818		8410	8363		85081	44321	38601
1992		N				108	4	104										108	4	104
1992		TOTAL																		
1992	BDZ	N				9488	6827	2661	28153	19168	8985	6	6		8496	8496		46143	34497	11646
1992		E																		
1992		TOTAL																		
1992	CFR	L	0		0	229	2	182										229	2	182
1992		N	15	9	6	48959	34571	12759	68972	40375	28019	2767	2767					120713	77722	40784
1992		E				935	386	210	0		0							935	386	210
1992		TOTAL																		
1992	CSD	N				49437	24775	24662	113469	51400	62069	54330	54233	97	10074	10074		227310	140482	86828
1992	EVR	L				4883	1493	3331				2819	2732		1231	1201		8932	5426	3331
1992	LDZ	L				12047	4190	7578				4781	4683		5639	5561		22467	14434	7578
1992	MAV	LN	20	19	1	25270	16788	8482	48619	33757	14862	19546	18848	698	1393	1393		94848	70805	24043
1992		E				668	656	12										668	656	12
1992		TOTAL																		
1992	PKP	N	580	482	93	53707	38178	12164	160859	79440	78360	1415	1344		69672	66267		286233	185711	90617
1992		E	69	57	12	1011	455	540				908	908					1988	1420	552
1992		TOTAL																		
1992	SZ	N	0	0		2274	173	2101	7504	2671	4833	5711	5495	216	3407	3327	80	18896	11666	7230
1992	TCDD	N	11	11		33401	15879	16908	4062	3532	517	1820	1820		4628	4628		43922	25870	17425
1993	BR	N				83124	38837	44287	45712	38594	7118	137870	137570		152557	152141	109	419263	367142	51514
1993	CFL	N				2205	836	893	1589	597	563	406	372		4005	3720		8205	5525	1456
1993	CH	N				6739	4712	1973				4903	4901					11642	9613	1973
1993		E				1086	899	167				2761	2761					3847	3660	167
1993		TOTAL																		
1993	CIE	L				11865	7833	4032							1901	1901		13766	9734	4032
1993	CP	LE				15080	7069	4381	8008	4707	2815	8493	7980		10001	9768		41582	29524	7196
1993	DB	NE				107988	80043	27005	418084	260884	156011	50521	50342	0	71548	71384	2	648141	462653	183018
1993	DR	N	166	120	32	92171	73015	18115	103756	73945	29398	8640	8601		17791	17791		222524	173472	47545
1993		E	756	718	34	20	18	1										776	736	35
1993		TOTAL																		
1993	DSB	N				14957	8029	6928	2223	2223		25707	25633	74	14052	14052		56939	49937	7002
1993	FS	N				19295	15348	3386	215206	151949	56759	40309	38399	8	37623	35687	10	312433	241383	60163
1993	NS	N				2699	87	2612	23417	17613	5804	12609	12603		83680	81536	2144	122405	111845	10560
1993	RENFE	L				17757	9836	7921	56368	25475	30911	16643	16643		70617	70617		161385	122553	38832
1993		N							1049	1049					4139	4139		5188	5188	
1993		E													117	117		117	117	
1993		TOTAL																		
1993	SNCB/NMBS	N				12981	5977	6606	31567	19381	12039	1299	1252		45978	45719		91825	72329	18645
1993	SNCF	N				49069	26720	19365	256813	130014	125827	53431	53050	123	112677	111219	405	471990	321003	145720
1993		E													459	453		459	453	
1993		TOTAL																		
1993	CFF	N				567	24	196	87602	64092	23282	23	23		28702	28584	16	116894	92723	23494
1993		E				1	0	0	838	809	25				646	602	42	1485	1411	67
1993		total																		
1993	NSB	N				4784	2248	2536	16771	10515	6256	1835	1835		10670	10670		34060	25268	8792
1993	OBB	N	6	6	0	9672	6360	2904	85934	49555	35788	8704	8261	1	28885	28024	3	133201	92206	38696

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1993		E	60	49	0	937	806	128	733	684	19	379	366	0				2109	1905	147
1993		TOTAL																		
1993	BV	N				.			.									.		
1993	SJ	N				3221	4	3160	64426	33528	30165	4781	4757		20345	20162		92773	58451	33325
1993	VR	L				16051	7653	8398	18202	10893	7309				6623	6623		40876	25169	15707
1993	BC	L	0	0	0	37316	16361	19374	17248	10097	7022	10456	10440		8677	8613		73697	45511	26396
1993		N				53	6	46										53	6	46
1993		TOTAL																		
1993	BDZ	NE				9844	6702	3142	28705	17982	10723	4	4		8583	8583		47136	33271	13865
1993	CD	NE				29651	16194	13457	67589	30664	36925	39655	39523	132	6878	6878		143773	93259	50514
1993	CFR	L				160	0	160										160	0	160
1993		N	13	10	3	45023	33010	11730	69759	41836	27510	2367	2367					117162	77223	39243
1993		E	0		0	874	361	511										874	361	511
1993		TOTAL																		
1993	EVR	L				4732	1491	3175				2804	2722		1289	1267		8824	5479	3175
1993	LDZ	L				12048	4683	7053				4198	4098		5450	5317		21696	14098	7053
1993		E				95	95											95	95	
1993		TOTAL																		
1993	MAV	L				.	.	.										.	.	.
1993		N	8	4		25725	16263	5965	50750	33638	11855	19530	19185	3	1293	1293		97306	70383	17823
1993		E	.	.	.	.	.	.				.	.	.				641	639	2
1993		TOTAL																		
1993	PKP	N	387	316	65	50185	35612	11202	169145	79697	86256	1030	974		68555	65157		289302	181756	97523
1993		E	74	64	10	872	355	501				872	872					1818	1291	511
1993		TOTAL																		
1993	SZ	N	0	0		1913	144	1769	7614	3008	4606	5295	5055	240	3360	3298	62	18182	11505	6677
1993	ZSR	L				24		24	440		440							464		464
1993		N				12032	5838	6194	31725	14480	17245	11754	11754		2243	2240		57754	34312	23439
1993		E													787	787		787	787	
1993		TOTAL																		
1993	TCDD	N	9	9		32323	14897	16996	5847	5031	806	1618	1618		4493	4493		44290	26048	17802
1994	BR	N				.	.	.	.	.	.	.	.	.	.	.	.	404910	.	.
1994	Railtrack	N				.	.	.										.	.	.
1994	CFL	N				1490	620	866	1433	805	627	232	232		4078	4078		7233	5735	1493
1994	CH	N				5762	4315	1372				6186	6184					11948	10499	1372
1994		E				1255	918	324				3868	3868					5123	4786	324
1994		TOTAL																		
1994	CIE	L				11604	7322	4282				644	644		1854	1854		14102	9820	4282
1994	CP	LE				13692	6647	3928	7242	4165	2707	7993	7499		9750	9544		38677	27855	6635
1994	DB AG	NE				183718	140724	41074	517454	330993	184985	72190	71963	0	101851	101692	63	875213	645372	226122
1994	DSB	N				.	.	6973	.	.		.	.	.	.	.		57410	50437	6973
1994	FS	N	178	15	57	19519	15527	3444	224497	156901	61161	39886	37962	12	39119	37182	8	323199	247587	64682
1994	NS	N				2450	62	2388	20749	15032	5717	12237	12237		82358	80758	1600	117794	108089	9705
1994	RENFE	L				15684	8786	6898	50957	21088	29869	13225	13225		68160	68160		148026	111259	36767
1994		N							1559	1559					4430	4430		5989	5989	
1994		E													122	122		122	122	
1994		TOTAL																		
1994	SNCB/NMBS	N				11978	5705	6027	32340	20073	12114	1165	1144		45447	45179		90930	72101	18141
1994	SNCF	N				47406	26184	18586	259156	128445	130103	52675	52350	0	118789	116870	517	478026	323850	149207
1994		E													448	442		448	442	
1994		TOTAL																		
1994	CFF/SBB/FFS	N				61		61	75892	44781	27759				47316	47316		123369	92097	27820
1994		E							1369	1236	109							1369	1236	109
1994		total																		
1994	NSB	N				5484	2755	2729	16077	9288	6789	2572	2572		13048	13048		37181	27663	9518
1994	OBB	N	9	9		9098	5832	2826	85500	48007	36896	9519	8922	9	28392	27424	3	132518	90194	39734

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1994		E	57	47	1	917	782	125	707	661	18	486	460		1			2168	1950	144
1994		TOTAL																		
1994	BV	N				.			.									.		
1994	SJ	N				3216	1	3189	66276	31567	34159	6458	6411		22025	21777		97975	59756	37348
1994	VR	L				16242	7380	8862	18473	10736	7737				6629	6629		41344	24745	16599
1994	BC	L	0	0	0	30758	15646	13330	14496	9270	514	10435	10416		8371	8309		64060	43640	18444
1994		N				19		18										19		18
1994		TOTAL																		
1994	BDZ	NE				9464	6310	3154	29613	17360	12253	6	6		8350	8350		47433	32026	15407
1994	CD	NE	0	0		30753	16727	13773	66814	32098	34694	43683	43528	127	7781	7781		149031	100134	48594
1994	CFR	L				165	.	165										165		165
1994		N	17	13	4	44337	32479	11858	68315	41793	26522	2444	2444					115113	76729	38384
1994		E				827	336	491										827	336	491
1994		TOTAL																		
1994	EVR	L				4426	1487	2865				2635	2568		1164	1145		8225	5200	2865
1994	LDZ	L				11599	4358	6914				4364	4291		5220	5061		21183	13710	6914
1994		E				96	96											96	96	
1994		TOTAL																		
1994	MAV	L				.	.	.										.	.	.
1994		N	12	10	2	25521	16053	9468	50172	33532	16640	19241	18910	331	1055	1055		96001	69560	26441
1994		E	0	0	.	653	650	3				0	0					653	650	3
1994		TOTAL																		
1994	PKP	N	338	240	91	51545	35030	12930	177354	82207	91949	719	693		69879	66445		299835	184615	104970
1994		E	66	56		774	368	111				812	812					1652	1236	111
1994		TOTAL																		
1994	SZ	N				2019	173	1846	7495	2657	4838	5423	5101	322	3657	3604	53	18594	11535	7059
1994	ZSR	L				5		5	446		446							451		451
1994		N	1	1		12526	5675	6851	33954	17438	16516	12838	12838		3281	3281		62600	39233	23367
1994		E													816	816		816	816	
1994		TOTAL																		
1994	TCDD	N	3	3		31399	14292	16693	6469	5718	737	2390	2390		4237	4237		44498	26640	17430
1995	BR	N				.	.	.	.	.	.	.	.		.	.	.	411700	372200	39500
1995	Railtrack	N				.	.	.										.	.	.
1995	CFL	N				1305	508	793	1549	977	572	316	316		4042	4042		7212	5843	1365
1995	CH	N				6329	4954	1283				6594	6594					12923	11548	1283
1995		E				1268	809	445				4042	4042					5292	4833	445
1995		TOTAL																		
1995	CIE	L				10559	6142	4417				876	876		1912	1912		13347	8930	4417
1995	CP	LE				15237	6698	4916	7531	4363	2788	8572	7832		10945	10602		42285	29495	7704
1995	DB AG	NE	.	.	16	.	.	36804	.	.	179221	.	.	0	.	.		859339	640400	216041
1995	DSB	N				15475	8130	7345	3788	3788		25303	25158	145	14861	14861		59427	51937	7490
1995	FS	N	10	7	1	19593	15655	3223	236493	164371	65640	39855	37676	16	40272	38456	10	336223	256165	68890
1995	NS 94	N				2450	62	2388	20749	15032	5717	12237	12237		82358	80758	1600	117794	108089	9705
1995	OBB	N	11	10	0	8428	5386	2628	84231	46621	37048	8601	7978	15	27387	26525	4	128658	86520	39695
1995		E	54	46	0	512	401	104	602	568	14	690	652	0	53	52	0	1911	1719	118
1995		TOTAL																		
1995	RENFE	L				15789	8674	7115	54350	21525	32825	12875	12875		71305	71305		154319	114379	39940
1995		N							1831	1831					4814	4814		6645	6645	
1995		E													109	109		109	109	
1995		TOTAL																		
1995	SJ	N				2990	2	2958	65590	27888	36128	7147	7103		26862	26266		102589	61259	39086
1995	BV	N				.		.										.		
1995	SNCB/NMBS	N				11432	5521	5614	31405	19602	11656	1117	1108		44815	44050		88769	70281	17270
1995	SNCF	N				44571	24340	17869	242861	118309	123999	47260	46930	1	119911	117772	937	454603	307351	142806
1995		E													429	423		429	423	
1995		TOTAL																		

A1.3.7. Train -Kilometres

			TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
YEAR	Railway	rail gauge	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10 +13+16)	Passenger trains (col. 5+8+11+14 +17)	Freight trains (col. 6+9+12+15 +18)
1995	VR	L				14464	5766	8698	19876	12576	7300				6632	6632		40972	24974	15998
1995	RHK	L				.	.	.										.	.	
1995	CFF/SBB/FFS	N				60		60	.	.	.				.	.	.	116818	90389	26429
1995		E							.	.	.							.	.	.
1995		total																		
1995	NSB	N				5654	2743	2911	15067	8588	6479	2319	2319		13528	13528		36568	27178	9390
1995	BC	L	0	0	0	29714	15805	11902	13030	8678	4244	10207	10185		8377	8317		61328	42984	16146
1995		N				6		5										6		5
1995		TOTAL																		
1995	BDZ	NE				9378	6124	3254	30391	16821	13570	4	4		7805	7805		45578	30754	16824
1995	CD	NE	13	13		31575	17142	14192	71744	35311	36424	47800	47681	119	7902	7901		159034	108048	50735
1995	CFR	L				142	30	112										142	30	112
1995		N	10	7	3	45921	34150	11771	72481	43281	29200	3008	3008					121420	80446	40974
1995		E				807	621	186										807	621	186
1995		TOTAL																		
1995	EVR	L				4560	1573	2908				2356	2288		1136	1113		8052	4974	2908
1995	LDZ	L				11118	3859	6938				3688	3639		4585	4434		19391	11932	6938
1995		E				95	95											95	95	
1995		TOTAL																		
1995	MAV	L				.	.	.										.	.	.
1995		N	10	9		24708	15161	6212	53423	36173	12329	20037	19687	6	1468	1468		99646	72498	18547
1995		E				608	608											608	608	
1995		TOTAL																		
1995	PKP	N	297	209	82	48279	30918	13712	176604	79418	94034	583	551		65359	61558		291122	172654	107828
1995		E	68	58		608	299	74				628	628					1304	985	74
1995		TOTAL																		
1995	SZ	N				.	.	.	.	.	.	.	.	.	.	.	.	18515	.	.
1995	ZSR	L				7		7	513		513	0	0					520	0	520
1995		N	0	0		13384	5889	7495	34774	18350	16424	12587	12587		2438	2438		63183	39264	23919
1995		E													798	798		798	798	
1995		TOTAL																		
1995	TCDD	N	9	9		30692	13499	16848	6107	5300	797	2773	2773		4129	4129		43710	25710	17645
1996	ATOC	N				.	.		.	.		.	.		.	.		368195	368195	
1996	Railtrack	N				.	.		.									.		
1996	Rfd	N				.	.		.	.	.	.		.	.		.	.		
1996	BK	N				.	.		.	.		.	.		.	.		402	.	
1996	CFL	N				1259	517	738	1647	1035	612	319	319		4057	4057		7282	5928	1350
1996	CH	N				6318	4963	1355				7509	7509					13827	12472	1355
1996		E				1126	720	387				4282	4282					5408	5002	387
1996		TOTAL																		
1996	CIE	L				12541	8206	4335				927	927		1918	1918		15386	11051	4335
1996	CP	LE				12778	6134	3796	8564	4789	3356	8746	7785		14024	13080		44112	31788	7152
1996	DB AG	N	675	603	59	164423	128699	34858	508262	338082	169431	98397	98156	96	79250	79106	52	851006	644646	204496
1996		E	.	.		.	.				.	.	.					.	.	.
1996		Total																		
1996	DSB	N				14492	7484	7008	2864	2862	1	24480	24373	1	15943	15943		57779	50662	7010
1996	FS SpA	N	20	11	1	20910	15883	2973	244525	165499	65431	38339	36171	11	41980	39781	10	345774	257345	68426
1996	NS	N				.	.	.	.	24372	.	.	12158	.	.	74570	.	.	.	.
1996	OBB	N	5	4	0	7063	4402	2421	80375	44179	35757	8332	7712	23	25267	24612	4	121042	80909	38205
1996		E	42	35	1	309	206	101	433	411	10	864	833		146	145		1794	1630	112
1996		TOTAL																		
1996	RENFE	L				14481	8180	6301	52140	21437	30703	13364	13364		72380	72380		152365	115361	37004
1996		N							1832	1832					5227	5227		7059	7059	
1996		E													151	151		151	151	
1996		TOTAL																		
1996	SJ	N				2990	3	2903	61539	26089	34816	7515	7429		32961	32209		105005	65730	37719

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10 +13+16)	Passenger trains (col. 5+8+11+14 +17)	Freight trains (col. 6+9+12+15 +18)
1996	BV	N				.			.									.		
1996	SNCB/NMBS	N				10924	4787	5737	31256	19306	11780	1090	1089		47481	47194		90751	72376	17517
1996	SNCF	N				46903	25476	18938	263484	130254	132739	48811	48495	0	138794	136376	963	497992	340601	152640
1996		E													459	450		459	450	
1996		TOTAL																		
1996	VR	L				13559	5226	8333	20058	12794	7264				7004	7004		40621	25024	15597
1996	RHK	L																		
1996	CFF/SBB/FFS	N							75708	43451	26340				45143	45143		120851	88594	26340
1996		E							1250	1156	87							1250	1156	87
1996		total																		
1996	NSB BA	N				5605	2602	3003	15008	8237	6771	2087	2087		14528	14528		37228	27454	9774
1996	JBV	N				.			.									.		
1996	BC	L				29977	15361	12460	12061	7837	4121	10240	10209		8224	8165		60502	41572	16581
1996		N				12	4	7										12	4	7
1996		TOTAL																		
1996	BDZ	NE				8770	5696	3074	28737	16738	11999	4	4		7547	7547		45058	29985	15073
1996	CD	NE	17	16	1	29733	15909	13636	70983	35273	35703	45964	45854	108	7198	7197	1	153895	104249	49449
1996	CFR	L				121	16	105										121	16	105
1996		N	6	4	2	46618	35249	11259	74977	47094	27763	2796	2719	36				124397	85066	39060
1996		E				775	685	90										775	685	90
1996		TOTAL																		
1996	EVR	L				4566	1386	3090				1879	1795		1113	1095		7558	4276	3090
1996	LDZ	L				12221	3356	8526				3822	3799		4401	4275		20444	11430	8526
1996		E				98	97											98	97	
1996		TOTAL																		
1996	MAV Rt.	L																		
1996		N	16	16		20700	15078	5622	49017	37228	11789	21515	21508	7	2445	2445		93693	76275	17418
1996		E	2	2		90	90											92	92	
1996		TOTAL																		
1996	PKP	L																.		.
1996		N	312	227	82	46255	28983	13705	177314	77986	96016	732	702	0	64872	61058		289485	168956	109803
1996		E	66	56	1	580	258	53				372	367					1018	681	54
1996		TOTAL																		
1996	SZ	N	15	11	4	1618	148	1470	7949	2954	4995	5065	4686	379	3696	3604	92	18343	11403	6940
1996	ZSR	L				5		5	417		417							422		422
1996		N	0	0		13924	6097	7827	31961	17179	14782	11387	11387		2062	2062		59334	36725	22609
1996		E													564	564		564	564	
1996		TOTAL																		
1996	TCDD	N	4	4		30815	13791	16576	6494	5250	1239	3277	3277		4387	4387		44977	26709	17815
1997	ATOC	N				.	.		.	.					.	.		.	.	
1997	EW&S	N				.		.	.		.	.		.	.		.	.		.
1997	BK	N				.	.		.	.		.	.		.	.		808	.	
1997	CFL	N				1018	500	517	1548	1017	531	317	317		4257	4257		7140	6091	1048
1997	CH	N				6125	4730	1329				7330	7330					13455	12060	1329
1997		E				1040	653	362				4019	4019					5059	4672	362
1997		TOTAL																		
1997	CIE	L				12433	8246	4187				1191	1191		1911	1911		15535	11348	4187
1997	CP	L				10045	5393	4652	9611	5256	4355	6794	6794	0	19042	19042	0	45492	36485	9007
1997		E				184	184		0	0		3048	3048		3	3		3235	3235	
1997		TOTAL																		
1997	DB AG	N	594	510	83	185702	151695	33729	473234	315580	157506	97523	97396	86	80956	80952	0	838009	646133	191404
1997		E	.	.		.	.					.	.					.	.	
1997		Total																		
1997	DSB	N				.	.	.	.	.	.	.	.	.	.	.	.	59082	.	.
1997	FS SpA	N	13	4		20251	15422	3128	246190	165951	66526	37279	35298	14	41778	39336	7	345511	256011	69675
1997	NS N.V.	N				.	.	.	.	.	.	.	.	.	.	.	.	121247	112700	8500

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1997	OBB	N	3	3		7503	4741	2618	84109	46679	37192	9262	8702	6	24887	24474	3	125764	84599	39819
1997		E	26	21	0	244	114	129	509	489	9	885	866	0	105	105	0	1769	1595	138
1997		TOTAL																		
1997	RENFE	L				14495	7711	6784	54495	21133	33362	14433	14433		74015	74015		157438	117292	40146
1997		N							1927	1927					5537	5537		7464	7464	
1997		E													138	138		138	138	
1997		TOTAL																		
1997	BV	N				.			.									.		
1997	MTAB	N							1966		1966							1966		1966
1997	SJ	N				2420	3	2342	55616	23862	31348	7943	7866		34892	34081		100871	65812	33690
1997	SNCB/NMBS	N				10405	4303	5612	29890	17989	11742	1013	1013		49665	49370		90973	72675	17354
1997	SNCF	N				47011	24866	19634	265424	130050	134856	46936	46657		147302	144387	1084	506673	345961	155574
1997		E													455	449		455	449	
1997		TOTAL																		
1997	VR	L				14369	5773	8596	21609	13568	8041				7596	7596		43574	26937	16637
1997	CFF/SBB/FFS	NE				.	.	.	.	.	.				.	.	.	116814	90741	26073
1997	MTAS								.		.							.	.	
1997	NSB BA	N				4842	2499	2343	15276	7944	7332	2040	2040		14834	14834		36992	27317	9675
1997	BC	L				30429	14365	14185	12722	7722	4880	10058	10022		8034	7970		61244	40079	19065
1997		N				12	3	4										12	3	4
1997		TOTAL																		
1997	BDZ	NE				8153	5440	2713	29489	17541	11948	116	116		7788	7788		45546	30885	14661
1997	CD	NE	13	13	0	26987	14109	12743	67043	33439	33599	43038	42929	106	6920	6919	1	144001	97409	46449
1997	CFR	L				110	3	107										110	3	107
1997		N	4	2	1	44155	32560	10809	75673	45605	28735	2828	2724	104				122660	80891	39649
1997		E				327	265	62										327	265	62
1997		TOTAL																		
1997	EVR	L				4666	951	3657				2255	2190		1107	1088		8028	4229	3657
1997	LDZ	L				12555	2918	9312				4030	4000		4896	4777		21481	11695	9312
1997		E				90	89											90	89	
1997		TOTAL																		
1997	MAV Rt.	L																		
1997		N	20	12		22161	12378	5282	54632	33010	11676	22981	21132	28	1870	1870		101664	68402	16986
1997		E				609	608	1										609	608	1
1997		TOTAL																		
1997	PKP	L				.		.										.	.	
1997		N	317	228	85	46802	28849	14553	176193	77380	95205	702	664	0	66115	61797		290129	168918	109843
1997		E	60	51	9	472	199	259				310	295					842	545	268
1997		TOTAL																		
1997	SZ	N	10	8	2	1589	142	1447	8279	2850	5429	4916	4620	296	3538	3427	111	18332	11047	7285
1997	ZSR	L				5		5	503		503							508		508
1997		N	0	0	0	13203	5501	7702	33425	17904	15521	11637	11637		2799	2799		61064	37841	23223
1997		E													593	593		593	593	
1997		TOTAL																		
1997	TCDD	N	5	5		31511	13575	17636	6573	4945	1623	3384	3384		4918	4918		46391	26827	19259
1998	ATOC	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	EW&S	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	CFL	N				1011	475	536	1754	1201	553	292	292		4251	4251		7308	6219	1089
1998	CH	N				5776	4605	1096				6768	6768					12544	11373	1096
1998		E				866	630	219				3259	3259					4125	3889	219
1998		TOTAL																		
1998	CIE	L				12393	8218	4175				1184	1184		1889	1889		15466	11291	4175
1998	CP 97	L				10045	5393	4652	9611	5256	4355	6794	6794	0	19042	19042	0	45492	36485	9007
1998		E				184	184		0	0		3048	3048		3	3		3235	3235	
1998		TOTAL																		
1998	DB AG	NE	309	214	96	142763	110418	32016	544839	389247	155551	101642	101207	335	82849	82849		872403	683935	187998

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10 +13+16)	Passenger trains (col. 5+8+11+14 +17)	Freight trains (col. 6+9+12+15 +18)
1998	GVG	N										.	.		.	.		144	.	
1998	DSB	N				.	.	.	.	.	.	.	.	.	.	.		60751	53905	6846
1998	FS SpA	N	15	7		18987	14410	2831	242275	164647	63579	38233	35847	36	41789	39557	13	341299	254468	66459
1998	NS N.V.	N				.	.	.	.	.	.	.	.	.	.	.	.	121658	117300	4358
1998	OBB	N	3	3		12837	5350	7487	89820	50145	39675	9635	9631	4	25848	25844	4	138143	90973	41170
1998		E	17	17		257	203	54	551	550	1	967	967		90	90		1882	1827	55
1998		TOTAL																		
1998	RENFE	L				13840	7016	6824	54781	21387	33394	17312	17312		72193	72193		158126	117908	40218
1998		N							2113	2113					5667	5667		7780	7780	
1998		E													127	127		127	127	
1998		TOTAL																		
1998	FEVE	E				.	.	.				.	.	.	.	.	.	9159	.	.
1998	FGC	NE				.	.	.	.	.	.	.	.	.	.	.	.	6512	.	.
1998	BV	N																		
1998	MTAB 97	N							1966		1966							1966		1966
1998	BK 97	N				.	.		.	.		.	.					808	.	
1998	SJ	N				2661	1	2653	54977	22580	31411	7701	7651		36475	35409		101814	65641	34064
1998	SNCB/NMBS	N				9977	4254	5210	30932	18252	12549	1032	1025		52252	51268	672	94193	74799	18431
1998	SNCF	N				44249	24282	17881	261382	125829	135132	45896	45631		155212	152221	1064	506739	347963	154077
1998		E													454	452		454	452	
1998		TOTAL																		
1998	VR	L				13858	5870	7988	22947	13571	9376				7676	7676		44481	27117	17364
1998	CFF/SBB/FFS (1997)	NE				.	.	.	.	.	.				.	.	.	116814	90741	26073
1998	MTAS	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	NSB BA	N				4911	2518	2393	15446	8026	7420	2062	2062		14998	14998		37417	27604	9813
1998	BC	L				29636	13918	13930	12247	7464	4685	9748	9680		7948	7885		59579	38946	18616
1998		N				16		11										16		11
1998		TOTAL																		
1998	BDZ	NE				6976	5255	1569	27070	17555	9371	7	7		6999	6999		41052	29816	10940
1998	CD	NE	19	18	2	25367	13366	11930	65265	33352	31910	39548	39443	104	6498	6498		136697	92677	43946
1998	CFR	L				101		101										101		101
1998		N	1	0	0	41297	30601	9638	67510	43046	22977	2195	2142					111003	75789	32615
1998		E				204	159	45										204	159	45
1998		TOTAL																		
1998	EVR	L				4725	498	4118				2605	2554		1134	1108		8464	4160	4118
1998	LDZ	L				11172	2057	8791				4154	4108		4583	4506		19909	10671	8791
1998		E				80	80											80	80	
1998		TOTAL																		
1998	MAV Rt.	L				37		37										37		37
1998		N	23	11		20307	11329	4898	54722	33745	11803	23578	21932	37	1966	1966		100596	68983	16738
1998		E				629	628	1										629	628	1
1998		TOTAL																		
1998	PKP	L				.		.										.		.
1998		N	261	174	84	45681	29263	13346	168603	77510	87093	800	772		68045	63555		283390	171274	100523
1998		E	54	44	9	406	190	193				332	325	0				792	559	202
1998		TOTAL																		
1998	SZ	N	10	9	1	1575	151	1424	8387	2760	5627	4751	4449	302	3348	3229	119	18071	10598	7473
1998	ZSR	L				15		15	426		426							441		441
1998		N	0	0		11805	5330	6475	32830	17684	15146	11373	11373	0	2080	2080		58088	36467	21621
1998		E													640	640		640	640	
1998		TOTAL																		
1998	TCDD	N	1	1		28281	12469	15426	8059	6297	1752	3337	3337		4617	4617		44295	26721	17178
1999	GKE	N	.	.	.	.	.	.				.	.	.				.	.	.
1999	OBB	N	2	2		21917	6163	9663	87851	47496	38395	10252	10252		26050	26050		146072	89963	48058
1999		E	26	26		280	230	33	488	488		853	853		163	163		1810	1760	33
1999		TOTAL																		

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1999	SNCB/NMBS	N				9680	4350	4912	29503	16875	12474	1047	1044		55472	54575	590	95702	76844	17976
1999	AAE	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	DB AG	NE	251	.	.	150647	107136	35226	606565	437559	168803	107749	105749	226	76506	76493	0	941719	726938	204507
1999	GVG	N										.	.		.	.		144	.	
1999	KEG	N				.	.					.	.					.	.	
1999	DBS (1998)	N				.	.	.	.	.	.	.	.	.	.	.		60751	53905	6846
1999	EusKotren	E	2	2		48		48							4259	4259		4308	4260	48
1999	FEVE	E				.	.	.				.	.	.	.	.	.	9815	.	.
1999	FGC	N													4144	4144		4144	4144	
1999		E				153		153				61	61		3426	3426		3640	3487	153
1999		Total																		
1999	RENFE	L				16485	8238	8247	52108	20269	31839	17055	17055		73968	73968		159616	119530	40086
1999		N							2428	2428					6115	6115		8543	8543	
1999		E													117	117		117	117	
1999		TOTAL																		
1999	VR	L				13344	5582	7762	23368	13886	9482				7593	7593		44305	27061	17244
1999	SNCF	N				45485	26180	18491	261168	125585	135196	48398	48084		165224	162222	1081	520276	362070	154767
1999		E													460	457		460	457	
1999		TOTAL																		
1999	ATOC	N					.		.	.					.	.		.	.	.
1999	EW&S	N				.		.	.		.	.		.	.		.	.		.
1999	CH	N				5664	4510	1134				7411	7411					13075	11921	1134
1999		E				752	575	163				2969	2969					3721	3544	163
1999		TOTAL																		
1999	CIE 98	L				12393	8218	4175				1184	1184		1889	1889		15466	11291	4175
1999	FS SpA	N	16	12	1	18077	14038	2281	230467	158588	55695	38379	35892	41	42944	40757	9	329883	249287	58027
1999	CFL 98	N				1011	475	536	1754	1201	553	292	292		4251	4251		7308	6219	1089
1999	NS N.V.98	N				.	.	.	.	.	.	.	.	.	.	.	.	121658	117300	4358
1999	CP	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	BK	N				.	.		.	.		.	.	.				.	.	.
1999	BV	N																		
1999	MTAB	N							.		.						.	.		.
1999	SJ	N				3050	6	3006	56056	23533	31468	6959	6838		37764	36175		103828	67092	34475
1999	CFF/SBB/FFS	NE				.	.	.	.	.	.				.	.	.	127500	94800	32700
1999	MTAS	N							.		.							.		.
1999	NSB BA	N				4497	2252	2245	13297	7386	5911	3047	3047		14924	14924		35765	27609	8156
1999	BDZ	NE				6691	5119	1416	27872	18665	8917	8	8		6313	6313		40884	30105	10333
1999	BC	L				28808	13567	13803	11610	7016	4493	9675	9490		7913	7809		58006	37882	18296
1999		N				11		8										11		8
1999		TOTAL																		
1999	CD	NE	22	20	1	23248	11759	11077	64640	34637	29948	42657	42417	90	6547	6540		137114	95373	41116
1999	EVR	L				5368	405	4784				2602	2545		1170	1143		9140	4093	4784
1999	MAV Rt.	L				37		37										37		37
1999		N	16	16		15590	11083	4507	51110	39244	11866	26246	26246		2299	2299		95261	78888	16373
1999		E	2	2		685	684	1										687	686	1
1999		TOTAL																		
1999	LDZ	L				9971	1613	8030				3841	3787		4402	4326		18214	9726	8030
1999		E				79	79											79	79	
1999		TOTAL																		
1999	PKP	LN	226	158	66	43795	29379	11745	164822	80541	80205	720	676		69001	64387		278564	175141	92016
1999		E	46	41	5	374	181	167				333	333					753	555	172
1999		TOTAL																		
1999	CFR	L				78		78										78		78
1999		N	3	3		37574	28255	9319	59563	40010	19553	1614	1613	1				98754	69881	28873

A1.3.7. Train -Kilometres

YEAR	Railway	rail gauge	TRAIN-KILOMETRES BY TYPE OF TRACTION (IN THOUSANDS OF TRAIN-KM)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10 +13+16)	Passenger trains (col. 5+8+11+14 +17)	Freight trains (col. 6+9+12+15 +18)
1999		E				178	161	17										178	161	17
1999		TOTAL																		
1999	SZ	N	12	10	2	1554	144	1410	8317	2602	5715	4740	4354	386	3508	3401	107	18131	10511	7620
1999	ZSR	L				2		2	377		377							379		379
1999		N	0	0	0	10550	5426	5124	32065	17795	14267	10739	10739	0	2644	2644	0	55998	36607	19391
1999		E													668	668		668	668	
1999		TOTAL																		
1999	TCDD	N	6	6		28167	13696	14095	8687	6369	2302	2635	2635		4471	4471		43966	27177	16397

A1.3.8. Gross hauled Tonne -Kilometres of train

YEAR	Railway	rail gauge	GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1985	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	BR	N				61764	19629	27821	18644	11830	6359	22814	22727	46	33804	33594	70	137026	87780	34296
1985	CFF	N				60	7	34	33976	17246	16692	1	1		3464	3460	2	37501	20714	16728
1985		E				0		0	8	8	0				102	90	12	110	98	12
1985		total																		
1985	CFL	N				951	131	820	673	186	487	45	45		136	135	1	1805	497	1308
1985	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	CH	N				3471	1690	1749				310	310					3781	2000	1749
1985		E				327	256	69				218	218					545	474	69
1985		TOTAL																		
1985	CIE	L				2879	1623	1256							212	212		3091	1835	1256
1985	CP	L				4414	1982	2432	2748	1406	1342	609	609		2367	2367		10139	6364	3774
1985		E	2	0	2	50	41	9				207	207					259	248	11
1985		total																		
1985	CSD	L.N.E.				56321	9498	46823	110478	15002	95476	3875	3867	8	3196	3196		173870	31563	142307
1985	DB	N.E				34552	13212	21001	215314	67795	146560	2309	2295	1	9080	9058		261255	92360	167562
1985	DR	N	4356	180	4155	104245	20975	82853	58189	13243	44855	405	403		4343	4343		171538	39144	131863
1985		E	133	85	47													133	85	47
1985		total																		
1985	DSB	N				7565	2965	4600				1995	1995		2060	2060		11620	7020	4600
1985	FS	N	1	1	0	7133	4568	2296	99275	58621	36593	4658	4526	0	5152	4936	0	116219	72652	38889
1985		E										16	16					16	16	
1985		total																		
1985	JZ	N	369	43	326	21947	3827	18120	45990	10793	35197	1815	1815		2546	2546		72667	19024	53643
1985	MAV	L.N	96	7	89	24493	5601	18892	37763	9963	27800	1850	1803	47				64202	17374	46828
1985		E				64	54	10										64	54	10
1985		total																		
1985	NS	N				1753	47	1706	11420	5213	6207	1606	1606		11219	10963	256	25998	17829	8169
1985	NSB	N				2313	329	1984	8802	3477	5325	155	155		1108	1107	1	12378	5068	7310
1985	OBB	N	1	1		2537	898	1616	34623	9811	24699	348	324	2	4232	4144	2	41741	15178	26319
1985		E	4	1	2	53	32	21	42	31	10	1	1	0				100	65	33
1985		TOTAL																		
1985	PKP	N	10325	4842	5301	66492	9984	55086	206014	23900	181108	1041	995	3	20669	19677		304541	59398	241198
1985		E	46	27	19	432	87	345				26	26	0				504	140	364
1985		total																		
1985	RENFE	L				9056	3012	5898	33573	10519	22034	3652	3649		10497	10495		56778	27675	27932
1985		E													9	9		9	9	
1985		TOTAL																		
1985	SJ	N				2453	105	2303	45838	12354	33325	487	479		1557	1483	0	50335	14421	35628
1985		E				2		2										2		2
1985		total																		
1985	SNCB/NMBS	N				13293	3404	9792	15291	5143	10113	133	129	0	10947	10898		39664	19574	19905
1985	SNCF	N				34943	12056	21998	182547	29817	122161	8120	8023	53	25942	25495	179	251552	105391	144391
1985		E													44	44		44	44	
1985		TOTAL																		
1985	VR	L				11171	1521	.	11008	2771	8237	128	128		332	332		22639	4752	.
1985	TCDD	N	922	176	746	20689	4980	15709	521	312	209	94	94		1353	1353		23579	6915	16664
1986	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	BR	N				57722	17875	26265	17633	10948	6176	23300	23160	98	34983	34621	72	133638	86586	32611
1986	CFF	N				68	7	41	34118	17479	16615	1	1	0	3601	3596	3	37788	21083	16659
1986		E				0			8	7	0				102	89	13	110	96	13
1986		total																		
1986	CFL	N				866	130	736	653	186	467	44	44		141	140	1	1704	500	1204
1986	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	CH	N				3489	1754	1709				277	276					3766	2030	1709

A1.3.8. Gross hauled Tonne -Kilometres of train

YEAR	Railway	rail gauge	GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1986		E				351	279	69				246	246					597	525	69
1986		TOTAL																		
1986	CIE	L				2913	1704	1209							212	212		3125	1916	1209
1986	CP	L				4205	2043	2162	2641	1387	1254	618	618		2324	2324		9788	6372	3416
1986		E	4	0	1	47	38	9				202	202					250	240	10
1986		total																		
1986	CSD	L.N.E.				53973	8838	45135	116357	16666	99691	3942	3935	7	3222	3222		177494	32661	144833
1986	DB	N.E				32997	12939	19757	211586	68960	141808	2282	2272	1	9188	9161		256053	93332	161566
1986	DR	N	2777	101	2662	99856	20569	78931	64181	14365	49727	381	374		4494	4494		171689	39903	131320
1986		E	134	88	46													134	88	46
1986		total																		
1986	DSB	N				7370	2750	4620	32	32		2178	2178		2070	2070		11650	7030	4620
1986	FS	N	1	1	0	6712	4292	2196	98215	59282	35157	4558	4427		5127	4920		114614	72921	37353
1986	JZ	N	258	44	214	20525	3973	16552	45188	11041	34447	1904	1904		2477	2477		70652	19439	51213
1986	MAV	L.N	16	6	10	23824	5325	18499	38556	10023	28533	1977	1926	51				64373	17280	47093
1986		E				63	54	9										63	54	9
1986		total																		
1986	NS	N				1473	69	1404	10715	4723	5992	1535	1535		11881	11617	264	25604	17944	7660
1986	NSB	N				2542	860	1682	9617	3024	6593	187	187		1126	1126		13472	5197	8275
1986	OBB	N	0	0	0	2428	886	1521	33883	9847	23916	339	315	2	4380	4290	1	41030	15338	25440
1986		E	3	2	1	48	26	21	43	31	11	7	7	0				101	66	33
1986		TOTAL																		
1986	PKP	N	8344	3861	4352	63202	9840	51995	215821	26792	187941	873	829	3	20355	19405		308595	60727	244291
1986		E	32	19	13	457	95	362				34	34	0				523	148	375
1986		total																		
1986	RENFE	L				9166	3202	5812	33865	10747	22221	3431	3431		10573	10575		57037	27953	28033
1986		E													8	8		8	8	
1986		TOTAL																		
1986	SJ	N				2358	105	2185	46128	12021	33962	476	469	0	1582	1499	0	50544	14095	36147
1986		E				1		1										1		1
1986		total																		
1986	SNCB/NMBS	N				11032	2273	8675	15500	5750	9696	100	95		11027	10983		37659	19101	18371
1986	SNCF	N				31159	11569	18681	173869	57951	115317	7747	7653	52	26834	26376	194	239609	103549	134244
1986		E													45	44		45	44	
1986		TOTAL																		
1986	VR	L				9624	1445	8179	9888	2650	7238	79	79		313	313		19904	4487	15417
1986	TCDD	N	322	105	217	20263	4936	15327	412	273	139	81	81		1423	1423		22501	6818	15683
1987	BDZ	NE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	BR	N				62788	12650	37013	19600	12900	5100	21340	21100		45280	44800		149008	91450	42113
1987	CFF	N				63	8	42	35607	19100	16481	4	1	3	3616	3610	3	39290	22719	16529
1987		E				0		0	17	15	2				101	89	12	118	104	14
1987		total																		
1987	CFL	N				807	128	679	613	187	426	45	45		144	142	2	1609	502	1107
1987	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	CH	N				3297	1748	1519				315	315					3612	2063	1519
1987		E				328	248	78				264	264					592	512	78
1987		TOTAL																		
1987	CIE	L				2911	1720	1191							212	212		3123	1932	1191
1987	CP	L				4651	2203	2448	2861	1519	1342	610	610		2425	2425		10547	6757	3790
1987		E	0	0		52	42	10				205	205					257	247	10
1987		total																		
1987	CSD	L.N.E.				51003	8317	42686	117201	17316	99885	3890	3883	7	3164	3164		175258	32680	142578
1987	DB	N.E				31369	12492	18604	207253	67921	138519	2380	2370	0	10392	10360		251394	93143	157123
1987	DR	N	1351	59	1283	95406	19900	75159	69725	15249	54383	370	363		4648	4647		171500	40218	130825
1987		E	133	88	44													133	88	44

A1.3.8. Gross hauled Tonne -Kilometres of train

YEAR	Railway	rail gauge	GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1987		total																		
1987	DSB	N				6994	2694	4300	118	118		2278	2278		2115	2115		11505	7205	4300
1987	FS	N	1	1	0	6555	4045	2305	99295	58387	37254	4170	4026		4947	4735		114968	71194	39560
1987	JZ	N	180	42	138	18165	3547	14618	44723	11216	33507	1693	1693		2585	2585		67346	19083	48263
1987	MAV	L.N	5	3	2	21168	5314	15854	39411	10111	29300	1859	1812	47				62443	17240	45203
1987		E				61	52	9										61	52	9
1987		total																		
1987	NS	N				1345	36	1309	10501	4615	5886	1491	1491		12654	12389	265	25991	18531	7460
1987	NSB	N				2580	.	.	9452	.	.	186	.		1034	.	.	13252	.	.
1987	OBB	N	6	6	0	2276	873	1383	33495	9921	23456	337	315	1	4496	4406	1	40610	15221	24841
1987		E	1	1	0	41	21	19	41	32	8	10	10	0				93	64	27
1987		TOTAL																		
1987	PKP	N	4939	2553	2307	61146	10274	49544	219910	28309	190495	784	742	2	20671	19645		307450	61523	242348
1987		E	23	10	13	445	79	366				46	46	0				514	135	379
1987		total																		
1987	RENFE	L				9146	2933	6036	33731	11239	21574	3236	3236		10751	10750		56864	28158	27610
1987		E													10	10		10	10	
1987		TOTAL																		
1987	SJ	N				2331	97	2204	45123	11651	33330	470	463	0	1599	1517		49523	13729	35533
1987		E				2		2										2		2
1987		total																		
1987	SNCB/NMBS	N				10229	1708	8441	16443	6292	10105	96	93		11381	11328		38149	19421	18546
1987	SNCF	N				31037	11416	18815	174534	58465	115398	7538	7449	52	28931	28491	194	242040	105821	134459
1987		E													48	48		48	48	
1987		TOTAL																		
1987	VR	L				10487	1787	8700	11254	3155	8099	30	30		345	345		22116	5317	16799
1987	TCDD	N	192	49	143	19863	4990	14873	392	250	142	80	80		1425	1425		21952	6794	15158
1988	BDZ	N				8068	2115	5953	36926	8105	28821	75	75		2323	2323		47392	12618	34774
1988		E				189	71	118										189	71	118
1988		total																		
1988	BR	N				63378	11890	38363	19700	13000	5100	20340	20100	.	46780	46300	.	150198	91920	.
1988	CFF	N				57	5	41	38052	20076	17949	14	1	12	3997	3992	4	42120	24074	18006
1988		E				0	0	0	21	20	1				106	96	10	127	116	11
1988		total																		
1988	CFL	N				849	130	719	662	179	483	47	47	0	146	145	1	1704	501	1203
1988	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	CH	N				.	.	.				.	.					.	.	.
1988		E				.	.	.				.	.					.	.	.
1988		TOTAL				.	.	.				.	.					.	.	.
1988	CIE	L				2845	1687	1158							219	219		3064	1906	1158
1988	CP	L.E				4984	2279	2705	3075	1618	1457	882	882		2574	2574		11515	7353	4162
1988	CSD	L.N.E.				47772	7274	40498	124833	18859	105974	3933	3926	7	3173	3173		179711	33232	146479
1988	DB	N.E				30198	11920	18002	209617	67439	141457	2907	2896	0	9042	9016		251764	91271	159459
1988	DR	N	164	16	148	88058	18740	68920	81967	16903	64944	372	365		4503	4502		175064	40526	134012
1988		E	136	91	45	0	0	0										136	91	45
1988		total																		
1988	DSB	N				6620	2430	4190	177	177		2363	2363		2110	2110		11270	7080	4190
1988	FS	N	1	1	0	6395	4017	2180	102628	60277	38729	4009	3874	0	5366	5117		118399	73286	40909
1988	JZ	N	50	14	36	16754	3482	13272	45162	11652	33510	1412	1412		2930	2930		66308	19490	46818
1988	MAV	L.N	3	3	0	18399	4599	13800	41125	10733	30393	1757	1706	50				61284	17041	44243
1988		E				632	547	85										632	547	85
1988		total																		
1988	NS	N				1349	9	1340	10881	4706	6175	1454	1454		13266	12881	385	26950	19050	7900
1988	NSB	N				2279	.	.	9086	.	.	162	.	.	979	.	.	12506	.	.
1988	OBB	N	4	4	0	2257	859	1379	34509	10268	24112	332	311	0	4668	4566	1	41770	16008	25492

A1.3.8. Gross hauled Tonne -Kilometres of train

			GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
YEAR	Railway	rail gauge	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1988		E	2	2	0	38	20	18	37	31	5	12	11	0				89	64	23
1988		TOTAL																		
1988	PKP	N	2881	1525	1305	56621	10928	44259	233987	31753	200992	609	572	6	22113	21105		316211	65883	246562
1988		E	17	7	10	436	72	364				41	41	0				494	120	374
1988		total																		
1988	RENFE	L				9145	2525	6376	33745	11047	21702	3461	3461		11044	11043		57395	28076	28078
1988		E													11	11		11	11	
1988		TOTAL																		
1988	SJ	N				2245	48	2159	44859	11413	33267	502	494	0	1875	1787		49480	13741	35426
1988		E				3		3				0	0					3		3
1988		total																		
1988	SNCB/NMBS	N				9350	1497	7787	17380	6298	11037	87	85		11463	11415		38280	19295	18824
1988	SNCF	N				30159	10691	18530	179295	61009	117549	7619	7533	47	29845	29435	180	246918	108668	136306
1988		E													49	49		49	49	
1988		TOTAL																		
1988	VR	L				10898	1894	9004	11454	3144	8310	15	15		354	354		22721	5407	17314
1988	TCDD	N	143	26	117	20787	4724	16063	485	350	135	87	87	0	1408	1408		22910	6595	16315
1989	BDZ	N				7538	1842	5696	36662	8294	28368	48	48		2267	2267		46515	12451	34064
1989		E				240	72	168										240	72	168
1989		total																		
1989	BR	N				60718	9972	36308	19133	13000	4533	21172	21172	0	16859	46619	0	147882	90763	40841
1989	CFF	N				56	5	39	39499	20101	19372	10	1	9	4335	4329	3	43900	24436	19423
1989		E				0		0	20	19	2				102	91	10	122	110	12
1989		total																		
1989	CFL	N				955	123	832	711	180	531	37	37		162	167		1870	507	1363
1989	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	CH	N				.	.	.				.	.	.				.	.	.
1989		E				.	.	.				.	.	.				.	.	.
1989		TOTAL				.	.	.				.	.	.				.	.	.
1989	CIE	L				2920	1723	1197				0	0		219	219		3139	1942	1197
1989	CP	L.E				4097	1932	2165	2795	1484	1311	816	816		2576	2576		10284	6808	3476
1989	CSD	L.N.E.				43918	7070	36848	123747	19465	104282	3898	3891	7	3159	3159		174722	33586	141137
1989	DB	N.E				29908	11389	18198	215384	68716	145909	3501	3493	0	8984	8945		257777	92543	164107
1989	DR	N	42	11	30	80338	17711	62241	88340	18540	69647	368	361		4647	4646		173735	41269	131918
1989		E	129	86	43	8	6	2										137	92	45
1989		total																		
1989	DSB	N				6262	2012	4250	185	185		2733	2733		2450	2450		11630	7380	4250
1989	FS	N	1	1	0	6272	3838	2243	104516	60715	40248	3845	3714	0	6216	5948		120850	74216	42491
1989	JZ	N	14	2	12	17148	3460	13688	45735	11597	34136	1435	1435		3130	3130		67462	19624	47838
1989	MAV	L.N	5	4	0	17187	4792	12878	40448	11260	29188	1678	1631	47				59318	17688	42113
1989		E				602	537	65										602	537	65
1989		total																		
1989	NS	N				1357	8	1349	11088	5132	5956	1484	1484		14027	13638	389	27956	20262	7694
1989	NSB	N				2329	.	.	8874	.	.	176	.	.	925	.	.	12304	.	.
1989	OBB	N	4	4	0	2216	841	1359	36423	11015	25257	366	345		4944	4849	1	43953	17054	26617
1989		E	1	1	0	45	25	18	37	33	3	14	14					95	73	21
1989		TOTAL																		
1989	PKP	N	1725	1061	640	49000	10845	36786	226115	34555	190381	460	433	6	22170	21222		299470	68116	227813
1989		E	13	5	8	392	63	329				45	45					450	113	337
1989		total																		
1989	RENFE	L				8407	2333	5860	33163	10215	21952	3690	3690		11351	11350		56611	27588	27812
1989		E													10	10		10	10	
1989		TOTAL																		
1989	SJ	N				2063	7	2002	44147	10990	32931	512	506	0	1959	1881	0	48683	13384	34933
1989	SNCB/NMBS	N				9145	1369	7704	19005	6490	12472	99	97		11425	11374		39674	19330	20176

A1.3.8. Gross hauled Tonne -Kilometres of train

YEAR	Railway	rail gauge	GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1989	SNCF	N				29598	10286	18385	181969	60896	120454	7510	7445	35	31591	31173	192	250668	109800	139066
1989		E													50	50		50	50	
1989		TOTAL																		
1989	VR	L				9833	1803	8030	11569	3256	8313	6	6		288	288		21696	5353	16343
1989	TCDD	N	59	9	39	20388	4796	15352	572	373	199	130	130		1347	1347		22497	6655	15590
1990	BDZ	NE				7071	1840	5231	32211	8516	23695	16	16		2339	2339		41637	12711	28926
1990	BR	N				52360	7026	41054	17650	12397	5013	22370	22323	17	33121	32855	70	125501	74601	46154
1990	CFF	N				81	4	65	39430	20440	18972	3	1	2	4913	4906	3	44427	25351	19042
1990		E				0		0	74	69	5				60	53	7	134	122	12
1990		total																		
1990	CFL	N				964	115	849	729	181	548	30	30		200	200		1923	526	1397
1990	CFR	L	.	.	.	485	100	385										.	.	.
1990		N	24	8	16	45715	14637	30927	100233	20363	79626	312		312	0	0	0	146284	35008	110865
1990		E	.	.	.	187	100	87										187	100	87
1990		total																		
1990	CH	N				.	.	.				.	.	.				.	.	.
1990		E				.	.	.				.	.	.				.	.	.
1990		TOTAL				.	.	.				.	.	.				.	.	.
1990	CIE	L				3026	1781	1245							221	221		3247	2002	1245
1990	CP	L.E				4409	1730	1830	2853	1503	1184	871	836		2398	2179		10532	6248	3014
1990	CSD	L.N.E.				38380	7012	31368	116882	19802	97080	3883	3876	7	3136	3136		162281	33826	128455
1990	DB	N.E				29736	11345	18152	217557	70269	146837	3657	3652	0	9017	8976		259967	94242	164989
1990	DR	N	16	9	7	57148	17398	39416	71466	19080	52236	369	362		4586	4586		133585	41434	91659
1990		E	110	86	24	11	6	5										121	92	29
1990		total																		
1990	DSB	N				5815	1413	4402	163	163		2487	2487		2650	2650		11115	6713	4402
1990	FS	N	1	1	0	6215	3887	2139	104734	60906	40289	3786	3655	0	6516	6235		121252	74684	42428
1990	JZ	N	1	0	1	15066	3139	11927	43032	11573	34459	1579	1579		3211	3211		62889	19502	43387
1990	MAV	L.N	2	2	0	14072	4184	9889	37331	11481	25850	1635	1594	41				53040	17260	35780
1990		E				554	490	63										554	490	63
1990		total																		
1990	NS	N				1310	5	1305	10920	5110	5810	1571	1571		15367	14983	384	29168	21669	7499
1990	NSB	N				2259	.	.	8921	.	.	185	185	0	938	938	0	12303	.	.
1990	OBB	N	2	2	0	2283	894	1374	38932	11717	27063	442	419	0	5081	4999	1	46740	18031	28438
1990		E	1	1	0	48	30	18	38	34	3	15	15	0				102	80	21
1990		TOTAL																		
1990	PKP	N	935	711	214	33605	9950	22400	186215	36334	148791	356	344	1	22350	21434		243461	68773	171406
1990		E	6	4	2	205	49	156				44	44					255	97	158
1990		total																		
1990	RENFE	L				7829	2335	5257	33752	10964	21776	3874	3874		12782	12782		58237	29955	27033
1990		E													11	11		11	11	
1990		TOTAL																		
1990	SJ	N				1928	0	1895	43755	11057	32481	415	410		2059	1975		48157	13442	34376
1990	BV	N				.			.									.		
1990	SNCB/NMBS	N				9583	1307	8203	19367	6471	12839	101	99		11269	11211		40320	19088	21042
1990	SNCF	N				29562	9868	18678	175857	58536	116213	7355	7298	30	37779	37309	189	250553	113011	135110
1990		E													49	49		49	49	
1990		TOTAL																		
1990	VR	L				10459	1864	8595	11878	3470	8408	3	3		581	581		22921	5918	17003
1990	TCDD	N	16	7	9	21230	4796	15352	883	602	281	179	179		1367	1367		23675	6951	15642
1990	BDZ	NE				7071	1840	5231	32211	8516	23695	16	16		2339	2339		41637	12711	28926
1991		NE				.	.	.	.	.	.	.	.		.	.		25610	.	.
1991	BR	N				38997	20297	18700	23331	17916	5415	14228	14228		34955	34955		111511	87396	24115
1991	CFF	N				63	5	47	38980	20832	18126	6	1	5	5104	5100	2	44153	25938	18180
1991		E				0	0	0	85	81	4				50	44	6	135	125	10

A1.3.8. Gross hauled Tonne -Kilometres of train

			GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
YEAR	Railway	rail gauge	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1991		total																		
1991	CFL	N				1010	122	888	694	174	520	27	27		268	268		1999	591	1408
1991	CFR	L				283	0	283										283	0	283
1991		N	18	6	12	29829	13178	16651	67748	17938	49810	221	221		0	0		97816	31343	66473
1991		E	0	0		140	86	54				0	0					140	86	54
1991		total																		
1991	CH	NE				.	.	.				.	.	.				.	.	.
1991	CIE	L				2911	1739	1172							216	216		3127	1955	1172
1991	CP	L.E				4541	1718	2155	3061	1578	1344	924	877		2517	2255		11043	6428	3499
1991	CSD	L.N.E.				25393	6421	18972	99473	18663	80810	3810	3804	6	3174	3174		131850	32062	99788
1991	DB	N.E				31583	12704	18648	220291	71511	148353	3758	3749	0	14163	14142		269795	102106	167001
1991	DR	N	18	11	6	34265	14938	19048	46442	17785	28507	335	331		4497	4497		85557	37562	47561
1991		E	103	94	0	9	6	0										112	100	0
1991		total																		
1991	DSB	N				5862	1312	4550	151	151		3657	3657		2587	2587		12257	7707	4550
1991	FS	N	1	1	0	6212	3855	2160	107671	62972	41101	3640	3506	0	6672	6424	0	124196	76758	43261
1990	JZ	N	1	0	1	15066	3139	11927	43032	11573	31459	1579	1579		3211	3211		62889	19502	43387
1991	MAV	L.N	2	2	0	10547	3585	6961	28910	11230	17680	1646	1600	46	245	245		41350	16662	24687
1991		E				53	48	5										53	48	5
1991		total																		
1991	NS	N				1442	1	1441	10622	4946	5676	1667	1667		16398	16044	354	30129	22658	7471
1991	NSB	N				2459	811	1648	8504	3649	4855	177	177	0	897	897	0	12037	5534	6503
1991	OBB	N	3	3	0	2437	977	1443	41521	13923	27446	471	457	0	5525	5440	1	49957	20800	28890
1991		E	1	1	0	50	31	19	40	36	2	13	12	0				104	80	21
1991		TOTAL																		
1991	PKP	N	380	287	90	21722	8537	12283	157052	34558	121567	283	274	0	21792	21002		201229	64658	133940
1991		E	5	4	1	155	41	114				37	37					197	82	115
1991		total																		
1991	RENFE	L				7674	2238	5094	32626	11112	20488	3649	3649		14597	14597		58546	31596	25582
1991		E													16	16		16	16	0
1991		TOTAL																		
1991	SJ	N				1956	11	1942	46659	10870	35386	322	314		2257	2166		51194	13361	37328
1991	SNCB/NMBS	N				8623	1260	7283	19277	6499	12679	91	89		11281	11219		39272	19067	19962
1991	SNCF	N				27713	9574	17171	173042	54775	116881	7026	6978	17	44273	43775	188	252054	115102	134257
1991		E													44	43		44	43	
1991		TOTAL																		
1991	VR	L				9907	1916	7991	10711	3562	7149				583	583		21201	6061	15140
1991	TCDD	N	1	1		20336	3911	16166	1327	889	436	150	150		1473	1473		23287	6424	16602
1992	BR	N				33130	3222	26520	18216	14017	4081	20418	20390	0	31257	31148	47	103021	68777	30648
1992	CFL	N				949	132	817	697	170	527	34	34		420	420		2100	756	1344
1992	CH	N				.	.	.				.	.	.				.	.	.
1992		E				.	.	.				.	.	.				.	.	.
1992		TOTAL																		
1992	CIE	L				2977	1737	1240							220	220		3197	1957	1240
1992	CP	LE				4553	1700	2194	3057	1507	1367	1040	925		2397	2366		11047	6498	3561
1992	DB	NE				31797	14047	17534	207930	70674	136789	4071	4061	0	22540	22517		266338	111299	154323
1992	DR	N	52	35	16	31989	14618	17100	36539	14408	21964	309	307		4728	4728		73617	34096	39080
1992		E	84	78	6	21	18	2										105	96	8
1992		TOTAL																		
1992	DSB	N				5476	746	4730	143	143		4433	4433	0	2548	2548		12600	7870	4730
1992	FS	N	1	1		6365	3994	2151	110470	65219	40939	3763	3632		6874	6655		127473	79501	43090
1992	NS	N				1421	4	1417	11061	5805	5258	1662	1662		17828	17485	343	31972	24956	7018
1992	RENFE	L				7957	3225	4733	31591	11862	19729	2337	2337		13865	13865		55750	31289	24462
1992		N													.	.		.	.	
1992		E													20	20		20	20	

A1.3.8. Gross hauled Tonne -Kilometres of train

			GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
YEAR	Railway	rail gauge	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1992		TOTAL																		
1992	SNCB/NMBS	N				8250	1242	6913	20177	6601	13543	94	92		11327	11250		39848	19185	20456
1992	SNCF	N				24744	8713	15175	171235	53193	116996	6876	6840	15	47987	47466	189	250842	1166212	132375
1992		E													39	38		39	38	
1992		TOTAL																		
1992	CFF	N				107	5	89	38130	21243	16858	1	1		4989	4984	2	43227	26233	16949
1992		E				0	0	0	89	85	4				48	43	5	137	128	9
1992		total																		
1992	NSB	N				.	837	1611	.	3519	5872	.	159		.	1111		13109	5626	7483
1992	OBB	N	3	3	0	2290	978	1293	41923	15624	26124	605	586	0	5841	5742	1	50662	22933	27418
1992		E	1	1	0	45	28	17	40	36	2	21	21	0				107	86	19
1992		TOTAL																		
1992	BV	N				.												.		
1992	SJ	N				1986		1970	46159	10751	35341	445	441		2525	2502		51115	13694	37311
1992	VR	L				10138	1987	8151	10741	3733	7008				601	601		21480	6321	15159
1992	BC	L				99803	14813	84211	35705	9879	25735	3	3		5	5		135518	24700	109945
1992		N				118	2	117										118	2	117
1992		TOTAL																		
1992	BDZ	NE				4329	1744	2585	19808	7975	11833	1	1		2200	2200		26338	11920	1418
1992	CFR	L	0		0	200	1	192										200	1	192
1992		N	11	4	7	27680	13354	14045	59298	18884	40176	208	208					87197	32450	54228
1992		E				155	78	45	0									155	78	45
1992		TOTAL																		
1992	CSD	N				21433	5948	15485	96424	17972	78452	3753	3749	4	3330	3330		124940	30999	93941
1992	EVR	L				8038	1249	6773				902	902		415	415		9354	2565	6773
1992	LDZ	L				22123	3264	18774				1634	1610		2530	2503		26287	7377	18774
1992		E				3	3											3	3	
1992		TOTAL																		
1992	MAV	LN	2	2	0	8612	3293	5319	26097	10836	15261	1650	1609	41	408	408		36769	16148	20621
1992		E				48	47	1										48	47	1
1992		TOTAL																		
1992	PKP	N	94	48	46	17458	7313	9484	143827	30910	112128	159	154		18696	18103		180234	56528	121658
1992		E	5	4	1	115	25	90				30	30					150	59	91
1992		TOTAL																		
1992	SZ	N	0	0		1440	38	1402	5406	883	4523	431	419	12	635	624	11	7912	1964	5948
1992	TCDD	N	1	1		20170	3835	16124	1495	1026	465	138	138		1468	1468		23272	6468	16589
1993	BR	N				12038	10995	1043	14266	13763	503	11717	11717		30684	30669	15	68705	67144	1561
1993	CFL	N				884	131	753	695	166	529	31	31		522	522		2132	850	1282
1993	CH	N				2760	1443	1297				721	721					3481	2164	1297
1993		E				189	144	43				332	332					521	476	43
1993		TOTAL																		
1993	CIE	L				2890	1748	1142							213	213		3103	1961	1142
1993	CP	LE				4105	1608	2342	2731	1359	1345	869	854		2545	2497		10250	6318	3687
1993	DB	NE				28720	13459	15022	190630	67100	123028	4710	4695	0	28252	28212	1	252312	113466	138051
1993	DR	N	48	24	22	25172	12065	12859	39688	16356	23240	361	359		2124	2122		67393	30927	36121
1993		E	65	62	3	1	1											66	63	3
1993		TOTAL																		
1993	DSB(1992)	N				5476	746	4730	143	143		4433	4433	0	2548	2548		12600	7870	4730
1993	FS	N				4907	3529	1253	103329	64886	35905	95	91	0	1188	1146	1	109519	69652	37159
1993	NS	N				1415	1	1414	10770	5743	5027	1659	1659		19322	19001	321	33165	26404	6762
1993	RENFE	L				7008	3028	3980	26795	9104	17691	2379	2379		13175	13175		49357	27686	21671
1993		N							303	303					1742	1742		2045	2045	
1993		E													20	20		20	20	
1993		TOTAL																		
1993	SNCB/NMBS	N				7805	1176	6480	19077	6876	12141	87	85		11540	11470		38510	19607	18621

A1.3.8. Gross hauled Tonne -Kilometres of train

YEAR	Railway	rail gauge	GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1993	SNCF	N				21715	7809	13270	155135	50858	103862	6550	6512	9	50971	50436	174	234371	115615	117315
1993		E													37	37		37	37	
1993		TOTAL																		
1993	CFF	N				81	6	62	36341	21422	14877	4	4		4704	4700	2	41130	26132	14941
1993		E				0	0	0	82	80	2				54	50	4	136	130	6
1993		total																		
1993	NSB	N				2230	644	1586	8546	3011	5535	190	190		1130	1130		12096	4975	7121
1993	OBB	N	1	1	0	2095	851	1228	40588	15474	24942	543	516	0	5968	5833	1	49195	22675	26171
1993		E	2	2	0	44	28	16	38	35	2	16	15	0				100	80	18
1993		TOTAL																		
1993	BV	N				.												.		
1993	SJ	N				1926	1	1893	44080	9606	33815	366	365		3482	3453		49854	13425	35708
1993	VR	L				11336	1941	9395	12044	3808	8236				623	623		24003	6372	17631
1993	BC	L	0	0	0	72190	14249	57261	30042	9776	20195	4	4		5	5		102241	24034	77455
1993		N				55	3	52										55	3	52
1993		TOTAL																		
1993	BDZ	NE				3905	1675	2230	19861	7242	12619	0	0		2205	2205		25971	11122	14849
1993	CD	NE				11211	3493	7718	53450	9456	43994	2367	2358	9	2193	2193	0	69221	17500	51721
1993	CFR	L				137	73	64										137	73	64
1993		N	6	3	3	24024	12551	11384	57105	19327	37616	170	170					81305	32051	49003
1993		E	0		0	137	0	137										137	0	137
1993		TOTAL																		
1993	EVR	L				7984	1057	6910	907	907					404	404		9295	2368	6910
1993	LDZ	L				21449	3003	18359				1449	1426		2352	2306		25250	6735	18359
1993		E				3	3											3	3	
1993		TOTAL																		
1993	MAV	LN	1	1		6667	3051	3590	22527	10064	12230	1591	1588	0	376	376		31162	15080	15820
1993		E	.	.	.	38	38	0				.	.	.				38	38	0
1993		TOTAL																		
1993	PKP	N	87	47	39	16484	6852	8948	152942	30324	121627	103	100		18373	17769		187989	55092	130614
1993		E	5	4	1	105	20	84				30	30					140	54	85
1993		TOTAL																		
1993	SZ	N	0	0		1070	32	1038	5191	927	4264	393	380	13	613	605	8	7267	1944	5323
1993	ZSR	L				3		3	383		383							386		386
1993		N				5528	1416	4112	27344	5039	22305	926	926		737	737		34535	8118	26417
1993		E													50	50		50	50	
1993		TOTAL																		
1993	TCDD	N	2	2		19646	3328	16167	2180	1412	765	120	120		1445	1445		23393	6307	16932
1994	BR	N				.	.	.	.	.	.	.	.		.	.	.	86034	.	.
1994	Railtrack	N				.	.	.							.	.	.	.	.	.
1994	CFL	N				838	100	737	763	189	574	10	10		564	564		2175	863	1311
1994	CH	N				2074	1314	722				923	923					2997	2237	722
1994		E				173	118	54				505	505					678	623	54
1994		TOTAL																		
1994	CIE	L				2849	1665	1184				54	54		208	208		3111	1927	1184
1994	CP	LE				3879	1560	2175	2771	1336	1417	850	832		2489	2438		9989	6166	3592
1994	DB AG	NE				50287	22863	26915	235419	80677	154249	6223	6206	0	36443	36381	46	328372	146127	181210
1994	DSB	N																		
1994	FS	N	122	5	47	4925	3496	1300	106930	65765	38702	89	84	1	1174	1138	1	113240	70488	40051
1994	NS	N				1237	1	1236	10912	5767	5145	1621	1621		19167	18943	224	32937	26332	6605
1994	RENFE	L				6390	2426	3964	25487	6466	19021	1903	1903		14383	14383		48163	25178	22985
1994		N							228	228					1865	1865		2093	2093	
1994		E													11	11		11	11	
1994		TOTAL																		
1994	SNCB/NMBS	N				7499	1133	6285	19793	6965	12771	79	77		11340	11276		38711	19451	19056

A1.3.8. Gross hauled Tonne -Kilometres of train

YEAR	Railway	rail gauge	GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1994	SNCF	N				21037	7546	13097	161056	49003	111950	6329	6297	0	54257	53512	192	242679	116358	125239
1994		E													35	35		35	35	
1994		TOTAL																		
1994	CFF/SBB/FFS	N				74	.	.	35811	.	.	4	4		4519	.	.	40408	25069	15286
1994		E				.	.	.	.	.	.				.	.	.	.	.	.
1994		total																		
1994	NSB	N				2635	913	1722	9360	3665	5695	251	251		1350	1350		13596	6179	7417
1994	OBB	N	2	2		2008	775	1220	42083	14520	27390	555	521	0	5845	5695	1	50493	21519	28611
1994		E	2	2		47	29	17	38	35	2	19	18		0			106	84	19
1994		TOTAL																		
1994	BV	N				.			.									.		
1994	SJ	N				1878	0	1864	44874	9008	35540	466	463		3861	3827		51079	13298	37404
1994	VR	L				11801	1923	9878	12441	3885	8556				624	624		24866	6432	18434
1994	BC	L	0	0	0	53577	12902	39919	23518	8714	14739	4	4		5	5		77103	21625	54658
1994		N				20		20										20		20
1994		TOTAL																		
1994	BDZ	NE				3579	1632	1947	19623	6944	12679	1	1		2167	2167		25370	10744	14626
1994	CD	NE	0	0		10936	3626	7250	50260	9713	40541	2683	2674	7	1771	1771		65650	17784	47798
1994	CFR	L				154		154										154		154
1994		N	8	5	3	23515	12162	11353	55757	19377	380	159	159					79439	31703	47736
1994		E				128	69	59										128	69	59
1994		TOTAL																		
1994	EVR	L				7082	944	6120				834	317		373	368		8289	2129	6120
1994	LDZ	L				20303	2284	17921				1504	1486		2190	2136		23997	5906	17921
1994		E				3	3											3	3	
1994		TOTAL																		
1994	MAV	LN	2	2		6653	3018	3635	22334	10001	12333	1558	1554	4	296	296		30843	14871	15972
1994		E	0	0		37	37	0				0	0					37	37	0
1994		TOTAL																		
1994	PKP	N	95	45	49	16615	6685	9195	157976	30016	127105	67	65		18365	17742		193118	54553	136349
1994		E	5	4	1	84	21	63				29	29					118	54	64
1994		TOTAL																		
1994	SZ	N	0	0		1181	40	1141	5311	815	4496	399	381	18	669	662	7	7560	1898	5662
1994	ZSR	L				1		1	678		678							679		679
1994		N				5582	1336	4246	27246	6174	21072	955	955		839	839		34622	9304	25318
1994		E													51	51		51	51	
1994		TOTAL																		
1994	TCDD	N	1	1		19261	3174	15933	2198	1490	704	206	206		1318	1318		22984	6189	16637
1995	BR	N				.	.	.	.	.	.	.	.		.	.	.	86034	.	.
1995	Railtrack	N				.	.	.									.	.	.	.
1995	CFL	N				699	81	617	689	211	478	12	12		562	562		1962	866	1095
1995	CH	N				1940	1383	526				1111	1111					3051	2494	526
1995		E				164	89	73				500	500					664	589	73
1995		TOTAL																		
1995	CIE	L				2847	1660	1187				75	75		215	215		3137	1950	1187
1995	CP	LE				4314	1364	2786	3213	1505	1645	918	898		2744	2716		11189	6483	4431
1995	DB AG	NE	118	102	15	45853	20432	25097	237589	83650	153578	7652	7629	0	31732	31688		322944	143501	178690
1995	DSB	N				3703	2752	951	1260	1260		2981	2967	14	2670	2670		10614	9649	965
1995	FS	N	1	1	0	4533	3147	1234	108686	65881	40372	164	116	1	1352	1285	1	114736	70430	41608
1995	NS	N				1237	1	1236	10912	5767	5145	1621	1621		19167	18943	224	32937	26332	6605
1995	OBB	N	3	3	0	1891	704	1173	41908	13811	27947	483	450	2	5677	5541	1	49962	20509	29123
1995		E	1	1	0	31	17	14	35	32	2	28	26	0	7	7	0	102	83	16
1995		TOTAL																		
1995	RENFE	L				6965	2608	4357	30310	7803	22507	1854	1854		14353	14353		53482	26618	26864
1995		N							407	407					2002	2002		2409	2409	

A1.3.8. Gross hauled Tonne -Kilometres of train

YEAR	Railway	rail gauge	GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1995		E													10	10		10	10	
1995		TOTAL																		
1995	SJ	N				1608	0	1596	44209	8508	35326	493	491		4718	4630		51028	13629	36922
1995	BV	N				.			.									.		
1995	SNCB/NMBS	N				6895	1095	5713	18985	6843	12101	79	75		11008	10949		36967	18962	17814
1995	SNCF	N				20641	6860	13456	152326	43961	108290	5580	5556	0	56307	55461	341	234854	111838	122087
1995		E													33	33		33	33	
1995		TOTAL																		
1995	VR	L				11027	1366	9661	12321	4621	7700				630	630		23978	6617	17361
1995	RHK	L				.	.	.	.	.	.							.	.	.
1995	CFF/SBB/FFS	NE				.	.	.	.	.	.				.	.	.	52917	32272	20645
1995	NSB	N				2591	1049	1542	8735	3254	5481	218	218		1319	1319		12863	5840	7023
1995	BC	L	0	0	0	48281	11332	36115	19828	7494	12274	4	4		5	5		68117	18834	48388
1995		N				6		6										6		6
1995		TOTAL																		
1995	BDZ	NE				3454	1506	1948	20514	6626	13888	0	0		2010	2010		25978	10142	15836
1995	CD	NE	3	3		11271	3611	7595	54860	10707	44151	2945	2938	7	2388	2388		71467	19647	51753
1995	CFR	L				142	3	139										142	3	139
1995		N	5	3	2	23532	11818	11714	59479	19293	40186	183	183					83199	31297	51902
1995		E				127	102	25										127	102	25
1995		TOTAL																		
1995	EVR	L				7279	801	6458				760	742		323	318		8362	1861	6458
1995	LDZ	L				19751	1620	18131				1255	1243		1877	1828		22883	4691	18131
1995		E				3	3											3	3	
1995		TOTAL																		
1995	MAV	LN	1	1		6616	2771	3833	23565	10317	13248	1586	1586		302	302		32070	14977	17081
1995		E				30	30											30	30	
1995		TOTAL																		
1995	PKP	N	82	35	46	17052	5903	10428	161945	29153	131924	44	42	0	17135	16436		196258	51569	142398
1995		E	5	4	1	70	18	52				22	22					97	44	53
1995		TOTAL																		
1995	SZ	N	0	0		1181	40	1141	5311	815	4496	399	381	18	669	662	7	7560	1898	5662
1995	ZSR	L				2		2	1381		1381	0	0					1383	0	1383
1995		N	0	0		6183	1371	4812	29026	6414	21231	927	927		741	741		36877	9453	26043
1995		E													50	50		50	50	
1995		TOTAL																		
1995	TCDD	N	1	1		19352	2913	16308	2341	1476	862	244	244		1259	1259		23197	5893	17170
1996	ATOC	N				.	.		.	.								.	.	
1996	Railtrack	N				.			.									.		
1996	RfD Ltd	N				.		.	.		.	.		.	.		.	.		.
1996	BK	N				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1996	CFL	N				650	84	565	739	220	519	12	12		568	568		1969	884	1084
1996	CH	N				1969	1273	659				1314	1314					3283	2587	659
1996		E				154	89	63				525	525					679	614	63
1996		TOTAL																		
1996	CIE	L				3037	1868	1169				78	78		215	215		3330	2161	1169
1996	CP	LE				3815	1361	2331	3392	1511	1825	921	897		3147	3090		11275	6859	4156
1996	DB AG	N	117	63	52	44706	19973	24521	229043	84408	144415	8371	8290	71	32161	32108	37	314398	144842	169096
1996		E	.	.		.	.					.	.					.	.	
1996		TOTAL																		
1996	DSB	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1996	FS SpA	N	2	1	0	4261	3119	983	108482	67199	38599	135	110	2	1321	1249	1	114201	71678	39585
1996	NS	N				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1996	OBB	N	1	1	0	1602	558	1031	39952	13225	26603	465	432	2	5310	5203	1	47330	19419	27637
1996		E	1	1	0	24	10	13	24	23	1	34	34	0	17	17	0	100	85	14

A1.3.8. Gross hauled Tonne -Kilometres of train

YEAR	Railway	rail gauge	GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1996		TOTAL																		
1996	RENFE	L				6563	2292	4271	30340	7850	22490	1934	1934		14838	14838		53675	26914	26761
1996		N							423	423					2174	2174		2597	2597	
1996		E													13	13		13	13	
1996		TOTAL																		
1996	SJ	N				1516	1	1469	42079	7598	33993	543	535		6255	6146		50393	14280	35462
1996	BV	N				.			.									.		
1996	SNCB/NMBS	N				6419	942	5341	18972	6945	11962	73	70		12097	11682		37561	19639	17303
1996	SNCF	N				21505	6884	14268	161279	46829	114382	5237	5211	0	66068	65107	369	254089	124031	129019
1996		E													41	41		41	41	
1996		TOTAL																		
1996	VR	L				10082	1214	8868	12814	4772	8042				727	727		23623	6713	16910
1996	RHK	L																		
1996	CFF/SBB/FFS	NE				.	.	.	.	.	.				.	.		52054	32008	20046
1996	NSB BA	N				2741	1043	1698	8531	3298	5233	210	210		1401	1401		12883	5952	6931
1996	JBV	N				.			.									.		
1996	BC	L				48915	10170	37950	18234	6505	11673	4	4		5	5		67157	16682	49623
1996		N				9	2	7										9	2	7
1996		TOTAL																		
1996	BDZ	NE				3046	1393	1653	18547	6516	12031	1	1		1935	1935		23529	9845	13684
1996	CD	NE	2	2	0	10442	3204	7189	53258	10802	42155	2807	2801	6	2181	2181	0	68690	18990	49650
1996	CFR	L				103		103										103		103
1996		N	2	1	1	22973	11170	11803	59062	18609	40453	156	156					82193	29936	52257
1996		E				118	73	45										118	73	45
1996		TOTAL																		
1996	EVR	L				7780	646	7117				540	523		313	308		8633	1477	7117
1996	LDZ	L				24338	1297	22942				1209	1204		1643	1604		27190	4105	22942
1996		E				3	3											3	3	
1996		TOTAL																		
1996	MAV Rt.	LN	2	2		5777	2635	3142	22225	10090	12135	1643	1643		483	483		30130	14853	15277
1996		E				2	2											2	2	
1996		TOTAL																		
1996	PKP	L				.		.										.		.
1996		N	90	43	47	16369	5527	10119	162514	29005	132622	59	57	0	17031	16309		196063	50941	142788
1996		E	5	4	1	72	16	56				13	13					90	33	57
1996		TOTAL																		
1996	SZ	N	2	2		822	28	794	4894	695	4154	381	356	25	686	670	16	6740	1751	4989
1996	ZSR	L				2		2	1231		1231							1233		1233
1996		N	0	0		7024	1371	5653	25033	5966	19067	828	828		638	638		33523	8803	24720
1996		E													36	36		36	36	
1996		TOTAL																		
1996	TCDD	N	1	1		19138	2923	16050	2856	1449	1406	311	311		1420	1420		23726	6104	17456
1997	ATOC	N				.	.		.	.								.	.	
1997	EW&S	N				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	BK	N				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	CFL	N				1140	94	1046	781	216	565	19	19		566	566		2506	895	1611
1997	CH	N				1793	1261	513				1348	1348					3141	2609	513
1997		E				144	93	48				502	502					646	595	48
1997		TOTAL																		
1997	CIE	L				.	.	.				.	.		.	.		3338	.	.
1997	CP	L				3497	1246	2251	3879	1596	2283	645	645	0	2964	2964	0	10985	6451	4534
1997		E				28	28		0	0		0	0		0	0		28	28	
1997		TOTAL																		
1997	DB AG	N	141	54	87	48803	22867	25867	222406	78757	143622	8873	8838	31	40242	40242		320465	150758	169607
1997		E	.	.		.	.					.	.					.	.	

A1.3.8. Gross hauled Tonne -Kilometres of train

YEAR	Railway	rail gauge	GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1997		TOTAL																		
1997	DSB	N				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	FS SpA	N	2	1		4164	2951	1044	108746	64591	41571	162	136	2	1192	1109	1	114266	68788	42618
1997	NS N.V.	N				.	.	.	.	.	.	.	.	.	.	.	.	21535	.	.
1997	OBB	N	1	1	0	1850	588	1255	42676	14017	28584	507	478	1	5287	5221	1	50321	20305	29841
1997		E	1	1	0	26	6	20	27	26	1	35	34	0	12	12	0	101	79	21
1997		TOTAL																		
1997	RENFE	L				6959	2218	4741	33163	8007	25156	2110	2110		15201	15201		57433	27536	29897
1997		N							445	445					2303	2303		2748	2748	
1997		E													12	12		12	12	
1997		TOTAL																		
1997	BV	N				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	MTAB	N							5970		5970							5970		5970
1997	SJ	N				1212	1	1176	35312	6939	28182	604	597		6704	6558		43832	14095	29358
1997	SNCB/NMBS	N				6330	827	5329	19012	6497	12449	67	64		12917	12497		38326	19885	17778
1997	SNCF	N				22024	6548	15140	168732	46540	122115	4754	4733		69858	68677	463	265368	126497	137717
1997		E													41	41		41	41	
1997		TOTAL																		
1997	VR	L				11122	1540	9582	14754	5616	9138				831	831		26707	7987	18720
1997	CFF/SBB/FFS	NE				.	.	.	.	.	.				.	.		52178	31841	20337
1997	MTAS	N							.		.							.		.
1997	NSB BA	N				2572	863	1709	7684	2843	4841	232	232		2137	2137		12625	6075	6550
1997	BC	L				53730	9135	43919	20227	6419	13754	4	4		5	5		73966	15561	57673
1997		N				7	2	3										7	2	3
1997		TOTAL																		
1997	BDZ	NE				2856	1432	1424	18979	7007	11972	1	1		1976	1976		23812	10416	13396
1997	CD	NE	2	2	0	9661	2739	6893	49283	10334	38948	2672	2672	0	2133	2133	0	63751	17880	45841
1997	CFR	L				129		129										129		129
1997		N	3	2	1	21091	10637	10268	56092	18739	37303	160	159	1				77346	29537	47573
1997		E				51	39	12										51	39	12
1997		TOTAL																		
1997	EVR	L				9258	463	8780				517	506		315	310		10090	1279	8780
1997	LDZ	L				26754	1137	25490				1165	1158		1543	1509		29462	3804	25490
1997		E				3	3											3	3	
1997		TOTAL																		
1997	MAV Rt.	LN	3	2	1	5767	2378	3083	22787	9098	12029	1654	1554	2	361	361		30572	13393	15115
1997		E				31	29											31	29	
1997		TOTAL																		
1997	PKP	L				.		.										.		.
1997		N	88	43	45	17666	5302	11666	161613	28575	132027	48	46	0	17233	16372		196648	50338	143738
1997		E	5	4	1	58	12	46				10	10					73	26	47
1997		TOTAL																		
1997	SZ	N	1		0	865	26	839	5497	695	4802	371	351	20	656	638	18	7390	1710	5679
1997	ZSR	L				2		2	1825		1825						1827			1827
1997		N	0	0		6773	1243	5530	27736	6146	21590	876	876		753	753		36138	9018	27120
1997		E													36	36		36	36	
1997		TOTAL																		
1997	TCDD	N				20425	3173	17132	3246	1455	1791	360	360		1539	1539		25570	6527	18923
1998	ATOC	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	EW&S 97	N				.		5320	.		32680							.		38000
1998	CFL	N				1148	97	1051	786	236	550	19	19		560	560		2513	912	1601
1998	CH	N				1796	1281	495				1295	1295					3091	2576	495
1998		E				169	99	68				396	396					565	495	68
1998		TOTAL																		
1998	CIE	L				5415	2820	2595				99	99		213	213		5727	3132	2595

A1.3.8. Gross hauled Tonne -Kilometres of train

YEAR	Railway	rail gauge	GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1998	CP (1997)	L				3497	1246	2251	3879	1596	2283	645	645	0	2964	2964	0	10985	6451	4534
1998		E				28	28		0	0		0	0		0	0		28	28	
1998		TOTAL																		
1998	DB AG	NE	141	17	123	41922	17035	24804	243520	99645	14868	8329	8199	120	40094	40094		334006	164990	39915
1998	GVG	N										.	.		.	.		.	.	
1998	DSB	N				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	FS SpA	N	1	1		3991	2805	992	103437	61391	39453	203	166	3	1164	1093	3	108796	65456	40451
1998	NS N.V.97	N				.	.	.	.	.	.	.	.	.	.	.	.	21535	.	.
1998	OBB	N	1	1		5719	676	5043	45292	15239	30053	531	531	0	5543	5541	2	57086	21988	35098
1998		E				19	11	8	31	31	0	37	37		10	10		97	89	8
1998		TOTAL																		
1998	RENFE	L				7113	2082	5031	34549	8440	26108	2384	2384		15201	15201		59247	28107	31139
1998		N							474	474					2442	2442		2916	2916	
1998		E													11	11		11	11	
1998		TOTAL																		
1998	FEVE	E				.	.	.				.	.	.	.	.	.	1110	.	.
1998	FGC	NE				.	.	.	.	.	.	.	.	.	.	.	.	960	.	.
1998	BV	N																		
1998	BK	N				.	.	.	.	.	.	.	.	.				.	.	.
1998	MTAB 97	N							5970		5970							5970		5970
1998	SJ	N				1286	0	1280	35375	6314	28850	628	624		7113	6911		44402	13849	30130
1998	SNCB/NMBS	N				6036	819	5031	20211	6907	13256	66	63		14519	13919	70	40832	21708	18357
1998	SNCF	N				21293	6546	14654	169321	45072	124187	4691	4667		74687	73469	459	269992	129755	139299
1998		E													43	43		43	43	
1998		TOTAL																		
1998	VR	L				10414	1539	8875	17750	5594	12156				837	837		29001	7970	21031
1998	CFF/SBB/FFS	NE				.	.	.	.	.	.				.	.		54536	.	.
1998	MTAS	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1998	NSB BA	N				2412	866	1544	7505	2878	4627	265	265		2163	2163		12345	6172	6171
1998	BC	L				52789	8733	43406	19545	5967	13526	3376	3356		4695	4665		80405	22720	56932
1998		N				12		10										12		10
1998		TOTAL																		
1998	BDZ	NE				2307	1283	1011	15974	6515	9389	1	1		1740	1740		20022	9539	10400
1998	CD	NE	3	3		8697	2514	6167	45442	10429	35012	2474	2470	4	2020	2020		58636	17436	41183
1998	CFR	L				127		125										127		125
1998		N	0	0	0	18657	9561	9043	46755	17357	29339	111	110					65523	27028	38382
1998		E				31		10										31		10
1998		TOTAL																		
1998	EVR	L				10730	267	10391				615	607		261	256		11606	1130	10391
1998	LDZ	L				24713	838	23748				993	985		1397	1379		27103	3202	23748
1998		E				2	2											2	2	
1998		TOTAL																		
1998	MAV Rt.	L				38		38										38		38
1998		N	3	2		5268	2118	2834	22957	9263	12225	1677	1603	3	391	391		30296	13377	15062
1998		E				30	30	0										30	30	0
1998		TOTAL																		
1998	PKP	L				.		.										.		.
1998		N	85	31	54	15935	5263	10051	147221	28552	117716	55	53		17331	16410		180627	50309	127821
1998		E	4	3	1	44	12	32				12	12					60	27	33
1998		TOTAL																		
1998	SZ	N	1	1		806	27	779	5375	706	4669	356	336	20	616	597	19	7154	1667	5487
1998	ZSR	L				7		7	1495		1495							1502		1502
1998		N	0	0		5594	1207	4387	25836	6160	19676	849	849		706	706		32985	8922	24063
1998		E													44	44		44	44	
1998		TOTAL																		

A1.3.8. Gross hauled Tonne -Kilometres of train

YEAR	Railway	rail gauge	GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1998	TCDD	N	0	0		18173	3000	15025	3663	1867	1794	392	392		1481	1481		23709	6740	16819
1999	GKE	N	.	.	.	.	.	.				.	.	.				.	.	.
1999	OBB	N	1	1		8072	1153	6919	43063	14201	28861	542	542		5411	5411		57089	21308	35780
1999		E	1	1		21	17	3	30	30		33	33		16	16		101	97	3
1999		TOTAL																		
1999	SNCB/NMBS	N				5900	860	4866	19577	6223	13300	66	63		16026	15481	61	41569	22627	18227
1999	AAE	N	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
1999	DB AG	NE	393	.	.	46542	16353	29211	280992	124333	156655	8287	7979	102	23130	23129	0	359343	171793	186360
1999	GVG	N										.	.		.	.		.	.	
1999	KEG	N				.	.	.				.	.	.				.	.	.
1999	DBS	N				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	EusKotren	E	.	.		.		.							.	.		.	.	.
1999	FEVE	E		.		.	.	.				.	.	.	.	.	.	1381	.	.
1999	FGC 98	NE				.	.	.	.	.	.	.	.	.	.	.	.	960	.	.
1999	RENFE	L				7380	2234	5146	33035	7454	25581	1910	1910		15486	15486		57811	27084	30727
1999		N							527	527					2607	2607		3134	3134	
1999		E													10	10		10	10	
1999		TOTAL																		
1999	VR	L				10015	1515	8500	17881	5704	12177				1119	1119		29015	8338	20677
1999	SNCF	N				21926	6543	15306	169431	44977	124392	5106	5075		79463	78225	473	275927	134820	140172
1999		E													42	42		42	42	
1999		TOTAL																		
1999	ATOC	N				.	.	.	.	.								.	.	.
1999	EW&S	N				.		.	.		.							.		.
1999	CH	N				1667	1160	504				1419	1419					3086	2579	504
1999		E				127	84	41				342	342					469	426	41
1999		TOTAL																		
1999	CIE 98	L				5415	2820	2595				99	99		213	213		5727	3132	2595
1999	FS SpA	N	4	3		3538	2641	736	95337	57288	35957	203	172	6	891	844	2	99973	60948	36701
1999	CFL 98	N				1148	97	1051	786	236	550	19	19		560	560		2513	912	1601
1999	NS N.V.	N				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	CP	L	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999		E	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999		TOTAL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	BK	N				.	.	.	.	.	.	.	.	.				.	.	.
1999	BV	N																		
1999	MTAB	N							.		.							.		.
1999	SJ	N				1444	1	1431	35918	6630	28420	597	589		7539	7347		45498	14567	29851
1999	CFF/SBB/FFS98	NE 98				.	.	.	.	.	.				.	.		54536	.	.
1999	MTAS	N							.		.							.		.
1999	NSB BA	N				1801	571	1330	6622	2041	4581	.	.		.	.		12238	.	5911
1999	BDZ	NE				2022	1118	882	14641	6174	8319	1	1		1551	1551		18215	8844	9201
1999	BC	L				52747	8579	43569	18487	5272	13158	3286	3238		4670	4634		79190	21723	56727
1999		N				9		9										9		9
1999		TOTAL																		
1999	CD	NE	3	3		7782	2132	5531	41829	10507	31315	2619	2611	3	1991	1989		54224	17242	36849
1999	EVR	L				12961	168	12648				600	590		257	252		13818	1010	12648
1999	MAV Rt.	L				54		54										54		54
1999		N	3	3		4608	2081	2527	23264	10832	12432	1744	1744		461	461		30080	15121	14959
1999		E				31	31											31	31	
1999		TOTAL																		
1999	LDZ	L				22974	661	22201				874	865		1271	1255		25119	2781	22201
1999		E				2	2											2	2	
1999		TOTAL																		
1999	PKP	LN	56	28	28	14457	5248	8693	137946	29151	107889	46	43		17312	16343		169817	50813	116610

A1.3.8. Gross hauled Tonne -Kilometres of train

YEAR	Railway	rail gauge	GROSS HAULED TONNE-KILOMETRES of TRAINS BY TYPE OF TRACTION (IN MILLION TONNE-KILOMETRES)																	
			Steam Locomotives			Diesel Locomotives			Electric Locomotives			Diesel Railcars			Electric Railcars			All Types of Traction		
			Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total	Passenger trains	Freight trains	Total (col.4+7+10+13+16)	Passenger trains (col. 5+8+11+14+17)	Freight trains (col. 6+9+12+15+18)
1999		E	3	3		40	13	27				12	12					55	28	27
1999		TOTAL																		
1999	CFR	L				39		39										39		39
1999		N	0	0		16831	8610	8221	39837	16087	23750	97	97					56765	24794	31971
1999		E				77	70	7										77	70	7
1999		TOTAL																		
1999	SZ	N	2	2		749	29	720	5203	670	4533	353	327	26	654	637	17	6961	1665	5296
1999	ZSR	L							1087		1087							1087	0	1087
1999		N	0	0	0	4833	1175	3657	24360	6149	18212	709	709	0	700	700		30602	8733	21869
1999		E													60	60		60	60	
1999		TOTAL																		
1999	TCDD	N	0	0		17548	3445	13954	4605	1983	2620	333	333		1440	1440		23926	7201	16574

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1985	BDZ	N	.	.	.	.	.	.	.	.	.	.
1985	BR	N		124360	38013	244540	329379	736292	1585395	.	513635	.
1985	CFF	N		3923	96754	20	22603	123300	531820	513516	343834	62364
1985		E		11	163		1349	1523	5206	556	446	2217
1985		total										
1985	CFL	N		2463	1571	596	1204	5834	9120	34603	19336	530
1985	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.
1985	CH	N		9965		3616		13581	33977	49813	28396	7375
1985		E		2256		2143		4399	12818	4119	2134	2539
1985		TOTAL										
1985	CIE	L		13676			2735	16441	99268	49131	36885	.
1985	CP	L		18257	7469	9246	15284	50256	.	.	.	.
1985		E	28	925		2896		3849	.	.	.	.
1985		total										
1985	CSD	L.N.E.		179529	147531	73980	26709	427749	786523	11231747	7989365	84406
1985	DB	N.E		185223	434218	35958	164973	820372	.	5890061	3799089	.
1985	DR	N	7907	242341	87860	9254	53236	400598	969465	3790410	2526706	73257
1985		E	1794	37				1831	6311	1413	991	1248
1985		total										
1985	DSB	N		.		.	.	.	.	.	.	.
1985	FS	N	14	41563	207653	92308	52774	394312	1495424	1657219	1106453	139492
1985		E		2		292		294	214	54	47	2
1985		total										
1985	JZ	N	2715	57605	65980	27834	19677	173811	441477	1475118	1037730	.
1985	MAV	L.N.	171	43014	47591	22019		112795	.	.	.	.
1985		E		847				847	.	.	.	.
1985		total										
1985	NS	N		8056	28019	16717	93853	146645	380615	220939	132563	.
1985	NSB	N		9196	19222	2632	11937	42987	102908	260728	167986	4121
1985	OBB	N	3	19422	84024	5247	23270	131966	321615	1087204	646177	43031
1985		E	93	1165	621	19		1898	4557	3071	1888	1156
1985		TOTAL										
1985	PKP	N	53812	178902	215305	9453	158712	616184	.	6243805	4329822	.
1985		E	816	4702		925		6443	.	16977	9331	.
1985		total										
1985	RENFE	L		39922	69114	34448	56396	199880	.	939030	621010	.
1985		E					106	106	.			
1985		TOTAL							540779			
1985	SJ	N		10452	95929	10990	20149	137520	327596	1241215	853267	28179
1985		E		24				24				
1985		total										
1985	SNCB/NMBS	N		40291	32189	2569	81592	156641	.	453398	260279	.
1985	SNCF	N		134830	325045	85870	104243	649988	2072915	4002000	2438000	131060
1985		E					929	929	1245			
1985		TOTAL										
1985	VR	L		31383	18164	9140	8843	67530	113448	553771	329601	11808
1985	TCDD	N	8026	42948	1866	1279	8626	62746	162423	517509	319550	.

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1986	BDZ	NE	.	.	.	.	.	.	.	.	.	.
1986	BR	N		101248	37492	245848	333792	718380	1586742	.	513664	.
1986	CFF	N		4008	96197	17	23290	123512	533932	508713	346459	63249
1986		E		9	169		1316	1494	5145	608	502	2176
1986		total										
1986	CFL	N		2405	1581	579	1239	5804	9088	31847	17601	493
1986	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.
1986	CH	N		10376		3415		13791	36731	65542	37610	7397
1986		E		2128		2230		4358	15372	4600	2503	2505
1986		TOTAL										
1986	CIE	L		13968			1891	15859	64059	46486	34988	.
1986	CP	L		18089	7119	9309	14871	49388	.	.	.	.
1986		E	16	892		3392		4300	.	.	.	.
1986		total										
1986	CSD	L.N.E.		175668	155301	74850	27289	433108	719261	3674904	2613156	96921
1986	DB	N.E		182152	435653	35867	167835	821507	.	5644486	3677383	.
1986	DR	N	5018	239988	95613	9112	59185	408916	983577	3793030	2502248	71577
1986		E	1770	18				1788	5366	1425	1032	1213
1986		total										
1986	DSB	N		33180	360	16960	29600	80100	.	.	.	.
1986	FS	N	18	40093	209098	90843	52897	392949	1505331	1571945	1032161	132129
1986	JZ	N	2033	56806	65508	30318	14719	169384	446531	1377993	949550	.
1986	MAV	L.N.	61	41843	48894	23779		114577	.	.	.	.
1986		E		843				843	.	.	.	.
1986		total										
1986	NS	N		7389	25207	15747	98436	146779	382782	212451	127471	.
1986	NSB	N		9083	20014	2530	11923	43550	100355	263136	170988	3316
1986	OBB	N	3	18906	83297	5118	24546	131870	325543	1053644	625828	42640
1986		E	77	1050	625	203		1955	4302	3103	1988	1041
1986		TOTAL										
1986	PKP	N	44516	177955	227873	7609	155534	613487	.	6169876	4296713	.
1986		E	534	4747		1020		6301	.	17159	9557	.
1986		total										
1986	RENFE	L		40335	71990	34051	58320	204696	.	1143610	831890	.
1986		E					85	85	.			
1986		TOTAL							555437			
1986	SJ	N		10055	93726	10080	20080	133941	320712	1249937	855483	28088
1986		E		8				8				
1986		total										
1986	SNCB/NMBS	N		33480	34566	1996	82711	152753	.	412983	237285	.
1986	SNCF	N		124417	313139	79283	106652	623491	2047280	3622000	2241000	131650
1986		E					927	927	.			
1986		TOTAL										
1986	VR	L		27971	16347	6490	8248	59056	105424	471730	281884	13459
1986	TCDD	N	4976	44460	1723	1098	9066	61323	160302	468049	282527	.
1987	BDZ	NE	.	.	.	.	.	.	.	.	.	.
1987	BR	N		132712	45224	.	.	.	.	.	.	.

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1987	CFF	N		4032	101158	21	23868	129079	572284	501368	334057	66646
1987		E		9	272		1276	1557	5490	661	566	2208
1987		total										
1987	CFL	N		2310	1557	595	1251	5713	9206	28976	16105	380
1987	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.
1987	CH	N		9865		3668		13533	36859	58589	32974	7132
1987		E		2092		2319		4411	14785	4815	2482	2455
1987		TOTAL										
1987	CIE	L		13562			1890	15452	62528	45823	34817	.
1987	CP	L		18797	7271	9225	15512	50805	.	.	.	.
1987		E	1	988		3419		4408	.	.	.	.
1987		total										
1987	CSD	L.N.E.		171700	158048	74845	27215	431808	720072	3597027	2561555	98140
1987	DB	N.E		175762	429281	37903	168876	811822	1992086	5395498	3547000	225579
1987	DR	L		430				430				
1987		N	2628	234959	103804	8992	61206	411589	980279	3695023	2482230	87793
1987		E	1735	36				1771	5378	1356	990	1177
1987		total										
1987	DSB	N		28980	1290	17090	31210	78570	.	.	.	.
1987	FS	N	13	39771	214555	82800	49121	386260	1644808	1627614	1081910	134606
1987	JZ	N	1758	53989	65444	26265	15132	162588	419966	1288557	882413	.
1987	MAV	L.N.	23	39901	50550	22880		113354	.	.	.	.
1987		E		831				831	.	.	.	.
1987		total										
1987	NS	N		6771	24089	15396	103776	150032	395369	207452	124471	.
1987	NSB	N		8899	19809	2487	11594	42789	96577	251082	162245	4730
1987	OBB	N	30	17995	82116	5068	25450	130659	329711	1023250	613678	42348
1987		E	63	911	605	279		1858	3908	2358	1676	888
1987		TOTAL										
1987	PKP	N	31987	181048	234328	6946	157582	611891	.	5941086	4146426	.
1987		E	332	4426		1273		6031	.	24399	9050	.
1987		total										
1987	RENFE	L		39149	71972	34477	59898	205496		930080	626410	.
1987		E					111	111				
1987		TOTAL							567751			
1987	SJ	N		9698	90047	9766	20197	129708	304740	1223205	840015	30710
1987		E		11				11				
1987		total										
1987	SNCB/NMBS	N		30554	36545	1827	85408	154334	.	406245	234583	.
1987	SNCF	N		125236	320161	76056	112301	633754	2058000	3500000	2140000	132620
1987		E					999	999				
1987		TOTAL										
1987	VR	L		30725	18836	3859	9181	62601	120627	510615	308948	17110
1987	TCDD	N	3518	43628	1587	1111	9063	58907	158847	443118	277674	.
1988	BDZ	N		18045	47435	861	9245	75586	.	.	.	55244
1988		E		1878				1878	.	.	.	.
1988		total										

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1988	BR	N		127499	45984	297746	284755	755984	2074093	.	.	.
1988	CFF	N		3893	105188	34	26445	135560	606729	508162	332065	68792
1988		E		14	286		1294	1594	6193	576	488	2224
1988		total										
1988	CFL	N		2367	1556	613	1275	5811	9140	32035	18336	364
1988	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.
1988	CH	N		.		.		.	.	.	.	.
1988		E		.		.		.	.	.	.	.
1988		TOTAL		.		.		.	.	.	.	.
1988	CIE	L		13028			1950	14978	61556	45840	34365	.
1988	CP	L		20830	7780	12620	16003	57233	.	.	.	.
1988		E		.		.		.	.	.	.	.
1988		total										
1988	CSD	L.N.E.		166488	168091	75531	27455	437565	731451	3674208	2606776	141898
1988	DB	N.E		163790	432455	44852	169266	810363	1983723	5431830	3575231	232302
1988	DR	L		507				507				
1988		N	396	227033	118924	9021	59303	414677	976731	3696030	2477412	90354
1988		E	1736	35				1771	5548	1349	978	1193
1988		total										
1988	DSB	N		28630	1980	17390	30910	78910	.	.	.	.
1988	FS	N	13	39567	224706	77495	51778	393559	1607703	1637450	1092647	167444
1988	JZ	N	946	53521	66487	22132	17788	160874	443227	1252909	850459	.
1988	MAV	L.N.	20	37578	52754	22062		112414	.	.	.	.
1988		E		821				821	.	.	.	.
1988		total										
1988	NS	N		6794	23891	15201	107237	153123	406870	212492	127495	.
1988	NSB	N		7628	18389	2602	11282	39901	97086	163051	109971	4351
1988	OBB	N	22	17487	83498	5197	26479	132683	339056	1052543	627889	42398
1988		E	62	865	582	326		1835	3783	1497	1141	775
1988		TOTAL										
1988	PKP	N	20481	179581	250268	5305	168400	624035	.	5965575	4161241	.
1988		E	243	4262		1204		5709	.	23159	8911	.
1988		total										
1988	RENFE	L		39464	72200	34828	61532	208024		862540	580250	.
1988		E					117	117				
1988		TOTAL							576926			
1988	SJ	N		9952	89412	10466	20381	130211	301505	1236544	845440	27445
1988		E		13				13				
1988		total										
1988	SNCB/NMBS	N		27993	36805	1616	85549	151963	.	412097	238668	.
1988	SNCF	N		123252	327484	76418	115007	642160	2150000	3434000	2095000	132600
1988		E					1020	1020				
1988		TOTAL										
1988	VR	L		31661	18838	1533	9363	61395	119450	530046	319614	16250
1988	TCDD	N	2232	44708	1884	1179	8826	58830	154840	468351	303541	.
1989	BDZ	N		16833	47607	393	9037	73870	947215	2700199	1880316	54518
1989		E		1821				1821	.	.	.	.

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1989		total										
1989	BR	N		116093	45142	323048	281264	765547	1949879	.	.	.
1989	CFF	N		4106	104899	33	28157	137195	614667	544475	366336	64771
1989		E		9	287		1261	1557	5781	601	505	2173
1989		total										
1989	CFL	N		2505	1637	498	1444	6084	9107	33953	19038	333
1989	CFR	L.N.E.	.	.	.	.	.	.	.	.	.	.
1989	CH	N		.		.		.	.	.	.	.
1989		E		.		.		.	.	.	.	.
1989		TOTAL										
1989	CIE	L		13277		0	1950	15227	62728	47979	35860	.
1989	CP	L		18310	7754	13047	15943	55054	.	.	.	.
1989		E		.		.		.	.	.	.	.
1989		total										
1989	CSD	L.N.E.		161868	170181	75257	27664	434770	.	.	.	.
1989	DB	N.E		157285	436816	52155	163716	809972	2012880	5539275	3665892	266248
1989	DR	L		516				516				
1989		N	109	215665	130093	8990	61015	415872	986242	3676842	2467301	79315
1989		E	1664	109				1773	5571	1119	753	1201
1989		total										
1989	DSB	N		28830	2150	20340	34910	86230	.	.	.	.
1989	FS	N	14	38566	225753	77488	54783	396604	1517008	1662947	1121554	128427
1989	JZ	N	564	54067	67263	22719	19211	163824	444267	1261921	845183	.
1989	MAV	L.N.	32	32990	54082	21768		111862	.	.	.	.
1989		E		791				791	.	.	.	.
1989		total										
1989	NS	N		6763	24556	15428	112703	159450	434186	208040	124824	.
1989	NSB	N		8470	18051	2004	10614	39139	96149	208997	137317	4571
1989	OBB	N	22	17447	87731	5730	28097	139027	359123	1107784	665744	45008
1989		E	60	1005	610	384		2059	4216	1380	1100	797
1989		TOTAL										
1989	PKP	N	12932	170303	252113	3877	167480	606705	.	5480145	3804769	.
1989		E	178	3752		1372		5302	.	14730	8016	.
1989		total										
1989	RENFE	L		37636	70576	34894	61838	204944		9176740	611810	.
1989		E					112	112				
1989		TOTAL										
1989	SJ	N		5757	85830	10889	22180	124656	291714	1140320	792704	26414
1989	SNCB/NMBS	N		26606	38304	1708	85121	151739	567461	425195	246505	.
1989	SNCF	N		120629	330183	75165	121938	647915	2247000	3415000	2079000	123700
1989		E					1033	1033	.			
1989		TOTAL										
1989	VR	L		29230	20631	308	9129	59298	119775	506782	307425	10829
1989	TCDD	N	1050	46704	2127	1933	8731	60545	156860	447761	285424	26970
1990	BDZ	N	.	.	.	.	.	.	.	.	.	.
1990	BR	N		102769	45044	336192	295139	779144	1967617	.	.	.
1990	CFF	N		3953	106826	23	32711	143513	635006	533261	355256	61252

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1990		E		7	760		819	1586	6647	510	443	1602
1990		total										
1990	CFL	N		2520	1734	396	1708	6358	9156	34126	19496	278
1990	CFR	L	.	.	.				.	.	.	.
1990		N	0	54901	85321	5432	0	145654	.	.	.	.
1990		E	.	.				.	.	.	.	.
1990		total										
1990	CH	N		.		.		.	.	.	.	.
1990		E		.		.		.	.	.	.	.
1990		TOTAL										
1990	CIE	L		13202			1968	15170	62804	47953	35614	.
1990	CP	L		16541	7756	12107	15133	51537	.	.	.	.
1990		E		.		.		.	.	.	.	.
1990		total										
1990	CSD	L.N.E.		153275	168441	75536	27401	424653	.	.	.	259334
1990	DB	N.E		154819	442713	54000	169882	821414	2065582	5516016	3703453	241721
1990	DR	L		347				347				
1990		N	114	188641	123270	8737	60394	381156	1003700	2967935	1879460	73678
1990		E	1516	148				1664	5550	864	572	1208
1990		total										
1990	DSB	N		26770	1890	18510	37250	84420	.	.	.	.
1990	FS	N	8	37530	227191	76352	54803	395884	1520712	1642699	1109022	124979
1990	JZ	N	65	49546	65754	24056	20231	159652	437000	1150000	745000	.
1990	MAV	L.N.	19	31540	53299	21686	.	106544	.	.	.	.
1990		E		706				706	.	.	.	.
1990		total										
1990	NS	N		6554	26373	15605	117200	165732	461406	195167	117100	.
1990	NSB	N		8223	19437	2083	10686	40429	102628	205505	142785	4269
1990	OBB	N	12	17035	91273	7000	28977	144297	376577	1177914	726036	48765
1990		E	59	1072	614	393		2138	4590	1412	1149	829
1990		TOTAL										
1990	PKP	N	7241	144041	234862	2970	168769	557883	.	4033811	2725051	.
1990		E	127	2361		1368		3856	.	7114	3909	.
1990		total										
1990	RENFE	L		35989	74614	37973	72589	221165		736890	474790	.
1990		E					125	125				.
1990		TOTAL							632630			
1990	SJ	N		5477	87351	9337	23435	125600	293741	1104489	834593	24259
1990	BV	N		.				.		.	.	
1990	SNCB/NMBS	N		26591	38740	1737	83645	150713	.	429537	249369	.
1990	SNCF	N		117476	324068	74820	133091	649455	2365000	3240000	1962000	118600
1990		E					989	989	.			
1990		TOTAL										
1990	VR	L		29071	21666	146	9136	60019	128600	517704	309295	9750
1990	TCDD	N	413	47821	2791	1967	8527	61519	157478	480407	290590	22174
1991	BDZ	N.E	.	.	.	.	.	.	.	.	.	.
1991	BR	N		133757	48870	253751	258423	694801	1618328	.	.	10178

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1991	CFF	N		3849	107387	25	34446	145707	639780	507294	344331	59398
1991		E		9	939		730	1678	6722	432	365	1599
1991		total										
1991	CFL	N		2625	1625	359	2196	6805	9464	34472	19730	214
1991	CFR	L		1750				1750	.	.	.	.
1991		N	0	48715	70900	5000	0	124615	.	.	.	.
1991		E	0	1500				1500	.	.	.	.
1991		total										
1991	CH	N		.		.		.	.	.	.	.
1991		E		.		.		.	.	.	.	.
1991		TOTAL		.		.		.	.	.	.	.
1991	CIE	L		13003			1922	14925	61835	43944	33523	.
1991	CP	L.E.		17440	8623	12657	15835	54555	.	.	.	.
1991	CSD	L.N.E.		124769	157689	74993	27172	384623	710376	.	.	83444
1991	DB	N.E		161635	456926	54732	191134	864427	2225247	5540267	3667657	229023
1991	DR	L		347				347				
1991		N	127	149106	107432	8385	59278	324328	892955	1633940	894507	55352
1991		E	1433					1433	5916	329	179	1339
1991		total										
1991	DSB	N		25650	1750	27220	36860	91480	.	.	.	.
1991	FS	N	14	34108	232470	73086	54812	394490	1555442	1611956	1092108	115590
1991	JZ	N	65	49546	65754	24056	20231	159652	437000	1150000	745000	.
1991	MAV	L.N.	18	27068	49746	22001	824	99657	.	.	.	.
1991		E		698				698	.	.	.	.
1991		total										
1991	NS	N		6295	26202	16480	122132	171109	494302	185918	111551	.
1991	NSB	N		8003	19346	2113	10967	40429	107256	215122	145310	3764
1991	OBB	N	12	16694	96811	7630	31797	152944	434253	1192187	731484	49582
1991		E	50	1117	706	330		2203	4723	1344	1153	877
1991		TOTAL										
1991	PKP	N	3386	116373	206028	2446	164056	492289	.	3026132	1943007	.
1991		E	100	1805		1135		3040	.	5433	2958	.
1991		total										
1991	RENFE	L		34731	72762	35892	85018	228403		857140	554840	918
1991		E					118	118				
1991		TOTAL							683510			
1991	SJ	N		4955	82826	7297	15229	110307	280325	989876	687668	22479
1991	SNCB/NMBS	N		24458	39140	1753	83887	149238	.	406196	235345	.
1991	SNCF	N		111019	316911	71944	147371	647245	.	3140000	1880000	.
1991		E					878	878	.			
1991		TOTAL										
1991	VR	L		27217	21316		9232	57765	134550	461164	275923	9500
1991	TCDD	N	18	43904	3872	2830	8899	59523	150371	469834	287547	22888
1992	BR	N		72214	52538	336504	285900	747156	1873149	.	.	56158
1992	CFL	N		2593	1598	446	3257	7894	10776	32812	19108	174
1992	CH	N		8943		6887		15830	.	.	.	.
1992		E		1014		2866		3880	.	.	.	.

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1992		TOTAL										
1992	CIE	L		12352			1958	14310	61082	44231	33807	.
1992	CP	LE		17239	8397	13098	16033	54767	.	.	.	.
1992	DB	NE		164873	457046	59594	232986	914499	2402115	5086188	3340609	222544
1992	DR	L		347				347				
1992	-1991	N	127	149106	107432	8385	59278	324328	892955	1633940	894507	55352
1992		E	1433					1433	5916	329	179	1339
1992		TOTAL										
1992	DSB	N		25210	1660	32990	36100	95960	.	.	.	.
1992	FS	N	0	32600	235500	73400	56500	398000	1573000	1571000	1074000	94700
1992	NS	N		6112	25459	16473	129992	178036	524954	.	.	.
1992	RENFE	L		36649	71911	17918	91560	218038	324829	730397	459897	46
1992		N			.		.	.	.			
1992		E					116	116	.			
1992		TOTAL										
1992	SNCB/NMBS	N		24745	40295	1712	83211	149963	.	405908	236380	.
1992	SNCF	N		103801	319799	71314	154584	649498	2377880	3078372	1884007	103788
1992		E					812	812				
1992		TOTAL										
1992	CFF	N		3737	107345	20	33582	144684	637181	463095	312806	57718
1992		E		10	964		672	1646	6830	384	313	1617
1992		total										
1992	NSB	N		7204	19404	2111	11647	40366	.	.	.	.
1992	OBB	N	11	16842	103077	10535	33828	164293	477963	1019349	621717	49896
1992		E	61	1095	788	541		2485	5023	1130	1005	932
1992		TOTAL										
1992	BV	N		.				.		.	.	
1992	SJ	N		4629	78343	8006	15549	106527	253035	978484	680731	21707
1992	VR	L		27278	21261		9243	57782	139475	459550	272559	10225
1992	BC	L	43	66961	20419	19688	40914	148024	372567	2976269	1264185	18019
1992		N		575				575	28	2759	1920	
1992		TOTAL										
1992	BDZ	NE		17994	33565	93	8814	60466	797909	290191		27243
1992	CFR	L		.					.	.	.	.
1992		N		49629	70546	4403		124578	.	.	.	.
1992		E		.					.	.	.	.
1992		TOTAL										
1992	CSD	N		108523	159634	74214	27470	369841	684215	2407564	1575408	82377
1992	EVR	L	8	7210		2819	1231	11268	22987	123682	67521	451
1992	LDZ	L	21	16699	26	9562	21905	48214	52852	344235	191433	940
1992		E		132				132				
1992		TOTAL										
1992	MAV	LN	22	25226	49802		1393	76443	.	.	.	.
1992		E		684				684	.	.	.	.
1992		TOTAL										
1992	PKP	N	753	95865	182925	1501	139932	420976	.	2714323	1712950	.
1992		E	75	1231		919		2225	.	4256	2283	.

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES — Motor Vehicles by type of traction: STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Wagons: Total	Wagons: Loaded	Vans
1992		TOTAL										
1992	SZ	N	0	4740	8615	6066	3484	22905	39896	133096	.	.
1992	TCDD	N	17	43613	4221	2564	8936	59351	150517	459478	283379	16141
1993	BR	N		124078	48777	302870	286968	762693	1825793	.	.	46386
1993	CFL	N		2706	1590	406	4006	8708	11319	29841	17704	93
1993	CH	N		8943		6887		15830	37079	48002	25288	4702
1993		E		1014		2866		3880	12160	2463	1175	1523
1993		TOTAL										
1993	CIE	L		12353		1901		14254	62641	40847	30159	.
1993	CP	LE		15606	8072	12682	16171	52532	.	.	.	.
1993	DB	NE		156395	439652	68392	259159	923598	2431541	4488730	2976477	214757
1993	DR	L		309				309				
1993		N	1017	133445	118892	8730	65133	327217	731261	802322	691022	37846
1993		E	3					3	4377	19		890
1993		TOTAL										
1993	DSB	N		19662	3141	35612	34500	92915	.	.	.	.
1993	FS	N		20129	221489	64987	56975	363580	1762107	1332071	932542	89965
1993	NS	N		6108	23175	16114	133942	179339	547410	.	.	.
1993	RENFE	L		28558	61212	17441	88266	195477	283949	594804	391978	.
1993		N			1049		4139	5188	46162			.
1993		E					117	117	234			.
1993		TOTAL										
1993	SNCB/NMBS	N		23138	40582	1545	80629	145894	.	365235	213313	.
1993	SNCF	N		97061	303315	69460	159526	629362	.	2569870	1577925	80305
1993		E					771	771	.			
1993		TOTAL										
1993	CFF	N		3664	107284	28	31612	142588	628199	402575	273307	55187
1993		E		8	896		686	1590	7058	281	230	1580
1993		total										
1993	NSB	N		4784	16771	1835	10670	34060	103000	191000	136000	7000
1993	OBB	N	7	15905	100867	10331	35068	162178	472319	936749	571354	48606
1993		E	60	1085	801	419		2365	4794	810	727	947
1993		TOTAL										
1993	BV	N		.				.		.	.	
1993	SJ	N		4746	75160	5623	20641	106170	251552	999050	653857	19706
1993	VR	L		28759	22090		9572	60421	139250	520020	302016	12850
1993	BC	L	77	52490	18419	20913	42284	134182	370336	1472998	869731	9628
1993		N		331				331	53	1207	903	
1993		TOTAL										
1993	BDZ	NE		17120	34420	4	8584	60110	.	.	.	.
1993	CD	NE		57708	87598	50534	18034	213874	455812	1712438	799824	59415
1993	CFR	L		96				96	.	.	.	.
1993		N		52400	80000		3621	136021	.	.	.	.
1993		E	.	668				668	.	.	.	.
1993		TOTAL										
1993	EVR	L	24	6964		2804	1289	11080	20019	125818	67587	382
1993	LDZ	L	16	16261	26	8396	20382	45081	111504	338004	180415	1255

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1993		E		127				127				
1993		TOTAL										
1993	MAV	LN	8	29648	51961	21968	1294	104879	385879	537048	293164	.
1993		E	.	.		.		677	2140	14	2	.
1993		TOTAL										
1993	PKP	N	508	92182	191594	1084	137611	422979	.	2888875	1793607	.
1993		E	81	1057		884		2022		3770	2048	.
1993		TOTAL										
1993	SZ	N	0	3702	8030	5202	3143	20077	37841	113958	.	.
1993	ZSR	L		13	2005	26		2044		9517	7431	
1993		N		14417	45430	15817	5504	81168	144445	1012116	463700	16818
1993		E					401	401	1864			
1993		TOTAL										
1993	TCDD	N	12	41959	6016	2341	8743	59071	146090	463115	284647	17662
1994	BR	N		.	.	.	.	.	.	.	.	.
1994	Railtrack	N		.				.		.	.	
1994	CFL	N		2400	1889	233	4365	8887	11309	29483	18240	42
1994	CH	N		7513		10249		17762	39307	27229	14129	3480
1994		E		1214		3630		4844	14920	2657	1387	1826
1994		TOTAL										
1994	CIE	L		12368			1855	14223	64569	45133	31963	.
1994	CP	LE		14342	7342	12280	16096	50060	.	.	.	.
1994	DB AG	NE		219906	548008	91664	355995	1215573	3217660	5612185	3683277	120854
1994	DSB(1993)	N		19662	3141	35612	34500	92915	.	.	.	.
1994	FS	N	0	20362	231364	65321	59813	377160	1682797	1432594	1025607	93000
1994	NS	N		6062	22279	16325	126878	171544	535200	.	.	.
1994	RENFE	L		24944	55684	13821	85432	179881	453155	611729	424073	.
1994		N			1559		4430	5989	54830	.	.	.
1994		E					122	122	373	.	.	.
1994		TOTAL										
1994	SNCB/NMBS	N		17124	41608	1374	75386	135492	322788	385175	225992	1658
1994	SNCF	N		94469	304102	68335	165257	632163	2287340	2063179	1255101	70203
1994		E					807	807	.			
1994		TOTAL										
1994	CFF(SBB/FFS	N		2728	113736	0	32274	148738	.	.	.	.
1994		E		6	947		504	1457	.	.	.	.
1994		total										
1994	NSB	N		7421	17619	3066	15077	43183	104620	193082	135431	7271
1994	OBB	N	9	14846	99991	11405	34618	160869	448106	973186	610345	44794
1994		E	58	1058	768	522	2	2408	4911	821	749	926
1994		TOTAL										
1994	BV	N		.	.			.		.	.	
1994	SJ	N		4688	76763	7691	22465	111607	257550	950809	633872	20421
1994	VR	L		29823	22825		9617	62265	140700	536103	310589	11950
1994	BC	L	139	44300	15547	20866	40662	121513	397590	1031661	599652	6473
1994		N		239				239	.	526	437	
1994		TOTAL										

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1994	BDZ	NE		15722	33908	6	8350	57986	882890	1214140	713580	.
1994	CD	NE	0	51853	77728	47940	8065	185586	444065	1735721	739940	52846
1994	CFR	L		72				72	.	.	.	
1994		N		43000	68000	2600		113600	.	.	.	
1994		E		486				486	.	.	.	
1994		TOTAL										
1994	EVR	L	25	6490		5269	3296	15080	34496	111997	60265	591
1994	LDZ	L	16	15709	21	8729	19014	43489	99043	330300	171184	690
1994		E		132				132		.	.	
1994		TOTAL										
1994	MAV	L		245				245	.	.	.	
1994		N	12	29505	51404	21659	1055	103635	.	.	.	
1994		E		635		0		635	.	.	.	
1994		TOTAL										
1994	PKP	N	443	92106	200114	750	137611	431024	.	2989108	1862669	
1994		E	72	913		825		1810	.	2799	1402	
1994		TOTAL										
1994	SZ	N	1	4048	3736	5811	8465	22061	38715	132162	71191	
1994	ZSR	L		27	2119	17		2163		9531	7320	
1994		N	0	25378	47251	16808	6053	95490	186371	1016089	409635	482
1994		E					481	481	1916	.	.	
1994		TOTAL										
1994	TCDD	N	6	41256	6831	3562	8648	60303	142146	444928	283265	21110
1995	BR	N		.	.	.	.	.	.	.	.	.
1995	Railtrack	N		.				.	.	.	.	.
1995	CFL	N		2259	1964	317	4343	8883	11585	24718	15509	8
1995	CH	N		8072		9772		17844	44139	20562	11032	3401
1995		E		1090		5485		6575	14223	3298	1936	1626
1995		TOTAL										
1995	CIE	L		12315		.	.	14227	63031	42505	31817	.
1995	CP	LE		15864	8232	12869	17979	54944	.	.	.	.
1995	DB AG	NE	1218	195461	551067	110592	360638	1218976	3260810	5394030	3510974	88766
1995	DSB	N		16652	13	36695	71859	125219	.	.	.	.
1995	FS	N	15	20591	243643	64505	61639	390393	1683867	1470735	1064805	96700
1995	NS 94	N		6062	22279	16325	126878	171544	535200	.	.	.
1995	OBB	N	11	13997	97894	10460	33434	155796	425726	982504	621909	41444
1995		E	54	650	627	756	97	2184	4338	710	649	682
1995		TOTAL										
1995	RENFE	L		25574	59499	13504	87356	185933	531523	689038	478794	.
1995		N			1831		4814	6645	61289			.
1995		E					109	109	350			.
1995		TOTAL										.
1995	SJ	N		4114	74894	8292	26830	114130	266372	938233	604447	21305
1995	BV	N		.	.			.		.	.	
1995	SNCB/NMBS	N		16497	40649	1376	71573	130095	325887	247690	207491	1143
1995	SNCF	N		89624	284695	61308	164753	600380		2279953	1448571	43827
1995		E					678	678				

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1995		TOTAL							2126170			
1995	VR	L		28877	24661		9723	63261	147875	501885	281909	12450
1995	RHK	L	.	.	.	.	.	.	.	.	.	.
1995	CFF(SBB/FFS	N		2680	112082		31643	146405	.	.	.	.
1995		E		6	885		466	1357	.	.	.	.
1995		total										
1995	NSB	N		8602	16124	2518	15124	42368	102444	168909	124992	6500
1995	BC	L	100	43017	13996	20413	39688	117215	295266	907971	523615	11343
1995		N		224				224		170	56	
1995		TOTAL										
1995	BDZ	NE		14996	35209	4	7805	58014	195712	337429	200100	14765
1995	CD	NE	19	59078	84128	56946	19285	219456	489007	1326781	796633	54626
1995	CFR	L		72				72	.	.	.	
1995		N		44385	72477	2750		119612	.	.	.	
1995		E		486				486	.	.	.	
1995		TOTAL										
1995	EVR	L	16	6685		4713	2865	14279	31902	116796	65695	125
1995	LDZ	L	3	15214	9	7377	16291	38894	78859	330477	174943	401
1995		E		132				132		.	.	
1995		TOTAL										
1995	MAV	L		221				221				
1995		N	10	28610	55112	22317	1468	107517	369476	528056	299172	1913
1995		E		954				954	2134			
1995		TOTAL										
1995	PKP	N	403	88587	200095	604	129202	418891	.	3082829	1970083	
1995		E	74	738		636		1448	.	2151	1055	
1995		TOTAL										
1995	SZ 94	N	1	4048	3736	5811	8465	22061	38715	132162	71191	
1995	ZSR	L		21	2916	13		2950		14301	7431	
1995		N	0	26693	45620	16202	5570	94085	193085	763071	442753	15422
1995		E					396	396	1968			
1995		TOTAL										
1995	TCDD	N	16	40089	6423	4231	8191	58950	133524	449235	295268	20539
1996	ATOC	N		.	.			.	.			.
1996	Railtrack	N		.				.		.	.	.
1996	RfD Ltd	N		.	.			.		.	.	.
1996	BK	N		.	.	.	.	.	.	.	.	.
1996	CFL	N		2187	2087	319	4388	8972	12043	24561	15255	4
1996	CH	N		7973		10104		18077	45962	22912	13029	2945
1996		E		1097		6607		7704	14739	3323	2216	1429
1996		TOTAL										
1996	CIE	L		13467		.	1918	15385	69683	44382	31767	.
1996	CP	LE		13316	8732	11862	20695	54605	.	.	.	.
1996	DB AG	N	534	178582	528719	113449	244029	1065313	3119173	5063057	3260668	75936
1996		E	.	.		.		.	.			
1996		TOTAL										
1996	DSB	N		.	.	.	.	.	.	.	.	.

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1996	FS SpA	N	25	22222	252891	63155	64865	403158	1794551	1285586	1075893	88100
1996	NS	N		.	24372	37455	351725	.	155367	.	.	
1996	OBB	N	5	9654	92898	10462	31630	144649	398380	954551	616610	35501
1996		E	42	395	456	978	232	2103	3756	645	583	527
1996		TOTAL										
1996	RENFE	L		23851	56832	14000	89097	183780	561849	684998	481668	.
1996		N			1832		5227	7059	64606			.
1996		E					151	151	478			.
1996		TOTAL										
1996	SJ	N		3956	69433	8385	32800	114574	280364	883709	567117	16495
1996	BV	N		.	.			.		.	.	
1996	SNCB/NMBS	N		15486	40564	1312	77146	134508	303786	334580	199265	1575
1996	SNCF	N		94047	309186	63248	189190	655671	.	2561930	1684681	36677
1996		E					740	740	.			
1996		TOTAL										
1996	VR	L		26697	24924		10002	61623	148950	489607	272997	11950
1996	RHK	L										
1996	CFF(SBB/FFS	N		2630	108355		33498	144483	.	.	.	.
1996		E		6	889		463	1358	.	.	.	.
1996		total										
1996	NSB BA	N		7742	15687	2217	16178	41824	105288	167919	126083	6349
1996	JBV	N		.	.			.		.	.	
1996	BC	L		43880	13004	20476	38504	115863	219547	943854	524925	4026
1996		N		229				229	33	178	65	
1996		TOTAL										
1996	BDZ	NE		13983	33162	4	7547	54696	191835	291332	174268	14257
1996	CD	NE	17	56462	83231	54558	17999	212267	469267	1275526	754880	50552
1996	CFR	L		69				69	.	.	.	.
1996		N		46167	77848	3223		127238	.	.	.	.
1996		E		83				83	.	.	.	.
1996		TOTAL										
1996	EVR	L	16	6647		3235	2766	12664	25465	132740	69145	91
1996	LDZ	L	3	16453	9	6290	14252	37007	68951	417027	216574	286
1996		E		129				129				
1996		TOTAL										
1996	MAV Rt.	L		226				226				
1996		N	20	26184	59283	23965	1894	111346	372344	477120	273530	
1996		E		559				559	1536			
1996		TOTAL										
1996	PKP	L		.				.				
1996		N	387	85686	201495	755	128033	416356	.	3089375	1983659	.
1996		E	73	702		379		1154	.	2070	995	.
1996		TOTAL										
1996	SZ	N	17	3027	8923	5065	3696	20728	37794	130134	69465	.
1996	ZSR	L		26	2184			2210		20919	11806	
1996		N	0	26754	42466	14616	4311	88147	193444	547095	309367	15408
1996		E					609	609	1972			

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1996		TOTAL										
1996	TCDD	N	6	40435	6939	4851	9344	61575	135381	451490	290049	12985
1997	ATOC	N		.	.			.	.			.
1997	EW&S	N		.	.	.	.	.		.	.	.
1997	BK	N		.	.	.	.	.	.	.	.	.
1997	CFL	N		1820	1974	318	4347	8459	12206	23361	16187	.
1997	CH	N		7214		9177		16391	43919	20428	12170	2672
1997		E		968		4229		5197	14179	2292	1464	1307
1997		TOTAL										
1997	CIE (1996)	L		13467		.	1918	15385	69683	44382	31767	.
1997	CP	L		13180	10273	7945	20135	51533	.	353595	290158	.
1997		E		221	0	3322	3	3546	.			.
1997		TOTAL										
1997	DB AG	N	97	156961	490294	120181	336401	1103934	3175054	4701523	2918432	17187
1997		E	.	.		.		.	.			
1997		TOTAL										
1997	DSB	N		.	.	.	.	.	.	.	.	.
1997	FS SpA	N	16	21571	259771	62276	64636	408270	1614520	1469062	1264220	.
1997	NS N.V.	N		.	.	.	.	.	.	.	.	.
1997	OBB	N	3	9501	90052	11619	31801	142976	414463	1014414	646114	36717
1997		E	26	305	529	992	152	2004	3574	797	719	485
1997		TOTAL										
1997	RENFE	L		23643	59461	15719	89839	188662	635478	754541	542986	.
1997		N			1892		5537	7429	68268			.
1997		E					138	138	439			.
1997		TOTAL										
1997	BV	N		.	.			.		.	.	
1997	MTAB	N			.			.		.	.	.
1997	SJ	N		3480	64980	8740	35749	112949	268407	761982	508884	16090
1997	SNCB/NMBS	N		19140	39391	1250	79314	139095	326338	336817	205484	1101
1997	SNCF	N		93200	311918	60814	198962	664893	.	2579427	1707994	33428
1997		E					655	655	.			
1997		TOTAL										
1997	VR	L		27581	25890		10484	63955	140550	535096	297331	8725
1997	CFF/SBB/FFS (1996)	N		2630	108355		33498	144483	.	.	.	.
1997		E		6	889		463	1358	.	.	.	.
1997		total										
1997	MTSA	N			.			.		.	.	.
1997	NSB BA	N		6599	16220	2210	16501	41530	96022	176409	131003	6564
1997	BC	L		45041	13654	20116	38920	117732	386656	1076018	612508	3590
1997		N		224				224	34	119	47	
1997		TOTAL										
1997	BDZ	NE		12799	34007	116	7788	54710	207045	281642	171592	13530
1997	CD	NE	13	54510	79601	53130	24864	212118	448705	1185787	696125	42572
1997	CFR	L		11				111	.	.	.	.
1997		N		68531	86279	2828		157638	.	.	.	.
1997		E		327				327	.	.	.	.

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1997		TOTAL										
1997	EVR	L		6676		2779	2757	12212	21815	167431	87016	105
1997	LDZ	L	3	16900	2	6640	13369	36914	46332	453567	239175	207
1997		E		123				123				
1997		TOTAL										
1997	MAV Rt.	L		214				214	1536			
1997		N	20	25609	56622	24965	1870	109086	372344	477120	213530	
1997		E		604				604	1536			
1997		TOTAL										
1997	PKP	L		.				.				
1997		N	382	86941	201372	719	129786	419200	.	3109338	2001934	.
1997		E	68	566		316		950	.	1641	828	.
1997		TOTAL										
1997	SZ	N	14	1882	8535	4082	3340	17853	36853	138909	76249	.
1997	ZSR	L		16	2330			2346		25153	15111	
1997		N	0	16847	42983	14910	4577	79317	195956	582380	330100	15165
1997		E					752	752	1998			
1997		TOTAL										
1997	TCDD	N	8	41655	7036	5670	10066	64435	143304	482734	315062	12260
1998	ATOC	N	.	.	.	.	.	.	.	.	.	.
1998	EW&S	N	.	.	.	.	.	.	.	.	.	.
1998	CFL	N		1843	2268	293	4502	8906	13179	26536	17202	.
1998	CH	N		5513		8926		14439	41627	20632	11799	2701
1998		E		962		3197		4159	11611	2121	1429	1209
1998		TOTAL										
1998	CIE	L		.	.	.	.	.	.	.	.	.
1998	CP (1997)	L		13180	10273	7945	20135	51533	.	353595	290158	.
1998		E		221	0	3322	3	3546	.			.
1998		TOTAL										
1998	DB AG	N	45	152344	527456	84980	327316	1092142	3460459	4492296	2865351	2628
1998		E	.	.		.		.	.			
1998		TOTAL										
1998	GVG	N				.	.	.	.			.
1998	DSB	N	.	.	.	.	.	.	.	.	.	.
1998	FS SpA	N	20	20157	258154	63013	64375	405719	1543289	1181981	1014391	.
1998	NS N.V.	N		.	.	.	.	.	.	.	.	.
1998	OBB	N	4	15140	102298	12211	32685	162338	.	.	.	.
1998		E	17	373	577	1023	115	2105	.	.	.	.
1998		TOTAL										
1998	RENFE	L		22813	60018	18861	87875	189567	644742	775369	563346	3167
1998		N			2113		5870	7983	75771			
1998		E					203	203	406			
1998		TOTAL										
1998	FEVE	E		.		.	.	.	.	.	.	.
1998	FGC	NE		.	.	.	.	.	.	.	.	.
1998	BV	N	.	.	.	.	.	.	.	.	.	.
1998	BK	N		.	.	.		.	.	.	.	.

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1998	MTAB	N	.	.	.	.	.	.	.	.	.	.
1998	SJ	N		3611	66153	8536	49447	127747	297643	782000	522000	15611
1998	SNCB/NMBS	N		18670	40914	1238	84583	145405	362099	343887	212586	2108
1998	SNCF	N		81028	306886	58984	211454	658351	.	2539599	1662662	.
1998		E					724	724	.			
1998		TOTAL										
1998	VR	L		26525	26709		10732	63966	165025	504289	277369	7900
1998	CFF(SBB/FFS	N	.	.	.	.	.	.	.	.	.	.
1998		E	.	.	.	.	.	.	.	.	.	.
1998		total	.	.	.	.	.	.	.	.	.	.
1998	MTSA	N	.	.	.	.	.	.	.	.	.	.
1998	NSB BA	N		6638	16341	2101	16654	41734	95969	159052	12250	7088
1998	BC	L	79	44188	13231	19489	38858	115844	368786	1058424	585193	2891
1998		N		222				222		186	91	
1998		TOTAL										
1998	BDZ	NE		12305	31890	7	6999	51201	187697	237303	145076	12475
1998	CD	NE	23	50445	78628	46942	16456	192494	442297	1075870	632493	38287
1998	CFR	L		.				.				
1998		N	0	60434	73396	2163		135993	.	.	.	.
1998		E		92				92	.	.	.	.
1998		TOTAL										
1998	EVR	L		6764		3660	2276	12700	20813	192322	102511	77
1998	LDZ	L	8	15362		5715	12082	33167	40780	424566	220054	133
1998		E		116				116				
1998		TOTAL										
1998	MAV Rt.	L		210				210				
1998		N	23	23488	56609	25803	1967	107890	353440	469605	273910	.
1998		E		644				644	1851			
1998		TOTAL										
1998	PKP	L		.				.				
1998		N	315	84051	192182	815	129423	406786	.	2779887	1800916	.
1998		E	60	483		338		881	1304	1231	614	.
1998		TOTAL										
1998	SZ	N	12	1834	8657	3773	3121	17397	35930	138335	77616	.
1998	ZSR	L		16	1931			1947		24074	14203	
1998		N	0	23739	33701	14628	4406	76474	204416	533321	296187	14426
1998		E					866	866	2106			
1998		TOTAL										
1998	TCDD	N	5	37826	8541	6451	9745	62568	148717	425485	270226	10215
1999	GKE	N	.	.		.		.	.	.	.	.
1999	OBB	N		15346	114963	12312	32091	174712	1802109	.	.	4596
1999		E	0	256	545	313	247	1361	.	.	.	.
1999		TOTAL										
1999	SNCB/NMBS	N		17914	39275	1249	91312	149750	343854	352281	219511	1721
1999	AAE	N	.	.	.	.	.	.	.	.	.	.
1999	DB AG	N	.	.	.	.	.	.	3443304	4866745	4297309	.
1999		E	.	.		.		.	.			

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1999		TOTAL										
1999	GVG	N				.	.	.	.			.
1999	KEG	N		.		.		.	.			.
1999	DBS	N	.	.	.	.	.	.	.	.	.	.
1999	EusKotren	E	2	95			4259	4355	.	760	380	
1999	FEVE	E		.		.	.	.	.	.	.	.
1999	FGC	NE	.	.	.	.	.	.	.	.	.	.
1999	RENFE	L		23185	59742	18086	89768	190781	663860	779906	578066	2489
1999		N			2428		6245	8673	79124			
1999		E					187	187	374			
1999		TOTAL										
1999	VR	L		27062	27662		10749	65473	166950	497813	273607	7800
1999	SNCF	N		82178	306503	61789	227654	678124	.	.	.	31371
1999		E					731	731	.			
1999		TOTAL										
1999	ATOC	N		.	.			.	.			.
1999	EW&S	N		.	.	.	.	.	.			.
1999	CH	N		6674		8998		15672	44369	19704	12085	2453
1999		E		884		2328		3212	9855	4903	4341	1088
1999		TOTAL										
1999	CIE	L		.			.	.	.	.	.	.
1999	FS SpA	N	19	19135	247221	63254	67510	397139	1444903	1296812	1158314	
1999	CFL 98	N		1843	2268	293	4502	8906	13179	26536	17202	.
1999	NS N.V.	N		.	.	.	.	.	.	.	.	.
1999	CP	L	.	.	.	.	.	.	.	.	.	.
1999		E	.	.	.	.	.	.	.	.	.	.
1999		TOTAL	.	.	.	.	.	.	.	.	.	.
1999	BK	N		.	.	.		.	.	.	.	.
1999	BV	N		.	.			.		.	.	
1999	MTAB	N			.			.		.	.	.
1999	SJ	N		4111	66809	7659	51274	129853	314478	769145	516430	16102
1999	CFF/SBB/FFS	NE	.	.	.	.	.	.	.	.	.	.
1999	MTAS	N			.			.		.	.	.
1999	NSB BA	N		5779	13512	3129	16573	38993	98636	156211	110181	3401
1999	BDZ	NE		11734	32268	8	6312	50322	173490	215374	128576	11232
1999	BC	L	123	43473	12546	19277	38668	114087	355380	1041117	569674	2983
1999		N		179				179		169	85	
1999		TOTAL										
1999	CD	NE	28	47104	77173	49275	16681	190261	440329	960750	559937	35511
1999	EVR	L		7338		4044	2341	13723	26115	235755	121816	0
1999	MAV Rt.	L		210				210				
1999		N	20	21174	56933	27113	2299	107539	367726	440070	252419	.
1999		E		703				703	1675			
1999		TOTAL										
1999	LDZ	L	4	13533		5114	10973	29624	46535	399288	205639	136
1999		E		116				116				
1999		TOTAL										

A1.3.9. Rolling Stock-Kilometres

YEAR	Railway	rail gauge	TOTAL KILOMETRES on the RAILWAY NETWORK - including foreign vehicles (IN THOUSANDS OF KILOMETRES									
			Motor Vehicles by type of traction							Wagons		
			STEAM LOCOMOTIVES	DIESEL LOCOMOTIVES	ELECTRIC LOCOMOTIVES	DIESEL RAILCARS	ELECTRIC RAILCARS	ALL TYPES OF TRACTION (co. 4 to 8)	Coaches rail cars and railcar trailers	Total	Loaded	Vans
1999	PKP	LN	283	78560	186729	746	128721	395039	1086785	2549075	1629580	12503
1999		E	51	443		343		837	1416	1035	524	.
1999		TOTAL										
1999	CFR	L		.				.		604	371	.
1999		N		45500	61514	1613		108627	.	1291114	729626	.
1999		E		92				92	.	274	202	.
1999		TOTAL										
1999	SZ	N	14	1894	8571	3624	3265	17368	35849	132529	73965	.
1999	ZSR	L		8	1040			1048		18883	9746	0
1999		N	0	19764	43223	13602	4293	80882	178876	657697	241666	14400
1999		E					750	750	1464			
1999		TOTAL										
1999	TCDD	N	23	37906	9630	5407	9658	62624	159100	416588	265571	10860

A1.3.10. Revenue Earning Passenger Traffic

YEAR	Railway	Rail Traffic								Road traffic		SHIPPING SERVICES		ALL TRAFFIC
		PASSENGER					Baggage							
		NUMBER OF PASSENGER (in thousand)		NUMBER OF PASSENGER-KMS (in million)		Mean Passenger	Accompanied cars		Other					
		Total	2 CLASS	TOTAL	2 CLASS	col.5*1000/ col.3	Number	Weight (in tonnes)		Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passenger-kms (in million)
1985	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	BR	708200	696700	30256	.	42,7	.	.	.			.	.	.
1985	CFF	224616	206937	9369	8035	41,7	110211	223261	29100	337	2	736	10	9381
1985	CFL	10852	10578	229	.	21,1	.	.	.	4243	54			283
1985	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	CH	11156	10993	1732	1670	155,3	.	.	.	1475	381			2113
1985	CIE	20090	.	1023	.	50,9	.	.	.	224993	.	.	.	.
1985	CP	221517	219261	5725	5376	25,8	44258	.	2036	141	7	.	.	5732
1985	CSD	419484	.	19839	.	47,3	.	38345	.					19839
1985	DB	1047883	1018564	42707	39203	40,8	121825	152688	712862	736158	8669	8650	353	51729
1985	DR	622910	617486	22450	21287	36	5489	6587	18533			23	1	22451
1985	DSB	132384	131794	4508	4419	34,1			.	.	.	21654	360	.
1985	FS	388700	367800	39265	35500	101	.	.	11092	3577	86	9957	179	39530
1985	JZ	126318	.	11999	.	95	.	.	.	.	.			11999
1985	MAV	232391	217677	11092	10139	47,7		989						11092
1985	NS	208224	196938	9226	8454	44,3	9182	8264						9226
1985	NSB	34822	34672	2241	2173	64,4				17630	301			2542
1985	OBB	158108	156097	7290	6887	46,1	270268	280327	.	88908	1164	882	14	8468
1985	PKP	1005107	991366	51978	48643	51,7	.	.	32603					51978
1985	RENFE	197500	.	15979	.	80,9	.	.	.	.	.			.
1985	SJ	76917	74928	6586	5920	85,6	1830	.	.	.	.	7420	34	.
1985	SNCB/NMBS	150308	141469	6572	5990	43,7	21266	24551	2185					6572
1985	SNCF	766653	741855	61640	54457	80,4	325400	288900	53300	9800	245	.	.	.
1985	VR	40419	.	3224	.	79,8	20901	17408	3602					3224
1985	TCDD	136354	123154	6489	4089	47,6			14539					6489
1986	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	BR	689400	676800	31106	.	44,7	.	.	.					31106
1986	CFF	228467	210462	9325	8006	40,8	142357	276136	28400	370	2	765	10	9337
1986	CFL	10638	.	224	.	21,1	.	.	.	4130	54			278
1986	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	CH	11729	11520	1950	1872	166,3	.	.	.	1436	377			2327
1986	CIE	21735	.	1075	.	49,5				230659	.	.	.	.
1986	CP	224479	222222	5803	5455	25,9	47394	.	2103	134	7	.	.	5810
1986	CSD	422320	.	19935	.	47,2	.	34888	.					19935
1986	DB	1023016	1010474	41397	38470	40,5	140772	175435	83662	713983	8467	8268	388	50252
1986	DR	608777	603185	22395	21172	36,8	6322	7586	17703			185	7	22402
1986	DSB	145241	144673	4707	4620	32,4			.	.	.	19428	339	.
1986	FS	393200	375600	40500	36252	102	.	.	.	4172	106	9725	177	40783
1986	JZ	129660	121417	12384	.	95,5	.	.	.	.	.			.
1986	MAV	201230	191510	9450	8762	47		916						9450
1986	NS	210492	199781	8919	8208	42,4	9736	8762						8919
1986	NSB	35552	35427	2225	2148	62,6				17717	320			2545
1986	OBB	158311	156396	7332	6949	46,3	283931	295230	.	88465	1178	863	14	8524
1986	PKP	989638	981001	48526	46423	49	.	.	36230					48526
1986	RENFE	194000	.	15693	.	80,9	.	.	.	.	.			.
1986	SJ	72996	71042	6152	5567	84,3	1642	.	.	.	.	7251	35	.

A1.3.10. Revenue Earning Passenger Traffic

YEAR	Railway	Rail Traffic								Road traffic		SHIPPING SERVICES		ALL TRAFFIC
		PASSENGER					Baggage							
		NUMBER OF PASSENGER (in thousand)		NUMBER OF PASSENGER-KMS (in million)		Mean Passenger	Accompanied cars		Other	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passenger-kms (in million)
		Total	2 CLASS	TOTAL	2 CLASS	col.5*1000/ col.3	Number	Weight (in tonnes)						
1986	SNCB/NMBS	139113	131112	6069	5538	43,6	22812	26339	1846					6069
1986	SNCF	768998	743986	59618	52386	77,5	340200	301500	42600	9800	244	.	.	.
1986	VR	34763	.	2676	.	77	19021	17842	2938					2676
1986	TCDD	129352	117287	6052	3881	46,8			13148					6052
1987	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	BR	727200	714100	33140	31508	45,6	.	.	.					33140
1987	CFF	257579	236763	10680	9175	41,5	160637	300697	28100	423	3	720	10	10693
1987	CFL	10457	.	216	.	20,7	.	.	.	4113	53			269
1987	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	CH	11777	11567	1973	1897	167,5	.	.	.	1381	366			2339
1987	CIE	24895	.	1196	.	48		.	.	229281	.	.	.	.
1987	CP	227996	225832	5907	5565	25,9	17413	.	2028	128	8	.	.	5915
1987	CSD	415839	.	20029	.	48,2	.	36889	.					20029
1987	DB	994221	982256	39174	36378	39,4	152056	189953	75862	612234	7448	9220	392	47014
1987	DR	603196	597601	22552	21306	37,4	7029	8435	16683			262	11	22563
1987	DSB	145764	145203	4782	4702	32,8			.	.	.	19290	352	.
1987	FS	394200	372500	41395	37400	105	54085	54085	12425	2455	32	9825	181	41608
1987	JZ	119731	.	11827	.	98,8	.	.	.	.	.			.
1987	MAV	198248	187950	9523	8778	48			1020					9523
1987	NS	221989	210841	9396	8637	42,3	11398	10258						9396
1987	NSB	36709	36438	2187	2121	59,6				17702	302			2489
1987	OBB	158906	157425	7363	7047	46,3	304474	315763	.	89157	1160	739	12	8535
1987	PKP	977011	964075	48285	44983	49,4	.	.	38049					48285
1987	RENFE	190300	.	15394	.	80,9	.	.	.	.	.			.
1987	SJ	70468	68542	6013	5436	85,3	2400	.	.	.	.	6799	33	.
1987	SNCB/NMBS	142242	134364	6270	5739	44,1	24752	28551	1884					6270
1987	SNCF	772990	748677	59732	52594	77,3	335500	296000	39100	9370	240	.	.	.
1987	VR	41368	.	3106	.	75,1	22352	20290	3172					3106
1987	TCDD	129909	117372	6174	3868	47,5			13907					6174
1988	BDZ	107774	106388	8143	7723	75,6	.	27600	.					8143
1988	BR	763725	749400	34315	32640	44,9	.	.	100					34315
1988	CFF	258066	237669	10790	9210	41,8	159302	309691	30290	404	3	805	11	10804
1988	CFL	10730	.	223	.	20,8	.	.	.	4187	54			277
1988	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	CH	11834	11618	1963	1885	165,9	.	.	.	1503	406			2369
1988	CIE	24043	.	1180	.	49,1				226211	.	.	.	.
1988	CP	230948	228742	6063	5679	26,1	33736	.	1962	128	8	.	.	6044
1988	CSD	415366	.	19408	.	46,7	.	26729	.					19408
1988	DB	1025851	1012467	40959	37650	39,9	865371	1249156	82268	558240	7140	9971	416	48515
1988	DR	599683	593798	22775	21453	38	8141	9769	17742			268	10	22785
1988	DSB	140181	139873	4726	4682	33,7			.	.	.	.	.	.
1988	FS	410000	386900	43343	39100	105,7	57315	57315	14108	1673	19	8988	175	45537
1988	JZ	115726	.	11449	.	98,9	.	.	.	.	.			.
1988	MAV	195588	184623	9759	8925	49,8			1066					9759
1988	NS	230122	218438	9664	8890	42	13898	12508						9664
1988	NSB	34055	33930	2110	2062	62				17062	270			2380

A1.3.10. Revenue Earning Passenger Traffic

YEAR	Railway	Rail Traffic								Road traffic		SHIPPING SERVICES		ALL TRAFFIC
		PASSENGER					Baggage							
		NUMBER OF PASSENGER (in thousand)		NUMBER OF PASSENGER-KMS (in million)		Mean Passenger	Accompanied cars		Other					
		Total	2 CLASS	TOTAL	2 CLASS	col.5*1000/ col.3	Number	Weight (in tonnes)		Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passenger-kms (in million)
1988	OBB	160257	158629	7783	7440	48,6	327794	340153		95140	1263	840	14	9060
1988	PKP	983763	968953	52134	48308	53	.	.	44873					52134
1988	RENFE	194200	.	15716	.	80,9	.	.	.	.	.			.
1988	SJ	74253	72339	6081	5516	81,9	2250	.	.	.	.	6991	34	.
1988	SNCB/NMBS	143122	134835	6348	5780	44,4	28958	33424	1856					6348
1988	SNCF	801062	775240	63057	55075	78,7	358200	316000	37600	8935	235	.	.	.
1988	VR	46226	.	3201	.	69,2	24818	21877	2882					3201
1988	TCDD	135706	121989	6708	3988	49,4			14510					6708
1989	BDZ	98950	97629	7601	7282	76,8								7601
1989	BR	746354	732210	33323	31483	44,6	30000	.	.					33323
1989	CFF	258684	238185	11021	9404	42,6	176828	336151	33686	420	3	616	10	11034
1989	CFL	10930	.	224	.	20,5	.	.	.	4269	56			280
1989	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	CH	12293	10051	2011	1925	163,6	.	.	.	1569	436			2447
1989	CIE	24595	.	1220	.	49,6				224579	.	.	.	.
1989	CP	229430	227332	5908	5631	25,8	30752	.	1932	102	6	.	.	5914
1989	CSD	410961	.	19669	.	47,9	.	31699						19669
1989	DB	1027230	1013425	41144	37623	40,1	924743	1338743	83177	296601	3701	10125	410	45255
1989	DR	591207	584939	23588	22214	39,9	9045	10854	18689			219	8	23596
1989	DSB	140071	139759	4649	4604	33,2				.	.	.	.	.
1989	FS	418700	395000	44443	38343	106,1	.	.	.	1415	14	8979	160	44617
1989	JZ	117018	.	11653	.	99,6	.	.	.	.	.			.
1989	MAV	186216	176895	9511	8805	51,1			1059					9511
1989	NS	239438	226735	10162	9305	42,4	14643	14643						10162
1989	NSB	33816	33686	2136	2082	63,2				16451	259			2395
1989	OBB	163024	160974	8445	7994	51,8	396573	404702	.	84280	1005	814	13	9463
1989	PKP	951544	928895	55888	50131	58,7	.	.	40357					55888
1989	RENFE	181891	.	14715	.	80,9	.	.	.	.	.			.
1989	SJ	74514	72526	6060	5459	81,3	2530	.	.	.	.	7206	38	.
1989	SNCB/NMBS	142008	133735	6400	5825	45,1	29562	34092	1914					6400
1989	SNCF	815778	788123	64256	55927	78,8	361600	318600	32500	9120	236	.	.	.
1989	VR	45536	.	3208	.	70,4	26746	23248	.					3208
1989	TCDD	146359	131164	6844	4107	46,8			16407			24	2	6846
1990	BDZ	102399	100968	7793	7463	76,1			27370					7793
1990	BR	762382	749404	33191	31615	43,5	29115	.	65500					33191
1990	CFF	263177	238631	11049	9309	42	179984	347175	33419	171	1	695	11	11061
1990	CFL	10044	.	208	.	20,7	.	.	.	3982	53			261
1990	CFR	407931	386228	30582	29236	75	.	.	.	.	.	.	.	.
1990	CH	12067	11881	1977	1881	163,8	.	.	.					1977
1990	CIE	25010	.	1226	.	49				231339	.	.	.	.
1990	CP	225882	224016	5664	5435	25,1	.	.	1510	.	.	.	.	5664
1990	CSD	407894	.	19335	.	47,4	.	26473	.					19335
1990	DB	1043365	1028075	43560	39936	41,7	995100	1370308	73404	17657	220	10836	435	44215
1990	DR	470942	466866	17464	16593	37,1	5439	6527	15028			1041	38	17502
1990	DSB	146285	145766	4855	4776	33,2				.	.	.	.	.
1990	FS	429400	405000	45512	39265	106	.	.	.	.	.	8906	157	.

A1.3.10. Revenue Earning Passenger Traffic

YEAR	Railway	Rail Traffic								Road traffic		SHIPPING SERVICES		ALL TRAFFIC
		PASSENGER					Baggage							
		NUMBER OF PASSENGER (in thousand)		NUMBER OF PASSENGER-KMS (in million)		Mean Passenger	Accompanied cars		Other	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passenger-kms (in million)
		Total	2 CLASS	TOTAL	2 CLASS	col.5*1000/ col.3	Number	Weight (in tonnes)						
1990	JZ	108813	.	11325	.	104,1	.	.	.	.	.			.
1990	MAV	169856	161179	9060	8360	53,3			1032					9060
1990	NS	255656	241564	11060	10123	43,3	13067	13067						11060
1990	NSB	34465	34332	2104	2051	61,1	.	.	.	16500	233			2337
1990	OBB	168385	166210	8575	8128	50,9	422550	429897	.	87139	1266	997	15	9856
1990	PKP	789922	754218	50373	41942	63,8	.	.	30191					50373
1990	RENFE	274400	.	15476	.	56,4	.	.	.					15476
1990	SJ	77424	75434	6076	5478	78,5	2446	.	.			8593	71	6147
1990	SNCB/NMBS	142372	133568	6539	5925	45,9	25799	29753	2094					6539
1990	SNCF	834246	804342	63761	55194	76,4	343100	301500	24500	8300	200	.	.	.
1990	VR	45998	.	3331	.	72,4	24783	221545	.					3331
1990	TCDD	139089	123580	6410	3782	46,1			15359			31	3	6413
1990	BDZ	102399	100968	7793	7463	76,1		.	27370					7793
1992	BDZ	72787	.	4866	.	66,9		.						4866
1991	BR	739700	729173	32058	30642	43,3	.	.						32058
1991	CFF	270524	245321	12371	10448	45,7	177046	342030	31822	172	1	720	11	12383
1991	CFL	10371	.	220	.	21,2	.	.	.	3981	52			272
1991	CFR	362583	358903	25429	24412	70,1			.					25429
1991	CH	12252	11996	1995	1891	162,8	.	.	.					1995
1991	CIE	25625	.	1290	.	50,3				237371	.	.	.	.
1991	CP	223632	221846	5688	5455	25,4	30820	28000	1464	.	.	.	.	.
1991	CSD	405840	.	19263	.	47,5			26494					19263
1991	DB	1070379	1054704	45639	41806	42,6	987227	1285137	71654	834	9	11410	448	46096
1991	DR	327272	322869	10297	9955	31,5	4057	4868	10260			711	26	10323
1991	DSB	144325	143807	4797	4709	33,2				.	.	.	.	.
1991	FS	438000	413000	46427	40052	106	66261	66000	.	.	.	8661	151	.
1990	JZ	108813	.	11325	.	104,1	.	.	.	.	.			.
1991	MAV	150324	145803	7478	7056	49,7			612					7478
1991	NS	304616	289109	12796	11893	42	12867	12867						12796
1991	NSB	33429	.	2150	.	64,3				15835	230			2380
1991	OBB	173618	171165	9208	8699	53	430308	438376	.	91671	1258	1038	15	10481
1991	PKP	651991	639158	40115	36872	61,5	.	.	22837					40115
1991	RENFE	316327	.	15022	.	47,5	.	.	.					15022
1991	SJ	77569	75584	5524	4909	71,2	2545	.	.					5524
1991	SNCB/NMBS	145473	136093	6771	6108	46,5	25932	29897	2346					6771
1991	SNCF	828649	799276	62101	53859	74,9	324400	284200	24500	8300	200	.	.	.
1991	VR	45795	.	3230	.	70,5	22709	21287	.					3230
1991	TCDD	133243	119106	6048	3709	45,4			13183			24	2	6050
1992	BR	744742	735680	31718	30551	42,6	20626	.	.	.				31718
1992	CFL(1991)	10371	.	220	.	21,2	.	.	.	3981	52			272
1992	CH	11819	11561	2004	1905	169,6	.	.	.					2004
1992	CIE	25837	.	1226	.	47,5				240956	.	.	.	.
1992	CP	224621	222891	5694	5479	25,3	30514	27463	1342	.	.	.	.	5694
1992	DB	1098327	1081792	46407	42545	42,3	1054531	1321245	64822			10765	460	46867
1992	DR	330865	328547	9839	9605	29,7	1440	1728	7774			386	12	9851
1992	DSB	142872	142475	4600	4533	32,2	.	.	.	.	.	33030	.	.

A1.3.10. Revenue Earning Passenger Traffic

YEAR	Railway	Rail Traffic								Road traffic		SHIPPING SERVICES		ALL TRAFFIC
		PASSENGER					Baggage							
		NUMBER OF PASSENGER (in thousand)		NUMBER OF PASSENGER-KMS (in million)		Mean Passenger	Accompanied cars		Other	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passenger-kms (in million)
		Total	2 CLASS	TOTAL	2 CLASS	col.5*1000/ col.3	Number	Weight (in tonnes)						
1992	FS	440000	416200	48361	41590	109,9	61401	61000	.	.	.	8125	134	.
1992	NS	332500	315115	15350	14241	46,2	12474	12474						15350
1992	RENFE	358610	.	16350	.	45,6	.	.	.					16350
1992	SNCB/NMBS	145006	135579	6798	6151	46,9	23871	27541	1486					6798
1992	SNCF	820357	791813	62647	54438	76,4	291300	254900	16200	9020	220	.	.	.
1992	CFF	267537	243893	11819	10155	44,2	150375	316626	30681			735	12	11831
1992	NSB	35800	.	2256	.	63	.	.	.	16350	230			2486
1992	OBB	174935	172384	9561	9012	54,7	444894	453721	.	94077	1235	1063	15	10811
1992	SJ	76600	74620	5234	4624	68,3	1445	.	.					5234
1992	VR	45140	.	3057	.	67,7	19922	13911	.					3057
1992	BC	174680		18017		103,1			7879					18017
1992	BDZ	75909	75463	5393	5273	71			.					5393
1992	CFR	323758	319125	24269	23071	75			.					24269
1992	CSD	395928	.	16898	.	42,7			23695					16898
1992	EVR	15771	.	950	.	60,3			934					950
1992	LDZ	83129	.	3656	.	44								3656
1992	MAV	138659	135284	6820	6507	49,2			866					6820
1992	PKP	549302	538196	32571	29743	59,3	.	.	19025					32571
1992	SZ	12286	.	547	.	44,5	.	.	61			.	.	.
1992	TCDD	131252	116276	6259	3722	47,7			11089			22	2	6261
1993	BR	713200	704800	30363	29283	42,6	19794	.	.					30363
1993	CFL	10700	.	262	.	24,5	.	.	.	.	.	.	.	.
1993	CH	11747	11382	1726	1639	146,9	.	.	.					1726
1993	CIE	26143	.	1274	.	48,7			.	231833	.	.	.	.
1993	CP	208588	207042	5397	5177	25,9	27588	24829	1169	.	.	.	.	5397
1993	DB	1109799	1092738	47576	43393	42,9	1069105	1566674	61243			3722	128	47704
1993	DR	322221	320051	9963	9579	30,9	413	496	11788			22	5	9968
1993	DSB	139987	139518	4596	4523	32,8	.	.	.	.	.	29540	.	.
1993	FS	438000	414300	47101	44369	107,5	55707	55707	.	.	1150	7660	122	48373
1993	NS	333800	319057	15245	14299	45,7	12267	12267	.					15245
1993	RENFE	353561	.	15457	.	43,7	75480	.	.					15457
1993	SNCB/NMBS	145347	135763	6694	6050	46,1	22448	25854	.					6694
1993	SNCF	811093	785655	58164	51071	71,7	.	.	.	10885	265	.	.	.
1993	CFF	270929	248728	11959	10386	44,1	74296	229846	26516			.	.	.
1993	NSB	37514	.	2316	.	61,7	.	.	.	17400	248			2564
1993	OBB	181100	179071	9342	8902	51,6	429982	439302	.	95205	1220	963	13	10575
1993	SJ	92700	90710	5830	5268	62,9	.	.	.					5830
1993	VR	44362	.	3007	.	67,8	22185	27731	.					3007
1993	BC	201107	.	19500	.	97	.	.	7596					19500
1993	BDZ	76085	75562	5837	5707	76,7			.					5837
1993	CD	242182	233872	8548	7994	35,3	.	.	16025					8548
1993	CFR	225397	220297	19402	18074	86,1			.					19402
1993	EVR	16688	.	722	.	43,3			578					722
1993	LDZ	59612	.	2359	.	39,6			.					2359
1993	MAV	128482	125615	6355	6080	49,5	11760	.	1614	121	.			.
1993	PKP	448916	441026	24742	22910	55,1	.	.	18183					24742

A1.3.10. Revenue Earning Passenger Traffic

YEAR	Railway	Rail Traffic								Road traffic		SHIPPING SERVICES		ALL TRAFFIC
		PASSENGER					Baggage							
		NUMBER OF PASSENGER (in thousand)		NUMBER OF PASSENGER-KMS (in million)		Mean Passenger	Accompanied cars		Other	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passenger-kms (in million)
		Total	2 CLASS	TOTAL	2 CLASS	col.5*1000/ col.3	Number	Weight (in tonnes)						
1993	SZ	12636	.	566	.	44,8	.	.	96					566
1993	ZSR	86700	.	4569	.	52,7	.	11390	.					4569
1993	TCDD	146318	126101	7147	4079	48,8			10391			6	.	.
1994	BR	702191	694491	28656	27867	40,8	15916	.	.					28656
1994	CFL	11300	.	289	.	25,6	.	.	.					289
1994	CH	11248	10815	1399	1344	124,4	.	.	.					1399
1994	CIE	25813	.	1260	.	48,8			.	243582	.	.	.	
1994	CP	197503	196499	5110	4913	25,9	25543	22989	941					5110
1994	DB AG	1494958	1477385	61333	56594	41,0	695070	1089044	74402			3201	85	61418
1994	DSB	142300	.	5773	.	40,6						29821	609	6382
1994	FS	455009	435000	48900	45966	107,5	66596	66596	.			7226	115	49015
1994	NS	312013	297165	14439	13452	46,3	13830	13830						14439
1994	RENFE	351530	.	14853	.	42,3	66755	.						14853
1994	SNCB/NMBS	142602	133350	6638	6021	46,5	23776	27347	.					6638
1994	SNCF	795955	771818	58675	51678	73,7	.	.	.	10410	254	.	.	
1994	CFF/SBB/FFS	263611	240207	12085	10452	45,8	8640	10368	26691			866	10	12095
1994	NSB	37926	.	2398	.	63,2	.	.	.	17502	252			2650
1994	OBB	190412	188474	9202	8776	48,3	424436	434818	.	93571	1157	964	15	10374
1994	SJ	94140	92156	5906	5422	62,7	.	.						5906
1994	VR	43989	.	3037	.	69,0	25097	31371	.					3037
1994	BC	172091	.	16063	.	93,3	.	.	5394					16063
1994	BDZ	65740	65166	5059	4925	77,0	449	539	24000					5059
1994	CD	228720	221936	8481	7895	37,1	.	.	17566					8481
1994	CFR	206920	197771	18313	16790	88,5			.					18313
1994	EVR	11561		537		46,5			694					537
1994	LDZ	55669		1794		32,2								1794
1994	MAV	126956	123931	6288	6002	49,5	3267	.	5208	.	.			
1994	PKP	408692	403171	21762	20413	53,2	.	.	14061					21762
1994	SZ	13105	12100	590	480	45,0	.	.	88					590
1994	ZSR	99101	.	4548	.	45,9			11816					4548
1994	TCDD	119533	99502	6335	3449	53,0			9407			7	1	6336
1995	BR	718700	710840	29216	28180	40,7								29216
1995	CFL	11200	.	286	.	25,5	.	.						286
1995	CH	11478	10955	1568	1477	136,6	3252	3577	.	174	116			1684
1995	CIE	27124	.	1291	.	47,6			.	249925	.	.	.	.
1995	CP	183349	4809	4617	26,1	25374	22837	791	.	.				.
1995	DB AG	1334200	.	60514	.	45,4	589984	752456	27117			3593	112	60626
1995	DSB	140382	139672	4784	4707	34,1	356	34240		.	.	.	.	.
1995	FS	462500	442000	49700	46718	107,5	59310	59310				.	.	.
1995	NS	304500	.	13977	.	45,9	.	.						13977
1995	OBB	194032	192298	9628	9244	49,6	414502	423220	.	95900	1191	923	13	10832
1995	RENFE	365503	.	15313	.	41,9	57429	.	.					15313
1995	SJ	98371	95909	6219	5617	63,2	.	.	.					6219
1995	SNCB/NMBS	144012	134685	6757	6125	46,9	20050	23060						6757
1995	SNCF	730835	707141	55319	48374	75,7	.	.	.	10012	244	.	.	.
1995	VR	44420	.	3184	.	71,7	27940	34150	.					3184

A1.3.10. Revenue Earning Passenger Traffic

YEAR	Railway	Rail Traffic								Road traffic		SHIPPING SERVICES		ALL TRAFFIC
		PASSENGER					Baggage							
		NUMBER OF PASSENGER (in thousand)		NUMBER OF PASSENGER-KMS (in million)		Mean Passenger	Accompanied cars		Other	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passenger-kms (in million)
		Total	2 CLASS	TOTAL	2 CLASS	col.5*1000/ col.3	Number	Weight (in tonnes)						
1995	CFF/SBB/FFS	253194	232492	11712	10247	46,3	8623	9991	26137			.	.	.
1995	NSB	39593	.	2381	.	60,1	.	.	.	17600	253			2634
1995	BC	147352	.	12505	.	84,9	.	.	5929					12505
1995	BDZ	58940	58312	4693	4544	79,6	676	744	18388					4693
1995	CD	227147	220606	8023	7811	35,3			13319					8023
1995	CFR	210738	205071	18847	17287	89,4								18847
1995	EVR	8827	8210	421	318	47,7			308					421
1995	LDZ	44532	43271	1373	1140	30,8								1373
1995	MAV	122399	119427	6120	5837	50	18310	.	.	97	.			6120
1995	PKP	383231	378613	20960	19763	54,7	.	.	12288					20960
1995	SZ	13307	.	595	.	44,7	.	.	.					595
1995	ZSR	89471	.	4202	.	47			10286					4202
1995	TCDD	104635	86601	5797	2972	55,4			7220			1	0	5797
1996	ATOC	776800	.	31949	.	41,1								31800
1996	BK	96	.	.	.	.	.	.	.					.
1996	CFL	11127	.	284	.	25,5	.	.	.					284
1996	CH	12816	12379	1751	1699	136,6	4323	4755	.	211	123			1874
1996	CIE	27930	.	1295	.	46,4			.	249500	.	.	.	.
1996	CP	177094	176215	4502	4338	25,4	22442	20198	581	.	.			.
1996	DB AG	1318100	1294200	59309	54179	45	764205	871549	21455			400	6	59315
1996	DSB	144309	.	4718	.	32,7								4718
1996	FS SpA	468300	448300	50300	44551	107,4	84742	84742				7065	110	50410
1996	NS	306481	291506	14092	13069	46								14092
1996	OBB	193428	191861	9689	9245	50,1	372524	380347	.	95100	1150	876	13	10852
1996	RENFE	377892	.	15605	.	41,3	53450	.	.					15605
1996	SJ	98988	96988	6191	5701	62,5	.	.	.					6191
1996	SNCB/NMBS	141696	132838	6788	6144	47,9	21666	18838						6788
1996	SNCF	776706	751092	59519	51909	76,6	.	.	.	9821	254			59773
1996	VR	47000	.	3254	.	69,2	29255	43882	.					3254
1996	CFF/SBB/FFS	256295	234114	11662	10080	45,5	9246	11095	25462			.	.	.
1996	NSB BA	40701	.	2449	.	60,2	.	.	.	.	.			.
1996	BC	134140	.	11657	.	86,9	.	.	4516					11657
1996	BDZ	66097	65184	5065	4854	76,6	1440	1584	12354					5065
1996	CD	219244	218706	8111	7988	37			11629					8111
1996	CFR	212893	206896	18356	16719	86,2			.					18356
1996	EVR	6716	6229	309	231	46			228					309
1996	LDZ	35140	33973	1182	950	33,6								1182
1996	MAV Rt.	123707	120480	6292	5998	50,9	13642	15006	1365					6292
1996	PKP	334840	331128	19807	18768	59,2	.	.	12495					19807
1996	SZ	13683	.	613	.	44,8	175	.	99					613
1996	ZSR	76015	.	3759	.	50,5			4707					3759
1996	TCDD	98315	82798	5229	2752	53,2			4995			2	0	5229
1997	ATOC	845700	.	34200	.	40,4	.	.	.					34200
1997	BK	221	.	.	.	.	.	.	.					.
1997	CFL	11536	.	295	.	25,6	.	.	.	.	.			.
1997	CH	13261	12589	1884	1721	142,1	2619	.	.	279	163			2047

A1.3.10. Revenue Earning Passenger Traffic

YEAR	Railway	Rail Traffic: PASSENGER: NUMBER OF PASSENGER (in thousand): Total	Rail Traffic: PASSENGER: NUMBER OF PASSENGER (in thousand): 2 CLASS	Rail Traffic: PASSENGER: NUMBER OF PASSENGER-KMS (in million): TOTAL	Rail Traffic: PASSENGER: NUMBER OF PASSENGER-KMS (in million): 2 CLASS	Rail Traffic: PASSENGER: Mean Passenger col.5*1000/ col.3	Rail Traffic: Baggage: Accompanied cars: Number	Rail Traffic: Baggage: Accompanied cars: Weight (in tonnes)	Rail Traffic: Baggage: Other	Road traffic: Number of passengers (1000)	Road traffic: Number of passenger-kms (in millions)	SHIPPING SERVICES: Number of passengers (1000)	SHIPPING SERVICES: Number of passenger-kms (in millions)	ALL TRAFFIC: Number of passenger-kms (in million)
1997	CIE	29467	.	1387	.	47,1	.	.	.	.	.	.	.	.
1997	CP	178130	177142	4563	4389	25,6	24183	24183	469					4563
1997	DB AG	1347154	1326291	59628	53466	44,1	611306	999884	25586			1717	27	59655
1997	DSB	144414	.	4988	.	34,5	.	.	.	.	.	.	.	.
1997	FS SpA	461000	442000	49500	47460	107,4	85590	85590				6739	105	49605
1997	NS N.V.	315636	299314	14425	13844	45,7	.	.						14425
1997	OBB	183897	183537	8140	7913	44,3	312154	318709	.	92561	980	896	13	9133
1997	RENFE	395220	.	16579	.	41,9	58595	.	.					16579
1997	SJ	104102	102020	6286	5776	60,4	.	.	.					6286
1997	SNCB/NMBS	143566	135389	6984	6360	48,6	27082	23547						6984
1997	SNCF	797256	769329	61573	53636	77,2	.	.	.	9963	258			61831
1997	VR	49980	.	3376	.	67,5	32058	48086						3376
1997	CFF/SBB/FFS	264221	242379	12386	10752	46,9	9784	8154	27125					12386
1997	NSB BA	44744	.	2561	.	57,2	.	.	.					2561
1997	BC	146887		12909		87,9	.	.	4124					12909
1997	BDZ	82656	81610	5886	5631	71,2	1408	1280	20292					5886
1997	CD	202877	194605	7710	7423	38			7755					7710
1997	CFR	186618	181194	15794	14484	84,6			.					15794
1997	EVR	5599	5131	262	189	46,8								262
1997	LDZ	32994	31854	1147	920	34,8								1147
1997	MAV Rt.	123210	120451	6394	6112	51,9	15555	25000	7111					6394
1997	PKP	330314	326024	19928	18724	60,3	.	.	10904					19928
1997	SZ	13568	12697	616	504	45,4	233	.	64					616
1997	ZSR	71489	.	3095	.	43,3			3905					3095
1997	TCDD	107053	88502	5840	2937	54,6			5066			4	0	5840
1998	ATOC	892000	.	35200	.	39,5	.	.	.					35200
1998	EW&S													
1998	CFL	11735	.	300	.	25,6	.	.	.	.	.	.	.	.
1998	CH	11677	11509	1552	1463	132,9	.	.	.	396	229			1781
1998	CIE	32146	.	1421	.	44,2				.	.	.	.	.
1998	CP	177964	176791	4602	4389	25,9	23141	23141	337					4602
1998	DB AG	1332000	.	59184	.	44,4	765366	1194744	23770					59184
1998	GVG	7	.	1	.	142,9			.					1
1998	DSB	149191	.	5369	.	36,2	.	.	.	.	.	.	.	.
1998	FS SpA	426290	408386	41475	36705	97,3	77570	77570				6627	93	41568
1998	NS N.V.	321000	296810	14879	13034	46,4	.	.	.					14879
1998	OBB	179465	178065	7971	7750	44,4	361571	369164	.	93563	1010	805	12	8993
1998	RENFE	409467	.	17475	.	42,7	57922	.	.					17475
1998	FEVE	11836	.	211	.	17,8	.	.	.					211
1998	FGC	52710	.	595	.	11,3	.	.	.					595
1998	BK	.	.	13	.	.	.	.	.					13
1998	MTAB													
1998	SJ	110949	109357	6997	6424	63,1	.	.	.					6997
1998	SNCB/NMBS	145857	136995	7097	6434	48,7	27473	23887						7097
1998	SNCF	812177	782417	64186	55899	79	.	.	.	10516	272			64458
1998	VR	51370	.	3377	.	65,7	33383	50074	.					3377

A1.3.10. Revenue Earning Passenger Traffic

YEAR	Railway	Rail Traffic								Road traffic		SHIPPING SERVICES		ALL TRAFFIC
		PASSENGER					Baggage							
		NUMBER OF PASSENGER (in thousand)		NUMBER OF PASSENGER-KMS (in million)		Mean Passenger	Accompanied cars		Other					
		Total	2 CLASS	TOTAL	2 CLASS	col.5*1000/ col.3	Number	Weight (in tonnes)		Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passenger-kms (in million)
1998	CFF/SBB/FFS	266090	244040	12485	10849	46,9	.	.	23665					12485
1998	MTAS													
1998	NSB BA	46972	.	2590	.	55,1	.	.	.					2590
1998	BC	151022	.	13268	.	87,9	.	.	3614					13268
1998	BDZ	64260	63350	4740	4525	73,8	1280	1408	21990					4740
1998	CD	181977	172888	7001	6729	38,5			7366					7001
1998	CFR	146800	142109	13422	12209	91,4			.					13422
1998	EVR	6716	6442	236	187	35,1	.	.	0					236
1998	LDZ	30100	29190	1059	875	35,2			.					1059
1998	MAV Rt.	123560	120815	6659	6095	53,9	14695	16162	1470					6659
1998	PKP	324467	319729	20553	19287	63,3	.	.	8602					20553
1998	SZ	13907	13845	645	635	46,4	190	237	.					645
1998	ZSR	70008	.	3116	.	44,5			.					3116
1998	TCDD	109774	89304	6160	2954	56,1			4273			5	1	6161
1999	GKE (1998)	3900	.	83	.	21,3	.	.	.					83
1999	OBB	181715	180298	7997	7596	44	488739	499003	.	93100	1020	871	12	9029
1999	SNCB/NMBS	147291	138337	7354	6678	49,9	.	.	.					7354
1999	AAE	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	DB AG	1678381	1633576	72822	67921	43,4	851825	1303614	27085					72846
1999	GVG	.	.	.	.	.	.	.	.					.
1999	KEG	.	.	.	.	.	.	.	.					.
1999	DBS	149328	.	5113	.	34,2	.	.	.	.	.	.	.	.
1999	EusKotren	16865	16865	264	264	15,7				6065	55			319
1999	FEVE	11760	.	212	.	18	.	.	.					212
1999	FGC	56960	.	627	.	11				597	11			638
1999	RENFE	418904	.	18142	.	43,3	54273	.						18142
1999	VR	53209	.	3415	.	64,2	31655	47483	1468					3415
1999	SNCF	850154	821059	66298	57233	78	.	.	.	11201	290			66588
1999	ATOC	947000	.	38300	.	40,4	.	.	.					38000
1999	CH	12268	7067	1583	1207	129	.	.	.	453	266			1849
1999	CIE 98	32146	.	1421	.	44,2				.	.	.	.	.
1999	FS SpA	431502	409280	40971	35980	94,9	75945	75945				6572	89	41060
1999	CFL (1998)	11735	.	300	.	25,6	.	.	.	.	.	.	.	.
1999	NS N.V.	329000	.	14330	.	43,6	.	.	.					14330
1999	CP	164008	163045	4329	4147	26,4	23482	23141	223					4329
1999	BK	.	.	0	.	.	.	.	.					.
1999	MTAB													
1999	SJ	114917	113048	7434	6761	64,7	.	.	.					7434
1999	CFF/SBB/FFS	275909	251345	12615	10788	45,7	.	.	26660					12615
1999	MTAS													
1999	NSB BA	50019	.	2674	.	53,5	.	.	.					2674
1999	BDZ	53112	52697	3819	3683	71,8	1240	1364	18850					3819
1999	BC	168890	.	16874	.	99,9	.	.	3916					16874
1999	CD	175015	174619	6929	6340	39,6			6184					6929
1999	EVR	6769	6769	238	238	35,2								238
1999	MAV Rt.	120586	117879	6699	6430	55,6			21405					6699

A1.3.10. Revenue Earning Passenger Traffic

YEAR	Railway	Rail Traffic								Road traffic		SHIPPING SERVICES		ALL TRAFFIC
		PASSENGER					Baggage							
		NUMBER OF PASSENGER (in thousand)		NUMBER OF PASSENGER-KMS (in million)		Mean Passenger	Accompanied cars		Other	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passengers (1000)	Number of passenger-kms (in millions)	Number of passenger-kms (in million)
		Total	2 CLASS	TOTAL	2 CLASS	col.5*1000/ col.3	Number	Weight (in tonnes)						
1999	LDZ	24862	24122	984	831	39,6			.					984
1999	PKP	324719	321686	21518	20527	66,3	.	.	9412					21518
1999	CFR	129338	125678	12304	11346	95,1			.					12304
1999	SZ	13756	13697	623	614	45,3	809	245						623
1999	ZSR	69431	.	2968	.	42,7			3021					2968
1999	TCDD	98931	77928	6146	2724	62,1			5085			2	0	6146

A1.3.11. Freight Traffic

YEAR	Railway	Rail Traffic – TONNES CARRIED – Revenue-earning traffic – By traffic category – Express parcels and small	Full wagons – total	Full wagons – Full train-loads	Empty private-owner's wagons	Total (col. 3+4+6)	Road units on wagons	Loaded and empty large containers	Departmental Traffic	Grand Total (col. 7+10)	Tonne-Kilometres – Revenue-earning traffic – by traffic category – Express parcels and small traffic	Full wagons – total	Full wagons – Full train-loads	Empty private-owners'wagons	Total (col. 12+13+15)	Departmental Traffic	Grand Total (col. 16+17)	Mean per tonne haulage distance revenue-earning- (col.12+13)*1000/(col.3+4)	Road Traffic – Tonnes carried	Road Traffic – Tonne-Kms	SHIPPING SERVICES – Tonnes carried	SHIPPING SERVICES – Tonne-Kms	ALL TRAFFIC – Tonne-KM (in millions) (col. 18+21+23)
		In thousands										in Millions						in KMS	Thousands	Millions	Thousands	Millions	
1985	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	BR	.	139700	131526	.	.		.	.	.	.	16047	13405	.	.	.	.	.			.	.	.
1985	CFF	1265	43254	13048		44519	2323	2644	2022	46541	155	6894	1783		7049	141	7190	158,3					7190
1985	CFL	10	15891	.	.	.	.	.	.	.	0	599	.	.	.	.	.	.	6	1			.
1985	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	CH	29	4122	.		4151		75	99	4250	9	724	.		733	17	750	176,6					750
1985	CIE		.	.	.	3379	.	.	.	.		.	.	.	601	.	.	177,9	1402	.	.	.	.
1985	CP	83	4605	.	574	5262	.	186	135	5397	25	1171	.	110	1306	19	1325	248,2					1325
1985	CSD	.	.	.	.	292486	.	3661	1015	293501	.	.	.	.	66119	84	66203	226,1					66203
1985	DB	3079	290400	172476		293479	11322	10426	10611	304090	975	61936	29797		62911	1570	64481	214,4	21631	3896	2439	49	68427
1985	DR	2238	326899	.	.	329137	605	4494	8844	337981	405	57177	.	.	57582	1105	58687	174,9			637	53	58740
1985	DSB	425	6956	.	.	.	.	.	262	.	100	1649	.	.	.	72	.	.	.	.	.	.	.
1985	FS	249	48416	.	4181	52846	.	.	5588	58434	110	16742	.	1111	17963	1034	18997	339,9	299	8	.	.	.
1985	JZ	600	90069	.	.	90669	.	.	.	.	255	28464	.	.	28719	.	.	316,7	.	.			28719
1985	MAV	217	112697	.	.	112914		1685	3945	116859	58	21381	.	.	21439	490	21929	189,9					21929
1985	NS	2	20366	10469	.	20368	284	3179	1135	21503		3269	1801	.	3269	81	3350	160,5					3350
1985	NSB	44	25487		.	.	.	.	418	.	10	2867		.	.	55	.	.	540	24			.
1985	OBB	340	55165	.	2704	58209	1860	2180	2431	60640	71	11221	.	611	11903	292	12195	204,5	1169	.			.
1985	PKP	426	408197	137414	.	408623	.	1423	10964	419587	165	118698	.	.	118863	1821	120684	290,9					120684
1985	RENFE	469	29666	.	8132	38267		3023	1548	39815	267	11148	.	3131	14546	239	14785	380,1					14785
1985	SJ	1339	51959	28204	564	53862	716	901	351	54213	468	16863	5060	256	17587	119	17706	326,5	.	.	1581	41	.
1985	SNCB/NMBS	248	72439	31287	13390	86077	438	4236	1469	87546	23	8254	3700	1120	9397	103	9500	109,2					9500
1985	SNCF	1934	158426	85157		160360	3711	7350	8212	168572	896	54225	23863		55121	1834	56955	343,7	1303	657	.	.	.
1985	VR	650	29988	.	.	30638	.	605	693	31331	216	7850	.	.	8066	.	8066	263,3	.	.			.
1985	TCDD	44	14278	.		14322			703	15025	29	7719	.		7748	211	7959	540,9					7959
1986	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	BR	.	138369	130307	.	.		.	.	.	.	16565	13519	.	.	.	.	.					.
1986	CFF	1314	43813	12135	.	45127	2527	2603	2270	47397	161	6805	1474	.	6966	151	7117	154,4	.	.			.
1986	CFL	9	14572	.	.	14581		.	104	14685	0	543	.	.	543	3	546	37,2	11	0			546
1986	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	CH	31	4093	.	40	4164	39	105	98	4262	10	678	.	14	702	17	719	166,8					719
1986	CIE		3126	.	.	3126	1123	.	.	.		574	.	.	574	.	.	.	1171	.	.	.	.
1986	CP	70	5240	.	629	5939	.	95	126	6065	21	1307	.	120	1448	18	1466	250					1466
1986	CSD	.	.	.	.	295770	.	3934	1067	296837	.	.	.	.	69315	86	69401	234,4					69401
1986	DB	3164	274077	165333	.	277241	11764	10939	10439	287680	992	58589	28435	.	59581	1599	61180	214,9	24585	3934	2459	49	65163
1986	DR	2157	325912	.	.	328069	660	4650	8103	336172	390	57526	.	.	57916	984	58900	176,5			657	30	58930
1986	DSB	440	6996	.	.	7436	11	.	279	7715	104	1687	.	.	1791	73	1864	.	.	.	.	.	.
1986	FS	388	51335	.	.	51723	4707	4855	5500	57223	172	17304	.	.	17476	825	18301	337,9	.	.	.	.	.
1986	JZ	579	89228	.	.	89807	.	.	862	90669	241	27332	.	.	27573	.	.	307	.	.			.
1986	MAV	117	114326	.	.	114443		1967	4064	118507	30	21711	.	.	21741	502	22243	190					22243
1986	NS	2	19071	10123	.	19073	416	3129	1177	20250	0	3107	1742	.	3107	92	3199	162,9					3199
1986	NSB	43	25191		.	25234	.	.	460	25694	10	2944		.	2954	61	3015	117,1	691	31			3046
1986	OBB	320	52261	.	2492	55073	2490	2396	2530	57603	67	10635	.	571	11273	326	11599	203,5	1104	.			.
1986	PKP	441	419513	145506	.	419954	.	1516	10935	430889	166	119877	.	.	120043	1776	121819	285,9					121819
1986	RENFE	437	28974	.	7716	37127		3268	1616	38743	254	10823	.	2917	13994	222	14216	376,6					14216
1986	SJ	1273	51416	28265	620	53309	997	1931	426	53735	438	17033	5150	283	17754	123	17877	331,6			1714	40	17917
1986	SNCB/NMBS	206	63119	35021	12108	75433	837	3836	1514	76947	19	7423	3795	1082	8524	115	8639	117,5					8639
1986	SNCF	1890	142628	77062	.	144518	4136	7014	7846	152364	870	50146	22050	.	51016	1740	52756	353	1344	671	.	.	.
1986	VR	754	29923	.	.	27677	.	427	653	28330	259	6692	.	.	6951	82	7033	251,1	.	.			.
1986	TCDD	39	13669		.	13708			578	14286	25	7194		.	7219	177	7396	526,6					7396
1987	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	BR	.	144500	.	.	.		.	.	.	.	17466	.	.	.	.	.	.					.
1987	CFF	1361	43070	11378	.	44431	2625	2820	2159	46590	166	6646	1393	.	6812	150	6962	153,3					6962
1987	CFL	8	12990	.	1680	14678	.	.	112	14790	0	499	.	89	588	4	592	38,4	12	1			593
1987	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	CH	21	3739	.	24	3784	29	128	77	3861	7	584	.	8	599	11	610	157,2					610
1987	CIE		.	.	.	3014	.	.	.	.		.	.	.	563	.	.	.	1201	.	.	.	.
1987	CP	67	5680	.	678	6425	.	134	218	6643	20	1465	.	129	1614	34	1648	258,4					1648
1987	CSD	.	.	.	.	290395	.	3154	967	291362	.	.	.	.	67901	84	67985	233,8					67985
1987	DB	3117	266227	162980	.	269344	12153	11711	8593	277937	976	57071	27898	.	58047	1284	59331	215,5	23964	3875	2515	50	63256

A1.3.11. Freight Traffic

		Rail Traffic																	Road Traffic		SHIPPING SERVICES		ALL TRAFFIC
		TONNES CARRIED									Tonne-Kilometres							Mean per tonne haulage distance revenue-earning- (col.12+13)*1000/(col.3+4)					
		Revenue -earning traffic									Revenue-earning traffic												
		By traffic category									by traffic category												
		Express parcels and small	Full wagons total	Full wagons Full train-loads	Empty private-owner's wagons	Total (col. 3+4+6)	Road units on wagons	Loaded and empty large containers	Departmental Traffic	Grand Total (col. 7+10)	Express parcels and small traffic	Full wagons total	Full wagons Full train-loads	Empty private-owners'wagons	Total (col. 12+13+15)	Departmental Traffic	Grand Total (col. 16+17)		Tonnes carried	Tonne-Kms	Tonnes carried	Tonne-Kms	Tonne-KM (in millions) (col. 18+21+23)
YEAR	Railway	In thousands										in Millions						in KMS	Thousands	Millions	Thousands	Millions	
1987	DR	2152	329724	.	.	331876	666	4902	6266	338142	389	57707	.	.	58096	745	58841	175,1			720	34	58875
1987	DSB	436	6796	.	.	7232	.	.	266	7498	102	1578	.	.	1680	68	1748	232,3	.	.	.	.	.
1987	FS	241	54270	.	.	54511	5205	5134	5759	60270	107	18519	.	.	18626	864	19490	341,7	254	7	.	.	.
1987	JZ	490	83697	.	.	84187	.	.	.	84187	207	25864	.	.	26071	.	.	309,7	.	.			.
1987	MAV	145	110859	.	.	111004		1983	3762	114766	35	20877	.	.	20912	475	21837	188,4					21387
1987	NS	2	18623	9589	.	18625	406	3019	1311	19936	0	2995	1629	.	2995	108	3103	160,8					3103
1987	NSB	39	23140		.	23179	.	.	378	23557	9	2765		.	2774	48	2822	119,7	610	27			2849
1987	OBB	473	51806	.	2451	54730	3071	2563	2044	56774	106	10450	.	558	11114	273	11387	201,9	1076	.			.
1987	PKP	418	418438	144940	.	418856	.	1546265	10143	428999	157	119708	.	.	119865	1560	121425	286,2					121425
1987	RENFE	429	28232	.	6080	34741		3734	1502	36243	245	11000	.	2639	13884	230	14114	392,3					14114
1987	SJ	505	50559	26287	657	51721	1490	2164	388	52109	183	17146	4912	301	17630	131	17761	339,4			2060	49	17810
1987	SNCB/NMBS	201	63988	39582	12377	76566	885	4131	1613	78179	18	7266	3957	1088	8372	192	8564	113,5					8564
1987	SNCF	1792	139030	76486	.	140822	3971	6768	8173	148995	814	49786	22988	.	50600	1921	52521	359,3	1471	731	.	.	.
1987	VR	996	29112	.	.	30108	.	462	645	30753	345	7059	.	.	7404	77	7481	245,9	.	.			.
1987	TCDD	35	13838		.	13873			483	14356	23	7236		.	7259	145	7404	522,7					7404
1988	BDZ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	BR	.	149540	.	.	.		7787	.	.	.	18104	.	.	.	.	.	.					.
1988	CFF	1416	46758	12639	.	48174	3373	3263	2348	50522	170	7333	1619	.	7503	166	7669	155,7					7669
1988	CFL	8	14635	.	1824	16467	.	.	109	16576	0	545	.	90	635	4	639	37,2	11	0			639
1988	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	CH	22	4000	.	27	4049	45	128	167	4216	7	589	.	8	604	14	618	148,2					618
1988	CIE		.	.	.	3010	1111	.	.	.		.	.	.	545	.	.	.	1199	.	.	.	.
1988	CP	77	5956	.	565	6598	.	.	277	6875	23	1574	.	111	1708	54	1762	264,7					1762
1988	CSD	.	245996	.	.	293928		4100	1167	295095	.	.	.	.	69430	97	69527	236,2					69527
1988	DB	3102	270826	166682	.	273928	13823	12884	8322	282250	1063	57909	29111	.	58972	1259	60231	215,3	23188	3987	2438	49	64267
1988	DR	2073	334209	.	.	336282	703	5183	9079	345361	375	58999	.	.	59374	1073	60447	176,6			802	38	60485
1988	DSB	428	6955	.	.	7383	.	.	251	7634	101	1556	.	.	1657	65	1722	.	.	.	.	.	.
1988	FS	213	51926	.	5900	58039	6814	5580	5504	63543	94	17769	.	1800	19663	826	20489	338,8	.	.	.	.	.
1988	JZ	427	83143	.	.	83570	.	.	.	.	183	25231	.	.	25414	.	.	304,1	.	.	.	.	.
1988	MAV	138	107564	.	.	107702		2244	3637	111339	33	20222	.	.	20255	482	20737	188,1					20737
1988	NS	0	19557	10004	.	19557	482	3204	1226	20783	0	3200	1750	.	3200	93	3293	163,6					3293
1988	NSB	37	22425		.	22462	.	.	288	22750	9	2567		.	2576	41	2617	114,7	550	26			2643
1988	OBB	623	52525	.	2274	55422	4019	2754	2774	58196	153	10565	.	495	11213	344	11557	201,7	1169	.			.
1988	PKP	439	417286	180534	.	417725	.	1570	10469	428194	163	120508	.	.	120671	1579	122250	288,9					122250
1988	RENFE	430	28098	.	6291	34819		4049	1774	36593	247	11156	.	2649	14052	313	14365	399,7					14365
1988	SJ (BV)	35	52328	27185	680	53043	2058	1998	335	53378	13	17761	5095	320	18094	119	18213	339,4	.	.	2181	57	.
1988	SNCB/NMBS	203	65784	38913	12474	78461	1182	4049	1381	79842	18	7694	4156	1127	8839	166	9005	116,9					9005
1988	SNCF	1897	141396	79585	.	143293	4386	6928	8731	152024	862	50665	24034	.	51527	2240	53676	359,6	1583	760	.	.	.
1988	VR	1133	31873	.	.	33006	185	491	666	33672	384	7432	.	.	7816	78	7894	236,8	.	.			.
1988	TCDD	45	14044	.	264	14353			478	14831	27	7865	.	114	8006	143	8149	559,8					8149
1989	BDZ	888	76375	.	.	77263	.	.	.	77263	.	17034	.	.	17034	.	17034	221,5					17034
1989	BR	.	143100	.	.	143100		.	.	143100	.	16742	.	.	16742	.	16742	117					16742
1989	CFF	1476	49272	12944	.	50748	3981	4167	2321	53069	178	7983	1714	.	8161	169	8330	160,3					8330
1989	CFL	7	15832	.	1900	17739	.	.	169	17848	0	607	.	92	699	4	703	38,3	16	0			703
1989	CFR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	CH	22	3888	.	44	3954	36	168	.	.	8	632	.	17	657	.	.	163,7					.
1989	CIE		3067	.	.	3067	1124	.	.	.		560	.	.	560	.	.	182,6	1225	.	.	.	.
1989	CP	71	6124	.	785	6980	.	.	329	7309	22	1557	.	140	1719	52	1771	254,9					1771
1989	CSD	.	.	.	.	282616	.	3306	1298	283914		.	.	.	66207	106	66313	234,3					66313
1989	DB	3116	275644	170254	.	278760	14915	14828	8762	287522	1071	60038	29937	.	61109	1372	62481	219,2	18657	4108	6236	124	66713
1989	DR	2022	323310	.	.	325332	705	5119	8697	334029	367	57678	.	.	58045	968	59013	178,4			860	41	59054
1989	DSB	399	7256	.	.	7655	.	.	242	7897	93	1585	.	.	1677	63	1740	219,1	.	.	.	.	.
1989	FS	203	55504	.	6297	62004	7920	6776	4744	66748	89	18561	.	1937	20587	712	21299	334,8	.	.	.	.	.
1989	JZ	372	84449	.	.	84821	.	.	.	.	158	25763	.	.	25921	.	.	305,6	.	.			.
1989	MAV	127	100614	.	.	100741		1989	3449	104190	26	19047	.	.	19073	455	19528	189,3					19528
1989	NS	0	19358	9560	.	19358	687	3512	1997	21535	0	3108	1539	.	3108	171	3279	160,6					3279
1989	NSB	30	23402		.	23432			231	23663	10	2739		.	2749	31	2780	117,3	502	30			2810
1989	OBB	676	55550	.	2380	58606	5235	3043	2637	61243	163	11166	.	520	11849	330	12179	201,5	1256	.			.
1989	PKP	411	378903	158602	.	379314	.	1491	9808	389122	162	109431	.	.	109593	1588	111181	288,9					111181
1989	RENFE	360	28993	.	7001	36354		4074	1977	38331	206	11068	.	2774	14048	345	14393	384					14393

A1.3.11. Freight Traffic

		Rail Traffic																	Road Traffic		SHIPPING SERVICES		ALL TRAFFIC
		TONNES CARRIED									Tonne-Kilometres							Mean per tonne haulage distance revenue-earning-					
		Revenue -earning traffic									Revenue-earning traffic												
		By traffic category									by traffic category												
		Express parcels and small	Full wagons total	Full wagons Full train-loads	Empty private-owner's wagons	Total (col. 3+4+6)	Road units on wagons	Loaded and empty large containers	Departmental Traffic	Grand Total (col. 7+10)	Express parcels and small traffic	Full wagons total	Full wagons Full train-loads	Empty private-owners'wagons	Total (col. 12+13+15)	Departmental Traffic	Grand Total (col. 16+17)	(col.12+13)*1000/(col.3+4)	Tonnes carried	Tonne-Kms	Tonnes carried	Tonne-Kms	Tonne-KM (in millions) (col. 18+21+23)
YEAR	Railway	In thousands										in Millions						in KMS	Thousands	Millions	Thousands	Millions	
1989	SJ	17	53670	28471	697	54384	2114	1978	155	54539	7	18207	5518	319	18532	54	18586	339,3			2384	64	18650
1989	SNCB/NMBS	185	65879	39105	12635	78699	1449	4490	2409	81108	17	8049	4466	1209	9275	167	9442	122,1					9442
1989	SNCF	1957	142790	81851	.	144747	4541	7312	9062	153809	890	51559	24995	.	52449	2153	54602	362,3	1751	822	.	.	.
1989	VR	1338	32300	.	.	33638	.	478	673	34311	433	7525	.	.	7958	99	8057	236,6	.	.			.
1989	TCDD	27	12848	.	255	13130	2	42	451	13581	17	7442	.	105	7564	135	7699	579,3			327	29	7728
1990	BDZ		63253	.		63253		1312	.	63253		14132	.		14132	.	14132	223,4					14132
1990	BR	.	138141	.	.	138141		.	.	138141	.	15986	.	.	15986	.	15986	115,7					15986
1990	CFF	1473	50357	13207	.	51830	4688	4186	1882	53172	176	8127	1729	.	8303	146	8449	160,2					8449
1990	CFL	7	15645	.	1808	17460	.	.	111	17571	0	615	.	90	705	4	709	39,3	15	0			709
1990	CFR	871	216912	.	.	217783		7368	1045	218828	218	48540	.	.	48758	154	48912	223,9	.	.	.	.	.
1990	CH	26	3609	.	75	3710	40	174	.	.	9	600		38	647	.	.	167,5					.
1990	CIE		3278	.	.	3278	1218	.	.	.		589	.	.	589	.	.	179,7	1181	.	.	.	.
1990	CP	53	5892	.	738	6683	.	.	235	6918	17	1442	.	130	1589	35	1624	245,4					1624
1990	CSD	.	.	.	.	253045		2983	1297	254342	.	.	.	.	59370	120	59490	234,6					59490
1990	DB	3007	272097	166814	.	275104	18761	15468	7106	282210	1034	60239	29655	.	61357	1163	62520	223	17430	4207	7124	141	66868
1990	DR	1168	222875	.	.	224043	790	2635	9617	233660	218	39591	.	.	39809	1052	40861	177,7			885	42	40903
1990	DSB	396	7567	.	.	7963	.	.	245	8208	93	1637	.	.	1730	63	1793	217,3	.	.	.	.	.
1990	FS	200	59223	.	5998	65421	9059	6890	4524	69945	47	19372	.	1798	21217	685	21902	326,8	.	.	.	.	.
1990	JZ	289	77116	.	.	77405	.	.	.	.	122	23027	.	.	23149	.	.	299,1	.	.			.
1990	MAV	128	84559	.	.	84687		1679	2725	87412	18	16214	.	.	16232	360	16592	191,7					16592
1990	NS		18399	8366	.	18399	761	3651	1767	20166		3070	1463	.	3070	171	3241	166,9					3241
1990	NSB	28	21303	.	.	21331	.	.	215	21546	9	2559		.	2568	29	2597	126,4	602	50			2647
1990	OBB	769	59440	.	2381	62590	7866	3245	3124	65714	175	11983	.	524	12682	411	13093	201,9	1347	.			.
1990	PKP	284	271253	119690	.	271537	.	1180	10211	281748	139	81637	.	.	81776	1774	83550	301,2					83550
1990	RENFE	330	26134	.	6727	33191		3865	2593	35784	187	10555	.	2671	13413	464	13877	405,9					13877
1990	SJ	16	52975	29350	676	53667	2198	2048	149	53816	6	18435	5984	315	18756	67	18823	348			2270	60	18883
1990	BV								.	.						.	.				.		
1990	SNCB/NMBS	179	67126	38575	12244	79549	1729	4921	1305	80854	16	8354	4518	1174	9544	160	9704	124,5					9704
1990	SNCF	2178	138482	80973	.	140660	4576	7087	9700	150360	990	49677	24242	.	50667	2563	53230	360,2	1741	865	.	.	.
1990	VR	1450	33112	.	.	34562	34	441	339	34901	480	7877	.	.	8357	.	.	241,8	.	.			.
1990	TCDD	23	13127	.	299	13449	1	41	384	13833	15	7759	.	135	7909	115	8024	591,2			339	31	8055
1990	BDZ		63253	.		63253		1312	.	.		14132	.		14132	.	.	223,4					.
1991	BDZ		35238	.		35238		.	.	.		8685	.		8685	.	.	246,5					.
1991	BR		135808	.	.	135808	.	.	.	.		17274	3874	.	17274	.	.	127,2	1688	67	1993	439	.
1991	CFF	1391	49306	13414	.	50697	4935	4448	1890	52587	168	7940	1820	.	8108	151	8259	159,9					8259
1991	CFL	6	15539	.	1717	17262	.	.	103	17365	0	622	.	87	709	4	713	40	11	0			713
1991	CFR	607	145034	.	.	145641		.	632	146273	152	32316	.	.	32468	94	32562	222,9					32562
1991	CH	27	3398	.	117	3542	49	.	.	.	10	551		45	606	.	.	163,8					.
1991	CIE		.	.	.	3312	1446	.	.	.		.	.	.	603	.	.	.	1056	.	.	.	.
1991	CP	50	6982	.	692	7724	.	.	335	8059	15	1645	.	123	1783	67	1850	236,1					1850
1991	CSD	.	.	.	.	189692		1523	1633	191325	.	.	.	.	45819	169	45988	241,5					45988
1991	DB	2856	270454	167172	.	273310	19016	15468	6289	279599	976	61015	29885	.	61991	1135	63127	226,8	17551	4465	7935	157	67749
1991	DR	246	111569	.	.	111815	793	709	7824	119639	53	17749	.	.	17802	861	18663	159,2			567	28	18691
1991	DSB	481	7628	.	.	8109	.	.	183	8292	113	1745	.	.	1858	49	1907	229,1	.	.	.	.	.
1991	FS		61020	.	5842	66862	10293	7080	4052	70914		19963	.	1717	21680	618	22298	327,2			.	.	.
1990	JZ	289	77116	.	.	77405	.	.	.	.	122	23027	.	.	23149	.	.	299,1	.	.			.
1991	MAV	52	64415	.	.	64467		.	2216	66683	14	11353	.	.	11367	298	11665	176,3					11665
1991	NS	.	.	7554	.	17760	622	3596	1744	19504	.	.	1375	.	3038	149	3187	171					3187
1991	NSB	.	.	.	.	21571	.	.	145	21716	.	.	.	.	2641	25	2666	122,4	541	44			2710
1991	OBB	710	61506	.	2482	64698	8976	3287	2758	67456	175	12147	.	542	12864	374	13238	198,1	1321	.			.
1991	PKP	149	220446	96123	.	220595	.	571	7255	227850	74	63910	.	.	63984	1177	65161	290,1					65161
1991	RENFE	296	25019	.	5637	30952		3783	2688	33640	164	9858	.	2477	12499	485	12984	395,9					12984
1991	SJ	13	52017	29971	1198	53228	2314	2133	131	53359	6	17974	6157	595	18575	46	18621	345,6					18621
1991	BV								.	.						.	.						.
1991	SNCB/NMBS	172	64497	35732	12496	77165	1735	4730	1409	78574	16	8153	4148	1179	9348	180	9528	126,3					9528
1991	SNCF	2713	136708	80554	.	139421	4782	7757	10354	149775	1235	49397	24420	.	50632	3033	53665	363,2	1769	852	.	.	.
1991	VR	1245	29820	.	.	31065	24	581	311	31376	415	7219	.	.	7634	66	7700	245,7	.	.			.
1991	TCDD	19	14545	.	302	14866	4	68	367	15233	13	7834	.	143	7990	98	8088	538,8			233	21	8109
1992	BR	.	122356	109204	.	.		6365	.	.	.	15508	12160	.	.	.	.	126,7	3257	275			.
1992	CFL	5	15145	.	1594	16744	803	.	73	16817		597	.	72	669	3	672	39,4	9				672

A1.3.11. Freight Traffic

YEAR	Railway	Rail Traffic																	Road Traffic		SHIPPING SERVICES		ALL TRAFFIC
		TONNES CARRIED									Tonne-Kilometres							Mean per tonne haulage distance revenue-earning- (col.12+13)*1000/(col.3+4)					
		Revenue -earning traffic							Department al Traffic	Grand Total (col. 7+10)	Revenue-earning traffic					Department al Traffic	Grand Total (col. 16+17)						
		By traffic category				Total (col. 3+4+6)	Road units on wagons	Loaded and empty large containers			by traffic category				Total (col. 12+13+15)								
		Express parcels and small	Full wagons total	Full wagons Full train-loads	Empty private-owner's wagons						Express parcels and small traffic	Full wagons total	Full wagons Full train-loads	Empty private-owners'wagons					Tonnes carried	Tonne-Kms	Tonnes carried	Tonne-Kms	Tonne-KM (in millions) (col. 18+21+23)
		In thousands										in Millions						in KMS	Thousands	Millions	Thousands	Millions	
1992	CH	16	3274	.	107	3397		119	.	.	5	522		37	564	.	.	160,2					.
1992	CIE		.	.	.	3333	.	.	.	.		.	.	.	633	.	.	189,9	1081	.	.	.	.
1992	CP	43	7398	.	540	7981	5	163	188	8169	13	1754	.	100	1867	40	1907	237,5					1907
1992	DB	2316	249607	156636	.	.	18422	15737	7684	.	784	55064	27682	.	.	1423	.	221,7	14070	3734	8035	159	.
1992	DR	223	85136	.	.	.	878	859	11249	.	50	13625	.	.	.	1246	.	160,2			314	17	.
1992	DSB	524	7721	.	.	.	.	.	168	.	123	1747	.	.	.	39	.	226,8	.	.	.	.	.
1992	FS		59916		7013	66929	11392	7287	3831	70760		19879		2083	21962	586	22548	331,8			.	.	.
1992	NS	.	17124	7187	.	.	489	3601	1825	.	.	2764	1216	.	.	152	.	161,4					.
1992	RENFE	332	22081	.	4265	26678		3687	1594	28272	186	8779	.	2120	11085	287	11372	400					11372
1992	SNCB/NMBS	167	62342	34503	13330	75839	2039	.	1695	77534	15	8074	3954	1361	9450	207	9657	129,4					9657
1992	SNCF	2943	132744	78727	.	.	.	.	9985	.	1343	48193	23818	.	.	2975	.	365,1	1688	834	.	.	.
1992	CFF	1274	46097	13158	.	.	5132	4344	1944	.	150	7513	2084	.	.	160	.	161,8					.
1992	NSB	2450	16036	.	.	.	.	.	145	.	.	.	.	.	2136	25	2161	.	570	40			2201
1992	OBB	672	58893	.	2960	62525	9009	2862	2898	65423	173	11428	.	606	12207	402	12609	194,8	1322	.	.	.	.
1992	BV								.	.						.	.	.					.
1992	SJ	11	50267	27480	1187	51465	2456	2645	112	51577	5	18537	5954	660	19202	33	19235	368,8					19235
1992	VR	1381	31206	.	.	.	.	417	333	.	417	7431	.	.	.	77	.	240,8	.	.			.
1992	BC	.	.	67483	.	.	.	.	.	174946	.	.	.	.	.	.	56441	322,6					56441
1992	BDZ	.	.	.		.		206	.	32261	.	.	.	.	.	.	7758	240,5					7758
1992	CFR	244	110334	.	.	.			841	.	61	24169	.	.	.	157	.	219,1					.
1992	CSD	.	.	.	.	169243		1273	1228	170471	.	.	.	.	44046	141	44187	260,3					44187
1992	EVR		.	.	.	.		26	.	27156		.	.	.	.	.	3373	124,2					3373
1992	LDZ	.	.	.	.	.		54	.	31807	.	.	.	.	.	.	10115	318					10115
1992	MAV	15	51541	.	.	.		.	1244	.	4	9576	.	.	.	170	.	185,8					.
1992	PKP	102	196713	82691	.	196815	.	282	4887	201702	48	56903	.	.	56951	823	57774	289,4					57774
1992	SZ	18	13027	.	.	.	336	329	.	.	3	2571	.	.	.	.	.	197,3	859	2			.
1992	TCDD	16	15422	.	326	15764	3	97	458	16222	11	8081	.	150	8242	137	8379	524,2			206	19	8398
1993	BR	.	.	.	.	.	.	.	.	103300	.	.	.	.	.	.	13765	133,3	.	.			13765
1993	CFL	3	16184	.	1122	17309	118	.	48	17357	0	607	.	39	646	1	647	37,5	9	0			647
1993	CH	13	3312	.	92	3417		78	.	.	4	499	.	21	524	.	.	151,3					.
1993	CIE	.	.	.	.	3061	.	.	.	.	.	.	.	.	575	.	.	187,8	1011	.	.	.	.
1993	CP	4	7231	.	620	7855	.	.	124	7979	1	1665	.	121	1787	24	1811	230,3					1811
1993	DB	2043	228529	188695	.	.	19020	15034	5274	.	702	51084	33793	.	.	915	.	224,6	8728	2494	2107	41	.
1993	DR	226	80153	.	.	.	1204	1288	7625	.	42	12449	.	.	.	862	.	155,4			735	38	.
1993	DSB	548	7998	.	.	.	.	.	160	.	128	1668	.	.	.	46	.	210,2	.	.	.	.	.
1993	FS		58886		6712	65598	12294	9000	2959	68557		18377		1849	20226	444	20670	312,1					20670
1993	NS		16728	6865	.	.	546	3557	1663	.	.	2681	1144	.	.	129	.	160,3					.
1993	RENFE	347	18902	.	3159	22408		3392	1021	23429	196	7362	.	1337	8895	184	9079	392,6					9079
1993	SNCB/NMBS	168	57694	29828	10817	68679	3459	.	2020	70699	15	7568	3375	1031	8614	225	8839	131,1					8839
1993	SNCF	3141	116684	70297	.	.	13934		7676	.	1437	43596	22422	.	.	1959	.	375,8	1664	831	.	.	.
1993	CFF	1159	42971	13530	.	.	6013	4234	2164	.	138	7190	2334	.	.	179	.	166,1					.
1993	NSB	.	20166	1809	.	.	.	.	82	82	.	2853	335	.	.	19	.	141,5	574	40			.
1993	OBB	442	56997	.	2842	60281	8926	3857	3669	63950	110	11113	.	575	11798	536	12334	195,4	1270	.	.	.	.
1993	BV								.	.							.	.	.				.
1993	SJ	15	50361	27898	1131	51507	2166	1707	96	51603	7	18126	5843	612	18745	30	18775	360					18775
1993	VR	1759	36109	.		.	.	615	246	.	522	8737	.		.	65	.	244,5	.	.			.
1993	BC	.	.	44838		.	.	.	.	132869	.	.	.		.	.	42919	323					42919
1993	BDZ	.	.	.	.	.	.	.	.	31417	.	.	.	.	.	.	7702	245,2					7702
1993	CD	.	.	.	.	122959		887	741	123700	.	.	.	.	25201	71	25272	205	.	.	.	.	.
1993	CFR	88	97890	.	.	.		.	895	.	22	21827	.	.	.	175	.	223					.
1993	EVR	.	.			.		209	.	24227	.	.			.	.	3743	154,5					3743
1993	LDZ		.	.	.	.			.	30574		.	.	.	.	.	9852	322,2					9852
1993	MAV	8	38714		3791	42513	1488	484	1004	43517	2	6883		636	7521	138	7659	177,8					7659
1993	PKP	105	208186	72950	.	208291	.	502	5953	214244	57	63189	.	.	63246	1123	64369	303,6					64369
1993	SZ	18	11882		.	.	304	340	.	.	2	2260		.	.	.	.	190,1					.
1993	ZSR	17	64570	16659	.	64587	.	641	238	64825	3	13884	3832	.	13887	29	13916	215					13916
1993	TCDD	15	15538	.	256	15809	3	195	356	16165	10	8277	.	119	8406	107	8513	532,8			55	5	8518
1994	BR	13	97343	97343	.	.	.	.	.	.	.	12992	12992	.	.	.	.	133,4					.
1994	Railtrack								.	.						.	.	.					.
1994	CFL	3	17863	.	1282	19148	38	.	65	19213	0	645	.	39	684	2	686	36,1					686

A1.3.11. Freight Traffic

YEAR	Railway	Rail Traffic – Tonnes carried – Revenue-earning traffic – By traffic category – Express parcels and small	Full wagons – total	Full wagons – Full train-loads	Empty private-owner's wagons	Total (col. 3+4+6)	Road units on wagons	Loaded and empty large containers	Departmental Traffic	Grand Total (col. 7+10)	Tonne-Kilometres – Revenue-earning traffic – By traffic category – Express parcels and small traffic	Full wagons – total	Full wagons – Full train-loads	Empty private-owners'wagons	Total (col. 12+13+15)	Departmental Traffic	Grand Total (col. 16+17)	Mean per tonne haulage distance revenue-earning- (col.12+13)*1000/ (col.3+4)	Road Traffic – Tonnes carried	Road Traffic – Tonne-Kms	Shipping Services – Tonnes carried	Shipping Services – Tonne-Kms	All Traffic – Tonne-KM (in millions) (col. 18+21+23)
		In thousands										in Millions						in KMS	Thousands	Millions	Thousands	Millions	
1994	CH	12	1319	.	44	1375		46	.	.	4	306	.	14	324	.	.	232,9					.
1994	CIE	.	.	.	.	3015	.	.	.	.	.	.	.	.	569	.	.	188,7	937	.	.	.	.
1994	CP		7139	.	822	7961	.	307	.	.		1635	.	190	1825	.	.	229,0					.
1994	DB AG	2149	306914	200513	.	.	24261	16440	6397	.	779	69775	37563	.	.	846	.	228,3			.	.	.
1994	DSB	651	9010	.	.	.	.	.		.	154	1854	.	.	.		.	207,8	.	.	.	.	.
1994	FS		67021		7373	74394	14877	10714	3530	77924		20473		2090	22563	745	23308	305,5					23308
1994	NS	.	17816	7160	.	.	675	4033	1160	.	.	2830	1218	.	.	90	.	158,8					.
1994	RENFE	439	20830	.	3105	24374		3882	600	24974	234	8348	.	1302	9884	120	10004	403,5					10004
1994	SNCB/NMBS	177	63411	35037	12810	76398	9350		2808	79206	16	8084	3832	1201	9301	273	9574	127,4					9574
1994	SNCF	3485	123893	74334	.	.	16612		6678	.	1597	47153	23686	.	.	1735	.	382,7	1931	989	.	.	.
1994	CFF/SBB/FFS	1100	46440	16841	.	.	7829	3727	2121	.	132	7926	3107	.	.	186	.	169,5					.
1994	NSB	.	19997	1787	.	.	.	.	.	.	.	2678	331	.	.	.	.	133,9	615	47			.
1994	OBB	451	62504	.	3193	66148	10685	3629	3300	69448	114	12292	.	643	13049	479	13528	197,1	1340	.	.	.	.
1994	BV								.	.						.	.						.
1994	SJ	13	53981	30063	1030	55024	1329	2231	108	55132	5	18586	6169	469	19060	30	19090	344,3					19090
1994	VR	1736	38414	.		40150	.	788	332	40482	536	9413	.		9949	79	10028	247,8	.	.			.
1994	BC	.	.	27323	.	.	.	.	.	83575	.	.	.	.	.	.	27963	334,6					27963
1994	BDZ	45	29620		.	.	222	985	609	.	10	7740		.	.	24	.	261,3					.
1994	CD	18	109994	37018	306	110318	2036	892	293	110611	4	22789	.	30	22823	37	22860	207,2					22860
1994	CFR	42	98148	.	.	.		.	989	.	10	21543	.	.	.	193	.	219,5					.
1994	EVR	.	.			.		132	.	22612	.	.			.	.	3326	147,1					3326
1994	LDZ	.	.	.	.	.			.	27796	.	.	.	.	.	.	9520	342,5					9520
1994	MAV	9	38777		4403	43189	748	578	1069	44258	2	6538		753	7293	149	7442	168,6					7442
1994	PKP	97	208885	69953	.	208982	.	870	5796	214778	48	64671	.	.	64719	1080	65799	309,7					65799
1994	SZ	23	12069	.	928	13020	438	559	.	.	3	2295	.	150	2448	.	.	190,0					.
1994	ZSR	16	58937	15483	.	58953	.	593	206	59159	2	12332	3796	.	12334	21	12355	209,2					12355
1994	TCDD	20	14398	.	257	14675	4	133	412	15087	12	8086	.	117	8215	123	8338	561,7			94	9	8347
1995	BR	0	94000	.	.	.		.	0	12537	.	.	.		.	133,4							.
1995	Railtrack						.	.						.	.	.							.
1995	CFL	2	15355	.	1159	16516	66	16582	0	529	.	35	564	2	566	34,4	223	139	3036	.			566
1995	CH	13	1335	.	43	1391	55	1446	4	288	.	14	306	7	313	216,6	2	1	34	.			313
1995	CIE	.	.	.	.	3179	.	.	.	.	.	.	602	.	.	189,4	.	.	.	.	915	.	.
1995	CP		8406	.	1204	9610	.	.		2019	.	324	2343	.	.	240,2	.	.	.	.			.
1995	DB AG	2002	300374	197327	.	.	6708	.	748	68742	38254	.	.	1033	.	229,8	2860	1680	30126	13564			.
1995	DSB	671	8530	.	.	.	271	.	159	1767	.	.	.	63	.	209,3	.	82	2946	593			.
1995	FS		73536		8134	81670	2790	84460		22243		2282	24525	589	25114	302,5	.	.	27725	7907			25114
1995	NS	.	20900	.	.	.	.	.	.	3097	.	.	.	.	.	148,2	.	.	.	.	.	.	.
1995	OBB	468	64864	.	3142	68474	2231	70705	119	12965	.	630	13714	301	14015	200,3	810	623	14799	1803	1366	.	.
1995	RENFE	397	24250	.	3334	27981	489	28470	207	9804	.	1412	11423	66	11489	406,2	509	340	4467	2956			11489
1995	SJ	14	54639	33175	1066	55719	87	55806	6	18536	6941	437	18979	29	19008	339,3	.	256	4833	2652			19008
1995	BV						.	.						.	.	.							.
1995	SNCB/NMBS	189	59736	31869	12388	72313	2571	74884	17	7287	3245	1120	8424	243	8667	121,9	575	418	9049	1532			8667
1995	SNCF	3431	119936	71413	.	.	6596	.	1573	46564	22856	.	.	1703	.	390,2	1202	872	17556	10981	2086	1033	.
1995	VR	841	39387	.	.	.	210	.	266	9293	.	.	.	50	.	237,6	.	.	.	.	.	.	.
1995	RHK						.	.						.	.	.							.
1995	CFF/SBB/FFS	537	46810	17274	.	.	2061	.	60	8096	3107	.	.	1832	.	172,3	1110	382	8881	3030			.
1995	NSB	.	20909	.	.	.	.	.	.	2715	.	.	.	.	.	129,6	.	.	.	.	609	45	.
1995	BC	.	.	.	.	.	.	73438	.	.	.	.	.	.	25510	347,4	.	.	.	.	.	.	25510
1995	BDZ	125	32791	.	.	.	.	.	35	8560	.	.	.	.	.	261,1	27	14	296	107			.
1995	CD	.	108775	40800	.	.	80	.	.	22634	7201	.	.	10	.	208,1	.	228	2853	447			.
1995	CFR	32	104242	.	.	.	857	.	8	24033	.	.	.	179	.	230,6	62	31	748	187	7	5	.
1995	EVR	.	23694	.	.	.		.	.	3573	.	.	.	.	.	150,8	.	.	.	.			.
1995	LDZ	.	28840	.	.	.	.	.	.	9757	.	.	.	.	.	338,3	.	.	.	.			.
1995	MAV	8	41239	.	4341	45588	766	46354	1	7253	.	777	8031	101	8132	175,9	233	197	3247	549			8132
1995	PKP	50	220857	55128	.	.	4490	.	16	68190	16863	.	.	.	.	308,8	79	59	929	438			.
1995	SZ	.	220857	.	.	.	.	.	.	2881	.	.	.	.	.	209,2	.	.	.	.	.	.	.
1995	ZSR	17	60759	16739	.	.	253	.	1	13762	3889	.	.	26	.	226,5	26	26	304	.			.
1995	TCDD	17	15034	.	237	15288	386	15674	10	8399	.	107	8516	116	8632	558,7	7	5	144	.			8632
1996	ATOC																						
1996	Railtrack						.	.						.	.	.							.

A1.3.11. Freight Traffic

YEAR	Railway	Rail Traffic – TONNES CARRIED – Revenue-earning traffic – By traffic category – Express parcels and small	Full wagons – total	Full wagons – Full train-loads	Empty private-owner's wagons	Total (col. 3+4+6)	Road units on wagons	Loaded and empty large containers	Departmental Traffic	Grand Total (col. 7+10)	Rail Traffic – Tonne-Kilometres – Revenue-earning traffic – By traffic category – Express parcels and small traffic	Full wagons – total	Full wagons – Full train-loads	Empty private-owners'wagons	Total (col. 12+13+15)	Departmental Traffic	Grand Total (col. 16+17)	Mean per tonne haulage distance revenue-earning- (col.12+13)*1000/(col.3+4)	Road Traffic – Tonnes carried	Road Traffic – Tonne-Kms	SHIPPING SERVICES – Tonnes carried	SHIPPING SERVICES – Tonne-Kms	ALL TRAFFIC – Tonne-KM (in millions) (col. 18+21+23)
		In thousands										in Millions						in KMS	Thousands	Millions	Thousands	Millions	
1996	RfD Ltd		.	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.			.
1996	BK																						
1996	CFL	0	15098	10711	1279	16377	133	16510	0	530	364	40	570	4	574	35,1	.	137	3158	111			574
1996	CH	13	2144	2144	47	2204	.	.	4	333	333	13	350	.	.	156,2	3	2	58	.			.
1996	CIE	.	.	.	.	3130	.	.	.	.	.	.	570	.	.	182,1	.	.	1059	.	832	.	.
1996	CP	0	7868	.	1197	9065	.	.	0	1857	.	320	2177	.	.	236	.	.	.	.			.
1996	DB AG	1400	287877	194920	.	.	10396	.	511	67369	39262	.	.	2022	.	234,7	3220	1739	26354	13094			.
1996	DSB	603	7534	.	.	.	.	.	144	1613	.	.	.	.	.	215,9	.	.	.	.			.
1996	FS SpA		68627	.	7985	76612	3249	79861		21080	.	2280	23360	634	23994	307,2	1582	1149	29115	8405			23994
1996	NS	.	20800	.	.	.	.	.	.	3123	.	.	.	.	.	150,1	378500	.	5930	943			3123
1996	OBB	486	65552	.	3910	69948	2405	72353	127	12995	.	788	13910	324	14234	198,7	926	677	16528	3333	1287	.	14234
1996	RENFE	123	23957	.	3585	27665	432	28097	.	9735	.	1461	11196	59	11255	404,3	752	578	6017	3262			11255
1996	SJ	13	52827	33378	1062	53902	84	53986	5	17988	7712	463	18456	25	18481	340,5	.	247	4511	2463			.
1996	BV						.	.						.	.	.							.
1996	SNCB/NMBS		57095	36935	12031	69126	3214	72340		7244	4240	1210	8454	278	8732	126,9	601	365	9632	1606	236	21	8753
1996	SNCF	2625	123813	74780	33953	160391	7400	167791	1198	48314	23230	10713	60225	1800	62025	391,6	1306	950	19062	12236	2038	987	63012
1996	VR		37717	.		37717	83	37800		8806	.		8806	23	8829	233,5	.	.	.	.			8829
1996	RHK						.	.						.	.	.							.
1996	CFF/SBB/FFS	534	43566	16800	.	.	1990	.	59	7323	3148	.	.	173	.	167,4	1058	436	11058	2905			.
1996	NSB BA	.	14559	.	.	.	.	.				.	.	.	.	181,1	.	.	.	.	.	.	.
1996	JBV						.	.						.	.	.							.
1996	BC	.	.	.	.	.	.	75886	.	.	.	.	.	.	26018	342,9	.	.	.	.			26018
1996	BDZ	176	29942	.	.	30118	.	.	52	7465	.	.	7517	32	7549	249,6	28	14	474	166			7549
1996	CD	10	107157	43875	16	107183	67	107250	3	22326	7618	4	22333	9	22342	208,4	.	254	3960	565			22342
1996	CFR	34	104461	.	.	104495	545	105040	9	24146	.	.	24155	99	24254	231,2	90	45	2464	616			24254
1996	EVR	.	24850	.	.	.	.	.	.	3894	.	.	.	.	.	156,7	.	.	.	.			.
1996	LDZ	.	35264	.	.	.	.	.	.	12413	.	.	.	.	.	352							.
1996	MAV Rt.	27	39381	.	4482	43890	698	44588	5	6532	.	781	7318	91	7409	165,9	313	274	4710	.			7409
1996	PKP	58	218871	62377	.	218929	4670	223599	19	67394	17758	.	67413	937	68350	307,9	102	75	1229	549			68350
1996	SZ	17	11970	.	1168	13155	.	.	2	2341	.	207	2550	.	.	195,5	73	61	1124	199	470	10	2560
1996	ZSR	14	57465	16425	.	.	668	.	3	11877	3137	.	.	73	.	206,7	.	22877	312	65			.
1996	TCDD	17	15609	.	230	15856	345	16201	10	8796	.	108	8914	104	9018	563,5	643	8	8995	.			9018
1997	ATOC						.	.													.	.	.
1997	EW&S	.	.	.	.	105400	.	.	.	.	.	.	.	.	16900	.	.	160,3			.	.	.
1997	BK		.			.	.	.	.	81		.			.	.	.	.			.	.	.
1997	CFL	0	16146	11294	1387	17533	.	.	67	17600	0	566	385	43	609	2	611	35,1	.	.	.	.	.
1997	CH	13	2085	2085	94	2192	.	.	27	2219	4	313	313	14	331	3	334	151,1			.	.	.
1997	CIE	.	.	.	.	2917	.	.	.	.	.	.	.	.	522	.	.	179	.	.	.	.	.
1997	CP		9308	.	1449	10757	.	.	.	.		2247	.	385	2632	.	.	241,4			.	.	.
1997	DB AG	600	294878	197437	.	.	.	.	4911	.	225	72389	41896	.	.	1057	.	245,8			.	.	.
1997	DSB	.	8311	.	.	.	.	.	.	.	.	1619	.	.	.	.	.	194,8			.	.	.
1997	FS SpA		74727	.	8238	82965	.	.	3336	86301		22903	.	2325	25228	689	25917	306,5			.	.	.
1997	NS N.V.	.	22800	.	.	.	.	.	.	.	.	3406	.	.	.	.	.	.			.	.	.
1997	OBB	530	69637	.	4180	74347	.	.	2534	76881	135	13787	.	869	14791	347	15138	198,4			.	.	.
1997	RENFE	.	24983	.	3655	28638	.	.	416	29054	.	10956	.	1449	12405	71	12476	438,5			.	.	.
1997	BV						.	.	.	.						.	.	.			.	.	.
1997	MTAB		25953	25953	.	.	.	.	.	.		3945	3945	.	.	.	.				.	.	.
1997	SJ	13	27859	9009	1094	28966	.	.	64	29030	6	14176	3911	538	14720	23	14743	508,8			.	.	.
1997	SNCB/NMBS		58849	39815	12420	71269	.	.	2860	74129		7465	4453	1236	8701	269	8970	126,9	216	19	.	.	.
1997	SNCF	2689	132225	78478	34795	169709	.	.	7001	176710	1228	52627	24854	11293	65148	1620	66768	399,2	2007	962	.	.	.
1997	VR		40321			40321	.	.	79	40400		9856			9856	20	9876	244,4			.	.	.
1997	CFF/SBB/FFS	514	46969	18044	.	.	.	.	2012	.	58	8108	4833	.	.	174	.	172			.	.	.
1997	MTAS		15449	.	.	.	.	.	.	.		618	.	.	.	.	.	40					
1997	NSB BA	.	6576	.	.	.	.	.	.	.	.	2399	.	.	.	.	.	364,8			.	.	.
1997	BC	.	.	.	.	.	.	.	.	88245	.	.	.	.	.	.	30636	347,2			.	.	.
1997	BDZ	195	29025	.	.	.	.	.	.	.	52	7353	.	.	.	39	.	253,4			.	.	.
1997	CD	0	103300	46127	7	103307	.	.	60	103367	0	20732	7930	1	20733	7	20740	200,7			.	.	.
1997	CFR	14	93353	.	.	93367	.	.	516	93883	4	22024	.	.	22028	83	22111	235,9			.	.	.
1997	EVR	.	29265	.	.	.	.	.	.	.	.	4806	.	.	.	.	.	164,2			.	.	.
1997	LDZ	.	41019	.	.	.	.	.	.	.	.	13970	.	.	.	.	.	340,6			.	.	.

A1.3.11. Freight Traffic

YEAR	Railway	Rail Traffic: TONNES CARRIED – Revenue-earning traffic – By traffic category – Express parcels and small	Full wagons – total	Full wagons – Full train-loads	Empty private-owner's wagons	Total (col. 3+4+6)	Road units on wagons	Loaded and empty large containers	Departmental Traffic	Grand Total (col. 7+10)	Tonne-Kilometres – Revenue-earning traffic – By traffic category – Express parcels and small traffic	Full wagons – total	Full wagons – Full train-loads	Empty private-owners'wagons	Total (col. 12+13+15)	Departmental Traffic	Grand Total (col. 16+17)	Mean per tonne haulage distance revenue-earning- (col.12+13)*1000/(col.3+4)	Road Traffic – Tonnes carried	Road Traffic – Tonne-Kms	SHIPPING SERVICES – Tonnes carried	SHIPPING SERVICES – Tonne-Kms	ALL TRAFFIC – Tonne-KM (in millions) (col. 18+21+23)
		In thousands										in Millions						in KMS	Thousands	Millions	Thousands	Millions	
1997	MAV Rt.	3	40358	.	5131	45492	.	.	526	46018	0	6942	.	861	7803	70	7873	172			.	.	.
1997	PKP	62	222233	102680	.	222295	.	.	4730	227025	19	67660	30909	.	67679	991	68670	304,5			.	.	.
1997	SZ	16	13016	3737	1328	14360	.	.	.	.	2	2621	859	229	2852	.	.	201,3			.	.	.
1997	ZSR	4	59373	16970		59377	.	.	480	59857	1	12367	3266		12368	57	12425	208,3			.	.	.
1997	TCDD	14	17106	.	285	17405	.	.	341	17746	8	9480	.	126	9614	102	9716	554,2			.	.	.
1998	ATOC																						
1998	EW&S	.	.	.	.	105200	.	.	.	.	.	.	.	.	17668	.	.	167,9	.	.	.	.	.
1998	CFL		16561	11186	1536	18097	.	.	47	18144		574	377	48	622	1	623	34,7	.	.	.	.	.
1998	CH	12	2128	2128	33	2173	.	.	.	.	4	322	310	8	334	.	.	152,3			.	.	.
1998	CIE	.	.	.	.	2780	.	.	.	.	.	.	.	.	466	.	.	167,6	.	.	.	.	.
1998	CP		8966	.	1136	10102	.	.	.	.		2048	.	292	2340	.	.	228,4			.	.	.
1998	DB AG		288327	189865	.	.	.	.	2990	.		73613	41390	.	.	490	.	255,3			.	.	.
1998	GVG						.	.													.	.	.
1998	DSB	584	7404	.	.	.	.	.	.	.	133	1925	.	.	.	.	.	257,6			.	.	.
1998	FS SpA		75825	.	8226	84051	.	.	3276	87327		22454	.	2249	24704	662	25366	296,1			.	.	.
1998	NS N.V.	.	.	.	.	24700	.	.	.	.	.	.	.	.	3778	.	.	153			.	.	.
1998	OBB	564	71845	.	4099	76508	.	.	3044	79552	135	14352	.	861	15348	430	15778	200,1	1348	.	.	.	.
1998	RENFE		24974	.	3743	28717	.	.	679	29396		11214	.	1517	12731	102	12833	449			.	.	.
1998	FEVE	.	.	.	.	.	.	.	.	2380	.	.	.	.	.	.	388	162,8			.	.	.
1998	FGC	.	.	.	.	.	.	.	.	543	.	.	.	.	.	.	30	55,2			.	.	.
1998	BV						.	.	.	.						.	.	.			.	.	.
1998	BK	.	.	.	.	.	.	.	.	.	.	.	.	.	59	.	.	.			.	.	.
1998	MTAB 97		25953	25953	.	.	.	.	.	.		3945	3945	.	.	.	.	152			.	.	.
1998	SJ	13	27779	8730	1071	28863	.	.	44	28907	5	14249	3894	532	14786	17	14803	512,9			.	.	.
1998	SNCB/NMBS		60696	41528	11678	72374	.	.	1248	73622		7600	4560	1164	8764	97	8861	125,2	233	20	.	.	.
1998	SNCF	2838	133815	80025	35778	172431	.	.	6017	178448	1297	52662	25154	11558	65517	1437	66954	394,9	2286	1133	.	.	.
1998	VR		40740	.		40740	.	.	.	.		9885	.		9885	24	9909	242,6			.	.	.
1998	CFF/SBB/FFS	515	49205	19537	.	.	.	.	2140	.	58	8680	3924	.	.	186	.	175,7			.	.	.
1998	MTAS		14233	.	.	.	.	.	.	.		555	.	.	.	.	.	39			.	.	.
1998	NSB BA	.	7458	.	.	.	.	.	.	.	.	2421	.	.	.	.	.	324,6	.	.	.	.	.
1998	BC	.	.	.	.	.	.	.	.	87903	.	.	.	.	.	.	30370	345,5			.	.	.
1998	BDZ	148	24313	.	.	.	.	.	.	.	45	6070	.	.	.	37	.	250			.	.	.
1998	CD		93461	44557	10	93471	.	.	61	93532		18286	7608	2	18288	7	18295	195,7			.	.	.
1998	CFR	8	75986	.	.	75994	.	.	518	76512	2	17582	.	.	17584	92	17676	231,4			.	.	.
1998	EVR	.	31940	.	.	.	.	.	.	.	.	5786	.	.	.	.	.	181,2			.	.	.
1998	LDZ	.	37857	.	.	.	.	.	.	.		12995	.	.	.	.	.	343,3			.	.	.
1998	MAV Rt.	4	41454	.	5265	46723	.	.	574	47297	1	6916	.	815	7732	74	7806	166,8			.	.	.
1998	PKP	45	202806	99133	.	202851	.	.	3586	206437	14	60923	29516	.	60937	837	61774	300,4			.	.	.
1998	SZ	21	13130	3910	1245	14396	.	.	.	.	0	2633	859	227	2860	.	.	200,2			.	.	.
1998	ZSR	14	56569	16168		56583	.	.	488	57071	3	11753	3099		11756	17	11773	207,8			.	.	.
1998	TCDD	11	15596	.	244	15851	.	.	299	16150	7	8271	.	99	8377	90	8467	530,4			.	.	.
1999	GKE (1998)	.	.	.	.	551	.	.	.	.	.	.	.	.	10	.	.	18,9			.	.	.
1999	OBB	592	73598	.	3828	78018	.	.	2583	80601	.	.	.	823	15556	371	15927	199,4	521	.	.	.	.
1999	SNCB/NMBS		59149	40210	11050	70199	.	.	1419	71618		7392	4374	1076	8468	101	8569	125	327	29	.	.	.
1999	AAE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	DB AG		276710	183536	.	.	.	.	2923	.		70948	40696	.	.	645	.	256,4			.	.	.
1999	GVG						.	.													.	.	.
1999	KEG						.	.													.	.	.
1999	DBS	.	7455	.	.	.	.	.	.	.	.	1938	.	.	.	.	.	260	.	.	.	.	.
1999	EusKotren		147	147		147	.	.	.	.		14	14		14	.	.	94,6			.	.	.
1999	FEVE	.	.	.	.	.	.	.	.	2975	.	.	.	.	.	.	442	148,6			.	.	.
1999	FGC		651	651		651	.	.		651		39	39		39		39	59,9	.	.	.	.	.
1999	RENFE		24811	.	3750	28561	.	.	519	29080		11402	.	1532	12934	63	12997	459,6			.	.	.
1999	VR		39979	.		39979	.	.	78	40057		9753	.		9753	25	9778	244			.	.	.
1999	SNCF	2896	133939	80709	.	.	.	.	76657	.	1326	52112	24922	.	.	2425	.	390,5	1802	912	.	.	.
1999	ATOC						.	.													.	.	.
1999	CH	22	2361	2361	60	2443	.	.		2443	4	322	322	21	347		347	136,8			.	.	.
1999	CIE	.	.	.	.	2901	.	.	.	.	.	.	.	.	526	.	.	181,3	.	.	.	.	.
1999	FS SpA		73955	.	8237	82192	.	.	3245	85437		21549	.	2232	23781	658	24439	291,4			.	.	.
1999	CFL (1998)		16561	11186	1536	18097	.	.	47	18144		574	377	48	622	1	623	34,7	.	.	.	.	.

A1.3.11. Freight Traffic

YEAR	Railway	Rail Traffic – Tonnes carried – Revenue-earning traffic – By traffic category – Express parcels and small	Full wagons – total	Full wagons – Full train-loads	Empty private-owner's wagons	Total (col. 3+4+6)	Road units on wagons	Loaded and empty large containers	Departmental Traffic	Grand Total (col. 7+10)	Tonne-Kilometres – Revenue-earning traffic – by traffic category – Express parcels and small traffic	Full wagons – total	Full wagons – Full train-loads	Empty private-owners'wagons	Total (col. 12+13+15)	Departmental Traffic	Grand Total (col. 16+17)	Mean per tonne haulage distance revenue-earning- (col.12+13)*1000/(col.3+4)	Road Traffic – Tonnes carried	Road Traffic – Tonne-Kms	SHIPPING SERVICES – Tonnes carried	SHIPPING SERVICES – Tonne-Kms	ALL TRAFFIC – Tonne-KM (in millions) (col. 18+21+23)
		In thousands										in Millions						in KMS	Thousands	Millions	Thousands	Millions	
1999	NS N.V.	.	.	.	.	23200	.	.	.	.	.	.	.	.	3549	.	.	151,8			.	.	.
1999	CP		9265	.	1453	10718	.	.	.	.		2179	.	383	2562	.	.	235,2			.	.	.
1999	BK	.	.	.	.	.	.	.	.	.	.	.	.	.	132	.	.	.	.	.	.	.	.
1999	MTAB		22320	22320	.	.	.	.	.	.		3530	3530	.	.	.	.	158,2			.	.	.
1999	SJ	13	27798	9206	1082	28893	.	.	27	28920	5	14394	4187	549	14948	12	14960	517,7			.	.	.
1999	CFF/SBB/FFS	2256	53099	4922	.	.	.	.	1983	.	164	9468	916	.	.	165	.	174			.	.	.
1999	MTAS		10400	.	.	.	.	.	.	.		406	.	.	.	.	.	39			.	.	.
1999	NSB BA	.	8299	.	.	.	.	.	.	.	.	2456	.	.	.	.	.	295,9	.	.	.	.	.
1999	BDZ	94	20996	.	.	.	.	.	.	.	33	5176	.	.	.	88	.	247			.	.	.
1999	BC	.	.	.	.	.	.	.	.	85860	.	.	.	.	.	.	30529	355,6			.	.	.
1999	CD		82105	40816	7	82112	.	.	60	82172		16456	7422	1	16457	7	16464	200,4			.	.	.
1999	EVR	.	37388	.	.	.	.	.	.	.	.	7020	.	.	.	.	.	187,8			.	.	.
1999	MAV Rt.		38530	.	4581	43111	.	.	1483	44594		6642	.	739	7381	63	7444	172,4			.	.	.
1999	LDZ	.	33208	.	.	.	.	.	.	.	.	1210	.	.	.	.	.	367,7			.	.	.
1999	PKP	37	185093	102172	.	.	.	.	1754	.	11	55065	30742	.	.	406	.	297,5			.	.	.
1999	CFR	2	62821	.	.	62823	.	.	118	62941	1	14659	.	.	14660	20	14680	233,4			.	.	.
1999	SZ	23	13005	4132	1198	14226	.	.	.	.	0	2571	958	213	2784	.	.	197,3			.	.	.
1999	ZSR	15	49115	14038		49130	.	.	415	49545	3	9859	2604		9862	52	9914	200,7			.	.	.
1999	TCDD	12	15285	.	252	15549	.	.	695	16244	7	8123	.	107	8237	209	8446	531,5			.	.	.

A1.3.12. Balance (1991-1999)

YEAR	Railway	Currency	Assets																	Liabilities												
				Fixed Assets									assets in circulation							Equity capital and investment grants						Long term liabilities		Operating creditors				
					Tangible assets									Operating debtors																		
			Formation expenses	intangible assets	Land and building	Plant	Machinery equipment and furniture	Transport stock	Total amortisation on tangible fixed assets	Advance payments & fixed assets in construction	Financial assets	Total fixed assets (col.5 to 9 11 and 12)	Supplies	repayable within one year	repayable after one year	Current investments	Cash at bank and in hand	Repayment and accrued income	Total Assets (col.4+13 to 19)	Capital	Revaluation reserve and other reserves	Profit or loss brought forward	Profit or loss before dividends for the financial year	Investments grants	Provisions for liabilities and charges	repayable within one year	repayable after one year	repayable within one year	repayable after one year	Treasury debts	Accruals and deferred income	Total Liabilities (col.21 to 32)
					Net balance sheet value																											
			in Thousands of currency units																													
1991	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1991	BR	pound sterl			1767100	0	238200	1487100	1356900	108200	300	3492700	176300	318700	16100	238300	5500	302200	1057100		2905200	-767300	-173800		68900	54100	950700	908500	222500		381000	4549800
1991	CFF	swiss franc			3701526	1311682	38027	2452789	11963075	4980714	231133	12715871	460660	1587864	29770	638081	76142	1120503	16628891	3000000		109730			94083	2609196	9404300	405398	19390	21248	965546	16628891
1991	CFL	luxemburg		78069	1315204	3146187	89617	2800205	4033131	760393	39674	8229349	685663	295465	15948	69140	53181	616058	9964804	1090976	396642	-26925		3710088	176420	45571	2497829	1059900	71757	795508	147038	9964804
1991	CFR	Lei	.	.	.	.	.	.	.	.	7808747	128461539	15086030				21810057		165357626	129714734	5209385				10825342		2917845	16690320				165357626
[illegible]	[illegible]	drachm	9246839	729847	77991474	9211231	2717557	25982906	17575183	23837649	21838	140492502	12292748	9134528	98964464		3050231	381429	273562741	29326000	24073745			106389824	5278728	6190638	70701753	3486151	13290389	5069343	9	
1991	CIE	pound sterling			57215	60000	101	183116	143746		27	300459	29151	26042			1387		357039		137886	-67655	9673	9973	32822	27267	143445	26454			37174	357039
[illegible]	[illegible]	[illegible]	[illegible]	41821	58027906	4674408	2222778	26407955	19790110	50819018	21428938	163622824	8303661	24728890	9530310		1056885	715879	208022520	56406006	484953	-49750261	-25319825	63093945	1512694	16393042	74182490	33438444				
1991	CSD	Czechoslov	[illegible]	5310079	137401800	12344300	7268600	59593100	126692688	1935597	265952	224119428	5788484	699282	4066635	-181831	1629760		111279814	102899997	676105	3489556	-7668841	1561539	139973	2588233	613642	20435	1081228	5877947		11127
[illegible]	DB	Deutsche mark		538352	36907122	6506464	630997	10598988	14720997	3012472	1873664	60068059	1280054	1827359	48072		196242	4030225	67450011	18196462	4162632	-4943676	-5300407	9599443	2677620	7320797	32889402	2429400	190638		227	
1991	DR	Deutsche Mark of the		3193	7334436	10729930	2816678	8005867	2375425	3173681	36144	32099929	949116	758056			714823	127452	34649376	5000000	9417922	-1449416	-4284440	285966	17975340	793325	4399800	2507788			3091	34649376
1991	DSB	Danish crown			8309975	1530088	1208000	6613378	1262118	174000	90883	17926324		808350			1690170	207000	20631844	19669269								176575			786000	20631844
1991	FS	lira			4372972	602651	472791	10523728	5167466	23307966	39103063	78383173	1799980	16104731		8762084	577151	1171462	106798581	21355706		-2242233	-2520710	25826376	9440828	3197459	35353883	15114314			1272959	106798581
1991	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1991	MAV	[illegible]		59642	47459174	10150464	1969278	23086211	7978213	4878928	2874554	90478251	12856944	21752935	1960751	6000	2124598	878504	130057983	92358549	2097663	5897294	-327964	25054		2834789	1489520	23531864	19871	1820031	311313	130057
1991	NS	florin			3383958	1389607	41666	2033965	5388216	2966111	699403	10514710	326296	337706	6011		71321	149865	11405909	790438	2042032		96550	3587334	993633	246896	2589696	496473	184277		378580	11405909
1991	NSB	Norwegian			1201000	32000	355000	2058000			28000	3674000	294000			109000	175000		4252000		84000		-250000			390000	3262000	766000				4252000
1991	OBB	Austrian Sc		72064	63923831	22778711	2991733	37790899	4907151	8337239	179136	136073613	1563841	4064036			715171	2201239	144617900	104331049			117018	19637719	1155604			19361869			14641	144617900
1991	PKP	zloty	2093199	217684	67496139	3028508		17005379		10103	16974	87774787	2330059	3767831	70128		1684329		97720333	93937305		-2137981	-7261930	130920	23106	751131		11738942			538839	97720333
1991	RENFE	Peseta	7146	43	114963	162717	50287	238372	578978	379631	5923	951936	50331	387823		125	236	42654	1440251	470658	2947				9636	251626	531947	172211			1226	1440251
1991	SJ	Swedish cr		159739	4142761		434426	2260369		958715	179104	8135114	274656	940673		4654623	52797	343908	14401771	2028989	2372480	89161	462265		1007610	2927992		1394478		2858170	1260626	14401771
1991	BV	Swedish cr			142660	2604700	668400			1985300		5401060	324500	622300		31800	100	160300	6540000	1127800						4111100		1301100				6540000
1991	SNCB/NMBS	Belgian fra	[illegible]	2381051	[illegible]	[illegible]	3226055	51104451	-138436732	13877864	1016051	202609840	6741363	9157040	43773	5643011	1652802	6723567	232734961	39762267	5716270	5534508	-1168612	78452476	12095319	31019999	16734487	23249440	146			
[illegible]	[illegible]	[illegible] franc		2146	85680087	17560462	2125056	11242182	87312610	30650947	9066587	156327467	3456847	15287566		512319	369209	12038750	187992158	45373917	11217545	-2951739	6412	10228704	2826179	3298357	70504970	34763880		773		
1991	VR	Finnish mark		2157	2372808		294007	1912132	427236	126980	316019	5024103	217714	269335		1003885	16315		6531352	5580406		28132	4029		90000	11111	138889	678785				6531352
1991	TCDD	Turkish pound		2129	2361648	207104	349820	3675564	3133742	1380501	97024	8073790	450156	1570633	6397		28723	181952	10311650	4991888	2032099	-1078991	-2160636		200191	879451	2546758	1313361	681		1586847	10311650
1992	BR	GBP			1578	2391	298	1865	-3001	502	1	6635	171	361	16	192	7	.	7380		115	480	-164	3410	65	161	236	722	13	1895	449	7380
1992	CFL	LUF		73	1365	3403	155	3106	4383	573	61	8735	789	716	13	69	24	692	11038	1070	433	-326		4734	237		3305	1032	72	353	130	11038
1992	CH	GRD	8397	1154	141608	9314	2685	28037	23638	29826	22	212645	14267	12026	135101		10882	275	393594	29326	73042			136140	3136	9615	109249	3464	11897	13953	3770	393594
1992	CIE	IEP			68	96	0	316	-160		0	320	28	31			2		381		142	-58	16	10	49	22	136	29			34	381
1992	CP	PTE	51	194	72134	7183	2103	30127	23804	68987	21731	202459	9693	34176	8471		753	807	256410	83506	485	-76088	-35696	84886	1478	35386	103249	36398	4782	5865	12158	256410
1992	DB	DEM		537	36896	6483	683	11325	3243	3402	4842	64168	1324	1594			492	4263	71841	16797	3021	-5319	-8648	9824	2566		50967		2521		250	71980
1992	DR	DEM		1	7611	11029	2993	7676	1918	5262	64	34636	833	842			1253	112	37676	5000	16027	-5733	-6116	488	16483	388	8102	2910	114	0	13	37676
1992	DSB	DKK			8625	1702	1457	7371	1357	0	91	19245		854			1528	238	21865	20549								1206			111	21865
1992	FS	ITL			28826644	2128715	516471	10350703	10526258	25938527	44527119	112288180	887386	20726128		4443148	1356957	1417150	141118948	70627298			-4146579	5262017	6638902	3970377	38534112	20232820				141118948
1992	NS	NLG			3503	1428	136	2433	5709	3625	680	11805	303	675	5		382	174	13343	950	2187		-192	4145	1202	306	3175	575	248		747	13343
1992	RENFE	ESP	11	0	165	284	82	302	614	232	5	1071	37	511		0	0	49	1679	546	1				2	336	638	155			1	1679
1992	SNCB/NMBS	BEF	375	765	41752	89020	3592	46708	144997	20655	2447	204939	7928	17920	34	5443	1257	2444	240340	32261	7113	4366	-2247	75129	23366	28773	13053	14937	36702		6887	240340
1992	SNCF	FRF		2	88471	18573	2124	13821	90552	46045	9234	178271	3583	16391		729	402	11793	211168	45214	12071	-3798	-2956	11845	3134	5845	90214	34847		10003	4749	211168
1992	CFF	CHF			3872	1343	38	2643	12512	5624	264	13785	471	1869	28	756	77	1096	18082	3000					100	2990	10256	436	12	23	1265	18082
1992	NSB	NOK	0	0	1290	38	422	2286			33	4069	142	379			281		4871		134		-41			411	3503	864				4871
1992	OBB	ATS		117	67151	24832	3249	39672	3959	7222	352	142596	2186	3572	580		936	1786	151655	104514			77	22546	1510	120	120	7406	15347		14	151655
1992	BV	SEK			167	2920	711			2888		6686	313	752		22	0	44	7817	1128						.	5132	1558				7817
1992	SJ	SEK		244	4734		432	2717		461	203	8791	240	1033		3140	163	387	13755	2029	1654	551	65		700	528	3003	1726		1860	1638	13755
1992	VR	FIM		3	2310		279	1880	412	111	353	4937	209	314		1209	33		6702	5580		32	21		240	11	128	690				6702
1992	BC	RUR		1842	42701	2222	4991	30235	248	954	127	93071	2503			2274	4	4312	92164	82554	30			751	2394	3009		3353		73	1	92164
1992	BDZ	BGL			331	2202		425	222	443	5	3407	654	1542		395		1163	7162	3285	62					1051	44	2674		23	22	7162
1992	CFR	ROL		108	1373078				114674	52051		1425237	45317	72538					1543092	1415571	34580		8514				1581	82846				15433092
1992	CSD	CSK	1481	4497	152961	12424	6408	57610	-122382	1018	218	235135	4497	785	5579	14	1630		126738	124293	786	239	-4063	456	13	1695	611		1368	1340	0	126738
1992	EVR	EEK			42	10	22	15	42	10	0	100	27	14			4		145	71	9	0					0	64				145
1992	LDZ	LVR		0	437	819	315	1760	1679	137	19	3487		1005			277	396	5165	3121			8		258	53		1722			3	5165
1992	MAV	HUF	7275	13	46715	34091		450	9067	12117	2843	96229	3062	5875	19080	1929	4782	52	138284	102294		945	-11116	22		25475	2546	12548	5168		402	138284
1992	PKP	PLZ	1938518	249921	64324301	3061615		14996193	.	65812	10234	82708076	2096370	5762463	122499		2069400		94697326	84662786			-1460155	172000	24877	750255		9572026		.	975537	94697326
1992	SZ	SIT		24	40590		548	5361	161776	8283	754	55559	1982	2941	2	66	298		60848	40894	861		-9252	17685			1006	9654				60848
1992	TCDD	TRL		3644	3722626	334602	598161	5948404	5746465	2213747	332840	13154024	654138	1451066	80168		53436	328062	15720893	11253618	3527497	-3239627	-3830608		396803	1150605	3987585	1308043	1300		1165678	15720893
1993	BR	GBP			1716	2872	241	2113	3210	619	3	7563	154	368	4	155	34		8278		92	316	-42	3747	65	187	375	640	13	2446	438	8278
1993	CFL	LUF		52	2420	2906	155	3394	4665	174	1764	10866	713	492		1845	51	655	14622	1049	1488			5151	280		5129	1373	72	15	64	14622
1993	CH	GRD	21798	1999	148666	8942	2564	41383	29240	50883	22	254459	15618	10480	168286		9507	3867	484016	29326	73042			166004	2362	8411	160144	3530	21014	17139	3044	484016
1993	CIE	IEP			72	103	0	160	-118		0	335	27	30			2		394		148	-42	9	10	46	22	125	27			49	394
1993	CP	PTE	0	497	90622	10125	1821	50964	28809	73904	29614	257547	9178	19187			3884	838	290633	89506	693	-111784	-54275	119893	12641	46017	119767	46547	3902	423	17303	290633
1993	DB	DEM		525	38014	6448	872	11346	3285	3325	6852	67382	1454	1675	142		124	4348	75125	13959	2215	-8666	-9456	10181	3327		61023		2291		252	75125
1993	DR (1992)	DEM		1	7611	11029	2993	7676	1918	5262	64	34636	833	842			1253	112	37676	5000	16027	-5733	-6116	488	16483	388	8102	2910	114	0	13	37676
1993	DSB	DKK			9153	1764	1430	8187	1485		85	20618		878			438	773	22707	21595								873			238	22707
1993	FS	ITL		51090	34142396	3101909	310935	10471646	13939924	21406222	46655456	116139654	1138690	20476345	677		4478634	1204685	143438685	66256014		-4146579	-3937960	5784989	6147637	7630382	35714340	25894417	2887463		1207981	14343868
1993	NS	NLG			4893	1596	162	3134	6070	3103	377	13264	326	1334	5		349	157	15435	1114	2089		-62	4893	1268	267	4299	629	282		655	15435
1993	RENFE	ESP	10708	367	78502	400658	51761	366574	686999	187273	11276	1095411	18637	107191	452505	987	3803	37065	1727307	561073	-179389		-57920	56164	86599	406305	755216	95080			4179	1727307
1993	SNCB/NMBS	BEF	308	487	47704	92122	4523	44879	155333	33885	2340	225940	8079	32574	39	7334	450	2602	277326	34597	8261	2119	-895	90937	20737	33356	5848	20989	52543		8834	277326
1993	SNCF	FRF		3	109378	23294	2126	15227	88424	33882	12066	195976	3534	17163		1254	391	13062	231380	45119	12555	-7238	-7707	13756	2469	10071	121277	36091			4988	231380
1993	CFF	CHF			4221	1383	41	2561	8206	5904	277	14386	466	1796	106	792	79	1300	18924	3000					248	3309	10567	518	12	21	1249	18924
1993	NSB	NOK			1490	34	646	2689	431	.	45	4903	35	388	.	.	127	.	5453	.	211	-600	-101	.	.	246	4504	1193	.	.	.	5453
1993	OBB(1992)	ATS		2296	64972	24698	3229	39620	4513	7222	424	142461	1790	3322	580		936	1786	150874	103920			-669	22894	1573	120	120	7406	15495	.	14	150874
1993	BV	SEK			240	3455	885			2864	10	7453	421	661		11	0	146	8692	1128	110						5673	1780				8692
1993	SJ	SEK		312	4475		870	2673		507	212	9050	173	1552		2957	146	386	14263	2029	1160	616	119		1562	351	4503	1861			2062	14263
1993	VR	FIM		6	2312		275	1739	390	94	353	4779	196	317		1678	18		6987	5613		21	239		240	11	117	747				6987
1993	BC	RUR		48457	51541	3136	11673	82274	5623	20144	713	217938	65026			108393	79	5966	397402	188074	22795			50357	13723	4121	50307	33555		336	34134	397402
1993	BDZ	BGL		1	375	1654		1040	222	813	20	3903	1591	974		582		996	8045	3998	0					875	691	2125		338	18	8045
1993	CD	CZK	1471	45	46215	18621	2008	4660	4271	59	2	71610	1542	4190	95	2	1749	766	81425	77810	5	-1182			671	2656	650	456	4	62	293	81425
1993	CFR	ROL			50960	728573	609516	224	152450	55644	1556	1446473	42325	164783			82094	67758	1803433	1435404	305				1446	12901	30515	309128			13735	1803433
1993	EVR	EEK	.	.	445	-294	103	178	294	55	0	488	20	36			17		560	433	1	13	6			0		107				560
1993	LDZ	LVR		0	437	819	315	1760	1679	137	19	3487		1005			277	396	5165	3121			8		258	53		1722			3	5165
1993	MAV	HUF	6032	179	277285	146156		967	3961	3288	13300	441174	5207	11108	5157	435	4264	2638	476014	403134	5157		-6740	4200		46323	11350	8158	2576		1856	476014
1993	PKP	PLZ	2901910	282139	62712266	3769654		14360035	.	131816	169693	81425603	3002401	9134354	509204		1995393		98968865	88738170			-2093128	316000	246779	1000	1327929	8428809			2003305	98968865
1993	SZ	SIT		25	45063	99	1239	4710	194030	9227	619	60981	2076	7496	1	151	767		71472	43859	931	-9252	-950	20875			1096	7340	7572			71472
1993	ZSR	SKK		9	23767	1380	695	8127	2109	3096	7	37080	1375	2621	340		898	227	42542	38887	1977	22	-1463		26	631		1739		574	148	42542

A1.3.12. Balance (1991-1999)

YEAR	Railway	Currency	Assets																	Liabilities												
				Fixed Assets									assets in circulation							Equity capital and investment grants						Long term liabilities		Operating creditors				
					Tangible assets									Operating debtors																		
			Formation expenses	intangible assets	Land and building	Plant	Machinery equipment and furniture	Transport stock	Total amortisation on tangible fixed assets	Advance payments & fixed assets in construction	Financial assets	Total fixed assets (col.5 to 9 11 and 12)	Supplies	repayable within one year	repayable after one year	Current investments	Cash at bank and in hand	Repayment and accrued income	Total Assets (col.4+13 to 19)	Capital	Revaluation reserve and other reserves	Profit or loss brought forward	Profit or loss before dividends for the financial year	Investments grants	Provisions for liabilities and charges	repayable within one year	repayable after one year	repayable within one year	repayable after one year	Treasury debts	Accruals and deferred income	Total Liabilities (col.21 to 32)
					Net balance sheet value																											
			in Thousands of currency units																													
1993	TCDD	TRL		3112	5971107	528442	895636	9196060	10148115	4106300	331078	21031735	923542	3781919	87473		54011	413631	26292311	19172054	5382430	-7070235	-8849078		517925	2017932	7802411	3449856	1928		3867089	26292311
1994	BR	GBP			197	162	154	2234	1361	4	3	2752	142	565	8	208	202		3877		181	274	-313	1188	58	52	359	893	129	749	307	3877
1994	Railtrack	GBP			143	3523	54		1924	565		4284	5	377	100		4	33	4803	0	1367		111	221	172	22	285	478	28	1342	777	4803
1994	CFL	LUF		41	2590	3198	131	5420	4966		265	11644	713	960		887	117	675	14997	1029	1616			5619	86	15	5248	1353		0	32	14997
1994	CH	GRD	23968	2872	162163	11525	2216	42527	38286	54312	142	275756	17749	9877	209025		27330	3445	567150	29326	73042			194796	67	7209	210060	7554	18483	14263	12350	567150
1994	CIE	IEP			76	63	0	234	-189		0	373	27	31			12		443		154	-33	9	10	48	8	145	35			68	443
1994	CP	PTE		293	102310	15686	2388	80670	36610	76813	27417	305577	8104	21086			813	976	336556	93506	500	-166151	-48370	138564	17812	86627	142606	49947	2891	3007	15616	336556
1994	DB AG	DEM		533	13288	5555	1006	5327	1492	8291	886	34885	1242	3139	75		177	97	39615	4200	7300		180		16808	5487	5497				143	39615
1994	DSB	DKK			9794		3280	8266			90	21430					1190		24110	20978						635		814				24110
1994	FS 157977731	ITL		70882	51003285	3271154	448649	10765084	16926270	13235198	48734808	127529061	1204946	19152303	28846	29	8776007	1286538	157977731	44067892	24017523	-8084539	-2590768	6604977	13404842	4415574	39683111	33014374	2155290		12	
1994	NS	NLG			5058	1629	298	3624	6538	3636	470	14714	269	1138	4		280	210	16616	1280	2295		76	5717	1184	331	4227	756	92		657	16616
1994	RENFE	ESP	12007	537	95317	407594	57298	388715	748305	130507	11022	1090990	14629	96701	606357	311	3714	15810	1840519	570646	-172546		7758	57246	83850	311999	897327	81215			3024	1840519
1994	SNCB/NMBS	BEF	388	635	53177	94052	5078	42956	160007	40511	2907	239316	8145	37426	152	8334	448	2405	296614	34449	8068	1224	-1193	95159	18569	38965	9954	18980	64539		7900	296614
1994	SNCF	FRF		4	122289	25240	2017	18183	94746	23917	12413	204063	3289	17625		509	378	14913	240777	45035	12971	-15362	-8184	15850	2298	10994	139992	32270			4914	240777
1994	CFF/SBB/FFS	CHF			4684	1504	95	2615	14283	5705	310	14913	439	1848	95	803	101	1299	19497	3000					288	3084	11457	587	13	20	1048	19497
1994	NSB	NOK			1279		425	165	24		54	1923		472			122		4033		-62	-292	-202				3357	1232				4033
1994	OBB	ATS		2190	60142	22733	1766	29097	7454	10684	588	127199	1386	8593	19		1537	798	139533	19396			365	73874	6733	1067	7767	10833	19407		90	139533
1994	BV	SEK			318	3618	934			3723	10	8602	527	1015		40	5	260	10448	1128	290						6492	2538				10448
1994	SJ	SEK		250	4586		890	3053		539	216	9534	174	1672		2270	390	185	14225	2029	920	1895	471			267	4960	1952			1731	14225
1994	VR	FIM		9	2248		255	1507	468	181	356	4554	161	600		1897	27		7240	5434		239	300		240	11	106	910				7240
1994	BC	RUR		86090	4531466	416154	994742	2400180	3694	37380	5728	8471740	154462			159584	107	184713	8970606	319200	8297551			7144	14139	261	7144	132714		1660	190793	8970606
1994	BDZ	BGL		2	429	1593		1656	2256	1055	57	4792	1290	975			858	353	8267	3554		-1879		830		708	663	2926	1463		2	8267
1994	CD	CZK		91	45294		4224	15983	-89746	7648	4	73244	1875	5599	222	0	1714	657	83311	78769	365		-2701		27		555	4779	499	480	538	83311
1994	CFR	ROL		3	354300	6010353	3602198	48107	249716	69231	1678	10085870	82810	126607			95015	93055	10483357	10090592	136	-161864			922	111502		380283			61785	10483357
1994	EVR	EEK			470		47	105	403	70		691		49	14		21		774	525		11	2				87	149				774
1994	LDZ	LVR																														
1994	MAV	HUF	10637	189	281810	155583		1160	7459	2519	10917	452178	5708	13685	7566	58	5035	1155	496022	400674	6848		3647	12355		18879	41259	8821	27		3512	496022
1994	PKP	PLZ	3784314	310248	61624426	4790929		13941503		140620	953045	81760771	4785305	9357361	867292		2548414		103103457	88690748			-1095031	453230	873765		2921589	7948475	820988		2489693	103103457
1994	SZ	SIT		57	49219	3484	3207	7138	237134	12972	5237	81314	2773	5628	2107		1742	1183	94748	41036	7117		180	2056	2521	3582	17405	11503	8286		1062	94748
1994	ZSR	SKK		62	26079	1231	520	7466	2065	1114	11	36482	1443	3788	14		1405	854	43987	38310	948	15	729			877		2502		322	285	43987
1994	TCDD	TRL		532	12738131	2530557	932025	20348368	21954367	9061151	406753	46017518	1457308	5830618	39288		116978	679024	54140734	32215980	15876195	-15919314	-25485905		370581	11811470	18627741	6767422	11983	975000	8889582	54140734
1995	BR	GBP			46	0	52	65	217		3	166	104	537	16	172	1036		2031		150	-39	-527	4	485	26	213	704		718	297	2031
1995	Railtrack94	GBP			143	3523	54		1924	565		4284	5	377	100		4	33	4803	0	1367		111	221	172	22	285	478	28	1342	777	4803
1995	CFL	LUF		22	303	12	105	5171	3446	571	157	6341	676	6874		798	233	676	15598	1008	1482			6153	209	1	4664	1778		271	32	15598
1995	CH	GRD	24304	5330	178621	16107	2717	64548	49070	60861	428	328613	21925	15617	240794		19863	2788	653904	102368				236785	67	6008	277228	3816	14613	1629	11391	653904
1995	CIE	IEP			80	66	0	270	-214		0	416	22	65			1		504		162	-24	-31	10	69	49	125	45			100	504
1995	CP	PTE		1238	119115	18637	2924	122334	219245	80001	26682	370932	7288	21141		35000	3120	3071	440551	103506	24314	-214547	-59761	156691	21585	52045	280895	56930	404	1689	16801	440551
1995	DB AG	DEM		524	15064	8494	1538	5826	1836	9661	1435	42543	962	5365	45		654	80	49648	4200	7300	180	181		20640	5459	11548				140	49648
1995	DSB	DKK			9891		3411	7075			35	20412		1904					22661	19960								1277				22661
1995	FS 149879889	ITL		85496	51021111	3249603	425852	10435384	19527133	15035207	51068296	131320950	1230698	6231583	27332	114845	9463420	1491060	149879889	45552892	25611129		-1580558	7272748	11917216	8437305	38027434	10375846	2627636		1638241	
1995	NS	NLG			1849	218	336	4020	391		166	6589	282	1626			358		8915	1449	2666			1060	1113	1296		1331				8915
1995	OBB	ATS		2225	61487	22767	1949	29871	7995	7959	1269	127528	1229	13259	17		3873	792	146699	19396	36	328	212	70399	6806	3881	21068	8960	15369		243	146699
1995	RENFE	ESP	10143	501	99990	412511	59934	399312	811479	110171	13331	1095750	12319	132477	620051	732	4455	11438	1887365	572353	-26704	-75161	-67567	66061	76213	270504	988184	80336			3146	1887365
1995	SJ	SEK		231	4786		889	7483		254	216	13859	188	834	909	2118	335	314	18557	2029		1982	501		1001		9231	1971			1842	18557
1995	BV	SEK			324	5978	912			1956	10	9180	553	1152		28	6	105	11024	1128	405	41					6828	2622				11024
1995	SNCB/NMBS	BEF	301	550	56376	95626	5209	30525	161125	62610	5219	256117	8065	27930	125	10036	730	2350	305653	34302	8574	31		94310	15596	16663	39581	23235	62990		10369	305653
1995	SNCF	FRF		5	125894	26445	1947	21091	-102535	24085	12655	212121	3271	16881		2414	549	17762	253000	44960	13663	-24238	-16583	19592	2747	12220	161033	34152			5454	253000
1995	VR	FIM		9	2248		255	1507	468	181	356	4554	161	600		1897	27		7240	5434		239	300		240	11	106	910				7240
1995	RHK	FIM																														
1995	CFF/SBB/FFS	CHF			4798	1554	88	2712	14850	6034	283	15469	390	1931	152	828	117	1817	20704	3000					431	2997	12597	585	13	21	1059	20704
1995	NSB	NOK			47		66	454	361	127	2900	3594	28			722	218	-45	4517	-556		-54				1412	3715					4517
1995	BC 94	RUR		86090	4531466	416154	994742	2400180	3694	37380	5728	8471740	154462			159584	107	184713	8970605	319200	8297551			7144	14139	261	7144	132714		1660	190793	8970605
1995	BDZ	BGL		3	6256	28905		14959	1928	2191	75	52388	1783	1570			723	394	56858	52230		-4919		1490		398	843	4286	2525		3	56858
1995	CD	CZK		127	44516		4482	15937	92463	10377	5	75444	1790	6248	169	45	1430	1736	86862	79393	259		-3093		26	90	1498	7455	230	464	538	86862
1995	CFR	ROL		292	345850	5944485	3492162	58993	432618	118577	4704	9965065	142035	276191			75260	125789	10584340	10175854	143	-596117			900	128120		810786			64654	10584340
1995	EVR	EEK			359	67	7	179	453	24	3	639	21	37	12		83		792	563	3		-2				82	108	39			792
1995	LDZ	LVR	10637	189	281810	155583		1160	7459	2519	10917	452178	5708	13685	7566	58	5035	1155	496022	400674	6848		3647	12355		18879	41259	8821	27		3512	496022
1995	MAV	HUF		1242	287290	164506		1474	10602	19132	11498	485141	6539	24613		69	6117	484	522964	188000		-3168	30007	247335		5553	24752	25280		4350	855	522964
1995	PKP	PLZ	600	32	13817	5	896	3792		18	98	18658	528	937	8	0	456	1	21189	19420			-104	96		1054	0	36	507		179	21189
1995	SZ	SIT																														
1995	ZSR	SKK		144	29280		2368	7458	2132		348	39598	1892	3862	43		939	1279	47613	38779	2743	584	3		419	501	564	3514			506	47613
1995	TCDD	TRL		37908	25029912	3786832	1262945	37269728	47300180	12858239	664484	80910048	2373920	10066552	47387		321114	1270371	94989392	71009902	30422790	-41405219	-38001065		479661	16984722	24061981	10189591	14227	1840000	19392803	9498939
1996	ATOC	GBP																														
1996	Railtrack94	GBP																														
1996	RfD Ltd	GBP																														
1996	BK	SEK																														
1996	CFL	LUF		10	114	11	97	4846	3683	578	702	6359	719	7117			276	704	15174	987	1639			6592	271		4157	1229		267	33	15174
1996	CH	GRD	23014	9541	255024	21801	2517	61550	63992	110268	528	461229	22060	17337	19264		21687	5211	569803	102368	20000			59385	67	4806	346774	3063	12035	607	20698	569803
1996	CIE	IEP			81	63	0	277	228		0	422	17	57			6		502		173	-55	-56	10	70	41	131	49			139	502
1996	CP	PTE		560	142510	23313	3172	171865	178835	113834	24623	479877	9321	30253	1	6000	3794	3472	532718	128506	24403	-223538	-71951	178445	25237	35445	371525	45453	22	898	18273	532718
1996	DB AG	DEM		514	17597	10209	1663	6299	2280	8998	2300	47579	766	6738	73		705	46	55906	4200	7300	362	1232		22352	6975	13314				173	55906
1996	DSB	DKK			12326		720	7331			35	20412		2065			184		22661	21384								1277				22661
1996	FS SpA	ITL		207407	51068103	3341608	348040	10538540	22274095	14895148	6727605	87126452	1376624	6179546	29958	268920	8029221	11305	103022027	48486892	25114877	-1580558	-3840620	8508946	13832273	311799	284557	9547965	2159947		19	
1996	NS	NLG			1128	279	312	4212	4023	626	169	6726	343	1863	335		323		9590	2836	1658		105	1005	1171	70	1185	1560				9590
1996	OBB	ATS		2176	64374	22836	1969	28825	7293	7936	5672	133788	1224	19632	17		191	796	155649	19396	58	519	895	67610	8213	8506	20630	8053	21003		766	155649
1996	RENFE	ESP	8082	435	104129	427495	60008	418791	873097	82979	12497	1106334	8876	63366	591606	247	6069	7832	1792439	573352	37992	-149395	-55670	73846	78044	263454	893713	73489			3614	1792439
1996	SJ	SEK		22	4757		795	7648		212	741	14175	187	677	978	1730	257	250	18254	2029	400	2290	-477				9166	3283			1563	18254
1996	BV	SEK			333	36018	956			14683	10	52000	473	796		79	37	139	53524	44486	398	-890	41				7258	2231				53524
1996	SNCB/NMBS	BEF	169	783	61156	102301	6036	32766	171910	68526	5806	277374	9242	27461	99	12429	474	3233	330480	43634	13220	-2433		3339	105074	33356	38581	18520	59506		17684	330480
1996	SNCF	FRF		5	131808	26808	1870	21574	-113159	24629	14930	221624	3220	15233		1322	559	16208	258167	44892	13989	-41147	-15173	21518	3179	5870	183533	35840			5666	258167
1996	VR	FIM					1755			226	10	1991	165	1229			4		3389	1000	371	30	43		279		735	932				3389
1996	RHK	FIM																														
1996	CFF/SBB/FFS	CHF			5638	1739	89	2815	15492	6170	290	16741	387	1904	187	830	148	2047	22243	3000					484	3187	14087	849	16	19	601	22243
1996	NSB BA	NOK			26		803	122	22		2648	3599	20			1182	1592	148	6541	2704		203				1599	2035					6541

A1.3.12. Balance (1991-1999)

YEAR	Railway	Currency	Assets: Formation expenses	Fixed Assets: intangible assets	Tangible assets (Net balance sheet value): Land and building	Plant	Machinery equipment and furniture	Transport stock	Total amortisation on tangible fixed assets	Advance payments & fixed assets in construction	Financial assets	Total fixed assets (col.5 to 9 11 and 12)	Assets in circulation: Supplies	Operating debtors: repayable within one year	repayable after one year	Current investments	Cash at bank and in hand	Repayment and accrued income	Total Assets (col.4+13 to 19)	Liabilities: Equity capital and investment grants: Capital	Revaluation reserve and other reserves	Profit or loss brought forward	Profit or loss before dividends for the financial year	Investments grants	Provisions for liabilities and charges	Long term liabilities: repayable within one year	repayable after one year	Operating creditors: repayable within one year	repayable after one year	Treasury debts	Accruals and deferred income	Total Liabilities (col.21 to 32)
			in Thousands of currency units																													
1996	JBV	NOK																														
1996	BC	RUR		170	21521	1115	2984	6136		71	1139	33136	1279			849	29		35293	2320	30827		1059			1	390	637		59	1	35293
1996	BDZ	BGL		5	6391	28447		14264	3908	3347	112	52567	2770	3373			1941	5318	65969	53943		-16619		2170		70	2577	21126	2696		6	65969
1996	CD	CZK	12026	69	46808		4715	16700	-95617	972	5	69269	1599	3108	35	45	1753	2082	89916	76895	413		-4744	3688	0	700	5071	6673	74		1146	89915
1996	CFR	ROL		71	343532	5897589	3450608	66389	609689	207281	4625	9970096	224597	498691			85717	164938	10944039	10291201	7	-1212187				30000	161163	1568172	9033		96650	10944039
1996	EVR	EEK			386		67	187	487	23	9	673	72	60	11	4	14	9	842	260	306	1		22	1	5	85	80	3		80	842
1996	LDZ	LVR																														
1996	MAV Rt.	HUF		1216	287759	141246		1694	33744	28028	13170	473112	8022	30464		74	2227	2669	516570	188000		26516	-46734	262767	8878	14291	26027	34374			2451	516570
1996	PKP	PLZ	958	37	13752	913	80	3962	23293	26	108	18877	579	1100	63	0	365		21942	19410			-261	385		15	762	1467		164		21942
1996	SZ	SIT		602	63712	6346	5537	8062	275776	11479	5607	102346	3404	5108	1480		2430	675	115443	41036	16588		-3944	10562		4600	24107	12438	9033		1023	115443
1996	ZSR	SKK		153	28974	2457	18	7320	2207	9638	792	49352	2156	5766	22		520	1313	59129	38775	8416	364	-497		62		1000	5302	4	5116	586	59123
1996	TCDD	TRL		30326	40370647	6030532	1839081	62633654	87051076	17014606	743508	128662354	4749333	9511271	67665		311444	2106601	145408668	100000000	70833505	-79406284	-60784796		942450	22905597	33379084	19212335	19996	1850000	36456781	14540
1997	Railtrack	GBP																														
1997	ATOC	GBP																														
1997	EW&S	GBP																														
1997	BK	SEK																														
1997	CFL	LUF	5193	20	5774	27	135	4648		588	1017	12209	587	1492			873	344	20698	14000	998		41		316	5327	15				0	20698
1997	CH	GRD	11479	13204	290701			61255	78404	179332	958	545449	24531	29594	13210		19459	2426	646148	122368	120905	0	0	-89074	406	5429	445995	12883	10095	852	16289	646148
1997	CIE	IEP			44,471	58,876	0	194,245	121,989																							
1997	REFER	PTE		164	82891	20277	81	58	504	156210	129	259812	229	7394		5000	7672	285	280392	12500			-2057	189026	519	10000	35876	34009			519	280392
1997	CP	PTE		787	136556	25745	2940	173618	192030	107026	111217	557890	10090	52943			4958	2814	628694	280025	31216	-295683	-71973	184974	23201	37066	381190	32999	4	10393	15283	628694
1997	DB AG	DEM		214	22848	10871	1835	8097	2665	11021	3639	58524	742	4111	195		443	45	64060	4200	11006	978	582		21646	5401	13656	3460	3031		100	64060
1997	DSB 96	DKK			12326		720	7331			35	20412		2065			194		22661	21384								1277				22661
1997	FS SpA	ITL		179233	50917189	3405275	321290	10756396	25185417	15004056	7221967	87805407	1251811	8522783	823148	31950	997794	2088	99434980	53585892	24610497	-5421178	-7324351	8574130	10511204	202968	256221	11005475	3246315		1878	
1997	NS N.V.	NLG			1166	7709	17		4369	2331	565	11788		187	0		213		12188	0				7955	269	45	3403	516				12188
1997	NS B.V.	NLG																														
1997	OBB	ATS		2400	66922	23566	2089	26716	8348	9435	10639	141767	1385	21267	13		371	838	165641	19396	147	346	320	71049	6884	3886	27487	13994	20939		1148	165641
1997	RENFE	ESP	6081	741	107642	426007	59241	396382	942593	82372	12690	1085075	7824	79714	606947	261	10534	5120	1801556	576219	82264	-205343	-41825	84875	76182	209171	935764	80815			3434	1801556
1997	BV	SEK				47005					10	57371	551	820		29	794	-857	58709	49748	406	-1173	37				7769	1921				58709
1997	SJ	SEK		66	4322		719	7038		257	1873	14275	159	171		864	295	316	16080	2029	400	-304	-171		3507		8193	1291				16080
1997	SNCB/NMBS	BEF	139	935	73086	112193	6008	46173	183328	52579	9889	300864	9387	38141	60	34711	321	10900	394523	130548	17258	-3433		4693	104661	7569	79914	21268	8053		23991	394523
1997	RFF	FRF			31613	123537				7		155157		5374			950	942	162423	13616			-14099	7950	744		148956		606	2254	2396	162423
1997	SNCF	FRF		27	25694	2171	1556	21883	-46125	9763	149314	210408	2784	33222	213	1314	908	18632	267481	28015	1115	-2521	-959	6872	3910	19220	139568	52961	2164		17136	267481
1997	RHK	FIM																														
1997	VR	FIM			26		1907			296	10	2239	162	978			6		3385	1000	371	3	56		510		637	809				3385
1997	CFF/SBB/FFS	CHF			6433	2085	153	2928	16014	5487	330	17415	444	2113	816	831	187	984	22791	3000					643	2775	14269	1290	15	1	797	22791
1997	JBV	NOK																														
1997	NSB BA	NOK			1171		306	3034					17	297	351	139	504		7025	2926						1575	2524					7025
1997	BC	RUR		514	36306	1759	5183	52864		71	2566	99264	2075			1257	75		102672	8582	90913		1407			0	572	1130		67	0	102672
1997	BDZ	BGL		46	64138		606172	213368	115494	36659	1667	922051	33957	33465			10309	67	999848	53939	863870	-94492		7843		1700	82523	79570	4842		52	999848
1997	CD	CZK		162	53570		4974	18445	100239	14387	6	91543	1530	3599	48	92	1660	3283	101756	80164	351	-4744	-4699	5493	251	916	14394	7352	45		2232	101756
1997	CFR	ROL		6246	360603	5817506	3469484	62899	1065807	242258	7763	9966759	564288	1015517			220984	257729	12025277	10528295	7	-3527440		15886		46492	188247	2504077	2054986		214727	12025277
1997	EVR	EEK		3	402	43	118	203	387	67	1	838	123	89	5	2	63	21	1141	400	295	13	-4	82	6	1	89	190		3	66	1141
1997	LDZ	LVR																														
1997	MAV Rt.	HUF		1434	300398	165155		1622	12623	19589	13925	502123	7597	31040		70	5718	7604	554152	188000		-19854	-15079	278873	11459	29624	44334	31633			5160	554152
1997	PKP	PLZ	1232	31	13910	7	1098	4142	24174	99	126	19413	538	1377	26		401		22987	19521			-88	353		1714	25	71	1310	80		22987
1997	SZ	SIT		472	73365	7098	5352	8202	302033	11616	7924	114029	3246	1363	6636		2556	1507	129338	41036	22328	3443	-147	3714		5249	30732	11577	9592		1814	129338
1997	ZSR	SKK		196	29317	29	2274	7869	2381	12869	1003	53557	2131	6966	435		764	2459	66312	38766	9065	-133	-4199		224		1000	7218	4	13677	689	66312
1997	TCDD	TRL	257284662	22745	72448752	9553185	2071462	102690920	165971386	25213560	3087800	215088423	8801351	24272100	85566		4713170	4324052	257284662	200000000	104057483	-140191080	-103900758		2013861	46766640	53440083	24035257	39784	20169048	508	
1998	Railtrack	GBP																														
1998	ATOC	GBP																														
1998	EW&S	GBP																														
1998	CFL	LUF	983	44	5777	47	136	5815	4757	401	1108	13328	645	2915			3562	340	21774	14000	1000	39	58		249	76	3015	1617		89	1630	21774
1998	CH	GRD	14933	16050	322303			100036	57854	225306	340	664036	27591	42165	18071		60372	1578	828745	122368	290747			-228302	3407	1202	594377	21213	11805	1168	10762	828745
1998	CIE	IEP			40	73	0	199	135		0	312	18	76			0		407	23	67	-46	4	72	67	87	99	26			7	407
1998	REFER	PTE		402	229890	20548	194	157	1003	338458	70	589718	7560	52110			344	547	650278	22500	-59	-2057	-12761	419829	127	28565	145394	45572			3168	650278
1998	CP	PTE		1914	14264		179378	356	201134	36521	5520	237954	2954	233498	2118		1404	2068	479996	400025	31156	-374212	-29968	24667	24726	120239	244262	26180	3	1659	11258	479996
1998	DB AG	DEM		262	24808	12102	2233	8475	2865	9027	4253	61159	828	3560	117		294	105	66064	4200	12182	385	701		22401	401	20521	4967	212		94	66064
1998	GVG	DEM																														
1998	BS	DKK																														
1998	DSB	DKK			3485		1085	7084	902		7	11661		925			63		12649	10920						73		1584	26		46	12649
1998	FS SpA	ITL		193571	51175818	3515047	296966	10760372	28506349	14466486	7905160	88313421	1369997	7978483	1142918	58545	1024073	381	99887818	61585892	1906431		-2438330	767609	27074356	120622	225787	9515751	570301		559397	99887818
1998	NS B.V.	NLG			1320	8322	22		4672	3002	602	13268		231			154		13653	1				9082	258	261	3482	569				13653
1998	NS N.V.	NLG		306	1010	422	312	4375	4020	346	174	6945	178	2346	470		358		10297	3188	1938		197	1079	754	124	1161	1856				10297
1998	OBB	ATS		2722	69385	26346	2258	24839	9073	9515	13716	148781	1736	25674	27		4710	927	181856	22396	179	84	1114	75328	6778	3482	25019	9615	35750		2110	181856
1998	RENFE	ESP	4660	933	108108	424774	56942	366144	1004276	92583	16835	1066319	8852	52741	604995	224	12294	2466	1752531	576172	117018	-247168	-27548	85760	58735	154161	910661	121272			3468	1752531
1998	FEVE	ESP																														
1998	FGC	ESP																														
1998	BV 97	SEK				47005					10	57371	551	820		29	794	-857	58709	49748	406	-1173	37				7769	1921				58709
1998	BK	SEK																														
1998	MTAB	SEK																														
1998	SJ	SEK		86	4239		712	7065		275	3719	16096	121	121		960	334	325	17957	2029	400	-475	124		2923		9686	2092			1178	17957
1998	SNCB/NMBS	BEF	111	1163	76819	112393	6459	57828	199699	60752	18132	333544	12239	36584	1170	25512	367	16892	426420	148206	18368	-821		6003	103262	2798	79917	25428	15543		27715	426420
1998	RFF	FRF		1	31564	130498				8		162071		3442			12036	968	178517	23616		-14099	-13716	5291	558		164363		1456	4082	6966	178517
1998	SNCF	FRF	0	57	25831	2160	1595	24672	-49106	8562	147039	209916	2774	32226	0	4667	933	18098	268614	28015	1072	-3480	-649	7797	6235	20243	138267	53557	2144	0	15413	268614
1998	RHK	FIM																														
1998	VR	FIM			25			2228		245	25	2524	154	819			8		3505	1000	371	9	65		730		539	790				3505
1998	CFF/SBB/FFS	CHF			7017	2183	185	2817	16616	5404	318	17924	425	358	869	1088	1125	150	21939	3000					827	2624	14008	1113	11	13	343	21939
1998	JBV	NOK																														
1998	MTAS	NOK																														
1998	NSB BA	NOK			1251			4027			720		381	652	1016		865		8862	3896						1655	3311					8862
1998	BC	BYB		2157	35135	1755	5555	49767		175	6289	100833	4137			1989	69		107028	8837	85310		5580			1	3545	3629		121	4	107028
1998	BDZ	BGL		3328	80537	624309		207188		62578	1671	979611	46466	46666		139698	13643	3108	1182527	53939	860063	83	-35855	158602			158602	121519	101519		24175	1182527
1998	CD	CZK		160	59361		6131	18420	101648	15320	6	99398	1705	3466	17	23	1903	1644	108157	79894	361	-9443	-3390	11976	657	589	19969	5853	585		1107	108157

A1.3.12. Balance (1991-1999)

YEAR	Railway	Currency	Assets																	Liabilities												
				Fixed Assets									assets in circulation							Equity capital and investment grants						Long term liabilities		Operating creditors				
					Tangible assets									Operating debtors																		
			Formation expenses	intangible assets	Land and building	Plant	Machinery equipment and furniture	Transport stock	Total amortisation on tangible fixed assets	Advance payments & fixed assets in construction	Financial assets	Total fixed assets (col.5 to 9 11 and 12)	Supplies	repayable within one year	repayable after one year	Current investments	Cash at bank and in hand	Repayment and accrued income	Total Assets (col.4+13 to 19)	Capital	Revaluation reserve and other reserves	Profit or loss brought forward	Profit or loss before dividends for the financial year	Investments grants	Provisions for liabilities and charges	repayable within one year	repayable after one year	repayable within one year	repayable after one year	Treasury debts	Accruals and deferred income	Total Liabilities (col.21 to 32)
					Net balance sheet value																											
																in Thousands of currency units																
1998	CFR	ROL	12	9710	496792	11738283	1944451	5195038	2888806	607273	13292	20004840	1504600	3902838			575719	603829	26591839	21647241	44	-3527440	-635555	82842		356363		7800373		845260	22710	26591839
1998	EVR	EEK			537	42	100	330	451	35	4	1048	162	135	4		63	3	1415	400	307	40	0	33	1	36	271	178	41	2	105	1415
1998	LDZ	LVR																														
1998	MAV Rt.	HUF		1285	299339	170807		1682	29194	21605	18745	513462	7536	28567		597	8450	11635	570246	188000		139	-2737	258073	15719	13757	58956	28122			10217	570246
1998	PKP	PLZ	1698	26	13584	8	1028	4159	24970	84	122	19011	486	1575	20	0	327		23117	19605			-1346	352		2539	63	162	1581	162		23117
1998	SZ	SIT		342	77420	8246	5289	8131	325724	18022	9245	126696	3217	8815	1221		1362	1839	143150	41036	30624		3243	5250		6059	34445	10978	9999		1515	143150
1998	ZSR	SKK		223	32850	32	3203	10469	731	6746	619	54142	1859	5442	295		174	8884	70796	38735	9314	-4331	-5850		1228		1000	9605	3350	16952	793	70796
1998	TCDD	TRL15757674 449201008 32567			129249915	17866556	3018960	170400235	306809410	43134721	6026187	369729141	17317571	49207313	42161		1456590	11448231	449201008	369089121	202905087	-244091838	-137095470		4880143	105460212	83092552	28974587	59798	201691		
1999	GKE	ATS																														
1999	OBB	ATS		3023	73894	27716	2210	23712	8555	9672	16219	156446	2166	34574	38	2240	2897	1285	199647	24396	850		427	80180	7289	4914	27745	8910	42052	712	2441	199647
1999	SNCB/NMBS	BEF	83	1285	77229	110929	7329	61967	215771	79145	27750	365634	13097	40897	36	32139	563	19922	472371	163068	20256			5994	99319	18430	67491	39882	23080		34853	472371
1999	AAE	DEM																														
1999	DB AG	DEM		522	25740	12714	2698	11846	3843	10662	1329	65511	1694	4468	16	104	548	413	72754	4200	12649		169	46	25338	549	20059	6246	811		2687	72754
1999	GVG	DEM																														
1999	KEG	DEM																														
1999	BS	DKK																														
1999	DBS 98	DKK			3485		1085	7084	902		7	11661		925			63		12649	10920						73		1584	26		46	12649
1999	EusKotren	ESP																														
1999	FEVE	ESP																														
1999	FGC	ESP		4909	11947	28269	1461	46182	28955	1261	61	65135	444	5204	1270	2670	3285	23	78031	49479	3654			4087	398	2298	6170	7440	4376		130	78031
1999	RENFE	ESP	3737	980	109675	417162	54099	353007	1072448	116266	18604	1069793	9875	43527	615724	563	15288	2838	1761345	576249	15776	-273553	-32664	88255	55926	190720	896931	99183			2538	1761345
1999	RHK	FIM																														
1999	VR	FIM		4	25			2723		406	10	3168	177	413			10		3767	1000	371	24	28		910		566	868				3767
1999	RFF	FRF		1	31806	135668				10		167486																				
1999	SNCF	FRF		100	28955	2383	1632	28623	-56280	5042	140851	207586	2997	27195		6479	1405	20467	266129	28015	1033	-129	-568	9997	8531	31415	126789	41731	2132		17183	266129
1999	ATOC	GBP																														
1999	EW&S	GBP																														
1999	Railtrack	GBP			8492	3290	553			526	7234		49	506	54	568																
1999	CH	GRD	24483	32555	431056			97712	70708	233352	382	795057	25276	50870	21802		123304	1414	1042205	122368	585282			-365948	3641	1106	670423	7129	3554	549	14101	1042205
1999	CIE	IEP			44	93	0	221	149		0	358	23	138			0		520	23	79	-41	10	160	65	99	85	35			5	520
1999	FS SpA	ITL		414321	54447784	3667737	280175	10700746	32045025	10876739	8105461	88492963	1404760	10141816	1544541	16203	590417	2011	102192711	36595864	1246		-2851176		57664994	54325	193507	10005719	340078		188154	102192711
1999	CFL 98	LUF	983	44	5777	47	136	5815	4757	401	1108	13328	645	2915			3562	340	21774	14000	1000	39	58		249	76	3015	1617		89	1630	21774
1999	NS B.V.98	NLG			1320	8322	22		4672	3002	602	13268		231			154		13653	1				9082	258	261	3482	569				13653
1999	NS N.V.98	NLG		306	1010	422	312	4375	4020	346	174	6945	178	2346	470		358		10297	3188	1938		197	1079	754	124	1161	1856				10297
1999	CP	PTE		1554	24370		205095	388	205265	17527	5387	254321	1953	123892	14942		1008	3471	399586	400025	60730	-403477	-52215	2383	25685	115622	201798	34354		516	14166	399586
1999	REFER	PTE		499	311829	21758	382	245	815	322471	541	657725	7535	35897			315	1826	703299	32500	-117	-23006	-21827	454655	8561	40884	163491	44456			3700	703299
1999	BK	SEK																														
1999	BV	SEK		10							12					58	47	637	67765	58014		-1284	42									67765
1999	MTAB	SEK																														
1999	SJ	SEK			3939		506	7016		398	4112	15971	41	175		712	124	283	17306	1720	515	-466	81		1707	927	10437	1225			1160	17306
1999	CFF/SBB/FFS	CHF		26	8045	3130	206	4098	14576	5297		20776																				
1999	JBV	NOK																														
1999	MTAS	NOK																														
1999	NSB BA	NOK			1442		1167	4467			743	7819	445	574			1318		10156	4061						1468	4627					10156
1999	BDZ	BGL		3	71			208	115	5		1044	119	119		0	8	54	1224	54	825	-134		233		10	48	49	55	0	83	1224
1999	BC	BYB		182548	384100435	17499864	42542757	342586438		21043529	79179	808034750	10521285	5682021	69095	363892	3126501	222163	828019707	13026015	775457499		21718152			11111	3502026	13676735			628169	828019707
1999	CD	CZK		112	65926		7410	17220	105353	15697	9	106374	1740	4536	28	458	1635	2992	117764	79599	370	-12833	-3964	19141	78	971	24534	6544	1561		1763	117764
1999	EVR	EEK			805	45	106	455	550	30	22	1463	135	97	4		42	48	1789	434	298	72	107		2	138	444	190		3	101	1789
1999	MAV Rt.	HUF		1172	319083	40274	1714	136018	15609	33334	18079	549673	6981	35186		2160	2107	14708	610816	188000		1411	-14164	279906	11201	3114	79069	39845		-106	22541	610816
1999	LDZ	LVL																														
1999	PKP	PLN	1850	27	13205	8	1122	4079	25670	29	160	18629	422	1857	15		571		23345	18608		1	-2517	416		4326	49	204	1920	339		23345
1999	CFR	ROL	18	3900	6081713	976203	141410	3465741	1835814	524603	20341	11213911	1538782	3459389	2146209		504551	1210100	20072960	10705573	984080	-2672939	191591	465267		775981	1421821	4161793	3464599		575194	20072960
1999	SZ	SIT		191	83061	10558	5288	8807	349511	24633	9166	141704	3160	9465	937		1638	1553	158457	41036	38150		-701	7859		8365	39343	12202	10770		1432	158457
1999	ZSR	SKK		223	31745	33	2823	10667	2819	8476	619	54586	1765	6950	263		730	9547	73842	38731	9173	-10181	-5203		2071		1000	13751	1929	21458	1112	73842
1999	TCDD	TRL78141 42515328 689774934676			192333518	28294642	4659989	265428150	488517823	55712641	11905389	558359005	30893492	72142451	84768		7307573	20987645	689774933	766512341	160411331	-381187308	-220640722		9156047	108025959	120236760	65027345	128711	195		

A1.3.13. Balance (1985-1990)

YEAR	Railway	Currency	ASSETS																			Liabilities									
			Fixed Assets													Realisable and Available Assets			Results			Capital and Reserves					Short-Term Debts		Results		
			Land and Fixed Installations			Transport Stock			Other equipment																						
			Purchase or construction value	Depreciation	Net (col.4-5)	Purchase or construction value	Depreciation	Net (col.7-8)	Purchase or construction value	Depreciation	Net (col.10-11)	Issuing Costs and Redemption Premiums on Loans	Other Fixed Assets	TOTAL (col.6+9+12+13+14)	Supplies	Debtors	Other fixed assets	total (col.17+18)	Losses from previous periods	Losses for period	Total Assets (col.15+16+19+20+21)	Capital	Reserves	Contribution to investment cost	Provisions	Long Term financial liabilities	Creditors	Other Short-Term Debts	Profits carried over from previous periods	Profit for the period	Total Liabilities (col.23 to 31)
			in Thousands																												
1985	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	BR	pound sterling	655900	120900	535000	1379100	645600	733500	267200	129500	137700		900	1407100	214200	347400	294400	641800	650000	19700	2932800		1377900		93500	623400	720200	118100			2932800
1985	CFF	swiss franc	11087942	5309890	5778052	5445246	3353734	2091512	220081	213266	6815		487339	8363718	186886	393144	937513	1330657		281177	10162438	3000000				5343212	1819226				10162438
1985	CFL	luxemburg franc	3163292	842240	2321052	3038303	1664790	1373513	260886	153214	107672		67420	3869657	591894	582738	486345	1069083	87176		5617810	1600000	1172184		445355	1034820	1365451				5617810
1985	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	CH	drachm	36887230	2763266	34123964	11407022	3006902	8400120	1477622	879144	598478	1737835	9047	44869444	4042326	18961975	4421020	23382995			72294765	29326000		20901680	26492	9109493	12576835	354265			72294765
1985	CIE	pound sterling				178479		178479	62818		62818		51354	292651	38009	31024	1088	32112	48876	6776	404872		96123			215383	65881	27485			404872
1985	CP	escudo	28317240	49995	28267245	19145614	6842207	12303407	1901310	920940	980370		44364013	85915035	4220114	8231410	557444	8788854	44445062	4501175	147870240	17469320	50757469	13909109	3438841	48316648	12239609	1729244			147870240
1985	CSD	Czechoslovak crown	113375448	68459627	44915821	49844621	25153064	24691557	11554120	7542344	4011776			73619154	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	DB	Deutsche mark	73613411	29293120	44320291	25729407	11818995	13910412	1460046	887048	572998	88619		58892320	1071595	2394384	3373509	5767893	3120087	2908819	71760714	18491593	4022545	8178343	667146	31510590	8890497	.	.	.	7176071
1985	DR	Deutsche Mark of the Deutschen Notenbank	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	DSB	Danish crown	6328859	221646	6107213	5122245	414304	4707941	517467	72096	445371		41883	11302408	921313	778714	59759	838473			13062194	11302408					865552	984234			13062194
1985	FS	lira	[illegible]	[illegible]	[illegible]	7536227820		7536227820	551897188		551897188	2217265264	195170886	21714139407	2243429010	6672636419	4421558427	10094194846	16258239733	2119415071	52429418067	45480601	4633876095	6458262388	359265219						52429418067
1985	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	NS	florin	6883272	2261216	4422056	2912513	1162729	1749784	369087	305612	63475		346206	6581521	309357	780084	109801	889885			7780763	484438	2028124	1842809	212161	2267903	659301	252592		33435	7780763
1985	NSB	Norwegian crown	.	.	7123991	.	.	2940669					197064	10261724	259128	592830	129824	722654			11243506	10278776	361		66227	940	897202				11243506
1985	OBB	Austrian Schilling	105204334	36176226	69028108	47986830	16285356	31701474	5667660	2741589	2926071		8160	103663813	1828745	6290077	326898	6616975			112109533	93954025		4511488	853216	8406020	4384784				112109533
1985	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	SJ	Swedish crown	15158045	13861382	1296663	8776865	7210938	1565927	962320	875609	86711		681860	3631161	1179920	1063165	450578	1513743	36		6324860	3153074			341418	392481	706819	1605833		125235	6324860
1985	SNCB	Belgian franc 18059953	[illegible]	[illegible]	127308045	109230596	39461561	69769035	6950327	4849360	2100967	1044483	3399977	203622507	10259206	23287824	1702249	24990073	7703189	248316	246823291	46790535	2316357	78855709	369						
1985	SNCF	French franc	[illegible]	39943999	75721472	46414305	29694421	16719884	1912691	746252	1166439	5775532	4493882	103877209	3503236	18403426	2107521	20510947	28190399	4485823	160567614	38044674	8657968	4029871	7195783	65839					
1985	VR	Finnish mark	5081628	275620	4806008	2100990	207695	1893295	270000	34983	235017			6934320	524722	234345	19666	254011		854287	8567340	8389608					177732				8567340
1985	TCDD	Turkish pound	259698300	58219016	201479284	327212743	73887093	253325650	31557362	11206602	20350760			475155694	30088232	168686354	94727732	263414086			768658012	200576127	282808733		44231935	146383364	20545626	63712341		10399886	
1986	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	BR	pound sterling	812700	139500	673200	1429000	667700	761300	317000	149800	167200		900	1602600	208400	337000	345900	682900	669700	187100	3350700		1580400		207500	639700	862800	60300			3350700
1986	CFF	swiss franc	11681507	5556514	6124993	5632074	3529918	2102156	236119	214195	21923		470076	8719148	214743	429264	836334	1265598		356824	10556313	3000000				5590300	1966013				10556313
1986	CFL	luxemburg franc	3344962	940698	2404264	3028287	1720878	1307409	274796	156706	117090		67420	3896183	639256	366329	721452	1087781	78817		5702037	1600000	1281831	649625	497162	928307	745112				5702037
1986	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	CH	drachm	44012678	2934767	41077911	11945386	3385635	8559751	1982950	1005581	977369	1252562	9047	51876640	6663141	26850898	3831640	30682538			89222319	29326000	293322	27475557		13416296	18711144				89222319
1986	CIE	pound sterling				184849		184849	63483		63483		51943	300275	32319	58439	1558	59997	42100	-4364	430327		105419			214230	62916	47762			430327
1986	CP	escudo	33997972	64960	33933012	20207640	8386261	11821379	1021635	422321	599314	449016	4176906	50979627	4388632	49901388	1452312	51353700		3654972	110376931	22630117	307482	16741235	3204503	48347985	16559636	2585973			110376931
1986	CSD	Czechoslovak crown	116219247	69702719	46516528	51174133	26119591	25054542	12278185	8049829	4228356			75799426	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	DB	Deutsche mark	77418069	30189550	47228519	26013850	12178442	13835408	1429320	893962	535358	93498		61692783	1071182	2373322	3670794	6044116	2908819	3321385	75088285	18116917	5254591	8387159	517722	33439777	9322119				75038285
1986	DR	Deutsche Mark of the Deutschen Notenbank	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	DSB	Danish crown	6905608	246160	6659448	5225491	467398	4758093	630157	84111	546046		41872	12005459	.	710493	61322	771815			12777274	12005459					600628	171187			12777274
1986	FS	lira	[illegible]		[illegible]	[illegible]	545640000	9309285960	137659811	12831632	124828179		16773394363	28222171215	49745229	7570059307	5846641154	13416700461			41688616905	13454483334		2085281989	1656944436	16503028414	6881722873	1			
1986	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	NS	florin	7165156	2416676	4798480	3033270	1227879	1805391	395250	328789	66463		250487	6870821	306170	674316	103234	777550		477	7955018	484438	2086157	2093802	219557	2150489	589084	331491			7955018
1986	NSB	Norwegian crown	.	.	7524771	.	.	3025412					362559	10912742	266574	721164	102828	823992			12003308	10937637	445		66227	794	998205				12003308
1986	OBB	Austrian Schilling	110649977	37487809	73162168	49772859	17156921	32615938	6061955	2875041	3186914		8526	108973546	1667367	5767824	333813	6101637			116742550	99104437		4593881	870681	7673565	4499986				116742550
1986	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	RENFE	Peseta	626240000	302470000	323770000	245155000	107428000	137727000	63158000	20926000	33232000	738000	1565000	497032000	38728000	234606000	3549000	238155000		42038000	815953000	148403000	631000			337721000	321663000	7535000			815953000
1986	SJ	Swedish crown	17102777	14449589	2653188	9604218	7412974	2191244	1070555	911308	159247		621068	5624747	1208299	1372998	392044	1765042		207188	8805276	4448877			346292	953222	908180	2148705			8805276
1986	SNCB	Belgian franc 29938063	[illegible]	[illegible]	134172200	115213394	41734986	73478408	7140469	5209087	1931382	770294	3048199	213400483	9901055	28951289	1663854	30615143	7951506	3013948	264882135	43928002	2316357	89411616	3695						
1986	SNCF	French franc	[illegible]	41981802	81471945	46903560	30785274	16118286	2171385	839823	1331562	4903905	4835904	108661602	3522618	17746006	1170794	18916800	32851435	3875544	167827999	38044674	8407182	6213957	7182957	66491					
1986	VR	Finnish mark	5338434	284454	5053980	2169708	220539	1949169	323249	43024	280225			7283374	544339	277458	17172	294630		1107017	9229360	9014370					214990				9229360
1986	TCDD	Turkish pound 993609822	342395794	78302777	264093017	450076407	104591964	345484443	47569340	17760051	29809289			639386749	33587775	169582738	120486069	290068807		30566491	993609822	200631157	388838562		51874551	211546020	39749916	100514			
1987	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	BR	pound sterling	978900	163100	815800	1485800	677200	808600	325700	163200	162500		900	1787800	188000	375200	280700	655900	856800		3488500		1933800		127000	554500	724800	35200		113200	3488500
1987	CFF	swiss franc	12352200	5798818	6553382	5838276	3725169	2113107	246517	224344	22173		479700	9168362	235092	970200	702359	1672559			11076013	3000000	23337			5664555	2388121				11076013
1987	CFL	luxemburg franc	3482324	1046347	2435977	3079158	1803351	1275807	297317	169528	127789		67420	3906993	634196	657716	1294681	1952397	70291		6563877	1600000	1455525	464625	532767	1273148	1237812				6563877
1987	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	CH	drachm	51232754	3270906	47961848	12156203	3787982	8368221	2601766	1117595	1484171	1313318	9047	59136605	6962390	42231649	2940352	45172001			111270996	29326000	310905	39265731		24762428	17605932				111270996
1987	CIE	pound sterling				183407		183407	61544		61544		53370	298321	30755	23020	2346	25366	37736	9850	402028		114737			157314	66431	63546			402028
1987	CP	escudo	41271129	83874	41187255	27117200	8631098	18486102	3079701	1524245	1555456		335032969	96261782	4875282	15453961	552061	16006022	8156147	5364928	130664161	30590005	307482	23394681	1493913	48971117	19033647	6873316			130664161
1987	CSD	Czechoslovak crown	119792335	71261271	48531064	52630254	27192867	25437387	12963711	8583660	4380051			78348502	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	DB	Deutsche mark	50612271		50612271	13777444		13777444				86081		64475796	1157386	3384071	2438473	5822544	3321385	3940451	78717562	18116917	5572938	8634690	1151718	33574459	11666840				78717562
1987	DR	Deutsche Mark of the Deutschen Notenbank	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	DSB	Danish crown	7589782	268688	7321094	5162517	477700	4684817	754624	111739	642885		42201	12690997	.	955971	197298	1153269			13844266	12690997					919408	233861			13844266
1987	FS	lira	[illegible]		5957122094	[illegible]	[illegible]	9838641677	236225684	41782801	194442883		20613282270	36603488924	520459902	10159484084	5028885018	15188369102			52312317928	13454483334		6706430631	3802992620	20273319627	8072770				
1987	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	NS	florin	7579853	2589464	4990389	3123930	1288256	1835674	399425	339741	59684		726380	7612127	294699	228475	50989	279464			8186290	484438	2137791	2251284	292303	2144983	559271	296292		19928	8186290
1987	NSB	Norwegian crown	.	.	7972561	.	.	3179031					360951	11512543	318809	283421	138532	421953			12253305	11540253	2055		66227	1300	643471				12253305
1987	OBB	Austrian Schilling	114927888	38982770	75945118	50865648	18063475	32829173	6408529	3004014	3404515		135447	112314253	1704033	6795573	599986	7395559			121413845	96878351		12067436	867577	7585400	4015081				121413845
1987	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	RENFE	Peseta	630281422	311445852	318835570	281484400	123552402	157931998	69396671	25668761	43727910	603672	7817962	528917112	36389847	246113138	6961374	253074512		22492000	840873471	173703786	631203			368291639	292717001	5529842			840873471
1987	SJ	Swedish crown	18923241	15174288	3748953	10205693	6308684	3897009	1244891	969616	275275		775120	8696357	1191837	1172333	340084	1512417	207188		11607799	5289770			736034	2133593	785292	2455922		207188	11607799
1987	SNCB	Belgian franc 19559750	[illegible]	[illegible]	138837297	118024489	44037406	73987083	7244557	5547024	1697533	739543	2917124	218178580	9199268	26977729	1037645	28015374	10965454	4280428	270639104	41065468	2316357	95303214	498						
1987	SNCF	French franc	[illegible]	44289923	87308090	46673140	31157867	15515273	2540208	981092	1559116	3957692	4913014	113253185	3237392	15951822	1373826	17325648	36968366	993226	171777817	40444674	8639627	7298616	6242795	675160					
1987	VR	Finnish mark	5638615	287988	5350627	2202590	214958	1987632	379454	46318	333136			7671395	504136	326555	14633	341188		1008496	9525215	9315566	.				209649				9525215
1987	TCDD	Turkish pound 455157	[illegible]	113966621	350934355	665695412	153620023	512075389	78903442	32666079	46237363			909247107	42240823	173246883	231386420	404633303	30566419	20278483	1406966207	225981157	549366747		63228092	378766799	6725				
1988	BDZ	Leva	2443640	.	.	1665119	.	.	249678	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	BR	pound sterling	1101900	189000	912900	1620700	714300	906400	291600	129500	162100		700	1982100	165400	398200	473300	871500	743600	.	3762600		2206800		28200	562400	821700	35400		108100	3762600
1988	CFF	swiss franc	13119902	6021678	7098224	6163125	3911713	2251412	260054	240356	19698		506787	9876121	276249	1189256	662515	1851771			12004141	3000000	65563			6384566	2554012				12004141
1988	CFL	luxemburg franc	4861815	1616885	3244930	3135197	1911895	1223302	316198	180605	135593		68135	4671960	681517	1138238	647750	1785988	61765		7201230	1600000	1590322	514625	600876	1665899	1229508				7201230
1988	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	CH	drachm	84017262	4269185	79748077	12695610	4199203	8496407	3080089	1300383	1779706	1811777	9047	91845014	6646398	51910608	2014475	53925083			152416495	29326000	24116488	48122170		34014979	16836858				152416495
1988	CIE	pound sterling	56874	847	56027	270461	80241	190220	84019	23303	60716			306963	30030	23878	1001	24879	56544	12684	431100		132064	282	22224	193895	47459	35176			431100
1988	CP	escudo	51285942	110652	51175290	32035044	10138187	21896857	3768952	1629177	2139775		31011428	106223350	6505494	18879338	728651	19607989	13521075	5789231	151647139	37390006	333832	25471547	1253032	51063035	24033034	12102653			151647139
1988	CSD	Czechoslovak crown	122365216	72764210	49601006	54386797	28366544	26020253	13727954	9095796	4632158			80253417	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3822637	.
1988	DB	Deutsche mark	53068259		53068259	13645289		13645289				88415		66801963	1156860	3400029	2896219	6296248	3940451	3935150	82130672	18116918	6278797	8828530	1225650	38499481	9181296				82130672
1988	DR	Deutsche Mark of the Deutschen Notenbank	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	DSB	Danish crown	8089703	299895	7789808	5028559	471052	4557507	856838	132929	723909		39646	13110870	.	1455365	317959	1773324			14884194	13110870					954047	819277			14884194
1988	FS	lira	[illegible]	[illegible]	10636464952	12401783060	1828555967	10573227093	385470254	87972349	297497905		24396980006	45904169956	2978337593	11865156401	3002053729	14867210130		1018131896	64767849575	14924612017		11583404598	6378781065	241					64767849575
1988	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	NS	florin	8099540	2807268	5292272	3270651	1350301	1920350	416226	363343	52883		711518	7977023	307019	286057	47892	333949			8617991	484438	2203411	2492716	326717	2122334	565521	350285		72569	8617991
1988	NSB	Norwegian crown	.	.	8584905	.	.	3011031					517045	12112981	321513	423453	145141	568594			13003088	12107800	2128		66227	41077	785856				13003088
1988	OBB	Austrian Schilling	120455180	40816279	79638901	51747561	18855530	32892031	6731879	3145938	3585941		136332	116253205	1595197	4751708	464400	5216108			123064510	97477862		12868301	910472	6941525	4866350				123064510
1988	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	RENFE	Peseta	667200130	324604015	342596115	322690242	130229649	192460593	82106883	41885405	40221478	477939	6788093	582544218	34758522	308913847	897933	309811780		13956000	941070520	238839719	631203			364333252	320242974	17023372			941070520
1988	SJ (BV)	Swedish crown	21103332	16214114	4889218	9828513	5230953	4597560	1380817	1034284	346533		759986	10593297	1043911	1267702	451988	1719690	0		13356898	5707443	433536		857017	2732259	993810	2632833		0	13356898
1988	SNCB	Belgian franc 8915936 22527292	[illegible]	[illegible]	140093195	114346693	44946638	69400055	7609430	5848079	1761351	505102	2820810	214580513	8260753	22186631	1018934	23205565	15245882	569500	261862213	28445524	975440	95735353	17515						
1988	SNCF	French franc	[illegible]	46771048	94531729	46599386	31783880	14815506	2876291	1131443	1744848	4616084	5286734	120994901	2942865	16954760	1246008	18200768	38145770	562754	180847058	42144674	8823804	7987226	6316037	76242					
1988	VR	Finnish mark	5987610	325576	5662034	2224951	214587	2010364	438486	51948	386538			8058936	493105	387169	11379	398548		1025104	9975693	9750557	.				225136				9975693
1988	TCDD	Turkish pound 219119734 455157	1040819783	[illegible]	828872463	1282253154	287837902	994415252	170607547	65369453	105238094			1928525809	56152289	224702916	109026972	333729888	50844974	82901281	2452154241	310150545	1018758657		83583873	6790660					
1989	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	BR	pound sterling	1363800	218800	1145000	1814500	756300	1058200	335900	151800	184100		500	2387800	170100	497000	374400	871400	635500	41100	4105900		2581500		47100	561400	868100	47800			4105900
1989	CFF	swiss franc	13994911	6288772	7706139	6554452	4115512	2438940	274879	224520	50359		523372	10718810	317788	1211426	656508	1867934			12904532	3000000	135585			6696549	3073398				12904532
1989	CFL	luxemburg franc	5445956	1673930	3772026	3750731	1987123	1763608	329648	195582	134066		68135	5737835	765308	1247225	642810	1890035	52723		8445901	1600000	1719482	789625	629314	2045131	1662349				8445901
1989	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

A1.3.13. Balance (1985-1990)

YEAR	Railway	Currency	ASSETS																			Liabilities									
			Fixed Assets													Realisable and Available Assets			Results			Capital and Reserves					Short-Term Debts		Results		
			Land and Fixed Installations			Transport Stock			Other equipment																						
			Purchase or construction value	Depreciation	Net (col.4-5)	Purchase or construction value	Depreciation	Net (col.7-8)	Purchase or construction value	Depreciation	Net (col.10-11)	Issuing Costs and Redemption Premiums on Loans	Other Fixed Assets	TOTAL (col.6+9+12+13+14)	Supplies	Debtors	Other fixed assets	total (col.17+18)	Losses from previous periods	Losses for period	Total Assets (col.15+16+19+20+21)	Capital	Reserves	Contribution to investment cost	Provisions	Long Term financial liabilities	Creditors	Other Short-Term Debts	Profits carried over from previous periods	Profit for the period	Total Liabilities (col.23 to 31)
			in Thousands																												
1989	CH	drachm	90915257	4913441	86001816	21834773	4611745	17223028	3898816	1528311	2370505	3795598	9047	109399994	6758149	57425495	5042607	62468102			178626245	29326000	24124116	62642098		44958099	17575932				178626245
1989	CIE	pound sterling	60408	1031	59377	275126	91085	184041	83560	24619	58941			302359	29974	22628	2278	24906	69228	-5239	421228		138031	186	31880	176453	40906	33772			421228
1989	CP	escudo	63855314	143540	63711774	35153680	11809123	23344557	4320081	2050482	2269599		36461131	125787061	6705986	19146805	522679	19669484	19310305	9373891	180846728	38006005	333832	39111147	1006063	64116102	25184684	13088895			180846728
1989	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	DB	Deutsche mark	55651288		55651288	13354817		13354817				94813		69100918	1140194	3049430	3085530	6134960	3935150	3858295	84169517	18116918	6218858	8967649	1833044	37494817	11538231				84169517
1989	DR	Deutsche Mark of the Deutschen Notenbank	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	DSB	Danish crown	8401871	676949	7724922	4997046	459789	4537257	960778	151118	809660		39636	13111475		1275563	190221	1465784			14577259	13650803					926456				14577259
1989	FS	lira	[illegible]	[illegible]	14706001826	13527283566	2562099771	10965183795	536589548	151900788	384688760		29090558086	55146432467	2932829338	10981231422	3924194711	14905426133	1018131896		74002819834	14853612830		14584396710	7093						74002819834
1989	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	NS	florin	8588795	2983693	5605102	3593059	1451893	2141166	451346	385982	65364		703229	8514861	274064	389344	70810	460154			9249079	484438	2320425	2802324	398263	2351600	618661	234425		38943	9249079
1989	NSB	Norwegian crown	.	.	8915055	.	.	3126840					660378	12702273	326772	361949	112215	474164			13503209	12671303	51916		66226	59362	654402				13503209
1989	OBB	Austrian Schilling	126620216	42421857	84198359	53558340	19887955	33670385	7231927	3318085	3913842		146413	121928999	1598993	4954372	2189175	7143547			130671539	101986660		14567996	839906	7104400	6172577				130671539
1989	PKP	zloty	2756547815	779922053	1976625762	1083617190	461136656	622480534	505184603	157507913	347676690	14798811		2961581797	187196865	1736362985	359696297	2096059282			5244837944	2602613943	1420179			117940598	2381580257		265899	14101706	
1989	RENFE	Peseta	762010118	349120328	412889790	378417526	137037677	241379849	74808953	39862112	34946841	1707432	14859255	705783167	37719347	290225370	1933337	292158707		19197000	1054858221	306441194	2812203			498019774	229163347	18421703			10548
1989	SJ	Swedish crown	4743853	2947603	1796250	9469727	5366304	4103423	582049	311964	270085		734287	6904045	695634	1612621	1056683	2669304			10268983	3670840	483365		871752	1881924	1165024	2159953		36125	10268983
1989	BV	Swedish crown	17547403	15570386	1977017				2540202	1771471	768731		89570	2835318	279045	577497	54484	631981			3746344	1125335				1200000	580135	840874			3746344
1989	SNCB/NMBS	Belgian franc 6711910 241909672	213604535	73999393	139605142	112237901	45732690	66505211	8308947	6189060	2119887	1020798	2759248	212010286	6467222	21310990	1414233	22725223		706941	241909672	29946549	2494484	92817557	12758721	617					
1989	SNCF 4434704	French franc 137782 192024757	154865570	49661334	105204236	40294709	29539098	10755611	3257061	1260340	1996721	3571903	6687384	128215855	2873081	21015136	487484	21502620	39433201		192024757	43896674	9548482	8508815	6543182	78236757	307				
1989	VR	Finnish mark	6361932	365792	5996140	2510908	218575	2292333	595419	64168	531251			8819724	383439	385014	14595	399609		1070887	10673659	10334976	.				338683				10673659
1989	TCDD	Turkish pound 237108578 433808609	2105325185	416173845	1689151340	1995226237	549200737	1446025500	202619195	85415834	117203361			3252380201	127006221	407480914	167197372	574678286	133746255	151757118	4239568081	636084377	1893352528		134124943	9					
1990	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	BR	pound sterling	1669500	253300	1416200	2030400	784400	1246000	401600	188100	213500		285500	3161200	178800	502500	37100	539600	676600	90700	4646900		2700200		75300	369900	1038100	463400			4646900
1990	CFF	swiss franc	15272088	6918438	8353650	7063428	4196832	2866596	249462	207359	42103		860159	12122508	375339	1594960	850551	2445511			14943358	3000000	138310			8734928	3070120				14943358
1990	CFL	luxemburg franc	6040024	1678164	4361860	4350807	2057125	2293632	383459	220480	162979		70035	6888556	815107	1007376	881094	1888470	43675		9635808	1600000	1916125	889625	664935	2331496	2233627				9635808
1990	CFR	Lei	.	.	.	.	.	.	9125995		9125995		150611	107030072	8164920	1760935	36847	1797782	251578	3973704	121218056	106683808	3191689			2613685	6386911	2341963			121218056
1990	CH	drachm	100171300	5607377	94563923	29940770	5442855	24497914	4676121	1786293	2889828	6328852	24918	128305435	9287409	70339804	7665571	78005375			215598219	29326000	24136268	82525661		52467887	27142403				215598215
1990	CIE	pound sterling	61685	1264	60421	286611	101227	185384	87624	28448	59176			304981	32959	22885	1143	24028	63989	3666	429623		143007	153	39770	165024	38825	42844			429623
1990	CP	escudo	77853525	182008	77671517	42528481	14094091	28434390	4650661	2335708	2314953	67377	32747425	141235662	7581884	20898543	783167	21681710	29578343	20171918	220259517	50906006	396367	49267227	1101883	75623606	26042366	16922662			2202
1990	CSD	Czechoslovak crown	135054233	79855554	55198679	58853201	31838749	27014452	18641274	11832886	6808388			89021519	6050324	1241002	717813	1958815		-1834767	95195891	12030478	2463371	622412	505270	2612285	305433	308			18539557
1990	DB	Deutsche mark	57881963		57881963	13380092		13380092				103310		71365365	1176559	2944027	3847095	6791122	3858295	4943676	88135017	18116918	5773732	9284322	2143629	40863496	11952920				88135017
1990	DR	Deutsche Mark of the Deutschen Notenbank	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	DSB	Danish crown	9763107	418574	9344533	6624659	509472	6115187	1272268	180875	1091393		43235	16594348		2017696	290001	2307697			18902045	16507010					1145906	1249129			18902045
1990	FS	lira	[illegible]	[illegible]	[illegible]	14756210562	3361788663	11394421899	799932450	304092095	495840355		36810440568	66694138394	2867280492	14509886920	9183910546	23693797466	1018131896	1224101516	95497449764	14968398017		2173							95497449764
1990	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	NS	florin	9265008	3143896	6121112	4005704	1556210	2449494	501117	421924	79193		723059	9372858	282783	397824	231324	629148			10284789	484438	2454989	3119473	456691	2491399	826502	363571		87726	10284789
1990	NSB	Norwegian crown	.	.	8891096	.	.	3149925					710906	12751927	331518	351011	260860	611871			13695316	12728576	87453		66226	79663	733398				13695316
1990	OBB	Austrian Schilling	133915666	44280812	89634854	57243699	21175543	36068156	7513549	3381690	4131859		212891	130047760	1643780	5261091	1161407	6422498			138114038	103737776		16901270	962020	9962811	6550161				138114038
1990	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	RENFE	Peseta	819096095	360605676	458490419	428212360	145753602	282458758	94343327	45491852	48851475	2328319	21708131	813837102	43739523	323862340	2321812	326184152		16245000	1200005777	376330342	2947202			451612864	318664729	50450640			12000
1990	SJ	Swedish crown	7638969	3271352	4367617	9610368	7512981	2097387	796939	333102	463837		431586	7360427	237085	1224984	2547840	3772824			11370336	1980702	3037797		1202414	1329546	685607	3045115	36125	53030	11370336
1990	BV	Swedish crown	20275373	17355100	2920273				3004932	1840500	1164432		74621	4159326	335573	740442	50224	790666			5285565	1130750				3000000	648312	506500			5285565
1990	SNCB/NMBS	Belgian franc 6004969 235978118	220386803	80325580	140061223	105401990	45895335	59506655	8779493	6553949	2225544	234531	2458753	204486706	6504384	17970025	6546542	24516567		470461	235978118	32601411	3926051	86342223	13369196	4857					
1990	SNCF 36381249	French franc 207123605	169944853	53285032	116659821	40898694	30009021	10889673	3671522	1476319	2195203	3123485	8546743	141414925	3211608	21253065	1486652	22739717	39773886	-16531	207123605	43896674	10026948	8796748	5771700	862					
1990	VR	Finnish mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	TCDD	Turkish pound 344853530 1217500528	31357134447	[illegible]	[illegible]	3233156964	914947864	2318209100	366575044	175817874	190757170			4926775497	290965027	701845386	283960885	985806271	285503373	793488112	7282538280	908367997	3081937797		24613610						

A1.3.14. Specific Costs and Revenue (1991-1999) : Operating and general results for the financial year

YEAR	Railway	Currency	Specific costs													Specific receipts									Results				
			Materials purchases and external			Staff costs				Taxes	Infrastructure levies	Depreciation and amortisation	Value adjustments and provision for contingencie	Total Operating expenses (col.6+10 to 14)	Financial Charges	Traffic receipts			Other Operating Income, Recovery of	Support from government and other public	Support for infrastructure costs	Fixed assets own construction	Total Operating Income (col.17 to 23)	Financial income	Operating Result (col.24-15)	Financial Results (col.25-16)	Extraordinary Results	Recovery of tax provisions and corporate	Profit or loss for the financial year (col.26 to 29)
			Material purchases	External charges and other operating	Total (col.4+5)	Salaries and wages	Social security costs	Pensions costs	Total (col.7 to 9)							Passenger and baggage traffic	Freight traffic receipts	Other traffic receipts											
			in Thousands of currency units																										
1991	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1991	BR	pound sterling	1744300		1744300	2283600	160400	4700	2448700			178600		4371600	81300	2324700	680200		152300	797600		322000	4276800		-94800	-81300	31400		-144700
1991	CFF	swiss franc	339581	839919	1179500	2640389	184920	452435	3277744	25639	45000	640241	173138	5341262	567695	1548454	1148594	143500	699612	689900	1227818	330760	5788638	73424	447376	-492271	18314		-28581
1991	CFL	luxemburg franc	525848	470614	996462	4246207	317064	3772167	8335438	53600		964838	8848	10359186	461442	425868	1520574	130022	40504	8046100		164293	10327361	49902	-31825	-411540			-443365
1991	CFR	Lei	32911107	2363000	35274107	33077176	6917954	1457959	41453089	1658952		4137692		82523840		12223878	55134387	5200918		3313538	9870000		85742721		3218881				3218881
1991	CH	drachm	9046739	5075684	14122423	34163350	12586050		46749400	323263		3717190	5197418	70109694	3522794	8983255	7963267	401710	97589	10936764		5415544	33798129	773740	-36311565	-2749054	1798411		-37262208
1991	CIE	pound sterling	95561	37381	132942	161663	14458	13635	189756	2485		33250		358433	20141	238062	42410	5595		100543	6926		393536	116	35103	-20025	-5405		9673
1991	CP	escudo	13162175	9299704	22461879	34919314	8911760		43831074	64372		3232170	334802	69924297	13663040	21183739	8026336	656717	3141023	15390610		4659143	53057568	281480	-16866729	-13381560	4928464		-25319825
1991	CSD	Czechoslovak crown	14557042	3702413	18259455	10515273	2104791	79	12620143	1134148	256929	6417285	3669072	42357032	866309	2798337	21227354	4690253	6232500	18171	4674	6555513	41526802	187044	-830230	-679265	396167		-1113328
1991	DB	Deutsche mark	3138318	5897899	9036217	11602788	4250400	6490090	22343278			2401225		33780720	3113669	6238685	9264265	725812	3219012	9440900		1171822	30060496	339764	-3720224	-2773905	1217685	-23963	-5300407
1991	DR	Deutsche Mark of the Deutschen Notenbank	2243501	2526071	4769572	5355362	960289	153983	6469634	8558		1679035	207688	13134487	477159	816468	2551951	308441	2211198	2409440	45000	865891	9208389	118817	-3926098	-358342	865891		-341
1991	DSB	Danish crown	1424963	1247510	2672473	4081530	268239		4349769	261099		1267048		8550389	1755597	2368800	1069300	1726100	892042	4079786			10136028	169958	1585639	-1585639			
1991	FS	lira	581077	3770946	4352023	7562095	1024432	2118367	10704894	124571		1358028	1331902	17871418	4082727	2516947	1382542	9262	936186	11112199	1500000	365817	17822952	724742	-48466	-3357985	454445	-7503	-2959510
1991	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1991	MAV	Forint	29384175	1079188	30463363	23115427	1823988	9921967	34861382	6788422		7978213	4155709	84247089	1674574	10579667	47297048	1432428	4561869	6791115		13262712	83924839	310394	-322250	-1364180	1398229	-39763	-327964
1991	NS	florin	247874	916900	1164774	1487890	339308		1827198	14610		321073	169817	3497472	286256	1579618	251313	29339	176558	1503541		251359	3791728	88550	294256	-197706			96550
1991	NSB	Norwegian crown	1021200	1142200	2163400	3048500	34400	125200	3208100		167400	340100		5879000	222200	1472000	1244400	389100	422600	933600	1513900	4400	5980000	36000	101000	-186200	-233000		-318200
1991	OBB	Austrian Schilling	.	.	8606412	19683554	3121234	2133103	24937891	115927	.	3760149	12491	37432870	771727	6491865	10765018	543387	3071567	10485881	4734834	2022647	38115199	102920	682329	-668807	103496		117018
1991	PKP	zloty	6497961	6918798	13416759	6682783	224025	2673194	9580002	131678		6422952	561819	30113210	250398	16996595	2969903	2584871	753360	2191227	1562000		27057956	176996	-3055254	-73402	-501547	-3631727	-7261930
1991	RENFE	Peseta	20222	104347	124569	134165	16889	38775	189829	651		45752	4426	365227	69048	83201	56864		42505	46094	79294		307958	69645	-57269	597			-56672
1991	SJ	Swedish crown	1005000	2545000	3550000	3089000	1169000	716000	4974000		675000	279000	223000	9701000	363000	4908000	3687000	1109000		223000			9927000	523000	226000	160000	76000		462000
1991	BV	Swedish crown	887000	1911000	2798000	1269000	511400		1780400			186100		4764500	403700				706300	4509600			5215900		451400	-403700			47700
1991	SNCB/NMBS	Belgian franc	6118904	16217312	22236216	40916545	9443336	28182883	78542764	10551		9872434	-538665	110223300	8359494	13345699	15850621	8650389		43479840	6751648	11627151	99705348	17524794	-10517952	9165300	1933425		
1991	SNCF	French franc	9877454	13346151	23223605	29917301	4999911	7230887	42157099	2273779		6507809	239421	74401713	8988412	24160673	17300645	677820	6074511	11942152	10703758	7053577	77913136	1321592	3511423	-7666820	4161809		6412
1991	VR	Finnish mark	147957	657014	804971	1878427	61144	450486	2390057		1000	427236	90000	3713264	12554	1082055	1928746		242420	344433		105795	3703450	114998	-9814	102444	-86000	-2601	4029
1991	TCDD	Turkish pound	552632	621438	1174070	1322117	529458	62952	1914528	5490		515771	77512	3687371	1401548	247357	764806		707791	322119	458401		2500474	427810	-1186898	-973738			-2160636
1992	BR	GBP	1266	9	1274	2589	171	12	2772			98	37	4182	98	2194	723		204	704	41	249	4114	2	-68	-96			-164
1992	CFL	LUF	533	562	1095	4397	354	4198	8949	53		1137	8	11241	561	436	1412	119	50	9076		80	11172	60	-69	-502			-571
1992	CH	GRD	6899	4059	10958	32102	11646		43748	671		4953	11300	71629	3106	9300	8037	221	112	11073			28742	1239	-42887	-1867	3477		-41277
1992	CIE	IEP	98	37	135	165	15	14	194	2		37		369	20	251	45	4		101	8		409	0	40	-19	-4		16
1992	CP	PTE	12610	11273	23883	36956	11093		48048	18		4031	758	76738	16400	22250	9167	877	2965	15971		3247	54477	378	-22262	-18022	4588		-35696
1992	DB	DEM	3469	5899	9368	11991	4627	6849	23468			2740		35576	3548	6733	8675	282	3240	10013		1115	30058	443	-5517	-3105		-25	-8648
1992	DR	DEM	2803	2673	5475	6289	1378		7667	13		1897		15052	664	841	1580	215	3316	2473		1010	9436	164	-5616	-500			-6116
1992	DSB	DKK	1300	1536	2837	4197	192		4390	342		1363		8932	1913	2553	1060	1561	1285	2676	1553		10688	157	1756	-1756			0
1992	FS	ITL	621183	3245688	3866870	8073286	1017654	2258581	11349521	180727		1911717	857500	18166335	4662125	2866203	1365444	14438	739582	6360000	1500000	452304	13297972	5324482	-4868363	662357	66933	-7506	-4146579
1992	NS	NLG	256	1043	1299	1606	346		1952	15		334	157	3756	313	1654	230	86	196	1545		271	3982	125	226	-188	-230		-192
1992	RENFE	ESP	21478	112842	134320	139636	13212	43136	195984	560		61038	7733	399635	83553	100236	53403		36933	41630	92670		324872	87953	-74763	4400	-1021		-71384
1992	SNCB/NMBS	BEF	6277	21791	28068	43273	9176	28871	81320	100		9911	-712	118687	7435	13969	15790	298	12185	46021	7288	14369	109919	14000	-8768	6565	1354	-1397	-2247
1992	SNCF	FRF	10789	14622	25411	31102	5184	7570	43856	2357		7053	644	79320	11053	25532	16952	705	6204	12333	11248	8414	81388	1647	2068	-9406	4382		-2956
1992	CFF	CHF	346	874	1220	2805	193	536	3535	27		684	186	5651	663	1644	1126	171	691	775	1215	361	5983	87	332	-576	109		-135
1992	NSB	NOK	1215	2237	3452	3223	33	130	3386		168	385		7391	450	1572	1189	378	627	1152	2249	73	7240	240	-151	-210	-379		-740
1992	OBB	ATS	.	.	8935	21008	3289	2328	26626	123	.	4120		39804	973	6497	10589	601	3560	12236	5053	2185	40721	131	917	-841	.		75
1992	BV	SEK	1168	2506	3674	1372	566		1937			265		5876	555				641	5791			6432		555	-555			0
1992	SJ	SEK	1031	2388	3419	3281	1501		4782		690	345		9236	702	5002	3423	1225					9650	694	414	-8	-342		64
1992	VR	FIM	199	662	862	1854	62	444	2360		1	412	150	3784	14	1079	1848		258	365		115	3666	156	-119	142		-3	21
1992	BC	RUR	3243	14031	17274	5011	454	223	5687	4700		248		27909	6173	2635	21217	2932	10736				37250	7134	9611	961			10572
1992	BDZ	BGL	1291	1201	2492	1766	759		2525			192	213	5422	743	653	2648	43	1574		701	351	5971	117	549	-626			-77
1992	CFR	ROL	106968	3807	110776	85767	26234	9716	121718	6316		4445	11964	255218		33909	188588	14944		6760	10738	280	255218						
1992	CSD	CSK	12504	3676	16181	10684	2147		12831	1220	143	639	3071	34084	365	2782	20155	83	6782	51			29854	175	-4230	-190	394		-4026
1992	EVR	EEK	89	46	135	57	19		76			4		216	7	25	166		33	6	3		232	2	17	-5			12
1992	LDZ	LVR	2362	968	3330	1366	529		1894			121		5346	190	689	3417	445	1168				5719	230	373	40			413
1992	MAV	HUF	24840	2929	27770	28479		11697	40176	13588		9067		90600	3004	11166	21333	29125	5577	7986	657	7275	83119	387	-7481	-2617	-1019		-11116
1992	PKP	PLZ	6897234	6258327	13155561	9081805	350506	3925732	13358043	1109		6298363	111622	32924698	374626	4623432	19714559	2542892	647247	2293795	2500000		32321925	384847	-602773	10221	-866503	-1100	-1460155
1992	SZ	SIT	2309	5808	8117	11054	1083	1606	13744	984		3496		26341	10901	1629	10367	1275	7824	1567	3895	172	26729	2113	388	-8788	-852		-8252
1992	TCDD	TRL	905606	1445855	2351461	2518404	921382	184043	3623829	7851		858129	127265	6968535	1620266	587896	1176821		1208636	583302	247100		3803755	955023	-3164780	-665243			-3830023
1993	BR	GBP	1146	9	1155	2438	177	23	2638			100	18	3911	123	2254	643		203	577	4	253	3934	2	23	-121	56		-42
1993	CFL	LUF	426	705	1130	4542	365	4226	9133	54		1095	98	11509	632	493	1417	107	36	9400		118	11572	95	63	-536	473		
1993	CH	GRD	8402	25696	34098	32062	13969		46031	1277		5603	1209	88218	6155	10900	8682	294	148	11491			31515	2092	-56703	-4063	1522		-59245
1993	CIE	IEP	99	36	135	170	16	14	199	3		36		373	18	254	41	6		101	8		409	0	36	-18	-9		9
1993	CP	PTE	13197	19032	32229	34663	8073		42736	72		5927	499	81463	25115	22246	8944	1115	6411	15379	1905	2080	58081	579	-23381	-24536	6358		-41559
1993	DB	DEM	3332	6038	9371	11977	4719	6984	23680			2785		35836	4110	6924	7208	247	3547	10893		1151	29970	552	-5866	-3558		-32	-9456
1993	DR (1992)	DEM	2803	2673	5475	6289	1378		7667	13		1897		15052	664	841	1580	215	3316	2473		1010	9436	164	-5616	-500			-6116
1993	DSB	DKK	11246	1615	2862	4217	10	437	4664	354		1485		9365	1992	2541	1066	1605	1091	3466	1464		11234	123	1869	-1869			
1993	FS	ITL	679942	2398616	3078558	7785225	1119141	2346797	11251163	110633		2326294	113457	16880106	5649105	5164085	1379208	14871	580620	2245870	2628996	758063	12771715	5821926	-4108391	172821	-2389		-3937960
1993	NS	NLG	231	1051	1282	1666	183		1849	19		411	195	3756	373	1722	204	89	249	1439		279	3984	79	228	-294	4		-62
1993	RENFE	ESP	16705	109918	126623	130061	41596	1421	173078	606		66308	13873	380488	112473	92846	43148		27643	39636	126601	3311	333185	105998	-47303	-6475	-4142		-57920
1993	SNCB/NMBS	BEF	8133	37270	45403	44342	9496	30250	84088	46		10368	-1261	138644	7364	14515	14270	291	30396	35848	24000	13393	132713	9567	-5931	2203	3981	-1148	-895
1993	SNCF	FRF	9799	15060	24859	31173	5200	7727	44100	2509		8422	477	80366	12574	24770	15280	605	7008	12705	11391	7058	78818	5137	-1548	-7438	1278		-7707
1993	CFF	CHF	355	889	1244	2814	222	502	3537	29		715	212	5737	628	1693	1020	166	884	824	1297	396	6279	88	542	-540	42		45
1993	NSB	NOK	1371	1838	3209	3272	34	131	3437		102	431		7179	522	1660	1023	390	534	1386	2355	119	7467	71	288	-451	62		-101
1993	OBB	ATS	.	.	9281	20972	.	.	26648	123	.	4675		40726	998	6497	10505	601	3251	12586	5297	2185	40922	133	196	-865			-669
1993	BV	SEK	1798	3243	5041	1465	598		2063			328		7432	491				800	7213			8012		581	-491	-90		
1993	SJ	SEK	.	.	3808	3011	.	.	4245		651	383		9087	535	4945	3006	1548					9499	563	412	28	-321		119
1993	VR	FIM	162	632	794	1902	71	429	2402		11	390		3596	14	985	1975	22	342	279		128	3731	121	135	107		-3	239
1993	BC	RUR	14823	200353	215176	57400	658	25094	83152	70647	49668	5623		424266	56155	27528	261495	153000	135825				577848	67418	153582	11263			164845
1993	BDZ	BGL	1646	1892	3538	2827	1216		4043			197	204	7982	796	851	4137	36	1253		888	592	7758	109	-223	-686			-910
1993	CD	CZK	7268	5454	12722	8008	2979		10987	36		4271	2186	30202	285	1977	12073	2772	4917	6050	1998		29787	207	-415	-78	-689		-1182
1993	CFR	ROL	221988	11442	233431	234322	74998	15928	325248	5908		5738	2098	572423	743	74616	429242	16961			31259		552077	14889	-20346	14145			-6200
1993	EVR(1992)	EEK	89	46	135	57	19		76			4		216	7	25	166		33	6	3		232	2	17	-5			12
1993	LDZ	LVR	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1993	MAV	HUF	25202	1067	26269	35504		2186	37690	3743		7378	17203	92283	5407	18474	34125	6421	18307	3980		1547	82854	385	-9429	-5022	-46		-14497
1993	PKP	PLZ	10415419	9502653	19918072	13250993	495797	5891569	19638359	625		6311189	180393	46048638	599062	6634416	24648378	2949200	2219501	1893246	3240000		44584741	272104	-1463897	-326958	-302273		-2093128
1993	SZ	SIT	3275	6840	10115	11528	882	1728	14138	801		1623		26676	7810	1951	12864	2377	6341	4074	4571	252	32430	1782	5754	-6027	-676		-950
1993	ZSR	SKK	3993	1662	5655	3863	1380	28	5271	15		2109		13050	125	1035	8697	8	1071			754	11564	147	-1485	23			-1463
1993	TCDD	TRL	1286956	1939137	3226093	5010376	1656559	215249	6882184	9941		1426967		11545185	3682746	543222	1523237		2196465	1548515	336240		6147679	231173	-5397506	-3451573			-8849078
1994	BR	GBP	1160	2169	3328	2100	146	44	2290			78		5695	109	2176	575		1430	2063		22	6266	3	571	-106	-80	-698	-313
1994	Railtrack	GBP	5	1698	1704	269	18		287			90		2081	147			2275	42	49		30	2396	21	316	-127		-88	101
1994	CFL	LUF	673	3577	4250	4960	445	4423	9828	54		1168	26	15326	812	914	3476	386	696	9870		434	15777	194	451	-618	-56		-224
1994	CH	GRD	8692	14760	23452	41295	17825		59120	414		9049		92034	9795	10469	5365	359	144	14475			30812	1160	-61222	-8635	3689		-66168
1994	CIE	IEP	104	36	140	179	16	15	210	3		36		389	13	266	40	6		97	8		418	0	28	-13	-7		9
1994	CP	PTE	12837	21449	34286	32145	7459		39604	324		8562	660	83436	22067	22050	8644	3453	5577	13249	2381	1796	57149	594	-26287	-21473	-610		-48370
1994	DB AG	DEM	3375	3833	7208	.	.	.	17590			1567	415	26780	2342	15651	8053	49	2956			2342	29052	559	2272	-1782		-309	180
1994	DSB	DKK	.	.	759	.	.	.	4687	.		.		8039	.	2590	1050	1702	1344	.	.		8042	.	3	35			38
1994	FS	ITL	542828	2394135	2936964	6898969	1036025	2098245	10033238	127373		2712882	96715	15907173	5946149	5585366	1491118	14850	551943	2195365	2693476	771295	13303414	5535288	-2603759	-410861	423852		-2590768
1994	NS	NLG	178	1252	1430	1687	153		1840	7		437	83	3797	371	1848	214	85	233	1476		280	4138	106	341	-265			76

A1.3.14. Specific Costs and Revenue (1991-1999) : Operating and general results for the financial year

in Thousands of currency units

YEAR	Railway	Currency	Specific costs – Materials purchases and external: Material purchases	External charges and other operating	Total (col.4+5)	Staff costs: Salaries and wages	Social security costs	Pensions costs	Total (col.7 to 9)	Taxes	Infrastructure levies	Depreciation and amortisation	Value adjustments and provision for contingencie	Total Operating expenses (col.6+10 to 14)	Financial Charges	Specific receipts – Traffic receipts: Passenger and baggage traffic	Freight traffic receipts	Other traffic receipts	Other Operating Income, Recovery of	Support from government and other public	Support for infrastructure costs	Fixed assets own construction	Total Operating Income (col.17 to 23)	Financial income	Results: Operating Result (col.24-15)	Financial Results (col.25-16)	Extraordinary Results	Recovery of tax provisions and corporate	Profit or loss for the financial year (col.26 to 29)
1994	RENFE	ESP	14417	104633	119050	127951	49245	2124	179320	612		72132	12977	384091	105729	94318	45148		32585	140770	139515	3590	455926	50981	71835	-54748	-9329		7758
1994	SNCB/NMBS	BEF	6357	36675	43032	45378	9574	29922	84874	40		10905	-1896	136955	7221	14455	14817	274	21628	35278	24000	18410	128862	11381	-8093	4160	2547	193	-1193
1994	SNCF	FRF	9001	15634	24634	31014	5138	7735	43887	2753		9575	197	81046	12765	24474	16179	549	7334	13609	11798	6020	79964	4299	-1082	-8466	1364		-8184
1994	CFF/SBB/FFS	CHF	339	916	1255	2735	220	562	3517	31		744	290	5837	675	1702	965	307	593	830	1399	393	6189	107	352	-568	18		-198
1994	NSB	NOK	991	2187	3178	3472	33	144	3649		88	244		7160		174	1035	410	550	1008	2503		5680	27	-1480	27	91	.	
1994	OBB	ATS	.	.	11016	21760	.	.	27649	167	2500	3356	.	44688	1465	7070	9761	638	3558	8016	15796	1577	46417	100	1729	-1364			365
1994	BV	SEK	2527	5679	8206	1564	606		2169			436		10811	486				2019	9458			11477		666	-486	-180		
1994	SJ	SEK	.	.	4736	3095	217	928	4240		665	536		10177	474	5020	3775	0	1548				10343	779	166	305			471
1994	VR	FIM	155	518	674	1877	170	391	2439		1	468		3581	9	1071	2051	54	219	266		124	3785	111	204	102		-5	300
1994	BC	RUR	230724	163832	394556	90697	1002	34863	126562	132455	75935	3694		733202	12268	129648	745997	50	205472				1081167	89748	347965	77480			425445
1994	BDZ	BGL	2193	2503	4696	3724	1596		5320			211	1339	11566	1419	1468	6485	47	1278		1000	1353	11631	391	65	-1028			-962
1994	CD	CZK	7659	15417	23076	8807	3194	107	12108	25		4126	192	39527	414	2329	17148	179	11420	5771		146	36993	275	-2534	-139	-30		-2703
1994	CFR	ROL	473926	47364	521290	493113	27614	159512	680239	19552		48308	14224	1283614	42567	146217	697936	51938	4637		260200		1160928	17194	-122685	-25373			-148059
1994	EVR	EEK	112	293	405	201	66		267	5		41		718	0	75	440		149	30	27		720	0	2	0			2
1994	LDZ	LVR																											
1994	MAV	HUF	20484	16303	36787	42298		2236	44534	2989		7459	17072	108841	6053	19297	32354	1998	17312	9632		2136	82729	224	-26112	-5829	35588		3647
1994	PKP	PLZ	13293541	12090551	25384092	17251723	566316	7537414	25355453	59		6417301	264526	57421431	409306	7913918	31694215	4022988	3039031	5761699	3400000		55831851	652704	-1589580	243398	305623	-54472	-1095031
1994	SZ	SIT	5036	8513	13549	12460	807	1985	15251	289		2881	433	32403	3318	2612	14214	642	4438	5003	5471	24	32404	4229	1	910	-731		180
1994	ZSR	SKK	3706	3119	6824	4548	1706	98	6353	21		2065	1151	16414	216	2978	12036	264	1342			920	17539	286	1126	70			1196
1994	TCDD	TRL	2532041	3084503	5616544	8255365	2364640	28346	10648351	31894		2483241	.	18780031	15785034	1173507	2389374		3839035	2330944	369600		10102460	1260881	-8677570	-14524153	-2284182		-25485905
1995	BR	GBP	1162	2642	3804	1844	129	39	2011			75		5890	101	2319	460	28	1613	1983		1	6403	20	514	-81	-336	-624	-527
1995	Railtrack 94	GBP	5	1698	1704	269	18		287			90		2081	147			2275	42	49		30	2396	21	316	-127		-88	101
1995	CFL	LUF	744	3509	4253	4960	355	773	6088	71		950	24	11386	970	964	2894	1283	463	3010	2941	150	11704	137	318	-833	40		-475
1995	CH	GRD	9061	8993	18054	46942	19469		66411	502		10784		95751	14789	11009	4874	564	252	15828			32527	3822	-63223	-10967	5921		-68270
1995	CIE	IEP	113	46	159	185	17	12	214	3		52		428	15	279	41	6		94	9		429	0	2	-15	-18		-31
1995	CP	PTE	11077	23677	34754	34658	7650		42308	630		10198	217	88106	26147	21895	10672	1262	5161	13181	2381	1469	56021	746	-32085	-25401	-2275		-59761
1994	DB AG	DEM	3375	5934	9309	.	.	.	17590			1567	415	28881	240	15651	8053	49	2956			2342	29052	559	170	319		-309	180
1995	DB AG	DEM	3033	8490	11523	.	.	.	16509			1836	525	30393	213	15768	7591	296	3204			3864	30723	273	330	60		-208	181
1995	DSB	DKK	662	2377	3039	.	.	.	3724	403				7166	.	2676	1078	105	70	2206		869	7004	.	-162	43	.	.	.
1995	FS	ITL	619534	2640162	3259696	6815792	878630	2282545	9976967	129959		2863240	272209	16502070	4836322	6042286	1593407	14706	612096	1173493	3549829	751933	13737750	5214527	-2764320	378206	805557		-1580558
1995	NS	NLG	609	1795	2404	1730	199		1929			370		4703	111	2090	352		2511				4953	61	250	-50	-58	44	186
1995	OBB	ATS	.	.	9775	21937	5701		27638	167	2776	3601	.	43958	1741	7166	9836	636	3827	8014	14842	1445	45766	145	1808	-1596			212
1995	RENFE	ESP	14545	112483	127028	126332	49211	459	176002	702		74623	10730	389085	119825	102600	51423		34173	61572	138068	3890	391726	53976	2641	-65849	-4359		-67567
1995	SJ	SEK	.	.	5785	3089	305	927	4321		710	657		11473	971	5168	3821	0	3000	29			12018	927	545	-44			501
1995	BV	SEK	2627	7301	9928	1541	665		2206			513		12647	618				2269	11068			13336		689	-618	-30		41
1995	SNCB/NMBS	BEF	5527	18414	23941	45751	9509	30507	85767	62		10736	-2594	117912	7278	15127	14359	242	10085	36602	25600	9318	111333	8734	-6579	1456	5629	-506	
1995	SNCF	FRF	8889	17352	26240	30826	5218	7803	43847	3218		10767	1297	85369	14972	23929	15276	347	6828	14770	12233	6582	79966	3698	-5403	-11274	94		-16583
1995	VR	FIM	155	518	674	1877	170	391	2439		1	468		3581	9	1071	2051	54	219	266		124	3785	111	204	102		-5	300
1995	RHK	FIM	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1995	CFF/SBB/FFS	CHF	326	921	1247	2626	224	631	3481	58		832	369	5986	706	1578	882	284	660	818	1450	396	6068	64	82	-642	64		-496
1995	NSB	NOK	1775		1775	2795		15	2810		61	308		4954	349	2146	1386	75		793		769	5169	30	215	-319	50		-54
1995	BC 94	RUR	230724	163832	394556	90697	1002	34863	126562	132455	75935	3694		733202	12268	129648	745997	50	205472				1081167	89748	347965	77480			425445
1995	BDZ	BGL	3356	4115	7471	5346	2261		7607			1937	28730	45745	1292	2042	10634	56	1355	1160	550	27485	43282	303	-2463	-989			-3452
1995	CD	CZK	8025	19647	27672	9614	3385	161	13160	44		3987	1076	45939	344	2747	18286	153	15097	5287		250	41820	167	-4119	-177	1203	0	-3093
1995	CFR	ROL	661124	78744	739868	648363	40044	210659	899065	7813		247263	9068	1903076	37167	219316	866259	92152	9474		300000		1487201	21003	-415875	-16164			-432039
1995	EVR	EEK	242	139	380	247	81		328	21		54		783	8	103	463		124	33	60		783	7	0	-1	0	-1	-2
1995	LDZ	LVR	20484	16303	36787	42298		2236	44534	2989		7459	17072	108841	6053	12610	32354	1998	17312	16319		2136	82729	224	-26112	-5829	35588		3647
1995	MAV	HUF	23550	18018	41567	47275		2800	50075	3190		10602	19484	124919	12020	15438	44597	2538	23746	22784		3753	112856	1206	-12063	-10814	52884		30007
1995	PKP	PLZ	1598	1161	2759	2137	155	940	3232	141		851	384	7367	63	969	3924	475	725	646	366	150	7254	75	-112	12	-4	0	-104
1995	SZ	SIT	5036	8513	13549	12460	807	1985	15251	289		2881	433	32403	3318	2612	14214	642	4438	5003	5471	24	32404	4229	1	910	-731		180
1995	ZSR	SKK	4029	5093	9121	5028	1988		7016	19		2132	1878	20167	193	1383	13583		2836	1730		932	20464	189	297	-5	-15	-275	3
1995	TCDD	TRL	4566300	5484884	10051184	12624793	3627014	35427	16287234	32066		6101435		32471919	21229585	2004841	4482380		6616496	3808141	501375		17413232	1328387	-15058687	-19901199	-3041179		-38001065
1996	ATOC	GBP	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1996	Railtrack 94	GBP	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1996	RfD Ltd	GBP	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1996	BK	SEK	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1996	CFL	LUF	892	3623	4515	5320	366	532	6218	99		969	21	11822	842	975	2684	2021	200	3499	3054	80	12513	65	691	-777	-62		-148
1996	CH	GRD	12254	13349	25602	54987	22815		77801	502		13348		117254	19852	12693	6383	1171	210	19366			39823	1932	-77431	-17920	16154		-79197
1996	CIE	IEP	109	42	151	190	17	13	220	3		52		425	13	287	42	6		94	5		435	0	9	-13	-52		-56
1996	CP	PTE	9511	26680	36190	36329	8040		44369	76		11376	477	92489	26704	22086	10173	1638	4267	11101	1429	2767	53461	1804	-39028	-24900	-8023		-71951
1996	DB AG	DEM	2936	10806	13742	.	.	.	14988			2280		31010	432	16168	6863	877	4415			3443	31767	390	757	-42		517	1232
1996	DSB	DKK	628	2492	3120	.	.	.	3813	457				7390	92	2640	1046	123	1060	2193			7062	115	-328	23			-305
1996	FS SpA	ITL	654374	2859896	3514270	6971243	1500910	2450717	10922870	129743		3061748	1771259	19399890	3534979	6226823	1471992	21505	725376	1967615	3741749	695149	14850208	4189713	-4549682	654734	54328		-3840620
1996	NS	NLG	578	1622	2200	1726	233		1959			439	267	4865	102	2150	316		2491	66		66	5089	64	224	-38	-25	-56	105
1996	OBB	ATS	.	.	9957	21899	5973		27872	332	3068	3731	.	44959	1227	7226	9758	643	4234	8168	14036	2421	46486	595	1527	-632			895
1996	RENFE	ESP	13820	110415	124235	125505	49138		174643	617		76154	6283	381932	110199	108712	48258		31655	62874	132100	4636	388235	51989	6303	-58210	-3763		-55670
1996	SJ	SEK			6900				4724		709	646		12979	943	5254	3536		3886				12676	769	-303	-174			-477
1996	BV	SEK	615	783	1398	1524	615		2140		3	1403		4944	493				1805	2735			4539	8	-405	-485			-890
1996	SNCB/NMBS	BEF	7311	19348	26659	44893	9681	30574	85148	85		12233	-2340	121785	5215	15855	13415	235	23723	35697	24000	12037	124962	3241	3177	-1974	979		2182
1996	SNCF	FRF	8842	16380	25222	31301	5127	8000	44427	3491		11469	1046	85655	14636	26092	15470	162	7035	14588	12528	6471	82346	1743	-3309	-12893	1030		-15173
1996	VR	FIM	394	659	1054	1586	221	279	2086		200	223		3563	56	1239	1860	1	352	256		187	3894	40	331	-16	-67	-205	43
1996	RHK	FIM	.	.	.	.	.	.	.	.		.	.	.	.				.	.	.	.	.	.	.	.	.	.	.
1996	CFF/SBB/FFS	CHF	313	890	1203	2617	214	427	3259	85		819	293	5659	770	1575	792	255	724	816	1497	402	6062	77	403	-693	-3		-293
1996	NSB BA	NOK	2233		2233	2861	.	16	2877		69	407	.	5586	351	2034	1411	1066		938		617	6066	74	480	-277			203
1996	JBV	NOK	.	.	.	.	.	.	.	.		.	.	.	.				.	.	.	.	.	.	.	.	.	.	.
1996	BC	RUR	506616	3072336	3578952	1012528	378960	5060	1396548	154156	576959	686909		6393524		1757640	5225149	518969					7501758		1108234			22941	1131175
1996	BDZ	BGL	7893	6512	14405	9640	4253		13894			2021	7272	37592	3360	3907	19104	75	2603	1500	1670	1742	30602	1933	-6990	-1427			-8418
1996	CD	CZK	7449	10164	17613	11342	3964	186	15492	57		4131	832	38125	481	4057	19600	2380	1782	5224		311	33354	232	-4771	-249	276		-4744
1996	CFR	ROL	1041376	202032	1243408	1009755	62052	328873	1400681	8535		189729	2565	2844919	51454	378875	1333564	212650	20624	10	306330		2252053	28115	-592865	-23339			-616205
1996	EVR	EEK	259	155	413	286	94		379	15		56		864	17	606	109	42	38	38	12	33	878	5	14	-12	2	0	4
1996	LDZ	LVR	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1996	MAV Rt.	HUF	27714	23798	51512	54705		3660	58364	4736		33744	5151	153507	1736	17741	42943	18445	1931	35767		18126	134953	1261	-18554	-3475	-5293		-27323
1996	PKP	PLZ	1833	1087	2920	2629	208	1162	4000	156		1132	307	8516	115	1106	4600	541	714	988		290	8239	136	-277	22	-5	0	-261
1996	SZ	SIT	6265	10622	16887	16971	1018	1881	19869	415		4705	75	41951	3025	3210	15552	524	6351	5668	7241	30	38578	1779	-3373	-1246	675		-3944
1996	ZSR	SKK	4047	5454	9501	5803	2329	14	8146	59		2207	307	20220	809	3540	13284	684	1914			1168	20591	95	371	-714	-177	23	-497
1996	TCDD	TRL	9436412	9424063	18860475	21910974	6414281	69140	28394394	69637		9547853		56872358	35462710	3998878	8436707		13833050	6504108	831250		33606993	2113721	-23265366	-33348988	-4170442		-60784796
1997	Railtrack	GBP	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	ATOC	GBP	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	EW&S	GBP	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	BK	SEK	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1997	CFL	LUF	874	.	.	5374	337	492	6203	.		.		11480	.	.	2981	.		.	3078	.	11450	.		.	.		.
1997	CH	GRD	17422	23650	41072	62602	25293		87895	480		14412		143859	31160	13720	5275	751	2809				22555	1343	-121304	-29817	2258		-148863
1997	CIE	IEP	92,391	9,685	102,076	95,538	8,298	5,927	109,763	2	.	.	.	.	.	.	.	.	.	.	.	13,34	.	.	.	.	.	.	.
1997	REFER	PTE	9	721	730	1149	230		1378	1		148	519	2777	29				162	167		644	972	100	-1805	70	-323		-2057
1997	CP	PTE	9764	27580	37344	36269	8059		44327	85		11248	1129	94132	27172	23085	12654	1361	3639	4660	238	3902	49538	820	-44594	-26352	-1027		-71973

A1.3.14. Specific Costs and Revenue (1991-1999) : Operating and general results for the financial year

YEAR	Railway	Currency	Specific costs: Materials purchases and external: Material purchases	External charges and other operating	Total (col.4+5)	Staff costs: Salaries and wages	Social security costs	Pensions costs	Total (col.7 to 9)	Taxes	Infrastructure levies	Depreciation and amortisation	Value adjustments and provision for contingencie	Total Operating expenses (col.6+10 to 14)	Financial Charges	Specific receipts: Traffic receipts: Passenger and baggage traffic	Freight traffic receipts	Other traffic receipts	Other Operating Income, Recovery of	Support from government and other public	Support for infrastructure costs	Fixed assets own construction	Total Operating Income (col.17 to 23)	Financial income	Results: Operating Result (col.24-15)	Financial Results (col.25-16)	Extraordinary Results	Recovery of tax provisions and corporate	Profit or loss for the financial year (col.26 to 29)
			in Thousands of currency units																										
1997	DB AG	DEM	2936	10806	13742				14988			2280		31010	432	16168	6863	677	4415			3443	31767	390	757	-42		517	1232
1997	DSB	DKK			2379				2923	334	84			5720	59	3713	1355				601		6201	29	481	-30			451
1997	FS SpA	ITL	722185	2951134	3673319	6758311	1438928	1569783	9767021	136714		3245030	826635	17648720	256786	3533929	1513756	19641	807911	3540813		770917	10186968	331708	-7461752	74922	62479		-7324351
1997	NS B.V.	NLG			1093	189	47		236			121		1450	208				143	160	1315	40	1658	0	208	-208			0
1997	NS N.V.	NLG	385	2081	2466	1499	335	0	1834			428	56	4784	106	2260	310		2344	72		39	5025	85	241	-21	24	-80	164
1997	OBB	ATS			8423	20934	5674		26608	266	3384	5099		44779	1492	7099	10323	650	4703	7449	12531	2997	45752	839	973	-653			320
1997	RENFE	ESP	13927	105671	119598	124156	43126	328	167610	532		78449	10206	376395	94629	115266	52003		35556	58755	126518	3456	391554	38817	15159	-55812	-1172		-41825
1997	BV	SEK			1190				2460		10	1500		5160	620				1600	3580			5180	600	20	-20			
1997	SJ	SEK			5342	2876			4168		971	664	384	11529	914	5176	3350		2789				11315	1400	-214	486	-443		-171
1997	SNCB/NMBS	BEF	7393	19881	27273	47809	7886	8469	64164	61		13266	-2720	102045	3779	16841	14208	240	24379	13223	24539	12302	105733	2855	3688	-924	274		3038
1997	RFF	FRF	2481	17036	19517				5	63		5537		25122	10078			8473	597		11819		20889	8	-4233	-10070	-323	527	-14099
1997	SNCF	FRF	23257	12982	36239	31367	5001	8361	44729	3857	6008	6079	1764	98676	12906	27719	15578	0	38639	14357	-30	3495	99758	10981	1082	-1925	-116		-959
1997	RHK	FIM																											
1997	VR	FIM	433	761	1194	1619	152	286	2057	22	300	485		4058	52	1313	2002	1	358	223		219	4116	51	57	-1			56
1997	CFF/SBB/FFS	CHF	323	880	1204	2548	208	392	3148	107		935	312	5706	728	1555	934	102	765	763	1598	391	6108	101	402	-627	29		-196
1997	JBV	NOK			1125				1035					2254															
1997	NSB BA	NOK	2005		2005				2189			292		4486		2025	1329	496		989			4839		353	-81		-86	186
1997	BC	RUR	1056801	2377434	3434235	1688233	622132	16900	2327265	1669659	3700071	2282152		13413382		3035905	10072237	1565728					14673870		1260488			927891	2188379
1997	BDZ	BGL	80856	44039	124894	88165	38521		126686	8244		2231	13219	275274	15583	44407	196032	895	3450	18791	11274	27429	302278	7109	27004	-8474			18530
1997	CD	CZK	7016	8834	15850	12830	4469	206	17504	49		4110	789	38303	823	3964	20693	2278	1142	5663		323	34061	221	-4241	-602	144		-4699
1997	CFR	ROL	2541031	479163	3020194	1894359	117781	613596	2625736	39264		466743	1453970	7605908	93470	912712	3505484	1882495	75911	222	587075		6963900	63885	-642009	-29585			-671594
1997	EVR	EEK	415	313	728	338	111		449	18		55	5	1255	23	129	794	156	64	44	36	59	1282	9	27	-15		-5	8
1997	LDZ	LVR																											
1997	MAV Rt.	HUF	25437	29867	55304	57472		3793	61265	6430		12623	23752	159374	6430	23254	56180	11792	14868	42154		4390	152638	2048	-6736	-4382	-3902	-59	-15079
1997	PKP	PLZ	1930	1135	3065	3051	246	1354	4650	184		1258	321	9479	190	1213	5166	641	886	1191		416	9513	126	34	-64	-57	-1	-88
1997	SZ	SIT	6475	10725	17200	18591	1089	1767	21447	467		5378	180	44672	3508	3499	17302	2401	1577	9137	11300	23	45240	1984	569	-1524	809		-147
1997	ZSR	SKK	3853	6516	10369	6265	2527	0	8792	28		2381	621	22191	1795	3780	12494	1532				368	19625	262	-2566	-1533	-104	3	-4199
1997	TCDD	TRL	18052351	19166283	37218635	46420106	12859631	133971	59413707	76271		16897588		113606201	60894982	7988882	18981278		30188425	13745833	1330000		72234418	3820868	-41371783	-57074114	-5454861		-103900758
1998	Railtrack	GBP																											
1998	ATOC	GBP																											
1998	EW&S	GBP																											
1998	CFL 97	LUF	874			5374	337	492	6203					11480			2981				3078		11450						
1998	CH	GRD	11874	6281	18156	63006	23910		86916	357		11301	310	117039	41804	13812	6416	2145	667				23040	7112	-93999	-34692	-10842		-139533
1998	CIE	IEP	90	10	100	101	9	6	116	2		22		239	11	83	37	16		33	71	14	255		16	-11	0		4
1998	REFER	PTE	5784	6912	12696	9195	2899		12093	4		429	129	25352	413				4001		1709	6525	12236	152	-13116	-261	616		-12761
1998	CP	PTE	11276	23177	34453	32283	7309		39593	67		11587	2863	88563	24017	24884	12014	418	10699	2226		-218	50022	5773	-38541	-18244	26816		-29968
1998	DB AG	DEM	2566	11250	13816	12712	2624	0	15336	624		2865		32641	761	14414	6273	2323	5194	2366	148	2882	33602	501	961	-260	0	0	701
1998	GVG	DEM																											
1998	BS	DKK																											
1998	DSB	DKK	628	1958	2586	2652	35	291	2978	384	151			6099	35								6472	26	373	-9			364
1998	FS SpA	ITL	1019184	2994017	4013201	6751121	756806	1525398	9033324	89581		3378662	992179	17506947	378849	3489068	1442847	14285	3298846	6116017		1002980	15464043	124106	-2042904	-254744	183168	-323850	-2438330
1998	NS B.V.	NLG			1203	213	50		263			132		1598	217					1510	188		1815	0	217	-217			0
1998	NS N.V.	NLG	567	2058	2625	1597	338		1935			441	196	5197	99	2666			2435			45	5489	85	292	-14		-81	197
1998	OBB	ATS			10216	21115	5917		27032	258	3504	5737		46746	1538	6785	10182	598	6417	8519	12394	3487	48383	1015	1637	-523			1114
1998	RENFE	ESP	16587	108972	125559	124508	48852	89	173449	981		78949	8855	387793	80008	124002	54263		40917	62289	121672	2616	405759	33864	17966	-46144	630		-27548
1998	FEVE	ESP																											
1998	FGC	ESP																											
1998	BV 97	SEK			1190				2460		10	1500		5160	620				1600	3580			5180	600	20	-20			
1998	BK	SEK																											
1998	MTAB	SEK																											
1998	SJ	SEK			5772	2750			3952		956	702		11382	857	5365	3304		2661				11330	1124	-52	267	-91		124
1998	SNCB/NMBS	BEF	7939	21092	29031	48781	8039	8932	65752	83		15220	-3006	107080	4781	18615	16584	192	27322	13368	24829	13491	114401	3735	7322	-1047	-2553		3722
1998	RFF	FRF	2720	16787	19507				28	48		5705	2	25290	10556			8661	565	28	11820	13	21087	691	-4203	-9865			-14068
1998	SNCF	FRF	15206	13958	29164	31753	5065	8515	45333	4024	6205	6053	1825	92604	14191	29850	16077	0	30559	15090	0	2991	94567	12686	1963	-1505	-1107	0	-649
1998	RHK	FIM																											
1998	VR	FIM	414	703	1116	1607	183	283	2073	26	319	509		4043	43	1323	2000	0	382	212		157	4074	77	31	34			65
1998	CFF/SBB/FFS	CHF	311	915	1225	2481	204	416	3100	97		897	324	5644	725	1534	864	105	792	738	1805	382	6220	139	576	-586	-11		-21
1998	JBV 97	NOK			1125				1035					2254															
1998	MTAS	NOK																											
1998	NSB BA	NOK	2046		2046				2134			322		4502									4892	-120	390	-120		58	328
1998	BC	BYB	1750396	4435102	6185498	3237935	1186535	32400	4456870	2887485	3334227	3136204		20000284		5295008	18041658	3838658					27175324		7175040			1984645	9159685
1998	BDZ	BGL	98007	53109	151116	114264	54770		169034			57852	12518	390520	28880	68959	223093	584	4364	30420	22586	23690	373696	28205	-16824	-675	15687		-1813
1998	CD	CZK	6686	7659	14345	13710	4771	209	18690	44		4750	713	38542	1576	4323	21208	194	3804	6392		309	36230	233	-2312	-1343	365		-3290
1998	CFR	ROL	669988	3400937	4070925	651666	116699	133832	902198	55601	1551	54698	14727	5099700	204	1377383	4702304	795930	16957	530773	197461	3040	7623848	4518	2524148	4315	36198	59668	2624329
1998	EVR	EEK	327	451	777	376	126		502	23		105	5	1413	21	111	1074	108	38	98	38	28	1495	6	82	-15		-22	45
1998	LDZ	LVR														15	82												
1998	MAV Rt.	HUF	27114	33225	60339	65625		4590	70215	2840		29194	34818	197406	5681	23337	64793	12812	14775	54914		5709	176340	1500	-21066	-4181	22607	-98	-2738
1998	PKP	PLZ	1868	1111	2980	3437	327	1427	5191	215		1846	495	10727	254	1347	5065	618	1005	1021		325	9382	267	-1345	12	-11	-2	-1346
1998	SZ	SIT	7456	12421	19877	18894	1151	1867	21912	761		6008	383	48942	3048	3964	18529	2208	1755	9586	13678	15	49735	4896	793	1848	602		3243
1998	ZSR	SKK	3764	6618	10381	6878	2830		9708	50		2731	1073	23944	3709	3771	10852	1415	1566	3466		249	21318	852	-2626	-2857	-369	2	-5850
1998	TCDD	TRL	26106768	39065988	65172756	80086184	22988438	230281	103304903	241523		28044471		196763654	71235434	13266319	32501075		57209864	24148412	3000000		130125670	6899356	-66637984	-64336078	-6121408		-137095470
1999	GKE	ATS																											
1999	OBB	ATS	2489	8209	10698	21455	6047	45	27547	272	3695	4923		47135	2460	6918	10169	550	5618	8714	13218	3552	48739	1930	1605	-530	-600		474
1999	SNCB/NMBS	BEF	8350	23087	31436	50452	8360	9342	68154	97		16562	-4331	111918	4978	19471	16312	171	27945	13578	25039	13948	116464	3313	4546	-1665	668		3550
1999	AAE	DEM																											
1999	DB AG	DEM	3219	15992	19212	14985	1688	1489	18163	659	0	3844		41877	753	17970	6044	3990	7306	3148	171	3841	42470	337	593	-416	0	-7	169
1999	GVG	DEM																											
1999	KEG	DEM																											
1999	BS	DKK																											
1999	DBS 98	DKK	628	1958	2586	2652	35	291	2978	384	151			6099	35								6472	26	373	-9			364
1999	EusKotren	ESP														1560													
1999	FEVE	ESP																											
1999	FGC	ESP	198	2422	2620	5160	1525	285	6970	13	192	3950		13745	338	5950	425	355					6731	113	-7015	-225	-67		-7308
1999	RENFE	ESP	18331	119488	137819	126418	45326	119	171863	1241		79848	169	390940	65233	135024	53196		31397	47149	121027	3109	390902	33324	-38	-31909	-717		-32664
1999	RHK	FIM																											
1999	VR	FIM	399	710	1109	1611	185	261	2057	11	316	498		3991	91	1367	1924	0	395	207		164	4057	53	66	-38			28
1999	RFF	FRF	3419	16615	20034				42	59		4918	137	25190	12234							79							
1999	SNCF	FRF	15512	14294	29806	31715	5587	8711	46013	3989	9965	6227	1958	97958	14309	31227	15686		32161	17072	0	3443	99589	13243	1631	-1066	-1133		-568
1999	ATOC	GBP														3368													
1999	EW&S	GBP																											
1999	Railtrack	GBP																											
1999	CH	GRD	14099	5503	19602	61955	21786		83741	423		14768	281	118815	40765	14400	6913	2292	7073				30679	7454	-88136	-33311	-16413		-137860
1999	CIE	IEP	120	7	127	114	10	7	131	2		24		284	10	87	38	17		42	100	19	304		20	-10	0		10
1999	FS SpA	ITL	1043626	3090786	4134412	6624286	766944	1492610	8883840	122176		3603688	616316	17360432	139510	3639759	1320408	13711	2772759	5747144		1119019	14612800	119843	-2747632	-19667	196123	-280000	-2851176
1999	CFL	LUF																											

A1.3.14. Specific Costs and Revenue (1991-1999) : Operating and general results for the financial year

in Thousands of currency units

YEAR	Railway	Currency	Specific costs: Materials purchases and external			Staff costs										
			Material purchases	External charges and other operating	Total (col.4+5)	Salaries and wages	Social security costs	Pensions costs	Total (col.7 to 9)	Taxes	Infrastructure levies	Depreciation and amortisation	Value adjustments and provision for contingencie	Total Operating expenses (col.6+10 to 14)	Financial Charges
1999	NS B.V.98	NLG	.	.	1203	213	50		263			132		1598	217
1999	NS N.V.98	NLG	567	2058	2625	1597	338		1935			441	196	5197	99
1999	CP	PTE	3387	31108	34496	23507	5976		29483	56		14220	211	78466	13416
1999	REFER	PTE	4656	8203	12858	19322	4709		24031	11		815	3397	41112	4148
1999	BK	SEK	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	BV	SEK	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	MTAB	SEK	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	SJ	SEK	.	.	5557	2665	.	.	4080		239	839		10715	748
1999	CFF/SBB/FFS	CHF	304	1047	1351	2416	531	43	2990			1135		5476	178
1999	JBV	NOK	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	MTAS	NOK	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	NSB BA	NOK	2256		2256	.	.	.	2265	.	.	357	.	4878	152
1999	BDZ	BGL	147	83	231	126	64		190			73	8	503	57
1999	BC	BYB	7275165	39383768	46658933	13692170	5401483	136922	19230575	3213718	794629	10298749		80196604	
1999	CD	CZK	6809	7335	14144	14440	5022	221	19684	47		5409	295	39579	1601
1999	EVR	EEK	359	569	928	378	123		501	19	18	140		1606	40
1999	MAV Rt.	HUF	29561	35762	65323	70556		5364	75919	2081		15609	38476	197409	5723
1999	LDZ 98	LVL	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	PKP	PLN	1692	948	2640	4173	261	764	5199	246		1854	916	10856	860
1999	CFR	ROL	4194144	7384642	11578786	2712313	1423256		4135569	148004		298395		16160754	326959
1999	SZ	SIT	7210	14500	21709	21127	1299	2103	24530	850		6407	393	53889	3615
1999	ZSR	SKK	3566	5445	9011	7466	3079		10545	59		2819	860	23294	5430
1999	TCDD	TRL	47196132	54387563	101583695	143548363	42877368	477400	186903131	344387		42025610		330856823	101240821

YEAR	Railway	Specific receipts: Traffic receipts									Results				
		Passenger and baggage traffic	Freight traffic receipts	Other traffic receipts	Other Operating Income, Recovery of	Support from government and other public	Support for infrastructure costs	Fixed assets own construction	Total Operating Income (col.17 to 23)	Financial income	Operating Result (col.24-15)	Financial Results (col.25-16)	Extraordinary Results	Recovery of tax provisions and corporate	Profit or loss for the financial year (col.26 to 29)
1999	NS B.V.98				.	1510	188	.	1815	0	217	-217			0
1999	NS N.V.98	2666	.	.	2435			45	5489	85	292	-14		-81	197
1999	CP	23107	12300	315	4082	1821		-383	41240	1073	-37226	-12343	-2647		-52215
1999	REFER				16637		1505	5228	23370	228	-17742	-3920	-162	-2	-21827
1999	BK	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	BV	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	MTAB	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	SJ	5711	3010		2422				11143	401	428	-347			81
1999	CFF/SBB/FFS	1604	1013	123	672	1833	125	382	5751	108	275	-70	-85		120
1999	JBV	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	MTAS	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1999	NSB BA	.	.	834		971			5030	107	152	-45	.	.	.
1999	BDZ	70	197	4	33	50	18	50	422	25	-81	-32	14		-98
1999	BC	17281881	74756090	10378796					102416767		22220163			7068327	29288490
1999	CD	4651	19489	193	4146	7373		400	36251	481	-3328	-1121	484		-3964
1999	EVR	100	1304	103	35	148	44	13	1748	5	142	-35			107
1999	MAV Rt.	30160	63594	12706	18131	58719		7030	190339	1163	-7070	-4560	-2534	-106	-14271
1999	LDZ 98	15	82	.	.	.	.	.	.	.	.	.	.	.	.
1999	PKP	1565	4960	631	1244	537		158	9095	111	-1761	-749	-7		-2517
1999	CFR	2025657	5199809	2077747		3498616	3535411	176545	16513785	115215	353031	-211744	152573	-102269	191591
1999	SZ	4255	18831	1979	3959	10005	13733	17	52778	3243	-1111	-373	783		-701
1999	ZSR	1732	11671	1288	1766	6472		267	23196	1325	-98	-4105	-994	7	-5190
1999	TCDD	25130000	40791395		76904460	45952603	4950000		193728458	14868356	-137128365	-86372466	2860109		-220640722

A1.3.15. Specific Costs and Revenue (1985-1990) : Operating and general results for the financial year

YEAR	Railway	Currency	Specific costs: Staff costs: Salaries of Staff in activity	Pensions	Various social charges	Total (col.4 bis 6)	Materials and Services provided by Third: Energy consumption	Materials, services provided by third parties	Total (col.8+9)	Taxes	Amounts Allocated: Depreciation	Provision	Financial Charges	Total Costs (col.7+10+11+12+13+14)	Specific receipts: Traffic revenue	Financial and miscellaneous revenue	contra account of expenditure charged to other accounts	Compensation received from the State and other public bodies	Total revenue (col.16 to 19)	Overall operating costs (col.15-18)	Overall operating revenue (col.20-18)	Results: Results of general operating (col.22-21 or col.20-15)	Exceptional profits and losses and corporation tax	Profits(+) or loss(-) over the financial period (col.23+24)	Operating coefficient (col.21/col.22)
			in Thousands																						
1985	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	BR	pound sterling	1649400	91300	208500	1949200	220065	1145835	1365900		188300		73900	3577300	2182516	97984	383900	914100	3578500	3193400	3194600	1200		1200	1
1985	CFF	swiss franc	1951333	392523	87566	2431422	183335	808240	991575	3219	498617	1500	225083	4151416	3061756	808483			3870239	4151416	3870239	-281177		-281177	1,073
1985	CFL	luxemburg franc	3288960	2825629	276703	6391292	327994	421521	749515	132101	461772	241913	281330	8257923	1943349	153727	90781	5966700	8154557	8167142	8063776	-103366	-79145	-182511	1,013
1985	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	CH	drachm	14812131		3536083	18348214	1843731	362050	2205781	356836	751088		772504	22434423	7987934	560965	1199514	4699382	14447795	21234909	13248281	-7986628	7986628		1,603
1985	CIE	pound sterling	143060	5796	17156	166012	24630	77982	102612	2041	20983	10544	27576	329768	233798			97429	331227	329768	331227	1459	5334	6793	0,996
1985	CP	escudo	19555291		7057	19562348	6169077	4178483	10347560	1157630	999455	375514	5987486	38429993	16953113	698710	1225367	16756573	35633763	37204626	34408396	-2796230	-1704945	-4501175	1,081
1985	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	DB	Deutsche mark	11355600	5563533	3259793	20178926	2025869	3137528	5163397	177640	1968452	90145	2900807	30479367	17913715	339311		9317522	27570548	30479367	27570548	-2908819		-2908819	1,106
1985	DR	Deutsche Mark of the Deutschen Notenbank	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	DSB	Danish crown	3462997	27779	79611	3570387	612795	1667767	2280562		708047	2058	932174	7493228	3717167	1133731		2642330	7493228	7493228	7493228				1
1985	FS	lira	[illegible]	[illegible]	[illegible]	7194462830	230980718	4404957688	4635938406	323906200	1322534807	267617030	3542468983	17286928256	2556712193	514340426	2295788675	9761054884	15127896178	14991139581	12832107503	-2159032078			
1985	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	41683773	41475120	-208653	.	.	1,005
1985	NS	florin	1082848	147579	373602	1604029	289997	776737	1066734		238293		257367	3166423	1462711	239790	178413	1318944	3199858	2988010	3021445	33435		33435	0,989
1985	NSB	Norwegian crown	2249234	152394	286927	2688555	269836	832622	1002458		320500		108663	4120176	2545553	246529		1328094	4120176	4120176	4120176				1
1985	OBB	Austrian Schilling	16094571	1886253	2464875	20445699	1297657	13796898	15094555	88630	3577094		649167	39855145	15621828	3513188	10713918	5614190	35463124	29141227	27749206	-4392021	-312780	-4704801	1,177
1985	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	SJ	Swedish crown	5820963	1052700	1309300	8182963	1058811	3472184	4530995	229905	1090775		87752	14122390	10750018	1241167		2196000	14187185	14122390	14187185	64795	60440	125235	0,995
1985	SNCB/NMBS	Belgian franc	39970234	21494840	7711913	69176987	6008448	20619549	26627997	5256	4818798	424003	9375113	110428154	29890105	17580369	6624721	56501099	110596294	103803433	103971573	168140	-416456	-248316	0,998
1985	SNCF	French franc	27760935	6760588	5323054	39844577	3015174	15179623	18194797	1830903	4664121	244917	10625887	75405202	38799252	5446501	2700324	20092110	67038187	72704878	64337863	-8367015	3881192	-4485823	1,13
1985	VR	Finnish mark	1824900	452288	235138	2512326	291045	-430100	721145	1959	518298		78783	3832511	2666816	222208		89200	2978224	3832511	2978224	-854287		-854287	1,287
1985	TCDD	Turkish pound	41928556	10902948	16375607	69207111	43615673	31720277	75335950	314969	25115631	224960	46185137	216383758	72634176	80406825		73742643	226783644	216383758	226783644	10399886		10399886	0,954
1986	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	BR	pound sterling	1682400	93900	191300	1967600	164400	1143900	1308300		205300	189500	72400	3743100	2397100	109400	343900	810100	3660500	3399200	3316600	-82600		-82600	1,025
1986	CFF	swiss franc	2003071	409708	88619	2501398	190066	828665	1018731	3669	503688	1500	231394	4260380	3063772	839784			3903556	4260380	3903556	-356824		-356824	1,091
1986	CFL	luxemburg franc	3433491	2915889	289594	6638974	240817	446674	687491	130768	545580	260011	248968	8511793	1826449	157967	110549	6226165	8321130	8401244	8210581	-190663	-18499	-209162	1,023
1986	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	CH	drachm	17712264		4149349	21861613	2169421	5248898	7418319	469726	833090		483100	31065848	8523110	591916	1629139	5375414	17119579	29436709	15490440	-13946269	13946269		1,9
1986	CIE	pound sterling	145145	7196	19788	172129	20132	79203	99335	2128	21981	10550	29531	335654	239827			99475	339302	335654	339302	3648	589	4237	0,989
1986	CP	escudo	24799928		15245	24815173	6681743	5109876	11791619	6192	1266749	2861731	5345378	46086842	18050931	1183443	2037593	19044021	40315988	44049249	38278395	-5770854	2115882	-3654972	1,151
1986	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	19970877	24517156	4546279			0,815
1986	DB	Deutsche mark	11431634	5436138	3399727	20267499	1818416	3612360	5430776	84943	1810364	27656	2932274	30553512	17480633	449580		9301914	27232127	30553512	27232127	-3321385		-3321385	1,122
1986	DR	Deutsche Mark of the Deutschen Notenbank	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	DSB	Danish crown	3456407	35526	128783	3629716	447986	1885965	2333951		797670	4128	1018795	7784259	3834174	1226211		2723874	7784259	7784259	7784259				1
1986	FS	lira	[illegible]	[illegible]	[illegible]	7516560809	105548790	3507855720	3613404510	86955448	567576549	1229154029	2003393678	15017045023	2669240975	598869319	1007617414	9163642848	13439370556	14009427609	12431753142	-1577674467	2		
1986	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	44385862	45286123	900261	.	.	0,98
1986	NS	florin	1195326	184228	326820	1706374	222142	756952	979094		238518		270140	3194126	1433237	196317	175139	1388956	3193649	3018987	3018510	-477		-477	1
1986	NSB	Norwegian crown	2359820		464761	2824581	236815	958682	1195497		399436		283529	4703043	2725197	252458		1725388	4703043	4703043	4703043				1
1986	OBB	Austrian Schilling	16886818	1982239	2564213	21433270	1155184	13415418	14570602	87726	3817256		562634	40471488	15008547	3318186	10222171	6718838	35267742	30249317	25045571	-5203746	-368713	-5572459	1,208
1986	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	RENFE	Peseta	113015000	23402000	9825000	146242000	27842000	66895000	94737000		25848000		68820000	335647000	117699000	16110000		159800000	293609000	335647000	293609000	-42038000		-42038000	1,143
1986	SJ	Swedish crown	4255000	851000	828900	5934900	653400	2798500	3451900	214000	416400		98500	10115700	7579900	893300		1409100	9882300	10115700	9882300	-233400	26200	-297200	1,024
1986	SNCB/NMBS	Belgian franc	39437648	22065576	8453803	69957027	4841097	21921067	26762164	3630	4763892	306553	10481356	112274622	27328421	19973159	5128537	56883838	109313955	107146085	104185418	-2960667	-53281	-3013948	1,028
1986	SNCF	French franc	27117698	6725322	5668355	39511375	2455964	15353849	17809813	2034215	4894802	269467	9884827	74404499	37791147	5931285	2806694	20890712	67419838	71597805	64613144	-6984661	3109117	-3875544	1,108
1986	VR	Finnish mark	1867387	462980	240017	2570384	236951	373702	610653	2487	548018		172155	3903697	2481662	221657		93361	2796680	3903697	2796680	-1107017		-1107017	1,396
1986	TCDD	Turkish pound	52754456	13218104	20559739	86532299	48141040	42870761	91011801	723682	33710221	440832	73253417	285672252	101898154	114484565		38723042	255105761	285672252	255105761	-30566491		-30566491	1,12
1987	BDZ	Leva	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	BR	pound sterling	1702500	102700	229300	2034500	167300	1167000	1334300		231900	9000	74200	3683900	2580400	198000	298300	898100	3974800	3385600	3676500	290900		290900	0,921
1987	CFF	swiss franc	2011664	418746	92799	2523209	188502	1088107	1276609	3397	520920	1500	242443	4568078	2924727	1666688			4591415	4568078	4591415	23337		23337	0,995
1987	CFL	luxemburg franc	3581574	3111010	294057	6986641	185917	533506	719423	96841	559176	270443	298403	8930927	1769087	160212	102564	6700000	8731863	8828363	8629299	-199064	10393	-188671	1,023
1987	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	CH	drachm	19175304		4777646	23952950	1965936	6743195	8709131	167894	899710		977716	34707401	9671746	569748	1507765	6049386	17798645	33199636	16290880	-16908756	16908756		2,038
1987	CIE	pound sterling	161192	14255	14006	189453	16172	59154	75326	2201	22946	10383	29165	329474	239822			85236	325058	329474	325058	-4416	-5434	-9850	1,014
1987	CP	escudo	28179969		24674	28204643	7143000	6887815	14030815	18161	1723305	655998	5556499	50189421	21127205	2735758	2001699	14574221	40438883	48187722	38437184	-9750538	4385610	-5364928	1,253
1987	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	22663210	1450001			24113211	20003942	24113211	4109269		4109269	0,83
1987	DB	Deutsche mark	11391640	5730745	3446185	20568570	1766746	5115677	6882423	14210	2323019	29854	2983172	32801248	15721420	3803830		9335547	28860797	32801248	28860797	-3940451		-3940451	1,137
1987	DR	Deutsche Mark of the Deutschen Notenbank	.	.	.	.	.	.	.	.	.	.	.	.	10422115		.	.	.	.	.	.	.	.	.
1987	DSB	Danish crown	3789288	34744	164044	3988076	312435	1853283	2165718		858127	1974	1084295	8098190	4083225	1020733		2994232	8098190	8098190	8098190				1
1987	FS	lira	[illegible]	[illegible]	[illegible]	8562681051	111711498	3600978237	3712689735	101887356	644707766	1772045555	1752041653	16546053116	2875551286	556162618	1193595121	10241271633	14866570658	15352467995	13672985537	-167948245			
1987	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	675947394			.	.	.	.	.	.	.	.
1987	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	41317065			.	.	46079290	46692716	613426	.	.	0,987
1987	NS	florin	1216074	185198	336410	1737682	201265	548316	749581	12025	243489	202984	218806	3164567	1458668	193988	164746	1417093	3234495	2999821	3069749	69928	-50000	19928	0,977
1987	NSB	Norwegian crown	2514307		660085	3174392	269974	889293	1159267		475409		356660	5165728	2739530	418546		2007652	5165728	5165728	5165728				1
1987	OBB	Austrian Schilling	16157809	1935066	2565415	20658290	1023630	12391451	13415081	89136	4022273		485963	38670743	14595708	3803938	8349102	7229929	33978677	30321641	25629575	-4692066	-382495	-5074561	1,183
1987	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1987	RENFE	Peseta	106387796	32679698	16798506	155866000	24804000	73760000	98564000		28642000		63076000	346148000	124836000	29361000		169459000	323656000	346148000	323656000	-22492000		-22492000	1,069
1987	SJ	Swedish crown	4209200	1270600	777300	6257100	641600	2773200	3414800	208700	482000		166200	10528800	7581900	1085000		1394700	10061600	10528800	10061600	-467200		-467200	1,046
1987	SNCB/NMBS	Belgian franc	38810669	22281936	9002691	70095296	4250680	15623128	19873808	35762	4743421	160084	14278986	109187357	27355415	20299782	4156516	53368284	105179997	105030841	101023481	-4007360	-273068	-4280427	1,04
1987	SNCF	French franc	26803388	6838973	5581393	39223754	2187232	15536899	17724131	2044793	4924974	544703	11145712	75608067	37919681	8054713	3116772	21470772	70561938	72491295	67445166	-5046129	4052903	-993226	1,075
1987	VR	Finnish mark	1985245	492516	146798	2624559	236564	378783	615347	2671	549264		357159	4149000	2754956	273190		112358	3140504	4149000	3140504	-1008496		-1008496	1,321
1987	TCDD	Turkish pound	75759063	23456586	30674069	129889718	47739003	59105393	106844396	1029992	52711758	1168613	52743478	344387955	117245741	150602131		56261600	324109472	344387955	324109472	-20278483		-20278483	1,063
1988	BDZ	Leva	227033	.	67686	294719	54569	434683	489252	.	.	.	.	783971	.	.	.	.	.	.	.	.	.	.	.
1988	BR	pound sterling	1703600	68200	235500	2007300	166600	1139000	1305600	300	188700	2200	49200	3553300	2789400	306500	180600	581100	3857600	3372700	3677000	304300		304300	0,917
1988	CFF	swiss franc	2119132	472664	97041	2688837	185830	1065197	1251027	3957	538545	18000	255485	4755851	3012983	1785094			4798077	4755851	4798077	42226		42226	0,991
1988	CFL	luxemburg franc	3578576	3218324	312188	7109088	169419	469988	639407	89097	610136	266300	244814	8958842	1892649	161325	117575	6565000	8736549	8841267	8618974	-222293	42893	-179400	1,026
1988	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	CH	drachm	21709725	5550762		27260487	2028271	8773424	10801695	266449	1046710		3165326	45540667	10892177	725656	1552015	6387818	19557666	40988652	18005651	-22983001	22983001		2,276
1988	CIE	pound sterling	156012	14610	14036	184658	15915	71003	86918	2342	22337	8968	21188	326411	245834			82991	328825	326411	328825	2414	-15098	-12684	0,993
1988	CP	escudo	31544027		40087	31584114	7759276	8256843	10016119	39538	2043	579248	5561614	55823689	23323432	3090304	2588612	15395167	44397515	53235077	41808903	-11426174	5636943	-5789231	1,273
1988	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	20434786	.	.			24257423	20434786	24257423	3822637		3822637	0,842
1988	DB	Deutsche mark	11198115	5771554	3431667	20401336	1718913	5403078	7121991	19678	2332571	50621	3056869	32983066	15402131	4023349		9622436	29047916	32983066	29047916	-3935150		-3935150	1,135

A1.3.15. Specific Costs and Revenue (1985-1990) : Operating and general results for the financial year

YEAR	Railway	Currency	Specific costs												Specific receipts					Overall operating costs (col.15-18)	Overall operating revenue (col.20-18)	Results			Operating coefficient (col.21/col.22)
			Staff costs				Materials and Services provided by Third				Amounts Allocated														
			Salaries of Staff in activity	Pensions	Various social charges	Total (col.4 bis 6)	Energy consumption	Materials, services provided by third parties	Total (col.8+9)	Taxes	Depreciation	Provision	Financial Charges	Total Costs (col.7+10+11+12+13+14)	Traffic revenue	Financial and miscellaneous revenue	contra account of expenditure charged to other accounts	Compensation received from the State and other public bodies	Total revenue (col.16 to 19)			Results of general operating (col.22-21 or col.20-15)	Exceptional profits and losses and corporation tax	Profits(+) or loss(-) over the financial period (col.23+24)	
			in Thousands																						
1988	DR	Deutsche Mark of the Deutschen Notenbank	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	DSB	Danish crown	4022697	39836	194204	4256737	322729	1979616	2302345		903876	1912	1166480	8631350	4242164	1171676		3217510	8631350	8631350	8631350				1
1988	FS	lira	[illegible]	[illegible]	[illegible]	8859842013	124907071	3819462210	3944369281	127692983	724794534	2556442822	2065103550	18278245183	3178614219	585064854	1379687815	11176303036	16319669923	16898557369	14939982108	-195857526			
1988	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1988	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	49009793	49144640	134847	.	.	0,997
1988	NS	florin	1205420	184453	328716	1718589	202339	603930	806269	11690	257842	178130	212545	3185065	1517445	185297	172286	1427606	3302634	3012779	3130348	117569	-45000	72569	0,962
1988	NSB	Norwegian crown	2520958		511816	3032774	276968	1090464	1367432		532133		388133	5320472	2759899	449461		2111112	5320472	5320472	5320472				1
1988	OBB	Austrian Schilling	16018608	1889446	2598050	20506104	1075596	12510459	13586055	99383	4561921		438680	39192143	15345430	3671622	8856363	12420759	40294174	30335780	31437811	1102031	-330905	771126	0,965
1988	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	815305234	.	.	.	.	.	.	.	.	.	.
1988	RENFE	Peseta	106595566	30158557	18383877	155138000	26233000	68687000	94920000	1388000	30958000		63192000	345596000	126280000	33398000		171962000	331640000	345596000	331640000	-13956000		-13956000	1,042
1988	SJ (BV)	Swedish crown	4319000	1298900	780000	6397000	630500	299300	3628800	273500	544200		246200	11090600	7905900	1084200		1684000	10674100	11090600	10674100	-416500		-416500	1,039
1988	SNCB/NMBS	Belgian franc	36895924	22296054	10094051	69286029	3941829	12435046	16376875	4331	5673661	1119932	7388718	99849546	27579065	12808254	6522528	52562018	99471865	93327018	92949337	-377681	783620	405939	1,004
1988	SNCF	French franc	27623616	6916435	5252490	39792541	2135425	16049645	18185070	2149586	4943006	664851	10986727	76721781	39638200	7173195	4913248	20287133	72011776	71808533	67098528	-4710005	4147252	-562753	1,07
1988	VR	Finnish mark	2103658	523113	145143	2771914	216664	404503	621167	2452	592112		398771	4386416	2996228	251300		113784	3361312	4386416	3361312	-1025104		-1025104	1,305
1988	TCDD	Turkish pound	122354700	38847929	46642245	207844874	88875594	91689073	180564667	1181163	92869121	1082131	131340560	614882516	220095109	229850005		82036121	531981235	614882516	531981235	-82901281		82901281	1,156
1989	BDZ	Leva	257603		76752	334355	53341	450278	503619					837974	.	.	.	.	908335	837974	908335	70361	.	.	0,923
1989	BR	pound sterling	1778700	76500	214500	2069700	173500	1625300	1798800		208600	2900	51900	4131900	2898200	326900	541000	635600	4401700	3590900	3860700	269800		269800	0,93
1989	CFF	swiss franc	2213265	506548	101530	2821343	168949	1072728	1241677	4528	566703	4500	336505	4975256	2613372	1533353	339553	559000	5045278	4635703	4705725	70022		70022	0,985
1989	CFL	luxemburg franc	3738262	3368587	312183	7419032	191376	578737	770113	53382	657852	289388	264733	9454500	1959161	199397	155137	6931000	9244695	9299363	9089558	-209805		-209805	1,023
1989	CFR	Lei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	CH	drachm	25730232		7604643	33334875	2035218	7320866	9356084	228739	1527396		4720730	49167824	12397840	1146577	1656173	7234408	22434998	47511651	20778825	-26732826		-26732826	2,287
1989	CIE	pound sterling	153144	14176	13147	180467	14896	81700	96596	2302	22576	8998	22183	333122	252476			81668	334144	333122	334144	1022	4217	5239	0,997
1989	CP	escudo	35086231		21552	35107783	7969324	10884769	18854093	41252	2540470	814187	6617955	63975740	24230070	3638050	3386291	17277333	48531744	60589449	45145453	-15443996	6070105	-9373891	1,342
1989	CSD	Czechoslovak crown	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		21009883	23380624	2370741	.	.	0,899
1989	DB	Deutsche mark	11086613	5808302	3524298	20419213	1792039	6203347	7995386	20771	2320220	17808	3070284	33843682	15286697	5093080		9605610	29985387	33843682	29985387	-3858295		-3858295	1,129
1989	DR	Deutsche Mark of the Deutschen Notenbank	4110042		3112579	7222621	1849235	11731720	13580955	3551735	1641003		306337	26302651	14190236		8109859	4657570	26957665	18192792	18847806	655014		655014	0,965
1989	DSB	Danish crown	4046514	30213	168820	1245547	368660	2083467	2452127		1287948	4409	1194895	9184925	4172648	1511733		3500545	9184926	9184626	9184926				1
1989	FS	lira	[illegible]	[illegible]	[illegible]	[illegible]	142867267	3980417252	4123284519	134242835	862293777	1421841415	2788240704	18868587384	3465286897	700047134	1671611166	12044899112	17881844309	17196976218	16210233143	-986743075			
1989	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	55720324	56071857	351533	.	.	0,994
1989	NS	florin	1214725	161874	310298	1686897	211293	702827	914120	8667	269724	179493	218472	3277373	1569860	208395	162409	1406815	3347479	3114964	3185070	70106	-31163	38943	0,978
1989	NSB	Norwegian crown	2566723		521044	3087767	285030	212383	1497413		594943		507263	5687386	3201566	188452		2297368	5687386	5687386	5687386				1
1989	OBB	Austrian Schilling	16990857	1925086	2698780	21614723	1161928	14127575	15289503	100234	4434468		382940	41821868	15960540	3936712	10550059	12563866	43011177	31271809	32461118	1189309	-382627	806682	0,963
1989	PKP	zloty	1148915	.	.	.	331793060	216400188	548193248	219156061	106822711	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1989	RENFE	Peseta	110037574	34425000	16726426	161189000	26875000	72891000	99766000	462000	35343000		59578000	356338000	123394000	42139000		171608000	337141000	356338000	337141000	-19197000		-19197000	1,057
1989	SJ	Swedish crown	3875000	1247100	712900	5835000	752100	3299600	4051700	570500	339400		129700	10926300	9163300	1333800		457500	10954600	10926300	10954600	28300	7825	36125	0,997
1989	BV	Swedish crown	989880		423545	1413425	29727	2462948	2492675	350730	64143		1833	4322805		1209270		3113536	4322806	4322806	4322806				1
1989	SNCB/NMBS	Belgian franc	37253833	23250811	9686206	70190850	4069344	11589145	15658489	-941907	6006646	2756448	8245653	101916179	28103410	11817595	8328629	54409529	102659163	93587550	94330534	742984	69119	812103	0,992
1989	SNCF	French franc	27983402	7255783	5311519	40550704	2191312	17287580	19478892	2206943	5367393	749433	11171125	79524490	41407325	7325097	5292185	21234647	75259254	74232305	69967069	-4265236	4403019	137783	1,061
1989	VR	Finnish mark	2123019	.	.	2831579	208913	540653	749566	3309	648535			4232989	2828910	229824		103368	3162102	4232989	3162102	-1070887		-1070887	1,339
1989	TCDD	Turkish pound	313093660	83233476	91619248	487946384	176831268	170486739	347318007	2143135	159015454	966877	152146970	1149536828	390663508	401884801		205231402	997779709	1149536828	997779709	-151757119		-151757119	1,152
1990	BDZ	Leva	317640		94679	412319	49726	469926	519652					931971	.	.	.	.	843861	931971	843861	-88110	.	.	1,104
1990	BR	pound sterling	2037200	3900	247400	2288500	171000	1461000	1632000		245000	10000	78100	4253600	2834800	272600	318800	736700	4162900	3934800	3844100	-90700		-90700	1,024
1990	CFF	swiss franc	2386768	557327	107831	3051926	179431	1071680	1251111	4839	596292		459700	5363868	2709038	1732212	333343	592000	5366593	5030525	5033250	2725		2725	0,999
1990	CFL	luxemburg franc	4059602	3804683	302362	8166647	159191	785079	944270	51581	609469	316636	426125	10514728	1917522	232051	153235	7943000	10245808	10361493	10092573	-268920	-6065	-274985	1,027
1990	CFR	Lei	11962315	1808617	5122485	18893417	3325307	7003882	10329189	175473	3284943			32683022	21430423	7278895			28709318	32683022	28709318	-3973704		-3973704	1,138
1990	CH	drachm	30226555		9509058	39735613	2455809	7671380	10127189	328624	2587266		5208106	57986798	16151434	1007940	2289636	9632115	29081125	55697162	26791489	-28905673		-28905673	2,079
1990	CIE	pound sterling	155898	14423	14179	184500	17501	86802	104303	2470	22358	11128	22901	347660	264602			83007	347609	347660	347609	-51	-3615	-3666	1
1990	CP	escudo	38327685		281898	38609583	8646807	11813267	20460074	47812	2663693	557598	10773451	73112211	25435552	3201032	4147701	15241783	48026068	68964510	43878367	-25086143	4914225	-20171918	1,572
1990	CSD	Czechoslovak crown	.	.	.	6194009	.	.	8961803	556643	.	.	.	21214164	23544100	.		.	24912899	21214164	24912899	3698735		3698735	0,852
1990	DB	Deutsche mark	11359107	6149528	3684837	21193472	1785852	6236429	8022281	23082	2188868	13877	3421399	34862979	15323847	4804298		9791158	29919303	34862979	29919303	-4943676		-4943676	1,165
1990	DR	Deutsche Mark of the Deutschen Notenbank	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	DSB	Danish crown	3960614	54094	186930	4201638	445399	2228205	2673604		1108921	2992	1720805	9707960	4399910	1439313	.	.	9707960	9707960	9707960				1
1990	FS	lira	[illegible]	[illegible]	[illegible]	[illegible]	160481132	4633145486	4793626618	143338020	1026816950	3241797817	3367384816	22506082797	3671976340	1225640912	1290165602	12672740278	18860523132	21215917195	17570357530	-3645559			
1990	JZ	Dinar	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.	65804000	64450800	-1353200	.	.	1,021
1990	NS	florin	1410786	163238	162459	1736483	206857	799485	1006342	11448	287677	215891	247561	3505402	1687613	257563	184242	1463710	2593128	3321160	3408886	87726		87726	0,974
1990	NSB	Norwegian crown	3170700		39887	3210587	1172924	446223	1619147		314908		209929	5354571	2599946	133220		2621405	5354571	5354571	5354571				1
1990	OBB	Austrian Schilling	18089354	2029628	2860264	22979246	1286294	17492561	18778855	105866	4701951		538117	47104035	16395236	4060085	13539321	13979915	47974557	33564714	34435236	870522	-429654	440858	0,975
1990	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	RENFE	Peseta	122090000	35777000	16006000	173873000	28687000	80721000	109408000	750000	40986000		62589000	387606000	137069000	56680000		177612000	371361000	387606000	371361000	-16245000		-16245000	1,044
1990	SJ	Swedish crown	3639200	1036900	635900	5312000	612000	3244800	3857000	557600	180200		200700	10107500	8680800	1348400		450000	10479200	10107500	10479200	371700	-318700	53000	0,965
1990	BV	Swedish crown	1153482		469866	1623348	65244	2462818	2528062		136787		235302	4523499		665268		3858231	4523499	4523499	4523499				1
1990	SNCB/NMBS	Belgian franc	37726998	23948580	10063839	71739417	4742380	13728302	18470682	4100	6307528	556554	8535564	105613845	28445462	13030452	10017922	55031504	106525340	95595923	96507418	911495	49611	961106	0,991
1990	SNCF	French franc	29053342	6655071	5247611	40956024	2297732	19253358	21551090	2414892	6210318	195459	12363000	83690783	41847750	8957761	5947600	21808330	78561441	77743183	72613841	-5129342	5145873	16531	1,071
1990	VR	Finnish mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990	TCDD	Turkish pound	675536081	163248200	173220890	1012005171	313383724	335132002	648515726	3758950	311325443	29161338	495812280	2500578908	707579528	575445656		424065612	1707090796	2500578908	1707090796	-793488112		-793488112	1,465

A2.1.Staff and material expenses: final measures

Staff and materials expenses less "Counterpart of charges allocated to other accounts"

Years	Firms	Counterpart of charges allocated to other accounts After 1991- Fixed Assets own	STAFF CHARGES Total	Materials and Services Total	Various Materials, services rendered by third parties and other costs After 1991-material purchases	Taxes	Financial charges	%Staff	%Mat	Counterpart of charges allocated to other accounts Staff	Counterpart of charges allocated to other Mat	STAFF CHARGES Final	Materials and Services Rendered by Third Parties Final
1972	BR	0	454600	211500	181700	0	51100	0,661333	0,264329	0	0	454600	211500
1972	CFF	65693	1372726	558593	474205	925	150024	0,687091	0,237354	45137,08987	20555,9101	1327588,91	538037,0899
1972	CFL	29078	2137256	244818	172722	53531	135359	0,85529	0,06912	24870,11317	4207,88683	2112385,887	240610,1132
1972	CH	122123	1220126	491771	372007	54598	1241	0,74038	0,225736	90417,4631	31705,5369	1129708,537	460065,4631
1972	CIE		34124	12043	10143	1010	2611	0,712579	0,211807	0	0	34124	12043
1972	CP		1391305	397549	249680	92145	331902	0,673745	0,120909	0	0	1391305	397549
1972	DB		12675400	3619309	2811593	57839	1400482	0,748018	0,165922	0	0	12675400	3619309
1972	DSB	453760	1158875	724951	685053	2474	164411	0,576322	0,340685	261511,697	192248,303	897363,303	532702,697
1972	FS	12437705	754663908	2,73E+08	246068261	20259	326383385	0,568641	0,185413	7072589,685	5365115,31	747591318,3	267540663,7
1972	NS	125357	765841	372632	296514	3152	81265	0,667823	0,258564	83716,31871	41640,6813	682124,6813	330991,3187
1972	NSB		1011097	214714	173792		-1679	0,854537	0,146882	0	0	1011097	214714
1972	OBB	297153	11798534	2449249	1770083	39684	183661	0,855465	0,128342	254203,8452	42949,1548	11544330,15	2406299,845
1972	RENFE		16187575	6846874	4788809		751821	0,745003	0,220396	0	0	16187575	6846874
1972	SJ		2156692	340676	257574			0,893312	0,106688	0	0	2156692	340676
1972	SNCB	9996606	25426790	12222679	11140863		1848541	0,661877	0,290004	6616522,227	3380083,77	18810267,77	8842595,227
1972	SNCF	583611	9851494	4504920	4085844	263087	848515	0,65463	0,271504	382049,5174	201561,483	9469444,483	4303358,517
1972	VR		461256	156055	119942	806		0,792531	0,206084	0	0	461256	156055
1972	BDZ	.	.	.	.	.	.			.	.	.	.
1972	CFR	.	.	.	.	.	.			.	.	.	.
1972	CSD	.	.	.	.	.	.			.	.	.	.
1972	DR	.	.	.	.	.	.			.	.	.	.
1972	JZ		3020053	1600977	1023697		1802212	0,516605	0,175112	0	0	3020053	1600977
1972	MAV	.	.	.	.	.	.			.	.	.	.
1972	TCDD		1501285	977250	426740	3272	161511	0,717354	0,203908	0	0	1501285	977250
1973	BR		499100	236800	205000		57300	0,655503	0,269241	0	0	499100	236800
1973	CFF	66552	1579382	560308	470249	914	176746	0,709104	0,21113	47192,32057	19359,6794	1532189,679	540948,3206
1973	CFL	23381	2367485	271985	193249	54913	134693	0,860797	0,070264	20126,29958	3254,70042	2347358,7	268730,2996
1973	CH	106639	1489364	578971	450849	61996	3690	0,742492	0,224762	79178,6065	27460,3935	1410185,394	551510,6065
1973	CIE		41037	14835	11977	1025	2821	0,72172	0,21064	0	0	41037	14835
1973	CP		1351615	365724	206292	107424	243709	0,708008	0,108061	0	0	1351615	365724
1973	DB		14425825	3791872	3003203	54038	1494583	0,760148	0,158249	0	0	14425825	3791872
1973	DSB	440836	1222703	731953	.	6323	179253			308585,2	132250,8	914117,8	599702,2
1973	FS	14132619	876975788	3,51E+08	324387250	104798	381675878	0,553946	0,204901	7828704,731	6303914,27	869147083,3	344429878,7
1973	NS	137042	861166	270850	189395	3836	90511	0,75217	0,165424	103078,9469	33963,0531	758087,0531	236886,9469
1973	NSB		1088272	222100	178205		-7549	0,864443	0,141553	0	0	1088272	222100
1973	OBB	324126	12888550	2655684	1946768	14988	197558	0,856504	0,129372	277615,0926	46510,9074	12610934,91	2609173,093
1973	RENFE	1024586	17829677	7821206	5558436		1024586	0,730344	0,227686	748300,6053	276285,395	17081376,39	7544920,605
1973	SJ		2231321	394774	299736			0,881577	0,118423	0	0	2231321	394774
1973	SNCB	9035056	27724611	11581709	10358209		1940047	0,692719	0,258807	6258757,349	2776298,65	21465853,65	8805410,349
1973	SNCF	702067	10868349	5267896	4834312	280403	947226	0,641947	0,285542	450689,8096	251377,19	10417659,19	5016518,81
1973	VR		533846	185408	146162	757		0,784185	0,214703	0	0	533846	185408
1973	BDZ	.	.	.	.	.	.			.	.	.	.
1973	CFR	.	.	.	.	.	.			.	.	.	.
1973	CSD	.	.	.	.	.	.			.	.	.	.
1973	DR	.	.	.	.	.	.			.	.	.	.
1973	JZ		3318543	1907318	1223273		2026184	0,505259	0,186247	0	0	3318543	1907318
1973	MAV	.	.	.	.	.	.			.	.	.	.
1973	TCDD		1679279	1040997	472649	2687	130291	0,734944	0,206857	0	0	1679279	1040997
1974	BR		629400	330800	262200		71900	0,653243	0,272133	0	0	629400	330800
1974	CFF	71202	1724865	622880	527279	971	216380	0,698469	0,213517	49732,36946	21469,6305	1675132,631	601410,3695
1974	CFL	45557	2934714	322258	219821	58212	123998	0,879514	0,065879	40068,02009	5488,97991	2894645,98	316769,0201
1974	CH	88173	1955777	997932	763147	127074	6884	0,685544	0,2675	60446,49776	27726,5022	1895330,502	970205,4978
1974	CIE		35131	13886	10608	818	2283	0,719308	0,217199	0	0	35131	13886
1974	CP		2113432	530548	405481	117637	388475	0,698649	0,134042	0	0	2113432	530548
1974	DB		16334398	4244907	3308580	68451	1666662	0,764072	0,154765	0	0	16334398	4244907
1974	DSB	531459	1350460	920848	.	4155	193218			372021,3	159437,7	978438,7	761410,3
1974	FS	19072186	1145741450	5,25E+08	484451783	110379	402165659	0,563719	0,238356	10751352,73	8320833,27	1134990097	516440848,7
1974	NS	159341	981228	322053	225009	4183	102170	0,747551	0,171424	119115,5279	40225,4721	862112,4721	281827,5279
1974	NSB		1104226	261155	201754		-4847	0,848665	0,15506	0	0	1104226	261155
1974	OBB	367429	10778125	3098942	2210296	23044	215406	0,814866	0,167106	299405,3311	68023,6689	10478719,67	3030918,331
1974	RENFE	.	.	.	.	.	.			.	.	.	.
1974	SJ		2446442	524927	391971			0,861905	0,138095	0	0	2446442	524927
1974	SNCB	11037026	32072009	14499097	12730197		1914187	0,686526	0,2725	7577203,086	3459822,91	24494805,91	11039274,09
1974	SNCF	1032411	12750756	6589511	5950355	339734	1158514	0,631246	0,294581	651704,876	380706,124	12099051,12	6208804,876
1974	VR		669194	260527	195348	740		0,773383	0,225762	0	0	669194	260527
1974	BDZ	.	.	.	.	.	.			.	.	.	.
1974	CFR	.	.	.	.	.	.			.	.	.	.
1974	CSD	.	.	.	.	.	.			.	.	.	.
1974	DR	.	.	.	.	.	.			.	.	.	.
1974	JZ		4097299	2645067	1607020		2529694	0,497607	0,195169	0	0	4097299	2645067
1974	MAV	.	.	.	.	.	.			.	.	.	.
1974	PKP	.	.	.	.	.	.			.	.	.	.
1974	TCDD		2203424	1510516	666878	2997	146119	0,729751	0,220863	0	0	2203424	1510516
1975	BDZ	.	.	.	.	.	.			.	.	.	.
1975	BR		840600	460700	383300		32500	0,669054	0,305078	0	0	840600	460700
1975	CFF	76257	1843450	595900	511527	1146	280808	0,699089	0,193986	53310,44561	22946,5544	1790139,554	572953,4456
1975	CFL	32687	3399516	395138	274148	72506	123135	0,878586	0,070852	28718,33042	3968,66958	3370797,67	391169,3304
1975	CFR	.	.	.	.	.	.			.	.	.	.
1975	CH	152944	2328360	1011861	743508	113624	26000	0,725009	0,231515	110885,7478	42058,2522	2217474,252	969802,7478
1975	CIE		60905	22367	17838	1081	3223	0,73338	0,214794	0	0	60905	22367
1975	CP		3663085	755658	499642	136811	617760	0,744939	0,101609	0	0	3663085	755658
1975	CSD	.	.	.	.	.	.			.	.	.	.
1975	DB		16665570	4259454	3302666	81010	1949719	0,757562	0,150128	0	0	16665570	4259454
1975	DR	.	.	.	.	.	.			.	.	.	.
1975	DSB	686729	1606262	1222217	.	4738	209140			480710,3	206018,7	1125551,7	1016198,3
1975	FS	16297680	1162146142	5,35E+08	497387976	103305	511644993	0,535235	0,229076	8723087,239	7574592,76	1153423055	527819277,2
1975	JZ		5370000	7400000	6201000		1643000	0,406387	0,469275	0	0	5370000	7400000
1975	MAV	.	.	.	.	.	.			.	.	.	.
1975	NS	197016	1107504	395746	280616	4227	123392	0,730669	0,185135	143953,5488	53062,4512	963550,4512	342683,5488
1975	NSB		1276119	296581	232051		2274	0,844863	0,153631	0	0	1276119	296581
1975	OBB	458626	12001435	3173971	2429779	27596	240069	0,816486	0,165304	374461,898	84164,102	11626973,1	3089806,898
1975	PKP	.	.	.	.	.	.			.	.	.	.
1975	RENFE	2557300	27834982	16391390	12743764		2557300	0,645284	0,295432	1650183,688	907116,312	26184798,31	15484273,69
1975	SJ		2812651	675302	553931			0,835462	0,164538	0	0	2812651	675302
1975	SNCB	11723355	37476783	16842059	14621981	70233	2564337	0,684716	0,267149	8027167,345	3696187,66	29449615,66	13145871,34
1975	SNCF	861484	14832420	7192706	6470385	386433	1169559	0,648871	0,283059	558992,3438	302491,656	14273427,66	6890214,344
1975	VR		859819	326392	246860	802		0,776374	0,222902	0	0	859819	326392
1975	TCDD		3375341	1895304	984108	5518	260112	0,729791	0,212776	0	0	3375341	1895304
1976	BDZ	.	.	.	.	.	.			.	.	.	.
1976	BR		921800	500400	406800	200	43400	0,671768	0,296458	0	0	921800	500400
1976	CFF	76673	1854949	617618	511846	1657	329908	0,687436	0,189688	52707,75756	23965,2424	1802241,242	593652,7576
1976	CFL	46579	3747603	375156	239545	52539	151719	0,894116	0,057151	41647,02731	4931,97269	3705955,973	370224,0273
1976	CFR	.	.	.	.	.	.			.	.	.	.
1976	CH	251815	3015091	1157068	848948	101389	4223	0,759536	0,21386	191262,441	60552,559	2823828,559	1096515,441
1976	CIE		67853	29011	23118	1132	3927	0,706581	0,240737	0	0	67853	29011
1976	CP		4590621	1196483	874693	165301	1033819	0,688824	0,131248	0	0	4590621	1196483
1976	CSD	.	.	.	.	.	.			.	.	.	.
1976	DB		16893288	4635861	3619992	99498	2256228	0,738698	0,158292	0	0	16893288	4635861
1976	DR	.	.	.	.	.	.			.	.	.	.
1976	DSB	753107	1815616	1268986	.	4580	229909			527174,9	225932,1	1288441,1	1043053,9
1976	FS	19474597	1444137880	6,71E+08	627975037	58024	516736868	0,557817	0,242564	10863269,49	8611327,51	1433274611	661969381,5
1976	JZ		6589722	4823602	3662000		4503882	0,446591	0,248177	0	0	6589722	4823602

A2.1.Staff and material expenses: final measures

Staff and materials expenses less "Counterpart of charges allocated to other accounts"

Years	Firms	Counterpart of charges allocated to other accounts After 1991- Fixed Assets own	STAFF CHARGES Total	Materials and Services Total	Various Materials, services rendered by third parties and other costs After 1991-material purchases	Taxes	Financial charges	%Staff	%Mat	Counterpart of charges allocated to other accounts Staff	Counterpart of charges allocated to other Mat	STAFF CHARGES Final	Materials and Services Rendered by Third Parties Final
1976	MAV												
1976	NS	194525	1193989	416957	283537	5194	36492	0,785927	0,186634	152882,3563	41642,6437	1041106,644	375314,3563
1976	NSB		1540558	351803	274728		8701	0,84461	0,150619	0	0	1540558	351803
1976	OBB	522178	13003571	3401511	2574508	31050	226035	0,821183	0,162582	428803,8127	93374,1873	12574767,19	3308136,813
1976	PKP												
1976	RENFE	3521355	36054511	21040396	16923939		3521355	0,638135	0,29954	2247100,368	1274254,63	33807410,63	19766141,37
1976	SJ		3084366	840231	712372			0,812373	0,187627	0	0	3084366	840231
1976	SNCB	14323265	40766718	19371068	17073766	74473	2858658	0,670796	0,28094	9607993,619	4715271,38	31158724,38	14655796,62
1976	SNCF	787477	17142097	7774616	6924704	335470	1365705	0,665248	0,268733	523867,5758	263609,424	16618229,42	7511006,576
1976	VR		1002211	351980	267517	819		0,788803	0,210553	0	0	1002211	351980
1976	TCDD		4402907	1999272	1121373	2848	251128	0,761979	0,194068	0	0	4402907	1999272
1977	BDZ												
1977	BR		990900	605900	499000	200	44400	0,645748	0,325187	0	0	990900	605900
1977	CFF	74315	1835723	595911	499033	904	329888	0,688685	0,187216	51179,62788	23135,3721	1784543,372	572775,6279
1977	CFL	47404	4125849	400875	266523	55276	164432	0,894574	0,057788	42406,40795	4997,59205	4083442,592	395877,408
1977	CFR												
1977	CH	306901	3540086	1270444	948765	111730	26390	0,765098	0,205051	234809,3242	72091,6758	3305276,676	1198352,324
1977	CIE		72431	27710	21092	1183	4320	0,731434	0,212995	0	0	72431	27710
1977	CP	485839	5098361	1624362	1039285	217229	2085322	0,604057	0,123135	293474,5018	192364,498	4804886,498	1431997,502
1977	CSD												
1977	DB		17407262	4774217	3760407	112963	2407455	0,734853	0,158747	0	0	17407262	4774217
1977	DR												
1977	DSB	749158	1955453	1351692	1175066	6734	256155	0,57625	0,346279	431702,6596	317455,34	1523750,34	1034236,66
1977	FS	325156054	1695336496	1,03E+09	976826923	69775433	525746457	0,518819	0,298935	168697066,3	156458988	1526639430	877893819,3
1977	JZ												
1977	MAV												
1977	NS	210643	1267928	442031	308985	6604	31327	0,785171	0,19134	165390,6865	45252,3135	1102537,314	396778,6865
1977	NSB		1653854	397402	312121		9425	0,837225	0,158004	0	0	1653854	397402
1977	OBB	5780069	13386689	9065717	8245041	34864	215970	0,611751	0,376786	3535965,26	2244103,74	9850723,74	6821613,26
1977	PKP												
1977	RENFE	5610218	48366856	26382279	21927633		5610218	0,637205	0,288884	3574858,752	2035359,25	44791997,25	24346919,75
1977	SJ		3447353	1074539	937034			0,786279	0,213721	0	0	3447353	1074539
1977	SNCB	9765098	43878630	18810663	16404013	33401	3382439	0,688849	0,257526	6726677,024	3038420,98	37151952,98	15772242,02
1977	SNCF	1003793	19226315	8567227	7629353	407335	1684185	0,664186	0,263561	666705,1878	337087,812	18559609,81	8230139,188
1977	VR		1062126	410272	310101	1011		0,773446	0,225817	0	0	1062126	410272
1977	TCDD		6321383	2077654	1212378	5628	304582	0,805891	0,154562	0	0	6321383	2077654
1978	BDZ												
1978	BR		1131000	718900	607600	200	50000	0,632267	0,339669	0	0	1131000	718900
1978	CFF	69954	1839143	580284	484584	1085	326423	0,693693	0,182777	48526,59588	21427,4041	1790616,404	558856,5959
1978	CFL	42573	4300092	401424	265943	600036	165373	0,806553	0,049882	34337,37965	8235,62035	4265754,62	393188,3797
1978	CFR												
1978	CH	258223	4132951	1405299	1063061	127862	145714	0,755624	0,194359	195119,4507	63103,5493	3937831,549	1342195,451
1978	CIE		80078	34774	27851	1251	4415	0,704943	0,245178	0	0	80078	34774
1978	CP	485478	5278033	1811875	1179085	255987	2286152	0,586497	0,13102	284731,1622	200746,838	4993301,838	1611128,162
1978	CSD												
1978	DB		18177185	3597525	2570565	90826	2464466	0,780035	0,11031	0	0	18177185	3597525
1978	DR												
1978	DSB	831178	2046942	1452211	1264502	4496	284738	0,568488	0,351184	472514,6646	358663,335	1574427,335	1093547,665
1978	FS	402510466	1944224769	1,16E+09	1098533913	75883520	575067978	0,526361	0,297407	211865788	190644678	1732358981	970376889
1978	JZ												
1978	MAV												
1978	NS	222241	1342184	458903	326317	6591	27689	0,788231	0,191638	175177,1451	47063,8549	1167006,855	411839,1451
1978	NSB		1774570	424852	331927		853	0,842086	0,157509	0	0	1774570	424852
1978	OBB	6697212	14318026	10054974	9394338	63521	228042	0,596487	0,391367	3994798,665	2702413,33	10323227,33	7352560,665
1978	PKP												
1978	RENFE	7328508	60604526	28027768	23053767		7328508	0,66608	0,253375	4881375,636	2447132,36	55723150,36	25580635,64
1978	SJ		3677251	1300971	1072134			0,774258	0,225742	0	0	3677251	1300971
1978	SNCB	11261189	47130959	19038998	16604695	19714	4112079	0,694456	0,244664	7820400,803	3440788,2	39310558,2	15598209,8
1978	SNCF	1206594	20887195	9516616	8503929	485442	1892714	0,657465	0,267678	793293,5264	413300,474	20093901,47	9103315,526
1978	VR		1121952	413575	311162	774	34463	0,76409	0,211913	0	0	1121952	413575
1978	TCDD		9319993	2852657	1559043	6945	497669	0,818717	0,136955	0	0	9319993	2852657
													0
1979	BDZ												
1979	BR		1310400	851700	715000	100	62900	0,627466	0,342367	0	0	1310400	851700
1979	CFF	91004	1871442	601559	487373	996	328669	0,696097	0,181282	63347,58219	27656,4178	1808094,418	573902,5822
1979	CFL	57144	4618247	446580	277762	66811	166960	0,900282	0,054147	51445,69681	5698,30319	4566801,303	440881,6968
1979	CFR												
1979	CH	274780	4593431	1663490	1267465	130384	233481	0,737929	0,203617	202768,1015	72011,8985	4390662,899	1591478,101
1979	CIE		96134	44096	32665	1317	4765	0,712732	0,242176	0	0	96134	44096
1979	CP	487690	5968652	2119081	1142326	320707	2658466	0,591532	0,113212	288484,473	199205,527	5680167,527	1919875,473
1979	CSD												
1979	DB		18769821	4402476	3157500	95312	2394017	0,76873	0,129317	0	0	18769821	4402476
1979	DR												
1979	DSB		2227716	992521	711383		335071	0,680391	0,217271	0	0	2227716	992521
1979	FS	423254689	2612154243	1,35E+09	1275310233	94633479	641870831	0,564916	0,275804	239103372,6	184151316	2373050870	1160976419
1979	JZ												
1979	MAV												
1979	NS	238171	1416161	518761	362088	5056	40820	0,776351	0,1985	184904,259	53266,741	1231256,741	465494,259
1979	NSB		1777012	507374	397438		-26091	0,827149	0,184996	0	0	1777012	507374
1979	OBB	8318194	14984896	11904532	11180984	49562	292964	0,565288	0,42179	4702179,075	3616014,93	10282716,93	8288517,075
1979	PKP												
1979	RENFE	7387772	70847379	30384641	25135699		7387772	0,685371	0,24316	5063364,409	2324407,59	65784014,59	28060233,41
1979	SJ		3825737	1503354	1218416			0,75845	0,24155	0	0	3825737	1503354
1979	SNCB	10127892	51651110	19566610	16739893	50921	4070633	0,712306	0,230855	7214155,526	2913736,47	44436954,47	16652873,53
1979	SNCF	1463410	23305772	10963613	9717824	487976	2287955	0,651008	0,271451	952691,3527	510718,647	22353080,65	10452894,35
1979	VR		1400501	291497	158581	931	38978	0,875865	0,099176	0	0	1400501	291497
1979	TCDD		15627754	4836059	2392042	5876	1572143	0,797423	0,122057	0	0	15627754	4836059
1980	BDZ												
1980	BR	290700	1617700	1228700	1036300	200	71300	0,593542	0,380224	172542,7958	118157,204	1445157,204	1110542,796
1980	CFF	89640	1963309	652999	544104	1178	336095	0,690167	0,19127	61866,58871	27773,4113	1901442,411	625225,5887
1980	CFL	63134	5088123	512430	298485	87157	165265	0,902305	0,052932	56966,10188	6167,89812	5031156,898	506262,1019
1980	CFR												
1980	CH	254927	5411793	2038059	1371614	150127	240642	0,754343	0,191188	192302,5242	62624,4758	5219490,476	1975434,524
1980	CIE		118041	55898	41075	1430	5845	0,709419	0,246858	0	0	118041	55898
1980	CP	465244	7207630	3094286	1483946	407713	3186216	0,586678	0,120788	272948,2111	192295,789	6934681,789	2901990,211
1980	CSD												
1980	DB		19841043	5081513	3653351	95818	2393934	0,763583	0,140599	0	0	19841043	5081513
1980	DR												
1980	DSB		2456426	1280637	869893		366576	0,665176	0,235559	0	0	2456426	1280637
1980	FS	545673132	3483879169	1,67E+09	1573094910	1,08E+08	691848070	0,594816	0,268581	324575229,4	221097903	3159303940	1450760776
1980	JZ												
1980	MAV												
1980	NS	264759	1482489	617615	423317	5085	43587	0,758509	0,216588	200822,0636	63936,9364	1281666,936	553678,0636
1980	NSB		1913965	617140	474342		-28804	0,811173	0,201035	0	0	1913965	617140
1980	OBB	8464577	15865126	12276166	11290235	48767	382137	0,57511	0,40927	4868059,545	3596517,46	10997066,46	8679648,545
1980	PKP												
1980	RENFE												
1980	SJ		4284260	1433175	1080288			0,798625	0,201375	0	0	4284260	1433175
1980	SNCB	13222842	56221951	25458111	21686512	23738	4322560	0,68351	0,263651	9037944,624	4184897,38	47184006,38	21273213,62

A2.1.Staff and material expenses: final measures

Staff and materials expenses less "Counterpart of charges allocated to other accounts"

Years	Firms	Counterpart of charges allocated to other accounts After 1991- Fixed Assets own	STAFF CHARGES Total	Materials and Services Total	Various Materials, services rendered by third parties and other costs After 1991-material purchases	Taxes	Financial charges	%Staff	%Mat	Counterpart of charges allocated to other accounts Staff	Counterpart of charges allocated to other Mat	STAFF CHARGES Final	Materials and Services Rendered by Third Parties Final
1980	SNCF	1897263	26405440	12622626	10945377	659740	2652541	0,649371	0,269172	1232027,73	665235,27	25173412,27	11957390,73
1980	VR		1571145	415130	221782	677	46860	0,853668	0,120503	0	0	1571145	415130
1980	TCDD		27619437	14010822	7493198	132887	4095895	0,702045	0,190466	0	0	27619437	14010822
													0
1981	BDZ	.	.	.	.	.	.			.	.	.	.
1981	BR	255900	1663200	1114700	919400	100	69000	0,62722	0,346721	160505,6681	95394,3319	1502694,332	1019305,668
1981	CFF	97583	2097774	678442	571897	1238	348456	0,694773	0,18941	67798,05696	29784,943	2029975,943	648657,057
1981	CFL	83576	5510552	552181	311118	102738	203096	0,899314	0,050774	75161,09234	8414,90766	5435390,908	543766,0923
1981	CFR	.	.	.	.	.	.			.	.	.	.
1981	CH	423506	6990962	2443140	1581411	184810	357775	0,766977	0,173496	324819,3083	98686,6917	6666142,692	2344453,308
1981	CIE		131759	67173	50646	1495	8159	0,686034	0,2637	0	0	131759	67173
1981	CP	711216	9083450	3616690	1465881	543472	3946785	0,603969	0,097468	429552,6563	281663,344	8653897,344	3335026,656
1981	CSD	.	.	.	.	.	.			.	.	.	.
1981	DB		20604625	5191203	3553929	123398	2713010	0,763277	0,131652	0	0	20604625	5191203
1981	DR	.	.	.	.	.	.			.	.	.	.
1981	DSB		2797818	1569424	1039982		402709	0,659784	0,245249	0	0	2797818	1569424
1981	FS	833691257	4181421331	2,17E+09	2044130356	1,27E+08	964941828	0,571455	0,279362	476416926,6	357274330	3705004404	1813568868
1981	JZ	.	.	.	.	.	.			.	.	.	.
1981	MAV	.	.	.	.	.	.			.	.	.	.
1981	NS	290577	1535309	701101	461364	5127	90839	0,733671	0,22047	213187,981	77389,019	1322121,019	623711,981
1981	NSB		2158059	730041	551597		-29666	0,805249	0,205821	0	0	2158059	730041
1981	OBB	8846977	16985975	13184462	12096388	54358	531762	0,572526	0,407718	5065123,49	3781853,51	11920851,51	9402608,49
1981	PKP		.	.	.	.	.			.	.	.	.
1981	RENFE	11369115	96252146	55879335	43446599		9266703	0,646137	0,291656	7346010,31	4023104,69	88906135,69	51856230,31
1981	SJ		4660715	1412309	1002961		26364	0,819101	0,176266	0	0	4660715	1412309
1981	SNCB	14950365	61442888	31482189	26965272	7545	7260246	0,642198	0,28184	9601091,943	5349273,06	51841796,06	26132915,94
1981	SNCF	2299607	29878526	14205439	12264737	929980	4060293	0,633912	0,260213	1457749,055	841857,945	28420776,95	13363581,05
1981	VR		1865644	506208	256098	904	53437	0,85734	0,117688	0	0	1865644	506208
1981	TCDD		30970987	21465996	10247954	298932	5588969	0,657463	0,217547	0	0	30970987	21465996
													0
1982	BDZ	.	.	.	.	.	.			.	.	.	.
1982	BR	220800	1669200	1095900	909900		79200	0,62792	0,342286	138644,7579	82155,2421	1530555,242	1013744,758
1982	CFF	105103	2326829	727721	601407	1676	223313	0,73792	0,190728	77557,64602	27545,354	2249271,354	700175,646
1982	CFL	87564	5656305	592651	348540	108612	194479	0,896697	0,055254	78518,34436	9045,65564	5577786,656	583605,3444
1982	CFR	.	.	.	.	.	.			.	.	.	.
1982	CH	957635	9246901	3153155	2154790	230570	535402	0,759957	0,177092	727761,4476	229873,552	8519139,552	2923281,448
1982	CIE		139288	91146	71600	1646	10538	0,624408	0,320973	0	0	139288	91146
1982	CP	1101520	10779982	5657558	2727847	643000	5026671	0,562116	0,142242	619182,1547	482337,845	10160799,85	5175220,155
1982	CSD	.	.	.	.	.	.			.	.	.	.
1982	DB		20650645	5014590	3208919	185420	2926166	0,765657	0,118976	0	0	20650645	5014590
1982	DR	.	.	.	.	.	.			.	.	.	.
1982	DSB		3214319	1947925	1264801		648556	0,626857	0,246662	0	0	3214319	1947925
1982	FS	1166172404	5608042131	2,83E+09	2660977318	1,66E+08	1205404518	0,581734	0,276029	678401711,8	487770692	4929640419	2340108570
1982	JZ	.	.	.	.	.	.			.	.	.	.
1982	MAV	.	.	.	.	.	.			.	.	.	.
1982	NS	303520	1606551	753961	500412	2680	148102	0,711573	0,221642	215976,7199	87543,2801	1390574,28	666417,7199
1982	NSB		2444346	784158	574477		-23225	0,815979	0,191774	0	0	2444346	784158
1982	OBB	10002590	18077601	14355646	13182381	73062	616538	0,565817	0,412599	5659630,57	4342959,43	12417970,43	10012686,57
1982	PKP		.	.	.	.	.			.	.	.	.
1982	RENFE		126626373	72890212	56041669		34691799	0,582566	0,257829	0	0	126626373	72890212
1982	SJ		5145272	1477370	1038965		4646	0,831373	0,167876	0	0	5145272	1477370
1982	SNCB	14118909	64203714	32680443	27786961	10218	8227786	0,640572	0,277236	9044181,81	5074727,19	55159532,19	27605715,81
1982	SNCF	2117942	34395978	16026154	13783448	1123010	5422728	0,628522	0,251867	1331173,47	786768,53	33064804,53	15239385,47
1982	VR		2002447	571772	307010	938	54506	0,846736	0,129819	0	0	2002447	571772
1982	TCDD		34977884	27935380	12577633	229971	8182647	0,624961	0,224728	0	0	34977884	27935380
													0
1983	BDZ	.	.	.	.	.	.			.	.	.	.
1983	BR	203500	1817700	1120200	1039000		69100	0,621266	0,355117	126427,6266	77072,3734	1691272,373	1043127,627
1983	CFF		2361526	997625	853940	2746	223568	0,686135	0,24811	0	0	2361526	997625
1983	CFL	78806	5979388	589674	321214	116804	204700	0,902944	0,048506	71157,37059	7648,62941	5908230,629	582025,3706
1983	CFR	.	.	.	.	.	.			.	.	.	.
1983	CH	1071108	11186958	3567949	2288283	260945	644292	0,777927	0,159124	833243,5271	237864,473	10353714,47	3330084,527
1983	CIE		144830	109452	87952	1772	12678	0,585806	0,355747	0	0	144830	109452
1983	CP	1060190	13670009	6298558	2612608	751996	5334758	0,611104	0,116794	647886,203	412303,797	13022122,8	5886254,203
1983	CSD	.	.	.	.	.	.			.	.	.	.
1983	DB		20605014	4873205	3036617	165965	2932767	0,770558	0,113559	0	0	20605014	4873205
1983	DR	.	.	.	.	.	.			.	.	.	.
1983	DSB		3447784	2013607	1388918		745415	0,617648	0,248816	0	0	3447784	2013607
1983	FS	1828014034	5956826034	3,73E+09	3508399676	2,45E+08	1560152670	0,528523	0,311285	966146951,3	861867083	4990679083	2866203043
1983	JZ	.	.	.	.	.	.			.	.	.	.
1983	MAV	.	.	.	.	.	.			.	.	.	.
1983	NS	299599	1612695	766522	525095	9009	189589	0,690251	0,224746	206798,6179	92800,3821	1405896,382	673721,6179
1983	NSB		2495281	848050	620318		-19419	0,805922	0,200349	0	0	2495281	848050
1983	OBB	11348707	18755562	15619490	14556355	71832	632199	0,551376	0,427927	6257399,551	5091307,45	12498162,45	10528182,55
1983	PKP		.	.	.	.	.			.	.	.	.
1983	RENFE	.	.	.	.	.	.			.	.	.	.
1983	SJ		5472800	1601595	1051363	168462	41564	0,812689	0,156123	0	0	5472800	1601595
1983	SNCB	10420355	65219149	31999207	26972141	4425	8598583	0,647052	0,267596	6742511,222	3677843,78	58476637,78	28321363,22
1983	SNCF	2461455	37713791	18012285	15437922	1338168	6738298	0,615955	0,252138	1516145,032	945309,968	36197645,97	17066975,03
1983	VR		2228777	606315	343923	1060	73836	0,841812	0,1299	0	0	2228777	606315
1983	TCDD		43793553	36252496	16555609	191444	8583978	0,633545	0,239504	0	0	43793553	36252496
													0
1984	BDZ	.	.	.	.	.	.			.	.	.	.
1984	BR	267600	2375900	1476000	1212300		83800	0,647032	0,330147	173145,6536	94454,3464	2202754,346	1381545,654
1984	CFF		2392027	924888	768616	3671	220887	0,706613	0,227052	0	0	2392027	924888
1984	CFL	96636	6236556	644826	345880	96451	280055	0,896193	0,049703	86604,51914	10031,4809	6149951,481	634794,5191
1984	CFR	.	.	.	.	.	.			.	.	.	.
1984	CH	1435020	13952969	4365809	2780383	301218	462821	0,797431	0,158903	1144330,008	290689,992	12808638,99	4075119,008
1984	CIE		153404	118370	94975	1949	20996	0,56539	0,350043	0	0	153404	118370
1984	CP	364364	15659537	8287555	2978234	941617	2389869	0,712793	0,135564	259716,1815	104647,818	15399820,82	8182907,182
1984	CSD	.	.	.	.	.	.			.	.	.	.
1984	DB		20325652	5059318	3145925	160814	2926621	0,765302	0,11845	0	0	20325652	5059318
1984	DR	.	.	.	.	.	.			.	.	.	.
1984	DSB		3555262	2135942	1512459		840406	0,601758	0,255996	0	0	3555262	2135942
1984	FS	2.764.579.697,00	6.273.574.743,00	4,89E+09	4664727525	3,48E+08	2.223.996.901,00	0,464347	0,345266	1283724910	1480854787	4989849833	3413471738
1984	JZ	.	.	.	.	.	.			.	.	.	.
1984	MAV	.	.	.	.	.	.			.	.	.	.
1984	NS	305377	1604046	764459	515807	10515	203917	0,687168	0,22097	209845,3082	95531,6918	1394200,692	668927,3082
1984	NSB		2558520	894637	648281		16527	0,793751	0,201122	0	0	2558520	894637
1984	OBB	10922267	19416508	15201188	14066851	85166	654469	0,567353	0,411035	6196777,657	4725489,34	13219730,34	10475698,66
1984	PKP		.	.	.	.	.			.	.	.	.
1984	RENFE	.	.	.	.	.	.			.	.	.	.
1984	SJ		5102714	2965353	2297871	210595	22825	0,668419	0,301005	0	0	5102714	2965353
1984	SNCB	8350544	68459292	27162258	21632111	6065	8770790	0,692429	0,218797	5782162,462	2568381,54	62677129,54	24593876,46
1984	SNCF	3404439	38471277	19269882	16506998	1831167	8700031	0,587263	0,251979	1999300,403	1405138,6	36471976,6	17864743,4
1984	VR		2372693	621104	346079	1708	84511	0,845883	0,12338	0	0	2372693	621104
1984	TCDD		53609065	56695708	26595208	198332	22010511	0,523459	0,259686	0	0	53609065	56695708
1985	BDZ	.	.	.	.	.	.			.	.	.	.
1985	BR	383900	1949200	1365900	1145835		73900	0,615096	0,361584	236135,4461	147764,554	1713064,554	1218135,446
1985	CFF		2431422	991575	808240	3219	225083	0,701109	0,233059	0	0	2431422	991575
1985	CFL	90781	6391292	749515	421521	132101	281330	0,884456	0,058332	80291,76417	10489,2358	6311000,236	739025,7642

A2.1.Staff and material expenses: final measures

Staff and materials expenses less "Counterpart of charges allocated to other accounts"

Years	Firms	Counterpart of charges allocated to other accounts After 1991- Fixed Assets own	STAFF CHARGES Total	Materials and Services Total	Various Materials, services rendered by third parties and other costs After 1991-material purchases	Taxes	Financial charges	%Staff	%Mat	Counterpart of charges allocated to other accounts Staff	Counterpart of charges allocated to other Mat	STAFF CHARGES Final	Materials and Services Rendered by Third Parties Final
1985	CFR	.	.	.	.	.	.			.	.	.	.
1985	CH	1199514	18348214	2205781	362050	356836	772504	0,924828	0,018249	1109343,693	90170,3071	17238870,31	2115610,693
1985	CIE		166012	102612	77982	2041	27576	0,606745	0,28501	0	0	166012	102612
1985	CP	1225367	19562348	10347560	4178483	1157630	5987486	0,633374	0,135288	776115,289	449251,711	18786232,71	9898308,289
1985	CSD	.	.	.	.	.	.			.	.	.	.
1985	DB		20178926	5163397	3137528	177640	2900807	0,764501	0,118869	0	0	20178926	5163397
1985	DR	.	.	.	.	.	.			.	.	.	.
1985	DSB		3570387	2280562	1667767		932174	0,578638	0,270288	0	0	3570387	2280562
1985	FS	2.295.788.675,00	7.194.462.830,00	4,64E+09	4404957688	3,24E+08	3.542.468.983,00	0,465185	0,284819	1067967443	1227821232	6126495387	3408117174
1985	JZ	.	.	.	.	.	.			.	.	.	.
1985	MAV	.	.	.	.	.	.			.	.	.	.
1985	NS	178413	1604029	1066734	776737		257367	0,608017	0,294427	108478,0889	69934,9111	1495550,911	996799,0889
1985	NSB		2688555	1002458	832622		108663	0,740681	0,229383	0	0	2688555	1002458
1985	OBB	10713918	20445699	15094555	13796898	88630	649167	0,58449	0,394418	6262180,539	4451737,46	14183518,46	10642817,54
1985	PKP	.	.	.	.	.	.			.	.	.	.
1985	RENFE	.	.	.	.	.	.			.	.	.	.
1985	SJ		8182963	4530995	3472184	229905	87752	0,683463	0,290006	0	0	8182963	4530995
1985	SNCB/NMI	6624721	69176987	26627997	20619549	5256	9375113	0,697511	0,207907	4620816,091	2003904,91	64556170,91	24624092,09
1985	SNCF	2700324	39844577	18194797	15179623	1830903	10625887	0,590456	0,224947	1594423,371	1105900,63	38250153,63	17088896,37
1985	VR	0	2512326	721145	-430100	1959	78783	1,161518	-0,198847	0	0	2512326	721145
1985	TCDD		69207111	75335950	31720277	314969	46185137	0,469432	0,215158	0	0	69207111	75335950
1986	BDZ	.	.	.	.	.	.			.	.	.	.
1986	BR	343900	1967600	1308300	1143900		72400	0,617984	0,359276	212524,7778	131375,222	1755075,222	1176924,778
1986	CFF		2501398	1018731	828665	3669	231394	0,70163	0,232436	0	0	2501398	1018731
1986	CFL	110549	6638974	687491	446674	130768	248968	0,889301	0,059833	98311,3443	12237,6557	6540662,656	675253,3443
1986	CFR	.	.	.	.	.	.			.	.	.	.
1986	CH	1629139	21861613	7418319	5248898	469726	483100	0,77901	0,187038	1269115,157	360023,843	20592497,84	7058295,157
1986	CIE		172129	99335	79203	2128	29531	0,608249	0,279878	0	0	172129	99335
1986	CP	2037593	24815173	11791619	5109876	6192	5345378	0,703445	0,144852	1433335,286	604257,714	23381837,71	11187361,29
1986	CSD	.	.	.	.	.	.			.	.	.	.
1986	DB		20267499	5430776	3612360	84943	2932274	0,753521	0,134303	0	0	20267499	5430776
1986	DR	.	.	.	.	.	.			.	.	.	.
1986	DSB		3629716	2333951	1885965		1018795	0,555472	0,288618	0	0	3629716	2333951
1986	FS	1007617414	7516560809	3,61E+09	3507855720	86955448	2003393678	0,573137	0,267474	577503080,4	430114334	6939057729	3183290176
1986	JZ	.	.	.	.	.	.			.	.	.	.
1986	MAV	.	.	.	.	.	.			.	.	.	.
1986	NS	175139	1706374	979094	756952		270140	0,624253	0,27692	109331,0237	65807,9763	1597042,976	913286,0237
1986	NSB		2824581	1195497	958682		283529	0,694548	0,235734	0	0	2824581	1195497
1986	OBB	10222171	21433270	14570602	13415418	87726	562634	0,60377	0,377909	6171843,003	4050328	15261427	10520274
1986	PKP	.	.	.	.	.	.			.	.	.	.
1986	RENFE		146242000	94737000	66895000		68820000	0,518668	0,237252	0	0	146242000	94737000
1986	SJ		5934900	3451900	2798500	214000	98500	0,656087	0,309367	0	0	5934900	3451900
1986	SNCB/NMI	5128537	69957027	26762164	21921067	3630	10481356	0,68342	0,21415	3504947,305	1623589,69	66452079,69	25138574,31
1986	SNCF	2806694	39511375	17809813	15353849	2034215	9884827	0,591627	0,229902	1660515,954	1146178,05	37850859,05	16663634,95
1986	VR		2570384	610653	373702	2487	172155	0,824177	0,119825	0	0	2570384	610653
1986	TCDD		86532299	91011801	42870761	723682	73253417	0,425471	0,210791	0	0	86532299	91011801
1987	BDZ	.	.	.	.	.	.			.	.	.	.
1987	BR	298300	2034500	1334300	1167000		74200	0,621089	0,35626	185270,736	113029,264	1849229,264	1221270,736
1987	CFF		2523209	1276609	1088107	3397	242443	0,654163	0,282101	0	0	2523209	1276609
1987	CFL	102564	6986641	719423	533506	96841	298403	0,882665	0,067401	90529,6842	12034,3158	6896111,316	707388,6842
1987	CFR	.	.	.	.	.	.			.	.	.	.
1987	CH	1507765	23952950	8709131	6743195	167894	977716	0,75225	0,211772	1134215,738	373549,262	22818734,26	8335581,738
1987	CIE		189453	75326	59154	2201	29165	0,676683	0,211285	0	0	189453	75326
1987	CP	2001699	28204643	14030815	6887815	18161	5556499	0,693549	0,169371	1388276,536	613422,464	26816366,46	13417392,54
1987	CSD		.	.	.	.	.			.	.	.	.
1987	DB		20568570	6882423	5115677	14210	2983172	0,717134	0,178361	0	0	20568570	6882423
1987	DR	.	.	.	.	.	.			.	.	.	.
1987	DSB		3988076	2165718	1853283		1084295	0,575841	0,267597	0	0	3988076	2165718
1987	FS	1193595121	8562681051	3,71E+09	3600978237	1,02E+08	1752041653	0,610853	0,25689	729110750,6	464484370	7833570300	3248205365
1987	JZ	.	.	.	.	.	.			.	.	.	
1987	MAV	.	.	.	.	.	.						
1987	NS	164746	1737682	749581	548316	12025	218806	0,690425	0,21786	113744,7792	51001,2208	1623937,221	698579,7792
1987	NSB		3174392	1159267	889293		356660	0,718132	0,201182	0	0	3174392	1159267
1987	OBB	8349102	20658290	13415081	12391451	89136	485963	0,614376	0,368521	5129486,723	3219615,28	15528803,28	10195465,72
1987	PKP	.	.	.	.	.	.			.	.	.	.
1987	RENFE		155866000	98564000	73760000		63076000	0,532507	0,251997	0	0	155866000	98564000
1987	SJ		6257100	3414800	2773200	208700	166200	0,665281	0,294858	0	0	6257100	3414800
1987	SNCB/NMI	4156516	70095296	19873808	15623128	35762	14278986	0,700721	0,156179	2912556,04	1243959,96	67182739,96	18629848,04
1987	SNCF	3116772	39223754	17724131	15536899	2044793	11145712	0,577235	0,228648	1799108,386	1317663,61	37424645,61	16406467,39
1987	VR		2624559	615347	378783	2671	357159	0,780382	0,112627	0	0	2624559	615347
1987	TCDD		129889718	1,07E+08	59105393	1029992	52743478	0,535035	0,243464	0	0	129889718	106844396
1988	BDZ	.	294719	489252	434683	0					.	294719	489252
1988	BR	180600	2007300	1305600	1139000	300	49200	0,628106	0,356405	113435,8783	67164,1217	1893864,122	1238435,878
1988	CFF		2688837	1251027	1065197	3957	255485	0,669952	0,265405	0	0	2688837	1251027
1988	CFL	117575	7109088	639407	469988	89097	244814	0,898408	0,059395	105630,2786	11944,7214	7003457,721	627462,2786
1988	CFR	.	.	.	.	.	.			.	.	.	.
1988	CH	1552015	27260487	10801695	8773424	266449	3165326	0,690739	0,222305	1072037,231	479977,769	26188449,77	10321717,23
1988	CIE		184658	86918	71003	2342	21188	0,661404	0,254317	0	0	184658	86918
1988	CP	2588612	31584114	10016119	8256843	39538	5561614	0,695041	0,1817	1799190,625	789421,375	29784923,37	9226697,625
1988	CSD		.	.	.	.	.			.	.	.	.
1988	DB		20401336	7121991	5403078	19678	3056869	0,706394	0,187081	0	0	20401336	7121991
1988	DR	.	.	.	.	.	.			.	.	.	.
1988	DSB		4256737	2302345	1979616		1166480	0,575015	0,267413	0	0	4256737	2302345
1988	FS	1379687815	8859842013	3,94E+09	3819462210	1,28E+08	2065103550	0,595736	0,256821	821929347,4	557758468	8037912666	3386610813
1988	JZ	.	.	.	.	.	.			.	.	.	.
1988	MAV	.	.	.	.	.	.						
1988	NS	172286	1718589	806269	603930	11690	212545	0,674815	0,237137	116261,2582	56024,7418	1602327,742	750244,2582
1988	NSB		3032774	1367432	1090464		388133	0,672251	0,241715	0	0	3032774	1367432
1988	OBB	8856363	20506104	13586055	12510459	99383	438680	0,611126	0,372839	5412353,597	3444009,4	15093750,4	10142045,6
1988	PKP	.	.	.	.	.	.			.	.	.	.
1988	RENFE		155138000	94920000	68687000	1388000	63192000	0,537917	0,238162	0	0	155138000	94920000
1988	SJ(BV)		6397000	3628800	299300	273500	246200	0,886502	0,041477	0	0	6397000	3628800
1988	SNCB/NMI	6522528	69286029	16376875	12435046	4331	7388718	0,777498	0,139541	5071250,705	1451277,29	64214778,29	14925597,71
1988	SNCF	4913248	39792541	18185070	16049645	2149586	10986727	0,576883	0,232676	2834370,497	2078877,5	36958170,5	16106192,5
1988	VR		2771914	621167	404503	2452	398771	0,774788	0,113064	0	0	2771914	621167
1988	TCDD		207844874	1,81E+08	91689073	1181163	131340560	0,48106	0,212216	0	0	207844874	180564667
1989	BDZ	.	334355	503619	450278			0,426129	0,573871	.	.	334355	503619
1989	BR	541000	2069700	1798800	1625300		51900	0,552377	0,433772	298835,7576	242164,242	1770864,242	1556635,758
1989	CFF	339553	2821343	1241677	1072728	4528	336505	0,66618	0,253294	226203,5312	113349,469	2595139,469	1128327,531
1989	CFL	155137	7419032	770113	578737	53382	264733	0,892152	0,069594	138405,7747	16731,2253	7280626,225	753381,7747
1989	CFR	.	.	.	.	.	.			.	.	.	.
1989	CH	1656173	33334875	9356084	7320866	228739	4720730	0,730944	0,160527	1210570,457	445602,543	32124304,54	8910481,457
1989	CIE		180467	96596	81700	2302	22183	0,629568	0,285015	0	0	180467	96596
1989	CP	3386291	35107783	18854093	10884769	41252	6617955	0,666792	0,206731	2257952,476	1128338,52	32849830,52	17725754,48
1989	CSD	.	.	.	.	.	.			.	.	.	.
1989	DB		20419213	7995386	6203347	20771	3070284	0,687201	0,208771	0	0	20419213	7995386
1989	DR	8109859	7222621	13580955	11731720	3551735	306337	0,316609	0,514269	2567656,386	5542202,61	4654964,614	8038752,386
1989	DSB		1245547	2452127	2083467		1194895	0,275325	0,460546	0	0	1245547	2452127
1989	FS	1671611166	9538684134	4,12E+09	3980417252	1,34E+08	2788240704	0,580156	0,242094	969795246,6	701815919	8568888887	3421468600

A2.1.Staff and material expenses: final measures

Staff and materials expenses less "Counterpart of charges allocated to other accounts"

Years	Firms	Counterpart of charges allocated to other accounts After 1991- Fixed Assets own	STAFF CHARGES Total	Materials and Services Total	Various Materials, services rendered by third parties and other costs After 1991-material purchases	Taxes	Financial charges	%Staff	%Mat	Counterpart of charges allocated to other accounts Staff	Counterpart of charges allocated to other Mat	STAFF CHARGES Final	Materials and Services Rendered by Third Parties Final
1989	JZ	.	.	.	.	.	.			.	.	.	.
1989	MAV	.	.	.	.	.	.			.	.	.	.
1989	NS	162409	1686897	914120	702827	8667	218472	0,644626	0,268576	104693,0064	57715,9936	1582203,994	856404,0064
1989	NSB		3087767	1497413	212383		507263	0,810988	0,055781	0	0	3087767	1497413
1989	OBB	10550059	21614723	15289503	14127575	100234	382940	0,596672	0,38999	6294924,271	4255134,73	15319798,73	11034368,27
1989	PKP	.	.	5,48E+08	216400188	2,19E+08	.			.	.	.	548193248
1989	RENFE		161189000	99766000	72891000	462000	59578000	0,548038	0,247827	0	0	161189000	99766000
1989	SJ		5835000	4051700	3299600	570500	129700	0,593301	0,335503	0	0	5835000	4051700
1989	BV		1413425	2492675	2462948	350730	1833	0,334227	0,582404	0	0	1413425	2492675
1989	SNCB/NMB	8328629	70190850	15658489	11589145	-941907	8245653	0,78792	0,130093	6562292,314	1766336,69	63628557,69	13892152,31
1989	SNCF	5292185	40550704	19478892	17287580	2206943	11171125	0,569402	0,242747	3013378,549	2278806,45	37537325,45	17200085,55
1989	VR		2831579	749566	540653	3309		0,838852	0,160168	0	0	2831579	749566
1989	TCDD		487946384	3,47E+08	170486739	2143135	152146970	0,600384	0,209772	0	0	487946384	347318007
1990	BDZ	.	412319	519652	469926			0,467352	0,532648	.	.	412319	519652
1990	BR	318800	2288500	1632000	1461000		78100	0,597894	0,381701	190608,6843	128191,316	2097891,316	1503808,684
1990	CFF	333343	3051926	1251111	1071680	4839	459700	0,665176	0,233576	221731,9131	111611,087	2830194,087	1139499,913
1990	CFL	153235	8166647	944270	785079	51581	426125	0,86608	0,083258	132713,8425	20521,1575	8033933,158	923748,8425
1990	CFR		18893417	10329189	7003882	175473		0,724642	0,268628	0	0	18893417	10329189
1990	CH	2289636	39735613	10127189	7671380	328624	5208106	0,750525	0,144897	1718430,153	571205,847	38017182,85	9555983,153
1990	CIE		184500	104303	86802	2470	22901	0,621897	0,292585	0	0	184500	104303
1990	CP	4147701	38609583	20460074	11813267	47812	10773451	0,630421	0,192888	2614798,357	1532902,64	35994784,64	18927171,36
1990	CSD		6194009	8961803	.	556643	.			0	0	6194009	8961803
1990	DB		21193472	8022281	6236429	23082	3421399	0,686442	0,201994	0	0	21193472	8022281
1990	DR	.	.	.	.	.	.			.	.	.	.
1990	DSB	.	4201638	2673604	2228205	0	1720805	0,515497	0,273378	.	.	4201638	2673604
1990	FS	1290165602	9933118576	4,79E+09	4633145486	1,43E+08	3367384816	0,54949	0,256301	708932743	581232859	9224185833	4212393759
1990	JZ	.	.	.	.	.	.			.	.	.	.
1990	MAV	.	.	.	.	.	.			.	.	.	.
1990	NS	184242	1736483	1006342	799485	11448	247561	0,621287	0,286043	114467,1677	69774,8323	1622015,832	936567,1677
1990	NSB		3210587	1619147	446223		209929	0,830309	0,1154	0	0	3210587	1619147
1990	OBB	13539321	22979246	18778855	17492561	105866	538117	0,558891	0,425446	7567004,986	5972316,01	15412241,01	12806538,99
1990	PKP	.	.	.	.	.	.			.	.	.	.
1990	RENFE		173873000	1,09E+08	80721000	750000	62589000	0,546886	0,253893	0	0	173873000	109408000
1990	SJ		5312000	3857000	3244800	557600	200700	0,570257	0,348338	0	0	5312000	3857000
1990	BV		1623348	2528062	2462818		235302	0,375647	0,569903	0	0	1623348	2528062
1990	SNCB/NMB	10017922	71739417	18470682	13728302	4100	8535564	0,763125	0,146034	7644930,227	2372991,77	64094486,77	16097690,23
1990	SNCF	5947600	40956024	21551090	19253358	2414892	12363000	0,546173	0,256755	3248418,503	2699181,5	37707605,5	18851908,5
1990	VR	.	.	.	.	.	.			.	.	.	.
1990	TCDD		1012005171	6,49E+08	335132002	3758950	495812280	0,548005	0,181475	0	0	1012005171	648515726
1991	BDZ	.	.	.	.	.				.	.	.	.
1991	BR	322000	2448700	1744300	1744300			0,583997	0,416003	188047,0785	133952,922	2260652,922	1610347,078
1991	CFF	330760	3277744	1179500	339581	25639		0,899746	0,093216	297600,1425	33159,8575	2980143,858	1146340,142
1991	CFL	164293	8335438	996462	525848	53600		0,935002	0,058985	153614,316	10678,684	8181823,684	985783,316
1991	CFR		41453089	35274107	32911107	1658952		0,545269	0,432909	0	0	41453089	35274107
1991	CH	5415544	46749400	14122423	9046739	323263		0,833035	0,161205	4511335,183	904208,817	42238064,82	13218214,18
1991	CIE		189756	132942	95561	2485		0,659328	0,332037	0	0	189756	132942
1991	CP	4659143	43831074	22461879	13162175	64372		0,76819	0,230682	3579105,438	1080037,56	40251968,56	21381841,44
1991	CSD	6555513	12620143	18259455	14557042	1134148		0,445763	0,514177	2922204,74	3633308,26	9697938,26	14626146,74
1991	DB	1171822	22343278	9036217	3138318			0,87684	0,12316	1027500,189	144321,811	21315777,81	8891895,189
1991	DR	865891	6469634	4769572	2243501	8558		0,741786	0,257232	642306,2419	223584,758	5827327,758	4545987,242
1991	DSB		4349769	2672473	1424963	261099		0,720658	0,236084	0	0	4349769	2672473
1991	FS	365817	10704894	4352023	581077	124571		0,938158	0,050925	343194,2329	22622,7671	10361699,77	4329400,233
1991	JZ	.	.	.	.	.				.	.	.	.
1991	MAV	13262712	34861382	30463363	29384175	6788422		0,490771	0,413664	6508947,913	6753764,09	28352434,09	23709598,91
1991	NS	251359	1827198	1164774	247874	14610		0,87439	0,118618	219785,911	31573,089	1607412,089	1133200,911
1991	NSB	4400	3208100	2163400	1021200			0,758542	0,241458	3337,583052	1062,41695	3204762,417	2162337,583
1991	OBB	2022647	24937891	8606412	.	115927				1415852,9	606794,1	23522038,1	7999617,9
1991	PKP		9580002	13416759	6497961	131678		0,591006	0,40087	0	0	9580002	13416759
1991	RENFE		189829	124569	20222	651		0,900936	0,095974	0	0	189829	124569
1991	SJ		4974000	3550000	1005000			0,831912	0,168088	0	0	4974000	3550000
1991	BV		1780400	2798000	887000			0,667466	0,332534	0	0	1780400	2798000
1991	SNCB/NMB	11627151	78542764	22236216	6118904	10551		0,92761	0,072266	10785457	841694,002	67757307	21394522
1991	SNCF	7053577	42157099	23223605	9877454	2273779		0,776255	0,181877	5475372,433	1578204,57	36681726,57	21645400,43
1991	VR	789359	3118376	1222802	723861			0,811604	0,188396	435065	354294	2683311	868508
1991	TCDD		1914528	1174070	552632	5490		0,774282	0,223498	0	0	1914528	1174070
1992	BR	249	2772	1274	1266			0,686478	0,313522	170,9331352	78,0668648	2601,066865	1195,933135
1992	CFL	80	8949	1095	533	53		0,938542	0,055899	75,08337703	4,91662297	8868	1095
1992	CH		43748	10958	6899	671		0,852488	0,134436	0	0	43748	10958
1992	CIE		194	135	98	2		0,659864	0,333333	0	0	194	135
1992	CP	3247	48048	23883	12610	18		0,791878	0,207825	2571,228426	675,771574	45476,77157	23207,22843
1992	DB	1115	23468	9368	3469			0,871218	0,128782	971,4081004	143,5919	22496,5919	9224,4081
1992	DR	1010	7667	5475	2803	13		0,731375	0,267385	738,6883526	271,311647	6928,311647	5203,688353
1992	DSB		4390	2837	1300	342		0,727785	0,215517	0	0	4390	2837
1992	FS	452304	11349521	3866870	621183	180727		0,934007	0,05112	422455,0793	29848,9207	10927065,92	3837021,079
1992	NS	271	1952	1299	256	15		0,878093	0,11516	237,9631129	33,0368871	1714,036887	1265,963113
1992	RENFE		195984	134320	21478	560		0,898918	0,098513	0	0	195984	134320
1992	SNCB/NMB	14369	81320	28068	6277	100		0,927284	0,071576	13324,13971	1044,86029	67995,86029	27023,13971
1992	SNCF	8414	43856	25411	10789	2357		0,769377	0,189274	6473,533981	1940,46602	37382,46602	23470,53398
1992	CFF	361	3535	1220	346	27		0,904555	0,088536	326,5442682	34,4557318	3208,455732	1185,544268
1992	NSB	73	3386	3452	1215			0,735927	0,264073	53,72266899	19,277331	3332,277331	3432,722669
1992	OBB	2185	26626	8935	.	123				1529,5	655,5	25096,5	8279,5
1992	BV		1937	3674	1168			0,623833	0,376167	0	0	1937	3674
1992	SJ		4782	3419	1031			0,822639	0,177361	0	0	4782	3419
1992	VR	1054,676	3154,958	1452,888	877,141			0,78246	0,21754	504,045	550,631	2650,913	902,257
1992	BC		5687	17274	3243	4700		0,417241	0,237931	0	0	5687	17274
1992	BDZ	351	2525	2492	1291			0,661688	0,338312	232,2523585	118,747642	2292,747642	2373,252358
1992	CFR	280	121718	110776	106968	6316		0,517945	0,455179	145,0244679	134,975532	121572,9755	110641,0245
1992	CSD		12831	16181	12504	1220		0,483186	0,470872	0	0	12831	16181
1992	EVR		76	135	89			0,460606	0,539394	0	0	76	135
1992	LDZ		1894	3330	2362			0,445019	0,554981	0	0	1894	3330
1992	MAV	7275	40176	27770	24840	13588		0,511119	0,316014	3718,390922	3556,60908	36457,60908	24213,39092
1992	PKP		13358043	13155561	6897234	1109		0,659448	0,340497	0	0	13358043	13155561
1992	SZ	172	13744	8117	2309	984		0,806715	0,135529	138,7549451	33,2450549	13605,24505	8083,754945
1992	TCDD		3623829	2351461	905606	7851		0,798678	0,199592	0	0	3623829	2351461
1993	BR	253	2638	1155	1146			0,697146	0,302854	176,377907	76,622093	2461,622093	1078,377907
1993	CFL	118	9133	1130	426	54		0,950068	0,044315	112,1079788	5,89202122	9020,892021	1124,107979
1993	CH		46031	34098	8402	1277		0,826261	0,150817	0	0	46031	34098
1993	CIE		199	135	99	3		0,66113	0,328904	0	0	199	135
1993	CP	2080	42736	32229	13197	72		0,763075	0,23564	1587,195429	492,804571	41148,80457	31736,19543
1993	DB	1151	23680	9371	3332			0,876647	0,123353	1009,021176	141,978824	22670,97882	9229,021176
1993	DR	1010	7667	5475	2803	13		0,731375	0,267385	738,6883526	271,311647	6928,311647	5203,688353
1993	DSB		4664	2862	11246	354		0,286768	0,691466	0	0	4664	2862
1993	FS	758063	11251163	3078558	679942	110633		0,934347	0,056465	708293,967	49769,033	10542869,03	3028788,967
1993	NS	279	1849	1282	231	19		0,880896	0,110052	245,7698904	33,2301096	1603,23011	1248,76989
1993	RENFE	3311	173078	126623	16705	606		0,909076	0,087741	3009,949409	301,050591	170068,0506	126321,9494
1993	SNCB/NMB	13393	84088	45403	8133	46		0,911355	0,088146	12205,77871	1187,22129	71882,22129	44215,77871
1993	SNCF	7058	44100	24859	9799	2509		0,781804	0,173716	5517,972628	1540,02737	38582,02737	23318,97263
1993	CFF	396	3537	1244	355	29		0,902066	0,090538	357,2180566	38,7819434	3179,781943	1205,218057

A2.1.Staff and material expenses: final measures

Staff and materials expenses less "Counterpart of charges allocated to other accounts"

Years	Firms	Counterpart of charges allocated to other accounts After 1991- Fixed Assets own	STAFF CHARGES Total	Materials and Services Total	Various Materials, services rendered by third parties and other costs After 1991-material purchases	Taxes	Financial charges	%Staff	%Mat	Counterpart of charges allocated to other accounts Staff	Counterpart of charges allocated to other Mat	STAFF CHARGES Final	Materials and Services Rendered by Third Parties Final
1993	NSB	119	3437	3209	1371			0,71485	0,28515	85,0671797	33,9328203	3351,93282	3175,06718
1993	OBB(1992	2185	26648	9281	.	123				1529,5	655,5	25118,5	8625,5
1993	BV		2063	5041	1798			0,534318	0,465682	0	0	2063	5041
1993	SJ		4245	3808	.					0	0	4245	3808
1993	VR	1023,005	3082,511	1446,524	833,78			0,7871	0,2129	463,814	559,191	2618,697	887,333
1993	BC		83152	215176	14823	70647		0,493127	0,087907	0	0	83152	215176
1993	BDZ	592	4043	3538	1646			0,71067	0,28933	420,7164704	171,28353	3622,28353	3366,71647
1993	CD		10987	12722	7268	36		0,600678	0,397354	0	0	10987	12722
1993	CFR		325248	233431	221988	5908		0,587999	0,40132	0	0	325248	233431
1993	EVR(1992)		76	135	89			0,460606	0,539394	0	0	76	135
1993	LDZ	.	.	.	.	.				.	.	.	.
1993	MAV	1547	37690	26269	25202	3743		0,565619	0,37821	875,0120807	671,987919	36814,98792	25597,01208
1993	PKP		19638359	19918072	10415419	625		0,653427	0,346552	0	0	19638359	19918072
1993	SZ	252	14138	10115	3275	801		0,776216	0,179807	195,6064566	56,3935434	13942,39354	10058,60646
1993	ZSR	754	5271	5655	3993	15		0,568057	0,430327	428,3149046	325,685095	4842,685095	5329,314905
1993	TCDD		6882184	3226093	1286956	9941		0,841437	0,157347	0	0	6882184	3226093
1994	BR	22	2290	3328	1160			0,663768	0,336232	14,60289855	7,39710145	2275,397101	3320,602899
1994	Railtrack	30	287	1704	5			0,982877	0,017123	29,48630137	0,51369863	257,5136986	1703,486301
1994	CFL	187	9447	1452	514	54		0,943285	0,051323	176,3943085	10,6056915	9270,605691	1441,394309
1994	CH		59120	23452	8692	414		0,866532	0,1274	0	0	59120	23452
1994	CIE		210	140	104	3		0,662461	0,328076	0	0	210	140
1994	CP	1796	39604	34286	12837	324		0,750573	0,243286	1348,029641	447,970359	38255,97036	33838,02964
1994	DB AG	2342	17590	9309	3375			0,839017	0,160983	1964,978774	377,021226	15625,02123	8931,978774
1994	DSB		4687	759	.	.				0	0	4687	759
1994	FS	771295	10033238	2936964	542828	127373		0,937385	0,050715	722999,9912	48295,0088	9310238,009	2888668,991
1994	NS	280	1840	1430	178	7		0,908642	0,087901	254,4197531	25,5802469	1585,580247	1404,419753
1994	RENFE	3590	179320	119050	14417	612		0,92267	0,074181	3312,385451	277,614549	176007,6145	118772,3855
1994	SNCB/NMI	18410	84874	43032	6357	40		0,929912	0,06965	17119,68029	1290,31971	67754,31971	41741,68029
1994	SNCF	6020	43887	24634	9001	2753		0,788753	0,161769	4748,292446	1271,70755	39138,70755	23362,29245
1994	CFF/SBB/F	393	3517	1255	339	31		0,904811	0,087214	355,5906869	37,4093131	3161,409313	1217,590687
1994	NSB		3649	3178	991			0,786422	0,213578	0	0	3649	3178
1994	OBB	1577	27649	11016	.	167				1103,9	473,1	26545,1	10542,9
1994	BV		2169	8206	2527			0,461882	0,538118	0	0	2169	8206
1994	SJ		4240	4736	.					0	0	4240	4736
1994	VR	1334,284	3055,675	1903,443	984,613			0,756301	0,243699	506,375	827,909	2549,3	1075,534
1994	BC		126562	394556	230724	132455		0,258426	0,471114	0	0	126562	394556
1994	BDZ	1353	5320	4696	2193			0,708106	0,291894	958,0673499	394,93265	4361,93265	4301,06735
1994	CD	146	12108	23076	7659	25		0,611762	0,386975	89,31729992	56,6827001	12018,6827	23019,3173
1994	CFR		680239	521290	473926	19552		0,57956	0,403782	0	0	680239	521290
1994	EVR		267	405	112	5		0,695313	0,291667	0	0	267	405
1994	LDZ	.	.	.	.	.				.	.	.	.
1994	MAV	2136	44534	36787	20484	2989		0,654844	0,301204	1398,747541	737,252459	43135,25246	36049,74754
1994	PKP		25355453	25384092	13293541	59		0,656043	0,343955	0	0	25355453	25384092
1994	SZ	24	15251	13549	5036	289		0,741203	0,244751	17,78888025	6,21111975	15233,21112	13542,78888
1994	ZSR	920	6353	6824	3706	21		0,630258	0,367659	579,8373016	340,162698	5773,162698	6483,837302
1994	TCDD		10648351	5616544	2532041	31894		0,805943	0,191643	0	0	10648351	5616544
1995	BR	1	2011	3804	1162			0,633785	0,366215	0,633785061	0,36621494	2010,366215	3803,633785
1995	Railtrack 9	30	287	1704	5			0,982877	0,017123	29,48630137	0,51369863	257,5136986	1703,486301
1995	CFL	150	6088	4253	744	71		0,881935	0,107779	132,2903086	17,7096914	5955,709691	4235,290309
1995	CH		66411	18054	9061	502		0,874128	0,119264	0	0	66411	18054
1995	CIE		214	159	113	3		0,648485	0,342424	0	0	214	159
1995	CP	1469	42308	34754	11077	630		0,783264	0,205073	1150,614681	318,385319	41157,38532	34435,61468
1995	DB AG	3864	16509	11523	3033			0,844796	0,155204	3264,291065	599,708935	13244,70893	10923,29107
1995	DSB	869	3725	3029	662	410		0,776527	0,138003	674,8019596	194,19804	3050,19804	2834,80196
1995	FS	751933	9976967	3259696	619534	129959		0,930127	0,057758	699392,971	52540,029	9277574,029	3207155,971
1995	NS		1929	2404	609			0,760047	0,239953	0	0	1929	2404
1995	OBB	1445	27638	9775	.	167				1011,5	433,5	26626,5	9341,5
1995	RENFE	3890	176002	127028	14545	702		0,920277	0,076053	3579,876392	310,123608	172422,1236	126717,8764
1995	SJ		4321	5785	.					0	0	4321	5785
1995	BV		2206	9928	2627			0,456445	0,543555	0	0	2206	9928
1995	SNCB/NMI	9318	85767	23941	5527	62		0,938822	0,0605	8747,941088	570,058912	77019,05891	23370,94109
1995	SNCF	6582	43847	26240	8889	3218		0,783626	0,158863	5157,825249	1424,17475	38689,17475	24815,82525
1995	VR	124	2439	674	155			0,940247	0,059753	116,5905937	7,40940632	2322,409406	666,5905937
1995	RHK	.	.	.	.	.				.	.	.	.
1995	CFF/SBB/F	396	3481	1247	326	58		0,900647	0,084347	356,6561449	39,3438551	3124,343855	1207,656145
1995	NSB	769	2810	1775	1775			0,612868	0,387132	471,2955289	297,704471	2338,704471	1477,295529
1995	BC		126562	394556	230724	132455		0,258426	0,471114	0	0	126562	394556
1995	BDZ	27485	7607	7471	3356			0,693879	0,306121	0	0	7607	7471
1995	CD	250	13160	27672	8025	44		0,619907	0,378021	154,9766828	95,0233172	13005,02332	27576,97668
1995	CFR		899065	739868	661124	7813		0,573383	0,421635	0	0	899065	739868
1995	EVR		328	380	242	21		0,554992	0,409475	0	0	328	380
1995	LDZ	2136	44534	36787	20484	2989		0,654844	0,301204	1398,747541	737,252459	43135,25246	36049,74754
1995	MAV	3753	50075	41567	23550	3190		0,651891	0,306581	2446,546573	1306,45343	47628,45343	40260,54657
1995	PKP	150	3232	2759	1598	141		0,650171	0,321464	97,52564876	52,4743512	3134,474351	2706,525649
1995	SZ	24	15251	13549	5036	289		0,741203	0,244751	17,78888025	6,21111975	15233,21112	13542,78888
1995	ZSR	932	7016	9121	4029	19		0,634129	0,364154	591,0079537	340,992046	6424,992046	8780,007954
1995	TCDD		16287234	10051184	4566300	32066		0,779831	0,218634	0	0	16287234	10051184
1996	ATOC	.	.	.	.	.				.	.	.	.
1996	Railtrack 9	.	.	.	.	.				.	.	.	.
1996	RfD Ltd	.	.	.	.	.				.	.	.	.
1996	BK	.	.	.	.	.				.	.	.	.
1996	CFL	80	6218	4515	892	99		0,862533	0,123734	69,00263559	10,9973644	6148,997364	4504,002636
1996	CH		77801	25602	12254	502		0,859138	0,135318	0	0	77801	25602
1996	CIE		220	151	109	3		0,662651	0,328313	0	0	220	151
1996	CP	2767	44369	36190	9511	76		0,822318	0,176273	2275,354418	491,645582	42093,64558	35698,35442
1996	DB AG	3443	14988	13742	2936			0,836197	0,163803	2879,027226	563,972774	12108,97277	13178,02723
1996	DSB		3813	3070	628	459		0,778163	0,128163	0	0	3813	3070
1996	FS SpA	695149	10922870	3514270	654374	129743		0,933021	0,055896	648588,9288	46560,0712	10274281,07	3467709,929
1996	NS	66	1959	2200	578			0,772172	0,227828	50,96334253	15,0366575	1908,036657	2184,963343
1996	OBB	2421	27872	9957	.	332				1694,7	726,3	26177,3	9230,7
1996	RENFE	4636	174643	124235	13820	617		0,923646	0,073091	4282,023207	353,976793	170360,9768	123881,0232
1996	SJ		4724	6900				1	0	0	0	4724	6900
1996	BV		2140	1398	615			0,77677	0,22323	0	0	2140	1398
1996	SNCB/NMI	12037	85148	26659	7311	85		0,920081	0,079	11075,01811	961,98189	74072,98189	25697,01811
1996	SNCF	6471	44427	25222	8842	3491		0,782717	0,155779	5064,959778	1406,04022	39362,04022	23815,95978
1996	VR	187	2086	1054	394			0,841129	0,158871	157,291129	29,708871	1928,708871	1024,291129
1996	RHK	.	.	.	.	.				.	.	.	.
1996	CFF/SBB/F	402	3259	1203	313	85		0,891168	0,085589	358,2493847	43,7506153	2900,750615	1159,249385
1996	NSB BA	617	2877	2233	2233			0,563014	0,436986	347,3794521	269,620548	2529,620548	1963,379452
1996	JBV	.	.	.	.	.				.	.	.	.
1996	BC		1396548	3578952	506616	154156		0,678819	0,24625	0	0	1396548	3578952
1996	BDZ	1742	13894	14405	7893			0,63772	0,36228	1110,907789	631,092211	12783,09221	13773,90779
1996	CD	311	15492	17613	7449	57		0,673624	0,323898	209,4969997	101,503	15282,503	17511,497
1996	CFR		1400681	1243408	1041376	8535		0,571568	0,424949	0	0	1400681	1243408
1996	EVR	33	379	413	259	15		0,580398	0,396631	19,15313936	13,8468606	359,8468606	399,1531394
1996	LDZ	.	.	.	.	.				.	.	.	.
1996	MAV Rt.	18126	58364	51512	27714	4736		0,642676	0,305173	11649,14951	6476,85049	46714,85049	45035,14951
1996	PKP	290	4000	2920	1833	156		0,667891	0,306061	193,6884288	96,3115712	3806,311571	2823,688429
1996	SZ	30	19869	16887	6265	415		0,74839	0,235979	22,4516931	7,5483069	19846,54831	16879,45169

A2.1.Staff and material expenses: final measures

Staff and materials expenses less "Counterpart of charges allocated to other accounts"

Years	Firms	Counterpart of charges allocated to other accounts After 1991- Fixed Assets own	STAFF CHARGES Total	Materials and Services Total	Various Materials, services rendered by third parties and other costs After 1991-material purchases	Taxes	Financial charges	%Staff	%Mat	Counterpart of charges allocated to other accounts Staff	Counterpart of charges allocated to other Mat	STAFF CHARGES Final	Materials and Services Rendered by Third Parties Final
1996	ZSR	1168	8146	9501	4047	59		0,664871	0,330313	776,5693764	391,430624	7369,430624	9109,569376
1996	TCDD		28394394	18860475	9436412	69637		0,749184	0,248979	0	0	28394394	18860475
1997	Railtrack	.	.	.	.	.				.	.	.	.
1997	ATOC	.	.	.	.	.				.	.	.	.
1997	EW&S	.	.	.	.	.				.	.	.	.
1997	BK	.	.	.	.	.				.	.	.	.
1997	CFL	70	6203	4676	874	130		0,860691	0,121271	60,24836964	9,75163036	6142,75163	4666,24837
1997	CH		87895	41072	17422	480		0,830789	0,164674	0	0	87895	41072
1997	CIE	13,34	109,763	123,103	92,391	2		0,537648	0,452555	7,172224987	6,16777501	102,590775	116,935225
1997	REFER	644	1378	730	9	1		0,992795	0,006484	639,3602305	4,63976945	738,6397695	725,3602305
1997	CP	3902	44327	37344	9764	85		0,818204	0,180227	3192,630574	709,369426	41134,36943	36634,63057
1997	DB AG	3443	14988	13742	2936			0,836197	0,163803	2879,027226	563,972774	12108,97277	13178,02723
1997	DSB		2923	2379	.	334				0	0	2923	2379
1997	FS SpA	770917	9767021	3673319	722185	136714		0,919169	0,067964	708603,3518	62313,6482	9058417,648	3611005,352
1997	NS B.V.	40	236	1093	.					28	12	208	1081
1997	NS N.V.	39	1834	2466	385			0,826498	0,173502	32,23343849	6,76656151	1801,766562	2459,233438
1997	OBB	2997	26608	8423	.	266				2097,9	899,1	24510,1	7523,9
1997	RENFE	3456	167610	119598	13927	532		0,920585	0,076493	3181,541943	274,458057	164428,4581	119323,5419
1997	BV		2460	1190	.					0	0	2460	1190
1997	SJ		4168	5342	.					0	0	4168	5342
1997	SNCB/NMB	12302	64164	27273	7393	61		0,89592	0,103228	11021,60809	1280,39191	53142,39191	25992,60809
1997	RFF		5	19517	2481	63		0,001962	0,973323	0	0	5	19517
1997	SNCF	3495	44729	36239	23257	3857		0,622594	0,32372	2175,965021	1319,03498	42553,03498	34919,96502
1997	RHK	.	.	.	.	.				.	.	.	.
1997	VR	219	2057	1194	433	22		0,818869	0,172373	179,3324045	39,6675955	1877,667596	1154,332404
1997	CFF/SBB/F	391	3148	1204	323	107		0,879821	0,090274	344,0100615	46,9899385	2803,989939	1157,010061
1997	JBV		1035	1125	.	.				0	0	1035	1125
1997	NSB BA	.	2189	2005	2005			0,521936	0,478064	.	.	2189	2005
1997	BC		2327265	3434235	1056801	1669659		0,460505	0,209113	0	0	2327265	3434235
1997	BDZ	27429	126686	124894	80856	8244		0,587091	0,374705	16103,31668	11325,6833	110582,6833	113568,3167
1997	CD	323	17504	15850	7016	49		0,712443	0,285563	230,1189304	92,8810696	17273,88107	15757,11893
1997	CFR		2625736	3020194	2541031	39264		0,504364	0,488094	0	0	2625736	3020194
1997	EVR	59	449	728	415	18		0,50907	0,470522	30,03514739	28,9648526	418,9648526	699,0351474
1997	LDZ	.	.	.	.	.				.	.	.	.
1997	MAV Rt.	4390	61265	55304	25437	6430		0,65783	0,273128	2887,872589	1502,12741	58377,12741	53801,87259
1997	PKP	416	4650	3065	1930	184		0,687463	0,285334	285,9846245	130,015376	4364,015376	2934,984624
1997	SZ	23	21447	17200	6475	467		0,755469	0,228081	17,37577935	5,62422065	21429,62422	17194,37578
1997	ZSR	368	8792	10369	3853	28		0,693758	0,304032	255,3030853	112,696915	8536,696915	10256,30309
1997	TCDD		59413707	37218635	18052351	76271		0,76621	0,232806	0	0	59413707	37218635
1998	Railtrack	.	.	.	.	.				.	.	.	.
1998	ATOC	.	.	.	.	.				.	.	.	.
1998	EW&S	.	.	.	.	.				.	.	.	.
1998	CFL	58	6233	5118	1019	163		0,840593	0,137424	48,75441672	9,24558328	6184,245583	5108,754417
1998	CH		86916	18156	11874	357		0,876638	0,119762	0	0	86916	18156
1998	CIE	14	116	100	90	2		0,557692	0,432692	7,807692308	6,19230769	108,1923077	93,80769231
1998	REFER	6525	12093	12696	5784	4		0,676304	0,323472	4412,886584	2112,11342	7680,113416	10583,88658
1998	CP	-218	39593	34453	11276	67		0,777309	0,221376	-169,453314	-48,546686	39762,45331	34501,54669
1998	DB AG	2882	15336	13816	2566	624		0,82781	0,138508	2385,747166	496,252834	12950,25283	13319,74717
1998	GVG	.	.	.	.	.				.	.	.	.
1998	BS	.	.	.	.	.				.	.	.	.
1998	DSB	.	2978	2586	628	384		0,746366	0,157393	.	.	2978	2586
1998	FS SpA	1002980	9033324	4013201	1019184	89581		0,890677	0,100491	893331,0786	109648,921	8139992,921	3903552,079
1998	NS B.V.	.	263	1203	.					.	.	263	1203
1998	NS N.V.	45	1935	2625	567			0,773381	0,226619	34,80215827	10,1978417	1900,197842	2614,802158
1998	OBB	3487	27032	10216	.	258				2440,9	1046,1	24591,1	9169,9
1998	RENFE	2616	173449	125559	16587	981		0,908029	0,086835	2375,4042	240,5958	171073,5958	125318,4042
1998	FEVE	.	.	.	.	.				.	.	.	.
1998	FGC	.	.	.	.	.				.	.	.	.
1998	BV		2460	1190	.					0	0	2460	1190
1998	BK	.	.	.	.	.				.	.	.	.
1998	MTAB	.	.	.	.	.				.	.	.	.
1998	SJ		3952	5772	.					0	0	3952	5772
1998	SNCB/NMB	13491	65752	29031	7939	83		0,891263	0,107612	12024,02245	1466,97755	53727,97755	27564,02245
1998	RFF	13	28	19507	2720	48		0,010014	0,972818	0,13018598	12,869814	27,86981402	19494,13019
1998	SNCF	2991	45333	29164	15206	4024		0,702151	0,235522	2100,134799	890,865201	43232,8652	28273,1348
1998	RHK	0,3	23,8	923,819	0,8	0		0,96748	0,03252	0,290243902	0,0097561	23,5097561	923,8092439
1998	VR	157	2073	1116	414	26		0,82491	0,164743	129,5109431	27,4890569	1943,489057	1088,510943
1998	CFF/SBB/F	382	3100	1225	311	97		0,883694	0,088655	337,5712657	44,4287343	2762,428734	1180,571266
1998	JBV 97		1035	1125	.	.				0	0	1035	1125
1998	MTAS	.	.	.	.	.				.	.	.	.
1998	NSB BA	.	2134	2046	2046			0,510526	0,489474	.	.	2134	2046
1998	BC		4456870	6185498	1750396	2887485		0,490049	0,192462	0	0	4456870	6185498
1998	BDZ	23690	169034	151116	98007			0,632989	0,367011	14995,50803	8694,49197	154038,492	142421,508
1998	CD	309	18690	14345	6686	44		0,735248	0,263021	227,1915814	81,8084186	18462,80842	14263,19158
1998	CFR	3040	902198	4070925	669988	55601		0,554248	0,411594	1684,9145	1355,0855	900513,0855	4069569,915
1998	EVR	28	502	777	327	23		0,589202	0,383803	16,49765258	11,5023474	485,5023474	765,4976526
1998	LDZ	.	.	.	.	.				.	.	.	.
1998	MAV Rt.	5709	70215	60339	27114	2840		0,700965	0,270683	4001,811289	1707,18871	66213,18871	58631,81129
1998	PKP	325	5191	2980	1868	215		0,713638	0,256805	231,9322244	93,0677756	4959,067776	2886,932224
1998	SZ	15	21912	19877	7456	761		0,727273	0,247469	10,90909091	4,09090909	21901,09091	19872,90909
1998	ZSR	249	9708	10381	3764	50		0,717941	0,278361	178,7673421	70,2326579	9529,232658	10310,76734
1998	TCDD		103304903	65172756	26106768	241523		0,796779	0,201358	0	0	103304903	65172756
1999	GKE	.	.	.	.	.				.	.	.	.
1999	OBB	3552	27547	10698	2489	272		0,908902	0,082124	3228,419691	323,580309	24318,58031	10374,41969
1999	SNCB/NMB	13948	68154	31436	8350	97		0,889727	0,109006	12409,91622	1538,08378	55744,08378	29897,91622
1999	AAE	.	.	.	.	.				.	.	.	.
1999	DB AG	3841	18163	19212	3219	659		0,824055	0,146046	3165,195908	675,804092	14997,80409	18536,19591
1999	GVG	.	.	.	.	.				.	.	.	.
1999	KEG	.	.	.	.	.				.	.	.	.
1999	BS	.	.	.	.	.				.	.	.	.
1999	DBS	.	2978	2586	628	384		0,746366	0,157393	.	.	2978	2586
1999	EusKotren	.	.	.	.	.				.	.	.	.
1999	FEVE	.	.	.	.	.				.	.	.	.
1999	FGC		6970	2620	198	13		0,970617	0,027573	0	0	6970	2620
1999	RENFE	3109	171863	137819	18331	1241		0,897762	0,095756	2791,140946	317,859054	169071,8591	137501,1409
1999	RHK	0	25,42	917,217	0,526	0		0,979727	0,020273	0	0	25,42	917,217
1999	VR	164	2057	1109	399	11		0,833806	0,161735	136,7442238	27,2557762	1920,255776	1081,744224
1999	RFF	79	42	20034	3419	59		0,011932	0,971307	0,942613636	78,0573864	41,05738636	19955,94261
1999	SNCF	3443	46013	29806	15512	3989		0,702338	0,236774	2418,15122	1024,84878	43594,84878	28781,15122
1999	ATOC	.	.	.	.	.				.	.	.	.
1999	EW&S	.	.	.	.	.				.	.	.	.
1999	Railtrack	.	.	.	.	.				.	.	.	.
1999	CH		83741	19602	14099	423		0,852213	0,143482	0	0	83741	19602
1999	CIE	19	131	127	120	2		0,517787	0,474308	9,837944664	9,16205534	121,1620553	117,8379447
1999	FS SpA	1119019	8883840	4134412	1043626	122176		0,883996	0,103847	989207,9492	129811,051	7894632,051	4004600,949
1999	CFL	95	6440	5530	865	226		0,855132	0,114859	81,23755145	13,7624485	6358,762449	5516,237551
1999	NS B.V.	.	263	1203	.					.	.	263	1203
1999	NS N.V.	45	1935	2625	567			0,773381	0,226619	34,80215827	10,1978417	1900,197842	2614,802158
1999	CP	-383	29483	34496	3387	56		0,895432	0,102867	-342,9505254	-40,049475	29825,95053	34536,04947

A2.1.Staff and material expenses: final measures

Staff and materials expenses less "Counterpart of charges allocated to other accounts"

Years	Firms	Counterpart of charges allocated to other accounts	STAFF CHARGES	Materials and Services	Various Materials, services rendered by third parties and other costs	Taxes	Financial charges	%Staff	%Mat	Counterpart of charges allocated to other accounts	Counterpart of charges allocated to other	STAFF CHARGES	Materials and Services Rendered by Third Parties
		After 1991- Fixed Assets own	Total	Total	After 1991-material purchases					Staff	Mat	Final	Final
1999	REFER	5228	24031	12858	4656	11		0,837375	0,162241	4377,798732	850,201268	19653,20127	12007,79873
1999	BK	.	.	.	.	.				.	.	.	.
1999	BV	.	.	.	.	.				.	.	.	.
1999	MTAB	.	.	.	.	.				.	.	.	.
1999	SJ		4080	5557	.					0	0	4080	5557
1999	CFF/SBB/F	382	2990	1351	304			0,907711	0,092289	346,7455981	35,2544019	2643,254402	1315,745598
1999	JBV	.	.	.	.	.				.	.	.	.
1999	MTAS	.	.	.	.	.				.	.	.	.
1999	NSB BA		.	2256	2256	.						.	.
1999	BDZ	50	190	231	147			0,563798	0,436202	28,18991098	21,810089	161,810089	209,189911
1999	BC		19230575	46658933	7275165	3213718		0,64707	0,244795	0	0	19230575	46658933
1999	CD	400	19684	14144	6809	47		0,741673	0,256556	296,6691786	103,330821	19387,33082	14040,66918
1999	EVR	13	501	928	359	19		0,569966	0,408419	7,409556314	5,59044369	493,5904437	922,4095563
1999	MAV Rt.	7030	75919	65323	29561	2081		0,705823	0,27483	4961,933879	2068,06612	70957,06612	63254,93388
1999	LDZ 98	.	.	.	.	.				.	.	.	.
1999	PKP	158	5199	2640	1692	246		0,728457	0,237074	115,0962589	42,9037411	5083,903741	2597,096259
1999	CFR	176545	4135569	11578786	4194144	148004		0,487816	0,494726	86121,53828	90423,4617	4049447,462	11488362,54
1999	SZ	17	24530	21709	7210	850		0,752685	0,221234	12,79564284	4,20435716	24517,20436	21704,79564
1999	ZSR	267	10545	9011	3566	59		0,744178	0,251658	198,6954834	68,3045166	10346,30452	8942,695483
1999	TCDD		186903131	1,02E+08	47196132	344387		0,79722	0,201311	0	0	186903131	101583695

A2.2.1.Staff Costs

		Staff Charges (const. 1995 US$)					
Years	Firms	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	**const.1995 US$**
1992	BC	5.687.000	5.687	0,35001774	285,6998059	1624774796	714027
1993	BC	83.152.000	83.152	6,98581322	14,31472569	1190298070	523091
1994	BC	126.562.000	126.562	13,3269692	7,503581543	949668287	417343
1995	BC	.	.				
1996	BC	1.396.548.000	1.396.548	149,515057	0,668828961	934051748	410480
1997	BC	2.327.265.000	2.327.265	258,112321	0,387428231	901648162	396240
1998	BC	4.456.870.000	4.456.870	449,697271	0,222371819	991082288	435543
1999	BC	19.230.575.000	19.230.575	1897,8438	0,052691375	1013285446	445300
1992	BDZ	2.292.748	2.293	23,5389295	4,248281558	9740238	477272
1993	BDZ	3.622.284	3.622	35,5635974	2,811864019	10185369	499083
1994	BDZ	4.361.933	4.362	61,407503	1,6284655	7103257	348060
1995	BDZ	7.607.000	7.607	100	1	7607000	372743
1996	BDZ	12.783.092	12.783	221,048149	0,452390126	5782945	283364
1997	BDZ	110.582.683	110.583	2319,08988	0,043120364	4768366	233650
1998	BDZ	154.038.492	154.038	2834,73033	0,035276724	5433973	266265
1999	BDZ	161.810.089	161.810	2922,17519	0,034221083	5537317	271329
1972	BR	454.600		14,5645261	6,865997528	3121282	4773333
1973	BR	499.100		15,6273694	6,399029643	3193756	4884165
1974	BR	629.400		17,9612651	5,567536565	3504208	5358935
1975	BR	840.600		22,8170763	4,382682463	3684083	5634016
1976	BR	921.800		26,2800809	3,805163317	3507600	5364122
1977	BR	990.900		29,8985768	3,344640807	3314205	5068366
1978	BR	1.131.000		33,3526788	2,998259918	3391032	5185857
1979	BR	1.310.400		38,1888172	2,618567614	3431371	5247547
1980	BR	1.445.157		45,5868218	2,193616401	3170121	4848020
1981	BR	1.502.694		50,7256768	1,971388188	2962394	4530347
1982	BR	1.530.555		54,489432	1,835218248	2808903	4295615
1983	BR	1.691.272		57,3918947	1,742406318	2946884	4506627
1984	BR	2.202.754		60,0054425	1,666515501	3670924	5613892
1985	BR	1.713.065		63,382789	1,577715364	2702728	4133244
1986	BR	1.755.075		65,3540168	1,530127832	2685489	4106881
1987	BR	1.849.229		68,7518132	1,454507094	2689717	4113346
1988	BR	1.893.864		72,9014581	1,371714677	2597841	3972842
1989	BR	1.770.864		78,3422088	1,276451118	2260422	3456831
1990	BR	2.097.891		84,3411146	1,185661352	2487389	3803928
1991	BR	2.260.653		89,9543562	1,111674901	2513111	3843265
1992	BR	2.601.067		93,5225523	1,069260809	2781219	4253279
1993	BR	2.461.622		96,0822091	1,040775404	2561996	3918024
1994	BR	2.532.911	2.275.397	97,5494339	1,025121274	2596541	3970853
1995	BR	2.267.880	2.010.366	100	1	2267880	3468237
1993	CD	10.987.000	10.987	80,0047047	1,249926493	13732942	1270240
1994	CD	12.018.683	12.019	90,7333538	1,102130537	13246157	1225214
1995	CD	13.005.023	13.005	100	1	13005023	1202910
1996	CD	15.282.503	15.283	108,606755	0,920753039	14071411	1301547
1997	CD	17.273.881	17.274	116,471245	0,85858102	14831026	1371808
1998	CD	18.462.808	18.463	128,330834	0,779235952	14386884	1330727
1999	CD	19.387.331	19.387	131,339866	0,761383449	14761193	1365349
1972	CFF	1.327.589		43,6839745	2,289168994	3039075	1511301
1973	CFF	1.532.190		47,2402339	2,116839647	3243400	1612910
1974	CFF	1.675.133		50,5150626	1,979607565	3316105	1649065
1975	CFF	1.790.140		54,1184949	1,847797139	3307815	1644942
1976	CFF	1.802.241		55,5962724	1,798681742	3241658	1612044
1977	CFF	1.784.543		55,738639	1,79408758	3201627	1592136
1978	CFF	1.790.616		57,7526639	1,731521859	3100491	1541843
1979	CFF	1.808.094		58,9018352	1,697739971	3069674	1526518
1980	CFF	1.901.442		60,4958716	1,65300536	3143094	1563029
1981	CFF	2.029.976		63,9847618	1,562872115	3172593	1577698
1982	CFF	2.249.271		68,3198512	1,463703422	3292266	1637210
1983	CFF	2.361.526		70,1393037	1,425734142	3366908	1674329
1984	CFF	2.392.027		72,6002585	1,377405564	3294791	1638466
1985	CFF	2.431.422		74,3177787	1,345573048	3271656	1626961
1986	CFF	2.501.398		76,6071054	1,305361944	3265230	1623765
1987	CFF	2.523.209		78,7047947	1,270570622	3205915	1594269
1988	CFF	2.688.837		80,9458513	1,235393765	3321772	1651883
1989	CFF	2.595.139		83,4358323	1,198525828	3110342	1546741
1990	CFF	2.830.194		87,0022046	1,149396161	3253014	1617691
1991	CFF	2.980.144		92,2253027	1,084301131	3231373	1606929
1992	CFF	3.208.456	3.208	94,7507964	1,0554001	3386204	1683925

A2.2.1.Staff Costs

Years	Firms	Staff Charges (const. 1995 US$)					
		LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	**const.1995 US$**
1993	CFF	3.179.782	3.180	97,2766282	1,027996157	3268804	1625543
1994	CFF/SBB/F	3.161.409	3.161	98,881623	1,011310261	3197166	1589918
1995	CFF/SBB/F	3.124.344	3.124	100	1	3124344	1553704
1996	CFF/SBB/F	2.900.751	2.901	100,369562	0,996317992	2890070	1437202
1997	CFF/SBB/F	2.803.990	2.804	100,267405	0,997333082	2796512	1390677
1998	CFF/SBB/F	2.762.429	2.762	100,471674	0,995305399	2749460	1367278
1999	CFF/SBB/F	2.643.254	2.643	101,167582	0,98845893	2612748	1299293
1972	CFL	2.112.386		32,5338195	3,07372456	6492892	167031
1973	CFL	2.347.359		36,5037481	2,739444723	6430459	165425
1974	CFL	2.894.646		42,7027492	2,3417696	6778594	174381
1975	CFL	3.370.798		42,3369832	2,362001079	7961828	204820
1976	CFL	3.705.956		47,5088612	2,104870489	7800557	200671
1977	CFL	4.083.443		48,0657645	2,080482879	8495532	218550
1978	CFL	4.265.755		50,5318965	1,97894809	8441707	217165
1979	CFL	4.566.801		53,7426272	1,860720349	8497540	218601
1980	CFL	5.031.157		57,9998705	1,72414178	8674428	223152
1981	CFL	5.435.391		62,1653627	1,60861283	8743440	224927
1982	CFL	5.577.787		68,885722	1,451679638	8097159	208302
1983	CFL	5.908.231		73,5835566	1,358999274	8029281	206555
1984	CFL	6.149.951		76,8255717	1,301649929	8005084	205933
1985	CFL	6.311.000		79,1149981	1,26398284	7976996	205210
1986	CFL	6.540.663		81,2933109	1,230113509	8045757	206979
1987	CFL	6.896.111		82,0496656	1,21877401	8404801	216216
1988	CFL	7.003.458		82,6289754	1,210229215	8475789	218042
1989	CFL	7.280.626		85,4949154	1,169660202	8515859	219073
1990	CFL	8.033.933		88,4230811	1,130926436	9085787	233734
1991	CFL	8.181.824		89,7324606	1,114423915	9118020	234563
1992	CFL	8.868.000	8.868	93,5710859	1,068706204	9477287	243806
1993	CFL	9.020.892	9.021	94,2615864	1,060877542	9570062	246192
1994	CFL	9.270.606	9.271	99,2955755	1,007094219	9336373	240181
1995	CFL	5.955.710	5.956	100	1	5955710	153212
1996	CFL	6.148.997	6.149	101,717515	0,983114853	6045171	155514
1997	CFL	6.142.752	6.143	105,110625	0,951378605	5844082	150341
1998	CFL	6.184.246	6.184	106,684198	0,937345942	5796778	149124
1999	CFL	6.358.762	6.359	109,090557	0,916669627	5828884	149950
1992	CFR	121.572.976	121.573	9,4483757	10,58382977	1286707678	2594329
1993	CFR	325.248.000	325.248	30,9245801	3,233673658	1051745890	2120586
1994	CFR	680.239.000	680.239	73,90977	1,353001099	920364114	1855687
1995	CFR	899.065.000	899.065	100	1	899065000	1812743
1996	CFR	1.400.681.000	1.400.681	144,605099	0,691538548	968624905	1952993
1997	CFR	2.625.736.000	2.625.736	356,728131	0,280325523	736060818	1484085
1998	CFR	2.900.513.085	2.900.513	552,886799	0,180868851	524612469	1057752
1999	CFR	4.049.447.462	4.049.447	809,198668	0,123579047	500426857	1008987
1972	CH	1.129.709		2,96494915	33,72739123	38102122	187619
1973	CH	1.410.185		3,54103137	28,2403598	39824143	196098
1974	CH	1.895.331		4,28234195	23,3517083	44259205	217937
1975	CH	2.217.474		4,81064254	20,78724392	46095178	226977
1976	CH	2.823.829		5,55101898	18,01471051	50870454	250491
1977	CH	3.305.277		6,27001733	15,94891923	52715591	259577
1978	CH	3.937.832		7,08172403	14,12085525	55605549	273807
1979	CH	4.390.663		8,40195537	11,90199134	52257632	257322
1980	CH	5.219.490		9,88804465	10,11322294	52785871	259923
1981	CH	6.666.143		11,841418	8,444934563	56295139	277203
1982	CH	8.519.140		14,8130909	6,750785569	57510884	283189
1983	CH	10.353.714		17,6449909	5,66733078	58677925	288936
1984	CH	12.808.639		21,2239794	4,71165176	60349846	297169
1985	CH	17.238.870		24,973704	4,004211786	69028088	339901
1986	CH	20.592.498		29,3487413	3,407301155	70164842	345499
1987	CH	22.818.734		33,5332351	2,982116093	68048115	335076
1988	CH	26.188.450		38,7603159	2,579958332	67565109	332697
1989	CH	32.124.305		44,3519448	2,254692563	72430431	356655
1990	CH	38.017.183		53,4884185	1,869563596	71075541	349983
1991	CH	42.238.065		64,1254149	1,5594441	65867901	324340
1992	CH	43.748.000	43.748	73,763483	1,355684357	59308479	292041
1993	CH	46.031.000	46.031	82,883437	1,206513672	55537031	273470
1994	CH	59.120.000	59.120	91,8402542	1,08884716	64372644	316977
1995	CH	66.411.000	66.411	100	1	66411000	327014
1996	CH	77.801.000	77.801	107,380863	0,931264636	72453320	356767
1997	CH	87.895.000	87.895	114,535346	0,873092926	76740503	377878

A2.2.1.Staff Costs

		Staff Charges (const. 1995 US$)					
Years	Firms	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	**const.1995 US$**
1998	CH	86.916.000	86.916	120,159741	0,832225493	72333711	356178
1999	CH	83.741.000	83.741	123,782174	0,807870769	67651906	333125
1972	CIE	34.124		15,1358573	6,606827616	225451	355209
1973	CIE	41.037		17,4478069	5,731379339	235199	370567
1974	CIE	35.131		18,5100474	5,402471306	189794	299030
1975	CIE	60.905		22,2366879	4,497072615	273894	431533
1976	CIE	67.853		26,9122962	3,715773608	252126	397237
1977	CIE	72.431		30,4825286	3,280567742	237615	374373
1978	CIE	80.078		33,6907274	2,968175748	237686	374485
1979	CIE	96.134		38,2980668	2,611097852	251015	395486
1980	CIE	118.041		43,9306686	2,276314091	268698	423347
1981	CIE	131.759		51,5924783	1,938267038	255384	402370
1982	CIE	139.288		59,4256332	1,682775508	234390	369293
1983	CIE	144.830		65,7894305	1,520000998	220142	346844
1984	CIE	153.404		69,9871896	1,428832913	219189	345342
1985	CIE	166.012		73,6154373	1,358410731	225512	355306
1986	CIE	172.129		78,4378717	1,274894357	219446	345748
1987	CIE	189.453		80,1614743	1,247482046	236339	372364
1988	CIE	184.658		82,7637664	1,208258207	223115	351528
1989	CIE	180.467		87,3334427	1,145036733	206641	325573
1990	CIE	184.500		86,6969624	1,153442949	212810	335293
1991	CIE	189.756		88,2589478	1,133029597	214999	338741
1992	CIE	194.000	194	90,7408845	1,10203907	213796	336845
1993	CIE	199.000	199	95,4377302	1,047803629	208513	328522
1994	CIE	210.000	210	97,0547706	1,030346055	216373	340905
1995	CIE	214.000	214	100	1	214000	337167
1996	CIE	220.000	220	102,333978	0,977192544	214982	338715
1997	CIE	102.591	102,590775	106,840075	0,935978378	96023	151288
1998	CIE	108.192	108	113,006374	0,884905838	95740	150843
1999	CIE	121.162	121	117,283303	0,85263629	103307	162765
1972	CP	1.391.305		3,45021995	28,98365945	40325110	338654
1973	CP	1.351.615		3,77682799	26,47724501	35787042	300543
1974	CP	2.113.432		4,48933508	22,27501361	47076727	395355
1975	CP	3.663.085		5,21797204	19,16453351	70201315	589557
1976	CP	4.590.621		6,06715198	16,48219795	75663524	635429
1977	CP	4.804.886		7,66888471	13,03970574	62654306	526176
1978	CP	4.993.302		9,38274517	10,65786166	53217920	446929
1979	CP	5.680.168		11,2065079	8,923386419	50686330	425668
1980	CP	6.934.682		13,549011	7,380612494	51182199	429833
1981	CP	8.653.897		15,9348423	6,275556296	54308020	456084
1982	CP	10.160.800		19,2318166	5,19971681	52833282	443699
1983	CP	13.022.123		23,9638464	4,172952799	54340704	456358
1984	CP	15.399.821		29,8771109	3,347043839	51543875	432870
1985	CP	18.786.233		36,3707667	2,749460877	51652012	433778
1986	CP	23.381.838		43,8090008	2,282635947	53372223	448225
1987	CP	26.816.366		48,2323033	2,073299285	55598353	466920
1988	CP	29.784.923		53,6176304	1,865058177	55550615	466519
1989	CP	32.849.831		60,2743962	1,659079248	54500472	457700
1990	CP	35.994.785		67,974011	1,471150497	52953745	444710
1991	CP	40.251.969		76,2600199	1,311303093	52782531	443272
1992	CP	45.476.772	45.477	83,8797528	1,192182817	54216626	455316
1993	CP	41.148.805	41.149	89,501626	1,117298138	45975483	386106
1994	CP	38.255.970	38.256	95,1197736	1,051306119	40218736	337761
1995	CP	41.157.385	41.157	100	1	41157385	345643
1996	CP	42.093.646	42.094	103,261846	0,968411895	40763987	342340
1997	CP/REFER	41.873.009	41.134	106,393572	0,939906411	39356710	330521
1998	CP/REFER	47.442.567	39.762	110,698665	0,903353262	42857397	359920
1999	CP/REFER	49.479.152	29.826	115,172389	0,868263661	42960949	360790
1990	CSD	6.194.009		43,2040845	2,314595971	14336628	1326078
1991	CSD	9.697.938		58,8400591	1,699522426	16481864	1524503
1992	CSD	12.831.000		66,1122009	1,512580109	19407915	1795151
1972	DB	12.675.400		44,8144988	2,231420696	28284150	14032621
1973	DB	14.425.825		47,9492988	2,085536235	30085581	14926365
1974	DB	16.334.398		51,2883108	1,94976201	31848189	15800848
1975	DB	16.665.570		54,3348199	1,840440443	30671989	15217300
1976	DB	16.893.288		56,6693689	1,764621733	29810263	14789771
1977	DB	17.407.262		58,7610819	1,70180665	29623794	14697259
1978	DB	18.177.185		60,33952	1,657288624	30124842	14945843

A2.2.1.Staff Costs

		Staff Charges (const. 1995 US$)					
Years	Firms	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	**const.1995 US$**
1979	DB	18.769.821		62,823078	1,591771737	29877271	14823016
1980	DB	19.841.043		66,2283172	1,509928144	29958549	14863341
1981	DB	20.604.625		70,417259	1,420106397	29260760	14517146
1982	DB	20.650.645		74,1260529	1,34905335	27858822	13821602
1983	DB	20.605.014		76,55442	1,306260305	26915512	13353598
1984	DB	20.325.652		78,3977739	1,275546422	25926313	12862826
1985	DB	20.178.926		80,1086729	1,248304289	25189440	12497241
1986	DB	20.267.499		80,0085299	1,249866734	25331673	12567807
1987	DB	20.568.570		80,2021409	1,246849509	25645911	12723711
1988	DB	20.401.336		81,2236099	1,231169116	25117495	12461547
1989	DB	20.419.213		83,4801858	1,197889044	24459952	12135320
1990	DB	21.193.472		85,73121	1,16643637	24720837	12264753
1991	DB	21.315.778		87,8063358	1,138869981	24275899	12044006
1992	DB	22.496.592	22.497	92,2303419	1,084241887	24391747	12101482
1993	DB	22.670.979	22.671	95,614398	1,04586759	23710842	11763664
1994	DB AG	15.625.021	15.625	98,0133979	1,020268679	15941720	7909168
1995	DB AG	13.244.709	13.245	100	1	13244709	6571100
1996	DB AG	12.108.973	12.109	101,025468	0,989849415	11986060	5946646
1997	DB AG	12.108.973	12.109	101,818889	0,982136039	11892659	5900307
1998	DB AG	12.950.253	12.950	102,870657	0,972094499	12588870	6245718
1999	DB AG	14.997.804	14.998	103,879645	0,962652499	14437674	7162966
1972	DSB	897.363		22,3552268	4,473226813	4014110	476922
1973	DSB	914.118		24,7596372	4,038831388	3691968	438648
1974	DSB	978.439		28,1349874	3,554293401	3477658	413185
1975	DSB	1.125.552		32,0298989	3,122082907	3514066	417511
1976	DSB	1.288.441		34,9230898	2,863435071	3689367	438339
1977	DSB	1.523.750		38,3664893	2,606441241	3971566	471867
1978	DSB	1.574.427		42,0051156	2,380662414	3748180	445327
1979	DSB	2.227.716		45,3243306	2,206320505	4915055	583965
1980	DSB	2.456.426		49,2244566	2,03151049	4990255	592899
1981	DSB	2.797.818		55,0225285	1,817437378	5084859	604139
1982	DSB	3.214.319		61,1347064	1,635732073	5257765	624682
1983	DSB	3.447.784		66,2596016	1,509215231	5203448	618229
1984	DSB	3.555.262		70,2509696	1,423467898	5060801	601281
1985	DSB	3.570.387		73,7095671	1,356675992	4843858	575506
1986	DSB	3.629.716		76,6285517	1,304996607	4736767	562782
1987	DSB	3.988.076		80,5582095	1,241338414	4950552	588182
1988	DSB	4.256.737		82,6090029	1,210521813	5152873	612220
1989	DSB	4.245.547		86,9303531	1,150346185	4883849	580257
1990	DSB	4.201.638		90,1075205	1,109785282	4662916	554008
1991	DSB	4.349.769		92,6058976	1,079844833	4697076	558066
1992	DSB	4.390.000	4.390	95,286686	1,04946456	4607149	547382
1993	DSB	4.664.000	4.664	96,6064696	1,035127362	4827834	573602
1994	DSB	4.687.000	4.687	98,2715039	1,017588986	4769440	566664
1995	DSB	3.050.198	3.050	100	1	3050198	362398
1996	DSB	3.813.000	3.813	102,482636	0,975775057	3720630	442053
1997	DSB	2.923.000	2.923				
1998	DSB	2.978.000	2.978				
1999	DSB	.					
1992	EVR	76.000	76	30,1450142	3,31729816	252115	59108
1993	EVR	171.500	172	54,2583944	1,843032789	316080	74105
1994	EVR	267.000	267	75,8367097	1,318622608	352072	82543
1995	EVR	328.000	328	100	1	328000	76900
1996	EVR	359.847	360	123,99437	0,806488233	290212	68040
1997	EVR	418.965	419	137,47611	0,727399112	304755	71450
1998	EVR	485.502	486	149,656595	0,668196415	324411	76058
1999	EVR	493.590	494	155,482831	0,643157827	317457	74428
1972	FS	747.591.318		8,05502554	12,41460992	9281054599	5986578
1973	FS	869.147.083		9,15792804	10,91950052	9490652027	6121775
1974	FS	1.134.990.097		11,0466256	9,052538152	10274541158	6627409
1975	FS	1.153.423.055		12,8253022	7,797087215	8993340153	5800993
1976	FS	1.433.274.611		15,1704278	6,591771922	9447819334	6094147
1977	FS	1.695.336.496		17,9639881	5,566692608	9437417141	6087437
1978	FS	1.944.224.769		20,4361214	4,893296424	9513668109	6136621
1979	FS	2.612.154.243		23,7171459	4,216358938	11013779889	7104241
1980	FS	3.483.879.169		28,6761631	3,48721688	12149042245	7836522
1981	FS	4.181.421.331		34,1497606	2,928278212	12244364980	7898008
1982	FS	5.608.042.131		39,9717728	2,501765445	14030006016	9049804

A2.2.1.Staff Costs

Years	Firms	Staff Charges (const. 1995 US$)					
		LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	**const.1995 US$**
1983	FS	5.956.826.034		45,9921433	2,174284405	12951833950	8354348
1984	FS	6.273.574.743		51,2770541	1,950190036	12234662955	7891750
1985	FS	7.194.462.830		55,8468684	1,790610697	12882482100	8309614
1986	FS	6.939.057.729		60,2654403	1,659325802	11514157528	7427001
1987	FS	7.833.570.300		63,9925	1,562683128	12241388141	7896088
1988	FS	8.037.912.666		68,3257577	1,463576892	11764103234	7588224
1989	FS	8.568.888.887		72,7367202	1,374821406	11780691872	7598924
1990	FS	9.224.185.833		78,7197014	1,270330022	11717760188	7558331
1991	FS	10.361.699.767		84,6838425	1,180862808	12235745878	7892449
1992	FS	10.927.065.921	10.927.066	88,5336754	1,129513709	12342270752	7961161
1993	FS	10.542.869.033	10.542.869	92,0111829	1,086824414	11458247464	7390937
1994	FS	9.310.238.009	9.310.238	95,2145118	1,050260072	9778171239	6307234
1995	FS	9.277.574.029	9.277.574	100	1	9277574029	5984333
1996	FS SpA	10.274.281.071	10.274.281	105,283345	0,949817849	9758695543	6294672
1997	FS SpA	9.058.417.648	9.058.418	107,840206	0,92729793	8399851937	5418174
1998	FS SpA	8.139.992.921	8.139.993	110,702431	0,903322531	7353039008	4742946
1999	FS SpA	7.894.632.051	7.894.632	112,339462	0,89015915	7027478955	4532949
1991	MAV	28.352.434	28.352	44,8108155	2,23160411	63271408	1044905
1992	MAV	36.457.609	36.458	54,4492545	1,836572438	66957040	1105772
1993	MAV	36.814.988	36.815	66,035215	1,514343522	55750538	920701
1994	MAV	43.135.252	43.135	78,9061785	1,267327881	54666508	902798
1995	MAV	47.628.453	47.628	100	1	47628453	786567
1996	MAV Rt.	46.714.850	46.715	121,174313	0,825257415	38551777	636669
1997	MAV Rt.	58.377.127	58.377	143,554156	0,69660122	40665578	671578
1998	MAV Rt.	66.213.189	66.213	161,697392	0,618439166	40948829	676256
1999	MAV Rt.	70.957.066	70.957	176,21588	0,567485746	40267124	664997
1972	NS	682.125		41,8089976	2,39182965	1631526	804738
1973	NS	758.087		45,5755729	2,194157828	1663363	820441
1974	NS	862.112		49,7482998	2,010118945	1732949	854764
1975	NS	963.550		54,8238637	1,824023214	1757538	866893
1976	NS	1.041.107		59,7338817	1,674091773	1742908	859676
1977	NS	1.102.537		63,7111208	1,569584693	1730526	853569
1978	NS	1.167.007		67,0887904	1,490561976	1739496	857994
1979	NS	1.231.257		69,8542266	1,431552604	1762609	869394
1980	NS	1.281.667		73,7119007	1,356633042	1738752	857626
1981	NS	1.322.121		77,6695341	1,287506114	1702239	839617
1982	NS	1.390.574		81,8442208	1,221833369	1699050	838044
1983	NS	1.405.896		83,5504096	1,196882224	1682692	829976
1984	NS	1.394.201		84,7224976	1,180324032	1645609	811684
1985	NS	1.495.551		86,2112501	1,159941421	1734751	855653
1986	NS	1.597.043		86,3291229	1,15835765	1849947	912473
1987	NS	1.623.937		85,7048362	1,166795299	1894802	934597
1988	NS	1.602.328		86,7110042	1,153256162	1847894	911460
1989	NS	1.582.204		87,7702859	1,13933775	1802665	889151
1990	NS	1.622.016		89,7991649	1,113596102	1806271	890930
1991	NS	1.607.412		92,2282368	1,084266636	1742863	859654
1992	NS	1.714.037	1.714	94,3176135	1,060247353	1817303	896371
1993	NS	1.603.230	1.603	96,1435903	1,040110939	1667537	822500
1994	NS	1.585.580	1.586	98,3979794	1,016281031	1611395	794809
1995	NS	2.139.000	2.139	100	1	2139000	1055046
1996	NS	2.163.000	2.163	101,169949	0,988435801	2137987	1054546
1997	NS B.V.	208.000	208	103,171292	0,969261879	201606	
1998	NS B.V.	263.000	263	105,120016	0,951293611	250190	
1999	NS B.V.	.	.				
1997	NS N.V.	1.801.767	1.802	103,171292	0,969261879	1746384	
1998	NS N.V.	1.900.198	1.900	105,120016	0,951293611	1807646	
1999	NS N.V.	.	.				
1997	NS B.V./N.V.					1947990	960832
1998	NS B.V./N.V.					2057836	1015012
1972	NSB	1.011.097		26,1246626	3,827800628	3870278	423249
1973	NSB	1.088.272		28,5232331	3,505913919	3815388	417247
1974	NSB	1.104.226		31,4479629	3,179856204	3511280	383990
1975	NSB	1.276.119		34,6045631	2,889792299	3687719	403285
1976	NSB	1.540.558		37,1930156	2,688676847	4142063	452972
1977	NSB	1.653.854		40,2876404	2,482150828	4105115	448931

A2.2.1.Staff Costs

Years	Firms	Staff Charges (const. 1995 US$)					
		LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	**const.1995 US$**
1978	NSB	1.774.570		42,8732575	2,332456312	4139107	452648
1979	NSB	1.777.012		45,2848484	2,208244118	3924076	429133
1980	NSB	1.913.965		51,2248527	1,952177406	3736399	408609
1981	NSB	2.158.059		57,8137501	1,729692329	3732778	408213
1982	NSB	2.444.346		63,8195039	1,566919106	3830092	418855
1983	NSB	2.495.281		68,2799576	1,464558613	3654485	399651
1984	NSB	2.558.520		72,6135231	1,377153947	3523476	385324
1985	NSB	2.688.555		76,3999341	1,308901652	3519054	384840
1986	NSB	2.824.581		75,675723	1,321427746	3732480	408180
1987	NSB	3.174.392		80,9212907	1,235768723	3922814	428995
1988	NSB	3.032.774		84,935547	1,177363348	3570677	390485
1989	NSB	3.087.767		89,7867531	1,113750042	3439001	376085
1990	NSB	3.210.587		93,2579138	1,072295057	3442697	376490
1991	NSB	3.204.762		95,5338675	1,046749207	3354583	366854
1992	NSB	3.332.277	3.332	95,1190725	1,051313867	3503269	383114
1993	NSB	3.351.933	3.352	97,1604561	1,029225304	3449894	377277
1994	NSB	3.649.000	3.649	97,0063824	1,030860007	3761608	411365
1995	NSB	2.338.704	2.339	100	1	2338704	255758
1996	NSB BA	2.529.621	2.530	104,348906	0,958323415	2424195	
1997	NSB BA	2.189.000	2.189	107,472915	0,930466991	2036792	
1998	NSB BA	2.134.000	2.134	106,632383	0,937801416	2001268	
1999	NSB BA	.	.	113,662394	0,879798465	.	.
1996	JBV	.	.	104,348906	0,958323415	.	
1997	JBV	1.035.000	1.035	107,472915	0,930466991	963033	
1998	JBV	.	.	106,632383	0,937801416	.	
1999	JBV	.	.	113,662394	0,879798465	.	
1972	OBB	11.544.330		37,2380486	2,685425359	31001437	2257441
1973	OBB	12.610.935		40,2352641	2,485381971	31342990	2282312
1974	OBB	10.478.720		44,0578191	2,269744669	23784018	1731888
1975	OBB	11.626.973		46,9023343	2,132090045	24789754	1805123
1976	OBB	12.574.767		49,5412049	2,018521757	25382441	1848281
1977	OBB	9.850.724		52,3564427	1,909984615	18814731	1370038
1978	OBB	10.323.227		55,4835662	1,802335482	18605919	1354833
1979	OBB	10.282.717		57,4130574	1,741764059	17910067	1304163
1980	OBB	10.997.066		60,2819664	1,658870902	18242714	1328385
1981	OBB	11.920.852		64,2372602	1,556728909	18557534	1351310
1982	OBB	12.417.970		67,6631415	1,477909505	18352637	1336389
1983	OBB	12.498.162		70,1373549	1,425773758	17819552	1297572
1984	OBB	13.219.730		73,3870536	1,362638165	18013709	1311710
1985	OBB	14.183.518		75,6492553	1,321890078	18749052	1365255
1986	OBB	15.261.427		77,6956773	1,287072892	19642569	1430319
1987	OBB	15.528.803		79,3358169	1,260464741	19573509	1425290
1988	OBB	15.093.750		80,5868836	1,240896726	18729785	1363852
1989	OBB	15.319.799		82,7950355	1,207801886	18503282	1347359
1990	OBB	15.412.241		85,6490307	1,167555536	17994647	1310322
1991	OBB	23.522.038		88,8567451	1,125406967	26471866	1927610
1992	OBB	25118500	25.119	92,7025066	1,078719483	27095815	1973044
1993	OBB	25831800	25.832	95,281148	1,049525557	27111134	1974160
1994	OBB	26545100	26.545	97,9154145	1,021289656	27110236	1974094
1995	OBB	26626500	26.627	100	1	26626500	1938870
1996	OBB	26177300	26.177	101,280225	0,987359573	25846408	1882066
1997	OBB	24510100	24.510	102,904913	0,9717709	23818202	1734377
1998	OBB	24591100	24.591	103,545905	0,965755235	23748984	1729337
1999	OBB	24318580	24.319	104,464182	0,957265911	23279348	1695139
1991	PKP	9.580.002.000	9.580.002	33,1973374	3,012289777	28857742092	2537837
1992	PKP	13.358.043.000	13.358.043	46,2024384	2,164387932	28911987062	2542607
1993	PKP	19.638.359.000	19.638.359	56,9133719	1,757056324	34505702873	3034535
1994	PKP	25.355.453.000	25.355.453	77,7561162	1,286072464	32608949915	2867729
1995	PKP	31.344.743.512	31.344.744	100	1	31344743512	2756551
1996	PKP	38.063.115.712	38.063.116	118,750326	0,84210295	32053062037	2818843
1997	PKP	43.640.153.755	43.640.154	135,422322	0,738430702	32225229392	2833984
1998	PKP	49.590.677.756	49.590.678	151,436117	0,660344455	32746929098	2879864
1999	PKP	50.839.037.411	50.839.037	161,764815	0,618181402	31427747442	2763851
1972	RENFE	16.187.575		8,96895335	11,14957298	180484549	1478446
1973	RENFE	17.081.376		10,0317383	9,968362149	170273346	1394801
1974	RENFE	21.633.087		11,6313102	8,597483721	185990116	1523545
1975	RENFE	26.184.798		13,5832515	7,362007517	192772682	1579105
1976	RENFE	33.807.411		15,8231183	6,3198668	213658332	1750190

A2.2.1.Staff Costs

		Staff Charges (const. 1995 US$)					
Years	Firms	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	const.1995 US$
1977	RENFE	44.791.997		19,5230497	5,122150555	229431354	1879396
1978	RENFE	55.723.150		23,5508595	4,246129526	236607714	1938181
1979	RENFE	65.784.015		27,5384037	3,631292539	238881001	1956803
1980	RENFE	77.345.075		31,2161099	3,203474115	247772946	2029641
1981	RENFE	88.906.136		35,1424377	2,84556242	252987959	2072360
1982	RENFE	126.626.373		40,0376701	2,497647834	316268086	2590722
1983	RENFE	.			1,025235291	324249203	2656100
1984	RENFE	.			0,980791458	310193037	2540958
1985	RENFE	.			0,914194507	289130547	2368424
1986	RENFE	146.242.000		59,7752588	1,672932949	244653060	2004085
1987	RENFE	155.866.000		63,2699474	1,580529209	246350766	2017992
1988	RENFE	155.138.000		66,8477699	1,495936217	232076553	1901064
1989	RENFE	161.189.000		71,5879367	1,396883394	225162237	1844425
1990	RENFE	173.873.000		76,8214429	1,301719888	226333942	1854023
1991	RENFE	189.829.000	189.829	82,2812622	1,215343535	230707448	1889849
1992	RENFE	195.984.000	195.984	87,9350637	1,137202792	222873552	1825677
1993	RENFE	170.068.051	170.068	91,7516373	1,089898807	185356965	1518359
1994	RENFE	176.007.615	176.008	95,4075017	1,04813561	184479848	1511174
1995	RENFE	172.422.124	172.422	100	1	172422124	1412402
1996	RENFE	170.360.977	170.361	103,443493	0,966711363	164689892	1349063
1997	RENFE	164.428.458	164.428	105,653855	0,946487002	155629398	1274844
1998	RENFE	171.073.596	171.074	108,078904	0,925249947	158285835	1296604
1999	RENFE	169.071.859	169.072	111,480938	0,897014344	151659883	1242328
1972	SJ	2.156.692		18,3804779	5,440554946	11733601	1206156
1973	SJ	2.231.321		19,6733209	5,083025911	11341862	1165887
1974	SJ	2.446.442		21,5341677	4,643782904	11360746	1167828
1975	SJ	2.812.651		24,6593863	4,055250963	11406006	1172480
1976	SJ	3.084.366		27,598455	3,623391241	11175865	1148823
1977	SJ	3.447.353		30,5044085	3,278214688	11301163	1161703
1978	SJ	3.677.251		33,4172779	2,992463968	11004041	1131160
1979	SJ	3.825.737		36,0716941	2,772256819	10605925	1090236
1980	SJ	4.284.260		40,2984667	2,481483993	10631323	1092847
1981	SJ	4.660.715		44,1464396	2,265188335	10557397	1085248
1982	SJ	5.145.272		47,7904925	2,092466406	10766309	1106723
1983	SJ	5.472.800		52,601644	1,901081266	10404238	1069504
1984	SJ	5.102.714		56,5899332	1,767098747	9017000	926902
1985	SJ	8.182.963		60,3419818	1,65722101	13560978	1394001
1986	SJ	5.934.900		64,4792726	1,550885982	9204353	946161
1987	SJ	6.257.100		67,5510316	1,480362293	9262775	952167
1988	SJ	6.397.000		71,9305645	1,3902296	8893299	914187
1989	SJ/BV	7.248.425		77,706151	1,286899411	9327994	958871
1990	SJ/BV	6.935.348		84,5773409	1,182349775	8200007	842920
1991	SJ/BV	6.754.400		91,032455	1,098509318	7419771	762715
1992	SJ/BV	6.719.000		91,9878072	1,087100596	7304229	750838
1993	SJ/BV	6.308.000		94,3698803	1,059660134	6684336	687116
1994	SJ/BV	6.409.000		96,6120568	1,035067499	6633748	681916
1995	SJ/BV	6.527.000		100	1	6527000	670943
1996	SJ/BV	6.864.000		101,418763	0,98601084	6767978	695714
1997	SJ/BV	6.628.000		102,663511	0,974055914	6456043	663649
1998	SJ/BV	6.515.000		103,958817	0,961919373	6266905	644206
1999	SJ/BV	6.746.000		104,509274	0,956852882	6454930	663534
		BV	SJ	SJ/BV			
1989	BV	1.413.425	5.835.000	7.248.425			
1990	BV	1.623.348	5.312.000	6.935.348			
1991	BV	1.780.400	4.974.000	6.754.400			
1992	BV	1.937	4.782	6.719	6719000		
1993	BV	2.063	4.245	6.308	6308000		
1994	BV	2.169	4.240	6.409	6409000		
1995	BV	2.206	4.321	6.527	6527000		
1996	BV	2.140	4.724	6.864	6864000		
1997	BV	2.460	4.168	6.628	6628000		
1998	BV	2.563	3.952	6515	6515000		
1999	BV	2.666	4.080	6746	6746000		
2000	BV	2.770					
2001	BV	2.979					
1972	SNCB	18.810.268		31,1193996	3,213429607	60445471	1645102
1973	SNCB	21.465.854		33,3409616	2,999313616	64382827	1752262
1974	SNCB	24.494.806		37,5539254	2,66283748	65225687	1775201
1975	SNCB	29.449.616		42,1622667	2,37178899	69848274	1901011
1976	SNCB	31.158.724		45,38219	2,203507587	68658486	1868629

A2.2.1.Staff Costs

Years	Firms	Staff Charges (const. 1995 US$) LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	const.1995 US$
1977	SNCB	43.878.630		48,8298398	2,04792808	89860278	2445663
1978	SNCB	47.130.959		51,024181	1,959855072	92369849	2513965
1979	SNCB	51.651.110		53,409338	1,872331763	96708014	2632033
1980	SNCB	56.221.951		55,6442491	1,797130911	101038206	2749885
1981	SNCB	61.442.888		58,7231889	1,702904795	104631389	2847678
1982	SNCB	55.159.532		62,7631453	1,593291725	87885226	2391910
1983	SNCB	58.476.638		66,4277469	1,505395029	88030440	2395862
1984	SNCB	62.677.130		69,8288773	1,432072288	89758180	2442885
1985	SNCB/NM	64.556.171		74,0562065	1,350325714	87171858	2372495
1986	SNCB/NM	66.452.080		76,7145557	1,303533587	86622518	2357544
1987	SNCB/NM	67.182.740		78,3456492	1,276395064	85751718	2333844
1988	SNCB/NM	64.214.778		80,0074567	1,2498835	80260992	2184406
1989	SNCB/NM	63.628.558		83,7088934	1,194616198	76011706	2068757
1990	SNCB/NM	64.094.487		86,3406239	1,158203352	74234449	2020386
1991	SNCB/NM	67.757.307		89,1010067	1,122321775	76045501	2069676
1992	SNCB/NM	67.995.860	67.996	92,3302405	1,083068769	73644193	2004322
1993	SNCB/NM	71.882.221	71.882	96,1702772	1,039822312	74744738	2034274
1994	SNCB/NM	67.754.320	67.754	98,3600489	1,016672939	68883983	1874767
1995	SNCB/NM	77.019.059	77.019	100	1	77019059	2096173
1996	SNCB/NM	74.072.982	74.073	101,161071	0,988522551	73222813	1992853
1997	SNCB/NM	53.142.392	53.142	102,515238	0,975464742	51838530	1410852
1998	SNCB/NM	53.727.978	53.728	104,140366	0,960242451	51591885	1404140
1999	SNCB/NM	55.744.084	55.744	105,095664	0,951514044	53041279	1443587
1972	SNCF	9.469.444		22,3339659	4,477485115	42399297	6563155
1973	SNCF	10.417.659		24,2237971	4,128171964	43005889	6657052
1974	SNCF	12.099.051		27,093498	3,690922456	44656659	6912582
1975	SNCF	14.273.428		30,6076893	3,267152872	46633470	7218580
1976	SNCF	16.618.229		34,0156524	2,939823078	48854654	7562406
1977	SNCF	18.559.610		37,1654386	2,690671862	49937820	7730073
1978	SNCF	20.093.901		40,9256832	2,443453405	49098512	7600154
1979	SNCF	22.353.081		45,0206476	2,221203057	49650731	7685634
1980	SNCF	25.173.412		50,0356757	1,998573991	50310927	7787828
1981	SNCF	28.420.777		55,5544884	1,800034577	51158381	7919009
1982	SNCF	33.064.805		61,946159	1,614305095	53376682	8262389
1983	SNCF	36.197.646		67,5239203	1,480956667	53607145	8298063
1984	SNCF	36.471.977		72,2598307	1,383894745	50473377	7812974
1985	SNCF	38.250.154		76,1840207	1,312611215	50207581	7771831
1986	SNCF	37.850.859		80,0714738	1,248884218	47271341	7317318
1987	SNCF	37.424.646		82,3656252	1,214098718	45437214	7033407
1988	SNCF	36.958.171		84,8473791	1,178586788	43558411	6742579
1989	SNCF	37.537.325		87,4928836	1,142950099	42903290	6641171
1990	SNCF	37.707.605		90,0362544	1,110663706	41880469	6482844
1991	SNCF	36.681.727		92,6932191	1,078827566	39573258	6125702
1992	SNCF	37.382.466	37.382	94,5397739	1,057755862	39541523	6120789
1993	SNCF	38.582.027	38.582	96,7312431	1,033792152	39885797	6174081
1994	SNCF	39.138.708	39.139	98,3558184	1,016716669	39792976	6159713
1995	SNCF	38.689.175	38.689	100	1	38689175	5988851
1996	SNCF	39.362.040	39.362	101,447321	0,985733276	38800473	6006079
1997	SNCF/RFF	42.558.035	42.558	102,753159	0,973206093	41417739	6411216
1998	SNCF/RFF	43.260.735	43.261	103,687855	0,964433109	41722085	6458327
1999	SNCF/RFF	43.635.906	43.636	104,076163	0,960834807	41926897	6490031
		RFF	SNCF	SNCF/RFF			
1997	RFF	5	42.553	42.558			
1998	RFF	28	43.233	43.261			
1999	RFF	41	43.595	43.636			
1992	SZ	13.605.245	13.605	51,6376833	1,936570225	26347512	305099
1993	SZ	13.942.394	13.942	70,8143782	1,412142598	19688648	227991
1994	SZ	15.233.211	15.233	86,8334677	1,151629696	17543018	203145
1995	SZ	15.233.211	15.233	100	1	15233211	176398
1996	SZ	19.846.548	19.847	111,141171	0,899756577	17857062	206782
1997	SZ	21.429.624	21.430	120,886019	0,827225518	17727132	205277
1998	SZ	21.901.091	21.901	130,339672	0,767226111	16803089	194577
1999	SZ	24.517.204	24.517	138,903254	0,719925536	17650561	204390
1972	TCDD	1.501.285		0,01018523	9818,142752	14739830442	659967
1973	TCDD	1.679.279		0,01246123	8024,89268	13476033755	603381
1974	TCDD	2.203.424		0,01613349	6198,287168	13657454705	611504
1975	TCDD	3.375.341		0,01944019	5143,981755	17362692520	777403
1976	TCDD	4.402.907		0,02227529	4489,279953	19765882131	885005
1977	TCDD	6.321.383		0,02755213	3629,483418	22943354778	1027274

A2.2.1.Staff Costs

		Staff Charges (const. 1995 US$)					
Years	Firms	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	**const.1995 US$**
1978	TCDD	9.319.993		0,04041672	2474,223679	23059747365	1032485
1979	TCDD	15.627.754		0,07107103	1407,042993	21988921765	984540
1980	TCDD	27.619.437		0,13151324	760,3797084	21001259453	940318
1981	TCDD	30.970.987		0,18989961	526,5940285	16309136809	730231
1982	TCDD	34.977.884		0,24343378	410,7893385	14368541830	643342
1983	TCDD	43.793.553		0,30728712	325,4285401	14251672018	638110
1984	TCDD	53.609.065		0,45739498	218,6294219	11720518890	524779
1985	TCDD	69.207.111		0,69604231	143,6694278	9942946034	445189
1986	TCDD	86.532.299		0,94230402	106,1228624	9183055259	411165
1987	TCDD	129.889.718		1,25886025	79,43693516	10318041107	461984
1988	TCDD	207.844.874		2,13184793	46,90766107	9749516906	436528
1989	TCDD	487.946.384		3,74468281	26,70453148	13030379570	583427
1990	TCDD	1.012.005.171		5,92462806	16,87869669	17081328327	764806
1991	TCDD	1.914.528.000	1.914.528	9,40672975	10,63068703	20352747982	911281
1992	TCDD	3.623.829.000	3.623.829	15,4299656	6,480895835	23485658272	1051555
1993	TCDD	6.882.184.000	6.882.184	25,8202449	3,872929952	26654216552	1193426
1994	TCDD	10.648.351.000	10.648.351	53,4775111	1,869944916	19911829814	891539
1995	TCDD	16.287.234.000	16.287.234	100	1	16287234000	729251
1996	TCDD	28.394.394.000	28.394.394	178,262321	0,560971041	15928432753	713185
1997	TCDD	59.413.707.000	59.413.707	323,610674	0,309013293	18359625230	822041
1998	TCDD	103.304.903.000	103.304.903	568,516518	0,175896385	18170958941	813593
1999	TCDD	186.903.131.000	186.903.131	887,996976	0,112612996	21047721575	942398
1972	VR	461.256		17,94298	5,573210255	2570677	438570
1973	VR	533.846		20,4689578	4,885446586	2608076	444950
1974	VR	669.194		25,0707437	3,988712951	2669223	455382
1975	VR	859.819		28,3955573	3,521677662	3028005	516592
1976	VR	1.002.211		32,1592596	3,109524325	3116399	531673
1977	VR	1.062.126		35,28752	2,833863079	3009920	513507
1978	VR	1.121.952		37,9945929	2,631953454	2952925	503783
1979	VR	1.400.501		41,3800774	2,416621871	3384481	577409
1980	VR	1.571.145		45,4089285	2,202210076	3459991	590291
1981	VR	1.865.644		50,3818882	1,984840259	3703005	631750
1982	VR	2.002.447		54,91108	1,821126082	3646708	622146
1983	VR	2.228.777		59,5269301	1,67991193	3744149	638770
1984	VR	2.372.693		64,5609328	1,548924336	3675122	626993
1985	VR	2.512.326		68,1078566	1,468259391	3688746	629318
1986	VR	2.570.384		71,0311057	1,40783392	3618674	617363
1987	VR	2.624.559		74,0414199	1,350595386	3544717	604746
1988	VR	2.771.914		80,0535273	1,249164196	3462576	590732
1989	VR	2.831.579		84,9578941	1,177053657	3332920	568612
1990	VR	.			..	..	.
1991	VR	2.683.311		91,2202537	1,096247774	2941574	501847
1992	VR	2.650.913	2.651	92,005064	1,086896696	2881269	491558
1993	VR	2.618.697	2.619	94,1608351	1,062012671	2781089	474467
1994	VR	2.549.300	2.549	96,0398716	1,041234212	2654418	452857
1995	VR	.	.				.
1996	VR+RHK	1.948.709	1.949	99,77231	1,002282096	1953156	333218
1997	VR+RHK	1.899.668	1.900	101,824089	0,982085875	1865637	318287
1998	VR+RHK	1.966.999	1.967	104,988987	0,952480851	1873529	319633
1999	VR+RHK	1.945.676	1.946	105,673951	0,946307008	1841207	314119
1995	RHK	.	RHK	VR	VR+RHK		
1996	RHK	20.000	20	1.929	1.949		
1997	RHK	22.000	22	1.878	1.900		
1998	RHK	23.510	24	1.943	1.967		
1999	RHK	25.420	25,42	1.920	1.946		
1993	ZSR	4.842.685	4.843	80,1066444	1,2483359	6045298	508153
1994	ZSR	5.773.163	5.773	91,1258795	1,097383099	6335371	532536
1995	ZSR	6.424.992	6.425	100	1	6424992	540070
1996	ZSR	7.369.431	7.369	104,513021	0,956818581	7051208	592708
1997	ZSR	8.536.697	8.537	111,398195	0,897680617	7663227	644153
1998	ZSR	9.529.233	9.529	117,100017	0,853970838	8137687	684035
1999	ZSR	10.346.305	10.346	124,800056	0,801281689	8290304	696863

A2.2.2.Staff Price : PLB

Years	Firms	Labour Costs	Staff Number	PLB (Labour Prices)
1992	BC	714027	75674	9,435560426
1993	BC	523091	70540	7,415517969
1994	BC	417343	69574	5,998548577
1996	BC	410480	67505	6,080736907
1997	BC	396240	69449	5,705481777
1998	BC	435543	69713	6,247656733
1999	BC	445300	69972	6,363978953
1992	BDZ	477272	55580	8,587111524
1993	BDZ	499083	51035	9,779231669
1994	BDZ	348060	47921	7,263195664
1995	BDZ	372743	47062	7,920254464
1996	BDZ	283364	46617	6,078561509
1997	BDZ	233650	46111	5,067118969
1998	BDZ	266265	45909	5,799836805
1999	BDZ	271329	40915	6,63151705
1972	BR	4773333	199155	23,96792971
1973	BR	4884165	193755	25,20794461
1974	BR	5358935	192882	27,78348873
1975	BR	5634016	192411	29,28115191
1976	BR	5364122	221675	24,19813809
1977	BR	5068366	216035	23,46085622
1978	BR	5185857	213836	24,25156248
1979	BR	5247547	213954	24,52651984
1980	BR	4848020	212348	22,83054424
1981	BR	4530347	205967	21,99549893
1982	BR	4295615	195282	21,9969859
1983	BR	4506627	184531	24,42206144
1984	BR	5613892	173931	32,27654894
1985	BR	4133244	167066	24,74018664
1986	BR	4106881	159754	25,70753118
1987	BR	4113346	152725	26,93302475
1988	BR	3972842	143770	27,63331528
1989	BR	3456831	126708	27,28186675
1990	BR	3803928	126794	30,00085341
1991	BR	3843265	133422	28,80533343
1992	BR	4253279	136065	31,25916713
1993	BR	3918024	126255	31,03262246
1994	BR	3970853	115330	34,43035597
1995	BR	3468237	99458	34,87136883
1993	CD	1270240	113888	11,15341117
1994	CD	1225214	105923	11,56702606
1995	CD	1202910	102253	11,76405802
1996	CD	1301547	99316	13,10510523
1997	CD	1371808	95693	14,33550909
1998	CD	1330727	90258	14,74358576
1999	CD	1365349	88069	15,50316856
1972	CFF	1511301	39316	38,43984877
1973	CFF	1612910	39567	40,76400973
1974	CFF	1649065	39678	41,56119785
1975	CFF	1644942	39493	41,65149362
1976	CFF	1612044	38353	42,03174643
1977	CFF	1592136	37013	43,0156001
1978	CFF	1541843	36507	42,23416551
1979	CFF	1526518	36568	41,74462813
1980	CFF	1563029	36776	42,50132539
1981	CFF	1577698	37220	42,38844557
1982	CFF	1637210	37556	43,59384101
1983	CFF	1674329	38715	43,24755339
1984	CFF	1638466	37663	43,50333246
1985	CFF	1626961	36516	44,55474361
1986	CFF	1623765	36455	44,54163645
1987	CFF	1594269	36656	43,49271196
1988	CFF	1651883	36799	44,88935751
1989	CFF	1546741	36779	42,05500695
1990	CFF	1617691	37160	43,53311882
1991	CFF	1606929	37903	42,39582394
1992	CFF	1683925	37750	44,60728104
1993	CFF	1625543	36607	44,40523949
1994	CFF/SBB/FFS	1589918	34489	46,09927187
1995	CFF/SBB/FFS	1553704	32025	48,51535486
1996	CFF/SBB/FFS	1437202	31140	46,1529307
1997	CFF/SBB/FFS	1390677	31087	44,73499454
1998	CFF/SBB/FFS	1367278	30440	44,91716325
1999	CFF/SBB/FFS	1299293	28907	44,94735053
1972	CFL	167031	4013	41,62256182
1973	CFL	165425	3980	41,56412966
1974	CFL	174381	3924	44,43962481

A2.2.2.Staff Price : PLB

Years	Firms	Labour Costs	Staff Number	PLB (Labour Prices)
1975	CFL	204820	3851	53,18620708
1976	CFL	200671	3809	52,68347634
1977	CFL	218550	3854	56,70725856
1978	CFL	217165	3822	56,81975435
1979	CFL	218601	3862	56,60316507
1980	CFL	223152	3904	57,15981182
1981	CFL	224927	3835	58,65117348
1982	CFL	208302	3731	55,82994465
1983	CFL	206555	3635	56,82402746
1984	CFL	205933	3528	58,37099204
1985	CFL	205210	3449	59,49848974
1986	CFL	206979	3413	60,64435932
1987	CFL	216216	3352	64,50348806
1988	CFL	218042	3355	64,9901264
1989	CFL	219073	3266	67,07675289
1990	CFL	233734	3227	72,43081416
1991	CFL	234563	3224	72,755406
1992	CFL	243806	3156	77,25147538
1993	CFL	246192	3045	80,85133687
1994	CFL	240181	2991	80,30111242
1995	CFL	153212	2964	51,69101774
1996	CFL	155514	2877	54,05407808
1997	CFL	150341	2812	53,46391803
1998	CFL	149124	2774	53,75760805
1999	CFL	149950	2747	54,58666295
1990	CFR		193679	
1991	CFR		190890	
1992	CFR	2594329	184626	14,0518071
1993	CFR	2120586	173666	12,2107171
1994	CFR	1855687	162960	11,38737987
1995	CFR	1812743	143773	12,60836881
1996	CFR	1952993	130819	14,92897373
1997	CFR	1484085	128598	11,54050022
1998	CFR	1057752	94625	11,17835412
1999	CFR	1008987	97893	10,30704374
1972	CH	187619	12541	14,96041485
1973	CH	196098	11962	16,39340933
1974	CH	217937	11961	18,22060369
1975	CH	226977	12303	18,44892722
1976	CH	250491	12615	19,85660526
1977	CH	259577	12985	19,99050509
1978	CH	273807	12683	21,58851583
1979	CH	257322	12137	21,20142325
1980	CH	259923	11897	21,84775779
1981	CH	277203	11877	23,33945881
1982	CH	283189	12880	21,98673927
1983	CH	288936	12788	22,59429327
1984	CH	297169	12845	23,13495742
1985	CH	339901	12044	28,22160692
1986	CH	345499	12009	28,76996598
1987	CH	335076	12388	27,04839774
1988	CH	332697	12730	26,13489278
1989	CH	356655	12706	28,06977034
1990	CH	349983	12726	27,50140611
1991	CH	324340	12209	26,56564555
1992	CH	292041	11590	25,19764749
1993	CH	273470	11326	24,14530767
1994	CH	316977	11201	28,29900687
1995	CH	327014	11070	29,54058166
1996	CH	356767	10999	32,43633162
1997	CH	377878	10750	35,15141559
1998	CH	356178	10874	32,7550345
1999	CH	333125	9986	33,35916098
1972	CIE	355209	10016	35,46419404
1973	CIE	370567	9914	37,37811064
1974	CIE	299030	9840	30,38920818
1975	CIE	431533	9416	45,82979341
1976	CIE	397237	8620	46,08319012
1977	CIE	374373	7948	47,1028445
1978	CIE	374485	7762	48,24593121
1979	CIE	395486	7509	52,6683312
1980	CIE	423347	7567	55,9464887
1981	CIE	402370	7479	53,79994958
1982	CIE	369293	7244	50,97919166
1983	CIE	346844	7004	49,52081324
1984	CIE	345342	6760	51,08612189
1985	CIE	355306	6423	55,31770639

A2.2.2.Staff Price : PLB

Years	Firms	Labour Costs	Staff Number	PLB (Labour Prices)
1986	CIE	345748	6288	54,98537778
1987	CIE	372364	6372	58,43748613
1988	CIE	351528	5949	59,09019375
1989	CIE	325573	5537	58,79957626
1990	CIE	335293	5487	61,10672812
1991	CIE	338741	5275	64,21637843
1992	CIE	336845	5163	65,24212503
1993	CIE	328522	5156	63,71644953
1994	CIE	340905	5085	67,04138099
1995	CIE	337167	5001	67,41994913
1996	CIE	338715	4839	69,99688364
1997	CIE	151288	4574	33,07573229
1998	CIE	150843	4637	32,53028366
1999	CIE	162765	4904	33,19032348
1972	CP	338654	23929	14,15244639
1973	CP	300543	23056	13,03533923
1974	CP	395355	23117	17,10233023
1975	CP	589557	25150	23,44162766
1976	CP	635429	26966	23,56408272
1977	CP	526176	26651	19,743217
1978	CP	446929	26635	16,7797583
1979	CP	425668	25499	16,69353069
1980	CP	429833	24449	17,58078832
1981	CP	456084	23743	19,2091824
1982	CP	443699	23248	19,08545398
1983	CP	456358	23090	19,76431786
1984	CP	432870	22123	19,56651828
1985	CP	433778	20617	21,03983236
1986	CP	448225	20422	21,94813012
1987	CP	466920	20325	22,97269145
1988	CP	466519	21164	22,04304674
1989	CP	457700	21698	21,09410307
1990	CP	444710	21744	20,45209243
1991	CP	443272	21179	20,92980895
1992	CP	455316	19680	23,13597967
1993	CP	386106	16132	23,93418196
1994	CP	337761	14084	23,98186214
1995	CP	345643	12930	26,73189557
1996	CP	342340	12903	26,53178455
1997	CP/REFER	330521	13129	25,17489339
1998	CP/REFER	359920	13032	27,61819089
1999	CP/REFER	360790	12759	28,27728685
1989	CSD		211673	
1990	CSD	1326078	211453	6,271266479
1991	CSD	1524503	197047	7,736750093
1992	CSD	1795151	158461	11,32866094
1972	DB	14032621	390615	35,92442815
1973	DB	14926365	392330	38,04543301
1974	DB	15800848	393346	40,17035313
1975	DB	15217300	382842	39,74825014
1976	DB	14789771	368404	40,14552328
1977	DB	14697259	354325	41,47959783
1978	DB	14945843	339411	44,03464644
1979	DB	14823016	326266	45,43230298
1980	DB	14863341	317950	46,74741488
1981	DB	14517146	314360	46,18000427
1982	DB	13821602	306884	45,03852402
1983	DB	13353598	295653	45,16645485
1984	DB	12862826	283933	45,3023294
1985	DB	12497241	271874	45,9670342
1986	DB	12567807	261507	48,05916284
1987	DB	12723711	251431	50,60517898
1988	DB	12461547	240806	51,74932243
1989	DB	12135320	232301	52,23963853
1990	DB	12264753	226696	54,10220383
1991	DB	12044006	223278	53,94175192
1992	DB	12101482	216935	55,78390795
1993	DB	11763664	212468	55,36675835
1994	DB AG	7909168	323508	24,44813843
1995	DB AG	6571100	291629	22,53239523
1996	DB AG	5946646	254752	23,34288236
1997	DB AG	5900307	233266	25,29432873
1998	DB AG	6245718	203055	30,75875092
1999	DB AG	7162966	273480	26,19191773
1972	DSB	476922	19697	24,21292697
1973	DSB	438648	19074	22,99716295
1974	DSB	413185	18368	22,494854

A2.2.2.Staff Price : PLB

Years	Firms	Labour Costs	Staff Number	PLB (Labour Prices)
1975	DSB	417511	18255	22,87105482
1976	DSB	438339	18364	23,86947011
1977	DSB	471867	18208	25,91538482
1978	DSB	445327	17759	25,07610513
1979	DSB	583965	18000	32,44248201
1980	DSB	592899	18423	32,18255757
1981	DSB	604139	19014	31,77339182
1982	DSB	624682	18863	33,11681274
1983	DSB	618229	18848	32,80077526
1984	DSB	601281	18409	32,66233607
1985	DSB	575506	16426	35,03626205
1986	DSB	562782	15432	36,4685055
1987	DSB	588182	15400	38,19364021
1988	DSB	612220	15321	39,95953978
1989	DSB	580257	15922	36,44372343
1990	DSB	554008	15644	35,41342554
1991	DSB	558066	15258	36,57531625
1992	DSB	547382	15177	36,06654291
1993	DSB	573602	14589	39,31741516
1994	DSB	566664	14408	39,32980596
1995	DSB	362398	14227	25,47257552
1996	DSB	442053	14361	30,78151478
1997	DSB		10145	
1998	DSB		10122	
1999	DSB		9870	
1992	EVR	59108	7939	7,44529857
1993	EVR	74105	7939	9,334288171
1994	EVR	82543	7888	10,4644088
1995	EVR	76900	7735	9,941761627
1996	EVR	68040	7534	9,031085584
1997	EVR	71450	6781	10,53674412
1998	EVR	76058	6042	12,58822725
1999	EVR	74428	5860	12,70095878
1972	FS	5986578	202419	29,5751778
1973	FS	6121775	212502	28,8080817
1974	FS	6627409	213206	31,08453145
1975	FS	5800993	217604	26,65848453
1976	FS	6094147	218149	27,93570687
1977	FS	6087437	218663	27,83935448
1978	FS	6136621	216157	28,38964775
1979	FS	7104241	214887	33,06035872
1980	FS	7836522	215905	36,29615775
1981	FS	7898008	219471	35,98656843
1982	FS	9049804	217657	41,57828099
1983	FS	8354348	219814	38,00644335
1984	FS	7891750	216136	36,51289023
1985	FS	8309614	211890	39,21664152
1986	FS	7427001	210728	35,2444902
1987	FS	7896088	213246	37,02807088
1988	FS	7588224	211989	35,79536641
1989	FS	7598924	206755	36,75327868
1990	FS	7558331	198194	38,13602419
1991	FS	7892449	177950	44,35205711
1992	FS	7961161	165554	48,08799862
1993	FS	7390937	157581	46,90246379
1994	FS	6307234	138431	45,56229524
1995	FS	5984333	128151	46,6975118
1996	FS SpA	6294672	123708	50,88330297
1997	FS SpA	5418174	120117	45,10746965
1998	FS SpA	4742946	116181	40,82376649
1999	FS SpA	4532949	112731	40,21031782
1990	MAV		127154	
1991	MAV	1044905	113266	9,225231954
1992	MAV	1105772	90392	12,23307411
1993	MAV	920701	75375	12,21493323
1994	MAV	902798	71015	12,71278196
1995	MAV	786567	62067	12,67287296
1996	MAV Rt.	636669	54932	11,59013096
1997	MAV Rt.	671578	51626	13,00851825
1998	MAV Rt.	676256	49940	13,54136071
1999	MAV Rt.	664997	48879	13,60497197
1972	NS	804738	27463	29,30262924
1973	NS	820441	26896	30,50421161
1974	NS	854764	26413	32,36149015
1975	NS	866893	26521	32,68703159
1976	NS	859676	26652	32,25560806
1977	NS	853569	26265	32,49834193

A2.2.2.Staff Price : PLB

Years	Firms	Labour Costs	Staff Number	PLB (Labour Prices)
1978	NS	857994	26092	32,8833938
1979	NS	869394	26283	33,07817612
1980	NS	857626	26876	31,91049173
1981	NS	839617	27783	30,22051971
1982	NS	838044	27626	30,33533006
1983	NS	829976	27236	30,47347368
1984	NS	811684	26650	30,45719389
1985	NS	855653	26839	31,88096705
1986	NS	912473	27474	33,21222247
1987	NS	934597	27381	34,13305491
1988	NS	911460	26591	34,2770173
1989	NS	889151	26207	33,92799634
1990	NS	890930	26165	34,0504307
1991	NS	859654	26949	31,8993055
1992	NS	896371	28348	31,62026422
1993	NS	822500	28169	29,19877642
1994	NS	794809	26561	29,92389915
1995	NS	1055046	28273	37,31637504
1996	NS	1054546	28191	37,40718805
1997	NS B.V./N.V.	960832	25938	37,04339823
1998	NS B.V./N.V.	1015012	26286	38,61418518
1972	NSB	423249	17031	24,85170936
1973	NSB	417247	16776	24,87164844
1974	NSB	383990	16546	23,20741208
1975	NSB	403285	16458	24,50388976
1976	NSB	452972	16396	27,62695594
1977	NSB	448931	16485	27,23269788
1978	NSB	452648	16385	27,62577633
1979	NSB	429133	16166	26,54539255
1980	NSB	408609	15852	25,77647308
1981	NSB	408213	15933	25,62057667
1982	NSB	418855	15676	26,71949746
1983	NSB	399651	15103	26,46167178
1984	NSB	385324	14585	26,41916928
1985	NSB	384840	14076	27,34015464
1986	NSB	408180	13984	29,18907438
1987	NSB	428995	13200	32,49960686
1988	NSB	390485	11802	33,0863785
1989	NSB	376085	10604	35,46637645
1990	NSB	376490	8502	44,28247946
1991	NSB	366854	9450	38,8204848
1992	NSB	383114	9531	40,19660238
1993	NSB	377277	9289	40,61543246
1994	NSB	411365	9628	42,72595282
1995	NSB	255758	9602	26,63593387
1996	NSB BA/JBV		9266	
1997	NSB BA/JBV		10184	
1998	NSB BA/JBV		9862	
1999	NSB BA/JBV	.	.	.
1972	OBB	2257441	72567	31,10836852
1973	OBB	2282312	71433	31,95038663
1974	OBB	1731888	71381	24,26259109
1975	OBB	1805123	71742	25,1613136
1976	OBB	1848281	71140	25,98089496
1977	OBB	1370038	70291	19,49094369
1978	OBB	1354833	69643	19,4539696
1979	OBB	1304163	69305	18,81772931
1980	OBB	1328385	69346	19,15590186
1981	OBB	1351310	69539	19,43239849
1982	OBB	1336389	69611	19,19796391
1983	OBB	1297572	68953	18,81820503
1984	OBB	1311710	68032	19,280775
1985	OBB	1365255	67720	20,1602982
1986	OBB	1430319	67467	21,20027369
1987	OBB	1425290	66314	21,4930498
1988	OBB	1363852	64770	21,05685398
1989	OBB	1347359	63717	21,14599004
1990	OBB	1310322	63650	20,58635754
1991	OBB	1927610	62744	30,72181902
1992	OBB	1973044	62665	31,48558449
1993	OBB	1974160	62019	31,83152964
1994	OBB	1974094	60853	32,44037647
1995	OBB	1938870	58374	33,21461396
1996	OBB	1882066	54217	34,71357071
1997	OBB	1734377	52317	33,151312
1998	OBB	1729337	51306	33,70632858
1999	OBB	1695139	49665	34,13146673

A2.2.2.Staff Price : PLB

Years	Firms	Labour Costs	Staff Number	PLB (Labour Prices)
1990	PKP		313692	
1991	PKP	2537837	290028	8,750316472
1992	PKP	2542607	261759	9,713542808
1993	PKP	3034535	247719	12,24991008
1994	PKP	2867729	234589	12,22448326
1995	PKP	2756551	227395	12,12230341
1996	PKP	2818843	220974	12,75644578
1997	PKP	2833984	215879	13,12764912
1998	PKP	2879864	212616	13,54490541
1999	PKP	2763851	199410	13,86014141
1972	RENFE	1478446	73980	19,98440129
1973	RENFE	1394801	71370	19,54323317
1974	RENFE	1523545	68082	22,37808923
1975	RENFE	1579105	67599	23,35988275
1976	RENFE	1750190	68091	25,70369515
1977	RENFE	1879396	68091	27,60123377
1978	RENFE	1938181	68117	28,45370519
1979	RENFE	1956803	67025	29,19511758
1980	RENFE	2029641	66865	30,35431777
1981	RENFE	2072360	67971	30,48889128
1982	RENFE	2590722	69797	37,11795619
1983	RENFE	2656100	71427	37,18621265
1984	RENFE	2540958	70076	36,26003191
1985	RENFE	2368424	66288	35,72929958
1986	RENFE	2004085	66276	30,23846935
1987	RENFE	2017992	60504	33,35302811
1988	RENFE	1901064	52747	36,04117501
1989	RENFE	1844425	50184	36,75324769
1990	RENFE	1854023	49724	37,28628116
1991	RENFE	1889849	48923	38,6290453
1992	RENFE	1825677	47867	38,14062149
1993	RENFE	1518359	42089	36,0749505
1994	RENFE	1511174	41137	36,73514485
1995	RENFE	1412402	38958	36,25448805
1996	RENFE	1349063	37411	36,06060994
1997	RENFE	1274844	36382	35,04051732
1998	RENFE	1296604	35451	36,57455098
1999	RENFE	1242328	34537	35,97092
1972	SJ	1206156	37731	31,96722856
1973	SJ	1165887	36734	31,73862649
1974	SJ	1167828	35994	32,44506837
1975	SJ	1172480	35701	32,8416657
1976	SJ	1148823	35248	32,59257181
1977	SJ	1161703	34430	33,7410116
1978	SJ	1131160	33206	34,06493893
1979	SJ	1090236	32981	33,0564891
1980	SJ	1092847	32766	33,35307222
1981	SJ	1085248	33074	32,81271112
1982	SJ	1106723	32737	33,806478
1983	SJ	1069504	32513	32,8946439
1984	SJ	926902	31859	29,09389588
1985	SJ	1394001	31175	44,71533921
1986	SJ	946161	30074	31,46111097
1987	SJ	952167	29078	32,74526819
1988	SJ	914187	27641	33,0735722
1989	SJ/BV	958871	24998	38,35791229
1990	SJ/BV	842920	25251	33,38163642
1991	SJ/BV	762715	23313	32,71631125
1992	SJ/BV	750838	22614	33,20236052
1993	SJ/BV	687116	20644	33,28406825
1994	SJ/BV	681916	19714	34,59044626
1995	SJ/BV	670943	19513	34,38440724
1996	SJ/BV	695714	19895	34,96930449
1997	SJ/BV	663649	18358	36,1503907
1998	SJ/BV	644206	17186	37,48437361
1999	SJ/BV	663534	16493	40,23127725
1972	SNCB	1645102	55805	29,47946445
1973	SNCB	1752262	55332	31,66814378
1974	SNCB	1775201	56068	31,66157626
1975	SNCB	1901011	56956	33,37683346
1976	SNCB	1868629	55396	33,73220619
1977	SNCB	2445663	55294	44,23017779
1978	SNCB	2513965	55647	45,1770024
1979	SNCB	2632033	57795	45,54084967
1980	SNCB	2749885	61100	45,006304
1981	SNCB	2847678	62768	45,3683131
1982	SNCB	2391910	57640	41,4973951

A2.2.2.Staff Price : PLB

Years	Firms	Labour Costs	Staff Number	PLB (Labour Prices)
1983	SNCB	2395862	55439	43,2161841
1984	SNCB	2442885	52265	46,7403562
1985	SNCB/NMBS	2372495	50293	47,17345569
1986	SNCB/NMBS	2357544	48099	49,01439979
1987	SNCB/NMBS	2333844	45425	51,37795633
1988	SNCB/NMBS	2184406	44199	49,42207915
1989	SNCB/NMBS	2068757	41681	49,63308626
1990	SNCB/NMBS	2020386	40536	49,84177885
1991	SNCB/NMBS	2069676	39796	52,00714781
1992	SNCB/NMBS	2004322	39421	50,84401078
1993	SNCB/NMBS	2034274	38300	53,11421663
1994	SNCB/NMBS	1874767	38315	48,93035384
1995	SNCB/NMBS	2096173	37415	56,02493887
1996	SNCB/NMBS	1992853	36902	54,00393897
1997	SNCB/NMBS	1410852	35525	39,71435568
1998	SNCB/NMBS	1404140	35377	39,69098079
1999	SNCB/NMBS	1443587	35896	40,21614538
1972	SNCF	6563155	274262	23,93023981
1973	SNCF	6657052	271204	24,5462906
1974	SNCF	6912582	269609	25,63928346
1975	SNCF	7218580	266605	27,0759361
1976	SNCF	7562406	259656	29,12471065
1977	SNCF	7730073	258705	29,87987613
1978	SNCF	7600154	252832	30,06009347
1979	SNCF	7685634	248755	30,89639901
1980	SNCF	7787828	244351	31,87148034
1981	SNCF	7919009	238927	33,14405189
1982	SNCF	8262389	243291	33,96092964
1983	SNCF	8298063	243099	34,13449984
1984	SNCF	7812974	239688	32,59643507
1985	SNCF	7771831	233501	33,28392893
1986	SNCF	7317318	226473	32,30989313
1987	SNCF	7033407	215491	32,63898142
1988	SNCF	6742579	204568	32,96008859
1989	SNCF	6641171	197766	33,58095188
1990	SNCF	6482844	193216	33,55231455
1991	SNCF	6125702	188449	32,50588568
1992	SNCF	6120789	187226	32,69198309
1993	SNCF	6174081	181713	33,97710043
1994	SNCF	6159713	172353	35,73893554
1995	SNCF	5988851	167204	35,81762952
1996	SNCF	6006079	164110	36,59788679
1997	SNCF/RFF	6411216	162565	39,43786306
1998	SNCF/RFF	6458327	170355	37,91099275
1999	SNCF/RFF	6490031	169577	38,27188167
1992	SZ	305099	12072	25,27331146
1993	SZ	227991	11626	19,61043963
1994	SZ	203145	10078	20,1572703
1995	SZ	176398	9761	18,07169572
1996	SZ	206782	9577	21,59147369
1997	SZ	205277	9118	22,5133772
1998	SZ	194577	8886	21,89699763
1999	SZ	204390	8771	23,30296442
1972	TCDD	659967	64045	10,30473107
1973	TCDD	603381	66255	9,106947574
1974	TCDD	611504	67369	9,076931805
1975	TCDD	777403	69574	11,1737643
1976	TCDD	885005	70834	12,49406724
1977	TCDD	1027274	70178	14,63812119
1978	TCDD	1032485	63208	16,33472776
1979	TCDD	984540	68080	14,46151498
1980	TCDD	940318	45205	20,80119433
1981	TCDD	730231	47691	15,31171904
1982	TCDD	643342	52348	12,28972054
1983	TCDD	638110	50921	12,5313627
1984	TCDD	524779	48125	10,90449358
1985	TCDD	445189	48879	9,107982232
1986	TCDD	411165	45869	8,963906755
1987	TCDD	461984	45196	10,22178303
1988	TCDD	436528	52848	8,260074132
1989	TCDD	583427	41561	14,03784629
1990	TCDD	764806	40227	19,01224489
1991	TCDD	911281	39539	23,04765681
1992	TCDD	1051555	37109	28,3369361
1993	TCDD	1193426	39196	30,44763589
1994	TCDD	891539	37131	24,01065075
1995	TCDD	729251	33443	21,80577426

A2.2.2.Staff Price : PLB

Years	Firms	Labour Costs	Staff Number	PLB (Labour Prices)
1996	TCDD	713185	32984	21,62216261
1997	TCDD	822041	31485	26,10895675
1998	TCDD	813593	31553	25,78496785
1999	TCDD	942398	30005	31,40804205
1972	VR	438570	21738	20,17525824
1973	VR	444950	21890	20,32664636
1974	VR	455382	22767	20,00185363
1975	VR	516592	23728	21,77141907
1976	VR	531673	24038	22,11800865
1977	VR	513507	23867	21,51534432
1978	VR	503783	23801	21,16647354
1979	VR	577409	24268	23,79300902
1980	VR	590291	24476	24,11713971
1981	VR	631750	24802	25,47175468
1982	VR	622146	24595	25,29562698
1983	VR	638770	23918	26,70665528
1984	VR	626993	23293	26,91767568
1985	VR	629318	24324	25,87229867
1986	VR	617363	23493	26,27859767
1987	VR	604746	22708	26,63139688
1988	VR	590732	21418	27,58110084
1989	VR	568612	20111	28,27369108
1990	VR	.	18632	
1991	VR	501847	18078	27,76007174
1992	VR	491558	17510	28,07300014
1993	VR	474467	16868	28,12824184
1994	VR	452857	16279	27,8184471
1995	VR	.	15223	
1996	VR+RHK	333218	10507	31,71388398
1997	VR+RHK	318287	10034	31,72080596
1998	VR+RHK	319633	9633	33,18104208
1999	VR+RHK	314119	9149	34,33366232
1993	ZSR	508153	56016	9,071574331
1994	ZSR	532536	54115	9,840824091
1995	ZSR	540070	49945	10,81328487
1996	ZSR	592708	49207	12,04519165
1997	ZSR	644153	45979	14,00971357
1998	ZSR	684035	45981	14,87646093
1999	ZSR	696863	44642	15,61003581

A2.3.1.Materials & Energy costs

Materials and Services Rendered by Third Parties total
(less counterpart allocated to another accounts)

Years	Firms	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	$US1995
1992	BC	17.274.000	17274	0,350017739	285,6998059	4935178446	**2168823**
1993	BC	264.844.000	264844	6,985813223	14,31472569	3791169210	**1666074**
1994	BC	470.491.000	470491	13,32696918	7,503581543	3530367584	**1551462**
1995	BC	.	.		..	..	
1996	BC	4.155.911.000	4155911	149,5150566	0,668828961	2779593637	**1221525**
1997	BC	7.134.306.000	7134306	258,1123211	0,387428231	2764031554	**1214687**
1998	BC	9.519.725.000	9519725	449,6972706	0,222371819	2116918563	**930305**
1999	BC	47.453.562.000	47453562	1897,843799	0,052691375	2500393448	**1098828**
1992	BDZ	2.373.252	2.373	23,53892948	4,248281558	10082244	**494030**
1993	BDZ	3.366.716	3.367	35,56359744	2,811864019	9466749	**463871**
1994	BDZ	4.301.067	4.301	61,40750296	1,6284655	7004140	**343203**
1995	BDZ	7.471.000	7.471	100	1	7471000	**366079**
1996	BDZ	13.773.908	13.774	221,0481491	0,452390126	6231180	**305328**
1997	BDZ	113.568.317	113.568	2319,089878	0,043120364	4897107	**239958**
1998	BDZ	142.421.508	142.422	2834,730326	0,035276724	5024164	**246184**
1999	BDZ	209.189.911	209.190	2922,175188	0,034221083	7158705	**350777**
1972	BR	211.500		14,56452607	6,865997528	1452158	**2220765**
1973	BR	236.800		15,62736939	6,399029643	1515290	**2317312**
1974	BR	330.800		17,96126507	5,567536565	1841741	**2816549**
1975	BR	460.700		22,81707626	4,382682463	2019102	**3087784**
1976	BR	500.400		26,28008095	3,805163317	1904104	**2911919**
1977	BR	605.900		29,89857679	3,344640807	2026518	**3099125**
1978	BR	718.900		33,3526788	2,998259918	2155449	**3296298**
1979	BR	851.700		38,18881723	2,618567614	2230234	**3410665**
1980	BR	1.110.543		45,58682182	2,193616401	2436105	**3725501**
1981	BR	1.019.306		50,72567675	1,971388188	2009447	**3073019**
1982	BR	1.013.745		54,48943203	1,835218248	1860443	**2845149**
1983	BR	1.043.128		57,39189474	1,742406318	1817552	**2779557**
1984	BR	1.381.546		60,00544248	1,666515501	2302367	**3520978**
1985	BR	1.218.135		63,38278899	1,577715364	1921871	**2939090**
1986	BR	1.176.925		65,35401679	1,530127832	1800845	**2754007**
1987	BR	1.221.271		68,75181318	1,454507094	1776347	**2716542**
1988	BR	1.238.436		72,90145806	1,371714677	1698781	**2597921**
1989	BR	1.556.636		78,34220881	1,276451118	1986969	**3038644**
1990	BR	1.503.809		84,34111461	1,185661352	1783008	**2726729**
1991	BR	1.610.347		89,9543562	1,111674901	1790182	**2737701**
1992	BR	1.195.933	1.196	93,52255234	1,069260809	1278764	**1955596**
1993	BR	1.078.378	1.078	96,08220906	1,040775404	1122349	**1716393**
1994	BR	5.024.089	5.024	97,54943394	1,025121274	5150301	**7876282**
1995	BR	5.507.120	3.804	100	1	5507120	**8421961**
1993	CD	12.722.000	12.722	80,00470475	1,249926493	15901565	**1470828**
1994	CD	23.019.317	23.019	90,73335384	1,102130537	25370293	**2346646**
1995	CD	27.576.977	27.577	100	1	27576977	**2550755**
1996	CD	17.511.497	17.511	108,6067553	0,920753039	16123764	**1491381**
1997	CD	15.757.119	15.757	116,4712446	0,85858102	13528763	**1251354**
1998	CD	14.263.192	14.263	128,3308345	0,779235952	11114392	**1028035**
1999	CD	14.040.669	14.041	131,3398658	0,761383449	10690333	**988811**
1972	CFF	538.037		43,68397451	2,289168994	1231658	**612491**
1973	CFF	540.948		47,24023387	2,116839647	1145101	**569447**
1974	CFF	601.410		50,51506257	1,979607565	1190557	**592052**
1975	CFF	572.953		54,11849487	1,847797139	1058702	**526482**
1976	CFF	593.653		55,59627236	1,798681742	1067792	**531002**
1977	CFF	572.776		55,73863902	1,79408758	1027610	**511020**
1978	CFF	558.857		57,75266391	1,731521859	967672	**481214**
1979	CFF	573.903		58,90183522	1,697739971	974337	**484528**
1980	CFF	625.226		60,49587158	1,65300536	1033501	**513950**
1981	CFF	648.657		63,98476179	1,562872115	1013768	**504136**
1982	CFF	700.176		68,3198512	1,463703422	1024849	**509647**
1983	CFF	997.625		70,13930371	1,425734142	1422348	**707319**
1984	CFF	924.888		72,60025847	1,377405564	1273946	**633520**
1985	CFF	991.575		74,31777872	1,345573048	1334237	**663502**
1986	CFF	1.018.731		76,60710538	1,305361944	1329813	**661302**
1987	CFF	1.276.609		78,70479471	1,270570622	1622022	**806615**
1988	CFF	1.251.027		80,94585132	1,235393765	1545511	**768567**
1989	CFF	1.128.328		83,43583234	1,198525828	1352330	**672500**
1990	CFF	1.139.500		87,0022046	1,149396161	1309737	**651319**
1991	CFF	1.191.340	1.191	92,2253027	1,084301131	1291771	**642385**
1992	CFF	1.185.544	1.186	94,75079642	1,0554001	1251224	**622221**
1993	CFF	1.205.218	1.205	97,27662822	1,027996157	1238960	**616122**

A2.3.1.Materials & Energy costs

Materials and Services Rendered by Third Parties total
(less counterpart allocated to another accounts)

Years	Firms	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	$US1995
1994	CFF/SBB/F	1.217.591	1.218	98,88162299	1,011310261	1231362	**612344**
1995	CFF/SBB/F	1.207.656	1.208	100	1	1207656	**600555**
1996	CFF/SBB/F	1.159.249	1.159	100,3695615	0,996317992	1154981	**574360**
1997	CFF/SBB/F	1.157.010	1.157	100,2674049	0,997333082	1153924	**573835**
1998	CFF/SBB/F	1.180.571	1.181	100,4716744	0,995305399	1175029	**584330**
1999	CFF/SBB/F	1.315.746	1.316	101,1675822	0,98845893	1300560	**646755**
1972	CFL	240.610		32,53381949	3,07372456	739569	**19026**
1973	CFL	268.730		36,50374807	2,739444723	736172	**18938**
1974	CFL	316.769		42,70274925	2,3417696	741800	**19083**
1975	CFL	391.169		42,33698321	2,362001079	923942	**23769**
1976	CFL	370.224		47,50886124	2,104870489	779274	**20047**
1977	CFL	395.877		48,06576445	2,080482879	823616	**21188**
1978	CFL	393.188		50,53189646	1,97894809	778099	**20017**
1979	CFL	440.882		53,74262718	1,860720349	820358	**21104**
1980	CFL	506.262		57,99987052	1,72414178	872868	**22455**
1981	CFL	543.766		62,16536268	1,60861283	874709	**22502**
1982	CFL	583.605		68,88572203	1,451679638	847208	**21795**
1983	CFL	582.025		73,5835566	1,358999274	790972	**20348**
1984	CFL	634.795		76,82557172	1,301649929	826280	**21256**
1985	CFL	739.026		79,11499813	1,26398284	934116	**24030**
1986	CFL	675.253		81,29331095	1,230113509	830638	**21368**
1987	CFL	707.389		82,04966562	1,21877401	862147	**22179**
1988	CFL	627.462		82,62897536	1,210229215	759373	**19535**
1989	CFL	753.382		85,49491538	1,169660202	881201	**22669**
1990	CFL	923.749		88,42308113	1,130926436	1044692	**26875**
1991	CFL	985.783		89,73246058	1,114423915	1098581	**28261**
1992	CFL	1.095.000	1095	93,57108592	1,068706204	1170233	**30105**
1993	CFL	1.124.108	1.124	94,26158635	1,060877542	1192541	**30678**
1994	CFL	1.441.394	1.441	99,29557547	1,007094219	1451620	**37343**
1995	CFL	4.235.290	4.235	100	1	4235290	**108954**
1996	CFL	4.504.003	4.504	101,7175152	0,983114853	4427952	**113910**
1997	CFL	4.666.248	4666,24837	105,1106253	0,951378605	4439369	**114204**
1998	CFL	5.108.754	5108,754417	106,684198	0,937345942	4788670	**123190**
1999	CFL	5.516.238	5516,237551	109,0905568	0,916669627	5056567	**130082**
1992	CFR	110.641.024	110.641	9,448375698	10,58382977	1171005769	**2361045**
1993	CFR	233.431.000	233.431	30,92458008	3,233673658	754839676	**1521948**
1994	CFR	521.290.000	521.290	73,90976999	1,353001099	705305943	**1422076**
1995	CFR	739.868.000	739.868	100	1	739868000	**1491761**
1996	CFR	1.243.408.000	1.243.408	144,6050987	0,691538548	859864563	**1733705**
1997	CFR	3.020.194.000	3.020.194	356,7281309	0,280325523	846637464	**1707036**
1998	CFR	4.071.120.915	4.071.121	552,8867988	0,180868851	736338962	**1484646**
1999	CFR	11.488.362.538	11.488.363	809,1986683	0,123579047	1419720890	**2862517**
1972	CH	460.065		2,964949151	33,72739123	15516808	**76406**
1973	CH	551.511		3,541031372	28,2403598	15574858	**76692**
1974	CH	970.205		4,282341948	23,3517083	22655956	**111560**
1975	CH	969.803		4,810642545	20,78724392	20159526	**99267**
1976	CH	1.096.515		5,551018984	18,01471051	19753408	**97268**
1977	CH	1.198.352		6,27001733	15,94891923	19112424	**94111**
1978	CH	1.342.195		7,081724034	14,12085525	18952948	**93326**
1979	CH	1.591.478		8,401955368	11,90199134	18941759	**93271**
1980	CH	1.975.435		9,888044653	10,11322294	19978010	**98374**
1981	CH	2.344.453		11,84141798	8,444934563	19798755	**97491**
1982	CH	2.923.281		14,81309086	6,750785569	19734446	**97174**
1983	CH	3.330.085		17,64499089	5,66733078	18872691	**92931**
1984	CH	4.075.119		21,22397942	4,71165176	19200542	**94545**
1985	CH	2.115.611		24,97370403	4,004211786	8471353	**41714**
1986	CH	7.058.295		29,34874127	3,407301155	24049737	**118423**
1987	CH	8.335.582		33,53323508	2,982116093	24857672	**122402**
1988	CH	10.321.717		38,76031592	2,579958332	26629600	**131127**
1989	CH	8.910.481		44,35194475	2,254692563	20090396	**98927**
1990	CH	9.555.983		53,48841847	1,869563596	17865518	**87972**
1991	CH	13.218.214		64,12541494	1,5594441	20613066	**101501**
1992	CH	10.958.000	10.958	73,76348298	1,355684357	14855589	**73150**
1993	CH	34.098.000	34.098	82,88343704	1,206513672	41139703	**202576**
1994	CH	23.452.000	23.452	91,84025421	1,08884716	25535644	**125740**
1995	CH	18.054.000	18.054	100	1	18054000	**88900**
1996	CH	25.602.000	25.602	107,3808627	0,931264636	23842237	**117402**
1997	CH	41.072.000	41.072	114,5353456	0,873092926	35859673	**176577**
1998	CH	18.156.000	18.156	120,1597414	0,832225493	15109886	**74403**
1999	CH	19.602.000	19.602	123,7821738	0,807870769	15835883	**77977**

A2.3.1.Materials & Energy costs

Materials and Services Rendered by Third Parties total
(less counterpart allocated to another accounts)

Years	Firms	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	$US1995
1972	CIE	12.043		15,1358573	6,606827616	79566	**125360**
1973	CIE	14.835		17,4478069	5,731379339	85025	**133961**
1974	CIE	13.886		18,51004741	5,402471306	75019	**118196**
1975	CIE	22.367		22,23668786	4,497072615	100586	**158478**
1976	CIE	29.011		26,91229621	3,715773608	107798	**169841**
1977	CIE	27.710		30,4825286	3,280567742	90905	**143224**
1978	CIE	34.774		33,69072741	2,968175748	103215	**162621**
1979	CIE	44.096		38,29806682	2,611097852	115139	**181407**
1980	CIE	55.898		43,93066861	2,276314091	127241	**200475**
1981	CIE	67.173		51,59247826	1,938267038	130199	**205135**
1982	CIE	91.146		59,42563315	1,682775508	153378	**241655**
1983	CIE	109.452		65,78943048	1,520000998	166367	**262119**
1984	CIE	118.370		69,98718961	1,428832913	169131	**266474**
1985	CIE	102.612		73,61543733	1,358410731	139389	**219614**
1986	CIE	99.335		78,43787168	1,274894357	126642	**199530**
1987	CIE	75.326		80,16147434	1,247482046	93968	**148051**
1988	CIE	86.918		82,7637664	1,208258207	105019	**165463**
1989	CIE	96.596		87,33344275	1,145036733	110606	**174265**
1990	CIE	104.303		86,69696239	1,153442949	120308	**189550**
1991	CIE	132.942		88,25894777	1,133029597	150627	**237320**
1992	CIE	135.000	135	90,74088452	1,10203907	148775	**234403**
1993	CIE	135.000	135	95,43773017	1,047803629	141453	**222867**
1994	CIE	140.000	140	97,05477059	1,030346055	144248	**227270**
1995	CIE	159.000	159	100	1	159000	**250512**
1996	CIE	151.000	151	102,3339777	0,977192544	147556	**232482**
1997	CIE	116.935	117	106,8400749	0,935978378	109449	**172442**
1998	CIE	93.808	94	113,0063739	0,884905838	83011	**130788**
1999	CIE	117.838	118	117,2833026	0,85263629	100473	**158300**
1972	CP	397.549		3,450219949	28,98365945	11522425	**96766**
1973	CP	365.724		3,776827988	26,47724501	9683364	**81322**
1974	CP	530.548		4,48933508	22,27501361	11817964	**99248**
1975	CP	755.658		5,217972039	19,16453351	14481833	**121620**
1976	CP	1.196.483		6,067151983	16,48219795	19720670	**165616**
1977	CP	1.431.998		7,668884713	13,03970574	18672826	**156816**
1978	CP	1.611.128		9,382745173	10,65786166	17171181	**144205**
1979	CP	1.919.875		11,20650786	8,923386419	17131791	**143874**
1980	CP	2.901.990		13,54901102	7,380612494	21418465	**179874**
1981	CP	3.335.027		15,93484231	6,275556296	20929148	**175765**
1982	CP	5.175.220		19,23181659	5,19971681	26909679	**225990**
1983	CP	5.886.254		23,96384642	4,172952799	24563061	**206283**
1984	CP	8.182.907		29,87711091	3,347043839	27388549	**230011**
1985	CP	9.898.308		36,37076667	2,749460877	27215011	**228554**
1986	CP	11.187.361		43,8090008	2,282635947	25536673	**214459**
1987	CP	13.417.393		48,23230333	2,073299285	27818270	**233620**
1988	CP	9.226.698		53,61763041	1,865058177	17208328	**144517**
1989	CP	17.725.754		60,27439624	1,659079248	29408431	**246975**
1990	CP	18.927.171		67,97401097	1,471150497	27844718	**233842**
1991	CP	21.381.841		76,26001993	1,311303093	28038075	**235466**
1992	CP	23.207.228	23.207	83,87975283	1,192182817	27667259	**232352**
1993	CP	31.736.195	31.736	89,50162597	1,117298138	35458792	**297786**
1994	CP	33.838.030	33.838	95,11977358	1,051306119	35574128	**298755**
1995	CP	34.435.615	34.436	100	1	34435615	**289193**
1996	CP	35.698.354	35.698	103,2618461	0,968411895	34570711	**290328**
1997	CP/REFER	37.359.991	37359,9908	106,3935715	0,939906411	35114895	**294898**
1998	CP/REFER	45.085.433	45085,43327	110,6986649	0,903353262	40728073	**342038**
1999	CP/REFER	46.543.848	46543,84821	115,1723889	0,868263661	40412332	**339386**
		Refer	CP				
1997	REFER	725	36.635	37.360			
1998	REFER	10.584	34.502	45.085			
1999	REFER	12.008	34.536	46.544			
1990	CSD	8.961.803		43,20408453	2,314595971	20742953	**1918636**
1991	CSD	14.883.076		58,8400591	1,699522426	25294121	**2339600**
1992	CSD	16.324.000		66,11220088	1,512580109	24691358	**2283847**
1972	DB	3.619.309		44,81449876	2,231420696	8076201	**4006847**
1973	DB	3.791.872		47,94929875	2,085536235	7908086	**3923440**
1974	DB	4.244.907		51,28831083	1,94976201	8276558	**4106250**
1975	DB	4.259.454		54,33481989	1,840440443	7839271	**3889299**
1976	DB	4.635.861		56,66936892	1,764621733	8180541	**4058613**
1977	DB	4.774.217		58,76108193	1,70180665	8124794	**4030956**
1978	DB	3.597.525		60,33951995	1,657288624	5962137	**2957996**
1979	DB	4.402.476		62,82307801	1,591771737	7007737	**3476750**

A2.3.1.Materials & Energy costs

Materials and Services Rendered by Third Parties total (less counterpart allocated to another accounts)							
Years	**Firms**	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	**$US1995**
1980	DB	5.081.513		66,22831715	1,509928144	7672719	**3806668**
1981	DB	5.191.203		70,41725904	1,420106397	7372061	**3657502**
1982	DB	5.014.590		74,12605294	1,34905335	6764949	**3356296**
1983	DB	4.873.205		76,55441997	1,306260305	6365674	**3158203**
1984	DB	5.059.318		78,39777392	1,275546422	6453395	**3201724**
1985	DB	5.163.397		80,10867291	1,248304289	6445491	**3197802**
1986	DB	5.430.776		80,00852991	1,249866734	6787746	**3367606**
1987	DB	6.882.423		80,20214091	1,246849509	8581346	**4257465**
1988	DB	7.121.991		81,22360989	1,231169116	8768375	**4350256**
1989	DB	7.995.386		83,48018584	1,197889044	9577585	**4751729**
1990	DB	8.022.281		85,73121	1,16643637	9357480	**4642528**
1991	DB	8.891.895		87,80633581	1,138869981	10126713	**5024168**
1992	DB	9.224.408	9.224	92,23034191	1,084241887	10001490	**4962041**
1993	DB	9.229.021	9.229	95,61439798	1,04586759	9652334	**4788814**
1994	DB AG	8.931.979	8.932	98,01339793	1,020268679	9113018	**4521243**
1995	DB AG	10.923.291	10.923	100	1	10923291	**5419374**
1996	DB AG	13.178.027	13.178	101,0254676	0,989849415	13044263	**6471652**
1997	DB AG	13.178.027	13.178	101,8188886	0,982136039	12942615	**6421222**
1998	DB AG	13.319.747	13.320	102,8706572	0,972094499	12948053	**6423920**
1999	DB AG	18.536.196	18.536	103,8796452	0,962652499	17843915	**8852905**
1972	DSB	532.703		22,35522682	4,473226813	2382900	**283116**
1973	DSB	599.702		24,75963723	4,038831388	2422096	**287773**
1974	DSB	761.410		28,13498738	3,554293401	2706276	**321536**
1975	DSB	1.016.198		32,02989894	3,122082907	3172655	**376948**
1976	DSB	1.043.054		34,92308976	2,863435071	2986717	**354856**
1977	DSB	1.034.237		38,3664893	2,606441241	2695677	**320277**
1978	DSB	1.093.548		42,00511564	2,380662414	2603368	**309310**
1979	DSB	992.521		45,32433061	2,206320505	2189819	**260176**
1980	DSB	1.280.637		49,22445663	2,03151049	2601627	**309103**
1981	DSB	1.569.424		55,02252853	1,817437378	2852330	**338889**
1982	DSB	1.947.925		61,13470638	1,635732073	3186283	**378567**
1983	DSB	2.013.607		66,25960164	1,509215231	3038966	**361064**
1984	DSB	2.135.942		70,25096957	1,423467898	3040445	**361240**
1985	DSB	2.280.562		73,70956707	1,356675992	3093984	**367601**
1986	DSB	2.333.951		76,62855171	1,304996607	3045798	**361876**
1987	DSB	2.165.718		80,55820947	1,241338414	2688389	**319411**
1988	DSB	2.302.345		82,60900292	1,210521813	2787039	**331132**
1989	DSB	2.452.127		86,93035308	1,150346185	2820795	**335143**
1990	DSB	2.673.604		90,10752046	1,109785282	2967126	**352528**
1991	DSB	2.672.473		92,60589759	1,079844833	2885856	**342873**
1992	DSB	2.837.000	2.837	95,28668596	1,04946456	2977331	**353741**
1993	DSB	2.862.000	2.862	96,6064696	1,035127362	2962535	**351983**
1994	DSB	2.925.000	2.925	98,27150388	1,017588986	2976448	**353636**
1995	DSB	2.834.802	2.835	100	1	2834802	**336807**
1996	DSB	3.070.000	3.070	102,482636	0,975775057	2995629	**355915**
1997	DSB	2.379.000	2.379				
1998	DSB	2.586.000	2.586				
1999	DSB	.					
1992	EVR	135.000	135	30,14501415	3,31729816	447835	**104995**
1993	EVR	270.000	270	54,25839441	1,843032789	497619	**116667**
1994	EVR	405.000	405	75,83670974	1,318622608	534042	**125206**
1995	EVR	380.000	380	100	1	380000	**89091**
1996	EVR	399.153	399	123,9943695	0,806488233	321912	**75472**
1997	EVR	699.035	699	137,4761096	0,727399112	508478	**119212**
1998	EVR	783.498	783	149,6565947	0,668196415	523530	**122742**
1999	EVR	922.410	922	155,4828313	0,643157827	593255	**139088**
1972	FS	267.540.664		8,05502554	12,41460992	3321412978	**2142418**
1973	FS	344.429.879		9,157928041	10,91950052	3761002240	**2425967**
1974	FS	516.440.849		11,04662563	9,052538152	4675100487	**3015590**
1975	FS	535.393.870		12,82530222	7,797087215	4174512699	**2692695**
1976	FS	670.580.709		15,1704278	6,591771922	4420315089	**2851245**
1977	FS	1.034.352.807		17,96398814	5,566692608	5757924125	**3714046**
1978	FS	1.161.021.567		20,43612145	4,893296424	5681222681	**3664571**
1979	FS	1.345.127.735		23,71714588	4,216358938	5671541348	**3658326**
1980	FS	1.671.858.679		28,6761631	3,48721688	5830133806	**3760623**
1981	FS	2.170.843.198		34,14976063	2,928278212	6356832839	**4100361**
1982	FS	2.827.879.262		39,97177282	2,501765445	7074690620	**4563402**
1983	FS	3.728.070.126		45,99214333	2,174284405	8105884737	**5228556**
1984	FS	4.894.326.525		51,2770541	1,950190036	9544866823	**6156745**
1985	FS	4.635.938.406		55,84686844	1,790610697	8301160899	**5354515**

A2.3.1.Materials & Energy costs

Materials and Services Rendered by Third Parties total
(less counterpart allocated to another accounts)

Years	Firms	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	$US1995
1986	FS	3.183.290.176		60,26544028	1,659325802	5282115524	**3407134**
1987	FS	3.248.205.365		63,99249995	1,562683128	5075915720	**3274128**
1988	FS	3.386.610.813		68,32575765	1,463576892	4956565327	**3197144**
1989	FS	3.421.468.600		72,73672022	1,374821406	4703908272	**3034172**
1990	FS	4.212.393.759		78,71970142	1,270330022	5351130255	**3451651**
1991	FS	4.329.400.233	4.329.400	84,68384249	1,180862808	5112427714	**3297680**
1992	FS	3.837.021.079	3.837.021	88,53367537	1,129513709	4333967909	**2795548**
1993	FS	3.028.788.967	3.028.789	92,01118292	1,086824414	3291761796	**2123292**
1994	FS	2.888.668.991	2.888.669	95,2145118	1,050260072	3033853702	**1956933**
1995	FS	3.207.155.971	3.207.156	100	1	3207155971	**2068718**
1996	FS SpA	3.467.709.929	3.467.710	105,2833447	0,949817849	3293692784	**2124537**
1997	FS SpA	3.611.005.352	3.611.005	107,8402062	0,92729793	3348477789	**2159876**
1998	FS SpA	3.903.552.079	3.903.552	110,7024308	0,903322531	3526166543	**2274491**
1999	FS SpA	4.004.600.949	4.004.601	112,339462	0,89015915	3564732176	**2299367**
1991	MAV	23.709.599	23.710	44,81081547	2,23160411	52910438	**873797**
1992	MAV	24.213.391	24.213	54,44925446	1,836572438	44469646	**734401**
1993	MAV	25.597.012	25.597	66,03521497	1,514343522	38762669	**640152**
1994	MAV	36.049.748	36.050	78,90617851	1,267327881	45686850	**754502**
1995	MAV	40.260.547	40.261	100	1	40260547	**664889**
1996	MAV Rt.	45.035.150	45.035	121,1743126	0,825257415	37165591	**613777**
1997	MAV Rt.	53.801.873	53.802	143,5541557	0,69660122	37478450	**618943**
1998	MAV Rt.	58.631.811	58.632	161,6973917	0,618439166	36260208	**598825**
1999	MAV Rt.	63.254.934	63.255	176,2158799	0,567485746	35896273	**592814**
1972	NS	330.991		41,80899756	2,39182965	791675	**390488**
1973	NS	236.887		45,57557287	2,194157828	519767	**256371**
1974	NS	281.828		49,74829983	2,010118945	566507	**279425**
1975	NS	342.684		54,82386365	1,824023214	625063	**308308**
1976	NS	375.314		59,73388174	1,674091773	628311	**309910**
1977	NS	396.779		63,71112081	1,569584693	622778	**307181**
1978	NS	411.839		67,08879039	1,490561976	613872	**302788**
1979	NS	465.494		69,85422663	1,431552604	666380	**328687**
1980	NS	553.678		73,71190067	1,356633042	751138	**370493**
1981	NS	623.712		77,66953406	1,287506114	803033	**396090**
1982	NS	666.418		81,84422078	1,221833369	814251	**401623**
1983	NS	673.722		83,55040958	1,196882224	806365	**397734**
1984	NS	668.927		84,72249762	1,180324032	789551	**389440**
1985	NS	996.799		86,21125014	1,159941421	1156229	**570301**
1986	NS	913.286		86,32912294	1,15835765	1057912	**521807**
1987	NS	698.580		85,70483619	1,166795299	815100	**402042**
1988	NS	750.244		86,71100425	1,153256162	865224	**426765**
1989	NS	856.404		87,77028587	1,13933775	975733	**481273**
1990	NS	936.567		89,79916494	1,113596102	1042958	**514431**
1991	NS	1.133.201		92,22823678	1,084266636	1228692	**606043**
1992	NS	1.265.963	1.266	94,31761345	1,060247353	1342234	**662047**
1993	NS	1.248.770	1.249	96,1435903	1,040110939	1298859	**640653**
1994	NS	1.404.420	1.404	98,39797941	1,016281031	1427285	**703998**
1995	NS	3.357.000	3.357	100	1	3357000	**1655815**
1996	NS	3.519.000	3.519	101,1699494	0,988435801	3478306	**1715648**
1997	NS B.V.	1.081.000	1.081	103,1712916	0,969261879	1047772	
1998	NS B.V.	1.203.000	1.203	105,1200165	0,951293611	1144406	
1999	NS B.V.	.		106,4825566			
1997	NS N.V.	2.459.233	2.459	103,1712916	0,969261879	2383641	
1998	NS N.V.	2.614.802	2.615	105,1200165	0,951293611	2487445	
1999	NS N.V.	.					
1997	NS B.V./N.V.					3431413	**1692519**
1998	NS B.V./N.V.					3631851	**1791383**
1972	NSB	214.714		26,12466263	3,827800628	821882	**89880**
1973	NSB	222.100		28,52323311	3,505913919	778663	**85154**
1974	NSB	261.155		31,44796292	3,179856204	830435	**90816**
1975	NSB	296.581		34,60456312	2,889792299	857057	**93727**
1976	NSB	351.803		37,19301563	2,688676847	945885	**103441**
1977	NSB	397.402		40,28764042	2,482150828	986412	**107873**
1978	NSB	424.852		42,87325747	2,332456312	990949	**108369**
1979	NSB	507.374		45,28484835	2,208244118	1120406	**122526**
1980	NSB	617.140		51,22485267	1,952177406	1204767	**131752**
1981	NSB	730.041		57,81375008	1,729692329	1262746	**138093**
1982	NSB	784.158		63,81950392	1,566919106	1228712	**134371**

A2.3.1.Materials & Energy costs

Materials and Services Rendered by Third Parties total
(less counterpart allocated to another accounts)

Years	Firms	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	**$US1995**
1983	NSB	848.050		68,27995759	1,464558613	1242019	**135826**
1984	NSB	894.637		72,61352314	1,377153947	1232053	**134736**
1985	NSB	1.002.458		76,39993414	1,308901652	1312119	**143492**
1986	NSB	1.195.497		75,67572296	1,321427746	1579763	**172761**
1987	NSB	1.159.267		80,92129067	1,235768723	1432586	**156666**
1988	NSB	1.367.432		84,93554699	1,177363348	1609964	**176064**
1989	NSB	1.497.413		89,78675309	1,113750042	1667744	**182383**
1990	NSB	1.619.147		93,25791383	1,072295057	1736203	**189869**
1991	NSB	2.329.738		95,53386745	1,046749207	2438651	**266688**
1992	NSB	3.600.723	3.601	95,11907254	1,051313867	3785490	**413977**
1993	NSB	3.277.067	3.277	97,16045611	1,029225304	3372840	**368850**
1994	NSB	3.266.000	3.266	97,00638238	1,030860007	3366789	**368188**
1995	NSB	1.538.296	1.538	100	1	1538296	**168226**
1996	NSB BA	1.963.379	1.963	104,348906	0,958323415	1881553	.
1997	NSB BA	2.005.000	2.005	107,4729152	0,930466991	1865586	.
1998	NSB BA	2.046.000	2.046	106,6323832	0,937801416	1918742	.
1999	NSB BA	.	.	113,6623943			.
1996	JBV	.	.	104,348906			.
1997	JBV	1.125.000	1.125	107,4729152	0,930466991	1046775	.
1998	JBV	.	.	106,6323832			.
1999	JBV	.	.	113,6623943			.
1998	MTAS	.					.
1999	MTAS	.					.
1972	OBB	2.406.300		37,23804858	2,685425359	6461939	**470541**
1973	OBB	2.609.173		40,2352641	2,485381971	6484792	**472205**
1974	OBB	3.030.918		44,0578191	2,269744669	6879411	**500940**
1975	OBB	3.089.807		46,90233427	2,132090045	6587747	**479702**
1976	OBB	3.308.137		49,54120493	2,018521757	6677546	**486241**
1977	OBB	6.821.613		52,35644267	1,909984615	13029176	**948749**
1978	OBB	7.352.561		55,48356619	1,802335482	13251781	**964959**
1979	OBB	8.288.517		57,41305745	1,741764059	14436641	**1051237**
1980	OBB	8.679.649		60,28196643	1,658870902	14398416	**1048454**
1981	OBB	9.402.608		64,23726019	1,556728909	14637312	**1065850**
1982	OBB	10.012.687		67,66314152	1,477909505	14797845	**1077539**
1983	OBB	10.528.183		70,13735487	1,425773758	15010806	**1093046**
1984	OBB	10.475.699		73,38705356	1,362638165	14274587	**1039437**
1985	OBB	10.642.818		75,64925531	1,321890078	14068635	**1024440**
1986	OBB	10.520.274		77,69567727	1,287072892	13540359	**985972**
1987	OBB	10.195.466		79,33581695	1,260464741	12851025	**935777**
1988	OBB	10.142.046		80,58688359	1,240896726	12585231	**916423**
1989	OBB	11.034.368		82,79503549	1,207801886	13327331	**970460**
1990	OBB	12.806.539		85,64903073	1,167555536	14952345	**1088789**
1991	OBB	7.999.618		88,85674509	1,125406967	9002826	**655561**
1992	OBB	8.625.500	8.626	92,7025066	1,078719483	9304495	**677528**
1993	OBB	9.584.200	9.584	95,28114803	1,049525557	10058863	**732459**
1994	OBB	13.042.900	13.043	97,91541449	1,021289656	13320579	**969969**
1995	OBB	12.117.500	12.118	100	1	12117500	**882364**
1996	OBB	12.298.700	12.299	101,2802253	0,987359573	12143239	**884238**
1997	OBB	10.907.900	10.908	102,904913	0,9717709	10599980	**771862**
1998	OBB	12.673.900	12.674	103,5459052	0,965755235	12239885	**891275**
1999	OBB	14.069.420	14.069	104,4641816	0,957265911	13468176	**980716**
1991	PKP	13.416.759.000	13416759	33,19733737	3,012289777	40415165981	**3554231**
1992	PKP	13.155.561.000	13155561	46,20243836	2,164387932	28473737465	**2504066**
1993	PKP	19.918.072.000	19918072	56,91337189	1,757056324	34997174369	**3077757**
1994	PKP	25.384.092.000	25384092	77,75611624	1,286072464	32645781745	**2870968**
1995	PKP	27.065.256.488	27.065.256	100	1	27065256488	**2380200**
1996	PKP	28.236.884.288	28.236.884	118,7503262	0,84210295	23778363565	**2091141**
1997	PKP	29.349.846.245	29.349.846	135,4223215	0,738430702	21672827579	**1905974**
1998	PKP	28.869.322.244	28.869.322	151,4361167	0,660344455	19063696876	**1676519**
1999	PKP	25.970.962.589	25.970.963	161,7648147	0,618181402	16054766074	**1411905**
1972	RENFE	6.846.874		8,968953353	11,14957298	76339721	**625340**
1973	RENFE	7.544.921		10,03173826	9,968362149	75210501	**616090**
1974	RENFE	11.514.597		11,63131019	8,597483721	98996562	**810934**
1975	RENFE	15.484.274		13,58325155	7,362007517	113995339	**933797**
1976	RENFE	19.766.141		15,8231183	6,3198668	124919381	**1023282**
1977	RENFE	24.346.920		19,52304973	5,122150555	124708589	**1021555**
1978	RENFE	25.580.636		23,55085953	4,246129526	108618692	**889754**
1979	RENFE	28.060.233		27,53840373	3,631292539	101894916	**834676**

A2.3.1.Materials & Energy costs

Materials and Services Rendered by Third Parties total
(less counterpart allocated to another accounts)

Years	Firms	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	$US1995
1980	RENFE	39.958.232		31,21610989	3,203474115	128005161	**1048559**
1981	RENFE	51.856.230		35,14243768	2,84556242	147560140	**1208744**
1982	RENFE	72.890.212		40,0376701	2,497647834	182054080	**1491303**
1983	RENFE	.			1,025235291	186648268	**1528936**
1984	RENFE	.			0,980791458	178557087	**1462657**
1985	RENFE	.			0,914194507	166432840	**1363341**
1986	RENFE	94.737.000		59,77525882	1,672932949	158488649	**1298266**
1987	RENFE	98.564.000		63,26994745	1,580529209	155783281	**1276105**
1988	RENFE	94.920.000		66,84776989	1,495936217	141994266	**1163151**
1989	RENFE	99.766.000		71,5879367	1,396883394	139361469	**1141585**
1990	RENFE	109.408.000		76,82144289	1,301719888	142418569	**1166627**
1991	RENFE	124.569.000	124.569	82,28126216	1,215343535	151394129	**1240151**
1992	RENFE	134.320.000	134.320	87,93506373	1,137202792	152749079	**1251250**
1993	RENFE	126.321.949	126.322	91,75163725	1,089898807	137678142	**1127796**
1994	RENFE	118.772.385	118.772	95,40750174	1,04813561	124489567	**1019761**
1995	RENFE	126.717.876	126.718	100	1	126717876	**1038014**
1996	RENFE	123.881.023	123.881	103,4434929	0,966711363	119757193	**980996**
1997	RENFE	119.323.542	119.324	105,6538545	0,946487002	112938181	**925137**
1998	RENFE	125.318.404	125.318	108,0789038	0,925249947	115950847	**949816**
1999	RENFE	137.501.141	137.501	111,4809375	0,897014344	123340496	**1010348**
1972	SJ	340.676		18,38047791	5,440554946	1853466	**190527**
1973	SJ	394.774		19,67332092	5,083025911	2006646	**206273**
1974	SJ	524.927		21,53416774	4,643782904	2437647	**250578**
1975	SJ	675.302		24,65938629	4,055250963	2738519	**281506**
1976	SJ	840.231		27,59845497	3,623391241	3044486	**312958**
1977	SJ	1.074.539		30,5044085	3,278214688	3522570	**362103**
1978	SJ	1.300.971		33,41727789	2,992463968	3893109	**400192**
1979	SJ	1.503.354		36,07169412	2,772256819	4167683	**428417**
1980	SJ	1.433.175		40,29846668	2,481483993	3556401	**365580**
1981	SJ	1.412.309		44,14643959	2,265188335	3199146	**328856**
1982	SJ	1.477.370		47,79049246	2,092466406	3091347	**317775**
1983	SJ	1.601.595		52,60164402	1,901081266	3044762	**312986**
1984	SJ	2.965.353		56,58993316	1,767098747	5240072	**538653**
1985	SJ	4.530.995		60,34198179	1,65722101	7508860	**771873**
1986	SJ	3.451.900		64,4792726	1,550885982	5353503	**550313**
1987	SJ	3.414.800		67,5510316	1,480362293	5055141	**519643**
1988	SJ	3.628.800		71,93056455	1,3902296	5044865	**518587**
1989	SJ/BV	6.544.375	6544375	77,70615103	1,286899411	8421952	**865735**
1990	SJ/BV	6.385.062	6385062	84,57734094	1,182349775	7549377	**776038**
1991	SJ/BV	6.348.000	6348000	91,03245498	1,098509318	6973337	**716824**
1992	SJ/BV	7.093.000	7.093	91,98780716	1,087100596	7710805	**792632**
1993	SJ/BV	8.849.000	8.849	94,36988029	1,059660134	9376933	**963902**
1994	SJ/BV	12.942.000	12.942	96,61205682	1,035067499	13395844	**1377026**
1995	SJ/BV	15.713.000	15.713	100	1	15713000	**1615218**
1996	SJ/BV	6.811.000	6.811	101,4187633	0,98601084	6715720	**690342**
1997	SJ/BV	6.818.000	6.818	102,663511	0,974055914	6641113	**682673**
1998	SJ/BV	7.312.000	7.312	103,9588169	0,961919373	7033554	**723014**
1999	SJ/BV	6.896.000	6.896	104,509274	0,956852882	6598457	**678288**
		BV	SJ				
1989	BV	2.492.675	4.051.700	6.544.375			
1990	BV	2.528.062	3.857.000	6.385.062			
1991	BV	2.798.000	3.550.000	6.348.000			
1992	BV	3.674	3.419	7.093			
1993	BV	5.041	3.808	8.849			
1994	BV	8.206	4.736	12.942			
1995	BV	9.928	5.785	15.713			
1996	BV	1.398	5.413	6.811			
1997	BV	1.190	5.628	6.818			
1998	BV	1.264	6.048	7.312			
1999	BV	1.339	5.557	6.896			
2000	BV	1.413					
2001	BV	1.764					
1972	SNCB	8.842.595		31,11939959	3,213429607	28415057	**773352**
1973	SNCB	8.805.410		33,34096157	2,999313616	26410187	**718787**
1974	SNCB	11.039.274		37,55392537	2,66283748	29395793	**800044**
1975	SNCB	13.145.871		42,16226672	2,37178899	31179233	**848583**
1976	SNCB	14.655.797		45,38219002	2,203507587	32294159	**878927**
1977	SNCB	18.810.663		48,82983978	2,04792808	38522885	**1048450**
1978	SNCB	19.038.998		51,02418104	1,959855072	37313677	**1015540**
1979	SNCB	19.566.610		53,40933801	1,872331763	36635185	**997074**
1980	SNCB	25.458.111		55,64424907	1,797130911	45751558	**1245188**
1981	SNCB	31.482.189		58,72318891	1,702904795	53611171	**1459097**

A2.3.1.Materials & Energy costs

Materials and Services Rendered by Third Parties total
(less counterpart allocated to another accounts)

Years	Firms	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	$US1995
1982	SNCB	27.605.716		62,76314529	1,593291725	43983959	**1197080**
1983	SNCB	28.321.363		66,42774692	1,505395029	42634839	**1160362**
1984	SNCB	24.593.876		69,82887726	1,432072288	35220209	**958563**
1985	SNCB/NMB	24.624.092		74,05620654	1,350325714	33250545	**904956**
1986	SNCB/NMB	25.138.574		76,71455573	1,303533587	32768976	**891850**
1987	SNCB/NMB	18.629.848		78,34564925	1,276395064	23779046	**647177**
1988	SNCB/NMB	14.925.598		80,00745671	1,2498835	18655258	**507727**
1989	SNCB/NMB	13.892.152		83,70889345	1,194616198	16595790	**451676**
1990	SNCB/NMB	16.097.690		86,34062387	1,158203352	18644399	**507431**
1991	SNCB/NMB	21.394.522		89,10100671	1,122321775	24011538	**653505**
1992	SNCB/NMB	27.023.140	27.023	92,33024054	1,083068769	29267919	**796564**
1993	SNCB/NMB	44.215.779	44.216	96,17027719	1,039822312	45976553	**1251311**
1994	SNCB/NMB	41.741.680	41.742	98,3600489	1,016672939	42437637	**1154995**
1995	SNCB/NMB	23.370.941	23.371	100	1	23370941	**636070**
1996	SNCB/NMB	25.697.018	25.697	101,1610711	0,988522551	25402082	**691350**
1997	SNCB/NMB	25.992.608	25.993	102,5152378	0,975464742	25354873	**690066**
1998	SNCB/NMB	27.564.022	27.564	104,1403656	0,960242451	26468144	**720365**
1999	SNCB/NMB	29.897.916	29.898	105,0956638	0,951514044	28448287	**774257**
1972	SNCF	4.303.359		22,33396593	4,477485115	19268224	**2982605**
1973	SNCF	5.016.519		24,22379709	4,128171964	20709052	**3205636**
1974	SNCF	6.208.805		27,09349795	3,690922456	22916217	**3547292**
1975	SNCF	6.890.214		30,6076893	3,267152872	22511384	**3484626**
1976	SNCF	7.511.007		34,01565242	2,939823078	22081030	**3418010**
1977	SNCF	8.230.139		37,16543865	2,690671862	22144604	**3427851**
1978	SNCF	9.103.316		40,92568321	2,443453405	22243527	**3443164**
1979	SNCF	10.452.894		45,02064757	2,221203057	23218001	**3594007**
1980	SNCF	11.957.391		50,03567565	1,998573991	23897730	**3699225**
1981	SNCF	13.363.581		55,55448839	1,800034577	24054908	**3723555**
1982	SNCF	15.239.385		61,94615896	1,614305095	24601018	**3808089**
1983	SNCF	17.066.975		67,52392031	1,480956667	25275450	**3912487**
1984	SNCF	17.864.743		72,25983071	1,383894745	24722925	**3826960**
1985	SNCF	17.088.896		76,18402074	1,312611215	22431077	**3472195**
1986	SNCF	16.663.635		80,07147385	1,248884218	20810951	**3221410**
1987	SNCF	16.406.467		82,36562524	1,214098718	19919071	**3083352**
1988	SNCF	16.106.192		84,84737911	1,178586788	18982546	**2938384**
1989	SNCF	17.200.086		87,4928836	1,142950099	19658839	**3043070**
1990	SNCF	18.851.909		90,03625443	1,110663706	20938131	**3241096**
1991	SNCF	21.645.400		92,69321912	1,078827566	23351655	**3614695**
1992	SNCF	23.470.534	23.471	94,53977389	1,057755862	24826095	**3842930**
1993	SNCF	23.318.973	23.319	96,73124311	1,033792152	24106971	**3731614**
1994	SNCF	23.362.292	23.362	98,35581838	1,016716669	23752832	**3676795**
1995	SNCF	24.815.825	24.816	100	1	24815825	**3841340**
1996	SNCF	23.815.960	23.816	101,4473209	0,985733276	23476184	**3633972**
1997	SNCF/RFF	54.436.965	54436,96502	102,7531586	0,973206093	52978386	**8200735**
1998	SNCF/RFF	47.767.265	47767,26498	103,6878546	0,964433109	46068332	**7131100**
1999	SNCF/RFF	48.275.281	48275,28141	104,076163	0,960834807	46384571	**7180052**
			sncf				
1997	RFF	19.517	34.920	54.437			
1998	RFF	19.494	28.273	47.767			
1999	RFF	19.956	28.781	48.737			
1992	SZ	8.083.755	8.084	51,63768331	1,936570225	15654759	**181279**
1993	SZ	10.058.606	10.059	70,81437817	1,412142598	14204187	**164482**
1994	SZ	13.542.789	13.543	86,8334677	1,151629696	15596278	**180602**
1995	SZ	13.542.789	13.543	100	1	13542789	**156823**
1996	SZ	16.879.452	16.879	111,1411715	0,899756577	15187398	**175867**
1997	SZ	17.194.376	17.194	120,8860194	0,827225518	14223626	**164707**
1998	SZ	19.872.909	19.873	130,3396724	0,767226111	15247015	**176558**
1999	SZ	21.704.796	21.705	138,9032545	0,719925536	15625837	**180944**
1972	TCDD	977.250		0,010185226	9818,142752	9594780005	**429600**
1973	TCDD	1.040.997		0,012461226	8024,89268	8353889205	**374040**
1974	TCDD	1.510.516		0,016133489	6198,287168	9362611940	**419205**
1975	TCDD	1.895.304		0,019440193	5143,981755	9749409195	**436524**
1976	TCDD	1.999.272		0,022275287	4489,279953	8975291711	**401863**
1977	TCDD	2.077.654		0,02755213	3629,483418	7540810742	**337635**
1978	TCDD	2.852.657		0,040416718	2474,223679	7058111496	**316022**
1979	TCDD	4.836.059		0,071071034	1407,042993	6804542931	**304669**
1980	TCDD	14.010.822		0,131513241	760,3797084	10653544747	**477006**
1981	TCDD	21.465.996		0,189899609	526,5940285	11303865308	**506123**
1982	TCDD	27.935.380		0,243433776	410,7893385	11475556271	**513811**
1983	TCDD	36.252.496		0,307287124	325,4285401	11797596848	**528230**
1984	TCDD	56.695.708		0,45739498	218,6294219	12395349865	**554994**

A2.3.1.Materials & Energy costs

Materials and Services Rendered by Third Parties total
(less counterpart allocated to another accounts)

Years	Firms	LCU (local currency prices)	LCU * 10^(-3)	GDP deflator	100/(GDPdefl.)	const.1995 local currency prices	$US1995
1985	TCDD	75.335.950		0,696042307	143,6694278	10823472826	**484614**
1986	TCDD	91.011.801		0,942304022	106,1228624	9658432833	**432450**
1987	TCDD	106.844.396		1,258860249	79,43693516	8487391357	**380018**
1988	TCDD	180.564.667		2,131847927	46,90766107	8469866202	**379233**
1989	TCDD	347.318.007		3,744682811	26,70453148	9274964650	**415281**
1990	TCDD	648.515.726		5,92462806	16,87869669	10946100236	**490105**
1991	TCDD	1.174.070.000	1.174.070	9,406729753	10,63068703	12481170724	**558836**
1992	TCDD	2.351.461.000	2.351.461	15,42996563	6,480895835	15239573800	**682342**
1993	TCDD	3.226.093.000	3.226.093	25,82024494	3,872929952	12494432209	**559430**
1994	TCDD	5.616.544.000	5.616.544	53,47751111	1,869944916	10502627897	**470248**
1995	TCDD	10.051.184.000	10.051.184	100	1	10051184000	**450035**
1996	TCDD	18.860.475.000	18.860.475	178,2623215	0,560971041	10580180289	**473721**
1997	TCDD	37.218.635.000	37.218.635	323,6106743	0,309013293	11501052950	**514952**
1998	TCDD	65.172.756.000	65.172.756	568,5165177	0,175896385	11463652149	**513278**
1999	TCDD	101.583.695.000	101.583.695	887,9969755	0,112612996	11439644255	**512203**
1972	VR	156.055		17,94297997	5,573210255	869727	**148380**
1973	VR	185.408		20,4689578	4,885446586	905801	**154534**
1974	VR	260.527		25,07074368	3,988712951	1039167	**177287**
1975	VR	326.392		28,39555734	3,521677662	1149447	**196101**
1976	VR	351.980		32,1592596	3,109524325	1094490	**186725**
1977	VR	410.272		35,28751997	2,833863079	1162655	**198354**
1978	VR	413.575		37,99459289	2,631953454	1088510	**185705**
1979	VR	291.497		41,38007737	2,416621871	704438	**120181**
1980	VR	415.130		45,40892855	2,202210076	914203	**155967**
1981	VR	506.208		50,3818882	1,984840259	1004742	**171414**
1982	VR	571.772		54,91108001	1,821126082	1041269	**177645**
1983	VR	606.315		59,52693009	1,67991193	1018556	**173771**
1984	VR	621.104		64,56093282	1,548924336	962043	**164129**
1985	VR	721.145		68,10785657	1,468259391	1058828	**180641**
1986	VR	610.653		71,03110573	1,40783392	859698	**146669**
1987	VR	615.347		74,04141985	1,350595386	831085	**141787**
1988	VR	621.167		80,05352728	1,249164196	775940	**132379**
1989	VR	749.566		84,95789412	1,177053657	882279	**150521**
1990	VR	.					.
1991	VR	868.508		91,22025366	1,096247774	952100	**162433**
1992	VR	902.257	902	92,00506397	1,086896696	980660	**167305**
1993	VR	887.333	887	94,16083512	1,062012671	942359	**160771**
1994	VR	1.075.534	1.076	96,03987158	1,041234212	1119883	**191057**
1995	VR	.	.				.
1996	VR+RHK	1.918.291	1.918	99,77231003	1,002282096	1922669	**328017**
1997	VR+RHK	2.075.332	2.075	101,8240895	0,982085875	2038155	**347719**
1998	VR+RHK	2.012.320	2.012	104,9889874	0,952480851	1916696	**326998**
1999	VR+RHK	1.998.961	1.999	105,6739506	0,946307008	1891631	**322721**
				VR			
1995	RHK	.					
1996	RHK	894.000	894	1.024	1.918		
1997	RHK	921.000	921	1.154	2.075		
1998	RHK	923.809	924	1.089	2.012		
1999	RHK	917.217	917	1.082	1.999		
1993	ZSR	5.329.315	5.329	80,10664437	1,2483359	6652775	**559216**
1994	ZSR	6.483.837	6.484	91,12587949	1,097383099	7115253	**598091**
1995	ZSR	8.780.008	8.780	100	1	8780008	**738027**
1996	ZSR	9.109.569	9.110	104,5130205	0,956818581	8716205	**732663**
1997	ZSR	10.256.303	10.256	111,3981946	0,897680617	9206884	**773909**
1998	ZSR	10.310.767	10.311	117,1000174	0,853970838	8805095	**740135**
1999	ZSR	8.942.695	8.943	124,8000564	0,801281689	7165618	**602325**

A2.3.2.Materials and energy Prices :PEM

Years	Firms	M&E costs	Train movements (train.Kms)	PEM (M&E prices)
1992	BC	2168823	83030	26,12095434
1993	BC	1666074	71959	23,15310635
1994	BC	1551462	62102	24,98248051
1996	BC	1221525	58164	21,00140066
1997	BC	1214687	59151	20,53535064
1998	BC	930305	57573	16,15870337
1999	BC	1098828	56186	19,55696483
1992	BDZ	494030	46143	10,70649909
1993	BDZ	463871	47136	9,841113282
1994	BDZ	343203	47433	7,235529361
1995	BDZ	366079	47578	7,694291801
1996	BDZ	305328	45058	6,776328883
1997	BDZ	239958	45546	5,268481565
1998	BDZ	246184	40756	6,040437218
1999	BDZ	350777	40438	8,674429395
1972	BR	2220765	431164	5,150628004
1973	BR	2317312	432606	5,356633637
1974	BR	2816549	432921	6,50591805
1975	BR	3087784	435470	7,0906923
1976	BR	2911919	426777	6,823045365
1977	BR	3099125	425654	7,280854972
1978	BR	3296298	429785	7,669643386
1979	BR	3410665	426677	7,993553192
1980	BR	3725501	430273	8,658457942
1981	BR	3073019	418148	7,349118127
1982	BR	2845149	371292	7,662833889
1983	BR	2779557	401680	6,919828627
1984	BR	3520978	484186	7,271952494
1985	BR	2939090	393181	7,475157976
1986	BR	2754007	394433	6,982192861
1987	BR	2716542	392000	6,929954611
1988	BR	2597921	425145	6,110670941
1989	BR	3038644	439662	6,91131873
1990	BR	2726729	432047	6,311185149
1991	BR	2737701	427981	6,396780721
1992	BR	1955596	416643	4,693697764
1993	BR	1716393	418656	4,099768603
1994	BR	7876282	404910	19,45193223
1995	BR	8421961	411700	20,45654767
1993	CD	1470828	143773	10,23021146
1994	CD	2346646	148728	15,77810415
1995	CD	2550755	158783	16,06440816
1996	CD	1491381	153698	9,703318801
1997	CD	1251354	143858	8,698535896
1998	CD	1028035	136623	7,524609408
1999	CD	988811	136489	7,24462096
1972	CFF	612491	90203	6,79013821
1973	CFF	569447	90505	6,291883765
1974	CFF	592052	90152	6,567259488
1975	CFF	526482	88508	5,948406296
1976	CFF	531002	91493	5,803747017
1977	CFF	511020	92893	5,501165453
1978	CFF	481214	93362	5,154276814
1979	CFF	484528	94181	5,144646999
1980	CFF	513950	95922	5,357995032
1981	CFF	504136	95443	5,28206856
1982	CFF	509647	101706	5,010984284
1983	CFF	707319	105907	6,678681509
1984	CFF	633520	106305	5,959458666
1985	CFF	663502	105812	6,270576213
1986	CFF	661302	105886	6,245417166
1987	CFF	806615	111648	7,224624666
1988	CFF	768567	117558	6,537766793
1989	CFF	672500	118429	5,678505438
1990	CFF	651319	121809	5,347049282
1991	CFF	642385	123076	5,219415117
1992	CFF	622221	121481	5,121958717
1993	CFF	616122	117695	5,234902936
1994	CFF/SBB/FFS	612344	121262	5,049757589
1995	CFF/SBB/FFS	600555	116818	5,140946151
1996	CFF/SBB/FFS	574360	116177	4,943837819
1997	CFF/SBB/FFS	573835	116814	4,912380414
1998	CFF/SBB/FFS	584330	123487	4,731914125
1999	CFF/SBB/FFS	646755	127500	5,072591576
1972	CFL	19026	4475	4,25153293
1973	CFL	18938	4490	4,217864259
1974	CFL	19083	4635	4,117151884

A2.3.2.Materials and energy Prices :PEM

Years	Firms	M&E costs	Train movements (train.Kms)	PEM (M&E prices)
1975	CFL	23769	4347	5,467830086
1976	CFL	20047	4346	4,612751091
1977	CFL	21188	4175	5,074907684
1978	CFL	20017	4332	4,620685297
1979	CFL	21104	4477	4,713850931
1980	CFL	22455	4350	5,162010685
1981	CFL	22502	4228	5,322166226
1982	CFL	21795	4181	5,212782925
1983	CFL	20348	4023	5,057907358
1984	CFL	21256	4187	5,076731196
1985	CFL	24030	4357	5,515348497
1986	CFL	21368	5118	4,175143554
1987	CFL	22179	5064	4,379730201
1988	CFL	19535	4373	4,467201474
1989	CFL	22669	4485	5,054429437
1990	CFL	26875	4903	5,481332309
1991	CFL	28261	5298	5,334327739
1992	CFL	30105	6345	4,744610716
1993	CFL	30678	6981	4,39456012
1994	CFL	37343	7228	5,166477283
1995	CFL	108954	7208	15,11569669
1996	CFL	113910	7278	15,65130679
1997	CFL	114204	7139	15,99718665
1998	CFL	123190	7308	16,85683956
1999	CFL	130082	7515	17,30958196
1992	CFR	2361045	119286	19,79314045
1993	CFR	1521948	117498	12,95297098
1994	CFR	1422076	116105	12,24818586
1995	CFR	1491761	122369	12,19068138
1996	CFR	1733705	125022	13,86719927
1997	CFR	1707036	120977	14,11041604
1998	CFR	1484646	108709	13,65706661
1999	CFR	2862517	99010	28,91139584
1972	CH	76406	18138	4,212497233
1973	CH	76692	18066	4,245225381
1974	CH	111560	17993	6,200196474
1975	CH	99267	17872	5,554357258
1976	CH	97268	17287	5,626638982
1977	CH	94111	17104	5,502305972
1978	CH	93326	16754	5,570380939
1979	CH	93271	16385	5,692466649
1980	CH	98374	14942	6,5837015
1981	CH	97491	15284	6,378631174
1982	CH	97174	15905	6,109672256
1983	CH	92931	16300	5,701286398
1984	CH	94545	16534	5,718237516
1985	CH	41714	16276	2,562900556
1986	CH	118423	16571	7,146415484
1987	CH	122402	16024	7,638642207
1988	CH	131127	16000	8,195421786
1989	CH	98927	16000	6,182941879
1990	CH	87972	16000	5,498222102
1991	CH	101501	16000	6,343796709
1992	CH	73150	16000	4,571898097
1993	CH	202576	15413	13,14318495
1994	CH	125740	16981	7,404746411
1995	CH	88900	18109	4,909142208
1996	CH	117402	19216	6,109570181
1997	CH	176577	18423	9,584569531
1998	CH	74403	16577	4,488300181
1999	CH	77977	16762	4,652036212
1972	CIE	125360	11086	11,30796067
1973	CIE	133961	12556	10,66907822
1974	CIE	118196	9125	12,95293715
1975	CIE	158478	10801	14,67253566
1976	CIE	169841	10231	16,60066027
1977	CIE	143224	10722	13,35799371
1978	CIE	162621	12999	12,51024514
1979	CIE	181407	13645	13,29475398
1980	CIE	200475	13433	14,92405851
1981	CIE	205135	13360	15,35441938
1982	CIE	241655	12189	19,82564024
1983	CIE	262119	12055	21,74362062
1984	CIE	266474	12356	21,56635229
1985	CIE	219614	13641	16,09958009
1986	CIE	199530	13894	14,36086839
1987	CIE	148051	13924	10,63277679

A2.3.2.Materials and energy Prices :PEM

Years	Firms	M&E costs	Train movements (train.Kms)	PEM (M&E prices)
1988	CIE	165463	13230	12,50665402
1989	CIE	174265	13677	12,74146064
1990	CIE	189550	14237	13,31391976
1991	CIE	237320	13757	17,25087892
1992	CIE	234403	13861	16,91093804
1993	CIE	222867	13766	16,18964788
1994	CIE	227270	14102	16,1161737
1995	CIE	250512	13347	18,76916558
1996	CIE	232482	15386	15,10994437
1997	CIE	172442	15535	11,10021564
1998	CIE	130788	15466	8,456467974
1999	CIE	158300	15466	10,23534458
1972	CP	96766	29579	3,271454618
1973	CP	81322	23812	3,415158665
1974	CP	99248	29776	3,333164962
1975	CP	121620	29878	4,070544604
1976	CP	165616	29065	5,698123199
1977	CP	156816	30819	5,088291841
1978	CP	144205	31110	4,635330027
1979	CP	143874	32885	4,375074154
1980	CP	179874	34771	5,173109487
1981	CP	175765	37188	4,726386368
1982	CP	225990	36753	6,148883013
1983	CP	206283	35382	5,830161856
1984	CP	230011	37614	6,115049958
1985	CP	228554	39477	5,789550983
1986	CP	214459	38370	5,589243372
1987	CP	233620	39186	5,961831445
1988	CP	144517	40552	3,563747267
1989	CP	246975	36495	6,767355584
1990	CP	233842	33693	6,940386219
1991	CP	235466	36529	6,446009049
1992	CP	232352	36721	6,327499789
1993	CP	297786	36720	8,109643594
1994	CP	298755	34490	8,662067592
1995	CP	289193	37199	7,774224512
1996	CP	290328	38940	7,455776295
1997	CP/REFER	294898	48727	6,052045757
1998	CP/REFER	342038	45961	7,441918326
1999	CP/REFER	339386	45961	7,384225438
1990	CSD	1918636	251581	7,626316556
1991	CSD	2339600	230398	10,15460345
1992	CSD	2283847	227310	10,04728011
1972	DB	4006847	615022	6,514965474
1973	DB	3923440	621584	6,312003514
1974	DB	4106250	625074	6,569222921
1975	DB	3889299	584975	6,64865878
1976	DB	4058613	570374	7,115705401
1977	DB	4030956	564547	7,140159572
1978	DB	2957996	574922	5,145039254
1979	DB	3476750	597546	5,818380152
1980	DB	3806668	606006	6,281567737
1981	DB	3657502	598256	6,113606516
1982	DB	3356296	581215	5,77461974
1983	DB	3158203	571246	5,528621891
1984	DB	3201724	579014	5,529614203
1985	DB	3197802	588279	5,435860284
1986	DB	3367606	589731	5,710410012
1987	DB	4257465	583640	7,294675904
1988	DB	4350256	587047	7,410404427
1989	DB	4751729	593466	8,006742018
1990	DB	4642528	601473	7,718598246
1991	DB	5024168	632536	7,942896127
1992	DB	4962041	653878	7,588634127
1993	DB	4788814	645671	7,416802546
1994	DB AG	4521243	871494	5,18792257
1995	DB AG	5419374	856441	6,327784882
1996	DB AG	6471652	849142	7,621401814
1997	DB AG	6421222	837537	7,666792272
1998	DB AG	6423920	871933	7,367446695
1999	DB AG	8852905	931445	9,504484962
1972	DSB	283116	40293	7,026424167
1973	DSB	287773	41494	6,93528343
1974	DSB	321536	42673	7,534891436
1975	DSB	376948	44061	8,555131676
1976	DSB	354856	44416	7,989374865
1977	DSB	320277	44430	7,208579718

A2.3.2.Materials and energy Prices :PEM

Years	Firms	M&E costs	Train movements (train.Kms)	PEM (M&E prices)
1978	DSB	309310	44656	6,926500437
1979	DSB	260176	45599	5,705728986
1980	DSB	309103	48170	6,416919932
1981	DSB	338889	49510	6,844866329
1982	DSB	378567	50130	7,551702081
1983	DSB	361064	50510	7,148364273
1984	DSB	361240	50150	7,203181335
1985	DSB	367601	50230	7,318346993
1986	DSB	361876	49975	7,241132029
1987	DSB	319411	50825	6,284530905
1988	DSB	331132	50015	6,620654136
1989	DSB	335143	49760	6,735181387
1990	DSB	352528	52160	6,758597957
1991	DSB	342873	54700	6,268238415
1992	DSB	353741	57943	6,104980603
1993	DSB	351983	56939	6,181754231
1994	DSB	353636	57410	6,159832085
1995	DSB	336807	59427	5,667572311
1996	DSB	355915	57672	6,171364924
1997	DSB		59082	
1998	DSB		60751	
1999	DSB		60808	
1992	EVR	104995	8757	11,98982231
1993	EVR	116667	8654	13,48123736
1994	EVR	125206	8065	15,52462038
1995	EVR	89091	7882	11,30308481
1996	EVR	75472	7366	10,24603159
1997	EVR	119212	7886	15,11697262
1998	EVR	122742	8278	14,82744217
1999	EVR	139088	8877	15,66841094
1972	FS	2142418	269221	7,957840986
1973	FS	2425967	273433	8,872254197
1974	FS	3015590	274745	10,97595869
1975	FS	2692695	266401	10,10767449
1976	FS	2851245	281368	10,13350849
1977	FS	3714046	280730	13,22995672
1978	FS	3664571	281955	12,99700612
1979	FS	3658326	283051	12,92461814
1980	FS	3760623	286662	13,11866697
1981	FS	4100361	280713	14,60695116
1982	FS	4563402	285683	15,97365743
1983	FS	5228556	287250	18,20210847
1984	FS	6156745	291626	21,11178448
1985	FS	5354515	292358	18,3149257
1986	FS	3407134	292521	11,64748494
1987	FS	3274128	290423	11,27365413
1988	FS	3197144	299167	10,68681914
1989	FS	3034172	302111	10,04323483
1990	FS	3451651	302226	11,42076015
1991	FS	3297680	304407	10,83312756
1992	FS	2795548	307500	9,091214039
1993	FS	2123292	301546	7,041353373
1994	FS	1956933	312269	6,266817876
1995	FS	2068718	325055	6,36421059
1996	FS SpA	2124537	325771	6,521567278
1997	FS SpA	2159876	325686	6,631772871
1998	FS SpA	2274491	320927	7,087252008
1999	FS SpA	2299367	307314	7,482140727
1991	MAV	873797	96465	9,058180018
1992	MAV	734401	95516	7,68877063
1993	MAV	640152	88847	7,205104192
1994	MAV	754502	96654	7,806219182
1995	MAV	664889	91653	7,254414019
1996	MAV Rt.	613777	93785	6,544508221
1997	MAV Rt.	618943	85997	7,197268047
1998	MAV Rt.	598825	86387	6,931883579
1999	MAV Rt.	592814	95985	6,17611466
1972	NS	390488	105894	3,687534165
1973	NS	256371	106538	2,40638445
1974	NS	279425	107006	2,611304973
1975	NS	308308	106504	2,894797946
1976	NS	309910	107607	2,880013167
1977	NS	307181	107839	2,848510312
1978	NS	302788	107790	2,809051801
1979	NS	328687	107885	3,046639948
1980	NS	370493	110467	3,353881436
1981	NS	396090	112712	3,514178266

A2.3.2.Materials and energy Prices :PEM

Years	Firms	M&E costs	Train movements (train.Kms)	PEM (M&E prices)
1982	NS	401623	113913	3,525703497
1983	NS	397734	112417	3,538021487
1984	NS	389440	114248	3,408726268
1985	NS	570301	113484	5,025388161
1986	NS	521807	114145	4,571441307
1987	NS	402042	116054	3,464265154
1988	NS	426765	117727	3,625041184
1989	NS	481273	118143	4,073650263
1990	NS	514431	117314	4,385078232
1991	NS	606043	117856	5,142234405
1992	NS	662047	118484	5,587648764
1993	NS	640653	122405	5,233876641
1994	NS	703998	117794	5,976516695
1995	NS	1655815	119656	13,83813039
1996	NS	1715648	120428	14,24625842
1997	NS B.V./N.V.	1692519	121200	13,96467942
1998	NS B.V./N.V.	1791383	121658	14,72474845
1972	NSB	89880	31709	2,834532297
1973	NSB	85154	31139	2,734635387
1974	NSB	90816	32368	2,805719462
1975	NSB	93727	33073	2,833939976
1976	NSB	103441	33912	3,050275217
1977	NSB	107873	34175	3,156486794
1978	NSB	108369	34022	3,185265432
1979	NSB	122526	34098	3,593359494
1980	NSB	131752	34732	3,793389778
1981	NSB	138093	34609	3,990077613
1982	NSB	134371	34206	3,928277376
1983	NSB	135826	33272	4,082287547
1984	NSB	134736	32852	4,101302628
1985	NSB	143492	32793	4,375687885
1986	NSB	172761	33441	5,166149144
1987	NSB	156666	32938	4,756392994
1988	NSB	176064	31257	5,632785869
1989	NSB	182383	31022	5,879140278
1990	NSB	189869	36705	5,172847065
1991	NSB	266688	32384	8,235186504
1992	NSB	413977	33055	12,52388837
1993	NSB	368850	34060	10,82942604
1994	NSB	368188	37181	9,902596632
1995	NSB	168226	36568	4,600370959
1996	NSB BA		37228	.
1997	NSB BA		36992	.
1998	NSB BA		37417	.
1999	NSB BA	.	35765	.
1972	OBB	470541	87955	5,34979174
1973	OBB	472205	88422	5,340356883
1974	OBB	500940	90409	5,540821422
1975	OBB	479702	89506	5,359438747
1976	OBB	486241	92893	5,234419053
1977	OBB	948749	92295	10,27953262
1978	OBB	964959	92381	10,44542632
1979	OBB	1051237	95555	11,00138401
1980	OBB	1048454	97857	10,71414234
1981	OBB	1065850	97787	10,89970643
1982	OBB	1077539	99089	10,87445745
1983	OBB	1093046	98669	11,07791113
1984	OBB	1039437	99970	10,39748814
1985	OBB	1024440	101646	10,07850804
1986	OBB	985972	101514	9,712674481
1987	OBB	935777	101564	9,213667889
1988	OBB	916423	103299	8,871553176
1989	OBB	970460	108859	8,914837212
1990	OBB	1088789	115218	9,44982076
1991	OBB	655561	127154	5,155649636
1992	OBB	677528	136729	4,955263401
1993	OBB	732459	132954	5,509117797
1994	OBB	969969	132022	7,347022506
1995	OBB	882364	128052	6,890666679
1996	OBB	884238	120856	7,316458491
1997	OBB	771862	126151	6,118555732
1998	OBB	891275	134025	6,650068383
1999	OBB	980716	139814	7,014435042
1990	PKP		360223	.
1991	PKP	3554231	316135	11,24276485
1992	PKP	2504066	278300	8,997722824
1993	PKP	3077757	281081	10,94971541

A2.3.2.Materials and energy Prices :PEM

Years	Firms	M&E costs	Train movements (train.Kms)	PEM (M&E prices)
1994	PKP	2870968	290932	9,868176777
1995	PKP	2380200	281541	8,454186783
1996	PKP	2091141	279494	7,481881308
1997	PKP	1905974	279574	6,817421348
1998	PKP	1676519	272558	6,15105387
1999	PKP	1411905	267884	5,270581671
1972	RENFE	625340	126902	4,927737264
1973	RENFE	616090	131047	4,701287803
1974	RENFE	810934	130040	6,236035659
1975	RENFE	933797	127835	7,30470632
1976	RENFE	1023282	131581	7,776820588
1977	RENFE	1021555	135476	7,540487751
1978	RENFE	889754	136327	6,526617068
1979	RENFE	834676	133686	6,243556238
1980	RENFE	1048559	136996	7,65393968
1981	RENFE	1208744	140850	8,581785363
1982	RENFE	1491303	144090	10,34980138
1983	RENFE	1528936	144945	10,54838969
1984	RENFE	1462657	150738	9,703307245
1985	RENFE	1363341	151838	8,978917681
1986	RENFE	1298266	156143	8,314594695
1987	RENFE	1276105	156321	8,163360244
1988	RENFE	1163151	158954	7,317534614
1989	RENFE	1141585	158067	7,222157318
1990	RENFE	1166627	168906	6,906960659
1991	RENFE	1240151	172657	7,182742262
1992	RENFE	1251250	178137	7,024087399
1993	RENFE	1127796	166690	6,765827021
1994	RENFE	1019761	154137	6,615939018
1995	RENFE	1038014	161073	6,444371658
1996	RENFE	980996	159575	6,147551767
1997	RENFE	925137	165040	5,60553432
1998	RENFE	949816	166033	5,72064437
1999	RENFE	1010348	168276	6,00411428
1972	SJ	190527	99261	1,919455587
1973	SJ	206273	99255	2,078214859
1974	SJ	250578	101554	2,46743522
1975	SJ	281506	98928	2,845565041
1976	SJ	312958	99476	3,146064272
1977	SJ	362103	99429	3,641820001
1978	SJ	400192	98307	4,070840403
1979	SJ	428417	98970	4,328756147
1980	SJ	365580	99452	3,675946265
1981	SJ	328856	99519	3,304456305
1982	SJ	317775	101076	3,143921524
1983	SJ	312986	103727	3,017404563
1984	SJ	538653	105854	5,088642243
1985	SJ	771873	104867	7,360497053
1986	SJ	550313	103691	5,307243176
1987	SJ	519643	101347	5,12736652
1988	SJ	518587	101710	5,098681497
1989	SJ/BV	865735	99791	8,675477307
1990	SJ/BV	776038	98559	7,873843471
1991	SJ/BV	716824	95931	7,472289081
1992	SJ/BV	792632	93496	8,477711562
1993	SJ/BV	963902	91776	10,50276479
1994	SJ/BV	1377026	97104	14,18093678
1995	SJ/BV	1615218	100345	16,09664429
1996	SJ/BV	690342	103449	6,673263086
1997	SJ/BV	682673	99502	6,860899343
1998	SJ/BV	723014	99705	7,251534044
1999	SJ/BV	678288	101567	6,67823613
1972	SNCB	773352	84385	9,164572573
1973	SNCB	718787	87368	8,227123522
1974	SNCB	800044	89895	8,89976571
1975	SNCB	848583	86002	9,867015457
1976	SNCB	878927	86540	10,15631172
1977	SNCB	1048450	87539	11,97694777
1978	SNCB	1015540	90846	11,17869659
1979	SNCB	997074	94237	10,58049228
1980	SNCB	1245188	95143	13,08753879
1981	SNCB	1459097	96864	15,06335892
1982	SNCB	1197080	94468	12,67180629
1983	SNCB	1160362	90737	12,78819201
1984	SNCB	958563	94298	10,16525738
1985	SNCB/NMBS	904956	94623	9,563810995
1986	SNCB/NMBS	891850	91681	9,727751345

A2.3.2.Materials and energy Prices :PEM

Years	Firms	M&E costs	Train movements (train.Kms)	PEM (M&E prices)
1987	SNCB/NMBS	647177	93219	6,942548494
1988	SNCB/NMBS	507727	92239	5,504471327
1989	SNCB/NMBS	451676	92326	4,892184735
1990	SNCB/NMBS	507431	92110	5,508971611
1991	SNCB/NMBS	653505	92286	7,081301529
1992	SNCB/NMBS	796564	92701	8,592832647
1993	SNCB/NMBS	1251311	90974	13,75460278
1994	SNCB/NMBS	1154995	90242	12,79886366
1995	SNCB/NMBS	636070	87551	7,26514059
1996	SNCB/NMBS	691350	89893	7,690815103
1997	SNCB/NMBS	690066	90029	7,664925572
1998	SNCB/NMBS	720365	93230	7,726747952
1999	SNCB/NMBS	774257	94820	8,16554366
1972	SNCF	2982605	466574	6,39256544
1973	SNCF	3205636	472894	6,778763116
1974	SNCF	3547292	489446	7,247566109
1975	SNCF	3484626	477031	7,304821735
1976	SNCF	3418010	481710	7,095576907
1977	SNCF	3427851	487392	7,033047607
1978	SNCF	3443164	491934	6,999239499
1979	SNCF	3594007	499858	7,190055006
1980	SNCF	3699225	505076	7,32409479
1981	SNCF	3723555	497065	7,49108202
1982	SNCF	3808089	496951	7,662906728
1983	SNCF	3912487	497417	7,865608336
1984	SNCF	3826960	490675	7,799377627
1985	SNCF	3472195	481316	7,213962233
1986	SNCF	3221410	463640	6,948083995
1987	SNCF	3083352	469344	6,56949288
1988	SNCF	2938384	478392	6,142208883
1989	SNCF	3043070	480312	6,335610592
1990	SNCF	3241096	482000	6,72426626
1991	SNCF	3614695	478355	7,556512035
1992	SNCF	3842930	479701	8,011093931
1993	SNCF	3731614	467176	7,987597205
1994	SNCF	3676795	473499	7,765159311
1995	SNCF	3841340	450580	8,525323117
1996	SNCF	3633972	493691	7,360822279
1997	SNCF/RFF	8200735	501984	16,33664551
1998	SNCF/RFF	7131100	502492	14,19146961
1999	SNCF/RFF	7180052	517294	13,88002143
1992	SZ	181279	18896	9,593526224
1993	SZ	164482	18182	9,046414329
1994	SZ	180602	18594	9,712921842
1995	SZ	156823	18515	8,470053417
1996	SZ	175867	18343	9,587707061
1997	SZ	164707	18332	8,984672379
1998	SZ	176558	18071	9,770221107
1999	SZ	180944	18131	9,979833123
1972	TCDD	429600	39135	10,97738985
1973	TCDD	374040	40342	9,271728176
1974	TCDD	419205	39792	10,53490588
1975	TCDD	436524	39224	11,12899182
1976	TCDD	401863	39347	10,21330619
1977	TCDD	337635	38287	8,818528188
1978	TCDD	316022	37515	8,423895457
1979	TCDD	304669	37411	8,143836501
1980	TCDD	477006	35473	13,44700666
1981	TCDD	506123	40446	12,51355772
1982	TCDD	513811	38444	13,36517295
1983	TCDD	528230	39410	13,40344761
1984	TCDD	554994	44375	12,50690434
1985	TCDD	484614	45557	10,63753295
1986	TCDD	432450	45332	9,539622485
1987	TCDD	380018	43745	8,687107823
1988	TCDD	379233	43538	8,710387571
1989	TCDD	415281	43649	9,514092495
1990	TCDD	490105	44190	11,0908498
1991	TCDD	558836	43252	12,92047661
1992	TCDD	682342	43295	15,76030007
1993	TCDD	559430	43850	12,75781593
1994	TCDD	470248	44070	10,67048926
1995	TCDD	450035	43355	10,38024102
1996	TCDD	473721	44524	10,63967345
1997	TCDD	514952	46086	11,17372535
1998	TCDD	513278	43899	11,69224149
1999	TCDD	512203	43574	11,75477971

A2.3.2.Materials and energy Prices :PEM

Years	Firms	M&E costs	Train movements (train.Kms)	PEM (M&E prices)
1972	VR	148380	43407	3,418334631
1973	VR	154534	44346	3,484733068
1974	VR	177287	46119	3,844119418
1975	VR	196101	44405	4,416197265
1976	VR	186725	43284	4,313956761
1977	VR	198354	42403	4,67784027
1978	VR	185705	41488	4,476114777
1979	VR	120181	42989	2,795610603
1980	VR	155967	44934	3,471035173
1981	VR	171414	45491	3,768081707
1982	VR	177645	44493	3,992661015
1983	VR	173771	43787	3,968540954
1984	VR	164129	43322	3,788586977
1985	VR	180641	43495	4,153146773
1986	VR	146669	38328	3,826669832
1987	VR	141787	42698	3,320695449
1988	VR	132379	42032	3,149481621
1989	VR	150521	39266	3,833369724
1990	VR	.	51026	.
1991	VR	162433	40114	4,049279997
1992	VR	167305	40197	4,162134567
1993	VR	160771	40876	3,933137885
1994	VR	191057	41344	4,621163261
1995	VR	.	40972	.
1996	VR+RHK	328017	40621	8,07504797
1997	VR+RHK	347719	44137	7,878173697
1998	VR+RHK	326998	44481	7,351399517
1999	VR+RHK	322721	44305	7,284083504
1993	ZSR	559216	59002	9,477923032
1994	ZSR	598091	63867	9,364636546
1995	ZSR	738027	64501	11,44209447
1996	ZSR	732663	60320	12,14627705
1997	ZSR	773909	62165	12,4492682
1998	ZSR	740135	59169	12,50883505
1999	ZSR	602325	57045	10,55876548

A2.4.1.Fixed Assets

			Land, Buildings and Fixed Installations Fixed Assets				Transport Stock Fixed Assets				Other Equipment Fixed Assets				Total Amortiz.	Annual costs amount allocated to depreciation
Years	Firms	currency	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.		
1992	BC	RUR	46016	139	44923	0,560493581	30329	94	30235	0,3772349	5006	15	4991	0,062271519	248	248
1993	BC	RUR	78109	3288	54677	0,56	84446	2172	82274	0,37	12084	411	11673	0,07	5871	5623
1994	BC	RUR	4990356	5356	4947620	0,56	2403643	3463	2400180	0,362	995488	746	994742	0,078	9565	3694
1995	BC															
1996	BC	BYR	23152424	445424	22636000	0,648447347	6268727	132727	6136000	0,19322333	3048546	64546	2984000	0,093966495	686909	686909
1997	BC	BYR	39472077	1336077	38065000	0,45	54229768	1365768	52864000	0,46	5450215	267215	5183000	0,09	2969061	2282152
1998	BC	BYB	39476580	2411580	36890000	0,395	53033317	3266317	49767000	0,535	5982369	427369	5555000	0,07	6105265	3136204
1999	BC	BYB	430845835	8202007	401600299	0,5	349148044	6561606	342586438	0,4	44183158	1640401	42542757	0,1	16404014	10298749
1992	BDZ	BGL	3033	190,1034483	2533	0,856321839	590	31,89655172	425	0,14367816				0	222	248
1993	BDZ	BGL	2863	264,4509612	2029	0,661127403	1419	135,5490388	1040	0,3388726				0	400	197
1994	BDZ	BGL	4001	1240,247961	2022	0,549755302	2988	1015,752039	1656	0,4502447				0	2256	211
1995	BDZ	BGL	38047	1352,562011	35161	0,701536313	16192	575,4379888	14959	0,29846369				0	1928	1937
1996	BDZ	BGL	39954	2772,736426	34838	0,709502668	16403	1135,263574	14264	0,29049733				0	3908	2021
1997	BDZ	.	776817	80845,8	670310	0,7	259014	34648,2	213368	0,3			0	0	115494	2231
1998	BDZ	.	829324	80672,9	704846	0,7	260536	34574,1	207188	0,3			0	0	115247	57852
1999	BDZ	.	912000	80500	828000	0,7	244000	34500	208000	0,3			0	0	115000	73000
1972	BR	pound sterling	713400	101900	611500	0,131061093	838700	630400	208300	0,81080386	98900	45200	53700	0,058135048	777500	51300
1973	BR	pound sterling	787800	122400	665400	0,150184049	836400	643700	192700	0,78981595	104100	48900	55200	0,06	815000	54600
1974	BR	pound sterling	869200	145900	723300	0,169868436	870300	660000	210300	0,76842473	115000	53000	62000	0,061706834	858900	53400
1975	BR	pound sterling	316200	37400	278800	0,053566313	865700	623300	242400	0,89272415	76500	37500	39000	0,053709539	698200	27100
1976	BR	pound sterling	342400	43700	298700	0,06373979	924700	605000	319700	0,88243874	82500	36900	42900	0,05382147	685600	36800
1977	BR	pound sterling	380900	52300	328600	0,074258129	991200	606500	384700	0,86113872	97700	45500	52200	0,064603152	704300	36800
1978	BR	pound sterling	531100	65300	465800	0,087922445	1084900	615500	469400	0,828733	128700	61900	66800	0,083344554	742700	93500
1979	BR	pound sterling	583400	75000	508400	0,096861682	1187200	628600	558600	0,81183004	155300	70700	84600	0,091308278	774300	108000
1980	BR	pound sterling	618500	86500	523000	0,105927014	1334600	649800	684800	0,79573843	181000	80300	100700	0,098334558	816600	131000
1981	BR	pound sterling	410000	85800	324200	0,113657438	1208300	590300	618000	0,78195788	167400	78800	88600	0,104384687	754900	138500
1982	BR	pound sterling	438400	96400	342000	0,125635345	1255000	592500	662500	0,77218819	168700	78400	90300	0,102176463	767300	153100
1983	BR	pound sterling	449600	90600	359000	0,11818419	1276800	592800	684000	0,77328463	174500	83200	91300	0,108531177	766600	164500
1984	BR	pound sterling	521200	105300	415900	0,125972006	1322500	620200	702300	0,74195478	220500	110400	110100	0,132073214	835900	221800
1985	BR	pound sterling	655900	120900	535000	0,134933036	1379100	645600	733500	0,72053571	267200	129500	137700	0,14453125	896000	188300
1986	BR	pound sterling	812700	139500	673200	0,145768025	1429000	667700	761300	0,69770115	317000	149800	167200	0,156530825	957000	205300
1987	BR	pound sterling	978900	163100	815800	0,162531141	1485800	677200	808600	0,67483807	325700	163200	162500	0,162630792	1003500	231900
1988	BR	pound sterling	1101900	189000	912900	0,182997676	1620700	714300	906400	0,69161503	291600	129500	162100	0,125387297	1032800	188700
1989	BR	pound sterling	1363800	218800	1145000	0,194160973	1814500	756300	1058200	0,6711332	335900	151800	184100	0,13470583	1126900	208600
1990	BR	pound sterling	1669500	253300	1416200	0,206640561	2030400	784400	1246000	0,63990863	401600	188100	213500	0,153450808	1225800	245000
1991	BR	pound sterling	2052049	284949	1767100	0,21	2341947	854847	1487100	0,63	455304	217104	238200	0,16	1356900	178600
1992	BR	(in thousands)	5770	1801	3969	0,6	2765	900	1865	0,3	598	300,1	298	0,1	3001	98000
1993	BR	(in thousands)	6225	1637	4588	0,51	3230	1117	2113	0,348	697	455,82	241	0,142	3210	100000
1994	BR	(in thousands)	359	0	359	0	3568	1334	2234	0,98	181	27,22	154	0,02	1361	78000
1995	BR	(in thousands)	89	43	46	0,2	204	139	65	0,64	87	34,72	52	0,16	217	75000
1994	Railtrack		5013	1347	3666	0,7				0	631	577,2	54	0,3	1924	90000
1995	Railtrack															
1997	Railtrack															
1998	Railtrack															
1999	Railtrack				11782				0				553		0	
1996	Railtrack															
1996	RfD Ltd															
1996	ATOC															
1997	ATOC															
1998	ATOC															
1999	ATOC															
1997	EW&S															
1998	EW&S															
1999	EW&S															
1993	CD		67826	2989,7	64836	0,7	5744	1025,04	4660	0,24	2264	256,26	2008	0,06	4271	4271
1994	CD		113470	62822,2	45294	0,7	38919	20641,58	15983	0,23	10506	6282,22	4224	0,07	89746	4126
1995	CD		116504	64724,1	44516	0,7	40317	21266,49	15937	0,23	10954	6472,41	4482	0,07	92463	3987
1996	CD		122158	66931,9	46808	0,7	42300	21991,91	16700	0,23	11408	6693,19	4715	0,07	95617	4131
1997	CD		133808	70167,3	53570	0,7	45816	23054,97	18445	0,23	11991	7016,73	4974	0,07	100239	4110
1998	CD		141239	71153,6	59361	0,7	46395	23379,04	18420	0,23	13246	7115,36	6131	0,07	101648	4750
1999	CD		150240	73325,688	65926	0,696	46582	24652,602	17220	0,234	14785	7374,71	7410	0,07	105353	5409
1972	CFF	swiss franc	4517918	2727945	1789973	0,624066626	3030621	1568564	1462057	0,35883731	1090592	74731	1015861	0,017096064	4371240	224906
1973	CFF	swiss franc	5055081	2800758	2254323	0,61638882	3230717	1659397	1571320	0,36519891	953304	83662	869642	0,018412273	4543817	241672
1974	CFF	swiss franc	5359609	2887619	2471990	0,609419346	3400958	1754734	1646224	0,37032893	1126636	95959	1030677	0,020251727	4738312	266014
1975	CFF	swiss franc	5712990	2991887	2721103	0,6026633	3610744	1863977	1746767	0,37546556	1219598	108578	1111020	0,021871139	4964442	300175
1976	CFF	swiss franc	5974430	3111017	2863413	0,597771177	3856039	1970479	1885560	0,37862074	1383409	122865	1260544	0,023608086	5204361	354168
1977	CFF	swiss franc	7465265	3226680	4238585	0,590035943	4219237	2105188	2114049	0,3849581	164057	136748	27309	0,025005961	5468616	340313
1978	CFF	swiss franc	7657771	3155688	4502083	0,56816063	4337724	2249616	2088108	0,40502839	168368	148914	19454	0,026810975	5554218	344930
1979	CFF	swiss franc	7947128	3275181	4671947	0,561743521	4475217	2400634	2074583	0,41174537	183870	154570	29300	0,026511114	5830385	384600
1980	CFF	swiss franc	8250331	3441238	4809093	0,558165555	4626085	2556933	2069152	0,41473212	189464	167093	22371	0,027102327	6165264	403579
1981	CFF	swiss franc	8606842	3623929	4982913	0,556180725	4797250	2718109	2079141	0,41716045	193636	173702	19934	0,026658829	6515740	426948
1982	CFF	swiss franc	8957696	3810598	5147098	0,554008275	4984736	2881691	2103045	0,41895804	201620	185944	15676	0,027033687	6878233	445071
1983	CFF	swiss franc	9383077	4034908	5348169	0,555345922	5164512	3034869	2129643	0,41770522	216201	195799	20402	0,026948861	7265576	454404
1984	CFF	swiss franc	10495809	4945584	5550225	0,592974353	5302983	3192415	2110568	0,3827698	217261	202301	14960	0,024255842	8340300	495367
1985	CFF	swiss franc	11087942	5309890	5778052	0,59817008	5445246	3353734	2091512	0,37780506	220081	213266	6815	0,024024856	8876890	498617
1986	CFF	swiss franc	11681507	5556514	6124993	0,597434345	5632074	3529918	2102156	0,37953549	236119	214195	21923	0,023030168	9300627	503688
1987	CFF	swiss franc	12352200	5798818	6553382	0,594852391	5838276	3725169	2113107	0,38213403	246517	224344	22173	0,02301358	9748331	520920
1988	CFF	swiss franc	13119902	6021678	7098224	0,591883993	6163125	3911713	2251412	0,38449089	260054	240356	19698	0,023625121	10173747	538545
1989	CFF	swiss franc	13994911	6288772	7706139	0,591672591	6554452	4115512	2438940	0,38720368	274879	224520	50359	0,021123731	10628804	566703
1990	CFF	swiss franc	15272088	6918438	8353650	0,611027527	7063428	4196832	2866596	0,37065879	249462	207359	42103	0,01831368	11322629	596292
1991	CFF	(in thousands)	17064099	7070177	9993922	0,591	7118388	4665599	2452789	0,39	265325	227298	38027	0,019	11963075	640241
1992	CFF	(in thousands)	18471	7632	10839	0,61	7272	4629	2643	0,37	288	250	38	0,02	12512	684
1993	CFF	(in thousands)	19965	8457	11508	0,646	6894	4333	2561	0,331	342	301	41	0,023	13092	715
1994	CFF/SBB/F	(in thousands)	20854	8961	11893	0,6274	**7637**	5022	2615	0,3516	395	300	95	0,021	14283	744
1995	CFF/SBB/F	(in thousands)	21675	9289	12386	0,6255	8006	5294	2712	0,3565	355	267	88	0,018	14850	832
1996	CFF/SBB/F	(in thousands)	23183	9636	13547	0,622	8392	5577	2815	0,36	368	279	89	0,018	15492	819
1997	CFF/SBB/F	(in thousands)	24046	10041	14005	0,627	8629	5701	2928	0,356	425	272	153	0,017	16014	935
1998	CFF/SBB/F	(in thousands)	24308	9704	14604	0,584	9463	6646	2817	0,4	451	266	185	0,016	16616	897
1999	CFF/SBB/F	(in thousands)	24972	8500	16472	0,583150384	**9920**	**5822**	**4098**	**0,39942371**	460	254	206	0,017425906	14576	1135
1972	CFL	luxemburg franc	1042531	345512	697019	0,44261852	1746566	384157	1362409	0,49212474	104593	50940	53653	0,065256742	780609	**180469**
1973	CFL	luxemburg franc	1077081	403805	673276	0,490321789	1799564	374593	1424971	0,454851	109810	45153	64657	0,054827206	823551	**199674**
1974	CFL	luxemburg franc	1124358	394846	729512	0,440490016	1922369	456484	1465885	0,50925334	113293	45049	68244	0,050256644	896379	252687
1975	CFL	luxemburg franc	1193512	396741	796771	0,412337244	2060528	515323	1845205	0,53558081	122383	50112	72271	0,052081948	962176	293111
1976	CFL	luxemburg franc	1251471	441997	809474	0,278590725	2590548	1052359	1538189	0,66330191	140054	92190	47864	0,05810736	1586546	328276
1977	CFL	luxemburg franc	1472522	473646	998876	0,279420683	2681745	1123623	155872	0,66286532	141359	97831	43528	0,057713999	1695100	359775
1978	CFL	luxemburg franc	1686564	492491	1194073	0,28605241	2687387	1125155	1562232	0,65352118	147215	104035	43180	0,060426409	1721681	371270
1979	CFL	luxemburg franc	2039638	516302	1523336	0,279276901	2723791	1220862	1502929	0,66038589	168071	111546	56525	0,060337208	1848710	389599
1980	CFL	luxemburg franc	2294855	552021	1742834	0,281604288	2869028	1297436	1571592	0,66186529	173379	110815	62564	0,05653042	1960272	427265
1981	CFL	luxemburg franc	2602542	590164	2012378	0,285454339	2879173	1358939	1520234	0,6573004	185010	118352	66658	0,05724526	2067455	450173
1982	CFL	luxemburg franc	2786477	634742	2151735	0,292213466	2954050	1409613	1544437	0,64893752	207548	127831	79717	0,058849012	2172186	456626
1983	CFL	luxemburg franc	2906413	829503	2076910	0,341403234	2960527	1462734	1497793	0,60202569	213539	137450	76089	0,056571073	2429687	515984
1984	CFL	luxemburg franc	3053301	895511	2157790	0,344592182	2976741	1559580	1417161	0,6001256	212877	143665	69212	0,05528222	2598756	449276
1985	CFL	luxemburg franc	3163292	842240	2321052	0,316602537	3038303	1664790	1373513	0,6258035	260886	153214	107672	0,057593965	2660244	461772
1986	CFL	luxemburg franc	3344962	940698	2404264	0,333784199	3028287	1720878	1307409	0,61061242	274796	156706	117090	0,055603378	2818282	545580
1987	CFL	luxemburg franc	3482324	1046347	2435977	0,346561337	3079158	1803351	1275807	0,59728917	297317	169528	127789	0,05614949	3019226	559176
1988	CFL	luxemburg franc	4861815	1616885	3244930	0,435890316	3135197	1911895	1223302	0,51542102	316198	180605	135593	0,048688664	3709385	610136
1989	CFL	luxemburg franc	5445956	1673930	3772026	0,434039	3750731	1987123	1763608	0,51524788	329648	195582	134066	0,050713122	3856635	657852
1990	CFL	luxemburg franc	6040024	1678164	4361860	0,424232052	4350807	2057125	2293632	0,52003163	383459	220480	162979	0,055736318	3955769	609469
1991	CFL	(in thousands)	6761832	1710048	4461391	0,424	5067433	2097228	2800205	0,52	315472	225855	89617	0,056	4033131	964838
1992	CFL	(in thousands)	7049	1858	4768	0,424	5535	2279	3106	0,52	383	228	155	0,052	4383	4365,468
1993	CFL	(in thousands)	7304	1978	5326	0,424	5994	2426	3394	0,52	398	243	155	0,052	4665	4646,34
1994	CFL	(in thousands)	7890	2102	5788	0,423278292	8028	2608	5420	0,52517116	387	256	131	0,051550544	4966	4966
1995	CFL	(in thousands)	6200	121	5808	0,035	8510	3039	5171	0,882	391	286,018	105	0,083	3446	3446
1996	CFL	(in thousands)	6209	127	5804	0,034482759	8394	3248	4846	0,88188976	406	309	97	0,083898995	3683	3684
1997	CFL	(in thousands)	6274	185	5801	0,034	8583	3635	4648	0,883	469	333,5	135	0,083	4153,5	4153,5
1998	CFL	(in thousands)	6298	243	5824	0,052563271	10007	4022	5815	0,86999784	494	358	136	0,077438892	4623	4623
1999	CFL	(in thousands)	6413	317	5872	0,059474672	10557	4657	5900	0,87373358	498	356	142	0,066791745	5330	5330
1989	CFR	Lei														
1990	CFR	Lei														3284943
1991	CFR															4137692
1992	CFR		843264	72818	770446	0,635	795	573	221	0,005	643693	41283	602411	0,36	114674	4445
1993	CFR		876339	96806	779533	0,635	986	762	224	0,005	664398	54882	609516	0,36	152450	5738
1994	CFR		6523351	158698	6364653	0,635514697	49307	1200	48107	0,00480351	3692016	89818	3602198	0,359681788	249716	48308
1995	CFR		6566849	276514	6290335	0,639164903	61586	2593	58993	0,00599432	3645673	153511	3492162	0,354840781	432618	247263
1996	CFR		6631067	389946	6241121	0,639582448	70537	4148	66389	0,00680346	3666203	215595	3450608	0,353614088	609689	189729
1997	CFR		6856208	678099	6178109	0,636230275	69803	6904	62899	0,00647743	3850289	380805	3469484	0,357292298	1065807	466743
1998	CFR		14059362	1824287	12235075	0,631501953	5969634	774596	5195038	0,26813703	2234375	289924	1944451	0,10036102	2888806	54698
1999	CFR		8272819	1214903	7057916	0,661778871	4062311	596570	3465741	0,32496195	165751	24341	141410	0,013259176	1835814	298395

A2.4.1.Fixed Assets

			Land, Buildings and Fixed Installations Fixed Assets				Transport Stock Fixed Assets				Other Equipment Fixed Assets				Total	Annual costs
Years	Firms	currency	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Amortiz.	amount allocated to depreciation
1972	CH	drachm	20237524	283702	19953822	0,41227726	3423290	331788	3091502	0,48215609	374409	72644	301765	0,105566648	688134	**344067**
1973	CH	drachm	20249744	389589	19860155	0,420242768	3640484	432573	3207911	0,46660885	634246	104895	529351	0,113148382	927057	238924
1974	CH	drachm	20467442	582198	19885244	0,41880771	4523457	669100	3854357	0,4813212	925800	138834	786966	0,099871091	1390132	463073
1975	CH	drachm	21080218	735592	20344626	0,423737386	5249704	838363	4411341	0,48293857	722563	162007	560556	0,093324047	1735962	369006
1976	CH	drachm	21566620	900338	20666282	0,419058905	5740942	1053113	4687829	0,49016745	776988	195025	581963	0,090773646	2148476	412514
1977	CH	drachm	22237619	1074188	21163431	0,414290921	5874451	1289660	4584791	0,49739378	729165	228987	500178	0,0883153	2592835	444361
1978	CH	drachm	22633530	1259307	21374223	0,411632669	5932060	1528466	4403594	0,49961331	786605	271525	515080	0,088754021	3059298	472565
1979	CH	drachm	23267463	1452772	21814690	0,414869213	6381228	1733094	4648134	0,49492098	819499	315893	503606	0,090209806	3501759	469983
1980	CH	drachm	24862670	1655581	23207089	0,42879402	6457718	1843610	4614108	0,47749337	855181	361826	493355	0,093712615	3861017	470146
1981	CH	drachm	25653716	1860367	23793349	0,432664518	6798688	2023704	4774984	0,47065171	1161418	415720	745698	0,096683769	4299791	464533
1982	CH	drachm	27839637	2068562	25771075	0,429574525	7702655	2223841	5478814	0,46182103	1185717	522971	662746	0,108604441	4815374	544797
1983	CH	drachm	29801815	2283029	27518786	0,427659496	8616142	2432577	6183565	0,45567299	1274028	622821	651207	0,116667513	5338427	583971
1984	CH	drachm	32538998	2499455	30039543	0,420986864	9591584	2709420	6882164	0,45635158	1420802	728258	692544	0,122661561	5937133	635654
1985	CH	drachm	36887230	2763266	34123964	0,415571716	11407022	3006902	8400120	0,4522125	1477622	879144	598478	0,132215784	6649312	751088
1986	CH	drachm	44012678	2934767	41077911	0,400597026	11945386	3385635	8559751	0,46214071	1982950	1005581	977369	0,137262262	7325983	833090
1987	CH	drachm	51232754	3270906	47961848	0,400038256	12156203	3787982	8368221	0,46327767	2601766	1117595	1484171	0,136684073	8176483	899710
1988	CH	drachm	84017262	4269185	79748077	0,437023757	12695610	4199203	8496407	0,42985991	3080089	1300383	1779706	0,133116336	9768771	1046710
1989	CH	drachm	90915257	4913441	86001816	0,444514618	21834773	4611745	17223028	0,41722045	3898816	1528311	2370505	0,138264931	11053497	1527396
1990	CH	drachm	100171300	5607377	94563923	0,436829827	29940770	5442855	24497914	0,42401312	4676121	1786293	2889828	0,139157054	12836525	2587266
1991	CH		118421931	7381577	111040354	0,42	33364483	7381577	25982906	0,42	5529586	2812029	2717557	0,16	17575183	3717190
1992	CH	(in thousands)	190676	9928	180748	0,42	37965	9928	28037	0,42	6467	3782	2685	0,16	23638	4953
1993	CH	(in thousands)	220772	12281	208491	0,42	53664	12281	41383	0,42	7242	4678	2564	0,16	29240	5603
1994	CH	(in thousands)	244080	16080	228000	0,42	58607	16080	42527	0,42	8342	6126	2216	0,16	38286	9049
1995	CH	(in thousands)	276198	20609	255589	0,42	85157	20609	64548	0,42	10568	7851	2717	0,16	49070	10784
1996	CH	(in thousands)	413970	26877	387093	0,42	88427	26877	61550	0,42	12756	10239	2517	0,16	63992	13348
1997	CH	(in thousands)	501395	31362	470033	0,4	108297	47042	61255	0,6			**0**	0	78404	14412
1998	CH	(in thousands)	581164	33555	547609	0,58	124335	24299	100036	0,42			**0**	0	57854	11301
1999	CH	(in thousands)	699762	35354	664408	0,5	133066	35354	97712	0,5			**0**	0	70708	14768
1972	CIE	pound sterling	10230	3875	**6355**	0,31	35873	8250	27623	0,66	6235	375	5860	0,03	12500	3177
1973	CIE	pound sterling	11406	5172	**6234**	0,36	37698	8763	28935	0,61	6891	431	6460	0,03	14366	3659
1974	CIE	pound sterling	12372	6120	**6252**	0,385	39368	9300	30068	0,585	7499	477	7022	0,03	15897	3001
1975	CIE	pound sterling	12463	7645	**4818**	0,42	40989	10011	30978	0,55	8514	546	7968	0,03	18202	4520
1976	CIE	pound sterling	14115	9787	**4328**	0,455	46419	11078	35341	0,515	11878	645	11233	0,03	21511	6488
1977	CIE	pound sterling	14171	9958	**4213**	0,389	46750	13261	33489	0,518	10939	2381	8558	0,093	25600	8018
1978	CIE	pound sterling	15388	7494	**7894**	0,25	46805	19783	27022	0,66	11600	2698	8902	0,09	29974	8577
1979	CIE	pound sterling	24182	547	**23635**	0,1	48175	3553	44622	0,65	14220	1367	12853	0,25	5466	9035
1980	CIE	pound sterling	30235	569	**29666**	0,05	52742	7397	45345	0,65	21953	3414	18539	0,3	11381	9776
1981	CIE	pound sterling	37071	595	**36476**	0,03	71763	13875	57888	0,7	36433	5352	31081	0,27	19822	13952
1982	CIE	pound sterling	38415	618	**37797**	0,021	96464	21499	74965	0,73	63675	7333	56342	0,249	29451	15916
1983	CIE	pound sterling	39688	637	**39051**	0,016	134749	29067	105682	0,73	85406	10114	75292	0,254	39818	17136
1984	CIE	pound sterling	50902	666	**50236**	0,013	191507	38964	152543	0,76	75085	11638	63447	0,227	51268	18926
1985	CIE	pound sterling	52058	704	**51354**	0,011	227091	48612	178479	0,76	77466	14648	62818	0,229	63963	20983
1986	CIE	pound sterling	52716	773	**51943**	0,01	243568	58719	184849	0,76	81253	17770	63483	0,23	77262	21981
1987	CIE	pound sterling	54190	820	**53370**	0,009	253132	69725	183407	0,765	82143	20599	61544	0,226	91144	22946
1988	CIE	pound sterling	56874	847	56027	0,008113726	270461	80241	190220	0,76865822	84019	23303	60716	0,223228056	104391	22337
1989	CIE	pound sterling	60408	1031	59377	0,00883197	275126	91085	184041	0,78027156	83560	24619	58941	0,210896475	116735	22576
1990	CIE	pound sterling	61685	1264	60421	0,00965335	286611	101227	185384	0,77308518	87624	28448	59176	0,217261473	130939	22358
1991	CIE		148940	31624	117316	0,22	295238	112122	183116	0,78					143746	33250
1992	CIE		196000	32000	164000	0,2	444000	128000	316000	0,8					160000	37000
1993	CIE		207450	32450	175000	0,275	245550	85550	160000	0,725					118000	36000
1994	CIE		190030	51030	139000	0,27	371970	137970	234000	0,73					189000	36000
1995	CIE		203780	57780	146000	0,27	426220	156220	270000	0,73					214000	52000
1996	CIE		205603	61603	144000	0,27	443556	166556	277000	0,73					228159	52000
1997	CIE-Iarnród Éireann		158533	55186	**103347**	0,452385051	261048	66803	**194245**	0,54761495					**121989**	.
1998	CIE-Iarnród Éireann		174251	61477	112774	0,454795635	272916	73698	199218	0,54520436					135175	22000
1999	CIE-Iarnród Éireann		205401	68670	136731	0,459755493	302124	80692	221432	0,54024451					149362	24000
1972	CP	escudo	4998190	613674	4384516	0,189691908	4519416	2395173	2124243	0,74036856	226262	226262		0,069939529	3235109	310486
1973	CP	escudo	6363794	3241826	3121968	0,541858202	4939479	2492387	2447092	0,41659248	248581	248581		0,041549316	5982794	124058
1974	CP	escudo	8039880	85440	7954440	0,595015077	5368001	56958	5311053	0,39666279	294559	1195	293364	0,008322133	143593	73830
1975	CP	escudo	9938104	154448	9783656	0,593551362	6254350	102091	6152259	0,3923408	312705	3671	309034	0,014107836	260210	119047
1976	CP	escudo	11540216	258694	11281522	0,544939027	6804484	189145	6615339	0,39843403	407998	26882	381116	0,056626945	474721	216279
1977	CP	escudo	12710155	347837	12362318	0,508759741	8014283	293429	7720854	0,42918051	534920	42430	492490	0,062059746	683696	237555
1978	CP	escudo	13980250	2030	13978220	0,000635925	9573514	2908570	6664944	0,91114877	674265	281601	392664	0,08821531	3192201	382247
1979	CP	escudo	14807396	3768	14803628	0,001056134	11644673	3207539	8437134	0,89904197	739150	356423	382727	0,099901898	3567730	453124
1980	CP	escudo	15514827	8619	15506208	0,002125558	12557878	3609434	8948444	0,89013363	798275	436882	361393	0,107740815	4054935	514652
1981	CP	escudo	16923033	14160	16908873	0,003028596	13409111	4133636	9275475	0,88411814	896541	527638	368903	0,112853267	4675434	628269
1982	CP	escudo	19515026	19909	19495117	0,003732011	14727538	4720888	10006650	0,8849467	1050265	593861	456404	0,111321288	5334658	722471
1983	CP	escudo	22173941	26528	22147413	0,00439313	15676056	5328709	10347347	0,88245297	1299995	683282	616713	0,113153904	6038519	778161
1984	CP	escudo	24487785	36112	24451673	0,005231948	16998061	6085355	10912706	0,88165325	1622185	780742	841443	0,113114801	6902209	911963
1985	CP	escudo	28317240	49995	28267245	0,006398834	19145614	6842207	12303407	0,87573053	1901310	920940	980370	0,117870634	7813142	999455
1986	CP	escudo	33997972	64960	33933012	0,007320639	20207640	8386261	11821379	0,94508608	1021635	422321	599314	0,047593283	8873542	1266749
1987	CP	escudo	41271129	83874	41187255	0,008191447	27117200	8631098	18486102	0,84294512	3079701	1524245	1555456	0,148863434	10239217	1723305
1988	CP	escudo	51285942	110652	51175290	0,009315697	32035044	10138187	21896857	0,85352529	3768952	1629177	2139775	0,137159017	11878016	2043000
1989	CP	escudo	63855314	143540	63711774	0,010250554	35153680	11809123	23344557	0,84331934	4320081	2050482	2269599	0,146430106	14003145	2540470
1990	CP	escudo	77853525	182008	77671517	0,010956544	42528481	14094091	28434390	0,84843816	4650661	2335708	2314953	0,140605294	16611807	2663693
1991	CP		113719233	197901	113521332	0,01	43229549	16821593,5	26407955	0,85	4993393	2770615	2222778	0,14	19790110	3232170
1992	CP	(in thousands)	148542	238	148304	0,01	50360	20233	30127	0,85	5436	3333	2103	0,14	23804	4031
1993	CP	(in thousands)	174939	288	174651	0,01	75452	24488	50964	0,85	5854	4033	1821	0,14	28809	5927
1994	CP	(in thousands)	195175	366	194809	0,01	111789	31119	80670	0,85	7513	5125	2388	0,14	36610	8562
1995	CP	(in thousands)	218211	458	217753	0,01	161254	38920	122334	0,85	9334	6410	2924	0,14	219245	10198
1996	CP	(in thousands)	280217	560	279657	0,01	219488	47623	171865	0,85	11016	7844	3172	0,14	178835	11376
1997	CP	(in thousands)	269658	331	269327	0,005	230176	56558	173618	0,855	12201	9261	2940	0,14	192030	11248
1998	CP	(in thousands)	51168	383	50785	0,005	10694	10338	356	0,135	245235	65857	179378	0,86	201134	11587
1999	CP	(in thousands)	42344	447	41897	0,005	12454	12066	388	0,135	281958	76863	205095	0,86	205265	14220
1997	REFER		259832	454	**259378**	0,9	68	10	**58**	0,02	121	40,32	**81**	0,08	**504**	148
1998	REFER		589736	840	588896	0,9	176	19	157	0,02	269	74,64	194	0,08	1003	429
1999	REFER		657631	1573	656058	0,9	280	35	245	0,02	522	139,84	382	0,08	815	815
1982	CSD	Czechoslovak crow	165567537	95895093	69672444	0,5	45089876	21487294	23602582	0,11203542	120477661	74407799	46069862	0,38796458	191790186	
1983	CSD	Czechoslovak crow	169470556	98277350	71193206	0,5	48139797	23923329	24216468	0,12171334	121330759	74354021	46976738	0,37828666	196554700	
1984	CSD	Czechoslovak crow	113370548	68455077	44915471	0,676734253	49844521	25153064	24691457	0,24865855	11559120	7546894	4012226	0,074607201	101155035	
1985	CSD	Czechoslovak crow	113375448	68459627	44915821	0,676779233	49844621	25153064	24691557	0,24865855	11554120	7542344	4011776	0,07456222	101155035	
1986	CSD	Czechoslovak crow	116219247	69702719	46516528	0,671043455	51174133	26119591	25054542	0,25145907	12278185	8049829	4228356	0,07749748	103872139	
1987	CSD	Czechoslovak crow	119792335	71261271	48531064	0,665758006	52630254	27192867	25437387	0,2540492	12963711	8583660	4380051	0,080192793	107037798	
1988	CSD	Czechoslovak crow	122365216	72764210	49601006	0,660133244	54386797	28366544	26020253	0,25734765	13727954	9095796	4632158	0,082519103	110226550	
1989	CSD	Czechoslovak crow	128709725	.	.	.	56619999	.	.	.	16184614	.	.	.	.	
1990	CSD	Czechoslovak crow	135054233	79855554	55198679	0,65	58853201	31838749	27014452	0,25774689	18641274	11832886	6808388	0,092253108	123527189	
1991	CSD		231044104	79943086,13	149746100	0,631	93113878	32940099	59593100	0,26	21078103	13809503	7268600	0,109	126692688	6417285
1992	CSD		246869720	80772	165385	0,66	90958540	33043	57610	0,27	14974740	8566,74	6408	0,07	122382	639
1972	DB	Deutsche mark	44451035	21080090	23370945	0,738179419	18856974	7003904	11852890	0,24526166	869821	472871	396950	0,016558925	28556865	1471172
1973	DB	Deutsche mark	46104361	21394324	24710037	0,732895471	19417350	7276298	12141052	0,24926078	902727	520886	381841	0,017843751	29191508	1333505
1974	DB	Deutsche mark	48103535	21773430	26330105	0,727698315	20626521	7573471	13053050	0,25311593	958201	574056	384145	0,01918575	29920957	1350784
1975	DB	Deutsche mark	50056751	22343714	27713037	0,725637624	21091813	7825509	13266304	0,25414234	993183	622612	370571	0,020220036	30791835	1533874
1976	DB	Deutsche mark	52115725	22719173	29396552	0,721967595	21893380	8080402	13812978	0,2567782	1010015	668836	341179	0,021254203	31468411	1456127
1977	DB	Deutsche mark	54188986	23221763	30967223	0,716592094	22039103	8244318	13794785	0,25440847	1641735	939751	701984	0,028999441	32405832	1760979
1978	DB	Deutsche mark	56379074	23749060	32630014	0,709870084	22680822	8695696	13985126	0,25991826	1714176	1010746	703430	0,030211652	33455502	1768584
1979	DB	Deutsche mark	58580425	24431964	34148461	0,710612805	23183426	9197929	13985497	0,2675252	1468231	751649	716582	0,021861992	34381542	1819474
1980	DB	Deutsche mark	60967558	24192366	36775192	0,695369502	23756486	9801301	13955185	0,28172217	1539905	796996	742909	0,02290833	34790663	1832461
1981	DB	Deutsche mark	63282836	26029111	37253725	0,698854551	24359148	10377911	13981237	0,27863611	1573803	838369	735434	0,022509335	37245391	1891949
1982	DB	Deutsche mark	65521558	26889743	38631815	0,697952969	24787438	10773166	14014272	0,27962942	1566925	863674	703251	0,022417612	38526583	1871963
1983	DB	Deutsche mark	67779309	27519927	40259382	0,696859828	25267998	11093919	14174079	0,28092031	1526937	877492	649445	0,02221986	39491338	1733138
1984	DB	Deutsche mark	70398250	28325078	42073172	0,69819065	25417493	11368451	14049042	0,28022328	1474432	875731	598701	0,021586073	40569260	1842973
1985	DB	Deutsche mark	73613411	29293120	44320291	0,697469138	25729407	11818995	13910412	0,28141025	1460046	887048	572998	0,021120611	41999163	1968452
1986	DB	Deutsche mark	77418069	30189550	47228519	0,697831402	26013850	12178442	13835408	0,28150467	1429320	893962	535358	0,02066393	43261954	1810364
1987	DB	Deutsche mark	82033918	31421647,11	50612271	0,7	27243864	13466420	13777444	0,3					44888067	2323019
1988	DB	Deutsche mark	85632866	32564606,9	53068259	0,7	27601549	13956260	13645289	0,3					46520867	2332571
1989	DB	Deutsche mark	89352803	33701514,7	55651288	0,7	27798323	14443506	13354817	0,3					48145021	2320220
1990	DB	Deutsche mark	92656023	34774060,02	57881963	0,7	28283261	14903169	13380092	0,3					49677229	2188868
1991	DB		56730756	10304698	46426058	0,7	14720867	4121879	10598988	0,28	925417	294420	630997	0,02	14720997	2401225
1992	DB		59355798	12574797,9	46781000	0,7	16354919	5029919	11325000	0,28	990277	359280	683000	0,02	3243000	2740000
1993	DB		62661298	14874297,9	47787000	0,7	17295719	5949719	11346000	0,28	1055977	424980	872000	0,02	3285000	2785000
1994	DB AG	(in thousands)	19738	895	18843	0,6	5774	447	5327	0,3	1155	149	1006	0,1	1491	1492
1995	DB AG	(in thousands)	25404	1846	23558	0,58	6812	986	5826	0,31	1888	350	1538	0,11	3182	1691
1996	DB AG	(in thousands)	30784	2978	27806	0,56	8000	1701	6299	0,32	2301	638	1663	0,12	5317	2135
1997	DB AG	(in thousands)	37951	4232	33719	0,54	10683	2586	8097	0,33	2854	1019	1835	0,13	7837	2520
1998	DB AG	(in thousands)	42400	5490	36910	0,52	12064	3589	8475	0,34	3711	1478	2233	0,14	10557	2720
1999	DB AG	(in thousands)	45684	7230	38454	0,507190459	16775	4929	11846	0,34577341	4793	2095	2698	0,146965977	14255	3698
1972	DSB	Danish crown	2233822	28237	2205585	0,330655644	1719029	57160	1661869	0,66934436				0	85397	85397
1973	DSB	Danish crown	2410951	30989	2379962	0,332849992	1835835	62113	1773722	0,66715001				0	93102	94443

A2.4.1.Fixed Assets

Years	Firms	currency	Land, Buildings and Fixed Installations Fixed Assets				Transport Stock Fixed Assets				Other Equipment Fixed Assets				Total Amortiz.	Annual costs amount allocated to depreciation
			Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.		
1974	DSB	Danish crown	2593121	33536	2559585	0,335296294	1998540	66483	1932057	0,66470371				0	100019	100019
1975	DSB	Danish crown	2857345	36539	2820806	0,334520453	2229116	72689	2156427	0,66547955				0	109228	109228
1976	DSB	Danish crown	3231713	41101	3190612	0,341878707	2455222	79120	2376102	0,65812129				0	120221	120222
1977	DSB	Danish crown	3431918	42288	3389630	0,312572991	2662367	87702	2574665	0,6482519	204719	5300	199419	0,039175105	135290	135291
1978	DSB	Danish crown	3824739	47826	3776913	0,311334757	2884617	98877	2785740	0,64366342	229319	6913	222406	0,045001823	153616	153618
1979	DSB	Danish crown	4304949	57151	4247798	0,305867305	3387592	121167	3266425	0,64847551	279293	8531	270762	0,045657188	186849	186850
1980	DSB	Danish crown	4650634	61261	4589373	0,29621159	3832896	135970	3696926	0,65744748	315424	9584	305840	0,046340933	206815	206915
1981	DSB	Danish crown	4977314	1141101	3836213	0,411973616	4458214	1479071	2979143	0,53399149	390782	149668	241114	0,05403489	2769840	2769839
1982	DSB	Danish crown	4416494	154289	4262205	0,303336944	3795646	312005	3483641	0,61341148	333267	42345	290922	0,083251579	508639	508640
1983	DSB	Danish crown	5091421	171159	4920262	0,295912934	4164637	356752	3807885	0,61678048	375885	50499	325386	0,087306582	578410	578410
1984	DSB	Danish crown	5671036	200320	5470716	0,313515832	4554578	381182	4173396	0,59657843	445212	57445	387767	0,089905736	638947	641784
1985	DSB	Danish crown	6328859	221646	6107213	0,313038983	5122245	414304	4707941	0,58513712	517467	72096	445371	0,101823893	708046	708047
1986	DSB	Danish crown	6905608	246160	6659448	0,308599181	5225491	467398	4758093	0,58595483	630157	84111	546046	0,105445993	797669	797670
1987	DSB	Danish crown	7589782	268688	7321094	0,313109831	5162517	477700	4684817	0,55667751	754624	111739	642885	0,130212661	858127	858127
1988	DSB	Danish crown	8089703	299895	7789808	0,331787767	5028559	471052	4557507	0,52114671	856838	132929	723909	0,147065527	903876	903876
1989	DSB	Danish crown	8401871	676949	7724922	0,525640289	4997046	459789	4537257	0,35701895	960778	151118	809660	0,117340759	1287856	1287948
1990	DSB	Danish crown	9763107	418574	9344533	0,377460613	6624659	509472	6115187	0,45943038	1272268	180875	1091393	0,163109004	1108921	1108921
1991	DSB		10256562	416499	9840063	0,33	7244437	631059	6613378	0,5	1422560	214560,06	1208000	0,17	1262118	1267048
1992	DSB		10774810	447810	10327000	0,33	8049500	678500	7371000	0,5	1687690	230690	1457000	0,17	1357000	1363
1993	DSB		11414475	497475	10917000	0,335	8956230	769230	8187000	0,518	1648295	218295	1430000	0,147	1485000	1485
1994	DSB		12372000		**9794000**		8955000		**8266000**		1705000		**3280000**	1		.
1995	DSB				**9891000**				**7075000**				**3411000**	1		
1996	DSB		11257000				7652000				3551000			1		
1997	DSB		.	.	.	.	.	.	.	.	.	.	.	.	.	
1998	DSB		.	.	3485	.	.	.	7084	.	.	.	1085	.	.	
1999	DSB		.	.	.	.	.	.	.	.	.	.	.	.	.	
1992	EVR		77	25	52	0,584269663	22	7	15	0,16853933	32	10	22	0,247191011	42	
1993	EVR		307	156	151	0,53	187	9	178	0,03	232	129	103	0,44	294	
1994	EVR		603	133	470	0,33	190	85	105	0,21	232	185	47	0,46	403	
1995	EVR		603	177	426	0,39	229	50	179	0,11	234	227	7	0,5	453	
1996	EVR		605	219	386	0,45	231	44	187	0,09	291	224	67	0,46	487	
1997	EVR		619	174	445	0,45	238	35	203	0,09	296	178	118	0,46	387	
1998	EVR		782	203	579	0,45	371	41	330	0,09	307	207	100	0,46	451	
1999	EVR		1098	248	850	0,45	505	50	455	0,09	359	253	106	0,46	550	
1972	FS1	lira	1633302248	633000	1632669248	0,01	1144821051	61401000	1083420051	0,97	86942688	1266000	85676688	0,02	0	63300000
1973	FS1	lira	1778494932	610000	1777884932	0,01	1206547639	59170000	1147377639	0,97	91010017	1220000	89790017	0,02	124300000	61000000
1974	FS1	lira	1923406794	1050000	1922356794	0,01	1331494264	101850000	1229644264	0,97	98924777	2100000	96824777	0,02	229300000	105000000
1975	FS1	lira	2102865831	2350000	2100515831	0,01	1571077380	227950000	1343127380	0,97	108005296	4700000	103305296	0,02	464300000	235000000
1976	FS1	lira	2316665270	2400000	2314265270	0,01	1795072728	232800000	1562272728	0,97	115521281	4800000	110721281	0,02	704300000	240000000
1977	FS1	lira	2574630942	2968120	2571662822	0,01	2159433833	287907670	1871526163	0,97	131137661	5936241	125201420	0,02	1001112031	296812031
1978	FS1	lira	2898155319	3400326	2894754993	0,01	2530502486	329831602	2200670884	0,97	144445231	6800652	137644579	0,02	1341144610	340032579
1979	FS1	lira	3253963761	3210627	3250753134	0,01	2881690234	311430812	2570259422	0,97	162384805	6421254	155963551	0,02	1662207303	321062693
1980	FS1	lira	3708390721	4253846	3704136875	0,01	3368596738	412623085	2955973653	0,97	187309451	8507692	178801759	0,02	2087591927	425384624
1981	FS1	lira	4330399381	6448520	4323950861	0,01	4050125418	625506428	3424618990	0,97	184670715	12897040	171773675	0,02	2732443915	644851988
1982	FS1	lira	5253043161	10120000	5242923161	0,01	5306676976	981640000	4325036976	0,97	336332440	20240000	316092440	0,02	3744443915	1012000000
1983	FS1	lira	6763187128	8614188	6754572940	0,01	6154119747	835576256	5318543491	0,97	433927361	17228376	416698985	0,02	4605862736	861418821
1984	FS1	lira	9217874483	13758115	9204116368	0,01	7715177061	1334537115	6380639946	0,97	523499132	27516229	495982903	0,02	5981674195	1375811459
1985	FS1	lira	11226803597	13225348	11213578249	0,01	8819086583	1282858763	7536227820	0,97	578347884	26450696	551897188	0,02	7304209002	1322534807
1986	FS2	lira	2014662713		2014662713	0	9854925960	545640000	9309285960	0,97702366	137659811	12831632	124828179	0,022976336	558471632	567576549
1987	FS2	lira	5957122094		5957122094	0	10998163537	1159521860	9838641677	0,96521881	236225684	41782801	194442883	0,034781186	1201304661	644707766
1988	FS2	lira	10636464952		10636464952	0	12401783060	1828555967	10573227093	0,95409807	385470254	87972349	297497905	0,04590193	1916528316	724794534
1989	FS2	lira	14760273462	54271636	14706001826	0,019604877	13527283566	2562099771	10965183795	0,92552307	536589548	151900788	384688760	0,054872056	2768272195	862293777
1990	FS2	lira	18156453973	163018401	17993435572	0,042575789	14756210562	3361788663	11394421899	0,87800397	799932450	304092095	495840355	0,079420241	3828899159	1026816950
1991	FS2	(in thousands)	28541962	258373	28283589	0,05	15071098	4547370	10523728	0,88	834514	361723	472791	0,07	5167466	1358028
1992	FS2	(in thousands)	57420199	526313	56893886	0,05	19613810	9263107	10350703	0,88	1253309	736838	516471	0,07	10526258	1911717
1993	FS2	(in thousands)	63668900	5018373	58650527	0,36	18696201	8224555	10471646	0,59	1007931	696996	310935	0,05	13939924	2326294
1994	FS2	(in thousands)	73603094	6093457	67509637	0,36	20243795	9478711	10765084	0,56	1802751	1354102	448649	0,08	16926270	2712882
1995	FS2	(in thousands)	76335689	7029768	69305921	0,36	21370578	10935194	10435384	0,56	1988023	1562171	425852	0,08	19527133	2863240
1996	FS SpA	(in thousands)	79105461	9800602	69304859	0,44	21675588	11137048	10538540	0,5	1684486	1336446	348040	0,06	22274095	3061748
1997	FS SpA	(in thousands)	81037739	11711219	69326520	0,465	22845396	12089000	10756396	0,48	1706488	1385198	321290	0,055	25185417	3245030
1998	FS SpA	(in thousands)	83410526	14253175	69157351	0,5	23588229	12827857	10760372	0,45	1722283	1425317	296966	0,05	28506349	3378662
1999	FS SpA	(in thousands)	85655673	16663413	68992260	0,52	24159657	13458911	10700746	0,42	2202877	1922702	280175	0,06	32045025	3603688
1990	MAV	Forint	.	.	.	.	.	.	.	.	.	.	.	.	.	
1991	MAV		65839	3351	62489	0,42	27235	4149	23086	0,52	2448	479	1969	0,06000	7978	7978,213
1992	MAV		75536	6818	68718	0,4	32386	8182	24205	0,48	2495	2045	450	0,12000	17045	9067
1993	MAV		331160	9663	321497	0,46	114475	9243	105232	0,44	3068	2101	967	0,10000	21006	3961
1994	MAV		338576	12240	326336	0,43	126385	12809	113576	0,45	4576	3416	1160	0,12000	28465	7459
1995	MAV		366383	17190	349194	0,44	139315	17580	121734	0,45	5771	4297	1474	0,11000	39067	10602
1996	MAV Rt.		383135	32037	351099	0,44	141612	35677	105935	0,49	6791	5097	1694	0,07000	72811	33744
1997	MAV Rt.		399778	40154	359624	0,47	165245	39727	125518	0,465	7175	5553	1622	0,06500	85434	12623
1998	MAV Rt.		415251	55022	360230	0,48	184250	52729	131521	0,46	8560	6878	1682	0,06000	114628	29194
1999	MAV Rt.		455856	63165	392691	0,485	195927	59909	136018	0,46	8877	7163	1714	0,05500	130237	15609
1972	NS	florin	1898522	1055415	843107	0,553780308	1460859	772123	688736	0,40513591	205260	78299	126961	0,041083786	1905837	240267
1973	NS	florin	2030108	1117212	912896	0,555247309	1483398	784695	698703	0,38998846	259033	110191	148842	0,054764231	2012098	265507
1974	NS	florin	2127228	1149593	977635	0,554327941	1508054	808554	699500	0,38988066	311599	115703	195896	0,055791402	2073850	292016
1975	NS	florin	2248433	1207140	1041293	0,55517613	1519694	843436	676258	0,38790491	441471	123761	317656	0,05691896	2174337	342737
1976	NS	florin	2437394	12665078	1172316	0,927149418	1548133	860382	687751	0,06298443	539344	134774	404570	0,009866156	13660234	352519
1977	NS	florin	3106230	1323642	1782588	0,564875632	1643905	864610	779295	0,36897977	168330	154993	13337	0,066144599	2343245	379919
1978	NS	florin	3428341	1386685	2041656	0,569720079	1684407	879164	805243	0,36120488	180076	168127	11949	0,069075044	2433976	384534
1979	NS	Guilder	3766649	1453011	2313638	0,573934033	1790828	895813	895015	0,35384286	196218	182845	13373	0,072223107	2531669	321273
1980	NS	florin	4162585	1534141	2628444	0,574386083	1958977	935841	1023136	0,35038112	217102	200941	16161	0,075232794	2670923	354370
1981	NS	Guilder	4524032	1601725	2922307	0,57090711	2188275	978668	1209607	0,34882924	244575	225186	19389	0,080263646	2805579	391088
1982	NS	florin	4913619	1677079	3236540	0,568294843	2452864	1020763	1432101	0,34589566	281501	253230	28271	0,085809496	2951072	426563
1983	NS	florin	5662280	1988208	3674072	0,605630864	2584528	1025592	1558936	0,31240704	308633	269071	39562	0,0819621	3282871	435421
1984	NS	florin	6127701	2090763	4036938	0,603672163	2713225	1087250	1625975	0,3139249	341883	285395	56488	0,08240294	3463408	439313
1985	NS	florin	6883272	2261216	4422056	0,606296137	2912513	1162729	1749784	0,31176062	369087	305612	63475	0,081943244	3729557	238293
1986	NS	florin	7165156	2416676	4798480	0,608222193	3033270	1227879	1805391	0,30902912	395250	328789	66463	0,082748687	3973344	238518
1987	NS	florin	7579853	2589464	4990389	0,613986472	3123930	1288256	1835674	0,30545771	399425	339741	59684	0,080555813	4217461	243489
1988	NS	florin	8099540	2807268	5292272	0,620951702	3270651	1350301	1920350	0,29867889	416226	363343	52883	0,080369403	4520912	257842
1989	NS	florin	8588795	2983693	5605102	0,618822134	3593059	1451893	2141166	0,30112465	451346	385982	65364	0,080053211	4821568	269724
1990	NS	florin	9265008	3143896	6121112	0,613798826	4005704	1556210	2449494	0,3038268	501117	421924	79193	0,082374371	5122030	287677
1991	NS		10449430	3302976	7146454	0,613	4270593	1643406	2033965	0,305	483500	441834	41666	0,082	5388216	321073
1992	NS	(in thousands)	11336	3505	7831	0,614	4888	1730	2433	0,303	610	474	136	0,083	5709	334
1993	NS	(in thousands)	12723	3751	8971	0,618	5576	1821	3134	0,3	660	498	162	0,082	6070	411
1994	NS	(in thousands)	13640	4044	9596	0,618520037	6309	1958	3624	0,29947996	834	536	298	0,082	6538	437
1995	NS gr+gca	(in thousands)	**14849**	4295,98	**10553**	0,62	6897	2196	**4020**	0,31692885	927	591	**336**	0,06307115	**6929**	391
1996	NS gr+gca	(in thousands)	**16386**	4584,28	**11802**	0,62	7264	2426	4212	0,32810387	1215	903	312	0,051896132	**7394**	465
1997	NS B.V.		**12894**	4019,48	8875	0,92	**0**		**0**	.	**367**	349,52	17	0,08	4369	121
1998	NS B.V.		**13940**	4298,24	9642	0,92	**0**		0	.	**396**	373,76	22	0,08	4672	132
1999	NS B.V.		.	.	.	.	.	.	.	.	.	.	.	.	.	
1997	NS N.V.		**2729**	985,5	1743	0,27	**6667**	2372,5	4294	0,65	**598**	292	306	0,08	3650	428
1998	NS N.V.		**2517**	1085,4	1432	0,27	**6988**	2613	4375	0,65	**634**	321,6	312	0,08	4020	441
1999	NS N.V.		.	.	.	.	.	.	.	.	.	.	.	.	.	
1972	NSB	Norwegian crown	3989324	375669	3613655	0,494875632	1539108	383449	1155659	0,50512437				0	759118	94235
1973	NSB	Norwegian crown	4121182	426957	3694225	0,495856798	1635365	434092	1201273	0,5041432				0	861049	101931
1974	NSB	Norwegian crown	4367497	483642	3883855	0,497920364	1768387	487682	1280705	0,50207964				0	971324	110275
1975	NSB	Norwegian crown	4538165	541540	3996625	0,498723583	1789489	544312	1245177	0,50127642				0	1085852	115728
1976	NSB	Norwegian crown	4912268	604961	4307307	0,500233182	2033827	604397	1429430	0,49976682				0	1209358	122306
1977	NSB	Norwegian crown	5143573	668048	4475525	0,500286071	2182631	667284	1515347	0,49971393				0	1335332	127174
1978	NSB	Norwegian crown	5441825	736777	4705048	0,500744548	2298587	734586	1564001	0,49925545				0	1471363	136031
1979	NSB	Norwegian crown	5747620	810473	4937147	0,501007922	2518204	807212	1710992	0,49899208				0	1617685	146322
1980	NSB	Norwegian crown	6046466	891718	5154748	0,502114955	2730060	884206	1845854	0,49788504				0	1775924	157039
1981	NSB	Norwegian crown	6335732	979378	5376354	0,502800529	2996560	968468	2028092	0,49719947				0	1947846	171922
1982	NSB	Norwegian crown	6720754	2040152	4680602	0,654156325	3302977	1078601	2224376	0,34584368				0	3118753	186907
1983	NSB	Norwegian crown	7022373	2079935	4942438	0,672539173	3437442	1012725	2424717	0,32746083				0	3092660	198027
1984	NSB	Norwegian crown	7746693	978092	6768601	0,48435814	3771785	1041265	2730520	0,51564186				0	2019357	210235
1985	NSB	Norwegian crown	8262333	1138342	7123991	0,5	4142184	1201515	2940669	0,5						320500
1986	NSB	Norwegian crown	8862831	1338060	7524771	0,5	4426645	1401233	3025412	0,5				.	.	399436
1987	NSB	Norwegian crown	9548326	1575765	7972561	0,5	4817969	1638938	3179031	0,5				.	.	475409
1988	NSB	Norwegian crown	10426736	1841831	8584905	0,5	4916035	1905004	3011031	0,5				.	.	532133
1989	NSB	Norwegian crown	11054358	2139303	8915055	0,5	5329316	2202476	3126840	0,5				.	.	594943
1990	NSB	Norwegian crown	11187853	2296757	8891096	0,5	5509855	2359930	3149925	0,5				.	.	314908
1991	NSB	Norwegian crown	1403050	170050	1233000	0,5	2194040	136040	2058000	0,4	389010	34010	355000	0,1		340100
1992	NSB	Norwegian crown	1690550	362550	1328000	0,5	2576040	290040	2286000	0,4	494510	72510	422000	0,1		385000
1993	NSB	Norwegian crown	2102050	578050	1524000	0,5	3151440	462440	2689000	0,4	761610	115610	646000	0,1	431	431000
1994	NSB	(in thousands)	.		1279	0	.		165	0	.		425	0	24	244
1995	NSB	(in thousands)	.		47	0	.		454	0	.		66	0	361	308
1996	NSB BA	(in thousands)	.		26	0	.		122	0	.		803	0	22	407

A2.4.1.Fixed Assets

			Land, Buildings and Fixed Installations Fixed Assets				Transport Stock Fixed Assets				Other Equipment Fixed Assets				Total	Annual costs
Years	Firms	currency	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Amortiz.	amount allocated to depreciation
1997	NSB BA	(in thousands)	.		1171		.		3034		.		306		0	292
1998	NSB BA	(in thousands)	.		1251		.		4027		.		0		0	322
1999	NSB BA	(in thousands)	.		1442		.		4467		.		1167		0	357
1998	MTAS		.	.	.	.	.	.	.	.	.	.	.	.	.	
1999	MTAS		.	.	.	.	.	.	.	.	.	.	.	.	.	
1996	JBV		.	.	.	.	.	.	.	.	.	.	.	.	.	
1997	JBV		.	.	.	.	.	.	.	.	.	.	.	.	.	
1998	JBV		.	.	.	.	.	.	.	.	.	.	.	.	.	
1999	JBV		.	.	.	.	.	.	.	.	.	.	.	.	.	
1972	OBB	Austrian Schilling	52811945	25544050	27267895	0,697804654	21607412	10165665	11441747	0,27770257	3194758	896590	2298168	0,024492775	36606305	1722781
1973	OBB	Austrian Schilling	53635519	26072919	27562600	0,695830979	22747752	10456932	12290820	0,27907336	3834057	940339	2893718	0,025095656	37470190	1787536
1974	OBB	Austrian Schilling	55947760	26806283	29141477	0,691666931	24179893	10984553	13195340	0,28342803	3885138	965221	2919917	0,024905036	38756057	1835598
1975	OBB	Austrian Schilling	58122682	27620241	30502441	0,690598254	24334459	10339974	13994485	0,25853388	6342125	2034443	4307682	0,050867868	39994658	1975402
1976	OBB	Austrian Schilling	60407109	28381567	32025542	0,687361674	25623693	10790798	14832895	0,26133797	7136824	2118222	5018602	0,051300361	41290587	2072179
1977	OBB	Austrian Schilling	65775360	28956670	36818690	0,690589966	28194777	10898900	17295877	0,25992875	3423027	2074767	1348260	0,049481286	41930337	2094093
1978	OBB	Austrian Schilling	69256945	29657035	39599910	0,687722422	30155293	11321937	18833356	0,26254647	3642647	2144582	1498065	0,049731105	43123554	2301308
1979	OBB	Austrian Schilling	73561411	30459887	43101524	0,684404839	33007217	11928294	21078923	0,26801748	3745015	2117476	1627539	0,047577682	44505657	2476539
1980	OBB	Austrian Schilling	78055004	31170032	46884972	0,677863944	35465610	12541891	22923719	0,27275223	4101043	2270803	1830240	0,049383827	45982726	2662059
1981	OBB	Austrian Schilling	82764844	32061717	50703127	0,672225002	37762591	13249282	24513309	0,27779232	4373773	2383920	1989853	0,049982683	47694919	2808911
1982	OBB	Austrian Schilling	87954543	32998477	54956066	0,665413326	40464114	14066179	26397935	0,28364409	4696330	2526291	2170039	0,050942584	49590947	2999725
1983	OBB	Austrian Schilling	94015074	33880698	60134376	0,662019896	43136224	14651878	28484346	0,28629383	5099210	2645188	2454022	0,051686275	51177764	3124992
1984	OBB	Austrian Schilling	99628240	34991930	64636310	0,658126404	45687195	15418900	30268295	0,28999787	5463575	2758181	2705394	0,051875725	53169011	3362167
1985	OBB	Austrian Schilling	105204334	36176226	69028108	0,655328767	47986830	16285356	31701474	0,29500762	5667660	2741589	2926071	0,049663614	55203171	3577094
1986	OBB	Austrian Schilling	110649977	37487809	73162168	0,6517378	49772859	17156921	32615938	0,29827867	6061955	2875041	3186914	0,049983527	57519771	3817256
1987	OBB	Austrian Schilling	114927888	38982770	75945118	0,649169057	50865648	18063475	32829173	0,30080595	6408529	3004014	3404515	0,050024997	60050259	4022273
1988	OBB	Austrian Schilling	120455180	40816279	79638901	0,64975713	51747561	18855530	32892031	0,30016247	6731879	3145938	3585941	0,050080402	62817747	4561921
1989	OBB	Austrian Schilling	126620216	42421857	84198359	0,646399762	53558340	19887955	33670385	0,30304117	7231927	3318085	3913842	0,050559063	65627897	4434468
1990	OBB	Austrian Schilling	133915666	44280812	89634854	0,643260743	57243699	21175543	36068156	0,30761395	7513549	3381690	4131859	0,049125306	68838045	4701951
1991	OBB		142605432	47565651	95039781	0,645	60504419	22713520	37790899	0,308	6457757	3466024	2991733	0,047	73745196	
1992	OBB	(in thousands)	147290	50398	96892	0,644	63958	24338	39620	0,311	6751	3522	3229	0,045	78258	
1993	OBB	(in thousands)	153722	59549	94173	0,637	64741	30382	34359	0,325	6049	3552	2497	0,038	93484	
1994	OBB	(in thousands)	156847	63288	93559	0,627	62911	33814	29097	0,335	5602	3836	1766	0,038	100938	7454
1995	OBB	(in thousands)	161930	69717	92213	0,64	65819	35948	29871	0,33	5217	3268	1949	0,03	108933	7995
1996	OBB	(in thousands)	168368	73222	95146	0,63	68342	39517	28825	0,34	5456	3487	1969	0,03	116226	7293
1997	OBB	(in thousands)	178529	78606	99923	0,631	69071	42355	26716	0,34	5702	3613	2089	0,029	124574	8348
1998	OBB	(in thousands)	189711	84465	105246	0,632	70279	45440	24839	0,34	6000	3742	2258	0,028	133647	9073
1999	OBB	(in thousands)	200094	88812	111282	0,624548	73091	49379	23712	0,34724547	6221	4011	2210	0,028206354	142202	8555
1989	PKP	zloty	2756547815	779922053	1976625762	0,557658134	1083617190	461136656	622480534	0,32972091	505184603	157507913	347676690	0,112620958	1398566622	106822711
1990	PKP	zloty	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1991	PKP		180705126	113151611,6	67546139	0,55	84261310	67253203	17005379	0,3269	28303896	25325388	2978508	0,1231	205730203	6422952
1992	PKP		180208964	115786620,4	64374301	0,551	84023629	69009666	14996193	0,3284	28354385	25342770,3	3011615	0,1206	210139057	6298363
1993	PKP		181293895	118435402,9	62762266	0,552	84641551	70245926	14360035	0,3274	29595215	25875560,8	3719654	0,1206	214556889	6311189
1994	PKP		182692127	120915048	61674426	0,552	85696113	71716643	13941503	0,3274	31158238	26417309,4	4740929	0,1206	219049000	6417301
1995	PKP		262554712	124203312	138220000	0,552	111635564	73666964	37920000	0,3274	36095724	27135723,6	8960000	0,1206	225006000	8510000
1996	PKP		267087160	128577360	138320000	0,552	115951482	76261282	39620000	0,3274	37221358	28091358	9130000	0,1206	232930000	11320000
1997	PKP		273333180	133440480	139170000	0,552	120832976	79145676	41420000	0,3274	40133844	29153844	10980000	0,1206	241740000	12580000
1998	PKP		274367600	137834400	135920000	0,552	123568580	81751780	41590000	0,3274	40393820	30113820	10280000	0,1206	249700000	18460000
1999	PKP		274040100	141698400	132130000	0,552	124911880	84043580	40790000	0,3274	42178020	30958020	11220000	0,1206	256700000	18540000
1972	RENFE	Peseta	86615902	14736847	71879055	0,629141262	41652275	8686902	32975373	0,37085874				0	23423749	3859937
1973	RENFE	Peseta	103127446	18491055	84636391	0,634107727	45140757	10669692	34471065	0,36589227				0	29160747	4410474
1974	RENFE	Peseta	120692738	.	.	.	48671110	.	.	.		.	.	.		
1975	RENFE	Peseta	138258029	24800570	113457459	0,645827137	52201462	13600681	38600781	0,35417286				0	38401251	5064310
1976	RENFE	Peseta	143396935	23817783	119579152	0,608353781	53431079	15333421	38097658	0,39164622				0	39151204	5682518
1977	RENFE	Peseta	163711560	26656016	137055544	0,611652852	55768181	16924286	38843895	0,38834715				0	43580302	6385138
1978	RENFE	Peseta	178640598	30082689	148557909	0,602643562	60853516	19835191	4101325	0,39735644				0	49917880	8556979
1979	RENFE	Peseta	203138441	35294804	167843637	0,612253393	68031247	22352576	45678671	0,38774661				0	57647380	10023910
1980	RENFE	Peseta	237750567	.	.	.	79015258	.	.	.		.	.	.		
1981	RENFE	Peseta	272362692	46289801	226072891	0,613513769	89999268	29160504	60838764	0,38648623		.	.	0	75450305	13164232
1982	RENFE	Peseta	307328059	53025512	254302547	0,615893762	125373774	33069713	92304061	0,38410624				0	86095225	15471374
1983	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1984	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1985	RENFE	Peseta	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1986	RENFE	Peseta	626240000	302470000	323770000	0,687706901	245155000	107428000	137727000	0,24425225	63158000	29926000	33232000	0,068040853	439824000	25848000
1987	RENFE	Peseta	630281422	311445852	318835570	0,676075868	281484400	123552402	157931998	0,26820327	69396671	25668761	43727910	0,055720857	460667015	28642000
1988	RENFE	Peseta	667200130	324604015	342596115	0,653496182	322690242	130229649	192460593	0,26217968	82106883	41885405	40221478	0,084324133	496719069	30958000
1989	RENFE	Peseta	762010118	349120328	412889790	0,663701476	378417526	137037677	241379849	0,26051794	74808953	39862112	34946841	0,075780585	526020117	35343000
1990	RENFE	Peseta	819096095	360605676	458490419	0,653447382	428212360	145753602	282458758	0,26411761	94343327	45491852	48851475	0,082435007	551851130	40986000
1991	RENFE	(in thousands)	938805	368809	277680	0,637	486064	160377	238372	0,277	100079	49792	50287	0,086	578978	45752
1992	RENFE	(in thousands)	1014460	386820	449000	0,63	525438	170078	302000	0,277	109102	57102	52000	0,093	614000	61038
1993	RENFE	(in thousands)	1054796	431435	479160	0,628	600633	190986	366574	0,278	116339	64578	51761	0,094	686999	66308
1994	RENFE	(in thousands)	1071092	467691	502911	0,625	628257	209525	388715	0,28	128387	71089	57298	0,095	748305	72132
1995	RENFE	(in thousands)	1092335	495002	512501	0,61	662415	237763	399312	0,293	138647	78713	59934	0,097	811479	74623
1996	RENFE	(in thousands)	1126361	530843	531624	0,608	695440	257564	418791	0,295	144698	84690	60008	0,097	873097	76154
1997	RENFE	(in thousands)	1167344	570269	533649	0,605	697163	281835	396382	0,299	149730	90489	59241	0,096	942593	78449
1998	RENFE	(in thousands)	1190668	586497	532882	0,584	707802	320364	366144	0,319	154357	97415	56942	0,097	1004276	78949
1999	RENFE	(in thousands)	1237511	621149	526837	0,579187989	725789	346041	353007	0,3226646	159358	105258	54100	0,098147416	1072448	79848
1972	SJ	Swedish crown	5259325	4462242	797083	0,645384033	3626289	2326220	1300069	0,3364464	207034	125626	81408	0,018169569	6914088	152365
1973	SJ	Swedish crown	5397022	4333300	1063722	0,596289555	3758777	2768685	990092	0,38098861	214450	165122	49328	0,022721834	7267107	250314
1974	SJ	Swedish crown	5566798	4566975	999823	0,591415276	3983622	2965020	1018602	0,3839649	237002	190117	46885	0,024619819	7722112	329305
1975	SJ	Swedish crown	5739460	4692002	1047458	0,585267092	4146301	3121694	1024607	0,3893913	254105	203160	50945	0,025341605	8016856	352500
1976	SJ	Swedish crown	5945768	4833454	1112314	0,576898283	4352698	3328837	1023861	0,39731429	270365	216056	54309	0,025787426	8378347	400636
1977	SJ	Swedish crown	6189527	5032091	1157436	0,572966512	4638153	3514807	1123346	0,40020475	300142	235624	64518	0,02682874	8782522	364436
1978	SJ	Swedish crown	6512694	5186521	1326173	0,565803134	4968045	3721840	1246205	0,40601951	339848	258292	81556	0,028177351	9166653	284848
1979	SJ	Swedish crown	6891624	5494632	1396992	0,554946347	5333523	4114551	1218972	0,41556105	386371	292012	94359	0,029492602	9901195	451119
1980	SJ	Swedish crown	7104925	5699089	1405836	0,547050347	5668081	4396261	1271820	0,42199308	441633	322501	119132	0,030956576	10417851	531700
1981	SJ	Swedish crown	9578431	7072516	2505915	0,568223457	6466594	5030976	1435618	0,40420108	476369	343224	133145	0,027575466	12446716	873553
1982	SJ	Swedish crown	10526071	7837900	2688171	0,573210472	7044041	5495028	1549013	0,40186882	471544	340758	130786	0,024920713	13673686	934880
1983	SJ	Swedish crown	11843187	8571336	3271851	0,565675738	7925531	6175507	1750024	0,40756009	526015	405541	120474	0,026764171	15152384	1018031
1984	SJ	Swedish crown	13166036	11252368	1913668	0,601099979	8638160	6816793	1821367	0,36415216	843258	650467	192791	0,034747859	18719628	887815
1985	SJ	Swedish crown	15158045	13861382	1296663	0,631557629	8776865	7210938	1565927	0,32854754	962320	875609	86711	0,039894835	21947929	1090775
1986	SJ	Swedish crown	17102777	14449589	2653188	0,634481024	9604218	7412974	2191244	0,32550347	1070555	911308	159247	0,040015507	22773871	416400
1987	SJ	Swedish crown	18923241	15174288	3748953	0,675836924	10205693	6308684	3897009	0,28097803	1244891	969616	275275	0,043185044	22452588	482000
1988	SJ	Swedish crown	21103332	16214114	4889218	0,72128924	9828513	5230953	4597560	0,23270036	1380817	1034284	346533	0,046010403	22479351	544200
1989	SJ	Swedish crown	4743853	2947603	1796250	0,341716564	9469727	5366304	4103423	0,62211735	582049	311964	270085	0,036166087	8625871	339400
1990	SJ	Swedish crown	7638969	3271352	4367617	0,294254205	9610368	7512981	2097387	0,67578367	796939	333102	463837	0,029962127	11117435	180200
1991	SJ		7687126	3467668	4142761	0,31	10362182	7382777	2260369	0,66	932988	335581	434426	0,03	11186025	279000
1992	SJ	(in thousands)	8251	3480	4734	0,31	10360	7297	2717	0,65	959	449	432	0,04	11227	345
1993	SJ	(in thousands)	8347	3831	4475	0,34	9927	6873	2673	0,61	1520	563	870	0,05	11268	383
1994	SJ	(in thousands)	8702	4073	4586	0,36	10019	6561	3053	0,58	1660	679	890	0,06	11313	536
1995	SJ	(in thousands)	8845	4039	4786	0,355	14215	6541	7483	0,575	1729	796	889	0,07	11376	657
1996	SJ	(in thousands)	8937	4161	4757	0,363279204	14169	6371	7648	0,5562249	1760	922	795	0,080495897	11454	646
1997	SJ	(in thousands)	8368	4014	4322	0,334751063	14308	7089	7038	0,5911934	1651	888	719	0,074055542	11991	664
1998	SJ	(in thousands)	8356	4085	4239	0,336518659	14345	7052	7065	0,58093747	1729	1002	712	0,082543867	12139	702
1999	SJ	(in thousands)	8144	4144	3939	0,331149113	14774	7439	7016	0,59445421	1455	931	506	0,074396676	12514	839
																-336,565
1989	BV	Swedish crown	17547403	15570386	1977017	0,897849982				0	2540202	1771471	768731	0,102150018	17341857	64143
1990	BV	Swedish crown	20275373	17355100	2920273	0,904118652				0	3004932	1840500	1164432	0,095881348	19195600	136787
1991	BV		20129660	15397000	2747360	0,89					2571400	1903000	668400	0,11	17300000	186100
1992	BV	(in thousands)	21688	15713	3087	0,9					2457	1746	711	0,1	17459	265
1993	BV	(in thousands)	22449	15890	3695	0,9					2651	1766	885	0,1	17656	328
1994	BV	(in thousands)	23605	15946	3936	0,89					2905	1971	934	0,11	17917	436
1995	BV	(in thousands)	24478	16220	6302	0,89					2917	2005	912	0,11	18225	513
1996	BV	(in thousands)	68032	16998	36351	0,885					3165	2209	956	0,115	19207	1403
1997	BV	(in thousands)	71871	17020	41761	0,88400					3123	2233	890	0,11600	19253	.
1998	BV	(in thousands)	75721	17051	47172	0,88350					3073	2248	825	0,11650	19299	.
1999	BV	(in thousands)	79570	17082	52582	0,88300					3023	2263	760	0,11700	19345	.
2000	BV	(in thousands)	83390	17084	57993	0,88107					3000	2306	694	0,11893	19390	.
2001	BV	(in thousands)	86960	19102	59555	0,88909					3031	2383	648	0,11091	21485	.
1996	BK		0	.	.	0	.	.	.	.	0	.	.	.	.	
1997	BK		.	.	.	.	.	.	.	.	.	.	.	.	.	
1998	BK		.	.	.	.	.	.	.	.	.	.	.	.	.	
1999	BK		.	.	.	.	.	.	.	.	.	.	.	.	.	
1998	MTAB		.	.	.	.	.	.	.	.	.	.	.	.	.	
1999	MTAB		.	.	.	.	.	.	.	.	.	.	.	.	.	
1972	SNCB	Belgian franc	22931784	8990000	13941784	0,58	15430696	6045000	9385696	0,39	1539045	465000	1074045	0,03	15500000	5500000
1973	SNCB	Belgian franc	26821597	12180000	14641597	0,58	18304346	8190000	10114346	0,39	1649309	630000	1019309	0,03	21000000	5500000
1974	SNCB	Belgian franc	31119796	15573000	15546796	0,58	19959998	10471500	9488498	0,39	1752895	805500	947395	0,03	26850000	5850000

A2.4.1.Fixed Assets

			Land, Buildings and Fixed Installations Fixed Assets				Transport Stock Fixed Assets				Other Equipment Fixed Assets				Total	Annual costs
Years	Firms	currency	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Amortiz.	amount allocated to depreciation
1975	SNCB	Belgian franc	35321562	19227000	16094562	0,58	23113172	12928500	10184672	0,39	2057508	994500	1063008	0,03	33150000	6300000
1976	SNCB	Belgian franc	40123365	23461000	16662365	0,58	27955536	15775500	12180036	0,39	2401759	1213500	1188259	0,03	40450000	7300000
1977	SNCB	Belgian franc	68996428	28118400	40878028	0,58	31608197	18907200	12700997	0,39	3641889	1454400	2187489	0,03	48480000	8030000
1978	SNCB	Belgian franc	78490314	32758400	45731914	0,58	36814316	22027200	14787116	0,39	3889615	1694400	2195215	0,03	56480000	8000000
1979	SNCB	Belgian franc	89837096	37584000	52253096	0,58	39752605	25272000	14480605	0,39	4450239	1944000	2506239	0,03	64800000	8320000
1980	SNCB	Belgian franc	102959405	42142800	60816605	0,58	46798798	28337400	18461398	0,39	4414413	2179800	2234613	0,03	72660000	7860000
1981	SNCB	Belgian franc	118007792	46666800	71340992	0,58	54104956	31379400	22725556	0,39	5724847	2413800	3311047	0,03	80460000	7800000
1982	SNCB	Belgian franc	151421142	48193362	103227780	0,565515127	91686387	33189311	58497076	0,38945317	5903233	3837615	2065618	0,045031707	85220288	4327587
1983	SNCB	Belgian franc	164767118	50968294	113798824	0,564993599	98508344	35078562	63429782	0,38885278	6231006	4163536	2067470	0,046153618	90210392	4388341
1984	SNCB	Belgian franc	173728656	53657870	120070786	0,56151495	104791039	37391990	67399049	0,39129696	6516137	4509252	2006885	0,04718809	95559112	4726568
1985	SNCB/NMB	Belgian franc	184472531	57164486	127308045	0,5633334	109230596	39461561	69769035	0,38887808	6950327	4849360	2100967	0,047788525	101475407	4818798
1986	SNCB/NMB	Belgian franc	194328390	60156190	134172200	0,561681067	115213394	41734986	73478408	0,38968145	7140469	5209087	1931382	0,048637481	107100263	4763892
1987	SNCB/NMB	Belgian franc	202801023	63963726	138837297	0,563318052	118024489	44037406	73987083	0,38783022	7244557	5547024	1697533	0,048851731	113548156	4743421
1988	SNCB/NMB	Belgian franc	208967390	68874195	140093195	0,575539577	114346693	44946638	69400055	0,3755916	7609430	5848079	1761351	0,048868824	119668912	5673661
1989	SNCB/NMB	Belgian franc	213604535	73999393	139605142	0,587664559	112237901	45732690	66505211	0,36318516	8308947	6189060	2119887	0,049150284	125921143	6006646
1990	SNCB/NMB	Belgian franc	220386803	80325580	140061223	0,604975803	105401990	45895335	59506655	0,34566283	8779493	6553949	2225544	0,049361369	132774864	6307528
1991	SNCB/NMBS		226139465	83338912,66	131004368	0,602	101638987	48452856	51104451	0,35	9871018	6644963	3226055	0,048	138436732	9872434
1992	SNCB/NMB	(in thousands)	234620	85258	130772	0,588	101697	52924	46708	0,365	10407	6815	3592	0,047	144997	9911
1993	SNCB/NMB	(in thousands)	252580	92423	139826	0,595	114353	55920	44879	0,36	11513	6990	4523	0,045	155333	10368
1994	SNCB/NMB	(in thousands)	268845	95284	147229	0,5955	114737	57603	42956	0,36	12198	7120	5078	0,0445	160007	10905
1995	SNCB/NMB	(in thousands)	282307	95869	152002	0,595	116705	58005	30525	0,36	12460	7251	5209	0,045	161125	10736
1996	SNCB/NMB	(in thousands)	307031	102458	163457	0,596	122064	61888	32766	0,36	13600	7564	6036	0,044	171910	12233
1997	SNCB/NMB	(in thousands)	331348	109263	185279	0,596	127945	65998	46173	0,36	14074	8066	6008	0,044	183328	13266
1998	SNCB/NMB	(in thousands)	356834	119021	189212	0,596	141870	71892	57828	0,36	15246	8787	6459	0,044	199699	15220
1999	SNCB/NMB	(in thousands)	380074	128600	188158	0,596	155474	77678	61967	0,36	16823	9494	7329	0,044	215771	16562
1972	SNCF	French franc	14104424	5315278	8789146	0,287679995	15597057	12894514	2702543	0,6978927	336649	266564	70085	0,014427304	18476356	1620458
1973	SNCF	French franc	15084959	6151223	8933736	0,308663929	16340283	13502994	2837289	0,67757049	380430	274328	106102	0,013765581	19928545	1748660
1974	SNCF	French franc	16607150	7147657	9459493	0,329747123	17311350	14247454	3063896	0,65728629	435505	281066	154439	0,012966585	21676177	1805451
1975	SNCF	French franc	18488456	8320276	10168180	0,350644186	18671129	15104379	3566750	0,63654892	489534	303889	185645	0,012806896	23728544	1867347
1976	SNCF	French franc	20653651	9563593	11090058	0,370218781	20094516	15934529	4159987	0,61684577	587278	334152	253126	0,012935447	25832274	1998053
1977	SNCF	French franc	23156092	10902956	12253136	0,388610221	21811807	16775760	5036047	0,59793251	685749	377561	308188	0,013457274	28056277	2073765
1978	SNCF	French franc	72803723	26905359	45898364	0,56962536	34136769	19925546	14211223	0,42185262	964095	402524	561571	0,008522015	47233429	3410375
1979	SNCF	French franc	76319468	28814847	47504621	0,566276585	35819159	21571948	14247211	0,42393732	1093211	497963	595248	0,009786094	50884758	3355466
1980	SNCF	French franc	80731486	30825087	49906399	0,567360398	37818281	22986139	14832142	0,42307829	1161098	519473	641625	0,009561316	54330699	3372637
1981	SNCF	French franc	86236022	32100687	54135335	0,562849498	39591406	24388952	15202454	0,42763289	1230122	542813	687309	0,009517616	57032452	3438101
1982	SNCF	French franc	91707511	33881746	57825765	0,559204601	42130766	26127981	16002785	0,43123183	1357103	579449	777654	0,009563573	60589176	3726560
1983	SNCF	French franc	105127177	35577910	69549267	0,556059281	44544587	27814186	16730401	0,43471739	1492045	590129	901916	0,009223327	63982225	3934440
1984	SNCF	French franc	110095848	37691749	72404099	0,557662761	46298852	29263163	17035689	0,43295885	1716919	633874	1083045	0,00937839	67588786	4142092
1985	SNCF	French franc	115665471	39943999	75721472	0,567509912	46414305	29694421	16719884	0,42188761	1912691	746252	1166439	0,010602479	70384672	4664121
1986	SNCF	French franc	123453747	41981802	81471945	0,570351456	46903560	30785274	16118286	0,41823898	2171385	839823	1331562	0,011409569	73606899	4894802
1987	SNCF	French franc	131598013	44289923	87308090	0,579491965	46673140	31157867	15515273	0,40767137	2540208	981092	1559116	0,012836666	76428882	4924974
1988	SNCF	French franc	141302777	46771048	94531729	0,586939114	46599386	31783880	14815506	0,39886218	2876291	1131443	1744848	0,014198702	79686371	4943006
1989	SNCF	French franc	154865570	49661334	105204236	0,617211751	40294709	29539098	10755611	0,36712422	3257061	1260340	1996721	0,015664031	80460772	5367393
1990	SNCF	French franc	169944853	53285032	116659821	0,628580844	40898694	30009021	10889673	0,35400365	3671522	1476319	2195203	0,017415507	84770372	6210318
1991	SNCF		189137177	55705445,18	103240549	0,638	41772409	30070463	11242182	0,3444	3661758	1536702	2125056	0,0176	87312610	6507809
1992	SNCF	(in thousands)	207455	57682	107044	0,637	48467	31331	13821	0,346	3663	1539	2124	0,017	90552	7053
1993	SNCF	(in thousands)	220950	58360	132672	0,66	47708	28517	15227	0,3225	3673	1547	2126	0,0175	88424	8422
1994	SNCF	(in thousands)	231090	64427	147529	0,68	51627	28661	18183	0,3025	3675	1658	2017	0,0175	94746	9575
1995	SNCF	(in thousands)	243382	71775	152339	0,7	54874	28966	21091	0,2825	3741	1794	1947	0,0175	102535	10767
1996	SNCF	(in thousands)	259794	81474	158616	0,72	56204	29704	21574	0,2625	3850	1980	1870	0,0175	113159	11469
1997	SNCF	(in thousands)	46096	13838	27865	0,3	57695	30443	21883	0,66	3567	2011	1556	0,0436	46125	6079
1998	SNCF	(in thousands)	45696	14280	27991	0,290799495	62496	32687	24672	0,66564167	3734	2139	1595	0,043558832	49106	6053
1999	SNCF	(in thousands)	47195	15353	31338	0,272796731	71628	38467	28623	0,68349325	4092	2460	1632	0,043710021	56280	6227
1997	RFF		160689	5532	155150										5532	5537
1998	RFF		173307	11237	162062										11237	5705
1999	RFF		183638	16154	167474										16154	4917
2000	RFF		**193298**	**21292**	**172006**										**21292**	5146
1992	SZ		194471	145598,4	40590	0,9	19921	14559,84	5361	0,09	2166	1617,76	548	0,01	161776	3496
1993	SZ		229016	174627	45162	0,9	22173	17462,7	4710	0,09	3179	1940,3	1239	0,01	194030	1623
1994	SZ		279096	213420,6	52703	0,9	28480	21342,06	7138	0,09	5578	2371,34	3207	0,01	237134	2881
1995	SZ		**316416**	.	.	0,9	**30681**	.	.	0,09	**6937**	.	.	0,01	.	2881
1996	SZ		329735	248198,4	70058	0,9	32882	24819,84	8062	0,09	8295	2757,76	5537	0,01	275776	4705
1997	SZ		363909	271829,7	80463	0,9	35385	27182,97	8202	0,09	8372	3020,33	5352	0,01	302033	5378
1998	SZ		396840	293151,6	85666	0,9	37446	29315,16	8131	0,09	8546	3257,24	5289	0,01	325724	6008
1999	SZ		432812	314559,9	93619	0,9	40263	31455,99	8807	0,09	8783	3495,11	5288	0,01	349511	6407
1972	TCDD	Turkish pound	4482159	1898484	2583675	0,744837392	1824099	506447	1317652	0,19869573	529099	143926	385173	0,056466879	2548857	
1973	TCDD	Turkish pound	4590205	2003874	2586331	0,768858948	2195536	525486	1670050	0,20162177	459461	76936	382525	0,029519287	2606296	
1974	TCDD	Turkish pound	5003106	2185352	2817754	0,761140377	2547970	606904	1941066	0,21137974	503337	78899	424438	0,027479882	2871155	
1975	TCDD	Turkish pound	5433136	2338274	3094862	0,750517726	3431709	708724	2722985	0,22747972	789343	68550	729793	0,02200255	3115548	
1976	TCDD	Turkish pound	6117869	2517370	3600499	0,733549859	4488437	831661	3656776	0,24234213	993308	82733	910575	0,02410801	3431764	
1977	TCDD	Turkish pound	6913625	2772408	4141217	0,708666803	5579418	1008375	4571043	0,25775495	1747938	131363	1616575	0,033578246	3912146	
1978	TCDD	Turkish pound	10021290	3074652	6946638	0,704683063	6918094	1164196	5753898	0,26682343	339111	124322	214789	0,028493504	4363170	
1979	TCDD	Turkish pound	12773782	3456946	9316836	0,679305577	9476769	1479373	7997396	0,29070351	423968	152622	271346	0,029990916	5088941	
1980	TCDD	Turkish pound	16795431	3854897	12940534	0,628622852	16834803	2079170	14755633	0,33905284	689042	198222	490820	0,032324308	6132289	
1981	TCDD	Turkish pound	22669367	4346426	18322941	0,579935221	23792222	2881453	20910769	0,3844667	969852	266796	703056	0,035598075	7494675	
1982	TCDD	Turkish pound	33916677	5231602	28685075	0,522161514	38681497	4333775	34347722	0,4325502	2000310	453749	1546561	0,045288282	10019126	
1983	TCDD	Turkish pound	113567482	32904191	80663291	0,511946245	144457247	29192845	115264402	0,45420255	6583313	2175710	4407603	0,033851207	64272746	
1984	TCDD	Turkish pound	169612181	37429815	132182366	0,414878531	216738599	47299486	169439113	0,52427567	34065422	5489431	28575991	0,060845801	90218732	
1985	TCDD	Turkish pound	259698300	58219016	201479284	0,40623763	327212743	73887093	253325650	0,51556552	31557362	11206602	20350760	0,078196846	143312711	
1986	TCDD	Turkish pound	342395794	78302777	264093017	0,390236267	450076407	104591964	345484443	0,52125326	47569340	17760051	29809289	0,088510475	200654792	
1987	TCDD	Turkish pound	464900976	113966621	350934355	0,379568984	665695412	153620023	512075389	0,51163574	78903442	32666079	46237363	0,10879528	300252723	
1988	TCDD	Turkish pound	1040819783	211947320	828872463	0,375025333	1282253154	287837902	994415252	0,50930819	170607547	65369453	105238094	0,115666482	565154675	
1989	TCDD	Turkish pound	2105325185	416173845	1689151340	0,3960579	1995226237	549200737	1446025500	0,52265488	202619195	85415834	117203361	0,081287222	1050790416	
1990	TCDD	Turkish pound	3135713447	717904220	2417809227	0,396923837	3233156964	914947864	2318209100	0,50586778	366575044	175817874	190757170	0,097208379	1808669958	
1991	TCDD	(in thousands)	5202750	1253496,8	2568752	0,4	5242435	1566871	3675564	0,5	663194	313374,2	349820	0,1	3133742	
1992	TCDD	(in thousands)	8569561	2298586	4057228	0,4	8821637	2873232,5	5948404	0,5	1172808	574646,5	598161	0,1	5746465	
1993	TCDD	(in thousands)	14665095	4059246	6499549	0,4	14270118	5074057,5	9196060	0,5	1910448	1014811,5	895636	0,1	10148115	
1994	TCDD	(in thousands)	33111586	8781746,8	15268688	0,4	31325552	10977183,5	20348368	0,5	3127462	2195436,7	932025	0,1	21954367	
1995	TCDD	(in thousands)	60595055	18920072	28816744	0,4	60919818	23650090	37269728	0,5	5992963	4730018	1262945	0,1	47300180	
1996	TCDD	(in thousands)	98236215	34820430,4	46401179	0,4	106159192	43525538	62633654	0,5	10544189	8705107,6	1839081	0,1	87051076	
1997	TCDD	(in thousands)	173604051	66388554,4	82001937	0,4	185676613	82985693	102690920	0,5	18668601	16597138,6	2071462	0,1	165971386	
1998	TCDD	(in thousands)	312974956	122723764	147116471	0,4	323804940	153404705	170400235	0,5	33699901	30680941	3018960	0,1	306809410	
1999	TCDD	(in thousands)	471747930	195407129,2	220628160	0,4	509687062	244258911,5	265428150	0,5	53511771	48851782,3	4659989	0,1	488517823	
1972	VR	Finnish mark	543913	38782	505131	0,300861888	541343	80272	461071	0,62273182	58944	9849	49095	0,07640629	128903	124567
1973	VR	Finnish mark	750871	81481	669390	0,312446316	647121	158635	488486	0,60830036	70418	20668	49750	0,079253328	260784	127689
1974	VR	Finnish mark	1043422	128209	915213	0,321000791	792368	238680	553688	0,59759041	85015	32515	52500	0,081408799	399404	134288
1975	VR	Finnish mark	1498248	182076	1316172	0,332841591	1030691	321168	709523	0,58710686	117299	43791	73508	0,080051551	547035	144626
1976	VR	Finnish mark	2027374	245826	1781548	0,339136301	1278565	421483	857082	0,58146895	145429	57550	87879	0,079394751	724859	174295
1977	VR	Finnish mark	2535010	322130	2212880	0,345254823	1549387	540770	1008617	0,57959038	170025	70121	99904	0,075154793	933021	203797
1978	VR	Finnish mark	3016533	413985	2602548	0,351404438	1820745	677159	1143586	0,57479541	221787	86943	134844	0,073800152	1178087	238700
1979	VR	Finnish mark	3584523	543259	3041264	0,368861853	2099856	827078	1272778	0,5615692	201251	102461	98790	0,069568943	1472798	294712
1980	VR	Finnish mark	4093819	689898	3403921	0,382921401	2367047	990583	1376464	0,54981378	242335	121189	121146	0,067264815	1801670	328872
1981	VR	Finnish mark	4643499	869098	3774401	0,398436143	2672609	1167638	1504971	0,53530118	301818	144537	157281	0,066262682	2181273	379604
1982	VR	Finnish mark	5198951	1083407	4115544	0,414905957	2930248	1356268	1573980	0,51940192	348379	171536	176843	0,065692125	2611211	429938
1983	VR	Finnish mark	5698431	1331873	4366558	0,432057226	3254282	1551117	1703165	0,50317959	388168	199641	188527	0,064763184	3082631	471420
1984	VR	Finnish mark	6192040	1604970	4587070	0,446773649	3567035	1756956	1810079	0,48908182	434940	230430	204510	0,064144534	3592356	509725
1985	VR	Finnish mark	6686598	1880590	4806008	0,457491679	3857946	1964651	1893295	0,47794122	500430	265413	235017	0,064567098	4110654	518298
1986	VR	Finnish mark	7219024	2165044	5053980	0,464734256	4134359	2185190	1949169	0,46905867	588662	308437	280225	0,066207079	4658671	548018
1987	VR	Finnish mark	7803659	2453032	5350627	0,471018167	4387780	2400148	1987632	0,46086366	687891	354755	333136	0,06811817	5207935	549264
1988	VR	Finnish mark	8440642	2778608	5662034	0,479066545	4625099	2614735	2010364	0,4508128	793241	406703	386538	0,070120651	5800046	592112
1989	VR	Finnish mark	9140540	3144400	5996140	0,48761115	5125643	2833310	2292333	0,43936953	1002122	470871	531251	0,07301932	6448581	648535
1990	VR	Finnish mark	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1991	VR		12603727	636276	**11967451**	0,620776454	2119042	262620	**1856422**	0,25622263	606345	126072	**480273**	0,123000913	1024968	427236
1992	VR	(in thousands)	13533	1355	**12178**	0,63611075	2357	522	**1835**	0,24494578	762	253	**508**	0,11894347	2130	412
1993	VR	(in thousands)	14500	2082	**12417**	0,646259415	2473	768	**1705**	0,23820842	865	372	**493**	0,11553216	3222	390
1994	VR	(in thousands)	15807	2863	**12944**	0,644780585	2565	1083	**1481**	0,24391537	963	494	**468**	0,111304047	4441	468
1995	VR	(in thousands)	.	.	**3,4**		.	.	.		.	.	.		.	.
1996	VR	(in thousands)	28	7	**21**	0,03	2176	216	**1734**	0,97					**223**	223
1997	VR	(in thousands)	35	9	26	0,013	2902	699	1907	0,987					708	485
1998	VR	(in thousands)	37	12	25	0,01	3678	1205	2228	0,99					1217	509
1999	VR	(in thousands)	42	17	25	0,01	4827	1698	2723	0,99					1715	498
1995	RHK		.	.	.	.	.	.	.	.	.	.	.	.		
1996	RHK		15526	1133	14393	0,9979					11	2,3835	9	0,0021	1135	1135
1997	RHK		16785	2280	14504	0,9979					12	4,7985	8	0,0021	1150	1150
1998	RHK		18311	3442	14869	2,955935026					16	7	9	0,006248503	1165	1165
1999	RHK		19787	4620	15167	3,915395471					17	10	8	0,008272592	1180	1180
2000	RHK			5844	15346	4,763125486						12	5	0,010027092	1227	1227
1993	ZSR		29009	1540	25147	0,73	9323	422	8127	0,2	843	148	695	0,07	2109	2109
1994	ZSR		30358	2212	27310	0,53	9372	1628	7466	0,39	854	334	520	0,08	4174	2065

A2.4.1.Fixed Assets

			Land, Buildings and Fixed Installations Fixed Assets				Transport Stock Fixed Assets				Other Equipment Fixed Assets				Total	Annual costs
Years	Firms	currency	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Purchase or construction value	Depreciation	Net	Depreciation in % of total deprec.	Amortiz.	amount allocated to depreciation
1995	ZSR		33064	3784	29280	0,6	9476	2018	7458	0,32	2872	504	2368	0,08	6306	2132
1996	ZSR		43597	4938	31431	0,58	11602	1873	7320	0,22	3503	1703	**1800**	0,2	8513	2207
1997	ZSR		46188	7190	29346	0,66	13047	1961	7869	0,18	4017	1743	2274	0,16	10894	2381
1998	ZSR		48433	10491	32882	0,77	14513	2357	10469	0,173	3980	777	3203	0,057	13625	2731
1999	ZSR		50024	11889	31778	0,723	16075	3289	10667	0,2	4089	1266	2823	0,077	16444	2819

A.2.4.2.Investments

Transport stock and other equipment
Investments and Capital Stock at the beginning of first year

		Investments Data T (current local prices)
1992	BC1	35334998
1993	BC1	61195242
1994	BC2	3302600360
1995	BC	.
1996	BC3	9317273274
1997	BC4	59679983550
1998	BC4	-664298225
1999	BC5	393331202
1991	BDZ	.
1992	BDZ1	589797
1993	BDZ1	829652
1994	BDZ1	1568803
1995	BDZ2	16191738
1996	BDZ2	211626
1997	BDZ3	259013900
1998	BDZ3	1521600
1999	BDZ3	-16535500
1972	BR1	937600
1973	BR1	2900
1974	BR1	44800
1975	BR2	942200
1976	BR2	65000
1977	BR2	81700
1978	BR3	1213600
1979	BR3	128900
1980	BR3	173100
1981	BR4	1375700
1982	BR4	48000
1983	BR4	27600
1984	BR5	1543000
1985	BR5	103300
1986	BR5	99700
1987	BR5	65500
1988	BR5	100800
1989	BR5	238100
1990	BR5	281600
1991	BR5	365251
1992	BR6	3363400
1993	BR6	563500
1994	BR/railtracl	4380200
1993	CD	8008300
1994	CD	41416900
1995	CD	1845800
1996	CD	2436900
1997	CD	4098900
1998	CD	1834600
1999	CD	1725012
1972	CFF1	4121213
1973	CFF1	62808
1974	CFF1	343573
1975	CFF1	302748
1976	CFF1	409106
1977	CFF2	4383294
1978	CFF2	122798
1979	CFF2	152995
1980	CFF2	156462
1981	CFF2	175337
1982	CFF2	195470
1983	CFF3	5380713
1984	CFF3	139531
1985	CFF3	145083
1986	CFF3	202866
1987	CFF3	216600
1988	CFF3	338386
1989	CFF3	406152
1990	CFF3	483559
1991	CFF3	70824
1992	CFF3	176966
1993	CFF3	-324112
1994	CFF3	795278
1995	CFF3	329454
1996	CFF3	398676
1997	CFF3	294246
1998	CFF3	860034
1999	CFF3	465744
1972	CFL1	1851159
1973	CFL1	58215
1974	CFL1	126288
1975	CFL1	147249
1976	CFL1	547691
1977	CFL1	92502
1978	CFL1	11498
1979	CFL1	57260
1980	CFL1	150545
1981	CFL1	21776
1982	CFL1	97415
1983	CFL1	12468
1984	CFL1	15552
1985	CFL1	109571
1986	CFL1	3894
1987	CFL1	73392
1988	CFL1	74920
1989	CFL1	628984
1990	CFL1	653887
1991	CFL1	648639
1992	CFL1	535171
1993	CFL1	473304
1994	CFL1	2023620
1995	CFL2	8901390
1996	CFL2	-101390
1997	CFL2	251500
1998	CFL2	1449500
1999	CFL2	554000
1992	CFR	644488163
1993	CFR	20896087
1994	CFR	3075938562
1995	CFR	-34064054
1996	CFR	29480859
1997	CFR	183351702
1998	CFR	4283917051

		Investments Data P (current local prices)
1992	BC	
1993	BC	
1994	BC	
1995	BC	
1996	BC	
1997	BC	
1998	BC	
1999	BC	
1991	BDZ	
1992	BDZ	
1993	BDZ	
1994	BDZ	
1995	BDZ	
1996	BDZ	
1997	BDZ	
1998	BDZ	
1999	BDZ	
1972	BR1	334984
1973	BR1	2900
1974	BR1	44800
1975	BR1	55000
1976	BR1	65000
1977	BR1	81700
1978	BR1	124700
1979	BR1	128900
1980	BR1	173100
1981	BR1	-139900
1982	BR1	48000
1983	BR1	27600
1984	BR1	91700
1985	BR1	103300
1986	BR1	99700
1987	BR1	65500
1988	BR1	100800
1989	BR1	238100
1990	BR1	281600
1991	BR1	365251
1992	BR2	3363400
1993	BR2	563500
1994	BR/railtrack	4380200
1993	CD	
1994	CD	49425200
1995	CD	1845800
1996	CD	2436900
1997	CD	4098900
1998	CD	1834600
1999	CD	1725012
1972	CFF	4121213
1973	CFF	62808
1974	CFF	343573
1975	CFF	302748
1976	CFF	409106
1977	CFF	-856154
1978	CFF	122798
1979	CFF	152995
1980	CFF	156462
1981	CFF	175337
1982	CFF	195470
1983	CFF	194357
1984	CFF	139531
1985	CFF	145083
1986	CFF	202866
1987	CFF	216600
1988	CFF	338386
1989	CFF	406152
1990	CFF	483559
1991	CFF	70824
1992	CFF	176966
1993	CFF	-324112
1994	CFF/SBB/FFS	795278
1995	CFF/SBB/FFS	329454
1996	CFF/SBB/FFS	398676
1997	CFF/SBB/FFS	294246
1998	CFF/SBB/FFS	860034
1999	CFF/SBB/FFS	465744
1972	CFL1	1851159
1973	CFL1	58215
1974	CFL1	126288
1975	CFL1	147249
1976	CFL1	547691
1977	CFL1	92502
1978	CFL1	11498
1979	CFL1	57260
1980	CFL1	150545
1981	CFL1	21776
1982	CFL1	97415
1983	CFL1	12468
1984	CFL1	15552
1985	CFL1	109571
1986	CFL1	3894
1987	CFL1	73392
1988	CFL1	74920
1989	CFL1	628984
1990	CFL1	653887
1991	CFL1	648639
1992	CFL1	535171
1993	CFL1	473304
1994	CFL1	2023620
1995	CFL2	8901390
1996	CFL2	-101390
1997	CFL2	251500
1998	CFL2	1449500
1999	CFL2	554000
1992	CFR	
1993	CFR	
1994	CFR	
1995	CFR	
1996	CFR	
1997	CFR	
1998	CFR	

Land, Buildings and Fixed Installations
Investments and Capital Stock at the beginning of first year

		Investments Data T (current local prices)
1992	BC1	46016002
1993	BC1	32092758
1994	BC2	4912247640
1995	BC	.
1996	BC3	23152424319
1997	BC3	16319653131
1998	BC3	4502225
1999	BC4	430845835000
1991	BDZ	.
1992	BDZ1	3033203
1993	BDZ1	-170652
1994	BDZ1	1138197
1995	BDZ2	38047262
1996	BDZ2	1906374
1997	BDZ3	776817100
1998	BDZ3	52506400
1999	BDZ3	82676500
1972	BR1	713400
1973	BR1	74400
1974	BR1	81400
1975	BR2	316200
1976	BR2	26200
1977	BR2	38500
1978	BR2	531100
1979	BR2	52300
1980	BR2	35100
1981	BR3	410000
1982	BR3	28400
1983	BR3	11200
1984	BR4	521200
1985	BR4	134700
1986	BR4	156800
1987	BR4	166200
1988	BR4	123000
1989	BR4	261900
1990	BR4	305700
1991	BR4	382549
1992	BR5	5769600
1993	BR5	455500
1994	BR/railtracl	5371800
1993	CD	67825700
1994	CD	45644100
1995	CD	3034200
1996	CD	5654100
1997	CD	11650100
1998	CD	7430400
1999	CD	9000988
1972	CFF1	4517918
1973	CFF1	537163
1974	CFF1	304528
1975	CFF1	353381
1976	CFF1	261440
1977	CFF2	7465265
1978	CFF2	192506
1979	CFF2	289357
1980	CFF2	303203
1981	CFF2	356511
1982	CFF2	350854
1983	CFF3	9383077
1984	CFF3	1112732
1985	CFF3	592133
1986	CFF3	593565
1987	CFF3	670693
1988	CFF3	767702
1989	CFF3	875009
1990	CFF3	1277177
1991	CFF3	1792011
1992	CFF3	1407221
1993	CFF3	1494112
1994	CFF3	888722
1995	CFF3	820521
1996	CFF3	1508349
1997	CFF3	862754
1998	CFF3	261966
1999	CFF3	664256
1972	CFL1	1042531
1973	CFL1	34550
1974	CFL1	47277
1975	CFL1	69154
1976	CFL1	57959
1977	CFL1	221051
1978	CFL1	214042
1979	CFL1	353074
1980	CFL1	255217
1981	CFL1	307687
1982	CFL1	183935
1983	CFL1	119936
1984	CFL1	146888
1985	CFL1	109991
1986	CFL1	181670
1987	CFL1	137362
1988	CFL1	1379491
1989	CFL1	584141
1990	CFL1	594068
1991	CFL1	721808
1992	CFL1	287560
1993	CFL1	254568
1994	CFL1	586040
1995	CFL2	6199610
1996	CFL2	9390
1997	CFL2	65000
1998	CFL2	24000
1999	CFL2	115000
1991	CFR	.
1992	CFR	843263837
1993	CFR	33074913
1994	CFR	5647012438
1995	CFR	43498054
1996	CFR	64218141
1997	CFR	225140298

		Investments Data P (current local prices)
1992	BC	
1993	BC	
1994	BC	
1995	BC	
1996	BC	
1997	BC	
1998	BC	
1999	BC	
1991	BDZ	
1992	BDZ	
1993	BDZ	
1994	BDZ	
1995	BDZ	
1996	BDZ	
1997	BDZ	
1998	BDZ	
1999	BDZ	
1972	BR1	61462
1973	BR1	74400
1974	BR1	81400
1975	BR1	22600
1976	BR1	26200
1977	BR1	38500
1978	BR1	150200
1979	BR1	52300
1980	BR1	35100
1981	BR1	-208500
1982	BR1	28400
1983	BR1	11200
1984	BR1	71600
1985	BR1	134700
1986	BR1	156800
1987	BR1	166200
1988	BR1	123000
1989	BR1	261900
1990	BR1	305700
1991	BR1	382549
1992	BR2	5769600
1993	BR2	455500
1994	BR/railtracl	5371800
1993	CD	
1994	CD	113469800
1995	CD	3034200
1996	CD	5654100
1997	CD	11650100
1998	CD	7430400
1999	CD	9000988
1972	CFF	4517918
1973	CFF	537163
1974	CFF	304528
1975	CFF	353381
1976	CFF	261440
1977	CFF	1490835
1978	CFF	192506
1979	CFF	289357
1980	CFF	303203
1981	CFF	356511
1982	CFF	350854
1983	CFF	425381
1984	CFF	1112732
1985	CFF	592133
1986	CFF	593565
1987	CFF	670693
1988	CFF	767702
1989	CFF	875009
1990	CFF	1277177
1991	CFF	1792011
1992	CFF	1407221
1993	CFF	1494112
1994	CFF/SBB/F	888722
1995	CFF/SBB/F	820521
1996	CFF/SBB/F	1508349
1997	CFF/SBB/F	862754
1998	CFF/SBB/F	261966
1999	CFF/SBB/F	664256
1972	CFL1	1042531
1973	CFL1	34550
1974	CFL1	47277
1975	CFL1	69154
1976	CFL1	57959
1977	CFL1	221051
1978	CFL1	214042
1979	CFL1	353074
1980	CFL1	255217
1981	CFL1	307687
1982	CFL1	183935
1983	CFL1	119936
1984	CFL1	146888
1985	CFL1	109991
1986	CFL1	181670
1987	CFL1	137362
1988	CFL1	1379491
1989	CFL1	584141
1990	CFL1	594068
1991	CFL1	721808
1992	CFL1	287560
1993	CFL1	254568
1994	CFL1	586040
1995	CFL2	6199610
1996	CFL2	9390
1997	CFL2	65000
1998	CFL2	24000
1999	CFL2	115000
1991	CFR	
1992	CFR	
1993	CFR	
1994	CFR	
1995	CFR	
1996	CFR	
1997	CFR	

A.2.4.2.Investments

Transport stock and other equipment
Investments and Capital Stock at the beginning of first year

Year	Code	Investments Data T (current local prices)
1999	CFR	-3975946286
1972	CH	3797699
1973	CH	477031
1974	CH	1174527
1975	CH	523010
1976	CH	545663
1977	CH	85686
1978	CH	115049
1979	CH	482062
1980	CH	112172
1981	CH	647207
1982	CH	928266
1983	CH	1001798
1984	CH	1122216
1985	CH	1872258
1986	CH	1043692
1987	CH	829633
1988	CH	1017730
1989	CH	9957890
1990	CH	8883302
1991	CH	4277178
1992	CH	5537971
1993	CH	16474160
1994	CH	6042680
1995	CH	28776720
1996	CH	5456760
1997	CH	7115040
1998	CH	16037280
1999	CH	8731320
1972	CIE1	35873
1973	CIE1	1825
1974	CIE1	1669
1975	CIE1	1621
1976	CIE1	5430
1977	CIE1	331
1978	CIE1	55
1979	CIE1	1370
1980	CIE1	4567
1981	CIE1	19021
1982	CIE1	24701
1983	CIE1	38285
1984	CIE1	56758
1985	CIE1	35584
1986	CIE1	16477
1987	CIE1	9564
1988	CIE1	17329
1989	CIE1	4665
1990	CIE1	11485
1991	CIE1	8627
1992	CIE1	148762
1993	CIE1	-198450
1994	CIE1	126420
1995	CIE1	54250
1996	CIE1	17336
1997	CIE2	261048
1998	CIE2	11868
1999	CIE2	29208
1972	CP	4745678
1973	CP	442382
1974	CP	474500
1975	CP	904495
1976	CP	645427
1977	CP	1336721
1978	CP	1698576
1979	CP	2136044
1980	CP	972330
1981	CP	949499
1982	CP	1472151
1983	CP	1198248
1984	CP	1644195
1985	CP	2426678
1986	CP	182351
1987	CP	8967626
1988	CP	5607095
1989	CP	3669765
1990	CP	7705381
1991	CP	1043800
1992	CP	7573018
1993	CP	25509950
1994	CP	37995990
1995	CP	51286418
1996	CP	59915016
1997	CP/REFER	242566451
1998	CP/REFER	13807059
1999	CP/REFER	38840510
1989	CSD	135124511
1990	CSD	4689862
1991	CSD	36697506
1992	CSD	-8258701
1972	DB1	19726795
1973	DB1	593282
1974	DB1	1264645
1975	DB1	500274
1976	DB1	818399
1977	DB1	777443
1978	DB1	714160
1979	DB1	256659
1980	DB1	644734
1981	DB1	636560
1982	DB1	421412
1983	DB1	440572
1984	DB1	96990
1985	DB1	297528
1986	DB1	253717
1987	DB1	-199306
1988	DB1	357685
1989	DB1	196774
1990	DB1	484937
1991	DB2	15646284
1992	DB2	1698912

Year	Code	Investments Data P (current local prices)
1999	CFR	
1972	CH	3797699
1973	CH	477031
1974	CH	1174527
1975	CH	523010
1976	CH	545663
1977	CH	85686
1978	CH	115049
1979	CH	482062
1980	CH	112172
1981	CH	647207
1982	CH	928266
1983	CH	1001798
1984	CH	1122216
1985	CH	1872258
1986	CH	1043692
1987	CH	829633
1988	CH	1017730
1989	CH	9957890
1990	CH	8883302
1991	CH	4277178
1992	CH	5537971
1993	CH	16474160
1994	CH	6042680
1995	CH	28776720
1996	CH	5456760
1997	CH	7115040
1998	CH	16037280
1999	CH	8731320
1972	CIE1	35873
1973	CIE1	1825
1974	CIE1	1669
1975	CIE1	1621
1976	CIE1	5430
1977	CIE1	331
1978	CIE1	55
1979	CIE1	1370
1980	CIE1	4567
1981	CIE1	19021
1982	CIE1	24701
1983	CIE1	38285
1984	CIE1	56758
1985	CIE1	35584
1986	CIE1	16477
1987	CIE1	9564
1988	CIE1	17329
1989	CIE1	4665
1990	CIE1	11485
1991	CIE1	8627
1992	CIE1	148762
1993	CIE1	-198450
1994	CIE1	126420
1995	CIE1	54250
1996	CIE1	17336
1997	CIE2	261048
1998	CIE2	11868
1999	CIE2	29208
1972	CP	4745678
1973	CP	442382
1974	CP	474500
1975	CP	904495
1976	CP	645427
1977	CP	1336721
1978	CP	1698576
1979	CP	2136044
1980	CP	972330
1981	CP	949499
1982	CP	1472151
1983	CP	1198248
1984	CP	1644195
1985	CP	2426678
1986	CP	182351
1987	CP	8967626
1988	CP	5607095
1989	CP	3669765
1990	CP	7705381
1991	CP	1043800
1992	CP	7573018
1993	CP	25509950
1994	CP	37995990
1995	CP	51286418
1996	CP	59915016
1997	CP/REFER	242566451
1998	CP/REFER	13807059
1999	CP/REFER	38840510
1989	CSD	
1990	CSD	
1991	CSD	
1992	CSD	
1972	DB	5997894
1973	DB	593282
1974	DB	1264645
1975	DB	500274
1976	DB	818399
1977	DB	777443
1978	DB	714160
1979	DB	256659
1980	DB	644734
1981	DB	636560
1982	DB	421412
1983	DB	440572
1984	DB	96990
1985	DB	297528
1986	DB	253717
1987	DB	-199306
1988	DB	357685
1989	DB	196774
1990	DB	484937
1991	DB	1091925
1992	DB	1698912

Land, Buildings and Fixed Installations
Investments and Capital Stock at the beginning of first year

Year	Code	Investments Data T (current local prices)
1998	CFR	7203153949
1999	CFR	-5786542714
1972	CH	20237524
1973	CH	12220
1974	CH	217698
1975	CH	612776
1976	CH	486402
1977	CH	670999
1978	CH	395911
1979	CH	633933
1980	CH	1595207
1981	CH	791046
1982	CH	2185921
1983	CH	1962178
1984	CH	2737183
1985	CH	4348232
1986	CH	7125448
1987	CH	7220076
1988	CH	32784508
1989	CH	6897995
1990	CH	9256043
1991	CH	18250631
1992	CH	72254029
1993	CH	30095840
1994	CH	23308320
1995	CH	32118280
1996	CH	137771240
1997	CH	87424960
1998	CH	79769720
1999	CH	118597680
1972	CIE1	16465
1973	CIE1	1832
1974	CIE1	1574
1975	CIE1	1106
1976	CIE1	5017
1977	CIE1	-884
1978	CIE1	1877
1979	CIE1	11414
1980	CIE1	13787
1981	CIE1	21315
1982	CIE1	28587
1983	CIE1	23003
1984	CIE1	894
1985	CIE1	3536
1986	CIE1	4446
1987	CIE1	2364
1988	CIE1	4560
1989	CIE1	3075
1990	CIE1	5341
1991	CIE1	-369
1992	CIE1	47060
1993	CIE1	11450
1994	CIE1	-17420
1995	CIE1	13750
1996	CIE1	1823
1997	CIE	158533
1998	CIE	15718
1999	CIE	31150
1972	CP	4998190
1973	CP	1365604
1974	CP	1676086
1975	CP	1898224
1976	CP	1602112
1977	CP	1169939
1978	CP	1270095
1979	CP	827146
1980	CP	707431
1981	CP	1408206
1982	CP	2591993
1983	CP	2658915
1984	CP	2313844
1985	CP	3829455
1986	CP	5680732
1987	CP	7273157
1988	CP	10014813
1989	CP	12569372
1990	CP	13998211
1991	CP	35865708
1992	CP	34822807
1993	CP	26397050
1994	CP	20236010
1995	CP	23035782
1996	CP	62006384
1997	CP/REFER	529489349
1998	CP/REFER	111414242
1999	CP/REFER	59071490
1990	CSD	258199801
1991	CSD	36863938
1992	CSD	15825616
1972	DB1	44451035
1973	DB1	1653326
1974	DB1	1999174
1975	DB1	1953216
1976	DB1	2058974
1977	DB1	2073261
1978	DB1	2190088
1979	DB1	2201351
1980	DB1	2387133
1981	DB1	2315278
1982	DB1	2238722
1983	DB1	2257751
1984	DB1	2618941
1985	DB1	3215161
1986	DB1	3804658
1987	DB1	4615849
1988	DB1	3598948
1989	DB1	3719937
1990	DB1	3303220
1991	DB2	56730756
1992	DB2	2625042

Year	Code	Investments Data P (current local prices)
1998	CFR	
1999	CFR	
1972	CH	20237524
1973	CH	12220
1974	CH	217698
1975	CH	612776
1976	CH	486402
1977	CH	670999
1978	CH	395911
1979	CH	633933
1980	CH	1595207
1981	CH	791046
1982	CH	2185921
1983	CH	1962178
1984	CH	2737183
1985	CH	4348232
1986	CH	7125448
1987	CH	7220076
1988	CH	32784508
1989	CH	6897995
1990	CH	9256043
1991	CH	18250631
1992	CH	72254029
1993	CH	30095840
1994	CH	23308320
1995	CH	32118280
1996	CH	137771240
1997	CH	87424960
1998	CH	79769720
1999	CH	118597680
1972	CIE1	16465
1973	CIE1	1832
1974	CIE1	1574
1975	CIE1	1106
1976	CIE1	5017
1977	CIE1	-884
1978	CIE1	1877
1979	CIE1	11414
1980	CIE1	13787
1981	CIE1	21315
1982	CIE1	28587
1983	CIE1	23003
1984	CIE1	894
1985	CIE1	3536
1986	CIE1	4446
1987	CIE1	2364
1988	CIE1	4560
1989	CIE1	3075
1990	CIE1	5341
1991	CIE1	-369
1992	CIE1	47060
1993	CIE1	11450
1994	CIE1	-17420
1995	CIE1	13750
1996	CIE1	1823
1997	CIE	158533
1998	CIE	15718
1999	CIE	31150
1972	CP	4998190
1973	CP	1365604
1974	CP	1676086
1975	CP	1898224
1976	CP	1602112
1977	CP	1169939
1978	CP	1270095
1979	CP	827146
1980	CP	707431
1981	CP	1408206
1982	CP	2591993
1983	CP	2658915
1984	CP	2313844
1985	CP	3829455
1986	CP	5680732
1987	CP	7273157
1988	CP	10014813
1989	CP	12569372
1990	CP	13998211
1991	CP	35865708
1992	CP	34822807
1993	CP	26397050
1994	CP	20236010
1995	CP	23035782
1996	CP	62006384
1997	CP/REFER	529489349
1998	CP/REFER	111414242
1999	CP/REFER	59071490
1990	CSD	
1991	CSD	
1992	CSD	
1972	DB1	6075768
1973	DB1	1653326
1974	DB1	1999174
1975	DB1	1953216
1976	DB1	2058974
1977	DB1	2073261
1978	DB1	2190088
1979	DB1	2201351
1980	DB1	2387133
1981	DB1	2315278
1982	DB1	2238722
1983	DB1	2257751
1984	DB1	2618941
1985	DB1	3215161
1986	DB1	3804658
1987	DB1	4615849
1988	DB1	3598948
1989	DB1	3719937
1990	DB1	3303220
1991	DB2	2450000
1992	DB2	2625042

A.2.4.2.Investments

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		Investments Data T (current local prices)			Investments Data P (current local prices)
1993	DB2	1006500	1993	DB	1006500
1994	DB AG	**6929400**	1994	DB AG	**6929400**
1995	DB AG	1771040	1995	DB AG	1771040
1996	DB AG	1601040	1996	DB AG	1601040
1997	DB AG	3235540	1997	DB AG	3235540
1998	DB AG	2238340	1998	DB AG	2238340
1999	DB AG	5792640	1999	DB AG	5792640
1972	DSB1	**1719029**	1972	DSB1	**1719029**
1973	DSB1	173966	1973	DSB1	173966
1974	DSB1	224818	1974	DSB1	224818
1975	DSB1	297059	1975	DSB1	297059
1976	DSB1	298795	1976	DSB1	298795
1977	DSB1	490984	1977	DSB1	490984
1978	DSB1	339852	1978	DSB1	339852
1979	DSB1	658739	1979	DSB1	658739
1980	DSB1	611133	1980	DSB1	611133
1981	DSB1	846230	1981	DSB1	846230
1982	DSB1	908656	1982	DSB1	908656
1983	DSB1	765959	1983	DSB1	765959
1984	DSB1	866519	1984	DSB1	866519
1985	DSB1	1078549	1985	DSB1	1078549
1986	DSB1	702336	1986	DSB1	702336
1987	DSB1	613002	1987	DSB1	613002
1988	DSB1	557695	1988	DSB1	557695
1989	DSB1	676408	1989	DSB1	676408
1990	DSB1	2550010	1990	DSB1	2550010
1991	DSB1	1460417	1991	DSB1	1460417
1992	DSB1	1915812	1992	DSB1	1915812
1993	DSB1	1776525	1993	DSB1	1776525
1994	DSB1	1043000	1994	DSB1	1043000
1995	DSB2	**10625000**	1995	DSB2	**10625000**
1996	DSB2	587000	1996	DSB2	587000
1992	EVR	**54461**	1992	EVR	**54461**
1993	EVR	364719	1993	EVR	364719
1994	EVR	2830	1994	EVR	2830
1995	EVR	40320	1995	EVR	40320
1996	EVR	59520	1996	EVR	59520
1997	EVR	12000	1997	EVR	12000
1998	EVR	144200	1998	EVR	144200
1999	EVR	185450	1999	EVR	185450
1972	FS1	**1231763739**	1972	FS1	**1231763739**
1973	FS1	65793917	1973	FS1	65793917
1974	FS1	132861385	1974	FS1	132861385
1975	FS1	248663635	1975	FS1	248663635
1976	FS1	231511333	1976	FS1	231511333
1977	FS1	379977485	1977	FS1	379977485
1978	FS1	384376223	1978	FS1	384376223
1979	FS1	369127323	1979	FS1	369127323
1980	FS1	511831151	1980	FS1	511831151
1981	FS1	678889943	1981	FS1	678889943
1982	FS1	1408213283	1982	FS1	1408213283
1983	FS1	945037693	1983	FS1	945037693
1984	FS1	1650629085	1984	FS1	1650629085
1985	FS1	1158758274	1985	FS1	1158758274
1986	FS2	**9992585771**	1986	FS2	**9992585771**
1987	FS2	1241803450	1987	FS2	1241803450
1988	FS2	1552864093	1988	FS2	1552864093
1989	FS2	1276619800	1989	FS2	1276619800
1990	FS2	1492269898	1990	FS2	1492269898
1991	FS2	349468688	1991	FS2	349468688
1992	FS2	4961507400	1992	FS2	4961507400
1993	FS2	-1162986740	1993	FS2	-1162986740
1994	FS2	2342413440	1994	FS2	2342413440
1995	FS2	1312055320	1995	FS2	1312055320
1996	FS2	1472080	1996	FS2	1472080
1997	FS2	1191810895	1997	FS2	1191810895
1998	FS2	758628405	1998	FS2	758628405
1999	FS2	1052020500	1999	FS2	1052020500
1991	MAV1	**29682853**	1991	MAV	**103044000**
1992	MAV1	5198885	1992	MAV	5198885
1993	MAV2	**117542675**	1993	MAV	**9300000**
1994	MAV2	13418086	1994	MAV	13418086
1995	MAV2	14125318	1995	MAV	14125318
1996	MAV2	3316700	1996	MAV	3316700
1997	MAV2	24017154	1997	MAV	24017154
1998	MAV2	20390128	1998	MAV	20390128
1999	MAV2	144147	1999	MAV	144146609
1972	NS1	**1666119**	1972	NS1	**1666119**
1973	NS1	76312	1973	NS1	76312
1974	NS1	77222	1974	NS1	77222
1975	NS1	141512	1975	NS1	141512
1976	NS1	126312	1976	NS1	126312
1977	NS1	-275242	1977	NS1	-275242
1978	NS1	52248	1978	NS1	52248
1979	NS1	122563	1979	NS1	122563
1980	NS1	189033	1980	NS1	189033
1981	NS1	256771	1981	NS1	256771
1982	NS1	301515	1982	NS1	301515
1983	NS1	158796	1983	NS1	158796
1984	NS1	161947	1984	NS1	161947
1985	NS1	226492	1985	NS1	226492
1986	NS1	146920	1986	NS1	146920
1987	NS1	94835	1987	NS1	94835
1988	NS1	163522	1988	NS1	163522
1989	NS1	357528	1989	NS1	357528
1990	NS1	462416	1990	NS1	462416
1991	NS1	247272	1991	NS1	247272
1992	NS1	743581	1992	NS1	743581
1993	NS1	737666	1993	NS1	737666
1994	NS1	907976	1994	NS1	907976
1995	NS2	**7824000**	1995	NS2	**7824000**
1996	NS2	655000	1996	NS2	655000
1997	NS B.V./NS	**7631020**	1997	NS B.V./NS N.V:	**7631020**
1998	NS B.V./NS	386340	1998	NS B.V./NS N.V:	386340
1972	NSB1	**1539108**	1972	NSB1	**1539108**
1973	NSB1	96257	1973	NSB1	96257
1974	NSB1	133022	1974	NSB1	133022
1975	NSB1	21102	1975	NSB1	21102
1976	NSB1	244338	1976	NSB1	244338
1977	NSB1	148804	1977	NSB1	148804

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		Investments Data T (current local prices)			Investments Data P (current local prices)
1993	DB2	3305500	1993	DB2	3305500
1994	DB AG	**19737600**	1994	DB AG	**19737600**
1995	DB AG	5665960	1995	DB AG	5665960
1996	DB AG	5379960	1996	DB AG	5379960
1997	DB AG	7167460	1997	DB AG	7167460
1998	DB AG	4448660	1998	DB AG	4448660
1999	DB AG	3284360	1999	DB AG	3284360
1972	DSB1	**2233822**	1972	DSB1	**2233822**
1973	DSB1	205366	1973	DSB1	205366
1974	DSB1	213159	1974	DSB1	213159
1975	DSB1	297760	1975	DSB1	297760
1976	DSB1	410907	1976	DSB1	410907
1977	DSB1	241306	1977	DSB1	241306
1978	DSB1	435109	1978	DSB1	435109
1979	DSB1	528036	1979	DSB1	528036
1980	DSB1	402836	1980	DSB1	402836
1981	DSB1	387941	1981	DSB1	387941
1982	DSB1	580281	1982	DSB1	580281
1983	DSB1	829216	1983	DSB1	829216
1984	DSB1	750774	1984	DSB1	750774
1985	DSB1	858143	1985	DSB1	858143
1986	DSB1	798395	1986	DSB1	798395
1987	DSB1	930334	1987	DSB1	930334
1988	DSB1	768609	1988	DSB1	768609
1989	DSB1	612063	1989	DSB1	612063
1990	DSB1	2038185	1990	DSB1	2038185
1991	DSB1	912029	1991	DSB1	912029
1992	DSB1	934747	1992	DSB1	934747
1993	DSB1	1087475	1993	DSB1	1087475
1994	DSB1	1455000	1994	DSB1	1455000
1995	DSB2	**31149958**	1995	DSB2	**31149958**
1996	DSB2	1366000	1996	DSB2	1366000
1992	EVR	**76539**	1992	EVR	**76539**
1993	EVR	230281	1993	EVR	230281
1994	EVR	296170	1994	EVR	296170
1995	EVR	-320	1995	EVR	-320
1996	EVR	2480	1996	EVR	2480
1997	EVR	14000	1997	EVR	14000
1998	EVR	162800	1998	EVR	162800
1999	EVR	315550	1999	EVR	315550
1972	FS1	**1633302248**	1972	FS1	**1633302248**
1973	FS1	145192684	1973	FS1	145192684
1974	FS1	144911862	1974	FS1	144911862
1975	FS1	179459037	1975	FS1	179459037
1976	FS1	213799439	1976	FS1	213799439
1977	FS1	257965672	1977	FS1	257965672
1978	FS1	323524376	1978	FS1	323524376
1979	FS1	355808442	1979	FS1	355808442
1980	FS1	454426960	1980	FS1	454426960
1981	FS1	622008660	1981	FS1	622008660
1982	FS1	922643780	1982	FS1	922643780
1983	FS1	1510143967	1983	FS1	1510143967
1984	FS1	2454687354	1984	FS1	2454687354
1985	FS1	2008929114	1985	FS1	2008929114
1986	FS2	**2014662713**	1986	FS2	**2014662713**
1987	FS2	3942459381	1987	FS2	3942459381
1988	FS2	4679342858	1988	FS2	4679342858
1989	FS2	4123808510	1989	FS2	4123808510
1990	FS2	3396180511	1990	FS2	3396180511
1991	FS2	10385508327	1991	FS2	10385508327
1992	FS2	28878236600	1992	FS2	28878236600
1993	FS2	6248700740	1993	FS2	6248700740
1994	FS2	9934194560	1994	FS2	9934194560
1995	FS2	2732594680	1995	FS2	2732594680
1996	FS2	2769771920	1996	FS2	2769771920
1997	FS2	1932278105	1997	FS2	1932278105
1998	FS2	2372786595	1998	FS2	2372786595
1999	FS2	2245147500	1999	FS2	2245147500
1991	MAV1	**65839415**	1991	MAV	**312863000**
1992	MAV1	9697060	1992	MAV	9697060
1993	MAV2	**331159538**	1993	MAV	**8600000**
1994	MAV2	7416914	1994	MAV	7416914
1995	MAV2	27806682	1995	MAV	27806682
1996	MAV2	16752300	1996	MAV	16752300
1997	MAV2	16642846	1997	MAV	16642846
1998	MAV2	15472872	1998	MAV	15472872
1999	MAV2	40604896	1999	MAV	40604896
1972	NS1	**1898522**	1972	NS1	**1898522**
1973	NS1	131586	1973	NS1	131586
1974	NS1	97120	1974	NS1	97120
1975	NS1	121205	1975	NS1	121205
1976	NS1	188961	1976	NS1	188961
1977	NS1	668836	1977	NS1	668836
1978	NS1	322111	1978	NS1	322111
1979	NS1	338308	1979	NS1	338308
1980	NS1	395936	1980	NS1	395936
1981	NS1	361447	1981	NS1	361447
1982	NS1	389587	1982	NS1	389587
1983	NS1	748661	1983	NS1	748661
1984	NS1	465421	1984	NS1	465421
1985	NS1	755571	1985	NS1	755571
1986	NS1	281884	1986	NS1	281884
1987	NS1	414697	1987	NS1	414697
1988	NS1	519687	1988	NS1	519687
1989	NS1	489255	1989	NS1	489255
1990	NS1	676213	1990	NS1	676213
1991	NS1	1184422	1991	NS1	1184422
1992	NS1	886896	1992	NS1	886896
1993	NS1	1386334	1993	NS1	1386334
1994	NS1	917024	1994	NS1	917024
1995	NS2	**14848980**	1995	NS2	**14848980**
1996	NS2	1537300	1996	NS2	1537300
1997	NS B.V./NS	**15622980**	1997	NS B.V./NS	**15622980**
1998	NS B.V./NS	834660	1998	NS B.V./NS	834660
1972	NSB1	**3989324**	1972	NSB1	**3989324**
1973	NSB1	131858	1973	NSB1	131858
1974	NSB1	246315	1974	NSB1	246315
1975	NSB1	170668	1975	NSB1	170668
1976	NSB1	374103	1976	NSB1	374103
1977	NSB1	231305	1977	NSB1	231305

A.2.4.2.Investments

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		Investments Data T (current local prices)			Investments Data P (current local prices)
1978	NSB1	115956	1978	NSB1	115956
1979	NSB1	219617	1979	NSB1	219617
1980	NSB1	211856	1980	NSB1	211856
1981	NSB1	266500	1981	NSB1	266500
1982	NSB1	306417	1982	NSB1	306417
1983	NSB1	134465	1983	NSB1	134465
1984	NSB1	334343	1984	NSB1	334343
1985	NSB1	370399	1985	NSB1	370399
1986	NSB1	284461	1986	NSB1	284461
1987	NSB1	391324	1987	NSB1	391324
1988	NSB1	98067	1988	NSB1	98067
1989	NSB1	413281	1989	NSB1	413281
1990	NSB1	180539	1990	NSB1	180539
1991	NSB2	**2617060**	1991	NSB2	**2617060**
1992	NSB2	526000	1992	NSB2	526000
1993	NSB2	885600	1993	NSB2	885600
1972	OBB	**24802170**	1972	OBB	**24802170**
1973	OBB	1779639	1973	OBB	1779639
1974	OBB	1483222	1974	OBB	1483222
1975	OBB	2611553	1975	OBB	2611553
1976	OBB	2083933	1976	OBB	2083933
1977	OBB	-1142713	1977	OBB	-1142713
1978	OBB	2180136	1978	OBB	2180136
1979	OBB	2954292	1979	OBB	2954292
1980	OBB	2814421	1980	OBB	2814421
1981	OBB	2569711	1981	OBB	2569711
1982	OBB	3024080	1982	OBB	3024080
1983	OBB	3074990	1983	OBB	3074990
1984	OBB	2915336	1984	OBB	2915336
1985	OBB	2503720	1985	OBB	2503720
1986	OBB	2180324	1986	OBB	2180324
1987	OBB	1439363	1987	OBB	1439363
1988	OBB	1205263	1988	OBB	1205263
1989	OBB	2310827	1989	OBB	2310827
1990	OBB	3966981	1990	OBB	3966981
1991	OBB	2204929	1991	OBB	2204929
1992	OBB	3746741	1992	OBB	3746741
1993	OBB	81274	1993	OBB	81274
1994	OBB	-2277318	1994	OBB	-2277318
1995	OBB	2523006	1995	OBB	2523006
1996	OBB	2761740	1996	OBB	2761740
1997	OBB	975186	1997	OBB	975186
1998	OBB	1506290	1998	OBB	1506290
1999	OBB	3032904	1999	OBB	3032904
1991	PKP	**112565206115**	1991	PKP	**112565206115**
1992	PKP	-187192282	1992	PKP	-187192282
1993	PKP	1858751893	1993	PKP	1858751893
1994	PKP	2617585674	1994	PKP	2617585674
1995	PKP	30876936600	1995	PKP	30876936600
1996	PKP	5441552000	1996	PKP	5441552000
1997	PKP	7793980000	1997	PKP	7793980000
1998	PKP	2995580000	1998	PKP	2995580000
1999	PKP	3127500000	1999	PKP	3127500000
1972	RENFE1	**41652275**	1972	RENFE	**41652275**
1973	RENFE1	3488482	1973	RENFE	3488482
1974	RENFE1	3530353	1974	RENFE	3530353
1975	RENFE1	3530353	1975	RENFE	3530353
1976	RENFE1	1229617	1976	RENFE	1229617
1977	RENFE1	2337102	1977	RENFE	2337102
1978	RENFE1	5085335	1978	RENFE	5085335
1979	RENFE1	7177731	1979	RENFE	7177731
1980	RENFE1	10984011	1980	RENFE	10984011
1981	RENFE1	10984011	1981	RENFE	10984011
1982	RENFE1	35374506	1982	RENFE	35374506
1983	RENFE	.	1983	RENFE	**45734807**
1984	RENFE	.	1984	RENFE	**45734807**
1985	RENFE	.	1985	RENFE	**45734807**
1986	RENFE2	**308313000**	1986	RENFE	**45734807**
1987	RENFE2	42568071	1987	RENFE	42568071
1988	RENFE2	53916054	1988	RENFE	53916054
1989	RENFE2	48429354	1989	RENFE	48429354
1990	RENFE2	69329208	1990	RENFE	69329208
1991	RENFE2	**63587457**	1991	RENFE	63587457
1992	RENFE2	48396856	1992	RENFE	48396856
1993	RENFE2	82431418	1993	RENFE	82431418
1994	RENFE2	39672567	1994	RENFE	39672567
1995	RENFE2	44418155	1995	RENFE	44418155
1996	RENFE2	39076054	1996	RENFE	39076054
1997	RENFE2	6754601	1997	RENFE	6754601
1998	RENFE2	15266111	1998	RENFE	15266111
1999	RENFE2	22988274	1999	RENFE	22988274
1972	SJ	**3833323**	1972	SJ	**3833323**
1973	SJ	139904	1973	SJ	139904
1974	SJ	247397	1974	SJ	247397
1975	SJ	179782	1975	SJ	179782
1976	SJ	222657	1976	SJ	222657
1977	SJ	315232	1977	SJ	315232
1978	SJ	369598	1978	SJ	369598
1979	SJ	412001	1979	SJ	412001
1980	SJ	389820	1980	SJ	389820
1981	SJ	833249	1981	SJ	833249
1982	SJ	572622	1982	SJ	572622
1983	SJ	935961	1983	SJ	935961
1984	SJ	1029872	1984	SJ	1029872
1985	SJ	257767	1985	SJ	257767
1986	SJ	935588	1986	SJ	935588
1987	SJ	775811	1987	SJ	775811
1988	SJ	-241254	1988	SJ	-241254
1989	SJ/BV	**12591978**	1989	SJ/BV	**12591978**
1990	SJ/BV	820261	1990	SJ/BV	820261
1991	SJ/BV	454331	1991	SJ/BV	454331
1992	SJ/BV	-90041	1992	SJ/BV	-90041
1993	SJ/BV	320123	1993	SJ/BV	320123
1994	SJ/BV	487409	1994	SJ/BV	487409
1995	SJ/BV	4276107	1995	SJ/BV	4276107
1996	SJ/BV	233672	1996	SJ/BV	233672
1997	SJ/BV	-11492	1997	SJ/BV	-11492
1998	SJ/BV	64986	1998	SJ/BV	64986
1999	SJ/BV	105032	1999	SJ/BV	105032
1972	SNCB	**16969741**	1972	SNCB	**16969741**

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		Investments Data T (current local prices)			Investments Data P (current local prices)
1978	NSB1	298252	1978	NSB1	298252
1979	NSB1	305795	1979	NSB1	305795
1980	NSB1	298846	1980	NSB1	298846
1981	NSB1	289266	1981	NSB1	289266
1982	NSB1	385022	1982	NSB1	385022
1983	NSB1	301619	1983	NSB1	301619
1984	NSB1	724320	1984	NSB1	724320
1985	NSB1	515640	1985	NSB1	515640
1986	NSB1	600498	1986	NSB1	600498
1987	NSB1	685495	1987	NSB1	685495
1988	NSB1	878411	1988	NSB1	878411
1989	NSB1	627622	1989	NSB1	627622
1990	NSB1	133495	1990	NSB1	133495
1991	NSB2	**1369040**	1991	NSB2	**1369040**
1992	NSB2	287500	1992	NSB2	287500
1993	NSB2	411500	1993	NSB2	411500
1972	OBB	**52811945**	1972	OBB	**52811945**
1973	OBB	823574	1973	OBB	823574
1974	OBB	2312241	1974	OBB	2312241
1975	OBB	2174922	1975	OBB	2174922
1976	OBB	2284427	1976	OBB	2284427
1977	OBB	5368251	1977	OBB	5368251
1978	OBB	3481585	1978	OBB	3481585
1979	OBB	4304466	1979	OBB	4304466
1980	OBB	4493593	1980	OBB	4493593
1981	OBB	4709840	1981	OBB	4709840
1982	OBB	5189699	1982	OBB	5189699
1983	OBB	6060531	1983	OBB	6060531
1984	OBB	5613166	1984	OBB	5613166
1985	OBB	5576094	1985	OBB	5576094
1986	OBB	5445643	1986	OBB	5445643
1987	OBB	4277911	1987	OBB	4277911
1988	OBB	5527292	1988	OBB	5527292
1989	OBB	6165036	1989	OBB	6165036
1990	OBB	7295450	1990	OBB	7295450
1991	OBB	8689766	1991	OBB	8689766
1992	OBB	4684846	1992	OBB	4684846
1993	OBB	6431530	1993	OBB	6431530
1994	OBB	3125318	1994	OBB	3125318
1995	OBB	5082994	1995	OBB	5082994
1996	OBB	6438260	1996	OBB	6438260
1997	OBB	10160814	1997	OBB	10160814
1998	OBB	11181710	1998	OBB	11181710
1999	OBB	10383096	1999	OBB	10383096
1991	PKP	**180705125785**	1991	PKP	**180705125785**
1992	PKP	-496161618	1992	PKP	-496161618
1993	PKP	1084930407	1993	PKP	1084930407
1994	PKP	1398232026	1994	PKP	1398232026
1995	PKP	79862585400	1995	PKP	79862585400
1996	PKP	4532448000	1996	PKP	4532448000
1997	PKP	6246020000	1997	PKP	6246020000
1998	PKP	1034420000	1998	PKP	1034420000
1999	PKP	-327500000	1999	PKP	-327500000
1972	RENFE1	**86615902**	1972	RENFE	**86615902**
1973	RENFE1	16511544	1973	RENFE	16511544
1974	RENFE1	17565292	1974	RENFE	17565292
1975	RENFE1	17565292	1975	RENFE	17565292
1976	RENFE1	5138906	1976	RENFE	5138906
1977	RENFE1	20314625	1977	RENFE	20314625
1978	RENFE1	14929038	1978	RENFE	14929038
1979	RENFE1	24497843	1979	RENFE	24497843
1980	RENFE1	34612126	1980	RENFE	31630921
1981	RENFE1	34612126	1981	RENFE	37593330
1982	RENFE1	34965367	1982	RENFE	34965367
1983	RENFE	.	1983	RENFE	**89865000**
1984	RENFE	.	1984	RENFE	**86389000**
1985	RENFE	.	1985	RENFE	**51340000**
1986	RENFE2	**626240000**	1986	RENFE	**91317941**
1987	RENFE2	4041422	1987	RENFE	4041422
1988	RENFE2	36918708	1988	RENFE	36918708
1989	RENFE2	94809988	1989	RENFE	94809988
1990	RENFE2	57085977	1990	RENFE	57085977
1991	RENFE2	119708761	1991	RENFE	119708761
1992	RENFE2	75655144	1992	RENFE	75655144
1993	RENFE2	40335582	1993	RENFE	40335582
1994	RENFE2	16296433	1994	RENFE	16296433
1995	RENFE2	21242845	1995	RENFE	21242845
1996	RENFE2	34025946	1996	RENFE	34025946
1997	RENFE2	40983399	1997	RENFE	40983399
1998	RENFE2	23323889	1998	RENFE	23323889
1999	RENFE2	46842726	1999	RENFE	46842726
1972	SJ	**5259325**	1972	SJ	**5259325**
1973	SJ	137697	1973	SJ	137697
1974	SJ	169776	1974	SJ	169776
1975	SJ	172662	1975	SJ	172662
1976	SJ	206308	1976	SJ	206308
1977	SJ	243759	1977	SJ	243759
1978	SJ	323167	1978	SJ	323167
1979	SJ	378930	1979	SJ	378930
1980	SJ	213301	1980	SJ	213301
1981	SJ	2473506	1981	SJ	2473506
1982	SJ	947640	1982	SJ	947640
1983	SJ	1317116	1983	SJ	1317116
1984	SJ	1322849	1984	SJ	1322849
1985	SJ	1992009	1985	SJ	1992009
1986	SJ	1944732	1986	SJ	1944732
1987	SJ	1820464	1987	SJ	1820464
1988	SJ	2180091	1988	SJ	2180091
1989	SJ/BV	**22291256**	1989	SJ/BV	**22291256**
1990	SJ/BV	5623086	1990	SJ/BV	5623086
1991	SJ/BV	-97556	1991	SJ/BV	-97556
1992	SJ/BV	2122510	1992	SJ/BV	2122510
1993	SJ/BV	856477	1993	SJ/BV	856477
1994	SJ/BV	1511484	1994	SJ/BV	1511484
1995	SJ/BV	1016080	1995	SJ/BV	1016080
1996	SJ/BV	43646125	1996	SJ/BV	43646125
1997	SJ/BV	3269192	1997	SJ/BV	3269192
1998	SJ/BV	3838014	1998	SJ/BV	3838014
1999	SJ/BV	3636969	1999	SJ/BV	3636969
1972	SNCB	**22931784**	1972	SNCB	**22931784**

A.2.4.2.Investments

Transport stock and other equipment
Investments and Capital Stock at the beginning of first year

		Investments Data T (current local prices)
1973	SNCB	2983914
1974	SNCB	1759238
1975	SNCB	3457787
1976	SNCB	5186615
1977	SNCB	4892791
1978	SNCB	5453845
1979	SNCB	3498913
1980	SNCB	7010367
1981	SNCB	8616592
1982	SNCB	37759817
1983	SNCB	7149730
1984	SNCB	6567826
1985	SNCB/NMI	4873747
1986	SNCB/NMI	6172940
1987	SNCB/NMI	2915183
1988	SNCB/NMI	-3312923
1989	SNCB/NMI	-1409275
1990	SNCB/NMI	-6365365
1991	SNCB/NMI	-2671478
1992	SNCB/NMI	594259
1993	SNCB/NMI	13761601
1994	SNCB/NMI	1069816
1995	SNCB/NMI	2228444
1996	SNCB/NMI	6499915
1997	SNCB/NMI	6355172
1998	SNCB/NMI	15096584
1999	SNCB/NMI	15180688
1972	SNCF1	**15933706**
1973	SNCF1	787007
1974	SNCF1	1026142
1975	SNCF1	1413808
1976	SNCF1	1521131
1977	SNCF1	1815762
1978	SNCF2	**35100864**
1979	SNCF2	1811506
1980	SNCF2	2067009
1981	SNCF2	1842149
1982	SNCF2	2666341
1983	SNCF2	2548763
1984	SNCF2	1979139
1985	SNCF2	311225
1986	SNCF2	747949
1987	SNCF2	138403
1988	SNCF2	262329
1989	SNCF2	-5923907
1990	SNCF2	1018446
1991	SNCF2	863951
1992	SNCF2	6696449
1993	SNCF2	-749262
1994	SNCF2	3920766
1995	SNCF2	3313380
1996	SNCF2	1438820
1997	SNCF/RFF	**61262200**
1998	SNCF/RFF	4968000
1999	SNCF/RFF	9489600
1992	SZ	**22086600**
1993	SZ	3265400
1994	SZ	8706400
1995	SZ	3559100
1996	SZ	3559100
1997	SZ	2580700
1998	SZ	2235100
1999	SZ	3053700
1972	TCDD	**2353198**
1973	TCDD	301799
1974	TCDD	396310
1975	TCDD	1169745
1976	TCDD	1260693
1977	TCDD	1845611
1978	TCDD	-70151
1979	TCDD	2643532
1980	TCDD	7623108
1981	TCDD	7238229
1982	TCDD	15919733
1983	TCDD	110358753
1984	TCDD	99763461
1985	TCDD	107966084
1986	TCDD	138875642
1987	TCDD	246953107
1988	TCDD	708261847
1989	TCDD	744984731
1990	TCDD	1401886576
1991	TCDD	2305897192
1992	TCDD	4088814800
1993	TCDD	6186121000
1994	TCDD	18272448200
1995	TCDD	32459767800
1996	TCDD	49790599600
1997	TCDD	87641833000
1998	TCDD	153159627400
1999	TCDD	205693991800
1972	VR1	**600287**
1973	VR1	117252
1974	VR1	159844
1975	VR1	270607
1976	VR1	276004
1977	VR1	295418
1978	VR1	323120
1979	VR1	258575
1980	VR1	308275
1981	VR1	365045
1982	VR1	304200
1983	VR1	363823
1984	VR1	359525
1985	VR1	356401
1986	VR1	364645
1987	VR1	352650
1988	VR1	342669
1989	VR1	709425
1990	VR	.

		Investments Data P (current local prices)
1973	SNCB	2983914
1974	SNCB	1759238
1975	SNCB	3457787
1976	SNCB	5186615
1977	SNCB	4892791
1978	SNCB	5453845
1979	SNCB	3498913
1980	SNCB	7010367
1981	SNCB	8616592
1982	SNCB	37759817
1983	SNCB	7149730
1984	SNCB	6567826
1985	SNCB/NMBS	4873747
1986	SNCB/NMBS	6172940
1987	SNCB/NMBS	2915183
1988	SNCB/NMBS	-3312923
1989	SNCB/NMBS	-1409275
1990	SNCB/NMBS	-6365365
1991	SNCB/NMBS	-2671478
1992	SNCB/NMBS	594259
1993	SNCB/NMBS	13761601
1994	SNCB/NMBS	1069816
1995	SNCB/NMBS	2228444
1996	SNCB/NMBS	6499915
1997	SNCB/NMBS	6355172
1998	SNCB/NMBS	15096584
1999	SNCB/NMBS	15180688
1972	SNCF	**26723380**
1973	SNCF	787007
1974	SNCF	1026142
1975	SNCF	1413808
1976	SNCF	1521131
1977	SNCF	1815762
1978	SNCF	**1813634**
1979	SNCF	1811506
1980	SNCF	2067009
1981	SNCF	1842149
1982	SNCF	2666341
1983	SNCF	2548763
1984	SNCF	1979139
1985	SNCF	311225
1986	SNCF	747949
1987	SNCF	138403
1988	SNCF	262329
1989	SNCF	-5923907
1990	SNCF	1018446
1991	SNCF	863951
1992	SNCF	6696449
1993	SNCF	-749262
1994	SNCF	3920766
1995	SNCF	3313380
1996	SNCF	1438820
1997	SNCF/RFF	**61262200**
1998	SNCF/RFF	4968000
1999	SNCF/RFF	9489600
1992	SZ	**22086600**
1993	SZ	3265400
1994	SZ	8706400
1995	SZ	3559100
1996	SZ	3559100
1997	SZ	2580700
1998	SZ	2235100
1999	SZ	3053700
1972	TCDD	**2353198**
1973	TCDD	301799
1974	TCDD	396310
1975	TCDD	1169745
1976	TCDD	1260693
1977	TCDD	1845611
1978	TCDD	-70151
1979	TCDD	2643532
1980	TCDD	7623108
1981	TCDD	7238229
1982	TCDD	15919733
1983	TCDD	110358753
1984	TCDD	99763461
1985	TCDD	107966084
1986	TCDD	138875642
1987	TCDD	246953107
1988	TCDD	708261847
1989	TCDD	744984731
1990	TCDD	1401886576
1991	TCDD	2305897192
1992	TCDD	4088814800
1993	TCDD	6186121000
1994	TCDD	18272448200
1995	TCDD	32459767800
1996	TCDD	49790599600
1997	TCDD	87641833000
1998	TCDD	153159627400
1999	TCDD	205693991800
1972	VR1	**600287**
1973	VR1	27131
1974	VR1	70662
1975	VR1	178715
1976	VR1	182240
1977	VR1	181344
1978	VR1	191262
1979	VR1	105364
1980	VR1	142838
1981	VR1	182812
1982	VR1	103797
1983	VR1	148194
1984	VR1	136571
1985	VR1	119773
1986	VR1	121967
1987	VR1	89087
1988	VR1	81393
1989	VR1	442890
1990	VR	

Land, Buildings and Fixed Installations
Investments and Capital Stock at the beginning of first year

		Investments Data T (current local prices)
1973	SNCB	3889813
1974	SNCB	4298199
1975	SNCB	4201766
1976	SNCB	4801803
1977	SNCB	28873063
1978	SNCB	9493886
1979	SNCB	11346782
1980	SNCB	13122309
1981	SNCB	15048387
1982	SNCB	33413350
1983	SNCB	13345976
1984	SNCB	8961538
1985	SNCB/NMI	10743875
1986	SNCB/NMI	9855859
1987	SNCB/NMI	8472633
1988	SNCB/NMI	6166367
1989	SNCB/NMI	4637145
1990	SNCB/NMI	6782268
1991	SNCB/NMI	5752662
1992	SNCB/NMI	8480271
1993	SNCB/NMI	17960399
1994	SNCB/NMI	16265184
1995	SNCB/NMI	13461557
1996	SNCB/NMI	24724085
1997	SNCB/NMI	24316828
1998	SNCB/NMI	25486416
1999	SNCB/NMI	23239312
1972	SNCF1	**14104424**
1973	SNCF1	980535
1974	SNCF1	1522191
1975	SNCF1	1881306
1976	SNCF1	2165195
1977	SNCF1	2502441
1978	SNCF2	**72803723**
1979	SNCF2	3515745
1980	SNCF2	4412018
1981	SNCF2	5504536
1982	SNCF2	5471489
1983	SNCF2	13419666
1984	SNCF2	4968671
1985	SNCF2	5569623
1986	SNCF2	7788276
1987	SNCF2	8144266
1988	SNCF2	9704764
1989	SNCF2	13562793
1990	SNCF2	15079283
1991	SNCF2	19192324
1992	SNCF2	18318207
1993	SNCF2	13494262
1994	SNCF2	10140234
1995	SNCF2	12291620
1996	SNCF2	16412180
1997	SNCF/RFF	**206784850**
1998	SNCF/RFF	12217950
1999	SNCF/RFF	11830400
1992	SZ	**194471400**
1993	SZ	34544600
1994	SZ	50079600
1995	SZ	37319900
1996	SZ	13319900
1997	SZ	34173300
1998	SZ	32930900
1999	SZ	35972300
1972	TCDD	**4482159**
1973	TCDD	108046
1974	TCDD	412901
1975	TCDD	430030
1976	TCDD	684733
1977	TCDD	795756
1978	TCDD	3107665
1979	TCDD	2752492
1980	TCDD	4021649
1981	TCDD	5873936
1982	TCDD	11247310
1983	TCDD	79650805
1984	TCDD	56044699
1985	TCDD	90086119
1986	TCDD	82697494
1987	TCDD	122505182
1988	TCDD	575918807
1989	TCDD	1064505402
1990	TCDD	1030388262
1991	TCDD	2067036353
1992	TCDD	3366811200
1993	TCDD	6095534000
1994	TCDD	18446490800
1995	TCDD	27483469200
1996	TCDD	37641160400
1997	TCDD	75367836000
1998	TCDD	139370904600
1999	TCDD	158772974200
1972	VR1	**543913**
1973	VR1	206958
1974	VR1	292551
1975	VR1	454826
1976	VR1	529126
1977	VR1	507636
1978	VR1	481523
1979	VR1	567990
1980	VR1	509296
1981	VR1	549680
1982	VR1	555452
1983	VR1	499480
1984	VR1	493609
1985	VR1	494558
1986	VR1	532426
1987	VR1	584635
1988	VR1	636983
1989	VR1	699898
1990	VR	.

		Investments Data P (current local prices)
1973	SNCB	3889813
1974	SNCB	4298199
1975	SNCB	4201766
1976	SNCB	4801803
1977	SNCB	28873063
1978	SNCB	9493886
1979	SNCB	11346782
1980	SNCB	13122309
1981	SNCB	15048387
1982	SNCB	33413350
1983	SNCB	13345976
1984	SNCB	8961538
1985	SNCB/NMI	10743875
1986	SNCB/NMI	9855859
1987	SNCB/NMI	8472633
1988	SNCB/NMI	6166367
1989	SNCB/NMI	4637145
1990	SNCB/NMI	6782268
1991	SNCB/NMI	5752662
1992	SNCB/NMI	8480271
1993	SNCB/NMI	17960399
1994	SNCB/NMI	16265184
1995	SNCB/NMI	13461557
1996	SNCB/NMI	24724085
1997	SNCB/NMI	24316828
1998	SNCB/NMI	25486416
1999	SNCB/NMI	23239312
1972	SNCF	**60742962**
1973	SNCF	980535
1974	SNCF	1522191
1975	SNCF	1881306
1976	SNCF	2165195
1977	SNCF	2502441
1978	SNCF	**3009093**
1979	SNCF	3515745
1980	SNCF	4412018
1981	SNCF	5504536
1982	SNCF	5471489
1983	SNCF	13419666
1984	SNCF	4968671
1985	SNCF	5569623
1986	SNCF	7788276
1987	SNCF	8144266
1988	SNCF	9704764
1989	SNCF	13562793
1990	SNCF	15079283
1991	SNCF	19192324
1992	SNCF	18318207
1993	SNCF	13494262
1994	SNCF	10140234
1995	SNCF	12291620
1996	SNCF	16412180
1997	SNCF/RFF	**206784850**
1998	SNCF/RFF	12217950
1999	SNCF/RFF	11830400
1992	SZ	**194471400**
1993	SZ	34544600
1994	SZ	50079600
1995	SZ	37319900
1996	SZ	13319900
1997	SZ	34173300
1998	SZ	32930900
1999	SZ	35972300
1972	TCDD	**4482159**
1973	TCDD	108046
1974	TCDD	412901
1975	TCDD	430030
1976	TCDD	684733
1977	TCDD	795756
1978	TCDD	3107665
1979	TCDD	2752492
1980	TCDD	4021649
1981	TCDD	5873936
1982	TCDD	11247310
1983	TCDD	79650805
1984	TCDD	56044699
1985	TCDD	90086119
1986	TCDD	82697494
1987	TCDD	122505182
1988	TCDD	575918807
1989	TCDD	1064505402
1990	TCDD	1030388262
1991	TCDD	2067036353
1992	TCDD	3366811200
1993	TCDD	6095534000
1994	TCDD	18446490800
1995	TCDD	27483469200
1996	TCDD	37641160400
1997	TCDD	75367836000
1998	TCDD	139370904600
1999	TCDD	158772974200
1972	VR1	**543913**
1973	VR1	168176
1974	VR1	249852
1975	VR1	408098
1976	VR1	475259
1977	VR1	443886
1978	VR1	405219
1979	VR1	476135
1980	VR1	380022
1981	VR1	403041
1982	VR1	376252
1983	VR1	285171
1984	VR1	245143
1985	VR1	221461
1986	VR1	256806
1987	VR1	300181
1988	VR1	348995
1989	VR1	374322
1990	VR	

A.2.4.2.Investments

Transport stock and other equipment
Investments and Capital Stock at the beginning of first year

Year	Code	Investments Data T (current local prices)	Year	Code	Investments Data P (current local prices)
1991	VR2	**2725387**	1991	VR2	**2725387**
1992	VR2	393213	1992	VR2	393213
1993	VR2	219408	1993	VR2	219408
1994	VR2	189282	1994	VR2	189282
1995	VR	.	1995	VR	
1996	VR/RHK	**2187534**	1996	VR/RHK	**2187534**
1997	VR/RHK	726672	1997	VR/RHK	726672
1998	VR/RHK	780082	1998	VR/RHK	780082
1999	VR/RHK	1149869	1999	VR/RHK	1149869
1993	ZSR	**10165430**	1993	ZSR	**10165430**
1994	ZSR	60850	1994	ZSR	60850
1995	ZSR	2122120	1995	ZSR	2122120
1996	ZSR	2756560	1996	ZSR	2756560
1997	ZSR	1959250	1997	ZSR	1959250
1998	ZSR	1428040	1998	ZSR	1428040
1999	ZSR	1671738	1999	ZSR	1671738

Land, Buildings and Fixed Installations
Investments and Capital Stock at the beginning of first year

Year	Code	Investments Data T (current local prices)	Year	Code	Investments Data P (current local prices)
1991	VR2	**12603727**	1991	VR2	**12603727**
1992	VR2	929413	1992	VR2	929413
1993	VR2	966465	1993	VR2	966465
1994	VR2	1307233	1994	VR2	1307233
1995	VR	.	1995	VR	
1996	VR/RHK	**15553307**	1996	VR/RHK	**15553307**
1997	VR/RHK	1266539	1997	VR/RHK	1266539
1998	VR/RHK	1528819	1998	VR/RHK	1528819
1999	VR/RHK	1480104	1999	VR/RHK	1480104
1993	ZSR	**29008570**	1993	ZSR	**29008570**
1994	ZSR	1349150	1994	ZSR	1349150
1995	ZSR	2705880	1995	ZSR	2705880
1996	ZSR	10533440	1996	ZSR	10533440
1997	ZSR	2590750	1997	ZSR	2590750
1998	ZSR	2244960	1998	ZSR	2244960
1999	ZSR	1591262	1999	ZSR	1591262

Note:		observations with yellow cells means that figure represents Capital Stock at the beginning of the first year of firm data set.
Value -		red colour figures means that these figures were estimated from extra information or following empirical assumption techniques

A2.4.3.1.Productive Capital Stock of Transport Equipment at constant 1995 local currency prices

Data P

Years	Firms	Investments (at current prices)	GDP deflator	Deflator	Investments (at constant prices)	Hs*Fs	1972 (1)	1973 (2)	1974 (3)	1975 (4)	1976 (5)	1977 (6)	1978 (7)	1979 (8)	1980 (9)	1981 (10)	1982 (11)	1983 (12)	1984 (13)	1985 (14)	1986 (15)	1987 (16)	1988 (17)	1989 (18)	1990 (19)	1991 (20)	Productive Stock at const. prices
						1	2300000	18557	249426	241048	247336	273257	373883	337533	379715	-275797	88090	48090	152819	162978	152554	95270	138269	303923	333882	406040	
1972	BR1	334984	14,56452607	6,8659975	2300000	0,983050847	2261017																				2261017
1973	BR1	2900	15,62736939	6,3990296	18557	0,965517241	2220690	18243																			2238932
1974	BR1	44800	17,96126507	5,5675366	249426	0,947368421	2178947	17917	245198																		2442063
1975	BR1	55000	22,81707626	4,3826825	241048	0,928571429	2135714	17580	240825	236962																	2631082
1976	BR1	65000	26,28008095	3,8051633	247336	0,909090909	2090909	17232	236298	232736	243143																2820318
1977	BR1	81700	29,89857679	3,3446408	273257	0,888888889	2044444	16870	231610	228361	238807	268626															3028717
1978	BR1	124700	33,3526788	2,9982599	373883	0,867924528	1996226	16495	226751	223830	234318	263834	367546														3329001
1979	BR1	128900	38,18881723	2,6185676	337533	0,846153846	1946154	16106	221712	219134	229669	258875	360990	331812													3584453
1980	BR1	173100	45,58682182	2,1936164	379715	0,823529412	1894118	15702	216483	214264	224851	253739	354205	325894	373279												3872535
1981	BR1	-139900	50,72567675	1,9713882	-275797	0,8	1840000	15282	211052	209211	219854	248416	347177	319768	366621	-271123											3506260
1982	BR1	48000	54,48943203	1,8352182	88090	0,775510204	1783673	14846	205409	203963	214669	242895	339894	313424	359730	-266287	86597										3498814
1983	BR1	27600	57,39189474	1,7424063	48090	0,75	1725000	14391	199541	198510	209284	237167	332340	306849	352592	-261282	85053	47275									3446720
1984	BR1	91700	60,00544248	1,6665155	152819	0,723404255	1663830	13918	193432	192838	203688	231218	324502	300030	345195	-256097	83454	46432	150229								3492669
1985	BR1	103300	63,38278899	1,5777154	162978	0,695652174	1600000	13424	187069	186935	197868	225035	316363	292953	337524	-250725	81798	45559	147550	160216							3541571
1986	BR1	99700	65,35401679	1,5301278	152554	0,666666667	1533333	12909	180436	180786	191811	218606	307904	285605	329564	-245153	80082	44655	144776	157358	149968						3572641
1987	BR1	65500	68,75181318	1,4545071	95270	0,636363636	1463636	12371	173513	174375	185502	211914	299106	277969	321297	-239371	78303	43719	141904	154400	147293	93655					3539587
1988	BR1	100800	72,90145806	1,3717147	138269	0,604651163	1390698	11809	166284	167685	178924	204943	289950	270027	312706	-233367	76456	42747	138927	151337	144525	91985	135925				3541560
1989	BR1	238100	78,34220881	1,2764511	303923	0,571428571	1314286	11221	158725	160698	172060	197675	280412	261761	303772	-227127	74538	41739	135840	148162	141657	90256	133501	298772			3697947
1990	BR1	281600	84,34111461	1,1856614	333882	0,536585366	1234146	10604	150816	153394	164890	190092	270469	253150	294473	-220638	72545	40692	132636	144869	138685	88465	130992	293443	328223		3871946
1991	BR1	365251	89,9543562	1,1116749	406040	0,45	1035000	9958	142529	145750	157395	182171	260093	244173	284786	-213884	70472	39604	129309	141453	135603	86609	128392	287927	322369	399158	3988868

Years	Firms	Investments	GDP deflator	Deflator	Investments	Hs*Fs	1	2	Productive Stock at const. prices
						1	3596351,806	586477	
1992	BR2	3363400	93,52255234	1,0692608	3596352	0,983050847	3535397		1381876969089
1993	BR2	563500	96,08220906	1,0407754	586477	0,965517241	3472340	576537	1582580241496

Years	Firms	Investments	GDP deflator	Deflator	Investments	Hs*Fs	1	Productive Stock at const.
						1	4490236,204	
1994	BR/railtrac	4380200	97,54943394	1,0251213	4490236	0,983050847	4414131	4414130,51

Years	Firms	Investments	GDP deflator	Deflator	Investments	Hs*Fs	1	2	3	4	5	6	Productive Stock at const. prices
						1	74759574,39	2034312,55	2436900	3774074,633	1575152,74	1344191,37	
1994	CD	49425200	66,11220088	1,5125801	74759574	0,983050847	73492462,96						73492463
1995	CD	1845800	90,73335384	1,1021305	2034313	0,965517241	72181658,03	1999833					74181491
1996	CD	2436900	100	1	2436900	0,947368421	70824859,95	1964164	2395597				75184620
1997	CD	4098900	108,6067553	0,920753	3774075	0,928571429	69419604,79	1927243	2352869	3710107			77409824
1998	CD	1834600	116,4712446	0,858581	1575153	0,909090909	67963249,45	1889005	2308642	3643934	1548455		77353285
1999	CD	1725012	128,3308345	0,779236	1344191	0,888888889	66452955,01	1849375	2262836	3575439	1520837	1321408	76982850

A2.4.3.2.Productive Capital Stock of Transport Equipment at constant 1995 local currency prices

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Years	Firms	Investments (at current prices)	GDP deflator	Deflator	Investments (at constant prices)	Hs*Fs \ year	1	2	Productive Stock at const. prices
						1	19989362464	9492678682	
1992	BC1	35334998	0,176769007	565,71	19989362464	0,983050847	19650559710		19650559710
1993	BC1	61195242	0,644657261	155,1212	9492678682	0,965517241	19300074103	9331785823	28631859927
						1			
1994	BC2	3399130600	13,32696918	7,503582	25505653632	0,983050847	25073354418		25073354418

Years	Firms	Investments	GDP deflator	Deflator	Investments	Hs*Fs \ year	1	2	Productive Stock at const. prices
						1			
1996	BC 3	9317273274	65,87167076	1,518103	14144583196	0,983050847	13904844498		13904844498
						1	23121710461	-147721205	
1997	BC 4	59679983550	258,1123211	0,387428	23121710461	0,983050847	22729817063		22729817063
1998	BC 4	-664298225	449,6972706	0,222372	-147721205	0,965517241	22324410100	-145217455	22179192645
						1			
1999	BC5	393331202000	1897,843799	0,052691	20725162006	0,983050847	20373888074		20373888074

Years	Firms	Investments	GDP deflator	Deflator	Investments	Hs*Fs \ year	1	2	3	Productive Stock at const. prices
						1	7265450,684	2332870	2554742	
1992	BDZ1	589797	8,117824721	12,31857	7265451	0,983050847	7142307,452			7142307
1993	BDZ1	829652	35,56359744	2,811864	2332870	0,965517241	7014917,902	2293330		9308248
1994	BDZ1	1568803	61,40750296	1,628465	2554742	0,947368421	6883058,543	2252426	2511441	11646926
						1	16191737,99	95737		
1995	BDZ2	16191738	100	1	16191738	0,983050847	15917301,75			15917302
1996	BDZ2	211626	221,0481491	0,45239	95737	0,965517241	15633402,2	94115		15727517
						1	11168773,68	53677	-565862,7199	
1997	BDZ3	259013900	2319,089878	0,04312	11168774	0,983050847	10979472,44			10979472
1998	BDZ3	1521600	2834,730326	0,035277	53677	0,965517241	10783643,56	52767		10836411
1999	BDZ3	-16535500	2922,175188	0,034221	-565863	0,947368421	10580943,49	51826	-536272	10076498

Years	Firms	Investments	GDP deflator	Deflator	Investments	Hs*Fs \ year	1	2	3	Productive Stock at const. prices
						1	6437559,282	18557,18597	249425,6381	
1972	BR1	937600	14,56452607	6,865998	6437559	0,983050847	6328448,108			6328448
1973	BR1	2900	15,62736939	6,39903	18557	0,965517241	6215574,48	18243		6233817
1974	BR1	44800	17,96126507	5,567537	249426	0,947368421	6098740,373	17917	245198	6361856
						1	4129363,417	247335,6156	273257,154	
1975	BR2	942200	22,81707626	4,382682	4129363	0,983050847	4059374,207			4059374
1976	BR2	65000	26,28008095	3,805163	247336	0,965517241	3986971,575	243143		4230115
1977	BR2	81700	29,89857679	3,344641	273257	0,947368421	3912028,5	238807	268626	4419461
						1	3638688	337533	379715	
1978	BR3	1213600	33,3526788	2,99826	3638688	0,983050847	3577015,554			3577016
1979	BR3	128900	38,18881723	2,618568	337533	0,965517241	3513216,228	331812		3845029
1980	BR3	173100	45,58682182	2,193616	379715	0,947368421	3447178,329	325894	373279	4146352
						1	2712038,731	88090,47592	48090,41438	
1981	BR4	1375700	50,72567675	1,971388	2712039	0,983050847	2666071,973			2666071,973
1982	BR4	48000	54,48943203	1,835218	88090	0,965517241	2618520,154	86597		2705117,571
1983	BR4	27600	57,39189474	1,742406	48090	0,947368421	2569299,85	85053	47275	2701628,046

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A2.4.3.3.Productive Capital Stock of Way and Structures at constant 1995 local currency prices: KQ_P

Data P

YEARS	Firms	Investments	GDP deflator	Deflator	Investment	Hs	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Productive Stock at const. prices
		(current prices)			(const. Prices)	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
							422000	476088	453197	99049	99695	128769	450339	136951	76996	-411034	52120	19515	119323	212518	239924	241739	168721	334303	362457	425270	KQ_P
1972	BR1	61462	14,56452607	6,865998	422000	0,994923858	419858																				419858
1973	BR1	74400	15,62736939	6,39903	476088	0,989690722	417649	473671																			891321
1974	BR1	81400	17,96126507	5,567537	453197	0,984293194	415372	471180	450897																		1337448
1975	BR2	22600	22,81707626	4,382682	99049	0,978723404	413021	468610	448525	98546																	1428702
1976	BR2	26200	26,28008095	3,805163	99695	0,972972973	410595	465958	446079	98028	99189																1519849
1977	BR2	38500	29,89857679	3,344641	128769	0,967032967	408088	463221	443555	97493	98667	128115															1639139
1978	BR2	150200	33,3526788	2,99826	450339	0,960893855	405497	460393	440949	96941	98129	127441	448053														2077403
1979	BR2	52300	38,18881723	2,618568	136951	0,954545455	402818	457470	438257	96372	97574	126746	445696	136256													2201189
1980	BR2	35100	45,58682182	2,193616	76996	0,947976879	400046	454447	435475	95783	97001	126029	443265	135539	76605												2264191
1981	BR3	-208500	50,72567675	1,971388	-411034	0,941176471	397176	451320	432598	95175	96409	125288	440757	134800	76202	-408948											1840778
1982	BR3	28400	54,48943203	1,835218	52120	0,934131737	394204	448083	429621	94546	95797	124524	438167	134037	75787	-406797	51856										1879823
1983	BR3	11200	57,39189474	1,742406	19515	0,926829268	391122	444729	426539	93896	95164	123733	435492	133250	75358	-404578	51583	19416									1885702
1984	BR3	71600	60,00544248	1,666516	119323	0,919254658	387925	441252	423346	93222	94509	122916	432728	132436	74915	-402289	51302	19314	118717								1990292
1985	BR3	134700	63,38278899	1,577715	212518	0,911392405	384608	437646	420037	92524	93831	122070	429869	131595	74458	-399925	51011	19208	118092	211439							2186463
1986	BR3	156800	65,35401679	1,530128	239924	0,903225806	381161	433903	416604	91801	93129	121194	426911	130726	73985	-397484	50712	19100	117448	210327	238706						2408223
1987	BR3	166200	68,75181318	1,454507	241739	0,894736842	377579	430015	413041	91051	92401	120287	423848	129826	73496	-394960	50402	18988	116784	209180	237451	240512					2629899
1988	BR3	123000	72,90145806	1,371715	168721	0,88590604	373852	425973	409340	90272	91645	119347	420676	128895	72990	-392351	50082	18872	116098	207997	236156	239247	167864				2776954
1989	BR3	261900	78,34220881	1,276451	334303	0,876712329	369973	421769	405492	89463	90862	118371	417387	127930	72467	-389651	49751	18752	115389	206775	234819	237942	166982	332606			3087078
1990	BR3	305700	84,34111461	1,185661	362457	0,867132867	365930	417392	401490	88622	90047	117359	413976	126930	71924	-386856	49409	18628	114656	205512	233440	236596	166071	330856	360617		3422600
1991	BR3	382549	89,9543562	1,111675	425270	0,857142857	361714	412831	397324	87748	89201	116307	410435	125893	71362	-383960	49054	18500	113899	204207	232014	235206	165131	329052	358720	423111	3817750

YEARS	Firms	Investments	GDP deflator	Deflator	Investment	Hs	1	2	Productive Stock at
						1	6169207,165	474073	
1992	BR4	5769600	93,52255234	1,069261	6169207	0,994923858	6137891		6137891
1993	BR4	455500	96,08220906	1,040775	474073	0,989690722	6105607	471667	6577274
1994	BR/railtrac	5371800	97,54943394	1,025121	5506746	0,994923858	5478793,432		5478793

			GDP deflator	Deflator	Investment	Hs	1	2	3	4	5	6	Productive Stock at const. prices
						1	171632162,4	3344084,48	5654100	10726865	6379600,414	7013893,45	KQ_P
1994	CD	113469800	66,11220088	1,51258	171632162	0,994923858	170760933,2						170760933
1995	CD	3034200	90,73335384	1,102131	3344084	0,989690722	169862758,7	3327109					173189868
1996	CD	5654100	100	1	5654100	0,984293194	168936369,3	3309609	5625399				177871378
1997	CD	11650100	108,6087553	0,920733	10726865	0,978723404	167980414,3	3291560	5595810	10672414			187540198
1998	CD	7430400	116,4712446	0,858581	6379600	0,972972973	166993455,3	3272934	5565292	10616279	6347217		192795177
1999	CD	9000988	128,3308345	0,779236	7013893	0,967032967	165973959,3	3253704	5533800	10558380	6313831	6978290	198611965

A2.4.3.4.Productive Capital Stock of Way and Structures at constant 1995 local currency prices: KQ_T

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YEARS	Firms	Investments (current prices)	GDP deflator	Deflator	Investment (const. Prices)	Hs \ Years	1	2	3	Productive Stock at const. prices KQ_T
						1	26031713994	4978266673		
1992	BC1	46016002	0,176769007	565,71	26031713994	0,994923858	25899573313			25899573313
1993	BC1	32092758	0,644657261	155,1212	4978266673	0,989690722	25763345808	4952996284		30716342092
						1				
1994	BC2	4990356400	13,32696918	7,503582	37445646176	0,994923858	37255467261			37255467261
						1	35147771493	6322694345	1001168	
1996	BC3	23152424319	65,87167076	1,518103	35147771493	0,994923858	34969356409			34969356409
1997	BC3	16319653131	258,1123211	0,387428	6322694345	0,989690722	34785423333	6290599450		41076022784
1998	BC3	4502225	449,6972706	0,222372	1001168	0,984293194	34595712255	6257511929	996086	40854220270
						1				
1999	BC4	430845835000	1897,843799	0,052691	22701859615	0,994923858	22586621749			22586621749

YEARS	Firms	Investments	GDP deflator	Deflator	Investment	Hs \ Years	1	2	3	Productive Stock at const. prices KQ_T
						1	37364732	-479852	1853515	
1992	BDZ1	3033203	8,117824721	12,31857	37364732	0,994923858	37175063,27			37175063
1993	BDZ1	-170652	35,56359744	2,811864	-479852	0,989690722	36979528,54	-477416		36502113
1994	BDZ1	1138197	61,40750296	1,628465	1853515	0,984293194	36777851,36	-474905	1844106	38147053
						1	38047262,01	862424,9616		
1995	BDZ2	38047262	100	1	38047262	0,994923858	37854128,7			37854129
1996	BDZ2	1906374	221,0481491	0,45239	862425	0,989690722	37655022,2	858047		38513069
						1	33496636,22	1852253,794	2829279,378	
1997	BDZ3	776817100	2319,089878	0,04312	33496636	0,994923858	33326602,53			33326603
1998	BDZ3	52506400	2834,730326	0,035277	1852254	0,989690722	33151310,07	1842851		34994162
1999	BDZ3	82676500	2922,175188	0,034221	2829279	0,984293194	32970511,04	1833158	2814918	37618587

YEARS	Firms	Investments	GDP deflator	Deflator	Investment	Hs \ Years	1	2	3	Productive Stock at const. prices KQ_T
						1	4898202,637	476087,8055	453197,4764	
1972	BR1	713400	14,56452607	6,865998	4898203	0,994923858	4873338,664			4873339
1973	BR1	74400	15,62736939	6,39903	476088	0,989690722	4847705,702	473671,1161		5321377
1974	BR1	81400	17,96126507	5,567537	453197	0,984293194	4821267,517	471179,6838	450896,9816	5743344
						1	1385804,195	99695,27892	128768,6711	
1975	BR2	316200	22,81707626	4,382682	1385804	0,994923858	1378769,656			1378770
1976	BR2	26200	26,28008095	3,805163	99695	0,989690722	1371517,554	99189,21151		1470707
1977	BR2	38500	29,89857679	3,344641	128769	0,984293194	1364037,637	98667,49253	128115,023	1590820
						1	1592375,842	136951,0862	76995,93567	
1978	BR3	531100	33,3526768	2,99826	1592376	0,994923858	1584292,716			1584293
1979	BR3	52300	38,18881723	2,618568	136951	0,989690722	1575959,596	136256		1712215
1980	BR3	35100	45,58682182	2,193616	76996	0,984293194	1567364,703	135539	76605	1779509
						1	808269,1573	52120,19825	19514,95076	
1981	BR4	410000	50,72567675	1,971388	808269	0,994923858	804166,2681			804166
1982	BR4	28400	54,48943203	1,835218	52120	0,989690722	799936,4855	51855,62872		851792
1983	BR4	11200	57,39189474	1,742406	19515	0,984293194	795573,8302	51582,87662	19415,8901	866573

YEARS	Firms	Investments	GDP deflator	Deflator	Investment	Hs \ Years	1	2	3	4	5	6	7	8	Productive Stock at const. KQ_T
						1	868587,8789	212518,2595	239924,044	241739	168720,9053	334302,5477	362456,6754	425270,1216	
1984	BR5	521200	60,00544248	1,666516	868588	0,994923858	864178,8033								864179
1985	BR5	134700	63,38278899	1,577715	212518	0,989690722	859633,3647	211439							1071073
1986	BR5	156800	65,35401679	1,530128	239924	0,984293194	854945,1373	210327	238706						1303979
1987	BR5	166200	68,75181318	1,454507	241739	0,978723404	850107,2857	209180	237451	241739					1538477
1988	BR5	123000	72,90145806	1,371715	168721	0,972972973	845112,5308	207997	236156	239247	167864				1696376
1989	BR5	261900	78,34220881	1,276451	334303	0,967032967	839953,1136	206775	234819	237942	166982	332606			2019076
1990	BR5	305700	84,34111461	1,185661	362457	0,960893855	834620,7551	205512	233440	236596	166071	330856	360617		2367712
1991	BR5	382549	89,9543562	1,111675	425270	0,954545455	829106,6116	204207	232014	235206	165131	329052	358720	423111	2776548

YEARS	Firms	Investments	GDP deflator	Deflator	Investment	Hs \ Years	1	2	Productive Stock at KQ_T
						1	5511392,569	295845,6126	
1992	BR6	5769600	93,62255234	1,069261	6169207	0,994923858	5483415,957		5483416

A2.4.4.1.Depreciation rates of Transport Equipment

Data P	

Years	Firms	Age-price Z*F	Investments (at constant prices)	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Net stock at const. Prices	Change of Net Cap. Stock	Depreciation	Rate Deprec.
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				
		1		2300000	18557	249426	241048	247336	273257	373883	337533	379715	-275797	88090	48090	152819	162978	152554	95270	138269	303923	333882	406040	0			
1972	BR1	0,956263835	2300000	2199407																				2199407	2199407	100593	0,045736505
1973	BR1	0,91219748	18557	2098054	17746																			2115800	-83607	102164	0,048286344
1974	BR1	0,867836668	249426	1996024	16928	238517																		2251469	135669	113757	0,050525476
1975	BR1	0,823221136	241048	1893409	16105	227525	230505																	2367544	116075	124973	0,052785809
1976	BR1	0,778394971	247336	1790308	15277	216461	219883	236518																2478447	110903	136432	0,055047555
1977	BR1	0,733406983	273257	1686836	14445	205332	209190	225619	261306															2602728	124281	148976	0,05723838
1978	BR1	0,688311115	373883	1583116	13610	194152	198435	214647	249264	357531														2810755	208027	165856	0,059007733
1979	BR1	0,643166888	337533	1479284	12773	182931	187630	203612	237143	341055	322771													2967198	156443	181090	0,061030626
1980	BR1	0,598039885	379715	1375492	11935	171682	176786	192525	224951	324469	307897	363108												3148846	181647	198068	0,062901683
1981	BR1	0,553002286	-275797	1271905	11098	160422	165916	181398	212702	307788	292924	346375	-263735											2886793	-462052	186255	0,069322443
1982	BR1	0,508133445	88090	1168707	10262	149166	155034	170244	200409	291029	277865	329531	-251582	84238										2584902	-101891	189982	0,073496692
1983	BR1	0,463520532	48090	1066097	9430	137933	144156	159078	188086	274208	262734	312589	-239347	80356	45987									2441308	-143594	191684	0,078517113
1984	BR1	0,41925923	152819	964296	8602	126742	133300	147917	175750	257348	247549	295568	-227042	76448	43868	146136								2396481	-44827	197647	0,082473661
1985	BR1	0,375454501	162978	863545	7780	115614	122484	136777	163419	240469	232328	278486	-214679	72518	41735	139402	155850							2355727	-40754	203732	0,086483486
1986	BR1	0,332221435	152554	764109	6967	104574	111730	125679	151112	223597	217090	261362	-202272	68569	39589	132622	148668	145882						2299281	-56447	209001	0,090898262
1987	BR1	0,289686182	95270	666278	6165	93648	101061	114645	138851	206758	201858	244220	-189834	64606	37433	125804	141438	139159	91103					2183196	-116085	211355	0,096809803
1988	BR1	0,247986979	138269	570370	5376	82865	90502	103698	126660	189982	186657	227085	-177384	60634	35270	118954	134167	132392	86905	132221				2106354	-76842	215111	0,102124781
1989	BR1	0,207275288	303923	476733	4602	72255	80081	92863	114566	173302	171512	209983	-164938	56657	33101	112079	126861	125585	82679	126128	290631			2184682	78328	225595	0,103262139
1990	BR1	0,167717063	333882	385749	3846	61854	69828	82170	102596	156754	156454	192946	-152516	52682	30930	105187	119529	118747	78428	119995	277238	319280		2281697	97015	236867	0,103811923
1991	BR1	0,11654473	406040	268053	3112	51700	59777	71650	90782	140376	141514	176006	-140142	48714	28760	98288	112180	111884	74158	113826	263756	304567	388282	2407241	125544	280496	0,116521925

		Age-price Z*F	Investments	1	2	Net stock at const.	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		3596352	586477	0			
1992	BR2	0,956263835	3596352	3439061		3439061	3439061	157291	0,0457365
1993	BR2	0,91219748	586477	3280583	560827	3841410	402349	184128	0,0479325

		Age-price Z*F	Investments	1	Net stock at const.	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1			0			
1994	BR/railtrack	0,956263835	4490236	4293850	4293850	4293850	196386	0,045736505

		Age-price Z*F	Investments	1	2	3	4	5	6	Net stock at const.	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		74759574,39	2034312,55	2436900	3774074,63	1575152,74	1344191,37	0			
1994	CD	0,956263835	74759574	71489877						71489877	71489877	3269697	0,045736505
1995	CD	0,91219748	2034313	68195495	1945340					70140835	-1349042	3383355	0,048236594
1996	CD	0,867836668	2436900	64879100	1855695	2330319				69065114	-1075721	3512621	0,050859553
1997	CD	0,823221136	3774075	61543662	1765451	2222934	3609011			69141058	75944	3698131	0,053486755
1998	CD	0,778394971	1575153	58192477	1674689	2114831	3442701	1506262		66930960	-2210098	3785251	0,056554555
1999	CD	0,733406983	1344191	54829194	1583499	2006108	3275280	1436850	1285402	64416332	-2514628	3858819	0,059904355

A2.4.4.2.Depreciation rates of Transport Equipment

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Years	Firms	Age-price Z*F	Investments (at constant prices)	1	2	Net stock at const. Prices	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		19989362464	9492678682	0			
1992	BC1	0,956263835	19989362464	19115104404		19115104404	19115104404	874258060	0,045736505
1993	BC1	0,91219748	9492678682	18234246064	9077505319	27311751383	8196646979	1296031703	0,047453262
		1		25505653632					
1994	BC2	0,956263835	25505653632	24390134150		24390134150	24390134150	1115519483	0,045736505

Years	Firms	Age-price Z*F	Investments	1	2	Net stock at const. Prices	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		14144583196		0			
1996	BC 3	0,956263835	14144583196	13525953368		13525953368	13525953368	618629828	0,045736505
		1		23121710461	-147721205				
1997	BC 4	0,956263835	23121710461	22110455511		22110455511	22110455511	1011254950	0,045736505
1998	BC 4	0,91219748	-147721205	21091566013	-141260446	20950305568	-1160149943	1012428739	0,048325249
		1		20725162006					
1999	BC5	0,956263835	20725162006	19818722895		19818722895	19818722895	906439111	0,045736505

Years	Firms	Age-price Z*F	Investments	1	2	3	Net stock at const. Prices	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		7265450,684	2332869,976	2554741,562	0			
1992	BDZ1	0,956263835	7265451	6947688			6947688	6947688	317763	0,045736505
1993	BDZ1	0,91219748	2332870	6627526	2230839		8858365	1910677	422193	0,047660343
1994	BDZ1	0,867836668	2554742	6305225	2128038	2443007	10876270	2017905	536837	0,049358557

Years	Firms	Age-price Z*F	Investments	1	2	Net stock at const. Prices	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		16191738	95737	0			
1995	BDZ2	0,956263835	16191738	15483573		15483573	15483573	708165	0,045736505
1996	BDZ2	0,91219748	95737	14770063	91550	14861613	-621961	717698	0,048292071

Years	Firms	Age-price Z*F	Investments	1	2	3	Net stock at const. Prices	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		11168774	53677	-565862,7199	0			
1997	BDZ3	0,956263835	11168774	10680294			10680294	10680294	488479	0,045736505
1998	BDZ3	0,91219748	53677	10188127	51329		10239457	-440838	494515	0,048295021
1999	BDZ3	0,867836668	-565863	9692671	48964	-541114	9200521	-1038935	473073	0,051418016

Years	Firms	Age-price Z*F	Investments	1	2	3	Net stock at const. Prices	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		6437559,282	18557,18597	249425,6381	0			
1972	BR1	0,956263835	6437559,282	6156005			6156005	6156005	281554	0,045736505
1973	BR1	0,91219748	18557,18597	5872325	17746		5890071	-265934	284491	0,048300164
1974	BR1	0,867836668	249425,6381	5586750	16928	238517	5842195	-47876	297302	0,050888758

Years	Firms	Age-price Z*F	Investments	1	2	3	Net stock at const. Prices	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		4129363,417	247335,6156	273257,154	0			
1975	BR2	0,956263835	4129363,417	3948761			3948761	3948761	180603	0,045736505
1976	BR2	0,91219748	247335,6156	3766795	236518		4003313	54552	192784	0,048155991
1977	BR2	0,867836668	273257,154	3583613	225619	261306	4070538	67225	206032	0,050615501

Years	Firms	Age-price Z*F	Investments	1	2	3	Net stock at const. Prices	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		3638688	337533	379715	0			
1978	BR3	0,956263835	3638688	3479546			3479546	3479546	159142	0,045736505
1979	BR3	0,91219748	337533	3319202	322771		3641973	162427	175106	0,04808002
1980	BR3	0,867836668	379715	3157787	307897	363108	3828792	186819	192896	0,050380463

Years	Firms	Age-price Z*F	Investments	1	2	3	Net stock at const. Prices	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		2712038,731	88090,47592	48090,41438	0			
1981	BR4	0,956263835	2712038,731	2593425			2593425	2593425	118614	0,045736505
1982	BR4	0,91219748	88090,47592	2473915	84238		2558153	-35272	123362	0,048223237
1983	BR4	0,867836668	48090,41438	2353607	80356	45987	2479950	-78203	126293	0,050925774

[illegible]

A2.4.4.3.Depreciation rates of Way & Structures

		Data P																									
YEARS	Firms	age-price profile Zs	Investments (at Const. Prices)	1972 1	1973 2	1974 3	1975 4	1976 5	1977 6	1978 7	1979 8	1980 9	1981 10	1982 11	1983 12	1984 13	1985 14	1986 15	1987 16	1988 17	1989 18	1990 19	1991 20	Net stock at const. Prices	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		422000	476088	453197	99049	99695	128789	450339	136951	76996	-411034	52120	19515	119323	212518	239924	241739	168721	334303	362457	425270	0			
1972	BR1	0,984625747	422000	415512																				415512	415512	6488	0,015614311
1973	BR1	0,968917612	476088	408883	468768																			877652	462139	13948	0,015892785
1974	BR1	0,952870933	453197	402112	461290	446230																		1309631	431980	21218	0,016201295
1975	BR2	0,93648127	99049	395195	453650	439111	97526																	1385482	75851	23198	0,01674345
1976	BR2	0,919744444	99695	388132	445847	431839	95970	98163																1459951	74468	25227	0,017279203
1977	BR2	0,90265657	128789	380921	437879	424411	94381	96597	126789															1560977	101026	27742	0,01777232
1978	BR2	0,885214105	450339	373560	429744	416826	92757	94997	124766	443415														1976065	415088	35251	0,017838796
1979	BR2	0,867413891	136951	366049	421440	409082	91099	93363	122700	436341	134846													2074919	98854	38098	0,018360989
1980	BR2	0,849253205	76996	358385	412965	401177	89407	91694	120589	429115	132694	75812												2111838	36920	40076	0,018976918
1981	BR3	0,830729822	-411034	350568	404319	393110	87679	89991	118434	421734	130497	74603	-404715											1666219	-445619	34585	0,020756573
1982	BR3	0,811842071	52120	342597	395500	384879	85916	88252	116234	414196	128252	73367	-398259	51319										1682255	16036	36084	0,021449924
1983	BR3	0,792588907	19515	334473	386508	376485	84117	86477	113988	406501	125960	72105	-391663	50500	19215									1664666	-17589	37104	0,022288935
1984	BR3	0,772969986	119323	326193	377342	367925	82283	84667	111696	398646	123620	70817	-384926	49664	18908	117488								1744322	79655	39667	0,022740753
1985	BR3	0,752985745	212518	317760	368002	359199	80412	82820	109357	390630	121231	69501	-378047	48810	18595	115614	209251							1913134	168813	43705	0,022844913
1986	BR3	0,732637502	239924	309173	358487	350308	78505	80937	106972	382452	118793	68158	-371023	47937	18275	113699	205913	236235						2104821	191687	48237	0,022917401
1987	BR3	0,711927548	241739	300433	348800	341251	76562	79017	104540	374110	116306	66787	-363853	47047	17949	111743	202502	232467	238023					2293683	188862	52877	0,023053411
1988	BR3	0,690859266	168721	291543	338940	332029	74582	77061	102061	365604	113769	65389	-356537	46138	17615	109746	199019	228617	234225	166127				2405929	112246	56475	0,023473396
1989	BR3	0,669437252	334303	282503	328910	322644	72567	75069	99534	356933	111183	63963	-349072	45210	17275	107707	195462	224684	230346	163477	329163			2677557	271628	62674	0,023407253
1990	BR3	0,647667452	362457	273316	318711	313096	70515	73041	96961	348098	108546	62509	-341459	44263	16928	105626	191831	220669	226384	160769	323912	356884		2970599	293042	69415	0,023367288
1991	BR3	0,625557316	425270	263985	308347	303387	68429	70976	94341	339099	105859	61026	-333695	43298	16573	103502	188124	216569	222338	158004	318547	351191	418732	3318631	348032	77238	0,023274102

		age-price profile Zs	Investments	1	2	Net stock at const.	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		6169207	474073	0			
1992	BR4	0,984625747	6169207	6074360		6074360	6074360	94847	0,015614311
1993	BR4	0,968917612	474073	5977453	466785	6444238	369878	104195	0,016168748
						0			
1994	BR/railtrack	0,984625747	5506746	5422084		5422084	5422084	84662	0,015614311

		Age-price Z*F	Investments	1	2	3	4	5	6	Net stock at const. Prices	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		171632162,4	3344084	5654100	10726864,98	6379600,414	7013893,455	0			
1994	CD	0,984625747	171632162	168993446						168993446	168993446	2638716	0,015614311
1995	CD	0,968917612	3344084	166297425	3292672					169590097	596650	2747434	0,016200439
1996	CD	0,952870933	5654100	163543299	3240142	5567172				172350613	2760517	2893583	0,016788935
1997	CD	0,93648127	10726865	160730305	3186481	5478357	10561947			179957091	7606477	3120388	0,01733962
1998	CD	0,919744444	6379600	157857728	3131672	5387628	10393448	6281519		183051995	3094904	3284696	0,017944062
1999	CD	0,90265657	7013893	154924899	3075703	5294959	10221318	6181307	6906060	186604246	3552251	3461642	0,018550716

A2.4.4.4.Depreciation rates of Way & Structures

		Data T							
YEARS	Firms	age-price profile Zs	Investments (at Const. Prices)	1972 / 1	1973 / 2	Net stock at const. Prices	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		26031713994	4978266673	0			
1992	BC1	0,984625747	26031713994	25631495847		25631495847	25631495847	400218147	0,015614311
1993	BC1	0,968917612	4978266673	25222586165	4901729544	30124315709	4492819863	485446811	0,016114783
		1							
1994	BC2	0,984625747	37445546176	36869848890		36869848890	36869848890	575697286	0,015614311

YEARS	Firms	age-price profile Zs	Investments	1	2	3	Net stock at const.	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		35147771493	6322694345	1001168	0			
1996	BC3	0,984625747	35147771493	34607400775			34607400775	34607400775	540370718	0,015614311
1997	BC3	0,968917612	6322694345	34055294831	6225487645		40280782476	5673381701	649312645	0,016119663
1998	BC3	0,952870933	1001168	33491289806	6126169908	985776	39618445489	-662336987	663338155	0,016743165
		1								
1999	BC4	0,984625747	22701859615	22352835491			22352835491	22352835491	349024125	0,015614311

YEARS	Firms	age-price profile Zs	Investments	1	2	3	Net stock at const.	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		37364731,96	-479851,588	1853514,546	0			
1992	BDZ1	0,984625747	37364732	36790277			36790277	36790277	574455	0,015614311
1993	BDZ1	0,968917612	-479852	36203347	-472474		35730873	-1059404	579553	0,016219948
1994	BDZ1	0,952870933	1853515	35603767	-464937	1825018	36963848	1232976	620539	0,016787719
				1	2					
		1		38047262	862425		0			
1995	BDZ2	0,984625747	38047262	37462314			37462314	37462314	584948	0,015614311
1996	BDZ2	0,968917612	862425	36864662	849166		37713828	251514	610911	0,016198586
				1	2	3				
		1		33496636	1852254	2829279,378	0			
1997	BDZ3	0,984625747	33496636	32981650			32981650	32981650	514986	0,015614311
1998	BDZ3	0,968917612	1852254	32455481	1823777		34279258	1297607	554647	0,016180243
1999	BDZ3	0,952870933	2829279	31917971	1794681	2785781	36498434	2219176	610103	0,016715876

YEARS	Firms	age-price profile Zs	Investments	1	2	3	Net stock at const.	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		4898203	476088	453197	0			
1972	BR1	0,984625747	4898203	4822896,432			4822896	4822896	75306	0,015614311
1973	BR1	0,968917612	476088	4745954,803	468768,3113		5214723	391827	84261	0,016158312
1974	BR1	0,952870933	453197	4667354,915	461289,8697	446229,9039	5574875	360152	93046	0,016690225

YEARS	Firms	age-price profile Zs	Investments	1	2	3	Net stock at const.	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		1385804	99695	128769	0			
1975	BR2	0,984625747	1385804	1364498,491			1364498	1364498	21306	0,015614311
1976	BR2	0,968917612	99695	1342730,092	98162,53851		1440893	76394	23301	0,016171323
1977	BR2	0,952870933	128769	1320492,536	96596,5116	126788,949	1543878	102985	25783	0,016700351

YEARS	Firms	age-price profile Zs	Investments	1	2	3	Net stock at const.	Change of Net Cap. Stock	Depreciation	Rate Deprec.
		1		1592375,842	136951,0862	76995,93567	0			
1978	BR3	0,984625747	1592376	1567894			1567894	1567894	24482	0,015614311
1979	BR3	0,968917612	136951	1542881	134846		1677727	109832	27119	0,016164002
1980	BR3	0,952870933	76996	1517329	132694	75812	1725835	48109	28887	0,016738184

[illegible]

A2.4.5.1.Transport Equipment Capital Stock - Prices (PEQ) and Costs

DATA SET_T

Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices	ppp1995	Rate Deprec.	interest rates	User costs: PEQ_T=(r+d)>,001	User costs: CEQ_T
1992	BC1	19650559710	**8635672**	2,27551	0,045736505	-0,85	**0,001**	**8636**
1993	BC1	28631859927	**12582611**	2,27551	0,047453262	-0,852568	**0,001**	**12583**
1994	BC1	25073354418	**11018784**	2,27551	0,045736505	-0,879795	**0,001**	**11019**
1996	BC 2	13904844498	**6110649**	2,27551	0,045736505	0,085732	**0,131468822**	**803360**
1997	BC 2	22729817063	**9988888**	2,27551	0,045736505	-0,236531	**0,001**	**9989**
1998	BC 2	22179192645	**9746910**	2,27551	0,048325249	-0,271107	**0,001**	**9747**
1999	BC2	20373888074	**8953547**	2,27551	0,045736505	-0,642104	**0,001**	**8954**
1992	BDZ1	7142307	**349973**	0,020408	0,045736505	-0,018283	**0,027453468**	**9608**
1993	BDZ1	9308248	**456104**	0,020408	0,047660343	0,047766	**0,095426142**	**43524**
1994	BDZ1	11646926	**570699**	0,020408	0,049358557	-0,000523	**0,048835144**	**27870**
1995	BDZ2	15917302	**779948**	0,020408	0,045736505	-0,023764	**0,021972543**	**17137**
1996	BDZ2	15727517	**770648**	0,020408	0,048292071	0,011016	**0,059308462**	**45706**
1997	BDZ3	10979472	**537994**	0,020408	0,045736505	-0,82466	**0,001**	**538**
1998	BDZ3	10836411	**530984**	0,020408	0,048295021	-0,07306	**0,001**	**531**
1999	BDZ3	10076498	**493748**	0,020408	0,051418016	0,094124	**0,145541828**	**71861**
1972	BR1	6328448,108	**9678006**	0,654	0,045736505	0,008068	**0,053804902**	**520724**
1973	BR1	6233817,137	**9533288**	0,654	0,048300164	0,03415	**0,082450368**	**786023**
1974	BR1	6361855,741	**9729096**	0,654	0,050888758	-0,001689	**0,049200083**	**478672**
1975	BR2	4059374,207	**6207943**	0,654	0,045736505	-0,126424	**0,001**	**6208**
1976	BR2	4230115,062	**6469055**	0,654	0,048155991	-0,007472	**0,040683492**	**263184**
1977	BR2	4419460,978	**6758619**	0,654	0,050615501	-0,01044	**0,040175825**	**271533**
1978	BR3	3577015,554	**5470279**	0,654	0,045736505	0,009165	**0,054901199**	**300325**
1979	BR3	3845028,689	**5880148**	0,654	0,04808002	-0,015125	**0,03295502**	**193780**
1980	BR3	4146351,764	**6340957**	0,654	0,050380463	-0,055872	**0,001**	**6341**
1981	BR4	2666071,973	**4077186**	0,654	0,045736505	0,034698	**0,08043474**	**327947**
1982	BR4	2705117,571	**4136898**	0,654	0,048223237	0,054602	**0,10282501**	**425377**
1983	BR4	2701628,046	**4131561**	0,654	0,050925774	0,054783	**0,105709249**	**436744**
1984	BR5	2527849,8	**3865805**	0,654	0,045736505	0,058703	**0,104439884**	**403744**
1985	BR5	2642978,958	**4041870**	0,654	0,048147706	0,048716	**0,096863703**	**391511**
1986	BR5	2743420,971	**4195475**	0,654	0,050640559	0,067508	**0,118148496**	**495689**
1987	BR5	2783108,546	**4256168**	0,654	0,053382273	0,042726	**0,096108345**	**409053**
1988	BR5	2861438,39	**4375957**	0,654	0,05610628	0,03326	**0,089366101**	**391062**
1989	BR5	3098066,172	**4737829**	0,654	0,05815745	0,021168	**0,079325873**	**375832**
1990	BR5	3356487,544	**5133029**	0,654	0,060114674	0,034235	**0,094349574**	**484299**
1991	BR5	3677340,434	**5623705**	0,654	0,061767011	0,032646	**0,094412975**	**530951**
1992	BR6	3535396,691	**5406632**	0,654	0,045736505	0,051575	**0,097311464**	**526127**
1993	BR6	4048876,328	**6191889**	0,654	0,047932499	0,051289	**0,099221392**	**614368**
1994	BR/railtrac	4414130,506	**6750467**	0,654	0,045736505	0,065204	**0,110940989**	**748904**
1993	CD	9840128,935	**910171**	10,8	0,045736505	-0,057371	**0,001**	**910**
1994	CD	54537776,44	**5044516**	10,8	0,046181345	-0,002572	**0,043609327**	**219988**
1995	CD	55370272,34	**5121518**	10,8	0,048689158	0,023465	**0,072153857**	**369537**
1996	CD	56527071,67	**5228518**	10,8	0,051292718	0,036254	**0,08754658**	**457739**
1997	CD	58860801,65	**5444378**	10,8	0,053833022	0,055603	**0,109435854**	**595810**
1998	CD	59037593,35	**5460730**	10,8	0,056877075	0,023822	**0,08069894**	**440675**
1999	CD	59029651,7	**5459996**	10,8	0,060171063	0,061942	**0,122112901**	**666736**
1972	CFF1	9274252,121	**4611991**	2,01	0,045736505	-0,048326	**0,001**	**4612**
1973	CFF1	9239538,397	**4594728**	2,01	0,048270475	-0,025409	**0,022861688**	**105043**
1974	CFF1	9734600,396	**4840917**	2,01	0,05068795	0,002177	**0,052865078**	**255915**
1975	CFF1	10092863,67	**5019078**	2,01	0,053251945	-0,006934	**0,046318127**	**232474**
1976	CFF1	10607809,43	**5275155**	2,01	0,05572279	0,022594	**0,07831646**	**413131**
1977	CFF1	7730724,964	**3844410**	2,01	0,045736505	0,037939	**0,083675781**	**321684**
1978	CFF1	7801864,019	**3879787**	2,01	0,048237036	-0,002833	**0,045403665**	**176157**
1979	CFF1	7910756,585	**3933938**	2,01	0,050857693	0,014602	**0,065459541**	**257514**
1980	CFF1	8008772,492	**3982681**	2,01	0,053628464	0,020637	**0,074265871**	**295777**
1981	CFF1	8111716,576	**4033874**	2,01	0,056541262	-0,001972	**0,05456972**	**220127**
1982	CFF1	8215585,276	**4085527**	2,01	0,059604864	-0,019427	**0,04017796**	**164148**
1983	CFF2	7541441,382	**3750282**	2,01	0,045736505	0,018519	**0,064255116**	**240975**
1984	CFF2	7595866,22	**3777347**	2,01	0,048242107	0,011938	**0,060180434**	**227322**
1985	CFF2	7645179,325	**3801869**	2,01	0,05090332	0,024109	**0,0750128**	**285189**
1986	CFF2	7754393,08	**3856180**	2,01	0,053660441	0,012129	**0,065789178**	**253695**
1987	CFF2	7863691,274	**3910533**	2,01	0,056560042	0,013793	**0,070352604**	**275116**
1988	CFF2	8102621,769	**4029351**	2,01	0,059350643	0,013009	**0,072359736**	**291563**
1989	CFF2	8395339,748	**4174917**	2,01	0,062103781	0,021214	**0,083317711**	**347844**
1990	CFF2	8740280,461	**4346452**	2,01	0,064783982	0,024056	**0,08884009**	**386139**
1991	CFF2	8596785,136	**4275093**	2,01	0,069079898	0,003466	**0,072545809**	**310140**
1992	CFF2	8551447,783	**4252548**	2,01	0,073367104	0,027416	**0,100783148**	**428585**
1993	CFF2	7982518,999	**3969625**	2,01	0,080927663	0,013842	**0,094770032**	**376201**
1994	CFF2	8527759,948	**4240768**	2,01	0,082170433	0,035801	**0,117971148**	**500288**
1995	CFF2	8581864,823	**4267674**	2,01	0,086645263	0,02599	**0,112635002**	**480689**
1996	CFF2	8685381,644	**4319151**	2,01	0,090879812	0,032604	**0,123484197**	**533347**
1997	CFF2	8667583,121	**4310300**	2,01	0,096252862	0,031818	**0,128070667**	**552023**
1998	CFF2	9184213,381	**4567215**	2,01	0,096683801	0,025063	**0,121746554**	**556043**
1999	CFF2	9282398,668	**4616042**	2,01	0,100902895	0,029274	**0,130176487**	**600900**
1972	CFL1	5593513,003	**143895**	38,9	0,045736505	0,01462	**0,060356623**	**8685**
1973	CFL1	5650521,389	**145361**	38,9	0,048234515	-0,054025	**0,001**	**145**
1974	CFL1	5835184,155	**150112**	38,9	0,050756874	-0,097118	**0,001**	**150**
1975	CFL1	6062057,837	**155948**	38,9	0,053306239	0,075865	**0,129171637**	**20144**
1976	CFL1	7070030,727	**181878**	38,9	0,054683265	-0,04986	**0,00482345**	**877**
1977	CFL1	7109078,233	**182883**	38,9	0,057743118	0,058595	**0,116337726**	**21276**
1978	CFL1	6972343,166	**179365**	38,9	0,061443244	0,015093	**0,07653579**	**13728**
1979	CFL1	6911553,621	**177802**	38,9	0,065249441	0,004261	**0,069510747**	**12359**
1980	CFL1	6992929,032	**179895**	38,9	0,068760652	-0,004215	**0,064545259**	**11611**
1981	CFL1	6842194,62	**176017**	38,9	0,073627998	0,014956	**0,088584007**	**15592**
1982	CFL1	6788025,303	**174624**	38,9	0,078377592	-0,003088	**0,075290029**	**13147**
1983	CFL1	6601135,686	**169816**	38,9	0,084585739	0,030111	**0,114696531**	**19477**
1984	CFL1	6408733,398	**164866**	38,9	0,091647273	0,058174	**0,149821311**	**24700**
1985	CFL1	6323215,627	**162666**	38,9	0,098205199	0,0655	**0,163704882**	**26629**
1986	CFL1	6094221,552	**156775**	38,9	0,10766984	0,059133	**0,166803039**	**26151**
1987	CFL1	5938033,276	**152757**	38,9	0,117063181	0,070296	**0,18735916**	**28621**
1988	CFL1	5770438,808	**148446**	38,9	0,127839443	0,064198	**0,192037267**	**28507**
1989	CFL1	6223486,523	**160101**	38,9	0,122428993	0,042107	**0,164536249**	**26342**
1990	CFL1	6654608,186	**171192**	38,9	0,118481818	0,050834	**0,169315529**	**28985**
1991	CFL1	6757764,28	**173845**	38,9	0,137639111	0,066659	**0,204297692**	**35516**
1992	CFL1	6720032,881	**172875**	38,9	0,122862718	0,03623	**0,15909246**	**27503**
1993	CFL1	6620029,012	**170302**	38,9	0,111625885	0,061871	**0,173496464**	**29547**
1994	CFL1	8039364,596	**206815**	38,9	0,08693571	0,010421	**0,09735625**	**20135**
1995	CFL2	8750518,983	**225109**	38,9	0,045736505	0,053414	**0,099150586**	**22320**
1996	CFL2	8496456,96	**218574**	38,9	0,048338455	0,034942	**0,083280003**	**18203**
1997	CFL2	8571871,214	**220514**	38,9	0,050992466	0,020584	**0,071575997**	**15783**
1998	CFL2	9737820,013	**250508**	38,9	0,052825073	0,037946	**0,090771139**	**22739**
1999	CFL2	10037352,45	**258213**	38,9	0,055500971	0,035	**0,090500971**	**23369**
1992	CFR1	10057470639	**20278411**	495,9694	0,045736505	-0,35	**0,001**	**20278**
1993	CFR1	9944512353	**20050658**	495,9694	0,04829023	-0,4	**0,001**	**20051**
1994	CFR1	13848859418	**27922812**	495,9694	0,049445952	-0,3	**0,001**	**27923**
1995	CFR1	13548866244	**27317950**	495,9694	0,052378415	-0,05	**0,002378415**	**64973**
1996	CFR1	13293401394	**26802868**	495,9694	0,055565105	-0,1	**0,001**	**26803**
1997	CFR1	13057960142	**26328159**	495,9694	0,059037795	-0,741913	**0,001**	**26328**
1998	CFR1	13522101886	**27263986**	495,9694	0,061799546	0,004117	**0,065916734**	**1797153**
1999	CFR1	12716622689	**25639936**	495,9694	0,066975707	0,192412	**0,259387374**	**6650676**
1972	CH	125915522,7	**620020**	203	0,045736505	0,02826	**0,073996163**	**45879**
1973	CH	136912900,9	**674172**	203	0,048052553	-0,08733	**0,001**	**674**
1974	CH	161314421,8	**794328**	203	0,049943197	-0,07526	**0,001**	**794**
1975	CH	168869057,3	**831528**	203	0,052417997	-0,00411	**0,048307846**	**40169**
1976	CH	175095597,6	**862188**	203	0,055020981	-0,033715	**0,021305988**	**18370**
1977	CH	172703779,4	**850410**	203	0,058380181	-0,008433	**0,049947021**	**42475**
1978	CH	170402411,4	**839078**	203	0,062030907	0,004537	**0,06656835**	**55856**
1979	CH	171967774,6	**846786**	203	0,065452437	-0,016305	**0,049147481**	**41617**
1980	CH	168749905,9	**830941**	203	0,069897728	0,030272	**0,100169262**	**83235**
1981	CH	169599507,7	**835125**	203	0,073877787	0,013181	**0,087058292**	**72705**
1982	CH	170959213,7	**841820**	203	0,077938832	-0,036737	**0,041202258**	**34685**
1983	CH	171434123,1	**844158**	203	0,082444715	0,011606	**0,094050475**	**79393**
1984	CH	171214051,4	**843075**	203	0,087418961	0,001801	**0,089220436**	**75219**
1985	CH	172844230,8	**851102**	203	0,091887775	0,024073	**0,115960742**	**98694**
1986	CH	170221864,8	**838189**	203	0,098459764	0,02537	**0,123829578**	**103793**
1987	CH	166205251,6	**818411**	203	0,106390773	0,066192	**0,172583161**	**141244**
1988	CH	162005919,2	**797733**	203	0,115266984	0,063189	**0,178456267**	**142360**
1989	CH	176940972,4	**871275**	203	0,110253913	0,07723	**0,187484152**	**163350**
1990	CH	185404051,4	**912948**	203	0,110058419	0,058189	**0,168247173**	**153601**
1991	CH	177031031,1	**871718**	203	0,135054504	0,079771	**0,214825417**	**187267**
1992	CH	169267759,8	**833491**	203	0,129746668	0,118911	**0,248657371**	**207254**
1993	CH	172884016,3	**851298**	203	0,11635943	0,144126	**0,260485521**	**221751**
1994	CH	163527320,6	**805224**	203	0,109385147	0,150128	**0,259513006**	**208966**
1995	CH	176530489,5	**869253**	203	0,092006258	0,130094	**0,222100576**	**193062**
1996	CH	166984178,4	**822246**	203	0,086972814	0,126442	**0,21341497**	**175480**
1997	CH	159805424,3	**786897**	203	0,083142144	0,114885	**0,198027207**	**155827**
1998	CH	160811574,5	**791852**	203	0,079426001	0,130089	**0,209514931**	**165905**
1999	CH	157096486,7	**773558**	203	0,078587592	0,116346	**0,194933332**	**150792**
1972	CIE1	232989,6639	**367086**	0,635	0,045736505	-0,039213	**0,006523066**	**2395**
1973	CIE1	239118,3386	**376742**	0,635	0,048194187	-0,029447	**0,018747663**	**7063**
1974	CIE1	243498,4573	**383643**	0,635	0,050789553	0,107719	**0,15850852**	**60811**
1975	CIE1	245863,7813	**387370**	0,635	0,053579168	-0,054931	**0,001**	**387**
1976	CIE1	260593,3162	**410577**	0,635	0,055955958	-0,055366	**0,001**	**411**
1977	CIE1	256012,4717	**403360**	0,635	0,059461688	-0,019662	**0,039799935**	**16054**
1978	CIE1	250295,55	**394353**	0,635	0,063403329	0,023053	**0,086456194**	**34094**
1979	CIE1	247707,1786	**390274**	0,635	0,067423003	0,013946	**0,081369072**	**31756**

DATA SET _P

Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices	ppp1995	Rate Deprec.	interest rates	User costs: PEQ_P=(r+d)>,001	User costs: CEQ_P
1972	BR1	2261016,949	**3457741**	0,654	0,045736505	0,008068	**0,053804902**	**186043**
1973	BR1	2238932,313	**3423967**	0,654	0,048286344	0,03415	**0,082436548**	**282260**
1974	BR1	2442062,736	**3734612**	0,654	0,050525476	-0,001689	**0,0488368**	**182386**
1975	BR1	2631081,516	**4023676**	0,654	0,052785809	-0,126424	**0,001**	**4024**
1976	BR1	2820317,775	**4313072**	0,654	0,055047555	-0,007472	**0,047575056**	**205195**
1977	BR1	3028717,436	**4631775**	0,654	0,05723838	-0,01044	**0,046798704**	**216761**
1978	BR1	3329000,583	**5090993**	0,654	0,059007733	0,009165	**0,068172427**	**347065**
1979	BR1	3584452,824	**5481653**	0,654	0,061030626	-0,015125	**0,045905626**	**251639**
1980	BR1	3872534,726	**5922212**	0,654	0,062901683	-0,055872	**0,00702993**	**41633**
1981	BR1	3506259,629	**5362073**	0,654	0,069322443	0,034698	**0,104020679**	**557766**
1982	BR1	3498813,705	**5350686**	0,654	0,073496692	0,054602	**0,128098465**	**685415**
1983	BR1	3446720,2	**5271020**	0,654	0,078517113	0,054783	**0,133300588**	**702630**
1984	BR1	3492669,09	**5341289**	0,654	0,082473661	0,058703	**0,14117704**	**754067**
1985	BR1	3541571,071	**5416074**	0,654	0,086483486	0,048716	**0,135199483**	**732250**
1986	BR1	3572640,748	**5463589**	0,654	0,090898262	0,067508	**0,158406198**	**865466**
1987	BR1	3539586,696	**5413040**	0,654	0,096809803	0,042726	**0,139535875**	**755313**
1988	BR1	3541560,039	**5416058**	0,654	0,102124781	0,03326	**0,135384602**	**733251**
1989	BR1	3697946,818	**5655218**	0,654	0,103262139	0,021168	**0,124430562**	**703682**
1990	BR1	3871946,018	**5921312**	0,654	0,103811923	0,034235	**0,138046823**	**817418**
1991	BR1	3988868,447	**6100120**	0,654	0,116521925	0,032646	**0,149167889**	**909942**
1992	BR2	3535396,691	**5406632**	0,654	0,045736505	0,051575	**0,097311464**	**526127**
1993	BR2	4048876,328	**6191889**	0,654	0,047932499	0,051289	**0,099221392**	**614368**
1994	BR/railtrac	4414130,506	**6750467**	0,654	0,045736505	0,065204	**0,110940989**	**748904**
1994	CD	73492462,96	**6797745**	10,8	0,045736505	-0,002572	**0,043164486**	**293421**
1995	CD	74181490,7	**6861477**	10,8	0,048236594	0,023465	**0,071701293**	**491977**
1996	CD	75184620,4	**6954263**	10,8	0,050859553	0,036254	**0,087113415**	**605810**
1997	CD	77409824,49	**7160085**	10,8	0,053486755	0,055603	**0,109089586**	**781091**
1998	CD	77353285,42	**7154855**	10,8	0,056554555	0,023822	**0,08037642**	**575082**
1999	CD	76982850,49	**7120591**	10,8	0,059904355	0,061942	**0,121846194**	**867617**
1972	CFF	9274252,121	**4611991**	2,01	0,045736505	-0,048326	**0,001**	**4612**
1973	CFF	9239538,397	**4594728**	2,01	0,048270475	-0,025409	**0,022861688**	**105043**
1974	CFF	9734600,396	**4840917**	2,01	0,05068795	0,002177	**0,052865078**	**255915**
1975	CFF	10092863,67	**5019078**	2,01	0,053251945	-0,006934	**0,046318127**	**232474**
1976	CFF	10607809,43	**5275155**	2,01	0,05572279	0,022594	**0,07831646**	**413131**
1977	CFF	8868809,888	**4410368**	2,01	0,062003991	0,037939	**0,099943268**	**440787**
1978	CFF	8867178,74	**4409557**	2,01	0,065669956	-0,002833	**0,062836585**	**277082**
1979	CFF	8900025,762	**4425892**	2,01	0,06946923	0,014602	**0,084071078**	**372089**
1980	CFF	8918502,236	**4435080**	2,01	0,07355595	0,020637	**0,094193358**	**417755**
1981	CFF	8938175,059	**4444863**	2,01	0,077883797	-0,001972	**0,075912254**	**337420**
1982	CFF	8954781,184	**4453121**	2,01	0,082475368	-0,019427	**0,063048464**	**280762**
1983	CFF	8946577,725	**4449042**	2,01	0,087480603	0,018519	**0,105999215**	**471595**
1984	CFF	8838238,296	**4395165**	2,01	0,093577099	0,011938	**0,105515427**	**463758**
1985	CFF	8716768,22	**4334760**	2,01	0,100283868	0,024109	**0,124393349**	**539215**
1986	CFF	8646594,341	**4299863**	2,01	0,106889906	0,012129	**0,119018644**	**511764**
1987	CFF	8567257,947	**4260410**	2,01	0,113943774	0,013793	**0,127736335**	**544209**
1988	CFF	8607600,463	**4280472**	2,01	0,119350898	0,013009	**0,132359991**	**566563**
1989	CFF	8690998,7	**4321945**	2,01	0,123812024	0,021214	**0,145025954**	**626794**
1990	CFF	8815028,37	**4383623**	2,01	0,127110025	0,024056	**0,151166132**	**662655**
1991	CFF	7966371,693	**3961595**	2,01	0,175801138	0,003466	**0,179267049**	**710183**
1992	CFF	7268197,476	**3614400**	2,01	0,1649978	0,027416	**0,192413843**	**695461**
1993	CFF	6076974,918	**3022017**	2,01	0,174922008	0,013842	**0,188764377**	**570449**
1994	CFF/SBB/F	6046853,058	**3007038**	2,01	0,137578787	0,035801	**0,173379503**	**521359**
1995	CFF/SBB/F	5574099,556	**2771943**	2,01	0,121267516	0,02599	**0,147257255**	**408189**
1996	CFF/SBB/F	5325630,393	**2648382**	2,01	0,094541874	0,032604	**0,127146259**	**336732**
1997	CFF/SBB/F	5039849,721	**2506266**	2,01	0,087845183	0,031818	**0,119662988**	**299907**
1998	CFF/SBB/F	5380215,492	**2675526**	2,01	0,078757239	0,025063	**0,103819991**	**277773**
1999	CFF/SBB/F	5405508,651	**2688104**	2,01	0,077100755	0,029274	**0,106374347**	**285945**
1972	CFL1	5593513,003	**143895**	38,9	0,045736505	0,01462	**0,060356623**	**8685**
1973	CFL1	5650521,389	**145361**	38,9	0,048234515	-0,054025	**0,001**	**145**
1974	CFL1	5835184,155	**150112**	38,9	0,050756874	-0,097118	**0,001**	**150**
1975	CFL1	6062057,837	**155948**	38,9	0,053306239	0,075865	**0,129171637**	**20144**
1976	CFL1	7070030,727	**181878**	38,9	0,054683265	-0,04986	**0,00482345**	**877**
1977	CFL1	7109078,233	**182883**	38,9	0,057743118	0,058595	**0,116337726**	**21276**
1978	CFL1	6972343,166	**179365**	38,9	0,061443244	0,015093	**0,07653579**	**13728**
1979	CFL1	6911553,621	**177802**	38,9	0,065249441	0,004261	**0,069510747**	**12359**
1980	CFL1	6992929,032	**179895**	38,9	0,068760652	-0,004215	**0,064545259**	**11611**
1981	CFL1	6842194,62	**176017**	38,9	0,073627998	0,014956	**0,088584007**	**15592**
1982	CFL1	6788025,303	**174624**	38,9	0,078377592	-0,003088	**0,075290029**	**13147**
1983	CFL1	6601135,686	**169816**	38,9	0,084585739	0,030111	**0,114696531**	**19477**
1984	CFL1	6408733,398	**164866**	38,9	0,091647273	0,058174	**0,149821311**	**24700**
1985	CFL1	6323215,627	**162666**	38,9	0,098205199	0,0655	**0,163704882**	**26629**
1986	CFL1	6094221,552	**156775**	38,9	0,10766984	0,059133	**0,166803039**	**26151**
1987	CFL1	5938033,276	**152757**	38,9	0,117063181	0,070296	**0,18735916**	**28621**
1988	CFL1	5770438,808	**148446**	38,9	0,127839443	0,064198	**0,192037267**	**28507**
1989	CFL1	6223486,523	**160101**	38,9	0,122428993	0,042107	**0,164536249**	**26342**
1990	CFL1	6654608,186	**171192**	38,9	0,118481818	0,050834	**0,169315529**	**28985**
1991	CFL1	6757764,28	**173845**	38,9	0,137639111	0,066659	**0,204297692**	**35516**
1992	CFL1	6720032,881	**172875**	38,9	0,122862718	0,03623	**0,15909246**	**27503**
1993	CFL1	6620029,012	**170302**	38,9	0,111625885	0,061871	**0,173496464**	**29547**
1994	CFL1	8039364,596	**206815**	38,9	0,08693571	0,010421	**0,09735625**	**20135**
1995	CFL2	8750518,983	**225109**	38,9	0,045736505	0,053414	**0,099150586**	**22320**
1996	CFL2	8496456,96	**218574**	38,9	0,048338455	0,034942	**0,083280003**	**18203**
1997	CFL2	8571871,214	**220514**	38,9	0,050992466	0,020584	**0,071575997**	**15783**
1998	CFL2	9737820,013	**250508**	38,9	0,052825073	0,037946	**0,090771139**	**22739**
1999	CFL2	10037352,45	**258213**	38,9	0,055500971	0,035	**0,090500971**	**23369**
1972	CH	125915522,7	**620020**	203	0,045736505	0,02826	**0,073996163**	**45879**
1973	CH	136912900,9	**674172**	203	0,048052553	-0,08733	**0,001**	**674**
1974	CH	161314421,8	**794328**	203	0,049943197	-0,07526	**0,001**	**794**
1975	CH	168869057,3	**831528**	203	0,052417997	-0,00411	**0,048307846**	**40169**
1976	CH	175095597,6	**862188**	203	0,055020981	-0,033715	**0,021305988**	**18370**
1977	CH	172703779,4	**850410**	203	0,058380181	-0,008433	**0,049947021**	**42475**
1978	CH	170402411,4	**839078**	203	0,062030907	0,004537	**0,06656835**	**55856**
1979	CH	171967774,6	**846786**	203	0,065452437	-0,016305	**0,049147481**	**41617**
1980	CH	168749905,9	**830941**	203	0,069897728	0,030272	**0,100169262**	**83235**
1981	CH	169599507,7	**835125**	203	0,073877787	0,013181	**0,087058292**	**72705**
1982	CH	170959213,7	**841820**	203	0,077938832	-0,036737	**0,041202258**	**34685**
1983	CH	171434123,1	**844158**	203	0,082444715	0,011606	**0,094050475**	**79393**
1984	CH	171214051,4	**843075**	203	0,087418961	0,001801	**0,089220436**	**75219**
1985	CH	172844230,8	**851102**	203	0,091887775	0,024073	**0,115960742**	**98694**
1986	CH	170221864,8	**838189**	203	0,098459764	0,02537	**0,123829578**	**103793**
1987	CH	166205251,6	**818411**	203	0,106390773	0,066192	**0,172583161**	**141244**
1988	CH	162005919,2	**797733**	203	0,115266984	0,063189	**0,178456267**	**142360**
1989	CH	176940972,4	**871275**	203	0,110253913	0,07723	**0,187484152**	**163350**
1990	CH	185404051,4	**912948**	203	0,110058419	0,058189	**0,168247173**	**153601**
1991	CH	177031031,1	**871718**	203	0,135054504	0,079771	**0,214825417**	**187267**
1992	CH	169267759,8	**833491**	203	0,129746668	0,118911	**0,248657371**	**207254**
1993	CH	172884016,3	**851298**	203	0,11635943	0,144126	**0,260485521**	**221751**
1994	CH	163527320,6	**805224**	203	0,109385147	0,150128	**0,259513006**	**208966**
1995	CH	176530489,5	**869253**	203	0,092006258	0,130094	**0,222100576**	**193062**
1996	CH	166984178,4	**822246**	203	0,086972814	0,126442	**0,21341497**	**175480**
1997	CH	159805424,3	**786897**	203	0,083142144	0,114885	**0,198027207**	**155827**
1998	CH	160811574,5	**791852**	203	0,079426001	0,130089	**0,209514931**	**165905**
1999	CH	157096486,7	**773558**	203	0,078587592	0,116346	**0,194933332**	**150792**
1972	CIE1	232989,6639	**367086**	0,635	0,045736505	-0,039213	**0,006523066**	**2395**
1973	CIE1	239118,3386	**376742**	0,635	0,048194187	-0,029447	**0,018747663**	**7063**
1974	CIE1	243498,4573	**383643**	0,635	0,050789553	0,107719	**0,15850852**	**60811**
1975	CIE1	245863,7813	**387370**	0,635	0,053579168	-0,054931	**0,001**	**387**
1976	CIE1	260593,3162	**410577**	0,635	0,055955958	-0,055366	**0,000590455**	**242**
1977	CIE1	256012,4717	**403360**	0,635	0,059461688	-0,019662	**0,039799935**	**16054**
1978	CIE1	250295,55	**394353**	0,635	0,063403329	0,023053	**0,086456194**	**34094**
1979	CIE1	247707,1786	**390274**	0,635	0,067423003	0,013946	**0,081369072**	**31756**
1980	CIE1	251522,4174	**396286**	0,635	0,070931887	0,006427	**0,077359143**	**30656**
1981	CIE1	280923,1989	**442608**	0,635	0,071189517	-0,00179	**0,069399664**	**30717**
1982	CIE1	314021,2156	**494755**	0,635	0,071348956	0,018748	**0,090096496**	**44576**
1983	CIE1	362420,5117	**571011**	0,635	0,070410737	0,031895	**0,102305315**	**58417**
1984	CIE1	431954,5514	**680565**	0,635	0,06862109	0,082344	**0,150965109**	**102742**
1985	CIE1	467443,1712	**736479**	0,635	0,069898768	0,074575	**0,14447417**	**106402**
1986	CIE1	474720,5077	**747945**	0,635	0,073235031	0,045184	**0,118418565**	**88571**
1987	CIE1	472151,4614	**743897**	0,635	0,077520638	0,090768	**0,168288525**	**125189**
1988	CIE1	477621,376	**752515**	0,635	0,081179917	0,062412	**0,14359179**	**108055**
1989	CIE1	466739,3559	**735370**	0,635	0,08688695	0,034237	**0,12112346**	**89071**
1990	CIE1	462825,7668	**729204**	0,635	0,092004837	0,108113	**0,20011777**	**145927**
1991	CIE1	442654,1756	**697423**	0,635	0,110320851	0,073683	**0,184004241**	**128329**
1992	CIE1	574342,4361	**904904**	0,635	0,085859762	0,062979	**0,148838684**	**134685**
1993	CIE1	338289,6264	**532991**	0,635	0,133473441	0,025414	**0,158887367**	**84686**
1994	CIE1	439207,781	**691993**	0,635	0,09599232	0,064948	**0,160940612**	**111370**
1995	CIE1	463640,4673	**730488**	0,635	0,089640277	0,052679	**0,142319222**	**103962**
1996	CIE1	452128,669	**712350**	0,635	0,088963249	0,051485	**0,140448472**	**100048**
1997	CIE2	240194,0076	**378437**	0,635	0,045736505	0,020908	**0,066644959**	**25221**
1998	CIE2	246233,9904	**387953**	0,635	0,048197043	-0,007774	**0,040423518**	**15682**
1999	CIE2	266097,1566	**419249**	0,635	0,050484897	-0,004253	**0,046232379**	**19383**
1972	CP1	135215808	**1135554**	119	0,045736505	-0,017995	**0,027741332**	**31502**
1973	CP1	144318641,2	**1212001**	119	0,048097173	-0,039705	**0,008392511**	**10172**
1974	CP1	152007301,2	**1276571**	119	0,050514474	-0,113652	**0,001**	**1277**
1975	CP1	166064354	**1394623**	119	0,05267031	-0,097304	**0,001**	**1395**

A2.4.5.1.Transport Equipment Capital Stock - Prices (PEQ) and Costs

		DATA SET_T					User costs				DATA SET _P					User costs	
Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices	ppp1995	Rate Deprec.	interest rates	PEQ_T=(r+d)>,001	CEQ_T	Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices	ppp1995	Rate Deprec.	interest rates	PEQ_P=(r+d)>,001	CEQ_P
1980	CIE1	251522,4174	396286	0,635	0,070931887	0,006427	0,077359143	30656	1976	CP1	173126688,7	1453933	119	0,055221624	-0,065358	0,001	1454
1981	CIE1	280923,1989	442608	0,635	0,071189517	-0,00179	0,069399664	30717	1977	CP1	186555005,9	1566706	119	0,057364063	-0,155984	0,001	1567
1982	CIE1	314021,2156	494755	0,635	0,071348956	0,018748	0,090096496	44576	1978	CP1	200200728,2	1681304	119	0,059502474	-0,061815	0,001	1681
1983	CIE1	362420,5117	571011	0,635	0,070410737	0,031895	0,102305315	58417	1979	CP1	214313435	1799823	119	0,061618926	-0,027541	0,034077823	61334
1984	CIE1	431954,5514	680565	0,635	0,06862109	0,082344	0,150965109	102742	1980	CP1	216231866,3	1815935	119	0,064998144	-0,042206	0,022792535	41390
1985	CIE1	467443,1712	736479	0,635	0,069898768	0,074575	0,14447417	106402	1981	CP1	216628088,9	1819262	119	0,068754957	-0,009039	0,059715995	108639
1986	CIE1	474720,5077	747945	0,635	0,073235031	0,045184	0,118418565	88571	1982	CP1	218371692,7	1833905	119	0,072521863	-0,038986	0,033535386	61501
1987	CIE1	472151,4614	743897	0,635	0,077520638	0,090768	0,168288525	125189	1983	CP1	217139296,4	1823555	119	0,07703684	-0,053827	0,023209689	42324
1988	CIE1	477621,376	752515	0,635	0,081179917	0,062412	0,14359179	108055	1984	CP1	216062393,9	1814511	119	0,081828678	-0,031733	0,050095942	90900
1989	CIE1	466739,3559	735370	0,635	0,08688695	0,034237	0,12112346	89071	1985	CP1	215767929,7	1812038	119	0,086708822	-0,009863	0,076846318	139248
1990	CIE1	462825,7668	729204	0,635	0,092004837	0,108113	0,20011777	145927	1986	CP1	208915891,4	1754494	119	0,094071382	-0,049128	0,044943044	78852
1991	CIE1	442654,1756	697423	0,635	0,110320851	0,073683	0,184004241	128329	1987	CP1	219610912,8	1844312	119	0,095369543	0,049265	0,144634649	266751
1992	CIE1	574342,4361	904904	0,635	0,085859762	0,062979	0,148838684	134685	1988	CP1	221647742	1861418	119	0,099819663	0,027063	0,126882715	236182
1993	CIE1	338289,6264	532991	0,635	0,133473441	0,025414	0,158887367	84686	1989	CP1	218836804,9	1837811	119	0,106397681	0,032164	0,138562126	254651
1994	CIE1	439207,781	691993	0,635	0,09599232	0,064948	0,160940612	111370	1990	CP1	220676179,2	1853258	119	0,110802722	0,057765	0,168568012	312400
1995	CIE1	463640,4673	730488	0,635	0,089640277	0,052679	0,142319222	103962	1991	CP1	205207894,3	1723354	119	0,139354141	0,060792	0,200146479	344923
1996	CIE1	452128,669	712350	0,635	0,088963249	0,051485	0,140448472	100048	1992	CP1	197246143,4	1656491	119	0,134572325	0,053849	0,188421532	312119
1997	CIE2	240194,0076	378437	0,635	0,045736505	0,020908	0,066644959	25221	1993	CP1	208465663,6	1750713	119	0,115957418	0,057444	0,173401412	303576
1998	CIE2	246233,9904	387953	0,635	0,048197043	-0,007774	0,040423518	15682	1994	CP1	230429313,8	1935166	119	0,098811754	0,045521	0,144332295	279307
1999	CIE2	266097,1566	419249	0,635	0,050484897	-0,004253	0,046232379	19383	1995	CP1	263361042,3	2211730	119	0,084564034	0,052127	0,136690915	302323
1972	CP1	135215808	1135554	119	0,045736505	-0,017995	0,027741332	31502	1996	CP1	302345450,2	2539124	119	0,075785652	0,039849	0,115634692	293611
1973	CP1	144318641,2	1212001	119	0,048097173	-0,039705	0,008392511	10172	1997	CP/REFER	224125529,2	1882226	119	0,045736505	0,024517	0,070253503	132233
1974	CP1	152007301,2	1276571	119	0,050514474	-0,113652	0,001	1277	1998	CP/REFER	232389297	1951626	119	0,04816844	0,000441	0,048609592	94868
1975	CP1	166064354	1394623	119	0,05267031	-0,097304	0,001	1395	1999	CP/REFER	261185074,7	2193456	119	0,050265742	0	0,050265742	110256
1976	CP1	173126688,7	1453933	119	0,055221624	-0,065358	0,001	1454	1972	DB1	13156980,05	6527575	2,02	0,045736505	0,024044	0,069780011	455494
1977	CP1	186555005,9	1566706	119	0,057364063	-0,155984	0,001	1567	1973	DB1	14138653,08	7014613	2,02	0,048080723	0,023049	0,071130147	498950
1978	CP1	200200728,2	1681304	119	0,059502474	-0,061815	0,001	1681	1974	DB1	16298022,21	8085941	2,02	0,050066607	0,034364	0,0844303	682698
1979	CP1	214313435	1799823	119	0,061618926	-0,027541	0,034077823	61334	1975	DB1	16885876,22	8377593	2,02	0,052619562	0,0256	0,078219886	655294
1980	CP1	216231866,3	1815935	119	0,064998144	-0,042206	0,022792535	41390	1976	DB1	17960687,74	8910839	2,02	0,054963203	0,035034	0,089997219	801951
1981	CP1	216628088,9	1819262	119	0,068754957	-0,009039	0,059715995	108639	1977	DB1	18878456,65	9366172	2,02	0,057437554	0,025089	0,082526732	772960
1982	CP1	218371692,7	1833905	119	0,072521863	-0,038986	0,033535386	61501	1978	DB1	19621636,96	9734886	2,02	0,060098929	0,031138	0,091236966	888181
1983	CP1	217139296,4	1823555	119	0,07703684	-0,053827	0,023209689	42324	1979	DB1	19566281,04	9707423	2,02	0,063661295	0,03284	0,09650157	936782
1984	CP1	216062393,9	1814511	119	0,081828678	-0,031733	0,050095942	90900	1980	DB1	20041604,75	9943245	2,02	0,066764511	0,030796	0,097560877	970072
1985	CP1	215767929,7	1812038	119	0,086708822	-0,009863	0,076846318	139248	1981	DB1	20412695,34	10127354	2,02	0,070122354	0,040583	0,110705342	1121152
1986	CP1	208915891,4	1754494	119	0,094071382	-0,049128	0,044943044	78852	1982	DB1	20417597,07	10129786	2,02	0,074257921	0,036831	0,111089101	1125309
1987	CP1	219610912,8	1844312	119	0,095369543	0,049265	0,144634649	266751	1983	DB1	20397050,52	10119592	2,02	0,078698743	0,046157	0,124855476	1263487
1988	CP1	221647742	1861418	119	0,099819663	0,027063	0,126882715	236182	1984	DB1	19898193,8	9872095	2,02	0,084707564	0,053671	0,138378563	1366086
1989	CP1	218836804,9	1837811	119	0,106397681	0,032164	0,138562126	254651	1985	DB1	19614695,19	9731442	2,02	0,090654329	0,046843	0,137497719	1338051
1990	CP1	220676179,2	1853258	119	0,110802722	0,057765	0,168568012	312400	1986	DB1	19243600,52	9547331	2,02	0,097467274	0,060417	0,157884064	1507371
1991	CP1	205207894,3	1723354	119	0,139354141	0,060792	0,200146479	344923	1987	DB1	18281154,8	9069833	2,02	0,108179382	0,055997	0,164176203	1489051
1992	CP1	197246143,4	1656491	119	0,134572325	0,053849	0,188421532	312119	1988	DB1	17968312,25	8914622	2,02	0,116346351	0,048281	0,16462687	1467586
1993	CP1	208465663,6	1750713	119	0,115957418	0,057444	0,173401412	303576	1989	DB1	17412568,86	8638901	2,02	0,127204685	0,043126	0,170330719	1471470
1994	CP1	230429313,8	1935166	119	0,098811754	0,045521	0,144332295	279307	1990	DB1	17140384,18	8503862	2,02	0,136274095	0,061855	0,198129337	1684865
1995	CP1	263361042,3	2211730	119	0,084564034	0,052127	0,136690915	302323	1991	DB1	16816082,48	8342966	2,02	0,162469559	0,069394	0,231863902	1934433
1996	CP1	302345450,2	2539124	119	0,075785652	0,039849	0,115634692	293611	1992	DB1	17056712,78	8462350	2,02	0,143049776	0,02925	0,172299398	1458058
1997	CP/REFER	224125529,2	1882226	119	0,045736505	0,024517	0,070253503	132233	1993	DB1	16439712,52	8156238	2,02	0,135448389	0,026142	0,161590336	1317969
1998	CP/REFER	232389297	1951626	119	0,04816844	0,000441	0,048609592	94868	1994	DB AG	6950021,82	3448116	2,02	0,045736505	0,041635	0,087371142	301266
1999	CP/REFER	261185074,7	2193456	119	0,050265742	0	0,050265742	110256	1995	DB AG	8567084,231	4250389	2,02	0,047773089	0,044681	0,09245441	392967
1990	CSD	307457654,8	28438546	10,8	0,045736505	-0,06	0,001	28439	1996	DB AG	9965649,765	4944260	2,02	0,04974701	0,046004	0,095750634	473416
1991	CSD	339400313,5	31393108	10,8	0,047970447	-0,06	0,001	31393	1997	DB AG	12896708,94	6398447	2,02	0,050906719	0,042913	0,093819746	600301
1992	CSD	320776359,4	29670471	10,8	0,050984544	-0,06	0,001	29670	1998	DB AG	14780213,79	7332910	2,02	0,052676138	0,033579	0,086254639	632498
1972	DB1	43272697,63	21468891	2,02	0,045736505	0,024044	0,069780011	1498099	1999	DB AG	19959061,1	9902293	2,02	0,052882723	0,032817	0,085699406	848621
1973	DB1	43717229,44	21689437	2,02	0,048234309	0,023049	0,071283734	1546104	1972	DSB1	7559274,299	898128	8,42	0,045736505	0,005083	0,050819914	45643
1974	DB1	45320610,3	22484923	2,02	0,0507362	0,034364	0,085099893	1913465	1973	DSB1	8115158,305	964173	8,42	0,048083135	0,003245	0,051328404	49489
1975	DB1	45332619,3	22490881	2,02	0,053602831	0,0256	0,079203154	1781349	1974	DSB1	8748807,154	1039458	8,42	0,050384822	0,009175	0,05956012	61910
1976	DB1	45810646	22728044	2,02	0,056542026	0,035034	0,091576041	2081344	1975	DSB1	9489226,857	1127428	8,42	0,052598215	-0,007437	0,04516163	50917
1977	DB1	46109526,95	22876328	2,02	0,059706263	0,025089	0,084795441	1939808	1976	DSB1	10136537,34	1204336	8,42	0,054898197	0,041772	0,096670381	116424
1978	DB1	46210465,04	22926407	2,02	0,06314736	0,031138	0,094285397	2161625	1977	DSB1	11178681,63	1328155	8,42	0,056757226	0,0352	0,091957716	122134
1979	DB1	45488165,27	22568052	2,02	0,06728564	0,03284	0,100125914	2259647	1978	DSB1	11727674,09	1393382	8,42	0,059258732	0,050561	0,109820074	153021
1980	DB1	45270390,47	22460007	2,02	0,071443969	0,030796	0,102240335	2296319	1979	DSB1	12886588,18	1531074	8,42	0,060908744	0,079181	0,140089441	214487
1981	DB1	44920658,61	22286495	2,02	0,076027911	0,040583	0,116610898	2598848	1980	DSB1	13801421,9	1639766	8,42	0,062964303	0,090551	0,153515023	251729
1982	DB1	44175316,57	21916708	2,02	0,081412847	0,036831	0,118244027	2591520	1981	DSB1	14974088,94	1779093	8,42	0,06464004	0,071395	0,136034601	242018
1983	DB1	43373266,09	21518787	2,02	0,08740376	0,046157	0,133560494	2874060	1982	DSB1	16055727,72	1907604	8,42	0,066508734	0,092765	0,159273729	303831
1984	DB1	42059649,95	20867062	2,02	0,094912304	0,053671	0,148583303	3100497	1983	DSB1	16771554,08	1992652	8,42	0,069035067	0,060803	0,129838511	258723
1985	DB1	40925967,6	20304608	2,02	0,103049623	0,046843	0,149893012	3043519	1984	DSB1	17526404,97	2082337	8,42	0,071509007	0,079321	0,150829674	314078
1986	DB1	39666903,25	19679948	2,02	0,112590201	0,060417	0,17300699	3404769	1985	DSB1	18466904,47	2194079	8,42	0,073620743	0,06388	0,137500718	301687
1987	DB1	37776125,58	18741876	2,02	0,125948944	0,055997	0,181945764	3410005	1986	DSB1	18823785,21	2236480	8,42	0,076996551	0,059491	0,136487087	305251
1988	DB1	36491772,86	18104670	2,02	0,139050798	0,048281	0,187331317	3391572	1987	DSB1	18988890,28	2256097	8,42	0,080914501	0,05929	0,140204601	316315
1989	DB1	34918256,91	17324001	2,02	0,156122324	0,043126	0,199248358	3451779	1988	DSB1	19031495,93	2261159	8,42	0,085296159	0,072359	0,157655572	356484
1990	DB1	33578652,23	16659383	2,02	0,174396868	0,061855	0,23625211	3935814	1989	DSB1	19136652,42	2273653	8,42	0,089594061	0,045238	0,134832375	306562
1991	DB2	17517064,92	8690745	2,02	0,045736505	0,069394	0,115130848	1000573	1990	DSB1	21216165,05	2520722	8,42	0,087355464	0,070864	0,158219041	398826
1992	DB2	19015442,81	9434135	2,02	0,048056498	0,02925	0,077306121	729316	1991	DSB1	21598322,69	2566127	8,42	0,097029019	0,068162	0,165190697	423900
1993	DB2	19694573,95	9771073	2,02	0,050558171	0,026142	0,076700118	749442	1992	DSB1	22367558,62	2657521	8,42	0,092812304	0,065718	0,158530649	421299
1994	DB AG	6950021,82	3448116	2,02	0,045736505	0,041635	0,087371142	301266	1993	DSB1	22923102,13	2723526	8,42	0,089884497	0,056925	0,146809636	399840
1995	DB AG	8567084,231	4250389	2,02	0,047773089	0,044681	0,09245441	392967	1994	DSB1	22673582,05	2693880	8,42	0,089659654	0,056899	0,146558629	394811
1996	DB AG	9965649,765	4944260	2,02	0,04974701	0,046004	0,095750634	473416	1995	DSB2	10444915,25	1240975	8,42	0,045736505	0,058253	0,103989218	129048
1997	DB AG	12896708,94	6398447	2,02	0,050906719	0,042913	0,093819746	600301	1996	DSB2	10821692,51	1285741	8,42	0,048170367	0,035557	0,083727307	107652
1998	DB AG	14780213,79	7332910	2,02	0,052676138	0,033579	0,086254639	632498	1992	EVR	464570	108918	4,265306	0,045736505	-0,865967	0,001	109
1999	DB AG	19959061,1	9902293	2,02	0,052882723	0,032817	0,085699406	848621	1993	EVR	1117080	261899	4,265306	0,046768744	-0,292743	0,001	262
1972	DSB1	7559274,299	898128	8,42	0,045736505	0,005083	0,050819914	45643	1994	EVR	1100386	257985	4,265306	0,049420727	-0,119408	0,001	258
1973	DSB1	8115158,305	964173	8,42	0,048083135	0,003245	0,051328404	49489	1995	EVR	1118875	262320	4,265306	0,052083806	-0,120673	0,001	262
1974	DSB1	8748807,154	1039458	8,42	0,050384822	0,009175	0,05956012	61910	1996	EVR	1143448	268081	4,265306	0,054824565	-0,083265	0,001	268
1975	DSB1	9489226,857	1127428	8,42	0,052598215	-0,007437	0,04516163	50917	1997	EVR	1127743	264399	4,265306	0,058169892	0,080697	0,138867143	36716
1976	DSB1	10136537,34	1204336	8,42	0,054898197	0,041772	0,096670381	116424	1998	EVR	1197122	280665	4,265306	0,060480441	0,071743	0,132223233	37110
1977	DSB1	11178681,63	1328155	8,42	0,056757226	0,0352	0,091957716	122134	1999	EVR	1286383	301592	4,265306	0,062502074	0,046268	0,108770122	32804
1978	DSB1	11727674,09	1393382	8,42	0,059258732	0,050561	0,109820074	153021	1972	FS1	15032682163	9696562	1550	0,045736505	0,013344	0,059080492	572878
1979	DSB1	12886588,18	1531074	8,42	0,060908744	0,079181	0,140089441	214487	1973	FS1	15470820420	9979175	1550	0,048187211	-0,062721	0,001	9979
1980	DSB1	13801421,9	1639766	8,42	0,062964303	0,090551	0,153515023	251729	1974	FS1	16363041754	10554687	1550	0,050584028	-0,107528	0,001	10555
1981	DSB1	14974088,94	1779093	8,42	0,06464004	0,071395	0,136034601	242018	1975	FS1	17947463787	11576690	1550	0,052707396	-0,04564	0,007067018	81813
1982	DSB1	16055727,72	1907604	8,42	0,066508734	0,092765	0,159273729	303831	1976	FS1	19080446901	12307500	1550	0,055054967	-0,052068	0,002986481	36756
1983	DSB1	16771554,08	1992652	8,42	0,069035067	0,060803	0,129838511	258723	1977	FS1	20752338349	13385924	1550	0,057081545	-0,037978	0,019103418	255717
1984	DSB1	17526404,97	2082337	8,42	0,071509007	0,079321	0,150829674	314078	1978	FS1	22141569761	14282023	1550	0,059317073	-0,000658	0,058659011	837769
1985	DSB1	18466904,47	2194079	8,42	0,073620743	0,06388	0,137500718	301687	1979	FS1	23161467825	14939890	1550	0,061872532	-0,020008	0,041864281	625448
1986	DSB1	18823785,21	2236480	8,42	0,076996551	0,059491	0,136487087	305251	1980	FS1	24359175429	15712449	1550	0,064304631	-0,04804	0,016264665	255558
1987	DSB1	18988890,28	2256097	8,42	0,080914501	0,05929	0,140204601	316315	1981	FS1	25703634199	16579669	1550	0,066617872	0,014741	0,081358655	1348900
1988	DSB1	19031495,93	2261159	8,42	0,085296159	0,072359	0,157655572	356484	1982	FS1	28498251174	18382286	1550	0,067479979	0,038465	0,105945265	1947516
1989	DSB1	19136652,42	2273653	8,42	0,089594061	0,045238	0,134832375	306562	1983	FS1	29761062217	19196840	1550	0,070007045	0,029576	0,099583496	1911688
1990	DSB1	21216165,05	2520722	8,42	0,087355464	0,070864	0,158219041	398826	1984	FS1	32101888077	20706748	1550	0,071390244	0,034591	0,105981254	2194527
1991	DSB1	21598322,69	2566127	8,42	0,097029019	0,068162	0,165190697	423900	1985	FS1	33227873548	21433044	1550	0,074151151	0,040913	0,115064087	2466174
1992	DSB1	22367558,62	2657521	8,42	0,092812304	0,065718	0,158530649	421299	1986	FS2	16299922252	10513973	1550	0,045736505	0,026123	0,071859085	755524
1993	DSB1	22923102,13	2723526	8,42	0,089884497	0,056925	0,146809636	399840	1987	FS2	17916853013	11556945	1550	0,048026906	0,034989	0,083016143	959413
1994	DSB1	22673582,05	2693880	8,42	0,089659654	0,056899	0,146558629	394811	1988	FS2	19816118529	12782032	1550	0,050207566	0,033885	0,084092479	1074873
1995	DSB2	10444915,25	1240975	8,42	0,045736505	0,058253	0,103989218	129048	1989	FS2	21154754930	13645495	1550	0,052540953	0,042684	0,095225124	1299394
1996	DSB2	10821692,51	1285741	8,42	0,048170367	0,035557	0,083727307	107652	1990	FS2	22586796919	14569209	1550	0,054846716	0,032837	0,087683409	1277478
1992	EVR	464570	108918	4,265306	0,045736505	-0,865967	0,001	109	1991	FS2	22511893325	14520893	1550	0,05804204	0,056034	0,114075766	1656482
1993	EVR	1117080	261899	4,265306	0,046768744	-0,292743	0,001	262	1992	FS2	27515282221	17748240	1550	0,058154694	0,08721	0,14536445	2579963
1994	EVR	1100386	257985	4,265306	0,049420727	-0,119408	0,001	258	1993	FS2	25649594870	16544811	1550	0,062887304	0,073814	0,136701379	2261699
1995	EVR	1118875	262320	4,265306	0,052083806	-0,120673	0,001	262	1994	FS2	27443323994	17701824	1550	0,064912288	0,070831	0,135743727	2402912
1996	EVR	1143448	268081	4,265306	0,054824565	-0,083265	0,001	268	1995	FS2	28040951760	18087313	1550	0,068102225	0,071815	0,139917153	2530725
1997	EVR	1127743	264399	4,265306	0,058169892	0,080697	0,138867143	36716	1996	FS SpA	27299828403	17609265	1550	0,073043426	0,041215	0,114258378	2012006
1998	EVR	1197122	280665	4,265306	0,060480441	0,071743	0,132223233	37110	1997	FS SpA	27613975664	17811900	1550	0,076873119	0,044343	0,121215993	2159087
1999	EVR	1286383	301592	4,265306	0,062502074	0,046268	0,108770122	32804	1998	FS SpA	27464389515	17715412	1550	0,081677117	0,022425	0,104102467	1844218
1972	FS1	15032682163	9696562	1550	0,045736505	0,013344	0,059080492	572878	1999	FS SpA	27515450038	17748348	1550	0,086357404	0,032489	0,118846432	2109328
1973	FS1	15470820420	9979175	1550	0,048187211	-0,062721	0,001	9979	1991	MAV	226055898,5	3733234	60,6	0,045736505	-0,004596	0,041140389	153587
1974	FS1	16363041754	10554687	1550	0,050584028	-0,107528	0,001	10555	1992	MAV	231410282,6	3821660	60,6	0,048200652	0,094979	0,143179643	547184
1975	FS1	17947463787	11576690	1550	0,052707396	-0,04564	0,007067018	81813	1993	MAV	240914179,4	3978613	60,6	0,050679464	0,03419	0,08486974	337664
1976	FS1	19080446901	12307500	1550	0,055054967	-0,052068	0,002986481	36756	1994	MAV	252888419,5	4176364	60,6	0,053143192	0,066189	0,119331737	498373
1977	FS1	20752338349	13385924	1550	0,057081545	-0,037978	0,019103418	255717	1995	MAV	261561479,1	4319596	60,6	0,055791383	0,046362	0,10215303	441260
1978	FS1	22141569761	14282023	1550	0,059317073	-0,000658	0,058659011	837769	1996	MAV	258599676,3	4270683	60,6	0,059182672	0,050621	0,109804115	468939
1979	FS1	23161467825	14939890	1550	0,061872532	-0,020008	0,041864281	625448	1997	MAV	269134424,8	4444661	60,6	0,061848869	0,027835	0,089683453	398613
1980	FS1	24359175429	15712449	1550	0,064304631	-0,04804	0,016264665	255558	1998	MAV	275100021,1	4543180	60,6	0,064952237	0,058918	0,123869869	562763
1981	FS1	25703634199	16579669	1550	0,066617872	0,014741	0,081358655	1348900	1999	MAV	348614129,9	5757240	60,6	0,062964127	0,067562	0,130526507	751472
1982	FS1	28498251174	18382286	1550	0,067479979	0,038465	0,105945265	1947516	1972	NS1	3917529,217	1932292	2,03	0,045736505	-0,02486	0,020876512	40340
1983	FS1	29761062217	19196840	1550	0,070007045	0,029576	0,099583496	1911688	1973	NS1	4012259,116	1979017	2,03	0,048199428	-0,01089	0,037309363	73836
1984	FS1	32101888077	20706748	1550	0,071390244	0,034591	0,105981254	2194527	1974	NS1	4089593,375	2017162	2,03	0,050790023	0,006744	0,057533808	116055
1985	FS1	33227873548	21433044	1550	0,074151151	0,040913	0,115064087	2466174	1975	NS1	4262671,719	2102531	2,03	0,053312929	-0,014125	0,039188059	82394
1986	FS2	16299922252	10513973	1550	0,045736505	0,026123	0,071859085	755524	1976	NS1	4382423,946	2161598	2,03	0,056034816	-5,99E-05	0,055974946	120995
1987	FS2	17916853013	11556945	1550	0,048026906	0,034989	0,083016143	959413	1977	NS1	3862652,279	1905225	2,03	0,061416477	0,014417	0,075833845	144481
1988	FS2	19816118529	12782032	1550	0,050207566	0,033885	0,084092479	1074873	1978	NS1	3848145,346	1898069	2,03	0,065121579	0,024385	0,089506194	169889
1989	FS2	21154754930	13645495	1550	0,052540953	0,042684	0,095225124	1299394	1979	NS1	3924694,973	1935827	2,03	0,068419289	0,046579	0,114998748	222618
1990	FS2	22586796919	14569209	1550	0,054846716	0,032837	0,087683409	1277478	1980	NS1	4074034,228	2009487	2,03	0,07123486	0,046875	0,118110227	237341
1991	FS2	22511893325	14520893	1550	0,05804204	0,056034	0,114075766	1656482	1981	NS1	4287679,143	2114866	2,03	0,07353114	0,061834	0,135365578	286280
1992	FS2	27515282221	17748240	1550	0,058154694	0,08721	0,14536445	2579963	1982	NS1	4528199,995	2233501	2,03	0,075604899	0,047226	0,122830552	274342
1993	FS2	25649594870	16544811	1550	0,062887304	0,073814	0,136701379	2261699	1983	NS1	4581968,255	2260022	2,03	0,079495696	0,065262	0,144757212	327154
1994	FS2	27443323994	17701824	1550	0,064912288	0,070831	0,135743727	2402912	1984	NS1	4627961,577	2282708	2,03	0,083598309	0,069255	0,152853095	348919
1995	FS2	28040951760	18087313	1550	0,068102225	0,071815	0,139917153	2530725	1985	NS1	4734975,925	2335492	2,03	0,087017453	0,05587	0,142887049	333712
1996	FS SpA	27299828403	17609265	1550	0,073043426	0,041215	0,114258378	2012006	1986	NS1	4739933,167	2337937	2,03	0,091883947	0,061808	0,153691692	359321
1997	FS SpA	27613975664	17811900	1550	0,076873119	0,044343	0,121215993	2159087	1987	NS1	4676304,758	2306553	2,03	0,098090249	0,071256	0,169346722	390607
1998	FS SpA	27464389515	17715412	1550	0,081677117	0,022425	0,104102467	1844218	1988	NS1	4679686,39	2308221	2,03	0,103292458	0,052418	0,155710836	359415
1999	FS SpA	27515450038	17748348	1550	0,086357404	0,032489	0,118846432	2109328	1989	NS1	4886563,568	2410261	2,03	0,104179928	0,059959	0,164138697	395617
1991	MAV1	135954352,5	2245238	60,6	0,045736505	-0,004596	0,041140389	92370	1990	NS1	5183126,902	2556539	2,03	0,103223188	0,066093	0,169315703	432862
1992	MAV1	142915779,6	2360204	60,6	0,048134365	0,094979	0,143113356	337777	1991	NS1	5018916,342	2475543	2,03	0,12641079	0,060342	0,186752441	462314
1993	MAV2	174983039,5	2889784	60,6	0,045736505	0,03419	0,07992678	230971	1992	NS1	5372867,136	2650127	2,03	0,106810665	0,058354	0,165164551	437707
1994	MAV2	188578950,5	3114315	60,6	0,048073829	0,066189	0,114262375	355849	1993	NS1	5706983,32	2814927	2,03	0,093127137	0,045707	0,138833966	390808
1995	MAV2	198936205,4	3285362	60,6	0,050483073	0,046362	0,096844719	318170	1994	NS1	6192720,429	3054513	2,03	0,082514626	0,048527	0,131041478	400268

A2.4.5.1.Transport Equipment Capital Stock - Prices (PEQ) and Costs

		DATA SET_T					User costs	
Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices	ppp1995	Rate Deprec.	interest rates	PEQ_T=(r+d)>,001	CEQ_T
1996	MAV2	197724789,7	3265356	60,6	0,053384808	0,050621	0,104006251	339617
1997	MAV2	210080075,5	3469399	60,6	0,055735388	0,027835	0,083569973	289938
1998	MAV2	217940638,6	3599213	60,6	0,058401594	0,058918	0,117319226	422257
1999	MAV2	213094504,9	3519181	60,6	0,062228065	0,067562	0,129790445	456756
1972	NS1	3917529,217	1932292	2,03	0,045736505	-0,02486	0,020876512	40340
1973	NS1	4012259,116	1979017	2,03	0,048199428	-0,01089	0,037309363	73836
1974	NS1	4089593,375	2017162	2,03	0,050790023	0,006744	0,057533808	116055
1975	NS1	4262671,719	2102531	2,03	0,053312929	-0,014125	0,039188059	82394
1976	NS1	4382423,946	2161598	2,03	0,056034816	-5,99E-05	0,055974946	120995
1977	NS1	3862652,279	1905225	2,03	0,061416477	0,014417	0,075833845	144481
1978	NS1	3848145,346	1898069	2,03	0,065121579	0,024385	0,089506194	169889
1979	NS1	3924694,973	1935827	2,03	0,068419289	0,046579	0,114998748	222618
1980	NS1	4074034,228	2009487	2,03	0,07123486	0,046875	0,118110227	237341
1981	NS1	4287679,143	2114866	2,03	0,07353114	0,061834	0,135365578	286280
1982	NS1	4528199,995	2233501	2,03	0,075604899	0,047226	0,122830552	274342
1983	NS1	4581968,255	2260022	2,03	0,079495696	0,065262	0,144757212	327154
1984	NS1	4627961,577	2282708	2,03	0,083598309	0,069255	0,152853095	348919
1985	NS1	4734975,925	2335492	2,03	0,087017453	0,05587	0,142887049	333712
1986	NS1	4739933,167	2337937	2,03	0,091883947	0,061808	0,153691692	359321
1987	NS1	4676304,758	2306553	2,03	0,098090249	0,071256	0,169346722	390607
1988	NS1	4679686,39	2308221	2,03	0,103292458	0,052418	0,155710836	359415
1989	NS1	4886563,568	2410261	2,03	0,104179928	0,059959	0,164138697	395617
1990	NS1	5183126,902	2556539	2,03	0,103223188	0,066093	0,169315703	432862
1991	NS1	5018916,342	2475543	2,03	0,12641079	0,060342	0,186752441	462314
1992	NS1	5372867,136	2650127	2,03	0,106810665	0,058354	0,165164551	437707
1993	NS1	5706983,32	2814927	2,03	0,093127137	0,045707	0,138833966	390808
1994	NS1	6192720,429	3054513	2,03	0,082514626	0,048527	0,131041478	400268
1995	NS2	7691389,831	3793721	2,03	0,045736505	0,055669	0,101405473	384704
1996	NS2	8190659,034	4039982	2,03	0,048102657	0,053234	0,101336463	409397
1997	NS B.V./NS	7271093,111	3586413	2,03	0,045736505	0,038268	0,084004522	301275
1998	NS B.V./NS	7502700,126	3700651	2,03	0,0481806	0,029853	0,078034053	288777
1972	NSB1	5791544,355	633357	9,14	0,045736505	0,012633	0,058369356	36969
1973	NSB1	6019995,84	658340	9,14	0,048162248	-0,029912	0,018249752	12015
1974	NSB1	6322978,358	691474	9,14	0,050594531	-0,031539	0,019056022	13177
1975	NSB1	6258643,4	684439	9,14	0,053539884	-0,027475	0,026064537	17840
1976	NSB1	6774597,754	740863	9,14	0,055680916	-0,002301	0,053380014	39547
1977	NSB1	6991522,96	764586	9,14	0,058421009	-0,009304	0,049116549	37554
1978	NSB1	7099288,973	776371	9,14	0,061526093	0,020321	0,081847178	63544
1979	NSB1	7407175,218	810041	9,14	0,064152421	0,029651	0,093803117	75984
1980	NSB1	7629857,531	834393	9,14	0,067116582	-0,028495	0,038621786	32226
1981	NSB1	7884660,334	862258	9,14	0,070026129	-0,005502	0,064524163	55636
1982	NSB1	8142328,9	890436	9,14	0,072974315	0,028152	0,101126252	90046
1983	NSB1	8104520,083	886302	9,14	0,077462686	0,058691	0,136153985	120674
1984	NSB1	8312809,215	909080	9,14	0,080737123	0,058132	0,138869515	126243
1985	NSB1	8526773,648	932479	9,14	0,083997423	0,073672	0,157669715	147024
1986	NSB1	8614010,101	942019	9,14	0,088155741	0,144196	0,232351953	218880
1987	NSB1	8788341,067	961084	9,14	0,09167336	0,066284	0,157956973	151810
1988	NSB1	8579084,777	938200	9,14	0,098653473	0,080093	0,178746549	167700
1989	NSB1	8692373,687	950589	9,14	0,102605193	0,051234	0,15383887	146238
1990	NSB1	8519927,313	931730	9,14	0,109882549	0,068523	0,178405494	166226
1991	NSB2	2692974,878	294501	9,14	0,045736505	0,07427	0,120006566	35342
1992	NSB2	3188561,586	348698	9,14	0,047858798	0,102184	0,15004236	52319
1993	NSB2	4025181,763	440190	9,14	0,049489727	0,043705	0,093195079	41024
1972	OBB	65475488,55	4767748	13,7	0,045736505	-0,002301	0,043435862	207091
1973	OBB	68655788,84	4999329	13,7	0,04814055	0,002012	0,050152565	250729
1974	OBB	70678920,7	5146648	13,7	0,050676123	0,002395	0,05307103	273138
1975	OBB	74761349,65	5443920	13,7	0,053078718	0,031537	0,084615487	460640
1976	OBB	77357162,33	5632940	13,7	0,055720581	0,031237	0,086957482	489826
1977	OBB	73541794,73	5355115	13,7	0,05972585	0,030574	0,090299664	483565
1978	OBB	75710540,02	5513037	13,7	0,062618566	0,022372	0,084990987	468558
1979	OBB	78941421,95	5748301	13,7	0,065271378	0,044824	0,110095473	632862
1980	OBB	81542354,59	5937694	13,7	0,068184824	0,04243	0,110615199	656799
1981	OBB	83326071,78	6067580	13,7	0,071481816	0,040454	0,111935599	679178
1982	OBB	85414815,17	6219676	13,7	0,074734335	0,045852	0,12058595	750006
1983	OBB	87247981,51	6353163	13,7	0,078180409	0,045175	0,123355475	783697
1984	OBB	88497401,68	6444142	13,7	0,082024084	0,033825	0,115849032	746548
1985	OBB	88914166,29	6474490	13,7	0,086503471	0,046874	0,133377847	863553
1986	OBB	88657069,75	6455769	13,7	0,091655535	0,046249	0,137904086	890277
1987	OBB	87244675,8	6352922	13,7	0,09810984	0,047982	0,146091746	928109
1988	OBB	85345780,82	6214649	13,7	0,105603522	0,050939	0,156542568	972857
1989	OBB	84541906,65	6156113	13,7	0,112199331	0,043991	0,156190146	961524
1990	OBB	85334781,31	6213848	13,7	0,116491706	0,052954	0,169446098	1052912
1991	OBB	80425257,15	5856350	13,7	0,147182725	0,048698	0,195880878	1147147
1992	OBB	77104227,04	5614522	13,7	0,138305824	0,039411	0,177717056	997796
1993	OBB	70032583,9	5099584	13,7	0,137130546	0,038584	0,175714238	896069
1994	OBB	60743662,56	4423190	13,7	0,143785248	0,039269	0,183054648	809685
1995	OBB	56564490,47	4118874	13,7	0,134428922	0,04341	0,177839266	732497
1996	OBB	53241763,95	3876922	13,7	0,121576084	0,040156	0,161732131	627023
1997	OBB	48551268,76	3535372	13,7	0,12025706	0,031817	0,15207385	537638
1998	OBB	44797097,27	3262004	13,7	0,119400501	0,036696	0,156096526	509187
1999	OBB	43026046,01	3133041	13,7	0,114891531	0,032073	0,146964929	460447
1991	PKP	333331917638	29314213	1,14	0,045736505	-0,020415	0,025321857	742290
1992	PKP	326988350025	28756341	1,14	0,048311136	-0,001258	0,047052782	1353066
1993	PKP	324052146672	28498122	1,14	0,05106347	0,097963	0,149026851	4246985
1994	PKP	320937917592	28224247	1,14	0,054042973	-0,02773	0,026312801	742659
1995	PKP	344575398537	30302999	1,14	0,056264891	0,037655	0,093920269	2846066
1996	PKP	341574020075	30039048	1,14	0,059654104	0,061681	0,121335399	3644800
1997	PKP	339363771277	29844673	1,14	0,063272319	0,095782	0,159054571	4746932
1998	PKP	333038843962	29288439	1,14	0,067505211	0,113249	0,180754331	5294012
1999	PKP	326313541848	28696996	1,14	0,072212075	0,095077	0,167289056	4800693
1972	RENFE1	456533807,5	3739714	122	0,045736505	0,014821	0,060557328	226467
1973	RENFE1	482576166,2	3953041	122	0,048120755	-0,008496	0,039624776	156638
1974	RENFE1	503375745,3	4123421	122	0,050587737	-0,039451	0,011136615	45921
1975	RENFE1	519032993,6	4251678	122	0,0531937	-0,047818	0,00537586	22856
1976	RENFE1	515965227,3	4226549	122	0,05630188	-0,044899	0,011402722	48194
1977	RENFE1	516495492,6	4230892	122	0,059538753	-0,103531	0,001	4231
1978	RENFE1	525853283,2	4307547	122	0,06264735	-0,06611	0,001	4308
1979	RENFE1	538775097,7	4413397	122	0,065724603	-0,036241	0,029483311	130122
1980	RENFE1	559715068,9	4584927	122	0,068483311	0,026052	0,094535042	433436
1981	RENFE1	575635339,2	4715339	122	0,071574815	0,032321	0,10389592	489904
1982	RENFE1	646544993,7	5296198	122	0,071539497	0,02057	0,092109603	487831
1986	RENFE2	507044824,1	4153477	122	0,045736505	0,002895	0,048631405	201989
1987	RENFE2	564140957,7	4621182	122	0,047998587	0,069678	0,11767679	543806
1988	RENFE2	632888314,5	5184329	122	0,050114492	0,060893	0,111007963	575502
1989	RENFE2	687061391,4	5628089	122	0,052328596	0,066107	0,118435724	666567
1990	RENFE2	761816581,1	6240449	122	0,054274347	0,073669	0,127943368	798424
1991	RENFE2	821730554,7	6731237	122	0,056428969	0,05327	0,109699416	738413
1992	RENFE2	857826717,1	7026920	122	0,059005086	0,052979	0,111983974	786902
1993	RENFE2	926495179,5	7589420	122	0,060976097	0,05819	0,119165916	904400
1994	RENFE2	945396139	7744248	122	0,064069489	0,05708	0,121149265	938210
1995	RENFE2	965506165,7	7908980	122	0,067244899	0,062231	0,129476289	1024025
1996	RENFE2	977381444,6	8006257	122	0,070794139	0,047365	0,11815921	946013
1997	RENFE2	956735408,3	7837134	122	0,075802706	0,037049	0,112851589	884433
1998	RENFE2	942484220,4	7720395	122	0,081002725	0,022514	0,103516649	799189
1999	RENFE2	933205086,6	7644385	122	0,086348272	0,011523	0,097870957	748163
1972	SJ	20501922,98	2107495	9,73	0,045736505	0,003175	0,048911311	103080
1973	SJ	20835335,04	2141768	9,73	0,048219167	0,003562	0,051781333	110904
1974	SJ	21573751,07	2217674	9,73	0,050726926	-0,016687	0,0340396	75489
1975	SJ	21865386,46	2247652	9,73	0,053481038	-0,057228	0,001	2248
1976	SJ	22205210,94	2282585	9,73	0,056354217	-0,026387	0,029967606	68404
1977	SJ	22736946,98	2337244	9,73	0,059236	-0,007894	0,051341935	119999
1978	SJ	23303777,48	2395512	9,73	0,062198276	0,00541	0,067608164	161956
1979	SJ	23866922,39	2453400	9,73	0,065267722	0,025268	0,090535273	222119
1980	SJ	24216481,5	2489333	9,73	0,068691327	0,000223	0,068914336	171551
1981	SJ	25429947,18	2614071	9,73	0,071095934	0,039388	0,110484103	288813
1982	SJ	25907034,24	2663113	9,73	0,074570077	0,047872	0,122442417	326078
1983	SJ	26905977,04	2765800	9,73	0,077287044	0,022345	0,099632314	275563
1984	SJ	27882642,81	2866196	9,73	0,080047458	0,046987	0,127034841	364107
1985	SJ	27424301,42	2819081	9,73	0,085614423	0,06464	0,150254018	423578
1986	SJ	27927627,35	2870820	9,73	0,089303189	0,034061	0,123364137	354156
1987	SJ	28068122,26	2885263	9,73	0,093919651	0,069161	0,163080172	470529
1988	SJ	26686174,73	2743205	9,73	0,103575057	0,04865	0,152225102	417585
1989	SJBV	15929954,68	1637520	9,73	0,045736505	0,031506	0,077242592	126486
1990	SJBV	16599226,97	1706317	9,73	0,048156104	0,042333	0,090488802	154403
1991	SJBV	16778755,66	1724772	9,73	0,050788995	0,030586	0,081374969	140353
1992	SJBV	16351580,73	1680861	9,73	0,053888175	0,089655	0,143543543	241277
1993	SJBV	16343806,84	1680062	9,73	0,056982368	0,059496	0,116478537	195691
1994	SJBV	16479945,97	1694056	9,73	0,060144533	0,070349	0,130493382	221063
1995	SJBV	20301380,01	2086880	9,73	0,059747075	0,063457	0,123203639	257111
1996	SJBV	20056076,38	2061664	9,73	0,0634719	0,048778	0,112250343	231423
1997	SJBV	19551115,65	2009757	9,73	0,067883509	0,047126	0,115009044	231140
1998	SJBV	19099482,53	1963331	9,73	0,072702913	0,0362	0,108903003	213813
1999	SJBV	18663622,99	1918527	9,73	0,078025111	0,039742	0,11776678	225939
1972	SNCB	53606812,77	1458979	36,7	0,045736505	0,006005	0,051741959	75490
1973	SNCB	61448690,66	1672405	36,7	0,047930445	0,003012	0,050942115	85196

		DATA SET _P					User costs	
Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices	ppp1995	Rate Deprec.	interest rates	PEQ_P=(r+d)>,001	CEQ_P
1995	NS2	7691389,831	3793721	2,03	0,045736505	0,055669	0,101405473	384704
1996	NS2	8190659,034	4039982	2,03	0,048102657	0,053234	0,101336463	409397
1997	NS B.V./NS	7271093,111	3586413	2,03	0,045736505	0,038268	0,084004522	301275
1998	NS B.V./NS	7502700,126	3700651	2,03	0,0481806	0,029853	0,078034053	288777
1972	NSB1	5791544,355	633357	9,14	0,045736505	0,012633	0,058369356	36969
1973	NSB1	6019995,84	658340	9,14	0,048162248	-0,029912	0,018249752	12015
1974	NSB1	6322978,358	691474	9,14	0,050594531	-0,031539	0,019056022	13177
1975	NSB1	6258643,4	684439	9,14	0,053539884	-0,027475	0,026064537	17840
1976	NSB1	6774597,754	740863	9,14	0,055680916	-0,002301	0,053380014	39547
1977	NSB1	6991522,96	764586	9,14	0,058421009	-0,009304	0,049116549	37554
1978	NSB1	7099288,973	776371	9,14	0,061526093	0,020321	0,081847178	63544
1979	NSB1	7407175,218	810041	9,14	0,064152421	0,029651	0,093803117	75984
1980	NSB1	7629857,531	834393	9,14	0,067116582	-0,028495	0,038621786	32226
1981	NSB1	7884660,334	862258	9,14	0,070026129	-0,005502	0,064524163	55636
1982	NSB1	8142328,9	890436	9,14	0,072974315	0,028152	0,101126252	90046
1983	NSB1	8104520,083	886302	9,14	0,077462686	0,058691	0,136153985	120674
1984	NSB1	8312809,215	909080	9,14	0,080737123	0,058132	0,138869515	126243
1985	NSB1	8526773,648	932479	9,14	0,083997423	0,073672	0,157669715	147024
1986	NSB1	8614010,101	942019	9,14	0,088155741	0,144196	0,232351953	218880
1987	NSB1	8788341,067	961084	9,14	0,09167336	0,066284	0,157956973	151810
1988	NSB1	8579084,777	938200	9,14	0,098653473	0,080093	0,178746549	167700
1989	NSB1	8692373,687	950589	9,14	0,102605193	0,051234	0,15383887	146238
1990	NSB1	8519927,313	931730	9,14	0,109882549	0,068523	0,178405494	166226
1991	NSB2	2692974,878	294501	9,14	0,045736505	0,07427	0,120006566	35342
1992	NSB2	3188561,586	348698	9,14	0,047858798	0,102184	0,15004236	52319
1993	NSB2	4025181,763	440190	9,14	0,049489727	0,043705	0,093195079	41024
1972	OBB	65475488,55	4767748	13,7	0,045736505	-0,002301	0,043435862	207091
1973	OBB	68655788,84	4999329	13,7	0,04814055	0,002012	0,050152565	250729
1974	OBB	70678920,7	5146648	13,7	0,050676123	0,002395	0,05307103	273138
1975	OBB	74761349,65	5443920	13,7	0,053078718	0,031537	0,084615487	460640
1976	OBB	77357162,33	5632940	13,7	0,055720581	0,031237	0,086957482	489826
1977	OBB	73541794,73	5355115	13,7	0,05972585	0,030574	0,090299664	483565
1978	OBB	75710540,02	5513037	13,7	0,062618566	0,022372	0,084990987	468558
1979	OBB	78941421,95	5748301	13,7	0,065271378	0,044824	0,110095473	632862
1980	OBB	81542354,59	5937694	13,7	0,068184824	0,04243	0,110615199	656799
1981	OBB	83326071,78	6067580	13,7	0,071481816	0,040454	0,111935599	679178
1982	OBB	85414815,17	6219676	13,7	0,074734335	0,045852	0,12058595	750006
1983	OBB	87247981,51	6353163	13,7	0,078180409	0,045175	0,123355475	783697
1984	OBB	88497401,68	6444142	13,7	0,082024084	0,033825	0,115849032	746548
1985	OBB	88914166,29	6474490	13,7	0,086503471	0,046874	0,133377847	863553
1986	OBB	88657069,75	6455769	13,7	0,091655535	0,046249	0,137904086	890277
1987	OBB	87244675,8	6352922	13,7	0,09810984	0,047982	0,146091746	928109
1988	OBB	85345780,82	6214649	13,7	0,105603522	0,050939	0,156542568	972857
1989	OBB	84541906,65	6156113	13,7	0,112199331	0,043991	0,156190146	961524
1990	OBB	85334781,31	6213848	13,7	0,116491706	0,052954	0,169446098	1052912
1991	OBB	80425257,15	5856350	13,7	0,147182725	0,048698	0,195880878	1147147
1992	OBB	77104227,04	5614522	13,7	0,138305824	0,039411	0,177717056	997796
1993	OBB	70032583,9	5099584	13,7	0,137130546	0,038584	0,175714238	896069
1994	OBB	60743662,56	4423190	13,7	0,143785248	0,039269	0,183054648	809685
1995	OBB	56564490,47	4118874	13,7	0,134428922	0,04341	0,177839266	732497
1996	OBB	53241763,95	3876922	13,7	0,121576084	0,040156	0,161732131	627023
1997	OBB	48551268,76	3535372	13,7	0,12025706	0,031817	0,15207385	537638
1998	OBB	44797097,27	3262004	13,7	0,119400501	0,036696	0,156096526	509187
1999	OBB	43026046,01	3133041	13,7	0,114891531	0,032073	0,146964929	460447
1991	PKP	333331917638	29314213	1,14	0,045736505	-0,020415	0,025321857	742290
1992	PKP	326988350025	28756341	1,14	0,048311136	-0,001258	0,047052782	1353066
1993	PKP	324052146672	28498122	1,14	0,05106347	0,097963	0,149026851	4246985
1994	PKP	320937917592	28224247	1,14	0,054042973	-0,02773	0,026312801	742659
1995	PKP	344575398537	30302999	1,14	0,056264891	0,037655	0,093920269	2846066
1996	PKP	341574020075	30039048	1,14	0,059654104	0,061681	0,121335399	3644800
1997	PKP	339363771277	29844673	1,14	0,063272319	0,095782	0,159054571	4746932
1998	PKP	333038843962	29288439	1,14	0,067505211	0,113249	0,180754331	5294012
1999	PKP	326313541848	28696996	1,14	0,072212075	0,095077	0,167289056	4800693
1972	RENFE	456533807,5	3739714	122	0,045736505	0,014821	0,060557328	226467
1973	RENFE	482576166,2	3953041	122	0,048120755	-0,008496	0,039624776	156638
1974	RENFE	503375745,3	4123421	122	0,050587737	-0,039451	0,011136615	45921
1975	RENFE	519032993,6	4251678	122	0,0531937	-0,047818	0,00537586	22856
1976	RENFE	515965227,3	4226549	122	0,05630188	-0,044899	0,011402722	48194
1977	RENFE	516495492,6	4230892	122	0,059538753	-0,103531	0,001	4231
1978	RENFE	525853283,2	4307547	122	0,06264735	-0,06611	0,001	4308
1979	RENFE	538775097,7	4413397	122	0,065724603	-0,036241	0,029483311	130122
1980	RENFE	559715068,9	4584927	122	0,068483311	0,026052	0,094535042	433436
1981	RENFE	575635339,2	4715339	122	0,071574815	0,032321	0,10389592	489904
1982	RENFE	646544993,7	5296198	122	0,071539497	0,02057	0,092109603	487831
1983	RENFE	728814322,6	5970110	122	0,071342978	0,050775	0,12211846	729061
1984	RENFE	798095982	6537633	122	0,072094563	0,049005	0,121099185	791702
1985	RENFE	858501097,3	7032444	122	0,073376384	0,056824	0,130200311	915626
1986	RENFE	908130263,2	7438983	122	0,075180149	0,002895	0,07807505	580799
1987	RENFE	946266541,7	7751378	122	0,077500726	0,069678	0,147178928	1140840
1988	RENFE	995177532,1	8152034	122	0,079281646	0,060893	0,140175118	1142712
1989	RENFE	1028575811	8425618	122	0,081780692	0,066107	0,14788782	1246046
1990	RENFE	1081549894	8859557	122	0,08321919	0,073669	0,156888212	1389960
1991	RENFE	1095381633	8972860	122	0,094138983	0,05327	0,14740943	1322684
1992	RENFE	1086066215	8896552	122	0,091780681	0,052979	0,144759569	1287861
1993	RENFE	1110673784	9098126	122	0,087644198	0,05819	0,145834017	1326816
1994	RENFE	1087549493	8908703	122	0,086729687	0,05708	0,143809464	1281156
1995	RENFE	1069058695	8757235	122	0,085799581	0,062231	0,148030971	1296342
1996	RENFE	1045932809	8567798	122	0,086168759	0,047365	0,13353383	1144091
1997	RENFE	993864608,6	8141280	122	0,089510874	0,037049	0,126559757	1030358
1998	RENFE	952132868,7	7799432	122	0,093387714	0,022514	0,115901638	903967
1999	RENFE	919544531,6	7532484	122	0,097850234	0,011523	0,109372919	823850
1972	SJ	20501922,98	2107495	9,73	0,045736505	0,003175	0,048911311	103080
1973	SJ	20835335,04	2141768	9,73	0,048219167	0,003562	0,051781333	110904
1974	SJ	21573751,07	2217674	9,73	0,050726926	-0,016687	0,0340396	75489
1975	SJ	21865386,46	2247652	9,73	0,053481038	-0,057228	0,001	2248
1976	SJ	22205210,94	2282585	9,73	0,056354217	-0,026387	0,029967606	68404
1977	SJ	22736946,98	2337244	9,73	0,059236	-0,007894	0,051341935	119999
1978	SJ	23303777,48	2395512	9,73	0,062198276	0,00541	0,067608164	161956
1979	SJ	23866922,39	2453400	9,73	0,065267722	0,025268	0,090535273	222119
1980	SJ	24216481,5	2489333	9,73	0,068691327	0,000223	0,068914336	171551
1981	SJ	25429947,18	2614071	9,73	0,071095934	0,039388	0,110484103	288813
1982	SJ	25907034,24	2663113	9,73	0,074570077	0,047872	0,122442417	326078
1983	SJ	26905977,04	2765800	9,73	0,077287044	0,022345	0,099632314	275563
1984	SJ	27882642,81	2866196	9,73	0,080047458	0,046987	0,127034841	364107
1985	SJ	27424301,42	2819081	9,73	0,085614423	0,06464	0,150254018	423578
1986	SJ	27927627,35	2870820	9,73	0,089303189	0,034061	0,123364137	354156
1987	SJ	28068122,26	2885263	9,73	0,093919651	0,069161	0,163080172	470529
1988	SJ	26686174,73	2743205	9,73	0,103575057	0,04865	0,152225102	417585
1989	SJBV	15929954,68	1637520	9,73	0,045736505	0,031506	0,077242592	126486
1990	SJBV	16599226,97	1706317	9,73	0,048156104	0,042333	0,090488802	154403
1991	SJBV	16778755,66	1724772	9,73	0,050788995	0,030586	0,081374969	140353
1992	SJBV	16351580,73	1680861	9,73	0,053888175	0,089655	0,143543543	241277
1993	SJBV	16343806,84	1680062	9,73	0,056982368	0,059496	0,116478537	195691
1994	SJBV	16479945,97	1694056	9,73	0,060144533	0,070349	0,130493382	221063
1995	SJBV	20301380,01	2086880	9,73	0,059747075	0,063457	0,123203639	257111
1996	SJBV	20056076,38	2061664	9,73	0,0634719	0,048778	0,112250343	231423
1997	SJBV	19551115,65	2009757	9,73	0,067883509	0,047126	0,115009044	231140
1998	SJBV	19099482,53	1963331	9,73	0,072702913	0,0362	0,108903003	213813
1999	SJBV	18663622,99	1918527	9,73	0,078025111	0,039742	0,11776678	225939
1972	SNCB	53606812,77	1458979	36,7	0,045736505	0,006005	0,051741959	75490
1973	SNCB	61448690,66	1672405	36,7	0,047930445	0,003012	0,050942115	85196
1974	SNCB	64907261,17	1766535	36,7	0,050332285	-0,039602	0,010730588	18956
1975	SNCB	71699816,14	1951403	36,7	0,052414271	-0,037296	0,015118331	29502
1976	SNCB	81475518,32	2217461	36,7	0,054126246	0,014097	0,06822316	151282
1977	SNCB	89612504,14	2438920	36,7	0,05605675	0,012039	0,068095826	166080
1978	SNCB	98167552,87	2671757	36,7	0,057936408	0,03957	0,097506177	260513
1979	SNCB	102394348,5	2786794	36,7	0,060532969	0,048346	0,108879049	303424
1980	SNCB	112367058,6	3058215	36,7	0,062120395	0,078572	0,140692445	430268
1981	SNCB	124065322,3	3376598	36,7	0,063462963	0,081717	0,145180383	490216
1982	SNCB	180118149,1	4902148	36,7	0,059439301	0,06677	0,12620969	618699
1983	SNCB	186432434	5073999	36,7	0,062131566	0,060229	0,122360772	620858
1984	SNCB	191057349,3	5199872	36,7	0,065086377	0,068625	0,13371093	695280
1985	SNCB/NMI	192558092	5240717	36,7	0,068578746	0,045562	0,114140335	598177
1986	SNCB/NMI	195184502,4	5312198	36,7	0,072030581	0,043395	0,115425909	613165
1987	SNCB/NMI	193201424,6	5258226	36,7	0,07655393	0,056988	0,133542078	702194
1988	SNCB/NMI	183190063,1	4985754	36,7	0,083635444	0,05733	0,140965915	702821
1989	SNCB/NMI	175414906,8	4774143	36,7	0,091197853	0,040111	0,131309206	626889
1990	SNCB/NMI	161810874,3	4403892	36,7	0,103241855	0,069419	0,172660777	760379
1991	SNCB/NMI	149626704,5	4072284	36,7	0,125400816	0,060621	0,186021669	757533
1992	SNCB/NMI	140749431	3830677	36,7	0,132803346	0,050133	0,182935952	700769
1993	SNCB/NMI	145265351	3953584	36,7	0,124011806	0,03026	0,154271569	609926
1994	SNCB/NMI	136381466,4	3711798	36,7	0,130441494	0,055397	0,185838459	689795
1995	SNCB/NMI	128366034,1	3493647	36,7	0,136711266	0,057819	0,194530027	679619
1996	SNCB/NMI	124392736,4	3385509	36,7	0,13629394	0,052931	0,189224929	640623
1997	SNCB/NMI	120124906,8	3269354	36,7	0,135935959	0,04398	0,179916416	588211

A2.4.5.1.Transport Equipment Capital Stock - Prices (PEQ) and Costs

DATA SET_T

Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices	ppp1995	Rate Deprec.	interest rates	User costs PEQ_T=(r+d)>,001	User costs CEQ_T
1974	SNCB	64907261,17	**1766535**	36,7	0,050332285	-0,039602	**0,010730588**	**18956**
1975	SNCB	71699816,14	**1951403**	36,7	0,052414271	-0,037296	**0,015118331**	**29502**
1976	SNCB	81475518,32	**2217461**	36,7	0,054126246	0,014097	**0,06822316**	**151282**
1977	SNCB	89612504,14	**2438920**	36,7	0,05605675	0,012039	**0,068095826**	**166080**
1978	SNCB	98167552,87	**2671757**	36,7	0,057936408	0,03957	**0,097506177**	**260513**
1979	SNCB	102394348,5	**2786794**	36,7	0,060532969	0,048346	**0,108879049**	**303424**
1980	SNCB	112367058,6	**3058215**	36,7	0,062120395	0,078572	**0,140692445**	**430268**
1981	SNCB	124065322,3	**3376598**	36,7	0,063462963	0,081717	**0,145180383**	**490216**
1982	SNCB	180118149,1	**4902148**	36,7	0,059439301	0,06677	**0,12620969**	**618699**
1983	SNCB	186432434	**5073999**	36,7	0,062131566	0,060229	**0,122360772**	**620858**
1984	SNCB	191057349,3	**5199872**	36,7	0,065086377	0,068625	**0,13371093**	**695280**
1985	SNCB/NMI	192558092	**5240717**	36,7	0,068578746	0,045562	**0,114140335**	**598177**
1986	SNCB/NMI	195184502,4	**5312198**	36,7	0,072030581	0,043395	**0,115425909**	**613165**
1987	SNCB/NMI	193201424,6	**5258226**	36,7	0,07655393	0,056988	**0,133542078**	**702194**
1988	SNCB/NMI	183190063,1	**4985754**	36,7	0,083635444	0,05733	**0,140965915**	**702821**
1989	SNCB/NMI	175414906,8	**4774143**	36,7	0,091197853	0,040111	**0,131309206**	**626889**
1990	SNCB/NMI	161810874,3	**4403892**	36,7	0,103241855	0,069419	**0,172660777**	**760379**
1991	SNCB/NMI	149626704,5	**4072284**	36,7	0,125400816	0,060621	**0,186021669**	**757533**
1992	SNCB/NMI	140749431	**3830677**	36,7	0,132803346	0,050133	**0,182935952**	**700769**
1993	SNCB/NMI	145265351	**3953584**	36,7	0,124011806	0,03026	**0,154271569**	**609926**
1994	SNCB/NMI	136381466,4	**3711798**	36,7	0,130441494	0,055397	**0,185838459**	**689795**
1995	SNCB/NMI	128366034,1	**3493647**	36,7	0,136711266	0,057819	**0,194530027**	**679619**
1996	SNCB/NMI	124392736,4	**3385509**	36,7	0,13629394	0,052931	**0,189224929**	**640623**
1997	SNCB/NMI	120124906,8	**3269354**	36,7	0,135935959	0,04398	**0,179916416**	**588211**
1998	SNCB/NMI	124284394,1	**3382560**	36,7	0,123443527	0,031356	**0,154799278**	**523618**
1999	SNCB/NMI	128329711,7	**3492659**	36,7	0,115438352	0,038927	**0,154365174**	**539145**
1972	SNCF1	70133729,22	**10856278**	6,46	0,045736505	0,003656	**0,049392752**	**536221**
1973	SNCF1	72076664,49	**11157033**	6,46	0,048190748	-0,001925	**0,046265539**	**516186**
1974	SNCF1	74448126,66	**11524121**	6,46	0,050710571	-0,013674	**0,037036384**	**426812**
1975	SNCF1	77522560,02	**12000025**	6,46	0,053239905	-0,034039	**0,019200527**	**230407**
1976	SNCF1	80318027,97	**12432746**	6,46	0,055871504	-0,018102	**0,037769839**	**469583**
1977	SNCF1	83382847,57	**12907162**	6,46	0,058530074	0,006052	**0,064581931**	**833569**
1978	SNCF2	84313642,18	**13051243**	6,46	0,045736505	-0,006168	**0,039568962**	**516424**
1979	SNCF2	86765355,66	**13430754**	6,46	0,048187376	-0,002009	**0,046178829**	**620216**
1980	SNCF2	89199281,79	**13807511**	6,46	0,050731888	0,018906	**0,069637931**	**961526**
1981	SNCF2	90701385,29	**14040027**	6,46	0,053458736	0,047569	**0,10102818**	**1418438**
1982	SNCF2	93053178,88	**14404071**	6,46	0,056210625	0,041823	**0,098033345**	**1412079**
1983	SNCF2	94739450,95	**14665096**	6,46	0,059174824	0,046208	**0,105382738**	**1545448**
1984	SNCF2	95265498,99	**14746525**	6,46	0,062511749	0,055255	**0,117766969**	**1736654**
1985	SNCF2	93370036,9	**14453119**	6,46	0,066700287	0,055135	**0,121835627**	**1760905**
1986	SNCF2	91895004,2	**14224792**	6,46	0,071174118	0,03339	**0,104563672**	**1487397**
1987	SNCF2	89555886,9	**13862711**	6,46	0,076474931	0,065632	**0,142106936**	**1969987**
1988	SNCF2	87251645,81	**13506029**	6,46	0,082395631	0,060511	**0,142906389**	**1930098**
1989	SNCF2	77874810,68	**12054551**	6,46	0,095194229	0,056695	**0,151889663**	**1830962**
1990	SNCF2	76270425,08	**11806202**	6,46	0,102953531	0,070372	**0,173325772**	**2046319**
1991	SNCF2	74333078,75	**11506312**	6,46	0,112096029	0,060957	**0,173052786**	**1991199**
1992	SNCF2	78300409,38	**12120431**	6,46	0,112279384	0,066054	**0,178333242**	**2161476**
1993	SNCF2	74283971,88	**11498711**	6,46	0,126108958	0,045886	**0,171995263**	**1977724**
1994	SNCF2	74812653,8	**11580548**	6,46	0,131686792	0,056714	**0,18840036**	**2181779**
1995	SNCF2	74451289,92	**11524611**	6,46	0,139113942	0,059183	**0,198297274**	**2285299**
1996	SNCF2	71996355,77	**11144602**	6,46	0,152658555	0,049377	**0,202035345**	**2251603**
1997	SNCF/RFF	58610225,19	**9072509**	6,46	0,045736505	0,043395	**0,089131129**	**808643**
1998	SNCF/RFF	62274953,66	**9639787**	6,46	0,048108114	0,038078	**0,086186596**	**830820**
1999	SNCF/RFF	70072295,28	**10846769**	6,46	0,050203633	0,043138	**0,093341958**	**1012459**
1992	SZ	42047299	**486900**	86,35714	0,045736505	-0,041756	**0,003980762**	**1938**
1993	SZ	45830401	**530708**	86,35714	0,048046809	0,083649	**0,131695357**	**69892**
1994	SZ	54829891	**634920**	86,35714	0,049871339	0,132491	**0,182362747**	**115786**
1995	SZ	57265188	**663120**	86,35714	0,052361503	0,07117	**0,123531957**	**81917**
1996	SZ	59248959	**686092**	86,35714	0,054985143	0,103094	**0,158079244**	**108457**
1997	SZ	60084471	**695767**	86,35714	0,057947817	0,103488	**0,161435795**	**112322**
1998	SZ	60422612	**699683**	86,35714	0,061207333	0,076652	**0,137859831**	**96458**
1999	SZ	61155040	**708164**	86,35714	0,064513493	0,054477	**0,118990503**	**84265**
1972	TCDD	25219193411	**1129173**	22334	0,045736505	-0,000369	**0,045367328**	**51228**
1973	TCDD	27150241512	**1215635**	22334	0,048076344	-0,115961	**0,001**	**1216**
1974	TCDD	29056995383	**1301008**	22334	0,050414028	-0,184695	**0,001**	**1301**
1975	TCDD	34402913582	**1540369**	22334	0,052006833	-0,094959	**0,001**	**1540**
1976	TCDD	39271230169	**1758344**	22334	0,053712144	-0,035837	**0,017875437**	**31431**
1977	TCDD	45036254995	**2016470**	22334	0,055212424	-0,126892	**0,001**	**2016**
1978	TCDD	43897757305	**1965494**	22334	0,058754607	-0,346918	**0,001**	**1965**
1979	TCDD	46553243674	**2084392**	22334	0,061061501	-0,630956	**0,001**	**2084**
1980	TCDD	51147031978	**2290076**	22334	0,062595521	-0,570448	**0,001**	**2290**
1981	TCDD	53645290806	**2401934**	22334	0,065074075	-0,108958	**0,001**	**2402**
1982	TCDD	58709744348	**2628691**	22334	0,066403022	0,053092	**0,119495292**	**314116**
1983	TCDD	92481844060	**4140816**	22334	0,059862008	0,242697	**0,302559266**	**1252842**
1984	TCDD	1,11699E+11	**5001263**	22334	0,059751131	0,051506	**0,111257326**	**556427**
1985	TCDD	1,24254E+11	**5563392**	22334	0,061051017	0,018247	**0,079297744**	**441164**
1986	TCDD	1,3567E+11	**6074552**	22334	0,062602444	0,146197	**0,208799649**	**1268364**
1987	TCDD	1,51503E+11	**6783450**	22334	0,063554417	0,134061	**0,197615887**	**1340518**
1988	TCDD	1,80228E+11	**8069609**	22334	0,063030994	-0,133475	**0,001**	**8070**
1989	TCDD	1,9511E+11	**8735904**	22334	0,064602025	-0,196543	**0,001**	**8736**
1990	TCDD	2,13156E+11	**9543923**	22334	0,065838275	-0,112144	**0,001**	**9544**
1991	TCDD	2,30128E+11	**10303832**	22334	0,069087504	-0,087733	**0,001**	**10304**
1992	TCDD	2,48457E+11	**11124488**	22334	0,068943776	-0,140311	**0,001**	**11124**
1993	TCDD	2,63659E+11	**11805168**	22334	0,069466818	-0,173383	**0,001**	**11805**
1994	TCDD	2,8814E+11	**12901283**	22334	0,06941238	-0,501147	**0,001**	**12901**
1995	TCDD	3,10055E+11	**13882510**	22334	0,069786428	-0,349945	**0,001**	**13883**
1996	TCDD	3,26638E+11	**14624993**	22334	0,070878126	-0,262623	**0,001**	**14625**
1997	TCDD	3,41969E+11	**15311465**	22334	0,071782767	-0,125362	**0,001**	**15311**
1998	TCDD	3,5656E+11	**15964744**	22334	0,073305449	-0,066792	**0,006513838**	**103992**
1999	TCDD	3,66762E+11	**16421531**	22334	0,075515016	0,058045	**0,133560441**	**2193267**
1972	VR	3288821,84	**561089**	5,86	0,045736505	-0,006296	**0,039440928**	**22130**
1973	VR	3793282,138	**647152**	5,86	0,047916598	-0,048278	**0,001**	**647**
1974	VR	4349286,577	**742009**	5,86	0,049940077	-0,132318	**0,001**	**742**
1975	VR	5201663,907	**887429**	5,86	0,051526649	-0,040117	**0,011409375**	**10125**
1976	VR	5941138,031	**1013587**	5,86	0,053268761	-0,040045	**0,0132233**	**13403**
1977	VR	6641049,279	**1132995**	5,86	0,055072652	-0,007996	**0,047076462**	**53337**
1978	VR	7334774,465	**1251348**	5,86	0,056896925	0,005079	**0,061975886**	**77553**
1979	VR	7786535,665	**1328420**	5,86	0,059206352	-0,008084	**0,051122297**	**67912**
1980	VR	8274289,187	**1411633**	5,86	0,061458476	0,000285	**0,061743616**	**87159**
1981	VR	8788150,636	**1499301**	5,86	0,063669263	-0,010025	**0,053643848**	**80428**
1982	VR	9113923,144	**1554879**	5,86	0,066417548	0,003038	**0,069455547**	**107995**
1983	VR	9477605,477	**1616925**	5,86	0,069094777	0,010683	**0,079777967**	**128995**
1984	VR	9767706,033	**1666417**	5,86	0,072059215	0,018748	**0,090806962**	**151322**
1985	VR	10004594,02	**1706832**	5,86	0,075274969	0,046601	**0,121875602**	**208021**
1986	VR	10211122,74	**1742066**	5,86	0,078674636	0,045941	**0,124615273**	**217088**
1987	VR	10359737,52	**1767421**	5,86	0,082407483	0,044796	**0,127203783**	**224823**
1988	VR	10438991,87	**1780942**	5,86	0,08658817	0,014753	**0,101341007**	**180482**
1989	VR	10896049,51	**1858918**	5,86	0,088527316	0,039445	**0,127972184**	**237890**
1991	VR2	2937060,458	**501077**	5,86	0,045736505	0,097779	**0,143515073**	**71912**
1992	VR2	3304813,462	**563817**	5,86	0,047972593	0,111793	**0,159765615**	**90079**
1993	VR2	3472161,381	**592367**	5,86	0,050400978	0,074042	**0,124443408**	**73716**
1994	VR2	3601246,457	**614390**	5,86	0,05296209	0,05802	**0,110981991**	**68186**
1996	VR/RHK	2155364,209	**367715**	5,86	0,045736505	0,063989	**0,109725772**	**40348**
1997	VR/RHK	2818479,799	**480846**	5,86	0,047653722	0,031716	**0,079370197**	**38165**
1998	VR/RHK	3496594,835	**596536**	5,86	0,049385371	0,021734	**0,071119487**	**42425**
1999	VR/RHK	4517531,355	**770713**	5,86	0,050647508	0,040296	**0,090943796**	**70092**
1993	ZSR	12474789	**1048601**	11,90	0,045736505	-0,062699	**0,001**	**1049**
1994	ZSR	12317933	**1035416**	11,90	0,048293804	0,007063	**0,055356867**	**57317**
1995	ZSR	14172608	**1191316**	11,90	0,05027026	0,06476	**0,115030592**	**137038**
1996	ZSR	16488480	**1385982**	11,90	0,05199651	0,08996	**0,141956398**	**196749**
1997	ZSR	17884232	**1503306**	11,90	0,054160654	0,113182	**0,167342464**	**251567**
1998	ZSR	18706809	**1572450**	11,90	0,056689904	0,152668	**0,209358246**	**329205**
1999	ZSR	19612035	**1648541**	11,90	0,059203055	0,136009	**0,195211851**	**321815**

DATA SET _P

Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices	ppp1995	Rate Deprec.	interest rates	User costs PEQ_P=(r+d)>,001	User costs CEQ_P
1998	SNCB/NMI	124284394,1	**3382560**	36,7	0,123443527	0,031356	**0,154799278**	**523618**
1999	SNCB/NMI	128329711,7	**3492659**	36,7	0,115438352	0,038927	**0,154365174**	**539145**
1972	SNCF	117625510,1	**18207720**	6,46	0,045736505	0,003656	**0,049392752**	**899329**
1973	SNCF	118721386,3	**18377355**	6,46	0,048236744	-0,001925	**0,046311535**	**851083**
1974	SNCF	120216068	**18608722**	6,46	0,050864709	-0,013674	**0,037190523**	**692068**
1975	SNCF	122382407,3	**18944059**	6,46	0,05358824	-0,034039	**0,019548863**	**370335**
1976	SNCF	124236759,5	**19231101**	6,46	0,056471437	-0,018102	**0,038369773**	**737893**
1977	SNCF	126325607,3	**19554442**	6,46	0,059468252	0,006052	**0,065520109**	**1281209**
1978	SNCF	127780504,7	**19779652**	6,46	0,062703406	-0,006168	**0,056535863**	**1118260**
1979	SNCF	128646055,8	**19913634**	6,46	0,066218771	-0,002009	**0,064210224**	**1278659**
1980	SNCF	129426640,9	**20034463**	6,46	0,069950231	0,018906	**0,088856274**	**1780188**
1981	SNCF	129203924,4	**19999988**	6,46	0,074173724	0,047569	**0,121743168**	**2434862**
1982	SNCF	129754747,6	**20085252**	6,46	0,078404218	0,041823	**0,120226938**	**2414788**
1983	SNCF	129558816,1	**20054923**	6,46	0,08315122	0,046208	**0,129359135**	**2594288**
1984	SNCF	128115887,4	**19831567**	6,46	0,088785031	0,055255	**0,14404025**	**2856544**
1985	SNCF	124158625,8	**19219007**	6,46	0,096416276	0,055135	**0,151551616**	**2912672**
1986	SNCF	120522352,8	**18656133**	6,46	0,104832382	0,03339	**0,138221937**	**2578687**
1987	SNCF	115915299,8	**17942989**	6,46	0,115372036	0,065632	**0,181004041**	**3247754**
1988	SNCF	111228458,7	**17217495**	6,46	0,127798152	0,060511	**0,18830891**	**3242208**
1989	SNCF	99345587,32	**15378098**	6,46	0,158285482	0,056695	**0,214980916**	**3305998**
1990	SNCF	95102051,3	**14721224**	6,46	0,178890718	0,070372	**0,249262959**	**3669456**
1991	SNCF	84399060,8	**13064466**	6,46	0,268046501	0,060957	**0,329003259**	**4298252**
1992	SNCF	80203031,84	**12414946**	6,46	0,228969442	0,066054	**0,2950233**	**3662698**
1993	SNCF	68683061,19	**10631724**	6,46	0,236545469	0,045886	**0,282431775**	**3002737**
1994	SNCF	62423378,46	**9662763**	6,46	0,205714469	0,056714	**0,262428037**	**2535780**
1995	SNCF	56109237,13	**8685372**	6,46	0,178148213	0,059183	**0,237331544**	**2061313**
1996	SNCF	48639878,54	**7529160**	6,46	0,161835789	0,049377	**0,211212579**	**1590253**
1997	SNCF/RFF	58610225,19	**9072509**	6,46	0,045736505	0,043395	**0,089131129**	**808643**
1998	SNCF/RFF	62274953,66	**9639787**	6,46	0,048108114	0,038078	**0,086186596**	**830820**
1999	SNCF/RFF	70072295,28	**10846769**	6,46	0,050203633	0,043138	**0,093341958**	**1012459**
1992	SZ	42047299	**486900**	86,35714	0,045736505	-0,041756	**0,003980762**	**1938**
1993	SZ	45830401	**530708**	86,35714	0,048046809	0,083649	**0,131695357**	**69892**
1994	SZ	54829891	**634920**	86,35714	0,049871339	0,132491	**0,182362747**	**115786**
1995	SZ	57265188	**663120**	86,35714	0,052361503	0,07117	**0,123531957**	**81917**
1996	SZ	59248959	**686092**	86,35714	0,054985143	0,103094	**0,158079244**	**108457**
1997	SZ	60084471	**695767**	86,35714	0,057947817	0,103488	**0,161435795**	**112322**
1998	SZ	60422612	**699683**	86,35714	0,061207333	0,076652	**0,137859831**	**96458**
1999	SZ	61155040	**708164**	86,35714	0,064513493	0,054477	**0,118990503**	**84265**
1972	TCDD	25219193411	**1129173**	22334	0,045736505	-0,000369	**0,045367328**	**51228**
1973	TCDD	27150241512	**1215635**	22334	0,048076344	-0,115961	**0,001**	**1216**
1974	TCDD	29056995383	**1301008**	22334	0,050414028	-0,184695	**0,001**	**1301**
1975	TCDD	34402913582	**1540369**	22334	0,052006833	-0,094959	**0,001**	**1540**
1976	TCDD	39271230169	**1758344**	22334	0,053712144	-0,035837	**0,017875437**	**31431**
1977	TCDD	45036254995	**2016470**	22334	0,055212424	-0,126892	**0,001**	**2016**
1978	TCDD	43897757305	**1965494**	22334	0,058754607	-0,346918	**0,001**	**1965**
1979	TCDD	46553243674	**2084392**	22334	0,061061501	-0,630956	**0,001**	**2084**
1980	TCDD	51147031978	**2290076**	22334	0,062595521	-0,570448	**0,001**	**2290**
1981	TCDD	53645290806	**2401934**	22334	0,065074075	-0,108958	**0,001**	**2402**
1982	TCDD	58709744348	**2628691**	22334	0,066403022	0,053092	**0,119495292**	**314116**
1983	TCDD	92481844060	**4140816**	22334	0,059862008	0,242697	**0,302559266**	**1252842**
1984	TCDD	1,11699E+11	**5001263**	22334	0,059751131	0,051506	**0,111257326**	**556427**
1985	TCDD	1,24254E+11	**5563392**	22334	0,061051017	0,018247	**0,079297744**	**441164**
1986	TCDD	1,3567E+11	**6074552**	22334	0,062602444	0,146197	**0,208799649**	**1268364**
1987	TCDD	1,51503E+11	**6783450**	22334	0,063554417	0,134061	**0,197615887**	**1340518**
1988	TCDD	1,80228E+11	**8069609**	22334	0,063030994	-0,133475	**0,001**	**8070**
1989	TCDD	1,9511E+11	**8735904**	22334	0,064602025	-0,196543	**0,001**	**8736**
1990	TCDD	2,13156E+11	**9543923**	22334	0,065838275	-0,112144	**0,001**	**9544**
1991	TCDD	2,30128E+11	**10303832**	22334	0,069087504	-0,087733	**0,001**	**10304**
1992	TCDD	2,48457E+11	**11124488**	22334	0,068943776	-0,140311	**0,001**	**11124**
1993	TCDD	2,63659E+11	**11805168**	22334	0,069466818	-0,173383	**0,001**	**11805**
1994	TCDD	2,8814E+11	**12901283**	22334	0,06941238	-0,501147	**0,001**	**12901**
1995	TCDD	3,10055E+11	**13882510**	22334	0,069786428	-0,349945	**0,001**	**13883**
1996	TCDD	3,26638E+11	**14624993**	22334	0,070878126	-0,262623	**0,001**	**14625**
1997	TCDD	3,41969E+11	**15311465**	22334	0,071782767	-0,125362	**0,001**	**15311**
1998	TCDD	3,5656E+11	**15964744**	22334	0,073305449	-0,066792	**0,006513838**	**103992**
1999	TCDD	3,66762E+11	**16421531**	22334	0,075515016	0,058045	**0,133560441**	**2193267**
1972	VR	3288821,84	**561089**	5,86	0,045736505	-0,006296	**0,039440928**	**22130**
1973	VR	3360463,202	**573311**	5,86	0,048205371	-0,048278	**0,001**	**573**
1974	VR	3574495,138	**609826**	5,86	0,050573211	-0,132318	**0,001**	**610**
1975	VR	4133638,514	**705219**	5,86	0,052329462	-0,040117	**0,012212189**	**8612**
1976	VR	4596231,527	**784139**	5,86	0,054224299	-0,040045	**0,014178837**	**11118**
1977	VR	5004600,57	**853809**	5,86	0,056267786	-0,007996	**0,048271596**	**41215**
1978	VR	5390030,507	**919565**	5,86	0,058380128	0,005079	**0,06345909**	**58355**
1979	VR	5517967,189	**941392**	5,86	0,061320573	-0,008084	**0,053236518**	**50116**
1980	VR	5695695,657	**971713**	5,86	0,064169823	0,000285	**0,064454963**	**62632**
1981	VR	5910292,659	**1008324**	5,86	0,066924587	-0,010025	**0,056899172**	**57373**
1982	VR	5942062,062	**1013744**	5,86	0,070675228	0,003038	**0,073713227**	**74726**
1983	VR	6023280,335	**1027601**	5,86	0,074308578	0,010683	**0,084991768**	**87338**
1984	VR	6056713,642	**1033304**	5,86	0,078418849	0,018748	**0,097166596**	**100403**
1985	VR	6044155,632	**1031162**	5,86	0,083109371	0,046601	**0,129710004**	**133752**
1986	VR	6016641,36	**1026468**	5,86	0,088209121	0,045941	**0,134149759**	**137700**
1987	VR	5927191,349	**1011207**	5,86	0,094356964	0,044796	**0,139153264**	**140713**
1988	VR	5808232,6	**990912**	5,86	0,101428662	0,014753	**0,116181498**	**115126**
1989	VR	6090258,081	**1039027**	5,86	0,102282872	0,039445	**0,14172774**	**147259**
1991	VR2	2937060,458	**501077**	5,86	0,045736505	0,097779	**0,143515073**	**71912**
1992	VR2	3304813,462	**563817**	5,86	0,047972593	0,111793	**0,159765615**	**90079**
1993	VR2	3472161,381	**592367**	5,86	0,050400978	0,074042	**0,124443408**	**73716**
1994	VR2	3601246,457	**614390**	5,86	0,05296209	0,05802	**0,110981991**	**68186**
1996	VR/RHK	2155364,209	**367715**	5,86	0,045736505	0,063989	**0,109725772**	**40348**
1997	VR/RHK	2818479,799	**480846**	5,86	0,047653722	0,031716	**0,079370197**	**38165**
1998	VR/RHK	3496594,835	**596536**	5,86	0,049385371	0,021734	**0,071119487**	**42425**
1999	VR/RHK	4517531,355	**770713**	5,86	0,050647508	0,040296	**0,090943796**	**70092**
1993	ZSR	**12474789**	**1048601**	11,90	0,045736505	-0,062699	**0,001**	**1049**
1994	ZSR	**12317933**	**1035416**	11,90	0,048293804	0,007063	**0,055356867**	**57317**
1995	ZSR	**14172608**	**1191316**	11,90	0,05027026	0,06476	**0,115030592**	**137038**
1996	ZSR	**16488480**	**1385982**	11,90	0,05199651	0,08996	**0,141956398**	**196749**
1997	ZSR	**17884232**	**1503306**	11,90	0,054160654	0,113182	**0,167342464**	**251567**
1998	ZSR	**18706809**	**1572450**	11,90	0,056689904	0,152668	**0,209358246**	**329205**
1999	ZSR	**19612035**	**1648541**	11,90	0,059203055	0,136009	**0,195211851**	**321815**

A2.4.5.2.Way & Structure capital stock :Productive capital stock (KQ), Prices (PKQ1) and Costs

DATA SET_T

Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices KQ_T	ppp1995	Rate Deprec.	interest rates	User costs PKQ1_T=(r+d)>,001	User costs CW&S_T
1992	BC1	25899573313	11381875	2,27551	0,015614311	-0,85	0,001	11382
1993	BC1	30716342092	13498662	2,27551	0,016114783	-0,852568	0,001	13499
1994	BC1	37255467261	16372358	2,27551	0,015614311	-0,879795	0,001	16372
1996	BC2	34969356409	15367699	2,27551	0,015614311	0,085732	0,101346628	1557465
1997	BC2	41076022784	18051347	2,27551	0,016119663	-0,236531	0,001	18051
1998	BC2	40854220270	17953873	2,27551	0,016743165	-0,271107	0,001	17954
1999	BC2	22586621749	9925959	2,27551	0,015614311	-0,642104	0,001	9926
1992	BDZ1	37175063	1821578	0,020408	0,015614311	-0,018283	0,001	1822
1993	BDZ1	36502113	1788604	0,020408	0,016219948	0,047766	0,063985747	114445
1994	BDZ1	38147053	1869206	0,020408	0,016787719	-0,000523	0,016264306	30401
1995	BDZ2	37854129	1854852	0,020408	0,015614311	-0,023764	0,001	1855
1996	BDZ2	38513069	1887140	0,020408	0,016198586	0,011016	0,027214977	51358
1997	BDZ3	33326603	1633004	0,020408	0,015614311	-0,82466	0,001	1633
1998	BDZ3	34994162	1714714	0,020408	0,016180243	-0,07306	0,001	1715
1999	BDZ3	37618587	1843311	0,020408	0,016715876	0,094124	0,110839688	204312
1972	BR1	4873338,664	7452728	0,654	0,015614311	0,008068	0,023682709	176501
1973	BR1	5321376,818	8137906	0,654	0,016158312	0,03415	0,050308516	409406
1974	BR1	5743344,182	8783215	0,654	0,016690225	-0,001689	0,015001549	131762
1975	BR2	1378769,656	2108533	0,654	0,015614311	-0,126424	0,001	2109
1976	BR2	1470706,765	2249131	0,654	0,016171323	-0,007472	0,008698824	19565
1977	BR2	1590820,152	2432819	0,654	0,016700351	-0,01044	0,006260675	15231
1978	BR3	1584292,716	2422836	0,654	0,015614311	0,009165	0,024779005	60035
1979	BR3	1712215,499	2618467	0,654	0,016164002	-0,015125	0,001039002	2721
1980	BR3	1779509,016	2721378	0,654	0,016738184	-0,055872	0,001	2721
1981	BR4	804166,2681	1229800	0,654	0,015614311	0,034698	0,050312546	61874
1982	BR4	851792,1143	1302634	0,654	0,016175284	0,054602	0,070777057	92197
1983	BR4	866572,5969	1325237	0,654	0,016774522	0,054783	0,071557997	94831
1984	BR5	864178,8033	1321576	0,654	0,015614311	0,058703	0,07431769	98217
1985	BR5	1071072,851	1637977	0,654	0,016093019	0,048716	0,064809016	106156
1986	BR5	1303978,642	1994156	0,654	0,016510369	0,067508	0,084018305	167546
1987	BR5	1538477,241	2352771	0,654	0,016907466	0,042726	0,059633538	140304
1988	BR5	1696376,106	2594244	0,654	0,017371867	0,03326	0,050631688	131351
1989	BR5	2019076,139	3087745	0,654	0,017642732	0,021168	0,038811155	119839
1990	BR5	2367711,985	3620908	0,654	0,017912211	0,034235	0,052147111	188820
1991	BR5	2776548,372	4246136	0,654	0,018148591	0,032646	0,050794555	215681
1992	BR6	5483415,957	8385710	0,654	0,015614311	0,051575	0,06718927	563430
1993	BR6	5748917,947	8791739	0,654	0,016181125	0,051289	0,067470019	593179
1994	BR/railtrack	5478793,432	8378641	0,654	0,015614311	0,065204	0,080818795	677152
1993	CD	84346798,5	7801726	10,8	0,015614311	-0,057371	0,001	7802
1994	CD	133953545,5	12390142	10,8	0,015987193	-0,002572	0,013415175	166216
1995	CD	136251499,6	12602693	10,8	0,016581596	0,023465	0,040046295	504691
1996	CD	140671506,9	13011526	10,8	0,017167874	0,036254	0,053421736	695098
1997	CD	149811968,6	13856980	10,8	0,017692165	0,055603	0,073294997	1015647
1998	CD	154682411,6	14307476	10,8	0,018289377	0,023822	0,042111241	602506
1999	CD	160550820,6	14850279	10,8	0,018873896	0,061942	0,080815734	1200136
1972	CFF1	10289778,93	5117002	2,01	0,015614311	-0,048326	0,001	5117
1973	CFF1	11366972,3	5652679	2,01	0,016151972	-0,025409	0,001	5653
1974	CFF1	11904984,83	5920227	2,01	0,016717409	0,002177	0,018894537	111860
1975	CFF1	12487750,08	6210030	2,01	0,017277708	-0,006934	0,01034389	64236
1976	CFF1	12883133,5	6406651	2,01	0,0178729	0,022594	0,04046657	259255
1977	CFF1	13325352,73	6626562	2,01	0,015614311	0,037939	0,053553588	354876
1978	CFF1	13586899,88	6756626	2,01	0,0161973	-0,002833	0,013363929	90295
1979	CFF1	14001623,88	6962864	2,01	0,016781689	0,014602	0,031383536	218519
1980	CFF1	14421307,9	7171569	2,01	0,017374436	0,020637	0,038011843	272605
1981	CFF1	14891512,25	7405397	2,01	0,017968465	-0,001972	0,015996923	118464
1982	CFF1	15312621,12	7614810	2,01	0,018581169	-0,019427	0,001	7615
1983	CFF2	13309865,76	6618860	2,01	0,015614311	0,018519	0,034132922	225921
1984	CFF2	14764761,18	7342365	2,01	0,016149709	0,011938	0,028088037	206233
1985	CFF2	15477247,28	7696677	2,01	0,016714165	0,024109	0,040823645	314206
1986	CFF2	16161177,74	8036788	2,01	0,017282284	0,012129	0,029411022	236370
1987	CFF2	16915194,92	8411753	2,01	0,017843794	0,013793	0,031636356	266117
1988	CFF2	17757437,9	8830592	2,01	0,01839355	0,013009	0,031402644	277304
1989	CFF2	18691143,51	9294914	2,01	0,018928722	0,021214	0,040142652	373123
1990	CFF2	20032795,55	9962104	2,01	0,019383121	0,024056	0,043439228	432746
1991	CFF2	21835389,87	10858516	2,01	0,019746057	0,003466	0,023211968	252048
1992	CFF2	23167726,35	11521073	2,01	0,020221211	0,027416	0,047637255	548832
1993	CFF2	24537720,91	12202358	2,01	0,020693927	0,013842	0,034536295	421424
1994	CFF2	25260156,77	12561618	2,01	0,02133115	0,035801	0,057131865	717669
1995	CFF2	25893890,85	12876767	2,01	0,022004056	0,02599	0,047993794	618005
1996	CFF2	27195515,24	13524052	2,01	0,022495171	0,032604	0,055099555	745169
1997	CFF2	27843063,11	13846070	2,01	0,023192966	0,031818	0,05501077	761683
1998	CFF2	27881654,39	13865262	2,01	0,024113949	0,025063	0,049176702	681848
1999	CFF2	28304356,63	14075467	2,01	0,024924642	0,029274	0,054198235	762865
1972	CFL1	3188186,88	82017	38,9	0,015614311	0,01462	0,030234429	2480
1973	CFL1	3265584,909	84008	38,9	0,016194626	-0,054025	0,001	84
1974	CFL1	3357943,331	86384	38,9	0,016781572	-0,097118	0,001	86
1975	CFL1	3501517,644	90077	38,9	0,017352062	0,075865	0,09321746	8397
1976	CFL1	3602488,046	92675	38,9	0,017954762	-0,04986	0,001	93
1977	CFL1	4038330,943	103887	38,9	0,018311097	0,058595	0,076905706	7990
1978	CFL1	4434912,522	114089	38,9	0,018705305	0,015093	0,033797851	3856
1979	CFL1	5060650,077	130187	38,9	0,018938038	0,004261	0,023199344	3020
1980	CFL1	5466159,899	140618	38,9	0,019360004	-0,004215	0,015144611	2130
1981	CFL1	5922900,571	152368	38,9	0,019749366	0,014956	0,034705375	5288
1982	CFL1	6149036,639	158186	38,9	0,020333502	-0,003088	0,017245939	2728
1983	CFL1	6268897,761	161269	38,9	0,021024244	0,030111	0,051135036	8246
1984	CFL1	6414464,556	165014	38,9	0,021704932	0,058174	0,07987897	13181
1985	CFL1	6505515,042	167356	38,9	0,022464292	0,0655	0,087963975	14721
1986	CFL1	6678126,215	171797	38,9	0,023139754	0,059133	0,082272954	14134
1987	CFL1	6791939,747	174724	38,9	0,023909794	0,070296	0,094205773	16460
1988	CFL1	8397345,571	216024	38,9	0,022873487	0,064198	0,087071311	18809
1989	CFL1	9010629,887	231801	38,9	0,023154282	0,042107	0,065261539	15128
1990	CFL1	9606459,049	247129	38,9	0,023477598	0,050834	0,074311309	18364
1991	CFL1	10327851,5	265687	38,9	0,023707682	0,066659	0,090366263	24009
1992	CFL1	10547397,54	271335	38,9	0,024431042	0,03623	0,060660784	16459
1993	CFL1	10724875,42	275900	38,9	0,025211999	0,061871	0,087082578	24026
1994	CFL1	11215791,26	288529	38,9	0,025666353	0,010421	0,036086893	10412
1995	CFL2	6168139,898	158677	38,9	0,015614311	0,053414	0,069028392	10953
1996	CFL2	6144881,083	158079	38,9	0,016211141	0,034942	0,051152689	8086
1997	CFL2	6172895,908	158799	38,9	0,01682692	0,020584	0,037410451	5941
1998	CFL2	6160374,052	158477	38,9	0,017480149	0,037946	0,055426215	8784
1999	CFL2	6229102,592	160245	38,9	0,018129856	0,035	0,053129856	8514
1992	CFR1	13318372795	26853217	495,9694	0,015614311	-0,35	0,001	26853
1993	CFR1	13354730905	26926524	495,9694	0,01620723	-0,4	0,001	26927
1994	CFR1	20883548352	42106529	495,9694	0,016384627	-0,3	0,001	42107
1995	CFR1	20811705987	41961676	495,9694	0,017018713	-0,05	0,001	41962
1996	CFR1	20736850057	41810748	495,9694	0,01768432	-0,1	0,001	41811
1997	CFR1	20676489710	41689046	495,9694	0,018381009	-0,741913	0,001	41689
1998	CFR1	21845139181	44045340	495,9694	0,018903491	0,004117	0,023020679	1013954
1999	CFR1	20994995229	42331234	495,9694	0,019823189	0,192412	0,212234856	8984163
1972	CH	679094123,5	3343926	203	0,015614311	0,02826	0,04387397	146711
1973	CH	675865545,3	3328028	203	0,016211737	-0,08733	0,001	3328
1974	CH	677237423,7	3334783	203	0,01683067	-0,07526	0,001	3335
1975	CH	686080513,1	3378327	203	0,017455305	-0,00411	0,013345153	45084
1976	CH	690777396,8	3401455	203	0,018115314	-0,033715	0,001	3401
1977	CH	697225471,2	3433206	203	0,018792021	-0,008433	0,010358861	35564
1978	CH	698391859,6	3438950	203	0,019524174	0,004537	0,024061616	82747
1979	CH	701324080,1	3453388	203	0,020275866	-0,016305	0,00397091	13713
1980	CH	712602715,8	3508925	203	0,020988538	0,030272	0,051260073	179868
1981	CH	714224843,2	3516913	203	0,021813336	0,013181	0,034993841	123070
1982	CH	723667999,9	3563412	203	0,022588044	-0,036737	0,001	3563
1983	CH	729225768,5	3590779	203	0,023433762	0,011606	0,035039522	125819
1984	CH	736289427,3	3625561	203	0,024289652	0,001801	0,026091127	94595
1985	CH	747560723	3681062	203	0,025111197	0,024073	0,049184163	181050
1986	CH	765342238,2	3768620	203	0,025850577	0,02537	0,051220391	193030
1987	CH	780015710,1	3840873	203	0,026656892	0,066192	0,092849281	356622
1988	CH	857041786,7	4220157	203	0,026448208	0,063189	0,089637491	378284
1989	CH	864659946,1	4257670	203	0,027399148	0,07723	0,104629387	445477
1990	CH	873622313,1	4301801	203	0,028354861	0,058189	0,086543615	372293
1991	CH	893253826,2	4398469	203	0,029132699	0,079771	0,108903613	479009
1992	CH	981512290,4	4833062	203	0,028685189	0,118911	0,147595893	713340
1993	CH	1007535989	4961205	203	0,029379796	0,144126	0,173505887	860798
1994	CH	1022058835	5032717	203	0,030286702	0,150128	0,180414561	907975
1995	CH	1042684242	5134279	203	0,031090823	0,130094	0,161185141	827569
1996	CH	1158330846	5703734	203	0,030213585	0,126442	0,156655741	893523
1997	CH	1221052273	6012580	203	0,030360114	0,114885	0,145245177	873298
1998	CH	1272874832	6267760	203	0,030698456	0,130089	0,160787386	1007777
1999	CH	1352963357	6662123	203	0,030636149	0,116346	0,146981888	979211
1972	CIE1	108229,2268	170520	0,635	0,015614311	-0,039213	0,001	171
1973	CIE1	118105,2644	186080	0,635	0,016158657	-0,029447	0,001	186
1974	CIE1	125925,1852	198401	0,635	0,016704028	0,107719	0,124422995	24686
1975	CIE1	130165,3868	205082	0,635	0,017289538	-0,054931	0,001	205
1976	CIE1	147956,3682	233112	0,635	0,017667266	-0,055366	0,001	233

DATA SET _P

Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices KQ_P	ppp1995	Rate Deprec.	interest rates	User costs PKQ1_P=(r+d)>,001	User costs CW&S_P
1972	BR1	419858	642083	0,654	0,015614311	0,008068	0,023682709	15206
1973	BR1	891321	1363084	0,654	0,015892785	0,03415	0,050042989	68213
1974	BR1	1337448	2045341	0,654	0,016201295	-0,001689	0,014512619	29683
1975	BR2	1428702	2184894	0,654	0,01674345	-0,126424	0,001	2185
1976	BR2	1519849	2324283	0,654	0,017279203	-0,007472	0,009806704	22794
1977	BR2	1639139	2506712	0,654	0,01777232	-0,01044	0,007332644	18381
1978	BR2	2077403	3176943	0,654	0,017838796	0,009165	0,02700349	85789
1979	BR2	2201189	3366247	0,654	0,018360989	-0,015125	0,003235989	10893
1980	BR2	2264191	3462595	0,654	0,018976918	-0,055872	0,001	3463
1981	BR3	1840778	2815075	0,654	0,020756573	0,034698	0,055454808	156109
1982	BR3	1879823	2874787	0,654	0,021449924	0,054602	0,076051697	218632
1983	BR3	1885702	2883777	0,654	0,022288935	0,054783	0,07707241	222260
1984	BR3	1990292	3043726	0,654	0,022740753	0,058703	0,081444132	247894
1985	BR3	2186463	3343727	0,654	0,022844913	0,048716	0,07156091	239280
1986	BR3	2408223	3682861	0,654	0,022917401	0,067508	0,090425337	333024
1987	BR3	2629899	4021867	0,654	0,023053411	0,042726	0,065779482	264556
1988	BR3	2776954	4246757	0,654	0,023473396	0,03326	0,056733216	240932
1989	BR3	3087078	4721024	0,654	0,023407253	0,021168	0,044575676	210443
1990	BR3	3422600	5234133	0,654	0,023367288	0,034235	0,057602187	301498
1991	BR3	3817750	5838431	0,654	0,023274102	0,032646	0,055920065	326485
1992	BR4	6137891	9386590	0,654	0,015614311	0,051575	0,06718927	630678
1993	BR4	6577274	10058532	0,654	0,016168748	0,051289	0,067457642	678525
1994	BR/railtrack	5478793	8378641	0,654	0,015614311	0,065204	0,080818795	677152
1994	CD	170760933	15794672	10,8	0,015614311	-0,002572	0,013042293	205999
1995	CD	173189868	16019338	10,8	0,016200439	0,023465	0,039665138	635409
1996	CD	177871378	16452358	10,8	0,016788935	0,036254	0,053042797	872679
1997	CD	187540198	17346683	10,8	0,01733962	0,055603	0,072942452	1265310
1998	CD	192795177	17832747	10,8	0,017944062	0,023822	0,041765926	744801
1999	CD	198611965	18370775	10,8	0,018550716	0,061942	0,080492554	1478711
1972	CFF	10289779	5117002	2,01	0,015614311	-0,048326	0,001	5117
1973	CFF	11366972	5652679	2,01	0,016151972	-0,025409	0,001	5653
1974	CFF	11904985	5920227	2,01	0,016717409	0,002177	0,018894537	111860
1975	CFF	12487750	6210030	2,01	0,017277708	-0,006934	0,01034389	64236
1976	CFF	12883134	6406651	2,01	0,0178729	0,022594	0,04046657	259255
1977	CFF	15466930	7691546	2,01	0,018054157	0,037939	0,055993434	430676
1978	CFF	15704681	7809777	2,01	0,018708508	-0,002833	0,015875137	123981
1979	CFF	16094666	8003713	2,01	0,019344006	0,014602	0,033945854	271693
1980	CFF	16488615	8199619	2,01	0,01999174	0,020637	0,040629147	333144
1981	CFF	16932026	8420123	2,01	0,020637237	-0,001972	0,018665694	157167
1982	CFF	17325220	8615655	2,01	0,021313553	-0,019427	0,001886649	16255
1983	CFF	17804002	8853748	2,01	0,021970551	0,018519	0,040489162	358481
1984	CFF	19196611	9546278	2,01	0,022265278	0,011938	0,034203606	326517
1985	CFF	19844161	9868298	2,01	0,022881494	0,024109	0,046990974	463721
1986	CFF	20460340	10174718	2,01	0,023521568	0,012129	0,035650305	362732
1987	CFF	21143607	10514500	2,01	0,02414111	0,013793	0,037933672	398854
1988	CFF	21911907	10896567	2,01	0,024729336	0,013009	0,037738429	411219
1989	CFF	22768261	11322423	2,01	0,025283059	0,021214	0,046496989	526459
1990	CFF	24028921	11949337	2,01	0,025643152	0,024056	0,049699259	593873
1991	CFF	25746630	12803536	2,01	0,025803613	0,003466	0,029269524	374753
1992	CFF	26989909	13421805	2,01	0,026223329	0,027416	0,053639372	719937
1993	CFF	28266370	14056577	2,01	0,026641356	0,013842	0,040483724	569063
1994	CFF/SBB/FF	28890464	14366932	2,01	0,027386511	0,035801	0,063187227	907807
1995	CFF/SBB/FF	29420682	14630604	2,01	0,028190901	0,02599	0,05418064	792695
1996	CFF/SBB/FF	30613211	15223637	2,01	0,028649134	0,032604	0,061253519	932501
1997	CFF/SBB/FF	31145639	15488408	2,01	0,029473754	0,031818	0,061291558	949309
1998	CFF/SBB/FF	31062595	15447111	2,01	0,030677334	0,025063	0,055740087	861023
1999	CFF/SBB/FF	31356598	15593315	2,01	0,031673684	0,029274	0,060947277	950370
1972	CFL1	3188187	82017	38,9	0,015614311	0,01462	0,030234429	2480
1973	CFL1	3265585	84008	38,9	0,016194626	-0,054025	0,001	84
1974	CFL1	3357943	86384	38,9	0,016781572	-0,097118	0,001	86
1975	CFL1	3501518	90077	38,9	0,017352062	0,075865	0,09321746	8397
1976	CFL1	3602488	92675	38,9	0,017954762	-0,04986	0,001	93
1977	CFL1	4038331	103887	38,9	0,018311097	0,058595	0,076905706	7990
1978	CFL1	4434913	114089	38,9	0,018705305	0,015093	0,033797851	3856
1979	CFL1	5060650	130187	38,9	0,018938038	0,004261	0,023199344	3020
1980	CFL1	5466160	140618	38,9	0,019360004	-0,004215	0,015144611	2130
1981	CFL1	5922901	152368	38,9	0,019749366	0,014956	0,034705375	5288
1982	CFL1	6149037	158186	38,9	0,020333502	-0,003088	0,017245939	2728
1983	CFL1	6268898	161269	38,9	0,021024244	0,030111	0,051135036	8246
1984	CFL1	6414465	165014	38,9	0,021704932	0,058174	0,07987897	13181
1985	CFL1	6505515	167356	38,9	0,022464292	0,0655	0,087963975	14721
1986	CFL1	6678126	171797	38,9	0,023139754	0,059133	0,082272954	14134
1987	CFL1	6791940	174724	38,9	0,023909794	0,070296	0,094205773	16460
1988	CFL1	8397346	216024	38,9	0,022873487	0,064198	0,087071311	18809
1989	CFL1	9010630	231801	38,9	0,023154282	0,042107	0,065261539	15128
1990	CFL1	9606459	247129	38,9	0,023477598	0,050834	0,074311309	18364
1991	CFL1	10327851	265687	38,9	0,023707682	0,066659	0,090366263	24009
1992	CFL1	10547398	271335	38,9	0,024431042	0,03623	0,060660784	16459
1993	CFL1	10724875	275900	38,9	0,025211999	0,061871	0,087082578	24026
1994	CFL1	11215791	288529	38,9	0,025666353	0,010421	0,036086893	10412
1995	CFL2	6168140	158677	38,9	0,015614311	0,053414	0,069028392	10953
1996	CFL2	6144881	158079	38,9	0,016211141	0,034942	0,051152689	8086
1997	CFL2	6172896	158799	38,9	0,01682692	0,020584	0,037410451	5941
1998	CFL2	6160374	158477	38,9	0,017480149	0,037946	0,055426215	8784
1999	CFL2	6229103	160245	38,9	0,018129856	0,035	0,053129856	8514
1972	CH	679094124	3343926	203	0,015614311	0,02826	0,04387397	146711
1973	CH	675865545	3328028	203	0,016211737	-0,08733	0,001	3328
1974	CH	677237424	3334783	203	0,01683067	-0,07526	0,001	3335
1975	CH	686080513	3378327	203	0,017455305	-0,00411	0,013345153	45084
1976	CH	690777397	3401455	203	0,018115314	-0,033715	0,001	3401
1977	CH	697225471	3433206	203	0,018792021	-0,008433	0,010358861	35564
1978	CH	698391860	3438950	203	0,019524174	0,004537	0,024061616	82747
1979	CH	701324080	3453388	203	0,020275866	-0,016305	0,00397091	13713
1980	CH	712602716	3508925	203	0,020988538	0,030272	0,051260073	179868
1981	CH	714224843	3516913	203	0,021813336	0,013181	0,034993841	123070
1982	CH	723668000	3563412	203	0,022588044	-0,036737	0,001	3563
1983	CH	729225769	3590779	203	0,023433762	0,011606	0,035039522	125819
1984	CH	736289427	3625561	203	0,024289652	0,001801	0,026091127	94595
1985	CH	747560723	3681062	203	0,025111197	0,024073	0,049184163	181050
1986	CH	765342238	3768620	203	0,025850577	0,02537	0,051220391	193030
1987	CH	780015710	3840873	203	0,026656892	0,066192	0,092849281	356622
1988	CH	857041787	4220157	203	0,026448208	0,063189	0,089637491	378284
1989	CH	864659946	4257670	203	0,027399148	0,07723	0,104629387	445477
1990	CH	873622313	4301801	203	0,028354861	0,058189	0,086543615	372293
1991	CH	893253826	4398469	203	0,029132699	0,079771	0,108903613	479009
1992	CH	981512290	4833062	203	0,028685189	0,118911	0,147595893	713340
1993	CH	1007535989	4961205	203	0,029379796	0,144126	0,173505887	860798
1994	CH	1022058835	5032717	203	0,030286702	0,150128	0,180414561	907975
1995	CH	1042684242	5134279	203	0,031090823	0,130094	0,161185141	827569
1996	CH	1158330846	5703734	203	0,030213585	0,126442	0,156655741	893523
1997	CH	1221052273	6012580	203	0,030360114	0,114885	0,145245177	873298
1998	CH	1272874832	6267760	203	0,030698456	0,130089	0,160787386	1007777
1999	CH	1352963357	6662123	203	0,030636149	0,116346	0,146981888	979211
1972	CIE1	108229	170520	0,635	0,015614311	-0,039213	0,001	171
1973	CIE1	118105	186080	0,635	0,016158657	-0,029447	0,001	186
1974	CIE1	125925	198401	0,635	0,016704028	0,107719	0,124422995	24686
1975	CIE1	130165	205082	0,635	0,017289538	-0,054931	0,001	205
1976	CIE1	147956	233112	0,635	0,017667266	-0,055366	0,001	233
1977	CIE1	144194	227185	0,635	0,018429693	-0,019662	0,001	227
1978	CIE1	148845	234513	0,635	0,01903456	0,023053	0,042087424	9870
1979	CIE1	177545	279731	0,635	0,019068109	0,013946	0,033014178	9235
1980	CIE1	207630	327131	0,635	0,019170038	0,006427	0,025597294	8374
1981	CIE1	247391	389777	0,635	0,019186607	-0,00179	0,017396754	6781
1982	CIE1	293647	462655	0,635	0,019214571	0,018748	0,037962112	17563
1983	CIE1	326521	514449	0,635	0,019499582	0,031895	0,05139416	26440
1984	CIE1	325628	513043	0,635	0,020280083	0,082344	0,102624103	52651
1985	CIE1	328161	517034	0,635	0,021035864	0,074575	0,095611267	49434
1986	CIE1	331450	522215	0,635	0,021803197	0,045184	0,066986731	34981
1987	CIE1	331919	522953	0,635	0,022662988	0,090768	0,113430875	59319
1988	CIE1	334829	527538	0,635	0,023493883	0,062412	0,085905757	45319
1989	CIE1	335635	528808	0,635	0,024416424	0,034237	0,058652934	31016
1990	CIE1	338945	534024	0,635	0,02529241	0,108113	0,133405344	71242
1991	CIE1	335568	528704	0,635	0,026447922	0,073683	0,100131312	52940
1992	CIE1	384091	605154	0,635	0,025745758	0,062979	0,08872468	53692
1993	CIE1	392556	618491	0,635	0,026494189	0,025414	0,051908115	32105
1994	CIE1	371023	584565	0,635	0,028413968	0,064948	0,09336226	54576
1995	CIE1	380970	600237	0,635	0,029113266	0,052679	0,081792211	49095
1996	CIE1	378780	596785	0,635	0,030396961	0,051485	0,081882184	48866
1997	CIE2	147630	232598	0,635	0,015614311	0,020908	0,036522765	8495
1998	CIE2	160692	253178	0,635	0,016160058	-0,007774	0,008386533	2123
1999	CIE2	186243	293435	0,635	0,01661645	-0,004253	0,012363932	3628
1972	CP1	144130477	1210421	119	0,015614311	-0,017995	0,001	1210

A2.4.5.2.Way & Structure capital stock :Productive capital stock (KQ), Prices (PKQ1) and Costs

Year	Company	DATA SET_T Productive Stock at constant prices	Productive Stock at constant $US prices KQ_T	ppp1995	Rate Deprec.	interest rates	User costs PKQ1_T=(r+d)>,001	CW&S_T
1977	CIE1	144194,246	227185	0,635	0,018429693	-0,019662	0,001	227
1978	CIE1	148845,2058	234513	0,635	0,01903456	0,023053	0,042087424	9870
1979	CIE1	177545,3846	279731	0,635	0,019068109	0,013946	0,033014178	9235
1980	CIE1	207629,7465	327131	0,635	0,019170038	0,006427	0,025597294	8374
1981	CIE1	247391,2516	389777	0,635	0,019186607	-0,00179	0,017396754	6781
1982	CIE1	293646,9252	462655	0,635	0,019214571	0,018748	0,037962112	17563
1983	CIE1	326520,8733	514449	0,635	0,019499582	0,031895	0,05139416	26440
1984	CIE1	325628,2057	513043	0,635	0,020280083	0,082344	0,102624103	52651
1985	CIE1	328161,4667	517034	0,635	0,021035864	0,074575	0,095611267	49434
1986	CIE1	331449,877	522215	0,635	0,021803197	0,045184	0,066986731	34981
1987	CIE1	331918,5502	522953	0,635	0,022662988	0,090768	0,113430875	59319
1988	CIE1	334828,6476	527538	0,635	0,023493883	0,062412	0,085905757	45319
1989	CIE1	335634,5176	528808	0,635	0,024416424	0,034237	0,058652934	31016
1990	CIE1	338945,0361	534024	0,635	0,02529241	0,108113	0,133405344	71242
1991	CIE1	335568,4891	528704	0,635	0,026447922	0,073683	0,100131312	52940
1992	CIE1	384091,1953	605154	0,635	0,025745758	0,062979	0,08872468	53692
1993	CIE1	392555,9378	618491	0,635	0,026494189	0,025414	0,051908115	32105
1994	CIE1	371023,1711	584565	0,635	0,028413968	0,064948	0,09336226	54576
1995	CIE1	380970,4648	600237	0,635	0,029113266	0,052679	0,081792211	49095
1996	CIE1	378779,5475	596785	0,635	0,030396961	0,051485	0,081882184	48866
1997	CIE2	147630,2446	232598	0,635	0,015614311	0,020908	0,036522765	8495
1998	CIE2	160692,0799	253178	0,635	0,016160058	-0,007774	0,008386533	2123
1999	CIE2	186243,1886	293435	0,635	0,01661645	-0,004253	0,012363932	3628
1972	CP1	144130477,2	1210421	119	0,015614311	-0,017995	0,001	1210
1973	CP1	179346266	1506166	119	0,01609111	-0,039705	0,001	1506
1974	CP1	215520453,3	1809960	119	0,016520657	-0,113652	0,001	1810
1975	CP1	250516956,7	2103864	119	0,016935456	-0,097304	0,001	2104
1976	CP1	275362921,4	2312522	119	0,017405479	-0,065358	0,001	2313
1977	CP1	288930227,5	2426462	119	0,017960037	-0,155984	0,001	2426
1978	CP1	300654211,9	2524921	119	0,018535475	-0,061815	0,001	2525
1979	CP1	306124827,1	2570864	119	0,0191928	-0,027541	0,001	2571
1980	CP1	309344693,8	2597904	119	0,019901023	-0,042206	0,001	2598
1981	CP1	316066973,9	2654359	119	0,020572759	-0,009039	0,011533797	30615
1982	CP1	327287470,3	2748590	119	0,021174842	-0,038986	0,001	2749
1983	CP1	335989773,7	2821672	119	0,02183758	-0,053827	0,001	2822
1984	CP1	341215952,2	2865562	119	0,022592548	-0,031733	0,001	2866
1985	CP1	349081332,2	2931616	119	0,023301848	-0,009863	0,013439344	39399
1986	CP1	359220469,4	3016766	119	0,023965014	-0,049128	0,001	3017
1987	CP1	371289297,2	3118121	119	0,024585445	0,049265	0,073850551	230275
1988	CP1	386747451,7	3247940	119	0,025117552	0,027063	0,052180604	169479
1989	CP1	404150844,9	3394095	119	0,025603075	0,032164	0,05776752	196068
1990	CP1	421054652,3	3536055	119	0,026115323	0,057765	0,083880612	296606
1991	CP1	464010748,3	3896804	119	0,025904333	0,060792	0,086696671	337840
1992	CP1	501077779,8	4208096	119	0,0259506	0,053849	0,079799807	335805
1993	CP1	525794068,8	4415666	119	0,026348799	0,057444	0,083792793	370001
1994	CP1	541988114,7	4551665	119	0,026972791	0,045521	0,072493332	329965
1995	CP1	559615884,4	4699704	119	0,027566632	0,052127	0,079693513	374536
1996	CP1	613722601,6	5154097	119	0,027264043	0,039849	0,067113083	345907
1997	CP/REFER	495144187,9	4158265	119	0,015614311	0,024517	0,040131309	166877
1998	CP/REFER	592675333,7	4977341	119	0,016110144	0,000441	0,016551296	82381
1999	CP/REFER	640491722	5378907	119	0,016642374	0	0,016642374	89518
1990	CSD	594594573,5	54997509	10,8	0,015614311	-0,06	0,001	54998
1991	CSD	653800167,7	60473779	10,8	0,016151126	-0,06	0,001	60474
1992	CSD	674062592,7	62347969	10,8	0,016732026	-0,06	0,001	62348
1972	DB1	98685462,19	48960837	2,02	0,015614311	0,024044	0,039657818	1941680
1973	DB1	101596961,2	50405319	2,02	0,016191649	0,023049	0,039241073	1977959
1974	DB1	104921669	52054807	2,02	0,016773436	0,034364	0,051137129	2661933
1975	DB1	107906728,1	53535785	2,02	0,017368751	0,0256	0,042969075	2300383
1976	DB1	110892159,8	55016948	2,02	0,017974493	0,035034	0,053008509	2916366
1977	DB1	113733401,1	56426573	2,02	0,01859541	0,025089	0,043684588	2464972
1978	DB1	116634659,1	57865975	2,02	0,019226986	0,031138	0,050365022	2914421
1979	DB1	119367960,9	59222048	2,02	0,019878009	0,03284	0,052718284	3122085
1980	DB1	122156888	60605719	2,02	0,020541068	0,030796	0,051337434	3111342
1981	DB1	124584287,8	61810026	2,02	0,021236801	0,040583	0,061819789	3821083
1982	DB1	126698166,4	62858785	2,02	0,021967332	0,036831	0,058798512	3696003
1983	DB1	128693608	63848784	2,02	0,022725059	0,046157	0,068881792	4398019
1984	DB1	131028692,5	65007289	2,02	0,023480538	0,053671	0,077151537	5015412
1985	DB1	133979086,7	66471069	2,02	0,024209215	0,046843	0,071052604	4722943
1986	DB1	137607179,6	68271075	2,02	0,024899677	0,060417	0,085316467	5824647
1987	DB1	142162980,2	70531346	2,02	0,025525829	0,055997	0,08152265	5749902
1988	DB1	145325475	72100355	2,02	0,026283007	0,048281	0,074563526	5376057
1989	DB1	148440587,5	73645856	2,02	0,02705906	0,043126	0,070185094	5168841
1990	DB1	150879420,7	74855835	2,02	0,027916508	0,061855	0,089771751	6719939
1991	DB2	60867592,03	30198250	2,02	0,072569028	0,069394	0,141963372	4287045
1992	DB2	62958972,66	31235847	2,02	0,023038099	0,02925	0,052287721	1633251
1993	DB2	66135767,18	32811950	2,02	0,015494918	0,026142	0,041636865	1366187
1994	DB AG	20035433,47	9940183	2,02	0,015614311	0,041635	0,057248948	569065
1995	DB AG	25567249,16	12684684	2,02	0,016079139	0,044681	0,06076046	770727
1996	DB AG	30727222,89	15244703	2,02	0,016510223	0,046004	0,062513847	953005
1997	DB AG	37560297,6	18634797	2,02	0,0168603	0,042913	0,059773327	1113864
1998	DB AG	41649923,27	20663784	2,02	0,017318912	0,033579	0,050897413	1051733
1999	DB AG	44553084,56	22104130	2,02	0,017829206	0,032817	0,05064589	1119483
1972	DSB1	9941669,661	1181184	8,42	0,015614311	0,005083	0,02069772	24448
1973	DSB1	10714606,41	1273018	8,42	0,016165546	0,003245	0,019410815	24710
1974	DSB1	11410115,42	1355652	8,42	0,016712129	0,009175	0,025887427	35094
1975	DSB1	12270930,66	1457927	8,42	0,017230411	-0,007437	0,009793826	14279
1976	DSB1	13370528,98	1588571	8,42	0,017703023	0,041772	0,059475207	94481
1977	DSB1	13916766,87	1653471	8,42	0,018277673	0,0352	0,053478163	88425
1978	DSB1	14861908,42	1765764	8,42	0,018765655	0,050561	0,069326997	122415
1979	DSB1	15927268,5	1892341	8,42	0,019225737	0,079181	0,098406433	186219
1980	DSB1	16638448,52	1976838	8,42	0,01978282	0,090551	0,11033354	218111
1981	DSB1	17229064,53	2047009	8,42	0,020381645	0,071395	0,091776206	187867
1982	DSB1	18055006,53	2145141	8,42	0,020912412	0,092765	0,113677407	243854
1983	DSB1	19172534,53	2277916	8,42	0,021352009	0,060803	0,082155453	187143
1984	DSB1	20097101,57	2387765	8,42	0,02186781	0,079321	0,101188478	241614
1985	DSB1	21106076,28	2507643	8,42	0,022361353	0,06388	0,086241328	216262
1986	DSB1	21981770,11	2611685	8,42	0,022913875	0,059491	0,082404411	215214
1987	DSB1	22958403,43	2727720	8,42	0,023435788	0,05929	0,082725888	225653
1988	DSB1	23699185,66	2815734	8,42	0,024063003	0,072359	0,096422416	271500
1989	DSB1	24202840,88	2875574	8,42	0,024804093	0,045238	0,070042407	201412
1990	DSB1	26245123,66	3118220	8,42	0,024879475	0,070864	0,095743051	298548
1991	DSB1	26996736,94	3207520	8,42	0,025542055	0,068162	0,093703734	300557
1992	DSB1	27730259,75	3294671	8,42	0,02622287	0,065718	0,091941215	302916
1993	DSB1	28592792,33	3397150	8,42	0,026852243	0,056925	0,083777382	284604
1994	DSB1	29791958,04	3539625	8,42	0,027327239	0,056899	0,084226213	298129
1995	DSB2	30991836,43	3682184	8,42	0,015614311	0,058253	0,073867025	271992
1996	DSB2	32154967,15	3820377	8,42	0,016182115	0,035557	0,051739055	197663
1992	EVR	660795	154923	4,265306	0,015614311	-0,865967	0,001	155
1993	EVR	1079579	253107	4,265306	0,01597671	-0,292743	0,001	253
1994	EVR	1462328	342842	4,265306	0,016329489	-0,119408	0,001	343
1995	EVR	1453975	340884	4,265306	0,016964061	-0,120673	0,001	341
1996	EVR	1447676	339407	4,265306	0,017628546	-0,083265	0,001	339
1997	EVR	1449238	339774	4,265306	0,018311224	0,080697	0,099008474	33640
1998	EVR	1548562	363060	4,265306	0,0187966	0,071743	0,090539393	32871
1999	EVR	1740705	408108	4,265306	0,019075554	0,046268	0,065343603	26667
1972	FS1	20173882326	13012801	1550	0,015614311	0,013344	0,028958299	376829
1973	FS1	21645154727	13961819	1550	0,016168046	-0,062721	0,001	13962
1974	FS1	22832574472	14727743	1550	0,016725275	-0,107528	0,001	14728
1975	FS1	24096369494	15542931	1550	0,017275084	-0,04564	0,001	15543
1976	FS1	25358698722	16357174	1550	0,017824029	-0,052068	0,001	16357
1977	FS1	26635629372	17180835	1550	0,018372386	-0,037978	0,001	17181
1978	FS1	28046336117	18090786	1550	0,018906534	-0,000658	0,018248472	330129
1979	FS1	29360754792	18938629	1550	0,019457059	-0,020008	0,001	18939
1980	FS1	30745278187	19831691	1550	0,020001696	-0,04804	0,001	19832
1981	FS1	32350387132	20867037	1550	0,020515299	0,014741	0,035256083	735690
1982	FS1	34423055966	22203975	1550	0,02095428	0,038465	0,059419566	1319351
1983	FS1	37445989158	24153864	1550	0,021240751	0,029576	0,050817202	1227432
1984	FS1	41938969559	27051981	1550	0,021323053	0,034591	0,055914062	1512586
1985	FS1	45213257911	29164002	1550	0,021645647	0,040913	0,062558583	1824459
1986	FS2	3326012370	2145385	1550	0,015614311	0,026123	0,041736891	89542
1987	FS2	9438059677	6087851	1550	0,015822378	0,034989	0,050811616	309334
1988	FS2	16201589176	10450545	1550	0,016084402	0,033885	0,049969315	522207
1989	FS2	21754597786	14032413	1550	0,016418837	0,042684	0,059103008	829358
1990	FS2	25926795313	16723615	1550	0,016813507	0,032837	0,049650201	830331
1991	FS2	37981794474	24499476	1550	0,016862233	0,056034	0,072895959	1785913
1992	FS2	70219039877	45293533	1550	0,016625125	0,08721	0,103834881	4703049
1993	FS2	76582559464	49398207	1550	0,017123729	0,073814	0,090937805	4492165
1994	FS2	86521580433	55809195	1550	0,017527661	0,070831	0,088359101	4931250
1995	FS2	88729736970	57233526	1550	0,018140424	0,071815	0,089955352	5148462
1996	FS SpA	90805393719	58572392	1550	0,018770416	0,041215	0,059985368	3513486
1997	FS SpA	92014356220	59352211	1550	0,019452603	0,044343	0,063795477	3786403
1998	FS SpA	93544179621	60338996	1550	0,020139218	0,022425	0,042564568	2568303

Year	Company	DATA SET _P Productive Stock at constant prices	Productive Stock at constant $US prices KQ_P	ppp1995	Rate Deprec.	interest rates	User costs PKQ1_P=(r+d)>,001	CW&S_P
1973	CP1	179346266	1506166	119	0,01609111	-0,039705	0,001	1506
1974	CP1	215520453	1809960	119	0,016520657	-0,113652	0,001	1810
1975	CP1	250516957	2103864	119	0,016935456	-0,097304	0,001	2104
1976	CP1	275362921	2312522	119	0,017405479	-0,065358	0,001	2313
1977	CP1	288930228	2426462	119	0,017960037	-0,155984	0,001	2426
1978	CP1	300654212	2524921	119	0,018535475	-0,061815	0,001	2525
1979	CP1	306124827	2570864	119	0,0191928	-0,027541	0,001	2571
1980	CP1	309344694	2597904	119	0,019901023	-0,042206	0,001	2598
1981	CP1	316066974	2654359	119	0,020572759	-0,009039	0,011533797	30615
1982	CP1	327287470	2748590	119	0,021174842	-0,038986	0,001	2749
1983	CP1	335989774	2821672	119	0,02183758	-0,053827	0,001	2822
1984	CP1	341215952	2865562	119	0,022592548	-0,031733	0,001	2866
1985	CP1	349081332	2931616	119	0,023301848	-0,009863	0,013439344	39399
1986	CP1	359220469	3016766	119	0,023965014	-0,049128	0,001	3017
1987	CP1	371289297	3118121	119	0,024585445	0,049265	0,073850551	230275
1988	CP1	386747452	3247940	119	0,025117552	0,027063	0,052180604	169479
1989	CP1	404150845	3394095	119	0,025603075	0,032164	0,05776752	196068
1990	CP1	421054652	3536055	119	0,026115323	0,057765	0,083880612	296606
1991	CP1	464010748	3896804	119	0,025904333	0,060792	0,086696671	337840
1992	CP1	501077780	4208096	119	0,0259506	0,053849	0,079799807	335805
1993	CP1	525794069	4415666	119	0,026348799	0,057444	0,083792793	370001
1994	CP1	541988115	4551665	119	0,026972791	0,045521	0,072493332	329965
1995	CP1	559615884	4699704	119	0,027566632	0,052127	0,079693513	374536
1996	CP1	613722602	5154097	119	0,027264043	0,039849	0,067113083	345907
1997	CP/REFER	495144188	4158265	119	0,015614311	0,024517	0,040131309	166877
1998	CP/REFER	592675334	4977341	119	0,016110144	0,000441	0,016551296	82381
1999	CP/REFER	640491722	5378907	119	0,016642374	0	0,016642374	89518
1972	DB1	13488774	6692188	2,02	0,015614311	0,024044	0,039657818	265398
1973	DB1	16848394	8358997	2,02	0,016089286	0,023049	0,039138711	327160
1974	DB1	20635299	10237795	2,02	0,016501769	0,034364	0,050865463	520750
1975	DB1	24097307	11955401	2,02	0,016912436	0,0256	0,04251276	508257
1976	DB1	27575156	13680867	2,02	0,017311761	0,035034	0,052345777	716136
1977	DB1	30925048	15342850	2,02	0,017716407	0,025089	0,042805585	656760
1978	DB1	34352006	17043067	2,02	0,018114545	0,031138	0,049252582	839415
1979	DB1	37628930	18668848	2,02	0,018527624	0,03284	0,051367898	958979
1980	DB1	40980334	20331581	2,02	0,018937818	0,030796	0,049734184	1011175
1981	DB1	43990062	21824797	2,02	0,019384622	0,040583	0,05996761	1308781
1982	DB1	46707190	23172847	2,02	0,019864685	0,036831	0,056695866	1313805
1983	DB1	49327952	24473086	2,02	0,020359811	0,046157	0,066516544	1627865
1984	DB1	52311661	25953394	2,02	0,020821001	0,053671	0,074492	1933320
1985	DB1	55935311	27751196	2,02	0,021218509	0,046843	0,068061898	1888799
1986	DB1	60262721	29898155	2,02	0,021550826	0,060417	0,081967616	2450680
1987	DB1	65545443	32519073	2,02	0,021800771	0,055997	0,077797592	2529906
1988	DB1	69464131	34463252	2,02	0,022223751	0,048281	0,07050427	2429806
1989	DB1	73366514	36399342	2,02	0,022660455	0,043126	0,065786489	2394585
1990	DB1	76625649	38016298	2,02	0,023180233	0,061855	0,085035475	3232734
1991	DB1	76009384	37710550	2,02	0,023838602	0,069394	0,093232945	3515866
1992	DB1	75369407	37393038	2,02	0,024505629	0,02925	0,053755252	2010072
1993	DB1	74704305	37063060	2,02	0,025107423	0,026142	0,05124937	1899459
1994	DB AG	20035433	9940183	2,02	0,015614311	0,041635	0,057248948	569065
1995	DB AG	25567249	12684684	2,02	0,016079139	0,044681	0,06076046	770727
1996	DB AG	30727223	15244703	2,02	0,016510223	0,046004	0,062513847	953005
1997	DB AG	37560298	18634797	2,02	0,0168603	0,042913	0,059773327	1113864
1998	DB AG	41649923	20663784	2,02	0,017318912	0,033579	0,050897413	1051733
1999	DB AG	44553085	22104130	2,02	0,017829206	0,032817	0,05064589	1119483
1972	DSB1	9941670	1181184	8,42	0,015614311	0,005083	0,02069772	24448
1973	DSB1	10714606	1273018	8,42	0,016165546	0,003245	0,019410815	24710
1974	DSB1	11410115	1355652	8,42	0,016712129	0,009175	0,025887427	35094
1975	DSB1	12270931	1457927	8,42	0,017230411	-0,007437	0,009793826	14279
1976	DSB1	13370529	1588571	8,42	0,017703023	0,041772	0,059475207	94481
1977	DSB1	13916767	1653471	8,42	0,018277673	0,0352	0,053478163	88425
1978	DSB1	14861908	1765764	8,42	0,018765655	0,050561	0,069326997	122415
1979	DSB1	15927269	1892341	8,42	0,019225737	0,079181	0,098406433	186219
1980	DSB1	16638449	1976838	8,42	0,01978282	0,090551	0,11033354	218111
1981	DSB1	17229065	2047009	8,42	0,020381645	0,071395	0,091776206	187867
1982	DSB1	18055007	2145141	8,42	0,020912412	0,092765	0,113677407	243854
1983	DSB1	19172535	2277916	8,42	0,021352009	0,060803	0,082155453	187143
1984	DSB1	20097102	2387765	8,42	0,02186781	0,079321	0,101188478	241614
1985	DSB1	21106076	2507643	8,42	0,022361353	0,06388	0,086241328	216262
1986	DSB1	21981770	2611685	8,42	0,022913875	0,059491	0,082404411	215214
1987	DSB1	22958403	2727720	8,42	0,023435788	0,05929	0,082725888	225653
1988	DSB1	23699186	2815734	8,42	0,024063003	0,072359	0,096422416	271500
1989	DSB1	24202841	2875574	8,42	0,024804093	0,045238	0,070042407	201412
1990	DSB1	26245124	3118220	8,42	0,024879475	0,070864	0,095743051	298548
1991	DSB1	26996737	3207520	8,42	0,025542055	0,068162	0,093703734	300557
1992	DSB1	27730260	3294671	8,42	0,02622287	0,065718	0,091941215	302916
1993	DSB1	28592792	3397150	8,42	0,026852243	0,056925	0,083777382	284604
1994	DSB1	29791958	3539625	8,42	0,027327239	0,056899	0,084226213	298129
1995	DSB2	30991836	3682184	8,42	0,015614311	0,058253	0,073867025	271992
1996	DSB2	32154967	3820377	8,42	0,016182115	0,035557	0,051739055	197663
1992	EVR	660795	154923	4,265306	0,015614311	-0,865967	0,001	155
1993	EVR	1079579	253107	4,265306	0,01597671	-0,292743	0,001	253
1994	EVR	1462328	342842	4,265306	0,016329489	-0,119408	0,001	343
1995	EVR	1453975	340884	4,265306	0,016964061	-0,120673	0,001	341
1996	EVR	1447676	339407	4,265306	0,017628546	-0,083265	0,001	339
1997	EVR	1449238	339774	4,265306	0,018311224	0,080697	0,099008474	33640
1998	EVR	1548562	363060	4,265306	0,0187966	0,071743	0,090539393	32871
1999	EVR	1740705	408108	4,265306	0,019075554	0,046268	0,065343603	26667
1972	FS1	20173882326	13012801	1550	0,015614311	0,013344	0,028958299	376829
1973	FS1	21645154727	13961819	1550	0,016168046	-0,062721	0,001	13962
1974	FS1	22832574472	14727743	1550	0,016725275	-0,107528	0,001	14728
1975	FS1	24096369494	15542931	1550	0,017275084	-0,04564	0,001	15543
1976	FS1	25358698722	16357174	1550	0,017824029	-0,052068	0,001	16357
1977	FS1	26635629372	17180835	1550	0,018372386	-0,037978	0,001	17181
1978	FS1	28046336117	18090786	1550	0,018906534	-0,000658	0,018248472	330129
1979	FS1	29360754792	18938629	1550	0,019457059	-0,020008	0,001	18939
1980	FS1	30745278187	19831691	1550	0,020001696	-0,04804	0,001	19832
1981	FS1	32350387132	20867037	1550	0,020515299	0,014741	0,035256083	735690
1982	FS1	34423055966	22203975	1550	0,02095428	0,038465	0,059419566	1319351
1983	FS1	37445989158	24153864	1550	0,021240751	0,029576	0,050817202	1227432
1984	FS1	41938969559	27051981	1550	0,021323053	0,034591	0,055914062	1512586
1985	FS1	45213257911	29164002	1550	0,021645647	0,040913	0,062558583	1824459
1986	FS2	3326012370	2145385	1550	0,015614311	0,026123	0,041736891	89542
1987	FS2	9438059677	6087851	1550	0,015822378	0,034989	0,050811616	309334
1988	FS2	16201589176	10450545	1550	0,016084402	0,033885	0,049969315	522207
1989	FS2	21754597786	14032413	1550	0,016418837	0,042684	0,059103008	829358
1990	FS2	25926795313	16723615	1550	0,016813507	0,032837	0,049650201	830331
1991	FS2	37981794474	24499476	1550	0,016862233	0,056034	0,072895959	1785913
1992	FS2	70219039877	45293533	1550	0,016625125	0,08721	0,103834881	4703049
1993	FS2	76582559464	49398207	1550	0,017123729	0,073814	0,090937805	4492165
1994	FS2	86521580433	55809195	1550	0,017527661	0,070831	0,088359101	4931250
1995	FS2	88729736970	57233526	1550	0,018140424	0,071815	0,089955352	5148462
1996	FS SpA	90805393719	58572392	1550	0,018770416	0,041215	0,059985368	3513486
1997	FS SpA	92014356220	59352211	1550	0,019452603	0,044343	0,063795477	3786403
1998	FS SpA	93544179621	60338996	1550	0,020139218	0,022425	0,042564568	2568303
1999	FS SpA	94897781648	61212113	1550	0,020855623	0,032489	0,053344651	3265339
1991	MAV	694642264	11471773	60,6	0,015614311	-0,004596	0,011018195	126398
1992	MAV	708707509	11704056	60,6	0,016196941	0,094979	0,111175932	1301209
1993	MAV	717803076	11854266	60,6	0,016802148	0,03419	0,050992424	604478
1994	MAV	723101993	11941776	60,6	0,017436432	0,066189	0,083624977	998631
1995	MAV	746533974	12328747	60,6	0,018031593	0,046362	0,06439324	793888
1996	MAV	755770325	12481282	60,6	0,018695502	0,050621	0,069316944	865164
1997	MAV	762563191	12593464	60,6	0,019393806	0,027835	0,047228391	594769
1998	MAV	767120368	12668724	60,6	0,020131341	0,058918	0,079048973	1001450
1999	MAV	784861609	12961714	60,6	0,020800623	0,067562	0,088363003	1145336
1972	NS1	4517891	2228416	2,03	0,015614311	-0,02486	0,001	2228
1973	NS1	4781382	2358381	2,03	0,016175767	-0,01089	0,005285702	12466
1974	NS1	4949593	2441350	2,03	0,016754614	0,006744	0,023498399	57368
1975	NS1	5141680	2536095	2,03	0,017331805	-0,014125	0,003206935	8133
1976	NS1	5426481	2676571	2,03	0,017873457	-5,99E-05	0,017813587	47679
1977	NS1	6438377	3175682	2,03	0,018084873	0,014417	0,032502241	103217
1978	NS1	6876919	3391989	2,03	0,018577433	0,024385	0,042962048	145727
1979	NS1	7315794	3608461	2,03	0,019070436	0,046579	0,065649895	236895
1980	NS1	7803243	3848892	2,03	0,019539578	0,046875	0,066414945	255624
1981	NS1	8214858	4051918	2,03	0,020057009	0,061834	0,081891447	331817
1982	NS1	8632842	4258085	2,03	0,020575642	0,047226	0,067801295	288704
1983	NS1	9464294	4668193	2,03	0,02083809	0,065262	0,086099606	401930
1984	NS1	9943964	4904787	2,03	0,021344842	0,069255	0,090599629	444372
1985	NS1	10743764	5299282	2,03	0,021652636	0,05587	0,077522232	410812
1986	NS1	10989245	5420363	2,03	0,022343568	0,061808	0,084151312	456131
1987	NS1	11386642	5616377	2,03	0,022936856	0,071256	0,09419333	529025
1988	NS1	11893248	5866256	2,03	0,023456208	0,052418	0,075874586	445100

A2.4.5.2.Way & Structure capital stock :Productive capital stock (KQ), Prices (PKQ1) and Costs

DATA SET_T

Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices KQ_T	ppp1995	Rate Deprec.	interest rates	User costs PKQ1_T=(r+d)>,001	User costs CW&S_T
1999	FS SpA	94897781648	61212113	1550	0,020855623	0,032489	0,053344651	3265339
1991	MAV1	305201954,8	5040303	60,6	0,015614311	-0,004596	0,011018195	55535
1992	MAV1	321315592,4	5306414	60,6	0,016178744	0,094979	0,111157735	589849
1993	MAV2	498943670	8239880	60,6	0,015614311	0,03419	0,049804587	410384
1994	MAV2	505671255,6	8350983	60,6	0,016200872	0,066189	0,082389417	688033
1995	MAV2	530580794,9	8762356	60,6	0,01676396	0,046362	0,063125607	553129
1996	MAV2	541346136,3	8940142	60,6	0,017373532	0,050621	0,067994975	607885
1997	MAV2	549722144,3	9078468	60,6	0,018008985	0,027835	0,045843569	416189
1998	MAV2	555919531,2	9180816	60,6	0,018675688	0,058918	0,07759332	712370
1999	MAV2	575361175,3	9501888	60,6	0,019272658	0,067562	0,086835038	825097
1972	NS1	4517890,747	2228416	2,03	0,015614311	-0,02486	0,001	2228
1973	NS1	4781382,249	2358381	2,03	0,016175767	-0,01089	0,005285702	12466
1974	NS1	4949593,252	2441350	2,03	0,016754614	0,006744	0,023498399	57368
1975	NS1	5141679,658	2536095	2,03	0,017331805	-0,014125	0,003206935	8133
1976	NS1	5426480,789	2676571	2,03	0,017873457	-5,99E-05	0,017813587	47679
1977	NS1	6438377,065	3175682	2,03	0,018084873	0,014417	0,032502241	103217
1978	NS1	6876918,784	3391989	2,03	0,018577433	0,024385	0,042962048	145727
1979	NS1	7315794,145	3608461	2,03	0,019070436	0,046579	0,065649895	236895
1980	NS1	7803243,112	3848892	2,03	0,019539578	0,046875	0,066414945	255624
1981	NS1	8214857,742	4051918	2,03	0,020057009	0,061834	0,081891447	331817
1982	NS1	8632842,074	4258085	2,03	0,020575642	0,047226	0,067801295	288704
1983	NS1	9464294,202	4668193	2,03	0,02083809	0,065262	0,086099606	401930
1984	NS1	9943964,278	4904787	2,03	0,021344842	0,069255	0,090599629	444372
1985	NS1	10743764,13	5299282	2,03	0,021652636	0,05587	0,077522232	410812
1986	NS1	10989244,58	5420363	2,03	0,022343568	0,061808	0,084151312	456131
1987	NS1	11386641,73	5616377	2,03	0,022936856	0,071256	0,09419333	529025
1988	NS1	11893247,56	5866256	2,03	0,023456208	0,052418	0,075874586	445100
1989	NS1	12351625,28	6092347	2,03	0,024022588	0,059959	0,083981357	511644
1990	NS1	12997998,46	6411166	2,03	0,02444737	0,066093	0,090539885	580466
1991	NS1	14164928,9	6986746	2,03	0,024490491	0,060342	0,084832142	592701
1992	NS1	14978611,76	7388089	2,03	0,024844389	0,058354	0,083198275	614676
1993	NS1	16281589,06	8030773	2,03	0,024879826	0,045707	0,070586654	566865
1994	NS1	17064316,88	8416848	2,03	0,025313601	0,048527	0,073840453	621504
1995	NS2	14773604,47	7286971	2,03	0,015614311	0,055669	0,07128328	519439
1996	NS2	16207706,78	7994331	2,03	0,016155741	0,053234	0,069389546	554723
1997	NS B.V./NS	15065892,16	7431139	2,03	0,015614311	0,038268	0,053882328	400407
1998	NS B.V./NS	15776624,27	7781703	2,03	0,016181805	0,029853	0,046035258	358233
1972	NSB1	15192822,51	1661471	9,14	0,015614311	0,012633	0,028247163	46932
1973	NSB1	15572846,94	1703030	9,14	0,016194204	-0,029912	0,001	1703
1974	NSB1	16267276,09	1778972	9,14	0,016762545	-0,031539	0,001	1779
1975	NSB1	16666321,06	1822611	9,14	0,017364578	-0,027475	0,001	1823
1976	NSB1	17569862,94	1921422	9,14	0,017908457	-0,002301	0,015607555	29989
1977	NSB1	18035429,98	1972335	9,14	0,018525583	-0,009304	0,009221123	18187
1978	NSB1	18615381,62	2035758	9,14	0,019131676	0,020321	0,039452761	80316
1979	NSB1	19167613,36	2096150	9,14	0,019753733	0,029651	0,04940443	103559
1980	NSB1	19620804,75	2145710	9,14	0,020412972	-0,028495	0,001	2146
1981	NSB1	19983876,22	2185415	9,14	0,021113868	-0,005502	0,015611901	34118
1982	NSB1	20442003,07	2235516	9,14	0,021800872	0,028152	0,049952808	111670
1983	NSB1	20731133,01	2267135	9,14	0,022566401	0,058691	0,081257701	184222
1984	NSB1	21565412,14	2358371	9,14	0,023132165	0,058132	0,081264558	191652
1985	NSB1	22067672,82	2413297	9,14	0,023847216	0,073672	0,097519507	235344
1986	NSB1	22678038,11	2480046	9,14	0,024527563	0,144196	0,168723775	418443
1987	NSB1	23330745,72	2551426	9,14	0,02519971	0,066284	0,091483322	233413
1988	NSB1	24157804,82	2641872	9,14	0,02579558	0,080093	0,105888656	279744
1989	NSB1	24638019,59	2694388	9,14	0,026583356	0,051234	0,077817034	209669
1990	NSB1	24552941,23	2685084	9,14	0,027717188	0,068523	0,096240134	258413
1991	NSB2	1425767,212	155920	9,14	0,015614311	0,07427	0,089884373	14015
1992	NSB2	1718986,369	187987	9,14	0,016106541	0,102184	0,118290104	22237
1993	NSB2	2131046,091	233049	9,14	0,016505335	0,043705	0,060210687	14032
1972	OBB	141102625	10274712	13,7	0,015614311	-0,002301	0,013313668	136794
1973	OBB	142396954	10368962	13,7	0,016203404	0,002012	0,018215418	188875
1974	OBB	146842307,3	10692661	13,7	0,016787066	0,002395	0,019181973	205106
1975	OBB	150627463,8	10968285	13,7	0,017387341	0,031537	0,048924109	536614
1976	OBB	154335686,9	11238308	13,7	0,018000753	0,031237	0,049237654	553348
1977	OBB	163604328,1	11913226	13,7	0,018519269	0,030574	0,049093083	584857
1978	OBB	168830083,6	12293751	13,7	0,019126034	0,022372	0,041498455	510172
1979	OBB	175204774,5	12757939	13,7	0,019713344	0,044824	0,064537438	823365
1980	OBB	181460166,8	13213440	13,7	0,020311632	0,04243	0,062742007	829038
1981	OBB	187514433,1	13654295	13,7	0,020924846	0,040454	0,061378628	838082
1982	OBB	193822812,3	14113654	13,7	0,021539242	0,045852	0,067390857	951131
1983	OBB	201009835,1	14636994	13,7	0,022131526	0,045175	0,067306591	985166
1984	OBB	207113260,6	15081429	13,7	0,022775033	0,033825	0,056599982	853609
1985	OBB	212844889,4	15498790	13,7	0,023445387	0,046874	0,070319763	1089871
1986	OBB	218117903,6	15882757	13,7	0,02414877	0,046249	0,070397321	1118104
1987	OBB	221681186,1	16142226	13,7	0,024949269	0,047982	0,072931176	1177272
1988	OBB	226606063,8	16500842	13,7	0,025697702	0,050939	0,076636748	1264571
1989	OBB	232005029,7	16893980	13,7	0,026434255	0,043991	0,070425071	1189760
1990	OBB	238351296,3	17356098	13,7	0,027128217	0,052954	0,080082609	1389922
1991	OBB	245822137,4	17900105	13,7	0,0277645	0,048698	0,076462653	1368689
1992	OBB	248446993,4	18091240	13,7	0,028718232	0,039411	0,068129464	1232546
1993	OBB	252632788,2	18396038	13,7	0,029587176	0,038584	0,068170868	1254074
1994	OBB	253135364,2	18432634	13,7	0,030745592	0,039269	0,070014992	1290561
1995	OBB	255386788,3	18596577	13,7	0,031799971	0,04341	0,075210315	1398654
1996	OBB	258754693,9	18841819	13,7	0,032779435	0,040156	0,072935482	1374237
1997	OBB	265454837,6	19329705	13,7	0,033469835	0,031817	0,065286625	1261971
1998	OBB	272879199,2	19870327	13,7	0,034093241	0,036696	0,070789266	1406606
1999	OBB	279235744,5	20333193	13,7	0,034810772	0,032073	0,066884169	1359969
1991	PKP	541573075184	47627568	1,14	0,015614311	-0,020415	0,001	47628
1992	PKP	537656054665	47283093	1,14	0,016213245	-0,001258	0,014954891	707113
1993	PKP	536620211862	47191998	1,14	0,016837178	0,097963	0,114800559	5417668
1994	PKP	535373293950	47082341	1,14	0,017491476	-0,02773	0,001	47082
1995	PKP	611686599314	53793563	1,14	0,017839197	0,037655	0,055494574	2985251
1996	PKP	611818572246	53805169	1,14	0,01853371	0,061681	0,080215004	4315982
1997	PKP	612600038540	53873893	1,14	0,019255761	0,095782	0,115038012	6197546
1998	PKP	609319353843	53585380	1,14	0,020041603	0,113249	0,133290723	7142434
1999	PKP	605017874129	53207095	1,14	0,02087888	0,095077	0,11595586	6169674
1972	RENFE1	960828136,6	7870660	122	0,015614311	0,014821	0,030435135	239545
1973	RENFE1	1119531891	9170688	122	0,016123802	-0,008496	0,007627823	69952
1974	RENFE1	1263708719	10351718	122	0,016610368	-0,039451	0,001	10352
1975	RENFE1	1385310497	11347823	122	0,017102347	-0,047818	0,001	11348
1976	RENFE1	1409660878	11547290	122	0,017725468	-0,044899	0,001	11547
1977	RENFE1	1504795247	12326587	122	0,018230025	-0,103531	0,001	12327
1978	RENFE1	1558649181	12767734	122	0,018821286	-0,06611	0,001	12768
1979	RENFE1	1637300224	13412007	122	0,019358754	-0,036241	0,001	13412
1980	RENFE1	1736958804	14228364	122	0,01984457	0,026052	0,0458963	653029
1981	RENFE1	1823343960	14935991	122	0,02037263	0,032321	0,052693736	787033
1982	RENFE1	1897704936	15545122	122	0,020943386	0,02057	0,041513492	645332
1986	RENFE2	1042339471	8538363	122	0,015614311	0,002895	0,018509212	158038
1987	RENFE2	1043212098	8545511	122	0,016208364	0,069678	0,085886566	733945
1988	RENFE2	1092471597	8949022	122	0,016773712	0,060893	0,077667183	695045
1989	RENFE2	1218079093	9977941	122	0,017228861	0,066107	0,083335989	831522
1990	RENFE2	1284960613	10525803	122	0,017772876	0,073669	0,091441897	962499
1991	RENFE2	1422038222	11648680	122	0,018177457	0,05327	0,071447903	832274
1992	RENFE2	1498949422	12278701	122	0,01871044	0,052979	0,071689328	880252
1993	RENFE2	1533258775	12559747	122	0,019353517	0,05819	0,077543337	973925
1994	RENFE2	1540272954	12617204	122	0,020095379	0,05708	0,077175156	973735
1995	RENFE2	1550993961	12705026	122	0,020853602	0,062231	0,083084992	1055597
1996	RENFE2	1572829459	12883892	122	0,021593265	0,047365	0,068958336	888452
1997	RENFE2	1599971128	13106224	122	0,022330029	0,037049	0,059378912	778233
1998	RENFE2	1609371952	13183231	122	0,023180094	0,022514	0,045694018	602395
1999	RENFE2	1638549446	13422240	122	0,023945427	0,011523	0,035468111	476061
1972	SJ	28468399,7	2926409	9,73	0,015614311	0,003175	0,018789117	54985
1973	SJ	29015025,13	2982599	9,73	0,016197546	0,003562	0,019759712	58935
1974	SJ	29641320,25	3046979	9,73	0,016792374	-0,016687	0,000105048	320
1975	SJ	30170678,11	3101395	9,73	0,01740703	-0,057228	0,001	3101
1976	SJ	30738059,31	3159719	9,73	0,018035152	-0,026387	0,001	3160
1977	SJ	31347024,8	3222317	9,73	0,018675432	-0,007894	0,010781366	34741
1978	SJ	32112711,38	3301026	9,73	0,019312562	0,00541	0,02472245	81609
1979	SJ	32949675,43	3387062	9,73	0,01995321	0,025268	0,045220761	153166
1980	SJ	33255431,59	3418492	9,73	0,020693934	0,000223	0,020916943	71504
1981	SJ	38598599,74	3967743	9,73	0,020628409	0,039388	0,060016577	238130
1982	SJ	40302554,24	4142901	9,73	0,0211781	0,047872	0,069050439	286069
1983	SJ	42504943,17	4369295	9,73	0,021655504	0,022345	0,044000774	192252
1984	SJ	44518300,64	4576259	9,73	0,022172728	0,046987	0,06916011	316495
1985	SJ	47466706,38	4879340	9,73	0,022541381	0,06464	0,087180977	425386
1986	SJ	50101695,5	5150204	9,73	0,022978918	0,034061	0,057039866	293767
1987	SJ	52387722,1	5385196	9,73	0,023488155	0,069161	0,092648676	498931
1988	SJ	54978838,66	5651549	9,73	0,023953434	0,04865	0,07260348	410322
1989	SJBV	28540986,94	2933871	9,73	0,015614311	0,031506	0,047120398	138245
1990	SJBV	35005572	3598398	9,73	0,016098102	0,042333	0,0584308	210257
1991	SJBV	34709320,81	3567944	9,73	0,016723986	0,030586	0,04730996	168799
1992	SJBV	36809886,91	3783872	9,73	0,017265499	0,089655	0,106920866	404575

DATA SET _P

Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices KQ_P	ppp1995	Rate Deprec.	interest rates	User costs PKQ1_P=(r+d)>,001	User costs CW&S_P
1989	NS1	12351625	6092347	2,03	0,024022588	0,059959	0,083981357	511644
1990	NS1	12997998	6411166	2,03	0,02444737	0,066093	0,090539885	580466
1991	NS1	14164929	6986746	2,03	0,024490491	0,060342	0,084832142	592701
1992	NS1	14978612	7388089	2,03	0,024844389	0,058354	0,083198275	614676
1993	NS1	16281589	8030773	2,03	0,024879826	0,045707	0,070586654	566865
1994	NS1	17064317	8416848	2,03	0,025313601	0,048527	0,073840453	621504
1995	NS2	14773604	7286971	2,03	0,015614311	0,055669	0,07128328	519439
1996	NS2	16207707	7994331	2,03	0,016155741	0,053234	0,069389546	554723
1997	NS B.V./NS N	15065892	7431139	2,03	0,015614311	0,038268	0,053882328	400407
1998	NS B.V./NS N	15776624	7781703	2,03	0,016181805	0,029853	0,046035258	358233
1972	NSB1	15192823	1661471	9,14	0,015614311	0,012633	0,028247163	46932
1973	NSB1	15572847	1703030	9,14	0,016194204	-0,029912	0,001	1703
1974	NSB1	16267276	1778972	9,14	0,016762545	-0,031539	0,001	1779
1975	NSB1	16666321	1822611	9,14	0,017364578	-0,027475	0,001	1823
1976	NSB1	17569863	1921422	9,14	0,017908457	-0,002301	0,015607555	29989
1977	NSB1	18035430	1972335	9,14	0,018525583	-0,009304	0,009221123	18187
1978	NSB1	18615382	2035758	9,14	0,019131676	0,020321	0,039452761	80316
1979	NSB1	19167613	2096150	9,14	0,019753733	0,029651	0,04940443	103559
1980	NSB1	19620805	2145710	9,14	0,020412972	-0,028495	0,001	2146
1981	NSB1	19983876	2185415	9,14	0,021113868	-0,005502	0,015611901	34118
1982	NSB1	20442003	2235516	9,14	0,021800872	0,028152	0,049952808	111670
1983	NSB1	20731133	2267135	9,14	0,022566401	0,058691	0,081257701	184222
1984	NSB1	21565412	2358371	9,14	0,023132165	0,058132	0,081264558	191652
1985	NSB1	22067673	2413297	9,14	0,023847216	0,073672	0,097519507	235344
1986	NSB1	22678038	2480046	9,14	0,024527563	0,144196	0,168723775	418443
1987	NSB1	23330746	2551426	9,14	0,02519971	0,066284	0,091483322	233413
1988	NSB1	24157805	2641872	9,14	0,02579558	0,080093	0,105888656	279744
1989	NSB1	24638020	2694388	9,14	0,026583356	0,051234	0,077817034	209669
1990	NSB1	24552941	2685084	9,14	0,027717188	0,068523	0,096240134	258413
1991	NSB2	1425767	155920	9,14	0,015614311	0,07427	0,089884373	14015
1992	NSB2	1718986	187987	9,14	0,016106541	0,102184	0,118290104	22237
1993	NSB2	2131046	233049	9,14	0,016505335	0,043705	0,060210687	14032
1972	OBB	141102625	10274712	13,7	0,015614311	-0,002301	0,013313668	136794
1973	OBB	142396954	10368962	13,7	0,016203404	0,002012	0,018215418	188875
1974	OBB	146842307	10692661	13,7	0,016787066	0,002395	0,019181973	205106
1975	OBB	150627464	10968285	13,7	0,017387341	0,031537	0,048924109	536614
1976	OBB	154335687	11238308	13,7	0,018000753	0,031237	0,049237654	553348
1977	OBB	163604328	11913226	13,7	0,018519269	0,030574	0,049093083	584857
1978	OBB	168830084	12293751	13,7	0,019126034	0,022372	0,041498455	510172
1979	OBB	175204775	12757939	13,7	0,019713344	0,044824	0,064537438	823365
1980	OBB	181460167	13213440	13,7	0,020311632	0,04243	0,062742007	829038
1981	OBB	187514433	13654295	13,7	0,020924846	0,040454	0,061378628	838082
1982	OBB	193822812	14113654	13,7	0,021539242	0,045852	0,067390857	951131
1983	OBB	201009835	14636994	13,7	0,022131526	0,045175	0,067306591	985166
1984	OBB	207113261	15081429	13,7	0,022775033	0,033825	0,056599982	853609
1985	OBB	212844889	15498790	13,7	0,023445387	0,046874	0,070319763	1089871
1986	OBB	218117904	15882757	13,7	0,02414877	0,046249	0,070397321	1118104
1987	OBB	221681186	16142226	13,7	0,024949269	0,047982	0,072931176	1177272
1988	OBB	226606064	16500842	13,7	0,025697702	0,050939	0,076636748	1264571
1989	OBB	232005030	16893980	13,7	0,026434255	0,043991	0,070425071	1189760
1990	OBB	238351296	17356098	13,7	0,027128217	0,052954	0,080082609	1389922
1991	OBB	245822137	17900105	13,7	0,0277645	0,048698	0,076462653	1368689
1992	OBB	248446993	18091240	13,7	0,028718232	0,039411	0,068129464	1232546
1993	OBB	252632788	18396038	13,7	0,029587176	0,038584	0,068170868	1254074
1994	OBB	253135364	18432634	13,7	0,030745592	0,039269	0,070014992	1290561
1995	OBB	255386788	18596577	13,7	0,031799971	0,04341	0,075210315	1398654
1996	OBB	258754694	18841819	13,7	0,032779435	0,040156	0,072935482	1374237
1997	OBB	265454838	19329705	13,7	0,033469835	0,031817	0,065286625	1261971
1998	OBB	272879199	19870327	13,7	0,034093241	0,036696	0,070789266	1406606
1999	OBB	279235745	20333193	13,7	0,034810772	0,032073	0,066884169	1359969
1991	PKP	541573075184	47627568	1,14	0,015614311	-0,020415	0,001	47628
1992	PKP	537656054665	47283093	1,14	0,016213245	-0,001258	0,014954891	707113
1993	PKP	536620211862	47191998	1,14	0,016837178	0,097963	0,114800559	5417668
1994	PKP	535373293950	47082341	1,14	0,017491476	-0,02773	0,001	47082
1995	PKP	611686599314	53793563	1,14	0,017839197	0,037655	0,055494574	2985251
1996	PKP	611818572246	53805169	1,14	0,01853371	0,061681	0,080215004	4315982
1997	PKP	612600038540	53873893	1,14	0,019255761	0,095782	0,115038012	6197546
1998	PKP	609319353843	53585380	1,14	0,020041603	0,113249	0,133290723	7142434
1999	PKP	605017874129	53207095	1,14	0,02087888	0,095077	0,11595586	6169674
1972	RENFE	960828137	7870660	122	0,015614311	0,014821	0,030435135	239545
1973	RENFE	1119531891	9170688	122	0,016123802	-0,008496	0,007627823	69952
1974	RENFE	1263708719	10351718	122	0,016610368	-0,039451	0,001	10352
1975	RENFE	1385310497	11347823	122	0,017102347	-0,047818	0,001	11348
1976	RENFE	1409660878	11547290	122	0,017725468	-0,044899	0,001	11547
1977	RENFE	1504795247	12326587	122	0,018230025	-0,103531	0,001	12327
1978	RENFE	1558649181	12767734	122	0,018821286	-0,06611	0,001	12768
1979	RENFE	1637300224	13412007	122	0,019358754	-0,036241	0,001	13412
1980	RENFE	1727457071	14150530	122	0,019869635	0,026052	0,045921365	649812
1981	RENFE	1822332346	14927704	122	0,02037188	0,032321	0,052692985	786585
1982	RENFE	1896700476	15536894	122	0,02094248	0,02057	0,041512586	644977
1983	RENFE	2082964717	17062684	122	0,021171451	0,050775	0,071946933	1227608
1984	RENFE	2239987600	18348943	122	0,021519341	0,049005	0,070523963	1294040
1985	RENFE	2318498861	18992071	122	0,022122536	0,056824	0,078946464	1499357
1986	RENFE	2452995871	20093808	122	0,022552113	0,002895	0,025447014	511327
1987	RENFE	2440406372	19990681	122	0,023502233	0,069678	0,093180435	1862740
1988	RENFE	2475664957	20279503	122	0,024303434	0,060893	0,085196906	1727751
1989	RENFE	2586699902	21189050	122	0,024801291	0,066107	0,090908419	1926263
1990	RENFE	2638401668	21612567	122	0,025567309	0,073669	0,099236331	2144752
1991	RENFE	2759653749	22605808	122	0,026027478	0,05327	0,079297925	1792594
1992	RENFE	2820051755	23100561	122	0,026782425	0,052979	0,079761313	1842531
1993	RENFE	2837114658	23240332	122	0,027772389	0,05819	0,085962209	1997790
1994	RENFE	2826099437	23150100	122	0,028956496	0,05708	0,086036272	1991748
1995	RENFE	2817953821	23083375	122	0,030177386	0,062231	0,092408777	2133106
1996	RENFE	2820026080	23100350	122	0,031378214	0,047365	0,078743285	1818997
1997	RENFE	2826442767	23152913	122	0,032587672	0,037049	0,069636555	1612289
1998	RENFE	2814085298	23051686	122	0,033995829	0,022514	0,056509753	1302645
1999	RENFE	2820392357	23103351	122	0,035284673	0,011523	0,046807358	1081407
1972	SJ	28468400	2926409	9,73	0,015614311	0,003175	0,018789117	54985
1973	SJ	29015025	2982599	9,73	0,016197546	0,003562	0,019759712	58935
1974	SJ	29641320	3046979	9,73	0,016792374	-0,016687	0,000105048	320
1975	SJ	30170678	3101395	9,73	0,01740703	-0,057228	0,001	3101
1976	SJ	30738059	3159719	9,73	0,018035152	-0,026387	0,001	3160
1977	SJ	31347025	3222317	9,73	0,018675432	-0,007894	0,010781366	34741
1978	SJ	32112711	3301026	9,73	0,019312562	0,00541	0,02472245	81609
1979	SJ	32949675	3387062	9,73	0,01995321	0,025268	0,045220761	153166
1980	SJ	33255432	3418492	9,73	0,020693934	0,000223	0,020916943	71504
1981	SJ	38598600	3967743	9,73	0,020628409	0,039388	0,060016577	238130
1982	SJ	40302554	4142901	9,73	0,0211781	0,047872	0,069050439	286069
1983	SJ	42504943	4369295	9,73	0,021655504	0,022345	0,044000774	192252
1984	SJ	44518301	4576259	9,73	0,022172728	0,046987	0,06916011	316495
1985	SJ	47466706	4879340	9,73	0,022541381	0,06464	0,087180977	425386
1986	SJ	50101696	5150204	9,73	0,022978918	0,034061	0,057039866	293767
1987	SJ	52387722	5385196	9,73	0,023488155	0,069161	0,092648676	498931
1988	SJ	54978839	5651549	9,73	0,023953434	0,04865	0,07260348	410322
1989	SJBV	28540987	2933871	9,73	0,015614311	0,031506	0,047120398	138245
1990	SJBV	35005572	3598398	9,73	0,016098102	0,042333	0,0584308	210257
1991	SJBV	34709321	3567944	9,73	0,016723986	0,030586	0,04730996	168799
1992	SJBV	36809887	3783872	9,73	0,017265499	0,089655	0,106920866	404575
1993	SJBV	37499367	3854747	9,73	0,017890254	0,059496	0,077386423	298305
1994	SJBV	38830676	3991599	9,73	0,018480675	0,070349	0,088829524	354572
1995	SJBV	39600675	4070751	9,73	0,019131022	0,063457	0,082587586	336194
1996	SJBV	82163394	8445986	9,73	0,017593411	0,048778	0,066371854	560576
1997	SJBV	84843292	8721466	9,73	0,018187505	0,047126	0,06531304	569625
1998	SJBV	87995179	9045464	9,73	0,018772207	0,0362	0,054972296	497250
1999	SJBV	90899397	9344003	9,73	0,019374842	0,039742	0,05911651	552385
1972	SNCB	73315614	1995379	36,7	0,015614311	0,006005	0,021619765	43140
1973	SNCB	84537533	2300798	36,7	0,016129203	0,003012	0,019140873	44039
1974	SNCB	95466044	2598232	36,7	0,016614903	-0,039602	0,001	2598
1975	SNCB	104847856	2853570	36,7	0,017103792	-0,037296	0,001	2854
1976	SNCB	114772298	3123676	36,7	0,017572898	0,014097	0,031669812	98926
1977	SNCB	172924387	4706360	36,7	0,017339714	0,012039	0,02937879	138267
1978	SNCB	190427020	5182717	36,7	0,017782467	0,03957	0,057352236	297240
1979	SNCB	210423930	5726959	36,7	0,01818974	0,048346	0,06653582	381048
1980	SNCB	232597373	6330438	36,7	0,018569832	0,078572	0,097141882	614951
1981	SNCB	256637080	6984709	36,7	0,018931238	0,081717	0,100648658	703002
1982	SNCB	307964238	8381644	36,7	0,018956733	0,06677	0,085727123	718534
1983	SNCB	325978488	8871925	36,7	0,019458725	0,060229	0,079687931	706985
1984	SNCB	336599012	9160977	36,7	0,020067609	0,068625	0,088692162	812507
1985	SNCB/NMBS	348743113	9491494	36,7	0,020661796	0,045562	0,066223384	628559
1986	SNCB/NMBS	359078390	9772782	36,7	0,021295828	0,043395	0,064691156	632213
1987	SNCB/NMBS	367235907	9994799	36,7	0,021982784	0,056988	0,078970932	789299
1988	SNCB/NMBS	372150632	10128560	36,7	0,022754206	0,05733	0,080084678	811142

A2.4.5.2.Way & Structure capital stock :Productive capital stock (KQ), Prices (PKQ1) and Costs

		DATA SET_T						
Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices KQ_T	ppp1995	Rate Deprec.	interest rates	User costs PKQ1_T=(r+d)>,001	CW&S_T
1993	SJBV	37499366,7	3854747	9,73	0,017890254	0,059496	0,077386423	298305
1994	SJBV	38830676,33	3991599	9,73	0,018480675	0,070349	0,088829524	354572
1995	SJBV	39600674,94	4070751	9,73	0,019131022	0,063457	0,082587586	336194
1996	SJBV	82163394,2	8445986	9,73	0,017593411	0,048778	0,066371854	560576
1997	SJBV	84843292	8721466	9,73	0,018187505	0,047126	0,06531304	569625
1998	SJBV	87995178,97	9045464	9,73	0,018772207	0,0362	0,054972296	497250
1999	SJBV	90899397,22	9344003	9,73	0,019374842	0,039742	0,05911651	552385
1972	SNCB	73315614,4	1995379	36,7	0,015614311	0,006005	0,021619765	43140
1973	SNCB	84537533,21	2300798	36,7	0,016129203	0,003012	0,019140873	44039
1974	SNCB	95466044,24	2598232	36,7	0,016614903	-0,039602	0,001	2598
1975	SNCB	104847856,2	2853570	36,7	0,017103792	-0,037296	0,001	2854
1976	SNCB	114772298,2	3123676	36,7	0,017572898	0,014097	0,031669812	98926
1977	SNCB	172924387,1	4706360	36,7	0,017339714	0,012039	0,02937879	138267
1978	SNCB	190427019,7	5182717	36,7	0,017782467	0,03957	0,057352236	297240
1979	SNCB	210423930,2	5726959	36,7	0,01818974	0,048346	0,06653582	381048
1980	SNCB	232597373,5	6330438	36,7	0,018569832	0,078572	0,097141882	614951
1981	SNCB	256637079,8	6984709	36,7	0,018931238	0,081717	0,100648658	703002
1982	SNCB	307964238,4	8381644	36,7	0,018956733	0,06677	0,085727123	718534
1983	SNCB	325978488,2	8871925	36,7	0,019458725	0,060229	0,079687931	706985
1984	SNCB	336599012,2	9160977	36,7	0,020067609	0,068625	0,088692162	812507
1985	SNCB/NMI	348743113,1	9491494	36,7	0,020661796	0,045562	0,066223384	628559
1986	SNCB/NMI	359078389,8	9772782	36,7	0,021295828	0,043395	0,064691156	632213
1987	SNCB/NMI	367235907,2	9994799	36,7	0,021982784	0,056988	0,078970932	789299
1988	SNCB/NMI	372150632,2	10128560	36,7	0,022754206	0,05733	0,080084678	811142
1989	SNCB/NMI	374766524,5	10199755	36,7	0,023603965	0,040111	0,063715317	649881
1990	SNCB/NMI	379548371,9	10329899	36,7	0,024425517	0,069419	0,093844439	969404
1991	SNCB/NMI	382781144	10417883	36,7	0,025316608	0,060621	0,085937461	895286
1992	SNCB/NMI	388570348,6	10575444	36,7	0,026153698	0,050133	0,076286303	806761
1993	SNCB/NMI	403621373	10985077	36,7	0,026697348	0,03026	0,056957111	625678
1994	SNCB/NMI	416303776	11330245	36,7	0,027331207	0,055397	0,082728172	937330
1995	SNCB/NMI	425685967,9	11585593	36,7	0,028091299	0,057819	0,08591006	995319
1996	SNCB/NMI	445753746,2	12131763	36,7	0,028471178	0,052931	0,081402168	987552
1997	SNCB/NMI	464797162,5	12650055	36,7	0,02890333	0,04398	0,072883786	921984
1998	SNCB/NMI	484269655,4	13180024	36,7	0,029331962	0,031356	0,060687713	799865
1999	SNCB/NMI	501052505,3	13636791	36,7	0,029866667	0,038927	0,068793489	938122
1972	SNCF1	62831778,22	9725980	6,46	0,015614311	0,003656	0,019270559	187425
1973	SNCF1	66528563,18	10298220	6,46	0,016175492	-0,001925	0,014250283	146753
1974	SNCF1	71756283,55	11107440	6,46	0,016707554	-0,013674	0,003033367	33693
1975	SNCF1	77468602,5	11991672	6,46	0,017219582	-0,034039	0,001	11992
1976	SNCF1	83353392,47	12902602	6,46	0,017720063	-0,018102	0,001	12903
1977	SNCF1	89556280,01	13862772	6,46	0,018207065	0,006052	0,024258922	336296
1978	SNCF2	176989497,2	27396907	6,46	0,015614311	-0,006168	0,009446769	258812
1979	SNCF2	183828104,6	28455482	6,46	0,016186518	-0,002009	0,014177972	403441
1980	SNCF2	191600042,6	29658531	6,46	0,016757452	0,018906	0,035663495	1057727
1981	SNCF2	200378982,9	31017458	6,46	0,017322763	0,047569	0,064892208	2012791
1982	SNCF2	208000899,8	32197285	6,46	0,017903712	0,041823	0,059726432	1923029
1983	SNCF2	226523555,9	35064480	6,46	0,018345551	0,046208	0,064553465	2263534
1984	SNCF2	231968709,9	35907357	6,46	0,018977851	0,055255	0,07423307	2665513
1985	SNCF2	237763270,2	36804320	6,46	0,019617534	0,055135	0,074752874	2751229
1986	SNCF2	245872628,8	38059600	6,46	0,020223138	0,03339	0,053612692	2040478
1987	SNCF2	254037126,1	39323415	6,46	0,020836726	0,065632	0,086468731	3400246
1988	SNCF2	263633058,2	40808807	6,46	0,021425052	0,060511	0,08193581	3343703
1989	SNCF2	277148481,8	42900914	6,46	0,021921054	0,056695	0,078616488	3372719
1990	SNCF2	291753797,2	45161728	6,46	0,022397224	0,070372	0,092769465	4189629
1991	SNCF2	310133121,3	48006737	6,46	0,022783427	0,060957	0,083740185	4020093
1992	SNCF2	326999370,5	50617530	6,46	0,023225391	0,066054	0,089279249	4519095
1993	SNCF2	338275281,7	52362974	6,46	0,023832835	0,045886	0,06971914	3650702
1994	SNCF2	345757185,2	53521127	6,46	0,024562602	0,056714	0,08127617	4349992
1995	SNCF2	355049898,5	54959583	6,46	0,025248994	0,059183	0,084432325	4640365
1996	SNCF2	368029857,9	56968803	6,46	0,025824256	0,049377	0,075201047	4284114
1997	SNCF/RFF	200222731,4	30993271	6,46	0,015614311	0,043395	0,059008935	1828880
1998	SNCF/RFF	210893174	32644991	6,46	0,016178475	0,038078	0,054256957	1771218
1999	SNCF/RFF	221054647,6	34217926	6,46	0,016742875	0,043138	0,059881199	2049010
1992	SZ	374695810	4338910	86,35714	0,015614311	-0,041756	0,001	4339
1993	SZ	421259248	4878106	86,35714	0,016142517	0,083649	0,099791065	486791
1994	SZ	476351614	5516065	86,35714	0,016625795	0,132491	0,149117202	822540
1995	SZ	510819335	5915195	86,35714	0,017151362	0,07117	0,088321816	522441
1996	SZ	519799214	6019181	86,35714	0,017775774	0,103094	0,120869875	727538
1997	SZ	544821794	6308938	86,35714	0,018330621	0,103488	0,121818599	768546
1998	SZ	566605056	6561184	86,35714	0,018908355	0,076652	0,095560854	626992
1999	SZ	588771905	6817872	86,35714	0,019489635	0,054477	0,073966644	504295
1972	TCDD	48615397788	2176723	22334	0,015614311	-0,000369	0,015245134	33184
1973	TCDD	49222345021	2203899	22334	0,016201457	-0,115961	0,001	2204
1974	TCDD	51500353539	2305895	22334	0,016767887	-0,184695	0,001	2306
1975	TCDD	53410959178	2391442	22334	0,017348073	-0,094959	0,001	2391
1976	TCDD	56158108478	2514443	22334	0,017898417	-0,035837	0,001	2514
1977	TCDD	58694115027	2627992	22334	0,018460902	-0,126892	0,001	2628
1978	TCDD	65980270425	2954225	22334	0,018767697	-0,346918	0,001	2954
1979	TCDD	69417087430	3108106	22334	0,01929936	-0,630956	0,001	3108
1980	TCDD	72008693633	3224143	22334	0,019888215	-0,570448	0,001	3224
1981	TCDD	74603756910	3340336	22334	0,020484655	-0,108958	0,001	3340
1982	TCDD	78685092355	3523075	22334	0,020976215	0,053092	0,074068485	260949
1983	TCDD	1,03916E+11	4652781	22334	0,020183414	0,242697	0,262880672	1223126
1984	TCDD	1,15393E+11	5166664	22334	0,020400709	0,051506	0,071906904	371519
1985	TCDD	1,27467E+11	5707258	22334	0,02062899	0,018247	0,038875717	221874
1986	TCDD	1,35299E+11	6057921	22334	0,021073484	0,146197	0,167270688	1013313
1987	TCDD	1,44003E+11	6447630	22334	0,021487156	0,134061	0,155548626	1002920
1988	TCDD	1,69816E+11	7603387	22334	0,021213352	-0,133475	0,001	7603
1989	TCDD	1,96853E+11	8813956	22334	0,021079083	-0,196543	0,001	8814
1990	TCDD	2,12715E+11	9524200	22334	0,021389809	-0,112144	0,001	9524
1991	TCDD	2,32993E+11	10432109	22334	0,021593242	-0,087733	0,001	10432
1992	TCDD	2,52943E+11	11325348	22334	0,021842999	-0,140311	0,001	11325
1993	TCDD	2,7449E+11	12290134	22334	0,022079832	-0,173383	0,001	12290
1994	TCDD	3,06672E+11	13731033	22334	0,022087016	-0,501147	0,001	13731
1995	TCDD	3,31616E+11	14847873	22334	0,02233256	-0,349945	0,001	14848
1996	TCDD	3,49987E+11	15670448	22334	0,022755575	-0,262623	0,001	15670
1997	TCDD	3,70308E+11	16580312	22334	0,02314396	-0,125362	0,001	16580
1998	TCDD	3,91614E+11	17534247	22334	0,023522688	-0,066792	0,001	17534
1999	TCDD	4,06066E+11	18181334	22334	0,024076695	0,058045	0,082122121	1493090
1972	VR	3015953,989	514536	5,86	0,015614311	-0,006296	0,009318735	4795
1973	VR	4006040,423	683450	5,86	0,01606073	-0,048278	0,001	683
1974	VR	5145366,144	877824	5,86	0,01643689	-0,132318	0,001	878
1975	VR	6710538,159	1144850	5,86	0,016722434	-0,040117	0,001	1145
1976	VR	8309772,797	1417687	5,86	0,017020882	-0,040045	0,001	1418
1977	VR	9693465,85	1653752	5,86	0,017374508	-0,007996	0,009378318	15509
1978	VR	10897722,61	1859204	5,86	0,017768656	0,005079	0,022847617	42478
1979	VR	12198217,52	2081074	5,86	0,018142715	-0,008084	0,010058659	20933
1980	VR	13239595	2258738	5,86	0,018582599	0,000285	0,018867739	42617
1981	VR	14242204,14	2429788	5,86	0,019034249	-0,010025	0,009008833	21890
1982	VR	15157211,1	2585893	5,86	0,019513154	0,003038	0,022551153	58315
1983	VR	15892191,19	2711284	5,86	0,020049737	0,010683	0,030732926	83326
1984	VR	16545164,39	2822684	5,86	0,02061867	0,018748	0,039366417	111119
1985	VR	17152110,19	2926232	5,86	0,021211318	0,046601	0,067811951	198434
1986	VR	17774436,32	3032404	5,86	0,021806631	0,045941	0,067747268	205437
1987	VR	18428200,16	3143939	5,86	0,022397896	0,044796	0,067194196	211254
1988	VR	19079045,39	3254977	5,86	0,022999501	0,014753	0,037752338	122883
1989	VR	19748454,82	3369181	5,86	0,02360198	0,039445	0,063046849	212416
1991	VR2	13746671,59	2345248	5,86	0,015614311	0,097779	0,113392879	265934
1992	VR2	14679414,47	2504378	5,86	0,016170706	0,111793	0,127963728	320470
1993	VR2	15620739,41	2664973	5,86	0,016718012	0,074042	0,090760442	241874
1994	VR2	16894094,69	2882214	5,86	0,017227409	0,05802	0,07524731	216879
1996	VR/RHK	15509669,67	2646024	5,86	0,015614311	0,063989	0,079603578	210633
1997	VR/RHK	16665627,45	2843236	5,86	0,016167212	0,031716	0,047883688	136145
1998	VR/RHK	18023756,32	3074939	5,86	0,016696573	0,021734	0,038430689	118172
1999	VR/RHK	19323228,71	3296635	5,86	0,0172211	0,040296	0,057517388	189614
1993	ZSR	36028620	3028480	11,90	0,015614311	-0,062699	0,001	3028
1994	ZSR	37312134	3136369	11,90	0,016188201	0,007063	0,023251263	72925
1995	ZSR	39801073	3345583	11,90	0,016732388	0,06476	0,08149272	272641
1996	ZSR	49604657	4169649	11,90	0,017020032	0,08996	0,106979921	446069
1997	ZSR	51634686	4340289	11,90	0,017593837	0,113182	0,130775648	567604
1998	ZSR	53236828	4474961	11,90	0,018193855	0,152668	0,170862198	764602
1999	ZSR	54180017	4554243	11,90	0,018844495	0,136009	0,154853291	705240

		DATA SET _P						
Year	Company	Productive Stock at constant prices	Productive Stock at constant $US prices KQ_P	ppp1995	Rate Deprec.	interest rates	User costs PKQ1_P=(r+d)>,001	CW&S_P
1989	SNCB/NMBS	374766524	10199755	36,7	0,023603965	0,040111	0,063715317	649881
1990	SNCB/NMBS	379548372	10329899	36,7	0,024425517	0,069419	0,093844439	969404
1991	SNCB/NMBS	382781144	10417883	36,7	0,025316608	0,060621	0,085937461	895286
1992	SNCB/NMBS	388570349	10575444	36,7	0,026153698	0,050133	0,076286303	806761
1993	SNCB/NMBS	403621373	10985077	36,7	0,026697348	0,03026	0,056957111	625678
1994	SNCB/NMBS	416303776	11330245	36,7	0,027331207	0,055397	0,082728172	937330
1995	SNCB/NMBS	425685968	11585593	36,7	0,028091299	0,057819	0,08591006	995319
1996	SNCB/NMBS	445753746	12131763	36,7	0,028471178	0,052931	0,081402168	987552
1997	SNCB/NMBS	464797162	12650055	36,7	0,02890333	0,04398	0,072883786	921984
1998	SNCB/NMBS	484269655	13180024	36,7	0,029331962	0,031356	0,060687713	799865
1999	SNCB/NMBS	501052505	13636791	36,7	0,029866667	0,038927	0,068793489	938122
1972	SNCF	270595121	41886493	6,46	0,015614311	0,003656	0,019270559	807176
1973	SNCF	273199105	42289574	6,46	0,016203139	-0,001925	0,01427793	603808
1974	SNCF	277299695	42924320	6,46	0,016805926	-0,013674	0,003131739	134428
1975	SNCF	281848912	43628512	6,46	0,017423606	-0,034039	0,001	43629
1976	SNCF	286532878	44353561	6,46	0,01805762	-0,018102	0,001	44354
1977	SNCF	291495353	45121723	6,46	0,018706416	0,006052	0,024758273	1117136
1978	SNCF	296980740	45970828	6,46	0,019366047	-0,006168	0,013198505	606746
1979	SNCF	302819832	46874684	6,46	0,020037372	-0,002009	0,018028826	845096
1980	SNCF	309554966	47917242	6,46	0,020709572	0,018906	0,039615615	1898271
1981	SNCF	317257713	49109581	6,46	0,021377838	0,047569	0,068947282	3385972
1982	SNCF	323761787	50116372	6,46	0,022086826	0,041823	0,063909546	3202915
1983	SNCF	341122516	52803708	6,46	0,022554951	0,046208	0,068762865	3630934
1984	SNCF	345359030	53459495	6,46	0,02335528	0,055255	0,0786105	4202478
1985	SNCF	349895401	54161698	6,46	0,024171673	0,055135	0,079307013	4295402
1986	SNCF	356693951	55214073	6,46	0,024942362	0,03339	0,058331916	3220743
1987	SNCF	363491695	56266322	6,46	0,025730667	0,065632	0,091362672	5140642
1988	SNCF	371661318	57530931	6,46	0,026488283	0,060511	0,086999041	5005136
1989	SNCF	383686956	59392427	6,46	0,027118787	0,056695	0,08381422	4977930
1990	SNCF	396734736	61412145	6,46	0,027720929	0,070372	0,098093169	6024112
1991	SNCF	413484118	64004848	6,46	0,028192605	0,060957	0,089149363	5705991
1992	SNCF	428642928	66351340	6,46	0,028736328	0,066054	0,094790186	6289456
1993	SNCF	438128329	67819623	6,46	0,029510211	0,045886	0,075396517	5113363
1994	SNCF	443730538	68686811	6,46	0,030455929	0,056714	0,087169497	5987395
1995	SNCF	451047652	69819456	6,46	0,031341498	0,059183	0,090524829	6320394
1996	SNCF	461948701	71506873	6,46	0,032069615	0,049377	0,081446406	5823978
1997	SNCF/RFF	200222731	30993271	6,46	0,015614311	0,043395	0,059008935	1828880
1998	SNCF/RFF	210893174	32644991	6,46	0,016178475	0,038078	0,054256957	1771218
1999	SNCF/RFF	221054648	34217926	6,46	0,016742875	0,043138	0,059881199	2049010
1992	SZ	374695810	4338910	86,35714	0,015614311	-0,041756	0,001	4339
1993	SZ	421259248	4878106	86,35714	0,016142517	0,083649	0,099791065	486791
1994	SZ	476351614	5516065	86,35714	0,016625795	0,132491	0,149117202	822540
1995	SZ	510819335	5915195	86,35714	0,017151362	0,07117	0,088321816	522441
1996	SZ	519799214	6019181	86,35714	0,017775774	0,103094	0,120869875	727538
1997	SZ	544821794	6308938	86,35714	0,018330621	0,103488	0,121818599	768546
1998	SZ	566605056	6561184	86,35714	0,018908355	0,076652	0,095560854	626992
1999	SZ	588771905	6817872	86,35714	0,019489635	0,054477	0,073966644	504295
1972	TCDD	48615397788	2176723	22334	0,015614311	-0,000369	0,015245134	33184
1973	TCDD	49222345021	2203899	22334	0,016201457	-0,115961	0,001	2204
1974	TCDD	51500353539	2305895	22334	0,016767887	-0,184695	0,001	2306
1975	TCDD	53410959178	2391442	22334	0,017348073	-0,094959	0,001	2391
1976	TCDD	56158108478	2514443	22334	0,017898417	-0,035837	0,001	2514
1977	TCDD	58694115027	2627992	22334	0,018460902	-0,126892	0,001	2628
1978	TCDD	65980270425	2954225	22334	0,018767697	-0,346918	0,001	2954
1979	TCDD	69417087430	3108106	22334	0,01929936	-0,630956	0,001	3108
1980	TCDD	72008693633	3224143	22334	0,019888215	-0,570448	0,001	3224
1981	TCDD	74603756910	3340336	22334	0,020484655	-0,108958	0,001	3340
1982	TCDD	78685092355	3523075	22334	0,020976215	0,053092	0,074068485	260949
1983	TCDD	103916198814	4652781	22334	0,020183414	0,242697	0,262880672	1223126
1984	TCDD	115393362212	5166664	22334	0,020400709	0,051506	0,071906904	371519
1985	TCDD	127467088709	5707258	22334	0,02062899	0,018247	0,038875717	221874
1986	TCDD	135298887423	6057921	22334	0,021073484	0,146197	0,167270688	1013313
1987	TCDD	144002711976	6447630	22334	0,021487156	0,134061	0,155548626	1002920
1988	TCDD	169815649149	7603387	22334	0,021213352	-0,133475	0,001	7603
1989	TCDD	196852742701	8813956	22334	0,021079083	-0,196543	0,001	8814
1990	TCDD	212715472950	9524200	22334	0,021389809	-0,112144	0,001	9524
1991	TCDD	232992907410	10432109	22334	0,021593242	-0,087733	0,001	10432
1992	TCDD	252942704139	11325348	22334	0,021842999	-0,140311	0,001	11325
1993	TCDD	274490430587	12290134	22334	0,022079832	-0,173383	0,001	12290
1994	TCDD	306671771222	13731033	22334	0,022087016	-0,501147	0,001	13731
1995	TCDD	331615524156	14847873	22334	0,02233256	-0,349945	0,001	14848
1996	TCDD	349987077980	15670448	22334	0,022755575	-0,262623	0,001	15670
1997	TCDD	370308172166	16580312	22334	0,02314396	-0,125362	0,001	16580
1998	TCDD	391613555954	17534247	22334	0,023522688	-0,066792	0,001	17534
1999	TCDD	406065731122	18181334	22334	0,024076695	0,058045	0,082122121	1493090
1972	VR	3015954	514536	5,86	0,015614311	-0,006296	0,009318735	4795
1973	VR	3817535	651290	5,86	0,016082962	-0,048278	0,001	651
1974	VR	4788403	816924	5,86	0,016475301	-0,132318	0,001	817
1975	VR	6199058	1057589	5,86	0,016762833	-0,040117	0,001	1058
1976	VR	7627183	1301234	5,86	0,017062351	-0,040045	0,001	1301
1977	VR	8834937	1507283	5,86	0,017424351	-0,007996	0,009428161	14211
1978	VR	9844255	1679477	5,86	0,017835073	0,005079	0,022914034	38484
1979	VR	10929979	1864707	5,86	0,018226168	-0,008084	0,010142113	18912
1980	VR	11695554	1995318	5,86	0,018708363	0,000285	0,018993502	37898
1981	VR	12417761	2118530	5,86	0,019205022	-0,010025	0,009179607	19447
1982	VR	13019084	2221118	5,86	0,019745424	0,003038	0,022783423	50605
1983	VR	13408951	2287631	5,86	0,02037095	0,010683	0,03105414	71040
1984	VR	13694428	2336335	5,86	0,021052544	0,018748	0,039800291	92987
1985	VR	13920373	2374882	5,86	0,021779294	0,046601	0,068379927	162394
1986	VR	14177294	2418714	5,86	0,022508875	0,045941	0,068449513	165560
1987	VR	14472219	2469030	5,86	0,023233958	0,044796	0,068030258	167969
1988	VR	14791363	2523477	5,86	0,023959788	0,014753	0,038712624	97690
1989	VR	15108515	2577585	5,86	0,024702464	0,039445	0,064147333	165345
1991	VR2	13746672	2345248	5,86	0,015614311	0,097779	0,113392879	265934
1992	VR2	14679414	2504378	5,86	0,016170706	0,111793	0,127963728	320470
1993	VR2	15620739	2664973	5,86	0,016718012	0,074042	0,090760442	241874
1994	VR2	16894095	2882214	5,86	0,017227409	0,05802	0,07524731	216879
1996	VR/RHK	15509670	2646024	5,86	0,015614311	0,063989	0,079603578	210633
1997	VR/RHK	16665627	2843236	5,86	0,016167212	0,031716	0,047883688	136145
1998	VR/RHK	18023756	3074939	5,86	0,016696573	0,021734	0,038430689	118172
1999	VR/RHK	19323229	3296635	5,86	0,0172211	0,040296	0,057517388	189614
1993	ZSR	36028620	3028480	11,90	0,015614311	-0,062699	0,001	3028
1994	ZSR	37312134	3136369	11,90	0,016188201	0,007063	0,023251263	72925
1995	ZSR	39801073	3345583	11,90	0,016732388	0,06476	0,08149272	272641
1996	ZSR	49604657	4169649	11,90	0,017020032	0,08996	0,106979921	446069
1997	ZSR	51634686	4340289	11,90	0,017593837	0,113182	0,130775648	567604
1998	ZSR	53236828	4474961	11,90	0,018193855	0,152668	0,170862198	764602
1999	ZSR	54180017	4554243	11,90	0,018844495	0,136009	0,154853291	705240

A2.5.1.Variable Costs (VC) and Input Cost Shares (SH)

Year	Company	Clabour	CE&M	CEQ_T	CEQ_P	VC_T	VC_P	SHLB_T	SHLB_P	SHEM_T	SHEM_P	SHEQ_T	SHEQ_P
1992	BC	714027	2168823	8636	.	2891485	.	0,24694113	.	0,75007228	.	0,00299	.
1993	BC	523091	1666074	12583	.	2201748	.	0,23757974	.	0,75670543	.	0,00571	.
1994	BC	417343	1551462	11019	.	1979824	.	0,21079806	.	0,7836364	.	0,00557	.
1995	BC	.	.	.	.	.	.	.	.	.	.	.	.
1996	BC	410480	1221525	803360	.	2435365	.	0,16854971	.	0,50157789	.	0,32987	.
1997	BC	396240	1214687	9989	.	1620915	.	0,24445446	.	0,74938304	.	0,00616	.
1998	BC	435543	930305	9747	.	1375595	.	0,3166215	.	0,67629291	.	0,00709	.
1999	BC	445300	1098828	8954	.	1553082	.	0,28672052	.	0,70751446	.	0,00577	.
1992	BDZ	477272	494030	9608	.	980910	.	0,48656028	.	0,50364476	.	0,00979	.
1993	BDZ	499083	463871	43524	.	1006478	.	0,49587081	.	0,46088507	.	0,04324	.
1994	BDZ	348060	343203	27870	.	719133	.	0,48399916	.	0,47724556	.	0,03876	.
1995	BDZ	372743	366079	17137	.	755959	.	0,49307275	.	0,48425746	.	0,02267	.
1996	BDZ	283364	305328	45706	.	634398	.	0,44666638	.	0,48128742	.	0,07205	.
1997	BDZ	233650	239958	538	.	474146	.	0,49278036	.	0,50608498	.	0,00113	.
1998	BDZ	266265	246184	531	.	512980	.	0,51905501	.	0,4799099	.	0,00104	.
1999	BDZ	271329	350777	71861	.	693966	.	0,39098236	.	0,50546641	.	0,10355	.
1972	BR	4773333	2220765	520724	186043	7514823	7180142	0,63518905	0,66479648	0,295518	0,3092927	0,06929	0,02591
1973	BR	4884165	2317312	786023	282260	7987500	7483737	0,61147607	0,6526372	0,29011728	0,3096463	0,09841	0,03772
1974	BR	5358935	2816549	478672	182386	8654156	8357870	0,61923254	0,64118429	0,32545619	0,3369936	0,05531	0,02182
1975	BR	5634016	3087784	6208	4024	8728007	8725823	0,64550996	0,64567154	0,35377877	0,3538673	0,00071	0,00046
1976	BR	5364122	2911919	263184	205195	8539225	8481236	0,62817438	0,63246942	0,34100505	0,3433366	0,03082	0,02419
1977	BR	5068366	3099125	271533	216761	8439024	8384252	0,60058674	0,60451021	0,36723737	0,3696364	0,03218	0,02585
1978	BR	5185857	3296298	300325	347065	8782480	8829220	0,59047755	0,58735166	0,37532654	0,3733396	0,03420	0,03931
1979	BR	5247547	3410665	193780	251639	8851993	8909851	0,59280969	0,58896013	0,38529915	0,3827971	0,02189	0,02824
1980	BR	4848020	3725501	6341	41633	8579862	8615154	0,56504643	0,56273173	0,43421452	0,4324358	0,00074	0,00483
1981	BR	4530347	3073019	327947	557766	7931313	8161132	0,57119757	0,55511253	0,38745399	0,3765432	0,04135	0,06834
1982	BR	4295615	2845149	425377	685415	7566141	7826179	0,56774193	0,54887773	0,376037	0,3635425	0,05622	0,08758
1983	BR	4506627	2779557	436744	702630	7722928	7988814	0,58353867	0,56411718	0,35990969	0,3479311	0,05655	0,08795
1984	BR	5613892	3520978	403744	754067	9538614	9888937	0,58854382	0,5676942	0,36912884	0,3560522	0,04233	0,07625
1985	BR	4133244	2939090	391511	732250	7463845	7804585	0,55376876	0,5295918	0,39377697	0,3765851	0,05245	0,09382
1986	BR	4106881	2754007	495689	865466	7356577	7726355	0,55825974	0,53154187	0,37435987	0,3564433	0,06738	0,11201
1987	BR	4113346	2716542	409053	755313	7238942	7585202	0,5682248	0,54228568	0,37526787	0,3581371	0,05651	0,09958
1988	BR	3972842	2597921	391062	733251	6961825	7304014	0,57066095	0,54392583	0,37316668	0,3556841	0,05617	0,10039
1989	BR	3456831	3038644	375832	703682	6871307	7199157	0,50308196	0,48017161	0,44222213	0,4220833	0,05470	0,09775
1990	BR	3803928	2726729	484299	817418	7014956	7348075	0,54225975	0,51767682	0,38870217	0,3710807	0,06904	0,11124
1991	BR	3843265	2737701	530951	909942	7111916	7490908	0,54039796	0,51305733	0,38494555	0,3654698	0,07466	0,12147
1992	BR	4253279	1955596	526127	526127	6735002	6735002	0,63151852	0,63151852	0,29036313	0,2903631	0,07812	0,07812
1993	BR	3918024	1716393	614368	614368	6248784	6248784	0,62700576	0,62700576	0,27467626	0,2746763	0,09832	0,09832
1994	BR	3970853	7876282	748904	748904	12596038	12596038	0,31524618	0,31524618	0,62529834	0,6252983	0,05946	0,05946
1995	BR	3468237	8421961		.	11890197	.	0,29168873	.	0,70831127	.	0,00000	.
1993	CD	1270240	1470828	910	.	2741978	.	0,46325669	.	0,53641137	.	0,00033	.
1994	CD	1225214	2346646	219988	293421	3791848	3865281	0,32311794	0,3169793	0,61886603	0,6071087	0,05802	0,07591
1995	CD	1202910	2550755	369537	491977	4123202	4245642	0,29174173	0,28332823	0,61863441	0,6007937	0,08962	0,11588
1996	CD	1301547	1491381	457739	605810	3250666	3398737	0,40039382	0,3829501	0,45879233	0,4388044	0,14081	0,17825
1997	CD	1371808	1251354	595810	781091	3218972	3404253	0,42616335	0,40296889	0,38874336	0,3675855	0,18509	0,22945
1998	CD	1330727	1028035	440675	575082	2799436	2933843	0,47535517	0,45357799	0,36722917	0,3504055	0,15742	0,19602
1999	CD	1365349	988811	666736	867617	3020896	3221777	0,45196814	0,42378747	0,32732382	0,3069148	0,22071	0,26930
1972	CFF	1511301	612491	4612	4612	2128404	2128404	0,7100631	0,7100631	0,28777002	0,28777	0,00217	0,00217
1973	CFF	1612910	569447	105043	105043	2287400	2287400	0,70512798	0,70512798	0,24894946	0,2489495	0,04592	0,04592
1974	CFF	1649065	592052	255915	255915	2497032	2497032	0,66041006	0,66041006	0,23710209	0,2371021	0,10249	0,10249
1975	CFF	1644942	526482	232474	232474	2403898	2403898	0,68428122	0,68428122	0,21901157	0,2190116	0,09671	0,09671
1976	CFF	1612044	531002	413131	413131	2556177	2556177	0,63064624	0,63064624	0,20773294	0,2077329	0,16162	0,16162
1977	CFF	1592136	511020	321684	440787	2424840	2543943	0,65659436	0,62585385	0,21074368	0,2008771	0,13266	0,17327
1978	CFF	1541843	481214	176157	277082	2199213	2300138	0,70108843	0,67032622	0,21881174	0,2092108	0,08010	0,12046
1979	CFF	1526518	484528	257514	372089	2268559	2383135	0,67290175	0,64055017	0,21358401	0,2033154	0,11351	0,15613
1980	CFF	1563029	513950	295777	417755	2372756	2494733	0,65873988	0,62653137	0,21660453	0,2060138	0,12466	0,16745
1981	CFF	1577698	504136	220127	337420	2301962	2419254	0,68537104	0,65214234	0,21900297	0,2083851	0,09563	0,13947
1982	CFF	1637210	509647	164148	280762	2311006	2427620	0,70844065	0,67440965	0,22053048	0,209937	0,07103	0,11565
1983	CFF	1674329	707319	240975	471595	2622623	2853243	0,63841775	0,58681612	0,26969913	0,2479001	0,09188	0,16528
1984	CFF	1638466	633520	227322	463758	2499309	2735744	0,6555677	0,59891057	0,2534782	0,2315715	0,09095	0,16952
1985	CFF	1626961	663502	285189	539215	2575652	2829679	0,63166956	0,5749632	0,25760552	0,2344797	0,11072	0,19056
1986	CFF	1623765	661302	253695	511764	2538763	2796831	0,6395893	0,58057319	0,26048212	0,2364469	0,09993	0,18298
1987	CFF	1594269	806615	275116	544209	2676000	2945093	0,59576565	0,54133059	0,3014256	0,2738844	0,10281	0,18479
1988	CFF	1651883	768567	291563	566563	2712013	2987013	0,60909865	0,55302177	0,28339347	0,2573028	0,10751	0,18968
1989	CFF	1546741	672500	347844	626794	2567085	2846035	0,60252813	0,54347227	0,26197015	0,2362936	0,13550	0,22023
1990	CFF	1617691	651319	386139	662655	2655149	2931665	0,60926559	0,55179933	0,24530406	0,2221668	0,14543	0,22603
1991	CFF	1606929	642385	310140	710183	2559454	2959497	0,62784057	0,54297364	0,25098509	0,2170587	0,12117	0,23997
1992	CFF	1683925	622221	428585	695461	2734731	3001606	0,61575529	0,56100793	0,22752539	0,2072959	0,15672	0,23170
1993	CFF	1625543	616122	376201	570449	2617866	2812114	0,62094187	0,57805009	0,23535273	0,2190957	0,14371	0,20285
1994	CFF/SBB/FF	1589918	612344	500288	521359	2702550	2723620	0,58830288	0,58375163	0,22657999	0,2248271	0,18512	0,19142
1995	CFF/SBB/FF	1553704	600555	480689	408189	2634949	2562448	0,58965256	0,60633592	0,22791907	0,2343677	0,18243	0,15930
1996	CFF/SBB/FF	1437202	574360	533347	336732	2544909	2348294	0,56473611	0,61201965	0,22568985	0,2445861	0,20957	0,14339
1997	CFF/SBB/FF	1390677	573835	552023	299907	2516535	2264419	0,55261579	0,61414291	0,22802579	0,2534137	0,21936	0,13244
1998	CFF/SBB/FF	1367278	584330	556043	277773	2507651	2229381	0,54524271	0,61329947	0,23301882	0,262104	0,22174	0,12460
1999	CFF/SBB/FF	1299293	646755	600900	285945	2546949	2231994	0,51013713	0,58212216	0,25393344	0,2897658	0,23593	0,12811
1972	CFL	167031	19026	8685	8685	194742	194742	0,85770605	0,85770605	0,09769652	0,0976965	0,04460	0,04460
1973	CFL	165425	18938	145	145	184509	184509	0,89657094	0,89657094	0,10264123	0,1026412	0,00079	0,00079
1974	CFL	174381	19083	150	150	193614	193614	0,90066271	0,90066271	0,09856198	0,098562	0,00078	0,00078
1975	CFL	204820	23769	20144	20144	248733	248733	0,82345426	0,82345426	0,095559	0,095559	0,08099	0,08099
1976	CFL	200671	20047	877	877	221596	221596	0,90557442	0,90557442	0,09046665	0,0904666	0,00396	0,00396
1977	CFL	218550	21188	21276	21276	261014	261014	0,83731153	0,83731153	0,08117482	0,0811748	0,08151	0,08151
1978	CFL	217165	20017	13728	13728	250910	250910	0,86551072	0,86551072	0,07977692	0,0797769	0,05471	0,05471
1979	CFL	218601	21104	12359	12359	252064	252064	0,86724417	0,86724417	0,08372426	0,0837243	0,04903	0,04903
1980	CFL	223152	22455	11611	11611	257218	257218	0,86755939	0,86755939	0,0872985	0,0872985	0,04514	0,04514
1981	CFL	224927	22502	15592	15592	263022	263022	0,8551662	0,8551662	0,08555233	0,0855523	0,05928	0,05928
1982	CFL	208302	21795	13147	13147	243244	243244	0,85634948	0,85634948	0,08960008	0,0896001	0,05405	0,05405
1983	CFL	206555	20348	19477	19477	246381	246381	0,83835879	0,83835879	0,08258751	0,0825875	0,07905	0,07905
1984	CFL	205933	21256	24700	24700	251890	251890	0,81755198	0,81755198	0,08438725	0,0843873	0,09806	0,09806
1985	CFL	205210	24030	26629	26629	255870	255870	0,80201015	0,80201015	0,09391636	0,0939164	0,10407	0,10407
1986	CFL	206979	21368	26151	26151	254498	254498	0,81328354	0,81328354	0,08396281	0,0839628	0,10275	0,10275
1987	CFL	216216	22179	28621	28621	267015	267015	0,80975064	0,80975064	0,08306253	0,0830625	0,10719	0,10719
1988	CFL	218042	19535	28507	28507	266084	266084	0,81944716	0,81944716	0,0734169	0,0734169	0,10714	0,10714
1989	CFL	219073	22669	26342	26342	268084	268084	0,81717868	0,81717868	0,08455969	0,0845597	0,09826	0,09826

A2.5.1.Variable Costs (VC) and Input Cost Shares (SH)

Year	Company	Clabour	CE&M	CEQ_T	CEQ_P	VC_T	VC_P	SHLB_T	SHLB_P	SHEM_T	SHEM_P	SHEQ_T	SHEQ_P
1990	CFL	233734	26875	28985	28985	289595	289595	0,80710843	0,80710843	0,09280205	0,0928021	0,10009	0,10009
1991	CFL	234563	28261	35516	35516	298341	298341	0,78622625	0,78622625	0,09472811	0,0947281	0,11905	0,11905
1992	CFL	243806	30105	27503	27503	301413	301413	0,80887503	0,80887503	0,09987801	0,099878	0,09125	0,09125
1993	CFL	246192	30678	29547	29547	306418	306418	0,80345376	0,80345376	0,10011968	0,1001197	0,09643	0,09643
1994	CFL	240181	37343	20135	20135	297659	297659	0,80689959	0,80689959	0,12545679	0,1254568	0,06764	0,06764
1995	CFL	153212	108954	22320	22320	284486	284486	0,53855817	0,53855817	0,38298546	0,3829855	0,07846	0,07846
1996	CFL	155514	113910	18203	18203	287627	287627	0,54067872	0,54067872	0,39603504	0,396035	0,06329	0,06329
1997	CFL	150341	114204	15783	15783	280328	280328	0,53630238	0,53630238	0,40739399	0,407394	0,05630	0,05630
1998	CFL	149124	123190	22739	22739	295052	295052	0,50541418	0,50541418	0,41751849	0,4175185	0,07707	0,07707
1999	CFL	149950	130082	23369	23369	303400	303400	0,49423118	0,49423118	0,42874641	0,4287464	0,07702	0,07702
1992	CFR	2594329	2361045	20278	.	4975652	.	0,52140483	.	0,47451964	.	0,00408	.
1993	CFR	2120586	1521948	20051	.	3662585	.	0,57898622	.	0,41553932	.	0,00547	.
1994	CFR	1855687	1422076	27923	.	3305686	.	0,5613623	.	0,43019079	.	0,00845	.
1995	CFR	1812743	1491761	64973	.	3369478	.	0,53798928	.	0,44272778	.	0,01928	.
1996	CFR	1952993	1733705	26803	.	3713501	.	0,52591699	.	0,46686533	.	0,00722	.
1997	CFR	1484085	1707036	26328	.	3217449	.	0,46126144	.	0,53055563	.	0,00818	.
1998	CFR	1057752	1484646	1797153	.	4339551	.	0,24374684	.	0,34211976	.	0,41413	.
1999	CFR	1008987	2862517	6650676	.	10522180	.	0,09589148	.	0,27204602	.	0,63206	.
1972	CH	187619	76406	45879	45879	309904	309904	0,60540873	0,60540873	0,24654824	0,2465482	0,14804	0,14804
1973	CH	196098	76692	674	674	273464	273464	0,7170881	0,7170881	0,2804466	0,2804466	0,00247	0,00247
1974	CH	217937	111560	794	794	330291	330291	0,659832	0,659832	0,33776306	0,3377631	0,00240	0,00240
1975	CH	226977	99267	40169	40169	366414	366414	0,61945556	0,61945556	0,2709162	0,2709162	0,10963	0,10963
1976	CH	250491	97268	18370	18370	366129	366129	0,68416155	0,68416155	0,26566546	0,2656655	0,05017	0,05017
1977	CH	259577	94111	42475	42475	396164	396164	0,65522603	0,65522603	0,23755701	0,237557	0,10722	0,10722
1978	CH	273807	93326	55856	55856	422989	422989	0,64731451	0,64731451	0,22063478	0,2206348	0,13205	0,13205
1979	CH	257322	93271	41617	41617	392210	392210	0,65608113	0,65608113	0,23780891	0,2378089	0,10611	0,10611
1980	CH	259923	98374	83235	83235	441531	441531	0,58868497	0,58868497	0,22280118	0,2228012	0,18851	0,18851
1981	CH	277203	97491	72705	72705	447398	447398	0,61958835	0,61958835	0,21790652	0,2179065	0,16251	0,16251
1982	CH	283189	97174	34685	34685	415048	415048	0,68230402	0,68230402	0,23412771	0,2341277	0,08357	0,08357
1983	CH	288936	92931	79393	79393	461260	461260	0,62640516	0,62640516	0,20147186	0,2014719	0,17212	0,17212
1984	CH	297169	94545	75219	75219	466933	466933	0,636426	0,636426	0,20248144	0,2024814	0,16109	0,16109
1985	CH	339901	41714	98694	98694	480309	480309	0,70767129	0,70767129	0,08684774	0,0868477	0,20548	0,20548
1986	CH	345499	118423	103793	103793	567714	567714	0,60857808	0,60857808	0,20859654	0,2085965	0,18283	0,18283
1987	CH	335076	122402	141244	141244	598721	598721	0,55965216	0,55965216	0,20443844	0,2044384	0,23591	0,23591
1988	CH	332697	131127	142360	142360	606184	606184	0,54883827	0,54883827	0,21631496	0,216315	0,23485	0,23485
1989	CH	356655	98927	163350	163350	618932	618932	0,57624205	0,57624205	0,15983518	0,1598352	0,26392	0,26392
1990	CH	349983	87972	153601	153601	591555	591555	0,59163174	0,59163174	0,14871231	0,1487123	0,25966	0,25966
1991	CH	324340	101501	187267	187267	613108	613108	0,52900959	0,52900959	0,1655512	0,1655512	0,30544	0,30544
1992	CH	292041	73150	207254	207254	572445	572445	0,51016403	0,51016403	0,1277859	0,1277859	0,36205	0,36205
1993	CH	273470	202576	221751	221751	697796	697796	0,39190479	0,39190479	0,29030805	0,290308	0,31779	0,31779
1994	CH	316977	125740	208966	208966	651683	651683	0,4863975	0,4863975	0,19294645	0,1929465	0,32066	0,32066
1995	CH	327014	88900	193062	193062	608976	608976	0,53699074	0,53699074	0,1459823	0,1459823	0,31703	0,31703
1996	CH	356767	117402	175480	175480	649648	649648	0,54916969	0,54916969	0,18071545	0,1807154	0,27011	0,27011
1997	CH	377878	176577	155827	155827	710281	710281	0,53201132	0,53201132	0,24860082	0,2486008	0,21939	0,21939
1998	CH	356178	74403	165905	165905	596486	596486	0,597128	0,597128	0,12473487	0,1247349	0,27814	0,27814
1999	CH	333125	77977	150792	150792	561894	561894	0,59285984	0,59285984	0,13877597	0,138776	0,26836	0,26836
1972	CIE	355209	125360	2395	2395	482964	482964	0,73547802	0,73547802	0,259564	0,259564	0,00496	0,00496
1973	CIE	370567	133961	7063	7063	511591	511591	0,7243421	0,7243421	0,26185187	0,2618519	0,01381	0,01381
1974	CIE	299030	118196	60811	60811	478036	478036	0,62553812	0,62553812	0,24725235	0,2472524	0,12721	0,12721
1975	CIE	431533	158478	387	387	590399	590399	0,73091843	0,73091843	0,26842546	0,2684255	0,00066	0,00066
1976	CIE	397237	169841	411	242	567489	567321	0,6999908	0,70019827	0,29928571	0,2993744	0,00072	0,00043
1977	CIE	374373	143224	16054	16054	533652	533652	0,70153162	0,70153162	0,26838565	0,2683857	0,03008	0,03008
1978	CIE	374485	162621	34094	34094	571200	571200	0,65561107	0,65561107	0,28470016	0,2847002	0,05969	0,05969
1979	CIE	395486	181407	31756	31756	608650	608650	0,64977689	0,64977689	0,29804816	0,2980482	0,05217	0,05217
1980	CIE	423347	200475	30656	30656	654478	654478	0,64684666	0,64684666	0,30631251	0,3063125	0,04684	0,04684
1981	CIE	402370	205135	30717	30717	638222	638222	0,63045462	0,63045462	0,32141659	0,3214166	0,04813	0,04813
1982	CIE	369293	241655	44576	44576	655524	655524	0,56335607	0,56335607	0,36864376	0,3686438	0,06800	0,06800
1983	CIE	346844	262119	58417	58417	667381	667381	0,51970914	0,51970914	0,39275844	0,3927584	0,08753	0,08753
1984	CIE	345342	266474	102742	102742	714558	714558	0,4832951	0,4832951	0,37292145	0,3729214	0,14378	0,14378
1985	CIE	355306	219614	106402	106402	681322	681322	0,52149429	0,52149429	0,32233557	0,3223356	0,15617	0,15617
1986	CIE	345748	199530	88571	88571	633849	633849	0,54547428	0,54547428	0,31479116	0,3147912	0,13973	0,13973
1987	CIE	372364	148051	125189	125189	645604	645604	0,57676809	0,57676809	0,22932143	0,2293214	0,19391	0,19391
1988	CIE	351528	165463	108055	108055	625046	625046	0,56240307	0,56240307	0,26472154	0,2647215	0,17288	0,17288
1989	CIE	325573	174265	89071	89071	588909	588909	0,55284158	0,55284158	0,29591163	0,2959116	0,15125	0,15125
1990	CIE	335293	189550	145927	145927	670770	670770	0,4998626	0,4998626	0,28258628	0,2825863	0,21755	0,21755
1991	CIE	338741	237320	128329	128329	704390	704390	0,48090003	0,48090003	0,33691589	0,3369159	0,18218	0,18218
1992	CIE	336845	234403	134685	134685	705932	705932	0,47716345	0,47716345	0,33204673	0,3320467	0,19079	0,19079
1993	CIE	328522	222867	84686	84686	636074	636074	0,51648371	0,51648371	0,35037839	0,3503784	0,13314	0,13314
1994	CIE	340905	227270	111370	111370	679545	679545	0,50166686	0,50166686	0,33444457	0,3344446	0,16389	0,16389
1995	CIE	337167	250512	103962	103962	691642	691642	0,48748824	0,48748824	0,3621992	0,3621992	0,15031	0,15031
1996	CIE	338715	232482	100048	100048	671245	671245	0,50460698	0,50460698	0,34634388	0,3463439	0,14905	0,14905
1997	CIE	151288	172442	25221	25221	348951	348951	0,43355177	0,43355177	0,49417186	0,4941719	0,07228	0,07228
1998	CIE	150843	130788	15682	15682	297313	297313	0,50735378	0,50735378	0,439899	0,439899	0,05275	0,05275
1999	CIE	162765	158300	19383	19383	340448	340448	0,47809158	0,47809158	0,46497502	0,464975	0,05693	0,05693
1972	CP	338654	96766	31502	31502	466922	466922	0,72529001	0,72529001	0,20724307	0,2072431	0,06747	0,06747
1973	CP	300543	81322	10172	10172	392036	392036	0,76661984	0,76661984	0,20743427	0,2074343	0,02595	0,02595
1974	CP	395355	99248	1277	1277	495879	495879	0,79727958	0,79727958	0,20014606	0,2001461	0,00257	0,00257
1975	CP	589557	121620	1395	1395	712571	712571	0,82736555	0,82736555	0,17067728	0,1706773	0,00196	0,00196
1976	CP	635429	165616	1454	1454	802499	802499	0,79181295	0,79181295	0,20637529	0,2063753	0,00181	0,00181
1977	CP	526176	156816	1567	1567	684559	684559	0,76863541	0,76863541	0,22907596	0,229076	0,00229	0,00229
1978	CP	446929	144205	1681	1681	592815	592815	0,75390914	0,75390914	0,24325472	0,2432547	0,00284	0,00284
1979	CP	425668	143874	61334	61334	630877	630877	0,67472507	0,67472507	0,22805456	0,2280546	0,09722	0,09722
1980	CP	429833	179874	41390	41390	651097	651097	0,66016728	0,66016728	0,27626343	0,2762634	0,06357	0,06357
1981	CP	456084	175765	108639	108639	740488	740488	0,61592344	0,61592344	0,2373637	0,2373637	0,14671	0,14671
1982	CP	443699	225990	61501	61501	731189	731189	0,60681778	0,60681778	0,30907169	0,3090717	0,08411	0,08411
1983	CP	456358	206283	42324	42324	704965	704965	0,64734856	0,64734856	0,29261421	0,2926142	0,06004	0,06004
1984	CP	432870	230011	90900	90900	753781	753781	0,57426488	0,57426488	0,30514356	0,3051436	0,12059	0,12059
1985	CP	433778	228554	139248	139248	801581	801581	0,54115346	0,54115346	0,28512921	0,2851292	0,17372	0,17372
1986	CP	448225	214459	78852	78852	741536	741536	0,60445418	0,60445418	0,2892094	0,2892094	0,10634	0,10634
1987	CP	466920	233620	266751	266751	967292	967292	0,48270852	0,48270852	0,24152003	0,24152	0,27577	0,27577
1988	CP	466519	144517	236182	236182	847218	847218	0,55064827	0,55064827	0,17057842	0,1705784	0,27877	0,27877
1989	CP	457700	246975	254651	254651	959326	959326	0,47710589	0,47710589	0,25744613	0,2574461	0,26545	0,26545
1990	CP	444710	233842	312400	312400	990953	990953	0,44877041	0,44877041	0,23597737	0,2359774	0,31525	0,31525

A2.5.1.Variable Costs (VC) and Input Cost Shares (SH)

Year	Company	Clabour	CE&M	CEQ_T	CEQ_P	VC_T	VC_P	SHLB_T	SHLB_P	SHEM_T	SHEM_P	SHEQ_T	SHEQ_P
1991	CP	443272	235466	344923	344923	1023662	1023662	0,43302617	0,43302617	0,23002345	0,2300235	0,33695	0,33695
1992	CP	455316	232352	312119	312119	999787	999787	0,45541321	0,45541321	0,23240168	0,2324017	0,31219	0,31219
1993	CP	386106	297786	303576	303576	987468	987468	0,39100612	0,39100612	0,30156518	0,3015652	0,30743	0,30743
1994	CP	337761	298755	279307	279307	915822	915822	0,3688058	0,3688058	0,32621475	0,3262147	0,30498	0,30498
1995	CP	345643	289193	302323	302323	937160	937160	0,36882001	0,36882001	0,30858481	0,3085848	0,32260	0,32260
1996	CP	342340	290328	293611	293611	926278	926278	0,3695861	0,3695861	0,31343485	0,3134349	0,31698	0,31698
1997	CP/REFER	330521	294898	132233	132233	757652	757652	0,43624393	0,43624393	0,38922613	0,3892261	0,17453	0,17453
1998	CP/REFER	359920	342038	94868	94868	796826	796826	0,45169241	0,45169241	0,42925055	0,4292505	0,11906	0,11906
1999	CP/REFER	360790	339386	110256	110256	810432	810432	0,44518222	0,44518222	0,41877221	0,4187722	0,13605	0,13605
1990	CSD	1326078	1918636	28439	.	3273153	.	0,40513783	.	0,58617374	.	0,00869	.
1991	CSD	1524503	2339600	31393	.	3895497	.	0,39135018	.	0,600591	.	0,00806	.
1992	CSD	1795151	2283847	29670	.	4108669	.	0,43691791	.	0,55586065	.	0,00722	.
1972	DB	14032621	4006847	1498099	455494	19537567	18494962	0,71823787	0,75872665	0,20508424	0,2166453	0,07668	0,02463
1973	DB	14926365	3923440	1546104	498950	20395909	19348756	0,7318313	0,77143797	0,19236408	0,2027748	0,07580	0,02579
1974	DB	15800848	4106250	1913465	682698	21820563	20589797	0,7241265	0,76741155	0,18818261	0,1994313	0,08769	0,03316
1975	DB	15217300	3889299	1781349	655294	20887947	19761893	0,72852058	0,77003248	0,18619825	0,196808	0,08528	0,03316
1976	DB	14789771	4058613	2081344	801951	20929729	19650335	0,70663941	0,75264727	0,19391619	0,2065417	0,09944	0,04081
1977	DB	14697259	4030956	1939808	772960	20668022	19501174	0,71111102	0,7536602	0,19503345	0,2067032	0,09386	0,03964
1978	DB	14945843	2957996	2161625	888181	20065465	18792021	0,74485408	0,79532921	0,14741728	0,157407	0,10773	0,04726
1979	DB	14823016	3476750	2259647	936782	20559412	19236547	0,72098441	0,77056531	0,16910745	0,1807367	0,10991	0,04870
1980	DB	14863341	3806668	2296319	970072	20966327	19640080	0,70891485	0,75678615	0,18156102	0,1938214	0,10952	0,04939
1981	DB	14517146	3657502	2598848	1121152	20773496	19295800	0,69883019	0,75234746	0,17606578	0,1895491	0,12510	0,05810
1982	DB	13821602	3356296	2591520	1125309	19769418	18303207	0,69914059	0,75514649	0,1697721	0,183372	0,13109	0,06148
1983	DB	13353598	3158203	2874060	1263487	19385861	17775288	0,68883183	0,75124511	0,16291271	0,1776738	0,14826	0,07108
1984	DB	12862826	3201724	3100497	1366086	19165047	17430637	0,67116069	0,73794358	0,16706059	0,1836837	0,16178	0,07837
1985	DB	12497241	3197802	3043519	1338051	18738563	17033095	0,66692636	0,7337035	0,17065356	0,1877405	0,16242	0,07856
1986	DB	12567807	3367606	3404769	1507371	19340182	17442785	0,64982882	0,72051612	0,17412483	0,1930658	0,17605	0,08642
1987	DB	12723711	4257465	3410005	1489051	20391180	18470226	0,62398108	0,68887683	0,20878951	0,2305042	0,16723	0,08062
1988	DB	12461547	4350256	3391572	1467586	20203375	18279389	0,61680524	0,68172668	0,21532322	0,2379869	0,16787	0,08029
1989	DB	12135320	4751729	3451779	1471470	20338828	18358520	0,59665779	0,66101845	0,23362846	0,2588296	0,16971	0,08015
1990	DB	12264753	4642528	3935814	1684865	20843096	18592146	0,58843241	0,65967388	0,22273699	0,2497037	0,18883	0,09062
1991	DB	12044006	5024168	1000573	1934433	18068747	19002607	0,66656567	0,63380812	0,27805845	0,2643936	0,05538	0,10180
1992	DB	12101482	4962041	729316	1458058	17792839	18521581	0,68013215	0,65337199	0,27887853	0,2679059	0,04099	0,07872
1993	DB	11763664	4788814	749442	1317969	17301921	17870448	0,6799051	0,65827474	0,27677934	0,2679739	0,04332	0,07375
1994	DB AG	7909168	4521243	301266	301266	12731678	12731678	0,62121966	0,62121966	0,35511765	0,3551176	0,02366	0,02366
1995	DB AG	6571100	5419374	392967	392967	12383442	12383442	0,530636	0,530636	0,43763072	0,4376307	0,03173	0,03173
1996	DB AG	5946646	6471652	473416	473416	12891714	12891714	0,46127659	0,46127659	0,50200091	0,5020009	0,03672	0,03672
1997	DB AG	5900307	6421222	600301	600301	12921830	12921830	0,45661543	0,45661543	0,49692825	0,4969282	0,04646	0,04646
1998	DB AG	6245718	6423920	632498	632498	13302136	13302136	0,46952748	0,46952748	0,48292395	0,482924	0,04755	0,04755
1999	DB AG	7162966	8852905	848621	848621	16864491	16864491	0,42473654	0,42473654	0,5249435	0,5249435	0,05032	0,05032
1972	DSB	476922	283116	45643	45643	805681	805681	0,5919493	0,5919493	0,35139947	0,3513995	0,05665	0,05665
1973	DSB	438648	287773	49489	49489	775910	775910	0,56533345	0,56533345	0,37088405	0,3708841	0,06378	0,06378
1974	DSB	413185	321536	61910	61910	796632	796632	0,51866533	0,51866533	0,40361969	0,4036197	0,07771	0,07771
1975	DSB	417511	376948	50917	50917	845375	845375	0,49387665	0,49387665	0,44589388	0,4458939	0,06023	0,06023
1976	DSB	438339	354856	116424	116424	909619	909619	0,48189309	0,48189309	0,3901152	0,3901152	0,12799	0,12799
1977	DSB	471867	320277	122134	122134	914279	914279	0,51610889	0,51610889	0,3503059	0,3503059	0,13359	0,13359
1978	DSB	445327	309310	153021	153021	907658	907658	0,49063275	0,49063275	0,34077806	0,3407781	0,16859	0,16859
1979	DSB	583965	260176	214487	214487	1058627	1058627	0,55162434	0,55162434	0,24576685	0,2457668	0,20261	0,20261
1980	DSB	592899	309103	251729	251729	1153731	1153731	0,51389728	0,51389728	0,26791602	0,267916	0,21819	0,21819
1981	DSB	604139	338889	242018	242018	1185047	1185047	0,50980205	0,50980205	0,28597127	0,2859713	0,20423	0,20423
1982	DSB	624682	378567	303831	303831	1307080	1307080	0,47792196	0,47792196	0,2896278	0,2896278	0,23245	0,23245
1983	DSB	618229	361064	258723	258723	1238016	1238016	0,49937083	0,49937083	0,29164722	0,2916472	0,20898	0,20898
1984	DSB	601281	361240	314078	314078	1276599	1276599	0,47100232	0,47100232	0,28297032	0,2829703	0,24603	0,24603
1985	DSB	575506	367601	301687	301687	1244794	1244794	0,46233016	0,46233016	0,29531045	0,2953104	0,24236	0,24236
1986	DSB	562782	361876	305251	305251	1229908	1229908	0,45758045	0,45758045	0,29422973	0,2942297	0,24819	0,24819
1987	DSB	588182	319411	316315	316315	1223908	1223908	0,48057682	0,48057682	0,26097644	0,2609764	0,25845	0,25845
1988	DSB	612220	331132	356484	356484	1299836	1299836	0,47099781	0,47099781	0,25474899	0,254749	0,27425	0,27425
1989	DSB	580257	335143	306562	306562	1221962	1221962	0,47485696	0,47485696	0,27426609	0,2742661	0,25088	0,25088
1990	DSB	554008	352528	398826	398826	1305362	1305362	0,42440906	0,42440906	0,27006176	0,2700618	0,30553	0,30553
1991	DSB	558066	342873	423900	423900	1324839	1324839	0,42123315	0,42123315	0,25880322	0,2588032	0,31996	0,31996
1992	DSB	547382	353741	421299	421299	1322421	1322421	0,41392398	0,41392398	0,26749484	0,2674948	0,31858	0,31858
1993	DSB	573602	351983	399840	399840	1325425	1325425	0,43276833	0,43276833	0,26556238	0,2655624	0,30167	0,30167
1994	DSB	566664	353636	394811	394811	1315111	1315111	0,43088664	0,43088664	0,26890194	0,2689019	0,30021	0,30021
1995	DSB	362398	336807	129048	129048	828253	828253	0,43754535	0,43754535	0,40664718	0,4066472	0,15581	0,15581
1996	DSB	442053	355915	107652	107652	905620	905620	0,48812238	0,48812238	0,393007	0,393007	0,11887	0,11887
1997	DSB	.	.	.	.	.	.	.	.	.	.	.	.
1998	DSB	.	.	.	.	.	.	.	.	.	.	.	.
1999	DSB	.	.	.	.	.	.	.	.	.	.	.	.
1992	EVR	59108	104995	109	109	164212	164212	0,35995067	0,35995067	0,63938605	0,6393861	0,00066	0,00066
1993	EVR	74105	116667	262	262	191033	191033	0,38791592	0,38791592	0,61071312	0,6107131	0,00137	0,00137
1994	EVR	82543	125206	258	258	208007	208007	0,39682864	0,39682864	0,60193109	0,6019311	0,00124	0,00124
1995	EVR	76900	89091	262	262	166253	166253	0,46254586	0,46254586	0,5358763	0,5358763	0,00158	0,00158
1996	EVR	68040	75472	268	268	143781	143781	0,47322256	0,47322256	0,52491293	0,5249129	0,00186	0,00186
1997	EVR	71450	119212	36716	36716	227378	227378	0,31423232	0,31423232	0,52429085	0,5242908	0,16148	0,16148
1998	EVR	76058	122742	37110	37110	235910	235910	0,3224028	0,3224028	0,52028963	0,5202896	0,15731	0,15731
1999	EVR	74428	139088	32804	32804	246320	246320	0,30215785	0,30215785	0,56466508	0,5646651	0,13318	0,13318
1972	FS	5986578	2142418	572878	572878	8701873	8701873	0,68796426	0,68796426	0,24620191	0,2462019	0,06583	0,06583
1973	FS	6121775	2425967	9979	9979	8557721	8557721	0,71535106	0,71535106	0,28348284	0,2834828	0,00117	0,00117
1974	FS	6627409	3015590	10555	10555	9653553	9653553	0,68652532	0,68652532	0,31238133	0,3123813	0,00109	0,00109
1975	FS	5800993	2692695	81813	81813	8575500	8575500	0,67646117	0,67646117	0,31399855	0,3139985	0,00954	0,00954
1976	FS	6094147	2851245	36756	36756	8982148	8982148	0,67847321	0,67847321	0,31743466	0,3174347	0,00409	0,00409
1977	FS	6087437	3714046	255717	255717	10057199	10057199	0,6052815	0,6052815	0,36929224	0,3692922	0,02543	0,02543
1978	FS	6136621	3664571	837769	837769	10638961	10638961	0,57680641	0,57680641	0,34444818	0,3444482	0,07875	0,07875
1979	FS	7104241	3658326	625448	625448	11388015	11388015	0,6238349	0,6238349	0,32124352	0,3212435	0,05492	0,05492
1980	FS	7836522	3760623	255558	255558	11852703	11852703	0,66115906	0,66115906	0,31727981	0,3172798	0,02156	0,02156
1981	FS	7898008	4100361	1348900	1348900	13347269	13347269	0,59173216	0,59173216	0,307206	0,307206	0,10106	0,10106
1982	FS	9049804	4563402	1947516	1947516	15560722	15560722	0,58157993	0,58157993	0,29326417	0,2932642	0,12516	0,12516
1983	FS	8354348	5228556	1911688	1911688	15494592	15494592	0,53917832	0,53917832	0,3374439	0,3374439	0,12338	0,12338
1984	FS	7891750	6156745	2194527	2194527	16243022	16243022	0,48585478	0,48585478	0,37903939	0,3790394	0,13511	0,13511
1985	FS	8309614	5354515	2466174	2466174	16130303	16130303	0,5151555	0,5151555	0,33195378	0,3319538	0,15289	0,15289
1986	FS	7427001	3407134	755524	755524	11589659	11589659	0,64082996	0,64082996	0,29398051	0,2939805	0,06519	0,06519
1987	FS	7896088	3274128	959413	959413	12129629	12129629	0,6509752	0,6509752	0,26992815	0,2699282	0,07910	0,07910
1988	FS	7588224	3197144	1074873	1074873	11860240	11860240	0,63980356	0,63980356	0,2695682	0,2695682	0,09063	0,09063

A2.5.1.Variable Costs (VC) and Input Cost Shares (SH)

Year	Company	Clabour	CE&M	CEQ_T	CEQ_P	VC_T	VC_P	SHLB_T	SHLB_P	SHEM_T	SHEM_P	SHEQ_T	SHEQ_P
1989	FS	7598924	3034172	1299394	1299394	11932490	11932490	0,63682636	0,63682636	0,25427817	0,2542782	0,10890	0,10890
1990	FS	7558331	3451651	1277478	1277478	12287460	12287460	0,61512561	0,61512561	0,2809084	0,2809084	0,10397	0,10397
1991	FS	7892449	3297680	1656482	1656482	12846610	12846610	0,61436039	0,61436039	0,25669649	0,2566965	0,12894	0,12894
1992	FS	7961161	2795548	2579963	2579963	13336672	13336672	0,59693757	0,59693757	0,20961364	0,2096136	0,19345	0,19345
1993	FS	7390937	2123292	2261699	2261699	11775928	11775928	0,62763099	0,62763099	0,18030783	0,1803078	0,19206	0,19206
1994	FS	6307234	1956933	2402912	2402912	10667079	10667079	0,59128036	0,59128036	0,18345538	0,1834554	0,22526	0,22526
1995	FS	5984333	2068718	2530725	2530725	10583777	10583777	0,56542509	0,56542509	0,19546127	0,1954613	0,23911	0,23911
1996	FS SpA	6294672	2124537	2012006	2012006	10431215	10431215	0,60344567	0,60344567	0,20367114	0,2036711	0,19288	0,19288
1997	FS SpA	5418174	2159876	2159087	2159087	9737137	9737137	0,55644427	0,55644427	0,22181835	0,2218183	0,22174	0,22174
1998	FS SpA	4742946	2274491	1844218	1844218	8861655	8861655	0,53522126	0,53522126	0,25666657	0,2566666	0,20811	0,20811
1999	FS SpA	4532949	2299367	2109328	2109328	8941644	8941644	0,5069481	0,5069481	0,25715256	0,2571526	0,23590	0,23590
1991	MAV	1044905	873797	92370	153587	2011072	2072289	0,51957607	0,50422747	0,43449322	0,421658	0,04593	0,07411
1992	MAV	1105772	734401	337777	547184	2177949	2387357	0,50771246	0,46317843	0,3371982	0,3076208	0,15509	0,22920
1993	MAV	920701	640152	230971	337664	1791824	1898516	0,5138344	0,48495795	0,35726279	0,3371853	0,12890	0,17786
1994	MAV	902798	754502	355849	498373	2013150	2155673	0,44845064	0,41880105	0,37478701	0,3500077	0,17676	0,23119
1995	MAV	786567	664889	318170	441260	1769626	1892716	0,44448219	0,41557596	0,3757228	0,3512882	0,17980	0,23314
1996	MAV Rt.	636669	613777	339617	468939	1590063	1719384	0,40040489	0,37028898	0,38600775	0,3569747	0,21359	0,27274
1997	MAV Rt.	671578	618943	289938	398613	1580459	1689134	0,42492583	0,39758709	0,39162265	0,3664266	0,18345	0,23599
1998	MAV Rt.	676256	598825	422257	562763	1697337	1837843	0,39842148	0,36796148	0,35280242	0,3258301	0,24878	0,30621
1999	MAV Rt.	664997	592814	456756	751472	1714568	2009284	0,38785133	0,33096235	0,34575147	0,2950376	0,26640	0,37400
1972	NS	804738	390488	40340	40340	1235565	1235565	0,65131164	0,65131164	0,31603973	0,3160397	0,03265	0,03265
1973	NS	820441	256371	73836	73836	1150649	1150649	0,7130251	0,7130251	0,22280599	0,222806	0,06417	0,06417
1974	NS	854764	279425	116055	116055	1250244	1250244	0,6836776	0,6836776	0,22349656	0,2234966	0,09283	0,09283
1975	NS	866893	308308	82394	82394	1257594	1257594	0,68932617	0,68932617	0,24515659	0,2451566	0,06552	0,06552
1976	NS	859676	309910	120995	120995	1290581	1290581	0,66611566	0,66611566	0,24013176	0,2401318	0,09375	0,09375
1977	NS	853569	307181	144481	144481	1305230	1305230	0,65396059	0,65396059	0,23534589	0,2353459	0,11069	0,11069
1978	NS	857994	302788	169889	169889	1330670	1330670	0,64478302	0,64478302	0,22754527	0,2275453	0,12767	0,12767
1979	NS	869394	328687	222618	222618	1420698	1420698	0,61194824	0,61194824	0,2313558	0,2313558	0,15670	0,15670
1980	NS	857626	370493	237341	237341	1465461	1465461	0,58522651	0,58522651	0,25281691	0,2528169	0,16196	0,16196
1981	NS	839617	396090	286280	286280	1521987	1521987	0,55165833	0,55165833	0,2602454	0,2602454	0,18810	0,18810
1982	NS	838044	401623	274342	274342	1514009	1514009	0,55352615	0,55352615	0,26527144	0,2652714	0,18120	0,18120
1983	NS	829976	397734	327154	327154	1554864	1554864	0,53379309	0,53379309	0,25579975	0,2557998	0,21041	0,21041
1984	NS	811684	389440	348919	348919	1550043	1550043	0,5236526	0,5236526	0,25124469	0,2512447	0,22510	0,22510
1985	NS	855653	570301	333712	333712	1759666	1759666	0,48625893	0,48625893	0,32409626	0,3240963	0,18964	0,18964
1986	NS	912473	521807	359321	359321	1793601	1793601	0,50873772	0,50873772	0,29092708	0,2909271	0,20034	0,20034
1987	NS	934597	402042	390607	390607	1727246	1727246	0,54109091	0,54109091	0,23276464	0,2327646	0,22614	0,22614
1988	NS	911460	426765	359415	359415	1697640	1697640	0,53689827	0,53689827	0,2513873	0,2513873	0,21171	0,21171
1989	NS	889151	481273	395617	395617	1766041	1766041	0,50347121	0,50347121	0,27251528	0,2725153	0,22401	0,22401
1990	NS	890930	514431	432862	432862	1838223	1838223	0,48466896	0,48466896	0,27985241	0,2798524	0,23548	0,23548
1991	NS	859654	606043	462314	462314	1928011	1928011	0,44587622	0,44587622	0,31433591	0,3143359	0,23979	0,23979
1992	NS	896371	662047	437707	437707	1996125	1996125	0,44905562	0,44905562	0,33166605	0,3316661	0,21928	0,21928
1993	NS	822500	640653	390808	390808	1853961	1853961	0,44364501	0,44364501	0,34555896	0,345559	0,21080	0,21080
1994	NS	794809	703998	400268	400268	1899074	1899074	0,41852424	0,41852424	0,37070575	0,3707057	0,21077	0,21077
1995	NS gr+ac	1055046	1655815	384704	384704	3095565	3095565	0,34082495	0,34082495	0,53489918	0,5348992	0,12428	0,12428
1996	NS gr+ac	1054546	1715648	409397	409397	3179592	3179592	0,33166081	0,33166081	0,53958132	0,5395813	0,12876	0,12876
1997	NS B.V./N.V.	960832	1692519	301275	301275	2954626	2954626	0,32519573	0,32519573	0,57283708	0,5728371	0,10197	0,10197
1998	NS B.V./N.V.	1015012	1791383	288777	288777	3095173	3095173	0,32793403	0,32793403	0,57876688	0,5787669	0,09330	0,09330
1972	NSB	423249	89880	36969	36969	550098	550098	0,76940697	0,76940697	0,16338932	0,1633893	0,06720	0,06720
1973	NSB	417247	85154	12015	12015	514415	514415	0,81110906	0,81110906	0,1655352	0,1655352	0,02336	0,02336
1974	NSB	383990	90816	13177	13177	487982	487982	0,78689327	0,78689327	0,18610421	0,1861042	0,02700	0,02700
1975	NSB	403285	93727	17840	17840	514851	514851	0,78330359	0,78330359	0,18204647	0,1820465	0,03465	0,03465
1976	NSB	452972	103441	39547	39547	595960	595960	0,76007072	0,76007072	0,17357033	0,1735703	0,06636	0,06636
1977	NSB	448931	107873	37554	37554	594358	594358	0,75532121	0,75532121	0,18149496	0,181495	0,06318	0,06318
1978	NSB	452648	108369	63544	63544	624561	624561	0,72474619	0,72474619	0,17351238	0,1735124	0,10174	0,10174
1979	NSB	429133	122526	75984	75984	627644	627644	0,6837206	0,6837206	0,19521649	0,1952165	0,12106	0,12106
1980	NSB	408609	131752	32226	32226	572586	572586	0,71361918	0,71361918	0,23009979	0,2300998	0,05628	0,05628
1981	NSB	408213	138093	55636	55636	601942	601942	0,67815975	0,67815975	0,2294119	0,2294119	0,09243	0,09243
1982	NSB	418855	134371	90046	90046	643272	643272	0,65113178	0,65113178	0,20888622	0,2088862	0,13998	0,13998
1983	NSB	399651	135826	120674	120674	656150	656150	0,60908424	0,60908424	0,2070043	0,2070043	0,18391	0,18391
1984	NSB	385324	134736	126243	126243	646303	646303	0,59619643	0,59619643	0,20847184	0,2084718	0,19533	0,19533
1985	NSB	384840	143492	147024	147024	675356	675356	0,56983313	0,56983313	0,2124687	0,2124687	0,21770	0,21770
1986	NSB	408180	172761	218880	218880	799821	799821	0,5103391	0,5103391	0,21599978	0,2159998	0,27366	0,27366
1987	NSB	428995	156666	151810	151810	737471	737471	0,58171095	0,58171095	0,212437	0,212437	0,20585	0,20585
1988	NSB	390485	176064	167700	167700	734249	734249	0,53181583	0,53181583	0,23978773	0,2397877	0,22840	0,22840
1989	NSB	376085	182383	146238	146238	704706	704706	0,53367737	0,53367737	0,25880691	0,2588069	0,20752	0,20752
1990	NSB	376490	189869	166226	166226	732585	732585	0,51391955	0,51391955	0,25917731	0,2591773	0,22690	0,22690
1991	NSB	366854	266688	35342	35342	668884	668884	0,54845629	0,54845629	0,39870638	0,3987064	0,05284	0,05284
1992	NSB	383114	413977	52319	52319	849410	849410	0,45103501	0,45103501	0,48737	0,48737	0,06159	0,06159
1993	NSB	377277	368850	41024	41024	787151	787151	0,4792943	0,4792943	0,46858923	0,4685892	0,05212	0,05212
1994	NSB	411365	368188	.	.	.	.	.	.	.	.	.	.
1995	NSB	255758	168226	.	.	.	.	.	.	.	.	.	.
1996	NSB BA/JBV			.	.	.	.	.	.	.	.	.	.
1997	NSB BA/JBV			.	.	.	.	.	.	.	.	.	.
1998	NSB BA/JBV			.	.	.	.	.	.	.	.	.	.
1999	NSB BA/JBV	.	.	.	.	.	.	.	.	.	.	.	.
1972	OBB	2257441	470541	207091	207091	2935073	2935073	0,76912596	0,76912596	0,16031659	0,1603166	0,07056	0,07056
1973	OBB	2282312	472205	250729	250729	3005246	3005246	0,7594426	0,7594426	0,15712691	0,1571269	0,08343	0,08343
1974	OBB	1731888	500940	273138	273138	2505966	2505966	0,69110593	0,69110593	0,19989901	0,199899	0,10900	0,10900
1975	OBB	1805123	479702	460640	460640	2745465	2745465	0,65749266	0,65749266	0,17472521	0,1747252	0,16778	0,16778
1976	OBB	1848281	486241	489826	489826	2824348	2824348	0,65440974	0,65440974	0,1721604	0,1721604	0,17343	0,17343
1977	OBB	1370038	948749	483565	483565	2802352	2802352	0,48888851	0,48888851	0,33855465	0,3385547	0,17256	0,17256
1978	OBB	1354833	964959	468558	468558	2788350	2788350	0,48589047	0,48589047	0,34606805	0,3460681	0,16804	0,16804
1979	OBB	1304163	1051237	632862	632862	2988262	2988262	0,43642852	0,43642852	0,35178886	0,3517889	0,21178	0,21178
1980	OBB	1328385	1048454	656799	656799	3033638	3033638	0,43788516	0,43788516	0,34560938	0,3456094	0,21651	0,21651
1981	OBB	1351310	1065850	679178	679178	3096337	3096337	0,43642195	0,43642195	0,34422916	0,3442292	0,21935	0,21935
1982	OBB	1336389	1077539	750006	750006	3163934	3163934	0,4223822	0,4223822	0,34056939	0,3405694	0,23705	0,23705
1983	OBB	1297572	1093046	783697	783697	3174315	3174315	0,40877213	0,40877213	0,34434082	0,3443408	0,24689	0,24689
1984	OBB	1311710	1039437	746548	746548	3097694	3097694	0,42344712	0,42344712	0,33555181	0,3355518	0,24100	0,24100
1985	OBB	1365255	1024440	863553	863553	3253249	3253249	0,41965906	0,41965906	0,31489752	0,3148975	0,26544	0,26544
1986	OBB	1430319	985972	890277	890277	3306568	3306568	0,43256899	0,43256899	0,29818603	0,298186	0,26924	0,26924
1987	OBB	1425290	935777	928109	928109	3289177	3289177	0,43332734	0,43332734	0,2845019	0,2845019	0,28217	0,28217
1988	OBB	1363852	916423	972857	972857	3253132	3253132	0,41924286	0,41924286	0,28170468	0,2817047	0,29905	0,29905
1989	OBB	1347359	970460	961524	961524	3279344	3279344	0,41086242	0,41086242	0,29593126	0,2959313	0,29321	0,29321

A2.5.1.Variable Costs (VC) and Input Cost Shares (SH)

Year	Company	Clabour	CE&M	CEQ_T	CEQ_P	VC_T	VC_P	SHLB_T	SHLB_P	SHEM_T	SHEM_P	SHEQ_T	SHEQ_P
1990	OBB	1310322	1088789	1052912	1052912	3452023	3452023	0,37958075	0,37958075	0,31540615	0,3154062	0,30501	0,30501
1991	OBB	1927610	655561	1147147	1147147	3730318	3730318	0,51674138	0,51674138	0,17573875	0,1757387	0,30752	0,30752
1992	OBB	1973044	677528	997796	997796	3648369	3648369	0,54080175	0,54080175	0,18570717	0,1857072	0,27349	0,27349
1993	OBB	1974160	732459	896069	896069	3602688	3602688	0,54796847	0,54796847	0,20330908	0,2033091	0,24872	0,24872
1994	OBB	1974094	969969	809685	809685	3753748	3753748	0,52589947	0,52589947	0,25840002	0,2584	0,21570	0,21570
1995	OBB	1938870	882364	732497	732497	3553731	3553731	0,54558713	0,54558713	0,24829219	0,2482922	0,20612	0,20612
1996	OBB	1882066	884238	627023	627023	3393326	3393326	0,55463739	0,55463739	0,26058145	0,2605815	0,18478	0,18478
1997	OBB	1734377	771862	537638	537638	3043877	3043877	0,56979218	0,56979218	0,25357857	0,2535786	0,17663	0,17663
1998	OBB	1729337	891275	509187	509187	3129800	3129800	0,55253915	0,55253915	0,28477075	0,2847707	0,16269	0,16269
1999	OBB	1695139	980716	460447	460447	3136303	3136303	0,54048971	0,54048971	0,31269821	0,3126982	0,14681	0,14681
1991	PKP	2537837	3554231	742290	742290	6834359	6834359	0,37133504	0,37133504	0,52005341	0,5200534	0,10861	0,10861
1992	PKP	2542607	2504066	1353066	1353066	6399739	6399739	0,39729856	0,39729856	0,39127629	0,3912763	0,21143	0,21143
1993	PKP	3034535	3077757	4246985	4246985	10359278	10359278	0,29292925	0,29292925	0,2971015	0,2971015	0,40997	0,40997
1994	PKP	2867729	2870968	742659	742659	6481357	6481357	0,44245818	0,44245818	0,44295794	0,4429579	0,11458	0,11458
1995	PKP	2756551	2380200	2846066	2846066	7982817	7982817	0,34531057	0,34531057	0,29816544	0,2981654	0,35652	0,35652
1996	PKP	2818843	2091141	3644800	3644800	8554784	8554784	0,32950486	0,32950486	0,24444112	0,2444411	0,42605	0,42605
1997	PKP	2833984	1905974	4746932	4746932	9486889	9486889	0,29872635	0,29872635	0,20090609	0,2009061	0,50037	0,50037
1998	PKP	2879864	1676519	5294012	5294012	9850395	9850395	0,29236022	0,29236022	0,17019815	0,1701981	0,53744	0,53744
1999	PKP	2763851	1411905	4800693	4800693	8976449	8976449	0,30790025	0,30790025	0,15728988	0,1572899	0,53481	0,53481
1972	RENFE	1478446	625340	226467	226467	2330253	2330253	0,63445734	0,63445734	0,26835703	0,268357	0,09719	0,09719
1973	RENFE	1394801	616090	156638	156638	2167529	2167529	0,64349812	0,64349812	0,28423601	0,284236	0,07227	0,07227
1974	RENFE	1523545	810934	45921	45921	2380400	2380400	0,64003739	0,64003739	0,34067133	0,3406713	0,01929	0,01929
1975	RENFE	1579105	933797	22856	22856	2535758	2535758	0,62273472	0,62273472	0,36825164	0,3682516	0,00901	0,00901
1976	RENFE	1750190	1023282	48194	48194	2821666	2821666	0,62026835	0,62026835	0,36265161	0,3626516	0,01708	0,01708
1977	RENFE	1879396	1021555	4231	4231	2905182	2905182	0,64691157	0,64691157	0,3516321	0,3516321	0,00146	0,00146
1978	RENFE	1938181	889754	4308	4308	2832243	2832243	0,68432731	0,68432731	0,31415179	0,3141518	0,00152	0,00152
1979	RENFE	1956803	834676	130122	130122	2921600	2921600	0,66977085	0,66977085	0,28569139	0,2856914	0,04454	0,04454
1980	RENFE	2029641	1048559	433436	433436	3511637	3511637	0,5779759	0,5779759	0,29859554	0,2985955	0,12343	0,12343
1981	RENFE	2072360	1208744	489904	489904	3771009	3771009	0,54955059	0,54955059	0,32053606	0,3205361	0,12991	0,12991
1982	RENFE	2590722	1491303	487831	487831	4569856	4569856	0,56691551	0,56691551	0,3263348	0,3263348	0,10675	0,10675
1983	RENFE	2656100	1528936	.	729061	.	4914097	.	0,54050619	.	0,3111327	.	0,14836
1984	RENFE	2540958	1462657	.	791702	.	4795317	.	0,52988319	.	0,3050178	.	0,16510
1985	RENFE	2368424	1363341	.	915626	.	4647391	.	0,50962438	.	0,2933562	.	0,19702
1986	RENFE	2004085	1298266	201989	580799	3504340	3883150	0,57188652	0,51609776	0,37047369	0,3343332	0,05764	0,14957
1987	RENFE	2017992	1276105	543806	1140840	3837902	4434936	0,52580591	0,45502161	0,33250057	0,2877391	0,14169	0,25724
1988	RENFE	1901064	1163151	575502	1142712	3639717	4206928	0,5223109	0,45188889	0,31957193	0,2764848	0,15812	0,27163
1989	RENFE	1844425	1141585	666567	1246046	3652577	4232056	0,50496545	0,43582245	0,31254232	0,2697471	0,18249	0,29443
1990	RENFE	1854023	1166627	798424	1389960	3819074	4410610	0,485464	0,42035523	0,30547379	0,2645047	0,20906	0,31514
1991	RENFE	1889849	1240151	738413	1322684	3868412	4452684	0,48853345	0,42442916	0,32058391	0,2785176	0,19088	0,29705
1992	RENFE	1825677	1251250	786902	1287861	3863829	4364788	0,47250459	0,41827394	0,32383672	0,2866691	0,20366	0,29506
1993	RENFE	1518359	1127796	904400	1326816	3550555	3972971	0,42763985	0,38217212	0,31763931	0,2838671	0,25472	0,33396
1994	RENFE	1511174	1019761	938210	1281156	3469145	3812090	0,43560411	0,39641601	0,29395171	0,267507	0,27044	0,33608
1995	RENFE	1412402	1038014	1024025	1296342	3474442	3746759	0,40651199	0,37696647	0,29875711	0,2770433	0,29473	0,34599
1996	RENFE	1349063	980996	946013	1144091	3276072	3474150	0,41179298	0,38831469	0,29944261	0,28237	0,28876	0,32932
1997	RENFE	1274844	925137	884433	1030358	3084415	3230340	0,41331802	0,39464705	0,29993938	0,2863901	0,28674	0,31896
1998	RENFE	1296604	949816	799189	903967	3045610	3150387	0,42572903	0,41156986	0,31186392	0,3014918	0,26241	0,28694
1999	RENFE	1242328	1010348	748163	823850	3000839	3076526	0,41399341	0,40380864	0,33668859	0,3284056	0,24932	0,26779
1972	SJ	1206156	190527	103080	103080	1499763	1499763	0,80423077	0,80423077	0,12703813	0,1270381	0,06873	0,06873
1973	SJ	1165887	206273	110904	110904	1483064	1483064	0,78613403	0,78613403	0,13908589	0,1390859	0,07478	0,07478
1974	SJ	1167828	250578	75489	75489	1493894	1493894	0,78173381	0,78173381	0,16773469	0,1677347	0,05053	0,05053
1975	SJ	1172480	281506	2248	2248	1456234	1456234	0,80514553	0,80514553	0,193311	0,193311	0,00154	0,00154
1976	SJ	1148823	312958	68404	68404	1530184	1530184	0,75077417	0,75077417	0,20452298	0,204523	0,04470	0,04470
1977	SJ	1161703	362103	119999	119999	1643804	1643804	0,70671618	0,70671618	0,22028324	0,2202832	0,07300	0,07300
1978	SJ	1131160	400192	161956	161956	1693309	1693309	0,66801784	0,66801784	0,23633737	0,2363374	0,09564	0,09564
1979	SJ	1090236	428417	222119	222119	1740772	1740772	0,62629446	0,62629446	0,24610743	0,2461074	0,12760	0,12760
1980	SJ	1092847	365580	171551	171551	1629978	1629978	0,67046731	0,67046731	0,2242854	0,2242854	0,10525	0,10525
1981	SJ	1085248	328856	288813	288813	1702917	1702917	0,63728739	0,63728739	0,19311344	0,1931134	0,16960	0,16960
1982	SJ	1106723	317775	326078	326078	1750576	1750576	0,63220497	0,63220497	0,181526	0,181526	0,18627	0,18627
1983	SJ	1069504	312986	275563	275563	1658053	1658053	0,64503584	0,64503584	0,18876739	0,1887674	0,16620	0,16620
1984	SJ	926902	538653	364107	364107	1829662	1829662	0,50659753	0,50659753	0,2944003	0,2944003	0,19900	0,19900
1985	SJ	1394001	771873	423578	423578	2589452	2589452	0,53833807	0,53833807	0,29808361	0,2980836	0,16358	0,16358
1986	SJ	946161	550313	354156	354156	1850631	1850631	0,51126422	0,51126422	0,29736524	0,2973652	0,19137	0,19137
1987	SJ	952167	519643	470529	470529	1942339	1942339	0,49021659	0,49021659	0,26753474	0,2675347	0,24225	0,24225
1988	SJ	914187	518587	417585	417585	1850358	1850358	0,49405926	0,49405926	0,28026298	0,280263	0,22568	0,22568
1989	SJ/BV	958871	865735	126486	126486	1951092	1951092	0,49145357	0,49145357	0,44371798	0,443718	0,06483	0,06483
1990	SJ/BV	842920	776038	154403	154403	1773360	1773360	0,47532339	0,47532339	0,4376088	0,4376088	0,08707	0,08707
1991	SJ/BV	762715	716824	140353	140353	1619893	1619893	0,47084311	0,47084311	0,44251333	0,4425133	0,08664	0,08664
1992	SJ/BV	750838	792632	241277	241277	1784747	1784747	0,42069727	0,42069727	0,44411456	0,4441146	0,13519	0,13519
1993	SJ/BV	687116	963902	195691	195691	1846709	1846709	0,37207608	0,37207608	0,52195644	0,5219564	0,10597	0,10597
1994	SJ/BV	681916	1377026	221063	221063	2280005	2280005	0,29908536	0,29908536	0,60395735	0,6039574	0,09696	0,09696
1995	SJ/BV	670943	1615218	257111	257111	2543272	2543272	0,26381093	0,26381093	0,6350944	0,6350944	0,10109	0,10109
1996	SJ/BV	695714	690342	231423	231423	1617479	1617479	0,43012256	0,43012256	0,4268014	0,4268014	0,14308	0,14308
1997	SJ/BV	663649	682673	231140	231140	1577462	1577462	0,42070665	0,42070665	0,43276673	0,4327667	0,14653	0,14653
1998	SJ/BV	644206	723014	213813	213813	1581033	1581033	0,40745912	0,40745912	0,45730485	0,4573048	0,13524	0,13524
1999	SJ/BV	663534	678288	225939	225939	1567762	1567762	0,42323683	0,42323683	0,43264767	0,4326477	0,14412	0,14412
1972	SNCB	1645102	773352	75490	75490	2493944	2493944	0,65963841	0,65963841	0,3100921	0,3100921	0,03027	0,03027
1973	SNCB	1752262	718787	85196	85196	2556245	2556245	0,68548272	0,68548272	0,28118875	0,2811888	0,03333	0,03333
1974	SNCB	1775201	800044	18956	18956	2594202	2594202	0,68429579	0,68429579	0,30839717	0,3083972	0,00731	0,00731
1975	SNCB	1901011	848583	29502	29502	2779096	2779096	0,68403933	0,68403933	0,305345	0,305345	0,01062	0,01062
1976	SNCB	1868629	878927	151282	151282	2898839	2898839	0,64461306	0,64461306	0,30319976	0,3031998	0,05219	0,05219
1977	SNCB	2445663	1048450	166080	166080	3660194	3660194	0,66817869	0,66817869	0,28644659	0,2864466	0,04537	0,04537
1978	SNCB	2513965	1015540	260513	260513	3790017	3790017	0,66331218	0,66331218	0,26795125	0,2679512	0,06874	0,06874
1979	SNCB	2632033	997074	303424	303424	3932531	3932531	0,6692976	0,6692976	0,25354509	0,2535451	0,07716	0,07716
1980	SNCB	2749885	1245188	430268	430268	4425341	4425341	0,62139515	0,62139515	0,2813767	0,2813767	0,09723	0,09723
1981	SNCB	2847678	1459097	490216	490216	4796991	4796991	0,59363841	0,59363841	0,30416924	0,3041692	0,10219	0,10219
1982	SNCB	2391910	1197080	618699	618699	4207689	4207689	0,56846171	0,56846171	0,28449829	0,2844983	0,14704	0,14704
1983	SNCB	2395862	1160362	620858	620858	4177083	4177083	0,57357304	0,57357304	0,27779249	0,2777925	0,14863	0,14863
1984	SNCB	2442885	958563	695280	695280	4096728	4096728	0,59630143	0,59630143	0,2339827	0,2339827	0,16972	0,16972
1985	SNCB/NMBS	2372495	904956	598177	598177	3875628	3875628	0,61215742	0,61215742	0,2334993	0,2334993	0,15434	0,15434
1986	SNCB/NMBS	2357544	891850	613165	613165	3862559	3862559	0,61035797	0,61035797	0,23089615	0,2308961	0,15875	0,15875
1987	SNCB/NMBS	2333844	647177	702194	702194	3683216	3683216	0,63364298	0,63364298	0,1757099	0,1757099	0,19065	0,19065
1988	SNCB/NMBS	2184406	507727	702821	702821	3394955	3394955	0,64342727	0,64342727	0,14955337	0,1495534	0,20702	0,20702
1989	SNCB/NMBS	2068757	451676	626889	626889	3147321	3147321	0,65730708	0,65730708	0,14351119	0,1435112	0,19918	0,19918

A2.5.1.Variable Costs (VC) and Input Cost Shares (SH)

Year	Company	Clabour	CE&M	CEQ_T	CEQ_P	VC_T	VC_P	SHLB_T	SHLB_P	SHEM_T	SHEM_P	SHEQ_T	SHEQ_P
1990	SNCB/NMBS	2020386	507431	760379	760379	3288197	3288197	0,6144359	0,6144359	0,15431903	0,154319	0,23125	0,23125
1991	SNCB/NMBS	2069676	653505	757533	757533	3480714	3480714	0,59461253	0,59461253	0,18775024	0,1877502	0,21764	0,21764
1992	SNCB/NMBS	2004322	796564	700769	700769	3501655	3501655	0,57239277	0,57239277	0,22748223	0,2274822	0,20013	0,20013
1993	SNCB/NMBS	2034274	1251311	609926	609926	3895511	3895511	0,52220988	0,52220988	0,32121874	0,3212187	0,15657	0,15657
1994	SNCB/NMBS	1874767	1154995	689795	689795	3719556	3719556	0,50402961	0,50402961	0,31051958	0,3105196	0,18545	0,18545
1995	SNCB/NMBS	2096173	636070	679619	679619	3411863	3411863	0,61437791	0,61437791	0,18642905	0,186429	0,19919	0,19919
1996	SNCB/NMBS	1992853	691350	640623	640623	3324826	3324826	0,59938567	0,59938567	0,2079358	0,2079358	0,19268	0,19268
1997	SNCB/NMBS	1410852	690066	588211	588211	2689129	2689129	0,52465044	0,52465044	0,25661309	0,2566131	0,21874	0,21874
1998	SNCB/NMBS	1404140	720365	523618	523618	2648122	2648122	0,53023976	0,53023976	0,27202849	0,2720285	0,19773	0,19773
1999	SNCB/NMBS	1443587	774257	539145	539145	2756989	2756989	0,52361002	0,52361002	0,28083426	0,2808343	0,19556	0,19556
1972	SNCF	6563155	2982605	536221	899329	10081982	10445090	0,65097871	0,62834841	0,29583517	0,2855509	0,05319	0,08610
1973	SNCF	6657052	3205636	516186	851083	10378875	10713772	0,64140404	0,62135466	0,30886165	0,2992071	0,04973	0,07944
1974	SNCF	6912582	3547292	426812	692068	10886686	11151942	0,6349574	0,61985452	0,32583767	0,3180874	0,03920	0,06206
1975	SNCF	7218580	3484626	230407	370335	10933613	11073541	0,66021907	0,65187638	0,31870767	0,3146804	0,02107	0,03344
1976	SNCF	7562406	3418010	469583	737893	11449999	11718309	0,66047218	0,64534958	0,29851621	0,2916812	0,04101	0,06297
1977	SNCF	7730073	3427851	833569	1281209	11991494	12439134	0,64462972	0,62143181	0,28585689	0,2755699	0,06951	0,10300
1978	SNCF	7600154	3443164	516424	1118260	11559742	12161577	0,65746743	0,62493158	0,29785821	0,2831182	0,04467	0,09195
1979	SNCF	7685634	3594007	620216	1278659	11899857	12558299	0,64585935	0,61199639	0,30202099	0,2861858	0,05212	0,10182
1980	SNCF	7787828	3699225	961526	1780188	12448579	13267240	0,62559976	0,58699683	0,29716038	0,278824	0,07724	0,13418
1981	SNCF	7919009	3723555	1418438	2434862	13061002	14077426	0,60630945	0,56253247	0,28508951	0,2645054	0,10860	0,17296
1982	SNCF	8262389	3808089	1412079	2414788	13482557	14485266	0,61282059	0,5703995	0,28244562	0,262894	0,10473	0,16671
1983	SNCF	8298063	3912487	1545448	2594288	13755998	14804838	0,60323233	0,56049671	0,28442046	0,2642709	0,11235	0,17523
1984	SNCF	7812974	3826960	1736654	2856544	13376587	14496478	0,58407829	0,53895673	0,28609387	0,2639924	0,12983	0,19705
1985	SNCF	7771831	3472195	1760905	2912672	13004931	14156698	0,59760646	0,54898613	0,26699069	0,2452687	0,13540	0,20575
1986	SNCF	7317318	3221410	1487397	2578687	12026125	13117415	0,6084519	0,55783235	0,26786764	0,2455827	0,12368	0,19658
1987	SNCF	7033407	3083352	1969987	3247754	12086746	13364512	0,58191068	0,52627485	0,25510191	0,2307119	0,16299	0,24301
1988	SNCF	6742579	2938384	1930098	3242208	11611061	12923171	0,58070314	0,52174343	0,25306763	0,2273733	0,16623	0,25088
1989	SNCF	6641171	3043070	1830962	3305998	11515202	12990238	0,5767307	0,51124318	0,26426543	0,2342582	0,15900	0,25450
1990	SNCF	6482844	3241096	2046319	3669456	11770259	13393396	0,55078175	0,48403287	0,2753632	0,2419921	0,17386	0,27398
1991	SNCF	6125702	3614695	1991199	4298252	11731596	14038649	0,52215414	0,43634553	0,30811624	0,2574817	0,16973	0,30617
1992	SNCF	6120789	3842930	2161476	3662698	12125195	13626417	0,50479925	0,44918551	0,31693757	0,2820206	0,17826	0,26879
1993	SNCF	6174081	3731614	1977724	3002737	11883418	12908431	0,51955428	0,47829831	0,31401854	0,2890834	0,16643	0,23262
1994	SNCF	6159713	3676795	2181779	2535780	12018287	12372288	0,51252833	0,49786368	0,30593337	0,2971799	0,18154	0,20496
1995	SNCF	5988851	3841340	2285299	2061313	12115490	11891504	0,49431356	0,50362436	0,31706024	0,3230323	0,18863	0,17334
1996	SNCF	6006079	3633972	2251603	1590253	11891654	11230304	0,50506675	0,53481002	0,30559009	0,3235862	0,18934	0,14160
1997	SNCF/RFF	6411216	8200735	808643	808643	15420594	15420594	0,41575676	0,41575676	0,53180408	0,5318041	0,05244	0,05244
1998	SNCF/RFF	6458327	7131100	830820	830820	14420248	14420248	0,44786521	0,44786521	0,49451994	0,4945199	0,05761	0,05761
1999	SNCF/RFF	6490031	7180052	1012459	1012459	14682541	14682541	0,44202368	0,44202368	0,48901969	0,4890197	0,06896	0,06896
1992	SZ	305099	181279	1938	1938	488317	488317	0,62479796	0,62479796	0,37123283	0,3712328	0,00397	0,00397
1993	SZ	227991	164482	69892	69892	462365	462365	0,49309779	0,49309779	0,35574068	0,3557407	0,15116	0,15116
1994	SZ	203145	180602	115786	115786	499533	499533	0,40666991	0,40666991	0,36154194	0,3615419	0,23179	0,23179
1995	SZ	176398	156823	81917	81917	415137	415137	0,42491428	0,42491428	0,37776174	0,3777617	0,19732	0,19732
1996	SZ	206782	175867	108457	108457	491106	491106	0,42105295	0,42105295	0,35810474	0,3581047	0,22084	0,22084
1997	SZ	205277	164707	112322	112322	482306	482306	0,42561587	0,42561587	0,34149919	0,3414992	0,23288	0,23288
1998	SZ	194577	176558	96458	96458	467593	467593	0,41612451	0,41612451	0,3775887	0,3775887	0,20629	0,20629
1999	SZ	204390	180944	84265	84265	469599	469599	0,43524388	0,43524388	0,38531635	0,3853163	0,17944	0,17944
1972	TCDD	659967	429600	51228	51228	1140794	1140794	0,57851494	0,57851494	0,37657988	0,3765799	0,04491	0,04491
1973	TCDD	603381	374040	1216	1216	978637	978637	0,61655253	0,61655253	0,3822053	0,3822053	0,00124	0,00124
1974	TCDD	611504	419205	1301	1301	1032010	1032010	0,59253683	0,59253683	0,40620251	0,4062025	0,00126	0,00126
1975	TCDD	777403	436524	1540	1540	1215467	1215467	0,6395922	0,6395922	0,3591405	0,3591405	0,00127	0,00127
1976	TCDD	885005	401863	31431	31431	1318299	1318299	0,6713233	0,6713233	0,30483448	0,3048345	0,02384	0,02384
1977	TCDD	1027274	337635	2016	2016	1366926	1366926	0,75152161	0,75152161	0,24700321	0,2470032	0,00148	0,00148
1978	TCDD	1032485	316022	1965	1965	1350473	1350473	0,76453595	0,76453595	0,23400864	0,2340086	0,00146	0,00146
1979	TCDD	984540	304669	2084	2084	1291293	1291293	0,7624448	0,7624448	0,23594101	0,235941	0,00161	0,00161
1980	TCDD	940318	477006	2290	2290	1419614	1419614	0,66237595	0,66237595	0,33601089	0,3360109	0,00161	0,00161
1981	TCDD	730231	506123	2402	2402	1238756	1238756	0,58948728	0,58948728	0,40857373	0,4085737	0,00194	0,00194
1982	TCDD	643342	513811	314116	314116	1471269	1471269	0,43727027	0,43727027	0,34922956	0,3492296	0,21350	0,21350
1983	TCDD	638110	528230	1252842	1252842	2419182	2419182	0,26377083	0,26377083	0,21835066	0,2183507	0,51788	0,51788
1984	TCDD	524779	554994	556427	556427	1636200	1636200	0,32073025	0,32073025	0,3391969	0,3391969	0,34007	0,34007
1985	TCDD	445189	484614	441164	441164	1370968	1370968	0,32472618	0,32472618	0,35348326	0,3534833	0,32179	0,32179
1986	TCDD	411165	432450	1268364	1268364	2111980	2111980	0,19468245	0,19468245	0,20476054	0,2047605	0,60056	0,60056
1987	TCDD	461984	380018	1340518	1340518	2182519	2182519	0,21167456	0,21167456	0,17411879	0,1741188	0,61421	0,61421
1988	TCDD	436528	379233	8070	8070	823831	823831	0,52987624	0,52987624	0,46032854	0,4603285	0,00980	0,00980
1989	TCDD	583427	415281	8736	8736	1007443	1007443	0,5791163	0,5791163	0,41221234	0,4122123	0,00867	0,00867
1990	TCDD	764806	490105	9544	9544	1264454	1264454	0,60485038	0,60485038	0,38760176	0,3876018	0,00755	0,00755
1991	TCDD	911281	558836	10304	10304	1480422	1480422	0,61555526	0,61555526	0,37748467	0,3774847	0,00696	0,00696
1992	TCDD	1051555	682342	11124	11124	1745022	1745022	0,60260291	0,60260291	0,3910221	0,3910221	0,00637	0,00637
1993	TCDD	1193426	559430	11805	11805	1764661	1764661	0,6762917	0,6762917	0,31701854	0,3170185	0,00669	0,00669
1994	TCDD	891539	470248	12901	12901	1374689	1374689	0,64853893	0,64853893	0,3420762	0,3420762	0,00938	0,00938
1995	TCDD	729251	450035	13883	13883	1193168	1193168	0,61118827	0,61118827	0,37717674	0,3771767	0,01163	0,01163
1996	TCDD	713185	473721	14625	14625	1201531	1201531	0,59356378	0,59356378	0,39426426	0,3942643	0,01217	0,01217
1997	TCDD	822041	514952	15311	15311	1352304	1352304	0,60788132	0,60788132	0,38079618	0,3807962	0,01132	0,01132
1998	TCDD	813593	513278	103992	103992	1430863	1430863	0,56860324	0,56860324	0,35871909	0,3587191	0,07268	0,07268
1999	TCDD	942398	512203	2193267	2193267	3647868	3647868	0,25834221	0,25834221	0,14041154	0,1404115	0,60125	0,60125
1972	VR	438570	148380	22130	22130	609079	609079	0,72005366	0,72005366	0,24361304	0,243613	0,03633	0,03633
1973	VR	444950	154534	647	573	600131	600058	0,74142143	0,74151266	0,25750022	0,2575319	0,00108	0,00096
1974	VR	455382	177287	742	610	633411	633279	0,71893619	0,71908625	0,27989236	0,2799508	0,00117	0,00096
1975	VR	516592	196101	10125	8612	722818	721306	0,71469151	0,71619039	0,27130081	0,2718698	0,01401	0,01194
1976	VR	531673	186725	13403	11118	731801	729516	0,72652637	0,72880178	0,2551586	0,2559577	0,01832	0,01524
1977	VR	513507	198354	53337	41215	765199	753076	0,67107643	0,68187911	0,25921959	0,2633924	0,06970	0,05473
1978	VR	503783	185705	77553	58355	767042	747843	0,65678731	0,67364835	0,24210556	0,2483209	0,10111	0,07803
1979	VR	577409	120181	67912	50116	765501	747706	0,75428854	0,7722407	0,15699585	0,1607324	0,08872	0,06703
1980	VR	590291	155967	87159	62632	833418	808890	0,70827741	0,72975419	0,18714199	0,1928166	0,10458	0,07743
1981	VR	631750	171414	80428	57373	883593	860537	0,71497941	0,73413508	0,19399644	0,199194	0,09102	0,06667
1982	VR	622146	177645	107995	74726	907786	874518	0,68534399	0,71141601	0,19569083	0,2031353	0,11897	0,08545
1983	VR	638770	173771	128995	87338	941535	899878	0,67843426	0,70984053	0,1845608	0,1931045	0,13700	0,09705
1984	VR	626993	164129	151322	100403	942445	891525	0,66528391	0,70328173	0,17415253	0,1840993	0,16056	0,11262
1985	VR	629318	180641	208021	133752	1017980	943711	0,61820248	0,66685441	0,17745055	0,1914157	0,20435	0,14173
1986	VR	617363	146669	217088	137700	981120	901732	0,62924334	0,68464135	0,14949102	0,1626521	0,22127	0,15271
1987	VR	604746	141787	224823	140713	971355	887246	0,62257927	0,68159905	0,14596825	0,1598059	0,23145	0,15860
1988	VR	590732	132379	180482	115126	903593	838237	0,6537586	0,70473175	0,14650284	0,1579256	0,19974	0,13734
1989	VR	568612	150521	237890	147259	957023	866392	0,59414677	0,65629879	0,15728052	0,1737332	0,24857	0,16997
1990	VR	.	.	.	.	.	.	.	.	.	.	.	.

A2.5.1.Variable Costs (VC) and Input Cost Shares (SH)

Year	Company	Clabour	CE&M	CEQ_T	CEQ_P	VC_T	VC_P	SHLB_T	SHLB_P	SHEM_T	SHEM_P	SHEQ_T	SHEQ_P
1991	VR	501847	162433	71912	71912	736191	736191	0,68167945	0,68167945	0,22063937	0,2206394	0,09768	0,09768
1992	VR	491558	167305	90079	90079	748942	748942	0,65633674	0,65633674	0,22338885	0,2233889	0,12027	0,12027
1993	VR	474467	160771	73716	73716	708954	708954	0,66924928	0,66924928	0,22677193	0,2267719	0,10398	0,10398
1994	VR	452857	191057	68186	68186	712100	712100	0,63594501	0,63594501	0,26830129	0,2683013	0,09575	0,09575
1995	VR	.	.	.	.	.	.	.	.	.	.	.	.
1996	VR+RHK	333218	328017	40348	40348	701582	701582	0,47495189	0,47495189	0,46753829	0,4675383	0,05751	0,05751
1997	VR+RHK	318287	347719	38165	38165	704170	704170	0,45200221	0,45200221	0,49379946	0,4937995	0,05420	0,05420
1998	VR+RHK	319633	326998	42425	42425	689056	689056	0,46387089	0,46387089	0,47455889	0,4745589	0,06157	0,06157
1999	VR+RHK	314119	322721	70092	70092	706932	706932	0,44434103	0,44434103	0,45651002	0,45651	0,09915	0,09915
1993	ZSR	508153	559216	1049	1049	1068418	1068418	0,47561269	0,47561269	0,52340586	0,5234059	0,00098	0,00098
1994	ZSR	532536	598091	57317	57317	1187945	1187945	0,44828361	0,44828361	0,50346719	0,5034672	0,04825	0,04825
1995	ZSR	540070	738027	137038	137038	1415134	1415134	0,38163848	0,38163848	0,52152421	0,5215242	0,09684	0,09684
1996	ZSR	592708	732663	196749	196749	1522120	1522120	0,38939614	0,38939614	0,48134399	0,481344	0,12926	0,12926
1997	ZSR	644153	773909	251567	251567	1669628	1669628	0,38580601	0,38580601	0,46352159	0,4635216	0,15067	0,15067
1998	ZSR	684035	740135	329205	329205	1753375	1753375	0,39012447	0,39012447	0,42212031	0,4221203	0,18776	0,18776
1999	ZSR	696863	602325	321815	321815	1621003	1621003	0,42989639	0,42989639	0,37157543	0,3715754	0,19853	0,19853

A2.6.1.Outputs: PASSKM, TONKM, TKMPASS and TKMFRG

Year	Company	PASSENGER-KMs (in thousands)	TONNE-KMs (in thousands)	Passenger Train-KMS (in millions)	Freight Train-KMs (in millions)
1992	BC	18017000	56441000	44325	38705
1993	BC	19500000	42919000	45517	26442
1994	BC	16063000	27963000	43640	18462
1995	BC	12505000	25510000	42984	16151
1996	BC	11657000	26018000	41576	16588
1997	BC	12909000	30636000	40082	19069
1998	BC	13268000	30370000	38946	18627
1999	BC	16874000	30529000	37882	18304
1989	BDZ	7601000	17034000	34564	25518
1990	BDZ	7793000	14132000	35261	23935
1991	BDZ	4866000	8685000	34879	5955
1992	BDZ	5393000	7758000	34497	11646
1993	BDZ	5837000	7702000	33271	13865
1994	BDZ	5059000	7750000	32026	15407
1995	BDZ	4693000	8595000	30754	16824
1996	BDZ	5065000	7517000	29985	15073
1997	BDZ	5886000	7405000	30885	14661
1998	BDZ	4740000	18286000	29816	10940
1999	BDZ	3819000	5209000	30105	10333
1972	BR	29129000	21030000	329888	101276
1973	BR	29773000	22960000	328472	104134
1974	BR	30899000	21630000	334571	98350
1975	BR	30256000	20990000	345104	90366
1976	BR	28607600	23045800	320189	106588
1977	BR	29290000	20000000	324060	101594
1978	BR	30740000	20000000	330023	99762
1979	BR	32030000	19893000	330374	96303
1980	BR	31704000	17640000	342591	87682
1981	BR	30740000	17505000	337592	80556
1982	BR	27360000	15879000	300612	70680
1983	BR	30100000	17144000	326112	75568
1984	BR	36400000	15842000	403937	80249
1985	BR	30256000	16047000	323397	69784
1986	BR	31106000	16565000	326472	67961
1987	BR	33140000	17466000	342000	50000
1988	BR	34315000	18104000	357548	67597
1989	BR	33323000	16742000	362430	77232
1990	BR	33191000	15986000	372508	59539
1991	BR	32058000	17274000	373330	54651
1992	BR	31718000	15508000	367331	49312
1993	BR	30363000	13765000	367142	51514
1994	BR	28656000	12992000	369671	35239
1995	BR	29216000	12537000	372200	39500
1993	CD	8548000	25201000	93259	50514
1994	CD	8481000	22823000	100134	48594
1995	CD	8023000	22634000	108048	50735
1996	CD	8111000	22333000	104249	49449
1997	CD	7710000	20733000	97409	46449
1998	CD	7001000	18288000	92677	43946
1999	CD	6929000	16457000	95373	41116
1972	CFF	8296133	6698568	59074	31129
1973	CFF	8391222	7135901	59291	31214
1974	CFF	8278818	7000588	59510	30642
1975	CFF	7973227	5138808	60966	27542
1976	CFF	8104806	5658008	63163	28330
1977	CFF	8017891	5932486	63924	28969
1978	CFF	8082996	6218002	64687	28675
1979	CFF	8294093	6956157	65186	28995
1980	CFF	9167189	7384567	66932	28990
1981	CFF	9085559	7137022	66973	28470
1982	CFF	8956234	6500893	74057	27649
1983	CFF	8989650	6404626	79301	26606
1984	CFF	9032086	6891506	79515	26790
1985	CFF	9369000	7049000	80063	25749
1986	CFF	9325000	6966000	80356	25530
1987	CFF	10680000	6812000	85913	25735
1988	CFF	10790000	7503000	90732	26826
1989	CFF	11021000	8161000	91063	27366
1990	CFF	11049000	8303000	94660	27149
1991	CFF	12371000	8108000	96421	26655
1992	CFF	11819000	7663000	95582	25899
1993	CFF	11959000	7328000	94134	23561
1994	CFF/SBB/FI	12085000	8058000	93333	27929
1995	CFF/SBB/FI	11712000	8156000	90389	26429
1996	CFF/SBB/FI	11662000	7382000	89750	26427
1997	CFF/SBB/FI	12386000	8166000	90741	26073
1998	CFF/SBB/FI	12485000	8738000	92771	30717

A2.6.1.Outputs: PASSKM, TONKM, TKMPASS and TKMFRG

Year	Company	PASSENGER-KMs (in thousands)	TONNE-KMs (in thousands)	Passenger Train-KMS (in millions)	Freight Train-KMs (in millions)
1999	CFF/SBB/F	12615000	9632000	94800	32700
1972	CFL	208283	781013	2714	1761
1973	CFL	216733	784010	2763	1727
1974	CFL	231340	863905	2782	1853
1975	CFL	234443	658328	2829	1518
1976	CFL	240142	624008	2932	1414
1977	CFL	240226	564974	2809	1366
1978	CFL	239049	647233	2834	1498
1979	CFL	241804	712638	2839	1638
1980	CFL	245517	664025	2822	1528
1981	CFL	252149	584894	2893	1335
1982	CFL	251175	550500	2914	1267
1983	CFL	239237	503480	2858	1165
1984	CFL	230934	582927	2884	1303
1985	CFL	229000	599000	2990	1367
1986	CFL	224000	543000	3218	1900
1987	CFL	216000	588000	3256	1808
1988	CFL	223000	635000	3074	1299
1989	CFL	224000	699000	3083	1402
1990	CFL	208000	705000	3363	1540
1991	CFL	220000	709000	3732	1566
1992	CFL	220000	669000	4833	1512
1993	CFL	262000	646000	5525	1456
1994	CFL	289000	684000	5735	1493
1995	CFL	286000	564000	5843	1365
1996	CFL	284000	570000	5928	1350
1997	CFL	295000	609000	6091	1048
1998	CFL	300000	622000	6219	1089
1999	CFL	310000	659000	6219	1089
1990	CFR	30582000	48758000	75806	42387
1991	CFR	25429000	32468000	75806	42387
1992	CFR	24269000	24230000	78110	41176
1993	CFR	19402000	21849000	77584	39914
1994	CFR	18313000	21553000	77065	39040
1995	CFR	18847000	24041000	81097	41272
1996	CFR	18356000	24155000	85767	39255
1997	CFR	15794000	22028000	81159	39818
1998	CFR	13422000	17584000	75948	32761
1999	CFR	12304000	14660000	70042	28968
1972	CH	1563046	755649	14055	4083
1973	CH	1570740	797902	13867	4199
1974	CH	1594173	901956	13678	4315
1975	CH	1552706	930677	13707	4165
1976	CH	1582681	844495	13295	3992
1977	CH	1622833	855436	13219	3885
1978	CH	1567781	854342	13280	3474
1979	CH	1530535	840547	13038	3347
1980	CH	1463980	813581	12087	2855
1981	CH	1515059	693389	12563	2721
1982	CH	1501437	585589	13245	2660
1983	CH	1628718	670130	13534	2766
1984	CH	1651519	769580	13669	2865
1985	CH	1732000	733000	13548	2728
1986	CH	1950000	702000	13770	2801
1987	CH	1973000	599000	13711	2313
1988	CH	1963000	604000	12700	2300
1989	CH	2011000	657000	12700	2300
1990	CH	1977000	647000	12700	2300
1991	CH	1995000	606000	12700	2300
1992	CH	2004000	564000	12700	2300
1993	CH	1726000	524000	13273	2140
1994	CH	1399000	324000	15285	1696
1995	CH	1568000	306000	16381	1728
1996	CH	1751000	350000	17474	1742
1997	CH	1884000	331000	16732	1691
1998	CH	1552000	334000	15262	1315
1999	CH	1583000	347000	15465	1297
1972	CIE	843847	564472	7065	4021
1973	CIE	874901	568190	8668	3888
1974	CIE	690348	453775	6104	3021
1975	CIE	898621	561290	7129	3672
1976	CIE	787626	594682	6415	3816
1977	CIE	872543	596255	6754	3968
1978	CIE	965848	630139	8323	4676
1979	CIE	1112521	628705	8728	4917
1980	CIE	1032266	636505	8467	4966
1981	CIE	994630	691468	8297	5063

A2.6.1.Outputs: PASSKM, TONKM, TKMPASS and TKMFRG

Year	Company	PASSENGER-KMs (in thousands)	TONNE-KMs (in thousands)	Passenger Train-KMS (in millions)	Freight Train-KMs (in millions)
1982	CIE	887491	670871	7805	4384
1983	CIE	845716	582479	7805	4250
1984	CIE	903436	600911	8145	4211
1985	CIE	1023000	601000	9336	4305
1986	CIE	1075000	574000	9655	4239
1987	CIE	1196000	563000	9692	4232
1988	CIE	1180000	545000	9288	3942
1989	CIE	1220000	560000	9541	4136
1990	CIE	1226000	589000	9868	4369
1991	CIE	1290000	603000	9615	4142
1992	CIE	1226000	633000	9717	4144
1993	CIE	1274000	575000	9734	4032
1994	CIE	1260000	569000	9820	4282
1995	CIE	1291000	602000	8930	4417
1996	CIE	1295000	570000	11051	4335
1997	CIE	1387000	522000	11348	4187
1998	CIE	1421000	466000	11291	4175
1999	CIE	1421000	526000	11291	4175
1972	CP	2981975	797144	24043	5536
1973	CP	3225020	818886	23812	5664
1974	CP	3618057	919153	24098	5678
1975	CP	3848238	753824	24366	5512
1976	CP	4079222	854383	23276	5789
1977	CP	4150767	884563	24847	5972
1978	CP	5512388	932648	25174	5936
1979	CP	5635003	871632	26781	6104
1980	CP	6076934	1000568	28218	6553
1981	CP	5855673	1002749	30248	6940
1982	CP	5414276	1060366	30076	6677
1983	CP	5195214	1043651	28614	6768
1984	CP	5456174	1238865	30281	7333
1985	CP	5725000	1306000	31156	8321
1986	CP	5803000	1448000	31113	7257
1987	CP	5907000	1614000	31363	7823
1988	CP	6063000	1708000	32054	8498
1989	CP	5908000	1719000	29559	6936
1990	CP	5664000	1589000	27429	6264
1991	CP	5688000	1783000	29310	7219
1992	CP	5694000	1867000	29583	7138
1993	CP	5397000	1787000	29524	7196
1994	CP	5110000	1825000	27855	6635
1995	CP	4617000	2343000	29495	7704
1996	CP	4502000	2177000	31788	7152
1997	CP	4563000	2632000	39720	9007
1998	CP	4602000	2340000	38661	7300
1999	CP	4329000	2562000	38660	7301
1985	CSD	19839000	66119000	134611	118327
1986	CSD	19935000	69315000	135472	120150
1987	CSD	20029000	67901000	135990	118410
1988	CSD	19408000	69430000	137101	121561
1989	CSD	19669000	66207000	138189	119250
1990	CSD	19335000	59370000	139605	111976
1991	CSD	19263000	45819000	139309	91089
1992	CSD	16898000	44046000	140482	86828
1972	DB	38823692	63836255	406670	208352
1973	DB	38944764	66356165	411121	210463
1974	DB	39734181	68273729	414478	210596
1975	DB	36896958	54311105	398991	185984
1976	DB	37211565	58390106	383533	186841
1977	DB	37347955	54886022	379488	185059
1978	DB	37589332	56467254	381852	193070
1979	DB	39380052	65222340	392245	205301
1980	DB	40499295	63765411	401452	204554
1981	DB	41795330	61036916	399004	199252
1982	DB	40030410	56511296	390704	190511
1983	DB	38754915	55059386	385366	185880
1984	DB	39074559	58885883	382253	196761
1985	DB	42707000	62911000	383210	205069
1986	DB	41397000	59581000	387890	201841
1987	DB	39174000	58047000	388073	195567
1988	DB	40959000	58972000	392270	194777
1989	DB	41144000	61109000	397437	196029
1990	DB	43560000	61357000	404268	197205
1991	DB	45639000	61991000	429546	202990
1992	DB	46407000	55848000	455018	198860
1993	DB	47576000	51786000	462653	183018
1994	DB AG	61333000	70554000	645372	226122

A2.6.1.Outputs: PASSKM, TONKM, TKMPASS and TKMFRG

Year	Company	PASSENGER-KMs (in thousands)	TONNE-KMs (in thousands)	Passenger Train-KMS (in millions)	Freight Train-KMs (in millions)
1995	DB AG	60514000	69490000	640400	216041
1996	DB AG	59309000	67880000	644646	204496
1997	DB AG	59628000	72614000	646133	191404
1998	DB AG	59184000	73613000	683935	187998
1999	DB AG	72822000	70948000	726938	204507
1972	DSB	3613668	1878852	32653	7640
1973	DSB	3465275	2003336	33655	7839
1974	DSB	3307036	2200309	34776	7897
1975	DSB	3333440	1967065	36229	7832
1976	DSB	2852798	1782563	36849	7567
1977	DSB	2997463	1869560	37113	7317
1978	DSB	3128000	1762428	37547	7109
1979	DSB	1989000	1701000	38627	6972
1980	DSB	3353000	1619000	39280	8890
1981	DSB	4003000	1476000	40630	8880
1982	DSB	4215000	1652000	41330	8800
1983	DSB	4391000	1627000	41610	8900
1984	DSB	4421000	1635000	41350	8800
1985	DSB	4508000	1648000	41430	8800
1986	DSB	4707000	1791000	41175	8800
1987	DSB	4782000	1680000	42125	8700
1988	DSB	4726000	1657000	41610	8405
1989	DSB	4649000	1677000	42410	7350
1990	DSB	4855000	1730000	45230	6930
1991	DSB	4797000	1858000	47950	6750
1992	DSB	4600000	1870000	51047	6896
1993	DSB	4596000	1796000	49937	7002
1994	DSB	5773000	2008000	50437	6973
1995	DSB	4784000	1926000	51937	7490
1996	DSB	4718000	1757000	50662	7010
1997	DSB	4988000	1619000	52284	6799
1998	DSB	5369000	2058000	53905	6846
1999	DSB	5113000	1938000	53950	6858
1992	EVR	950000	3373000	5426	3331
1993	EVR	722000	3743000	5479	3175
1994	EVR	537000	3326000	5200	2865
1995	EVR	421000	3573000	4974	2908
1996	EVR	309000	3894000	4276	3090
1997	EVR	262000	4806000	4229	3657
1998	EVR	236000	5786000	4160	4118
1999	EVR	238000	7020000	4093	4784
1972	FS	35393645	17120197	206545	62676
1973	FS	36358751	17574134	210642	62791
1974	FS	37880133	18145443	212970	61775
1975	FS	36331888	14885332	212554	53847
1976	FS	39117508	16375607	223338	58030
1977	FS	38361012	17099649	222564	58166
1978	FS	39211486	16639173	225435	56520
1979	FS	39687543	17741546	226691	56360
1980	FS	39586578	18384082	229206	57456
1981	FS	40090440	17115132	226846	53867
1982	FS	40019094	16904331	230227	55456
1983	FS	37150000	16745884	233002	54248
1984	FS	37127000	17870507	234898	56728
1985	FS	39265000	17963000	235472	56886
1986	FS	40500000	17476000	235784	56737
1987	FS	41395000	18626000	229139	61284
1988	FS	43343000	19663000	236002	63165
1989	FS	44443000	20587000	236451	65660
1990	FS	45512000	21217000	235647	66579
1991	FS	46427000	21680000	237097	67310
1992	FS	48361000	21962000	242100	65400
1993	FS	47101000	20226000	241383	60163
1994	FS	48900000	22563000	247587	64682
1995	FS	49700000	24525000	256165	68890
1996	FS SpA	50300000	23360000	257345	68426
1997	FS SpA	49500000	25228000	256011	69675
1998	FS SpA	41475000	24704000	254468	66459
1999	FS SpA	40971000	23781000	249287	58027
1985	MAV	11092000	21439000	67386	42423
1986	MAV	9450000	21741000	66947	43386
1987	MAV	9523000	20912000	67593	43003
1988	MAV	9759000	20255000	66930	41809
1989	MAV	9511000	19073000	67804	40506
1990	MAV	9060000	16232000	67935	35217
1991	MAV	7478000	11367000	69268	27197
1992	MAV	6820000	9580000	71461	24055

A2.6.1.Outputs: PASSKM, TONKM, TKMPASS and TKMFRG

Year	Company	PASSENGER-KMs (in thousands)	TONNE-KMs (in thousands)	Passenger Train-KMS (in millions)	Freight Train-KMs (in millions)
1993	MAV	6355000	7521000	71022	17825
1994	MAV	6288000	7293000	70210	26444
1995	MAV	6120000	8031000	73106	18547
1996	MAV Rt.	6292000	7318000	76367	17418
1997	MAV Rt.	6394000	7803000	69010	16987
1998	MAV Rt.	6659000	7732000	69611	16776
1999	MAV Rt.	6699000	7381000	79574	16411
1972	NS	8039077	3071161	89860	16034
1973	NS	8172481	3463251	90786	15752
1974	NS	8588874	3369962	91791	15215
1975	NS	8501103	2720856	92463	14041
1976	NS	8218419	2696487	93913	13694
1977	NS	8013054	2805449	94168	13671
1978	NS	8146316	2882150	94088	13702
1979	NS	8514078	3376201	93731	14154
1980	NS	8909975	3467656	95999	14468
1981	NS	9230164	3319113	98401	14311
1982	NS	9376224	2886576	100292	13621
1983	NS	9051584	2835000	99538	12879
1984	NS	8997357	3157231	101461	12787
1985	NS	9226000	3269000	100903	12581
1986	NS	8919000	3107000	101985	12160
1987	NS	9396000	2995000	104189	11865
1988	NS	9664000	3200000	106078	11649
1989	NS	10162000	3108000	106664	11479
1990	NS	11060000	3070000	105742	11572
1991	NS	12796000	3038000	106374	11482
1992	NS	15350000	2764000	107442	11042
1993	NS	15245000	2681000	111845	10560
1994	NS	14439000	2830000	108089	9705
1995	NS	13977000	3097000	109951	9705
1996	NS	14092000	3123000	110727	9701
1997	NS N.V.	14425000	3406000	112700	8500
1998	NS N.V.	14879000	3778000	117300	4358
1999	NS N.V.	14330000	3549000	.	.
1972	NSB	1622100	2558639	21956	9753
1973	NSB	1640200	2747402	21726	9413
1974	NSB	1883900	2885337	21771	10597
1975	NSB	1948200	2560782	22340	10733
1976	NSB	1997100	2709395	23011	10901
1977	NSB	2003700	2566687	23112	11063
1978	NSB	2058300	2649909	22892	11130
1979	NSB	2265100	3022355	22812	11286
1980	NSB	2393500	3014317	23274	11458
1981	NSB	2424500	2825200	23654	10955
1982	NSB	2241600	2479143	23544	10662
1983	NSB	2175100	2398381	23037	10235
1984	NSB	2198000	2592458	22752	10100
1985	NSB	2241000	2867000	22644	10149
1986	NSB	2225000	2954000	22688	10753
1987	NSB	2187000	2774000	22525	10413
1988	NSB	2110000	2576000	22065	9192
1989	NSB	2136000	2749000	21461	9561
1990	NSB	2104000	2568000	25296	11409
1991	NSB	2150000	2641000	23591	8793
1992	NSB	2256000	2136000	24313	8742
1993	NSB	2316000	2853000	25268	8792
1994	NSB	2398000	2678000	27663	9518
1995	NSB	2381000	2715000	27178	9390
1996	NSB BA	2449000	2636000	27454	9774
1997	NSB BA	2561000	2399000	27317	9675
1998	NSB BA	2590000	2421000	27604	9813
1999	NSB BA	2674000	2456000	27609	8156
1972	OBB	6569148	9869410	54536	33419
1973	OBB	6513293	10347704	54097	34325
1974	OBB	6575104	11085230	54406	36003
1975	OBB	6470014	9378377	55553	33953
1976	OBB	6499579	10547877	57024	35869
1977	OBB	6773065	9887904	57234	35061
1978	OBB	7108657	9498043	57884	34497
1979	OBB	7240962	10697966	58981	36574
1980	OBB	7380425	11001966	60244	37613
1981	OBB	7042802	10318429	60723	37064
1982	OBB	7217242	10102617	62756	36333
1983	OBB	7022915	10230116	63552	35117
1984	OBB	7003549	11247103	63824	36146
1985	OBB	7290000	11903000	64474	37172

A2.6.1.Outputs: PASSKM, TONKM, TKMPASS and TKMFRG

Year	Company	PASSENGER-KMs (in thousands)	TONNE-KMs (in thousands)	Passenger Train-KMS (in millions)	Freight Train-KMs (in millions)
1986	OBB	7332000	11273000	64967	36547
1987	OBB	7363000	11114000	65639	35925
1988	OBB	7783000	11213000	66868	36431
1989	OBB	8445000	11849000	71297	37562
1990	OBB	8575000	12682000	75460	39758
1991	OBB	9208000	12864000	86900	40254
1992	OBB	9561000	12207000	96511	40218
1993	OBB	9342000	11798000	94111	38843
1994	OBB	9202000	13049000	92144	39878
1995	OBB	9628000	13714000	88239	39813
1996	OBB	9689000	13910000	82539	38317
1997	OBB	8140000	14791000	86194	39957
1998	OBB	7971000	15348000	92800	41225
1999	OBB	7997000	15556000	91723	48091
1985	PKP	51978000	118863000	202864	185225
1986	PKP	48526000	120043000	210225	181826
1987	PKP	48285000	119865000	214810	175916
1988	PKP	52134000	120671000	225348	174852
1989	PKP	55888000	109593000	231947	160192
1990	PKP	50373000	81776000	234547	125676
1991	PKP	40115000	63984000	216554	99581
1992	PKP	32571000	56951000	187131	91169
1993	PKP	24742000	63246000	183047	98034
1994	PKP	21762000	64719000	185851	105081
1995	PKP	20960000	68206000	173639	107902
1996	PKP	19807000	67413000	169637	109857
1997	PKP	19928000	67679000	169463	110111
1998	PKP	20553000	60937000	171833	100725
1999	PKP	21518000	55076000	175696	92188
1972	RENFE	14390700	9761400	84036	42866
1973	RENFE	15639950	11253150	84122	46925
1974	RENFE	16078627	12267046	82651	47389
1975	RENFE	16146200	10426317	83754	44081
1976	RENFE	16686000	10493500	86225	45356
1977	RENFE	17163000	11025000	91227	44249
1978	RENFE	16758000	10377000	92781	43546
1979	RENFE	16609000	10262100	92189	41497
1980	RENFE	13527000	10527800	94685	42311
1981	RENFE	14261000	10267000	100083	40767
1982	RENFE	14703000	10193000	103191	40899
1983	RENFE	15092000	10209600	103001	41944
1984	RENFE	15574000	11352800	104132	46606
1985	RENFE	15979000	14546000	102984	48854
1986	RENFE	15693000	13994000	105741	50402
1987	RENFE	15394000	13884000	107969	48352
1988	RENFE	15716000	14052000	109995	48959
1989	RENFE	14715000	14048000	109853	48214
1990	RENFE	15476000	13413000	120278	48628
1991	RENFE	15022000	12499000	127425	45232
1992	RENFE	16350000	11085000	132671	45466
1993	RENFE	15457000	8895000	127858	38832
1994	RENFE	14853000	9884000	117370	36767
1995	RENFE	15313000	11423000	121133	39940
1996	RENFE	15605000	11196000	122571	37004
1997	RENFE	16579000	12405000	124894	40146
1998	RENFE	17475000	12731000	125815	40218
1999	RENFE	18142000	12934000	128190	40086
1972	SJ	4421294	14939126	56426	42835
1973	SJ	4499900	16995242	55794	43461
1974	SJ	5304400	18279753	56534	45020
1975	SJ	5647200	14988412	57102	41826
1976	SJ	5376900	15301365	58343	41133
1977	SJ	5377100	14050718	58530	40899
1978	SJ	5369100	13943820	59133	39174
1979	SJ	5978100	16693719	59491	39479
1980	SJ	6786874	15913698	60029	39423
1981	SJ	6850800	14555153	61200	38319
1982	SJ	6380500	13643937	62882	38194
1983	SJ	6460160	14950612	64922	38805
1984	SJ	6483000	16944156	65288	40566
1985	SJ	6586000	17587000	64121	40746
1986	SJ	6152000	17754000	62563	41128
1987	SJ	6013000	17630000	61194	40153
1988	SJ	6081000	18094000	60919	40791
1989	SJ	6060000	18532000	59171	40620
1990	SJ	6076000	18756000	58751	39808
1991	SJ	5524000	18575000	57530	38401

A2.6.1.Outputs: PASSKM, TONKM, TKMPASS and TKMFRG

Year	Company	PASSENGER-KMs (in thousands)	TONNE-KMs (in thousands)	Passenger Train-KMS (in millions)	Freight Train-KMs (in millions)
1992	SJ	5234000	19202000	59236	34260
1993	SJ	5830000	18745000	58451	33325
1994	SJ	5906000	19060000	59756	37348
1995	SJ	6219000	18979000	61259	39086
1996	SJ	6191000	18456000	65730	37719
1997	SJ	6286000	14720000	65812	33690
1998	SJ	6997000	14786000	65641	34064
1999	SJ	7434000	14948000	67092	34475
1972	SNCB	7509886	7545851	60282	24103
1973	SNCB	7448763	8238019	61981	25387
1974	SNCB	7641182	9199121	63620	26275
1975	SNCB	7649757	6804018	64564	21438
1976	SNCB	7574501	6693032	65494	21046
1977	SNCB	7346486	6527507	66631	20908
1978	SNCB	7136388	7156924	69069	21777
1979	SNCB	6954843	8573499	70783	23454
1980	SNCB	6962918	8036725	72028	23115
1981	SNCB	7078080	7561204	74523	22341
1982	SNCB	6878899	6818396	73374	21094
1983	SNCB	6631190	6859783	70557	20180
1984	SNCB	6444231	7928971	72561	21737
1985	SNCB/NMB	6572000	9397000	72310	22313
1986	SNCB/NMB	6069000	8524000	70497	21184
1987	SNCB/NMB	6270000	8372000	72107	21112
1988	SNCB/NMB	6348000	8839000	71422	20817
1989	SNCB/NMB	6400000	9275000	71285	21041
1990	SNCB/NMB	6539000	9544000	70695	21415
1991	SNCB/NMB	6771000	9348000	71665	20621
1992	SNCB/NMB	6798000	9450000	72150	20551
1993	SNCB/NMB	6694000	8614000	72329	18645
1994	SNCB/NMB	6638000	9301000	72101	18141
1995	SNCB/NMB	6757000	8424000	70281	17270
1996	SNCB/NMB	6788000	8454000	72376	17517
1997	SNCB/NMB	6984000	8701000	72675	17354
1998	SNCB/NMB	7097000	8764000	74799	18431
1999	SNCB/NMB	7354000	8468000	76844	17976
1972	SNCF	43007090	68104000	247340	219234
1973	SNCF	44468606	73259000	251760	221134
1974	SNCF	47054290	76424000	261666	227780
1975	SNCF	50446706	63473000	268291	208740
1976	SNCF	50833588	67883000	276439	205271
1977	SNCF	51576596	65604000	279559	207833
1978	SNCF	53263011	66677000	283238	208696
1979	SNCF	53333300	70006000	286251	213607
1980	SNCF	54251100	68815300	290477	214599
1981	SNCF	55414200	63729500	292181	204884
1982	SNCF	56605000	60554100	300259	196692
1983	SNCF	58176600	58755600	306454	190963
1984	SNCF	59952600	59501500	306898	183777
1985	SNCF	61640000	55121000	301282	180034
1986	SNCF	59618000	51016000	295112	168528
1987	SNCF	59732000	50600000	300702	168642
1988	SNCF	63057000	51527000	309026	169366
1989	SNCF	64256000	52449000	312348	167964
1990	SNCF	63761000	50667000	318414	163586
1991	SNCF	62101000	50632000	318071	160284
1992	SNCF	62647000	49536000	320626	159075
1993	SNCF	58164000	45033000	321456	145720
1994	SNCF	58675000	48750000	324292	149207
1995	SNCF	55319000	48137000	307774	142806
1996	SNCF	59519000	60225000	341051	152640
1997	SNCF	61573000	65148000	346410	155574
1998	SNCF	64186000	65517000	348415	154077
1999	SNCF	66298000	53438000	362527	154767
1992	SZ	547000	2574000	11666	7230
1993	SZ	566000	2262000	11505	6677
1994	SZ	590000	2448000	11535	7059
1995	SZ	595000	2881000	11469	7046
1996	SZ	613000	2550000	11403	6940
1997	SZ	616000	2852000	11047	7285
1998	SZ	645000	2860000	10598	7473
1999	SZ	623000	2784000	10511	7620
1972	TCDD	5336541	6725520	18116	21019
1973	TCDD	5215274	6755979	18709	21633
1974	TCDD	5753306	6403635	18301	21491
1975	TCDD	4735724	6799389	18377	20847
1976	TCDD	4615345	7277980	18208	21139

A2.6.1.Outputs: PASSKM, TONKM, TKMPASS and TKMFRG

Year	Company	PASSENGER-KMs (in thousands)	TONNE-KMs (in thousands)	Passenger Train-KMS (in millions)	Freight Train-KMs (in millions)
1977	TCDD	5087257	6353198	18788	19499
1978	TCDD	5600163	5654312	19703	17812
1979	TCDD	6799360	5576947	20380	17031
1980	TCDD	6010878	5029322	21529	13944
1981	TCDD	6105223	5936161	22261	18185
1982	TCDD	5440038	5999065	21255	17189
1983	TCDD	5721729	6116887	22649	16761
1984	TCDD	6276727	7525799	24980	19395
1985	TCDD	6489000	7748000	26194	19363
1986	TCDD	6052000	7219000	26177	19155
1987	TCDD	6174000	7259000	26910	16835
1988	TCDD	6708000	8006000	26104	17434
1989	TCDD	6844000	7564000	26959	16690
1990	TCDD	6410000	7909000	26307	17883
1991	TCDD	6048000	7990000	25647	17605
1992	TCDD	6259000	8242000	25870	17425
1993	TCDD	7147000	8406000	26048	17802
1994	TCDD	6335000	8215000	26640	17430
1995	TCDD	5797000	8516000	25710	17645
1996	TCDD	5229000	8914000	26709	17815
1997	TCDD	5840000	9614000	26827	19259
1998	TCDD	6160000	8377000	26721	17178
1999	TCDD	6146000	8237000	27177	16397
1972	VR	2593859	6502600	23743	19664
1973	VR	2773200	7007400	24813	19533
1974	VR	3046900	7484100	25756	20363
1975	VR	3135164	6435900	26612	17793
1976	VR	2985300	6544100	26229	17055
1977	VR	2977100	6396700	26071	16332
1978	VR	2931000	6325600	25684	15804
1979	VR	3019900	7365200	25583	17406
1980	VR	3215600	8333800	25607	19327
1981	VR	3274100	8389300	25429	20062
1982	VR	3326069	7998794	25050	19443
1983	VR	3338647	8089211	24813	18974
1984	VR	3275840	7978800	24425	18897
1985	VR	3224000	8066000	24446	19049
1986	VR	2676000	6951000	21823	16505
1987	VR	3106000	7404000	24500	18198
1988	VR	3201000	7816000	23875	18157
1989	VR	3208000	7958000	22027	17239
1990	VR	3331000	8357000	24238	26788
1991	VR	3230000	7634000	24715	15399
1992	VR	3057000	7848000	25574	14623
1993	VR	3007000	9259000	25169	15707
1994	VR	3037000	9949000	24745	16599
1995	VR	3184000	9559000	24974	15998
1996	VR	3254000	8806000	25024	15597
1997	VR	3376000	9856000	26937	16637
1998	VR	3377000	9885000	27117	17364
1999	VR	3415000	9753000	27061	17244
1993	ZSR	4569000	13887000	35099	23903
1994	ZSR	4548000	12334000	40049	23818
1995	ZSR	4202000	13763000	40062	24439
1996	ZSR	3759000	11880000	37289	23031
1997	ZSR	3095000	12368000	38434	23731
1998	ZSR	3116000	11756000	37107	22062
1999	ZSR	2968000	9862000	37275	19770

A2.7.1.Network Length worked Total- at the end of the year : NET

Year	Company	NET
1992	BC	5488
1993	BC	5493
1994	BC	5543
1995	BC	5543
1996	BC	5547
1997	BC	5542
1998	BC	5531
1999	BC	5523
1972	BDZ	4243
1973	BDZ	4246
1974	BDZ	4282
1975	BDZ	4290
1976	BDZ	4308
1977	BDZ	4415
1978	BDZ	4341
1979	BDZ	4341
1980	BDZ	4341
1981	BDZ	4341
1982	BDZ	4341
1983	BDZ	4341
1984	BDZ	4341
1985	BDZ	.
1986	BDZ	.
1987	BDZ	.
1988	BDZ	4300
1989	BDZ	4300
1990	BDZ	4299
1991	BDZ	4299
1992	BDZ	4294
1993	BDZ	4294
1994	BDZ	4291
1995	BDZ	4294
1996	BDZ	4293
1997	BDZ	4292
1998	BDZ	4290
1999	BDZ	4290
1972	BR	18937
1973	BR	18322
1974	BR	18198
1975	BR	18144
1976	BR	18062
1977	BR	17990
1978	BR	17937
1979	BR	17818
1980	BR	17690
1981	BR	17538
1982	BR	17330
1983	BR	17097
1984	BR	16883
1985	BR	16729
1986	BR	16670
1987	BR	16630
1988	BR	16599
1989	BR	16588
1990	BR	16584
1991	BR	16584
1992	BR	16528
1993	BR	16536
1994	Railtrack	16564
1995	Railtrack	16564
1996	Railtrack	16666
1997	Railtrack	16656
1998	Railtrack	16656
1999	Railtrack	16649
1993	CD	9441
1994	CD	9413
1995	CD	9430
1996	CD	9435
1997	CD	9430
1998	CD	9430
1999	CD	9365
1972	CFF	2913
1973	CFF	2913
1974	CFF	2913
1975	CFF	2917
1976	CFF	2920
1977	CFF	2921
1978	CFF	2921
1979	CFF	2921
1980	CFF	2926
1981	CFF	2934
1982	CFF	2941
1983	CFF	2946

A2.7.1.Network Length worked Total- at the end of the year : NET

Year	Company	NET
1984	CFF	2969
1985	CFF	2986
1986	CFF	2986
1987	CFF	2990
1988	CFF	2990
1989	CFF	2994
1990	CFF	2978
1991	CFF	2982
1992	CFF	2985
1993	CFF	2983
1994	CFF/SBB/FF	2983
1995	CFF/SBB/FF	2987
1996	CFF/SBB/FF	2989
1997	CFF/SBB/FF	2939
1998	CFF/SBB/FF	2910
1999	CFF/SBB/FF	2902
1972	CFL	271
1973	CFL	271
1974	CFL	271
1975	CFL	275
1976	CFL	274
1977	CFL	274
1978	CFL	270
1979	CFL	270
1980	CFL	270
1981	CFL	270
1982	CFL	270
1983	CFL	270
1984	CFL	270
1985	CFL	270
1986	CFL	270
1987	CFL	270
1988	CFL	272
1989	CFL	272
1990	CFL	271
1991	CFL	271
1992	CFL	275
1993	CFL	275
1994	CFL	275
1995	CFL	275
1996	CFL	274
1997	CFL	274
1998	CFL	274
1999	CFL	274
1972	CFR	11016
1973	CFR	10017
1974	CFR	11086
1975	CFR	11039
1976	CFR	.
1977	CFR	.
1978	CFR	.
1979	CFR	.
1980	CFR	.
1981	CFR	.
1982	CFR	.
1983	CFR	.
1984	CFR	.
1985	CFR	.
1986	CFR	.
1987	CFR	.
1988	CFR	.
1989	CFR	.
1990	CFR	11348
1991	CFR	11365
1992	CFR	11430
1993	CFR	11380
1994	CFR	11374
1995	CFR	11376
1996	CFR	11385
1997	CFR	11380
1998	CFR	11364
1999	CFR	11364
1972	CH	2542
1973	CH	2542
1974	CH	2542
1975	CH	2476
1976	CH	2461
1977	CH	2461
1978	CH	2461
1979	CH	2461
1980	CH	2461
1981	CH	2461
1982	CH	2461

A2.7.1.Network Length worked Total- at the end of the year : NET

Year	Company	NET
1983	CH	2461
1984	CH	2461
1985	CH	2461
1986	CH	2461
1987	CH	2479
1988	CH	2479
1989	CH	2479
1990	CH	2484
1991	CH	2484
1992	CH	2484
1993	CH	2497
1994	CH	2474
1995	CH	2474
1996	CH	2474
1997	CH	2503
1998	CH	2299
1999	CH	2299
1972	CIE	2189
1973	CIE	2189
1974	CIE	2189
1975	CIE	2006
1976	CIE	2010
1977	CIE	2004
1978	CIE	2007
1979	CIE	1988
1980	CIE	1987
1981	CIE	1987
1982	CIE	1987
1983	CIE	1944
1984	CIE	1944
1985	CIE	1944
1986	CIE	1944
1987	CIE	1944
1988	CIE	1944
1989	CIE	1944
1990	CIE	1944
1991	CIE	1944
1992	CIE	1944
1993	CIE	1947
1994	CIE	1947
1995	CIE	1954
1996	CIE	1954
1997	CIE	1945
1998	CIE	1909
1999	CIE	1919
1972	CP	3566
1973	CP	3566
1974	CP	3566
1975	CP	3566
1976	CP	3566
1977	CP	3566
1978	CP	3588
1979	CP	3588
1980	CP	3609
1981	CP	3616
1982	CP	3616
1983	CP	3613
1984	CP	3613
1985	CP	3603
1986	CP	3603
1987	CP	3608
1988	CP	3608
1989	CP	3064
1990	CP	3064
1991	CP	3116
1992	CP	3062
1993	CP	3062
1994	CP	2699
1995	CP	2850
1996	CP	2850
1997	REFER	2856
1998	REFER	2794
1999	REFER	2813
1972	CSD	13298
1973	CSD	13293
1974	CSD	13241
1975	CSD	13214
1976	CSD	13186
1977	CSD	13190
1978	CSD	13166
1979	CSD	13142
1980	CSD	13131
1981	CSD	13130

A2.7.1.Network Length worked Total- at the end of the year : NET

Year	Company	NET
1982	CSD	13142
1983	CSD	13142
1984	CSD	13114
1985	CSD	13130
1986	CSD	13116
1987	CSD	13102
1988	CSD	13104
1989	CSD	13108
1990	CSD	13111
1991	CSD	13116
1992	CSD	13099
1972	DB	29230
1973	DB	29107
1974	DB	28926
1975	DB	28813
1976	DB	28661
1977	DB	28564
1978	DB	28542
1979	DB	28545
1980	DB	28516
1981	DB	28417
1982	DB	28299
1983	DB	28130
1984	DB	27903
1985	DB	27634
1986	DB	27490
1987	DB	27427
1988	DB	27284
1989	DB	27045
1990	DB	26949
1991	DB	27079
1992	DB	26779
1993	DB	26387
1994	DBAG	41401
1995	DBAG	41718
1996	DBAG	40826
1997	DBAG	38450
1998	DBAG	38126
1999	DB AG	37525
1999	KEG	24
1998	GVG	0
1972	DR	14469
1973	DR	14366
1974	DR	14288
1975	DR	14271
1976	DR	14289
1977	DR	14192
1978	DR	14218
1979	DR	14189
1980	DR	14207
1981	DR	14241
1982	DR	14231
1983	DR	14228
1984	DR	14227
1985	DR	14054
1986	DR	14005
1987	DR	14008
1988	DR	14024
1989	DR	14035
1990	DR	14031
1991	DR	14034
1992	DR	14054
1993	DR	14147
1972	DSB	2043
1973	DSB	1991
1974	DSB	1999
1975	DSB	1999
1976	DSB	1999
1977	DSB	2004
1978	DSB	2004
1979	DSB	2015
1980	DSB	2015
1981	DSB	2015
1982	DSB	2015
1983	DSB	2448
1984	DSB	2448
1985	DSB	2471
1986	DSB	2471
1987	DSB	2476
1988	DSB	2476
1989	DSB	2344
1990	DSB	2344
1991	DSB	2344

A2.7.1.Network Length worked Total- at the end of the year : NET

Year	Company	NET
1992	DSB	2306
1993	DSB	2311
1994	DSB	2349
1995	DSB	2349
1996	DSB	2349
1997	BS	2232
1998	BS	2264
1999	BS	2324
1999	EusKotrenD-	181
1992	EVR	1018
1993	EVR	1024
1994	EVR	1024
1995	EVR	1021
1996	EVR	1020
1997	EVR	966
1998	EVR	966
1999	EVR	968
1998	FEVE	1193
1999	FEVE	1194
1998	FGC	183
1999	FGC	184
1972	FS	16083
1973	FS	16064
1974	FS	16072
1975	FS	16077
1976	FS	16143
1977	FS	16178
1978	FS	16096
1979	FS	16072
1980	FS	16133
1981	FS	16157
1982	FS	16146
1983	FS	16148
1984	FS	16114
1985	FS	16185
1986	FS	16068
1987	FS	16983
1988	FS	16015
1989	FS	16030
1990	FS	16066
1991	FS	16066
1992	FS	16112
1993	FS	15942
1994	FS	16002
1995	FS	16003
1996	FS SpA	16014
1997	FS SpA	16030
1998	FS SpA	16080
1999	FS SpA	16108
1972	JZ	10417
1973	JZ	10398
1974	JZ	10139
1975	JZ	10068
1976	JZ	9967
1977	JZ	9967
1978	JZ	9762
1979	JZ	9381
1980	JZ	9465
1981	JZ	9393
1982	JZ	9389
1983	JZ	9409
1984	JZ	9279
1985	JZ	9283
1986	JZ	9246
1987	JZ	9270
1988	JZ	9349
1989	JZ	9567
1990	JZ	9490
1991	JZ	9490
1993	LDZ	2413
1994	LDZ	2413
1995	LDZ	2413
1996	LDZ	2413
1997	LDZ	2413
1998	LDZ	2413
1999	LDZ	2413
1972	MAV	8337
1973	MAV	8261
1974	MAV	8110
1975	MAV	7974
1976	MAV	7914
1977	MAV	7797
1978	MAV	7734

A2.7.1.Network Length worked Total- at the end of the year : NET

Year	Company	NET
1979	MAV	7738
1980	MAV	7616
1981	MAV	7617
1982	MAV	7611
1983	MAV	7613
1984	MAV	7616
1985	MAV	7617
1986	MAV	7616
1987	MAV	7619
1988	MAV	7614
1989	MAV	7619
1990	MAV	7618
1991	MAV	7685
1992	MAV	7727
1993	MAV	7607
1994	MAV	7607
1995	MAV	7606
1996	MAV Rt.	7607
1997	MAV Rt.	7606
1998	MAV Rt.	7769
1999	MAV Rt.	7768
1972	NS	2834
1973	NS	2832
1974	NS	2832
1975	NS	2825
1976	NS	2825
1977	NS	2850
1978	NS	2876
1979	NS	2880
1980	NS	2880
1981	NS	2956
1982	NS	2850
1983	NS	2852
1984	NS	2852
1985	NS	2824
1986	NS	2817
1987	NS	2809
1988	NS	2828
1989	NS	2828
1990	NS	2798
1991	NS	2780
1992	NS	2791
1993	NS	2793
1994	NS	2795
1995	NS	2795
1996	NS	2795
1997	NS B.V.	2805
1998	NS B.V.	2808
1999	NS B.V.	2808
1972	NSB	4240
1973	NSB	4240
1974	NSB	4241
1975	NSB	4241
1976	NSB	4241
1977	NSB	4241
1978	NSB	4241
1979	NSB	4239
1980	NSB	4241
1981	NSB	4242
1982	NSB	4242
1983	NSB	4242
1984	NSB	4242
1985	NSB	4242
1986	NSB	4216
1987	NSB	4217
1988	NSB	4175
1989	NSB	4044
1990	NSB	4004
1991	NSB	4027
1992	NSB	4027
1993	NSB	4023
1994	NSB	4023
1995	NSB	4023
1996	JBV (NSB)	4021
1997	JBV (NSB)	4021
1998	JBV (NSB)	4006
1999	JBV (NSB)	4179
1972	OBB	5891
1973	OBB	5863
1974	OBB	5860
1975	OBB	5854
1976	OBB	5854
1977	OBB	5854

A2.7.1.Network Length worked Total- at the end of the year : NET

Year	Company	NET
1978	OBB	5854
1979	OBB	5852
1980	OBB	5843
1981	OBB	5811
1982	OBB	5773
1983	OBB	5748
1984	OBB	5745
1985	OBB	5766
1986	OBB	5745
1987	OBB	5747
1988	OBB	5630
1989	OBB	5641
1990	OBB	5624
1991	OBB	5623
1992	OBB	5605
1993	OBB	5600
1994	OBB	5636
1995	OBB	5672
1996	OBB	5672
1997	OBB	5672
1998	OBB	5643
1999	OBB	5643
1999	GKE	97
1972	PKP	.
1973	PKP	.
1974	PKP	23595
1975	PKP	23688
1976	PKP	23753
1977	PKP	.
1978	PKP	.
1979	PKP	.
1980	PKP	.
1981	PKP	.
1982	PKP	.
1983	PKP	.
1984	PKP	.
1985	PKP	.
1986	PKP	24333
1987	PKP	26637
1988	PKP	26545
1989	PKP	26644
1990	PKP	26228
1991	PKP	25848
1992	PKP	25254
1993	PKP	24926
1994	PKP	24313
1995	PKP	23986
1996	PKP	23420
1997	PKP	23328
1998	PKP	23210
1999	PKP	22891
1972	RENFE	13523
1973	RENFE	13415
1974	RENFE	13432
1975	RENFE	13497
1976	RENFE	13509
1977	RENFE	13540
1978	RENFE	13533
1979	RENFE	13531
1980	RENFE	13542
1981	RENFE	13543
1982	RENFE	13572
1983	RENFE	13573
1984	RENFE	13575
1985	RENFE	12710
1986	RENFE	12721
1987	RENFE	12686
1988	RENFE	12550
1989	RENFE	12565
1990	RENFE	12560
1991	RENFE	12570
1992	RENFE	13041
1993	RENFE	12601
1994	RENFE	12646
1995	RENFE	12280
1996	RENFE	12284
1997	RENFE	12294
1998	RENFE	12303
1999	RENFE	12319
1972	SJ	11394
1973	SJ	11366
1974	SJ	11366
1975	SJ	11366

A2.7.1.Network Length worked Total- at the end of the year : NET

Year	Company	NET
1976	SJ	11366
1977	SJ	11375
1978	SJ	11382
1979	SJ	11382
1980	SJ	11382
1981	SJ	11340
1982	SJ	11760
1983	SJ	11717
1984	SJ	11637
1985	SJ	11266
1986	SJ	11236
1987	SJ	11194
1988	BV (SJ)	11076
1989	BV (SJ)	11022
1990	BV (SJ)	10801
1991	BV (SJ)	10970
1992	BV (SJ)	9846
1993	BV (SJ)	10361
1994	BV	9661
1995	BV	9782
1996	BV	9821
1997	BV and MTA	10228
1998	BV	10065
1999	BV	9978
1996	BK	1102
1997	BK	940
1998	BK	1074
1999	BK	821
1972	SNCB	4124
1973	SNCB	4060
1974	SNCB	4038
1975	SNCB	3992
1976	SNCB	3996
1977	SNCB	4003
1978	SNCB	4042
1979	SNCB	3998
1980	SNCB	3978
1981	SNCB	3954
1982	SNCB	3928
1983	SNCB	3860
1984	SNCB	3776
1985	SNCB/NMBS	3667
1986	SNCB/NMBS	3618
1987	SNCB/NMBS	3568
1988	SNCB/NMBS	3554
1989	SNCB/NMBS	3513
1990	SNCB/NMBS	3479
1991	SNCB/NMBS	3466
1992	SNCB/NMBS	3432
1993	SNCB/NMBS	3410
1994	SNCB/NMBS	3396
1995	SNCB/NMBS	3368
1996	SNCB/NMBS	3380
1997	SNCB/NMBS	3422
1998	SNCB/NMBS	3410
1999	SNCB/NMBS	3472
1972	SNCF	34829
1973	SNCF	34768
1974	SNCF	34382
1975	SNCF	34225
1976	SNCF	34351
1977	SNCF	34214
1978	SNCF	34151
1979	SNCF	34076
1980	SNCF	33906
1981	SNCF	34384
1982	SNCF	34595
1983	SNCF	34627
1984	SNCF	34694
1985	SNCF	34676
1986	SNCF	34639
1987	SNCF	34646
1988	SNCF	34563
1989	SNCF	34322
1990	SNCF	34070
1991	SNCF	33446
1992	SNCF	32731
1993	SNCF	32579
1994	SNCF	32275
1995	SNCF	31939
1996	SNCF	31851
1997	RFF	31821
1998	RFF	31735

A2.7.1.Network Length worked Total- at the end of the year : NET

Year	Company	NET
1999	RFF	31589
1992	SZ	1201
1993	SZ	1201
1994	SZ	1201
1995	SZ	1201
1996	SZ	1201
1997	SZ	1201
1998	SZ	1201
1999	SZ	1202
1972	TCDD	8134
1973	TCDD	8135
1974	TCDD	8141
1975	TCDD	8140
1976	TCDD	8138
1977	TCDD	8139
1978	TCDD	8139
1979	TCDD	8132
1980	TCDD	8193
1981	TCDD	8193
1982	TCDD	8156
1983	TCDD	8169
1984	TCDD	8169
1985	TCDD	8169
1986	TCDD	8170
1987	TCDD	8169
1988	TCDD	8164
1989	TCDD	8430
1990	TCDD	8429
1991	TCDD	8429
1992	TCDD	8430
1993	TCDD	8430
1994	TCDD	8452
1995	TCDD	8549
1996	TCDD	8607
1997	TCDD	8607
1998	TCDD	8607
1999	TCDD	8682
1972	VR	5923
1973	VR	5933
1974	VR	5947
1975	VR	5953
1976	VR	5961
1977	VR	6044
1978	VR	6080
1979	VR	6081
1980	VR	6075
1981	VR	6092
1982	VR	6090
1983	VR	6090
1984	VR	5998
1985	VR	5900
1986	VR	5899
1987	VR	5884
1988	VR	5884
1989	VR	5884
1990	VR	5867
1991	VR	5874
1992	VR	5874
1993	VR	5885
1994	VR	5880
1995	RHK	5880
1996	RHK	5859
1997	RHK	5865
1998	RHK	5867
1999	RHK	5836
1993	ZSR	3661
1994	ZSR	3665
1995	ZSR	3668
1996	ZSR	3673
1997	ZSR	3665
1998	ZSR	3667
1999	ZSR	3662

A2.8.1.Potential maximum velocity of tractive stock

	Intervals of Velocities (km/h)	Velocity of reference (Km/h)	Years	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
BC			Total Rolling Stock																					1951	1584	1452	1452	1465	1465	1465	1465
	>250	280																						0	0	0	0	0	0	0	0
	200-249	225	Number																					0	0	0	0	0	0	0	0
	160-199	180	of																					4	4	4	4	4	4	4	4
	120-159	140	Vehicles																					8	8	8	9	9	9	9	9
	<120	80																						1939	1572	1440	1439	1452	1452	1452	1452
			Average_Max._Vel.																					80,45105	80,55556	80,60606	80,64738	80,64164	80,64164	80,64164	80,64164
BDZ			Total Rolling Stock																		1120	1100	1100	1038	1028	965	963	898	856	799	793
	>250	280																			0	0	0	0	0	0	0	0	0	0	0
	200-249	225	Number																		0	0	0	0	0	0	0	0	0	0	0
	160-199	180	of																		0	0	0	0	0	0	0	0	0	0	0
	120-159	140	Vehicles																		262	268	268	267	267	267	267	267	267	267	267
	<120	80																			858	832	832	771	761	698	696	631	589	532	526
			Average_Max._Vel.																		94,03571	94,61818	94,61818	95,43353	95,58366	96,60104	96,63551	97,83964	98,71495	100,0501	100,2018
BR			Total Rolling Stock	7242	7246	7226	7129	6978	6942	6940	7026	6877	6469	6233	6012	5775	6039	5499	5826	5647	5500	5564	5958	4753	4591	4481					
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11					
	200-249	225	Number	0	0	0	0	97	197	197	197	197	197	197	197	197	197	197	198	229	229	229	229	229	229	227					
	160-199	180	of	296	331	331	331	331	331	331	331	331	289	213	213	213	237	237	344	354	362	393	436	436	400	414					
	120-159	140	Vehicles	3654	3678	3678	3705	3850	3851	3916	4034	3934	3687	3527	3306	3054	3263	3199	3219	2999	2844	2877	3228	2425	2288	2161					
	<120	80		3292	3237	3217	3093	2700	2563	2496	2464	2415	2296	2296	2296	2311	2342	1866	2065	2065	2065	2065	2065	1663	1663	1668					
			Average_Max._Vel.	114,3607	115,0235	115,1204	115,8255	119,8631	122,1672	122,7414	123,2259	123,29	123,0801	121,9517	121,2883	120,3645	121,0739	124,409	123,9839	124,0136	123,6445	124,0555	125,3986	126,7715	126,3265	126,0109					
CD			Total Rolling Stock																						3855	3802	3755	3722	3732	3661	3612
	>250	280																							0	0	0	0	0	0	0
	200-249	225	Number																						0	0	0	0	0	0	0
	160-199	180	of																						0	0	0	0	0	0	0
	120-159	140	Vehicles																						527	494	494	480	480	480	480
	<120	80																							3328	3308	3261	3242	3252	3181	3132
			Average_Max._Vel.																						88,20233	87,7959	87,89348	87,73778	87,71704	87,8667	87,97342
CSD			Total Rolling Stock															6129	6076	5667	5799	5930	5825	5832							
	>250	280																0	0	0	0	0	0	0							
	200-249	225	Number															0	0	0	0	0	0	0							
	160-199	180	of															20	20	20	20	20	20	20							
	120-159	140	Vehicles															703	703	716	716	717	763	763							
	<120	80																5406	5353	4931	5062,5	5193	5042	5049							
			Average_Max._Vel.															87,20835	87,27123	87,93365	87,75373	87,59191	88,20258	88,19273							
CFF			Total Rolling Stock	1586	1600	1617	1608	1620	1628	1628	1627	1642	1641	1640	1617	1603	1605	1603	1610	1619	1657	1687	1696	1713	1759	1764	1728	1671	1621	1627	1586
	>250	280		0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	200-249	225	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	119	119	119	119	119	119	119	119
	160-199	180	of	5	5	5	5	5	5	5	5	5	5	9	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	0	0
	120-159	140	Vehicles	623	647	664	664	676	684	684	684	684	684	684	672	674	676	676	683	692	728	750	750	698	783	844	844	844	844	844	844
	<120	80		958	948	948	939	939	939	939	938	953	951	946	935	919	919	917	917	917	919	927	927	895	856	800	764	707	657	663	622
			Average_Max._Vel.	[illegible]	[illegible]	[illegible]	105,0871	105,3457	105,516	105,516	105,5317	105,2984	105,4357	105,6951	105,6153	105,9139	105,9564	105,9888	106,1366	106,3249	107,0247	107,3266	107,9511	114,6381	116,6316	118,6026	119,4068	120,751	122,0		
CFL			Total Rolling Stock	100	103	103	103	102	100	97	97	96	97	101	101	99	101	101	101	100	96	99	112	116	116	110	110	110	108	113	125
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200-249	225	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
	160-199	180	of	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	5	20	24	24	24	24	34	34	34	34
	120-159	140	Vehicles	46	46	46	52	52	52	52	52	52	52	52	52	52	52	52	52	51	50	50	50	50	50	50	50	50	47	47	47
	<120	80		54	57	57	51	50	48	45	45	42	43	47	47	45	47	47	47	47	44	44	42	42	42	36	36	26	27	32	24
			Average_Max._Vel.	[illegible]	[illegible]	106,7961	110,2913	110,5882	111,2	112,1649	112,1649	114,5833	114,2268	112,8713	112,8713	113,5354	112,8713	112,8713	112,8713	112,6	113,3333	115,3535	124,6429	126,5517	126,5517	129,0909	129,0909	138,1818	137,5926	1	
CFR			Total Rolling Stock																			4412	4456	4444	4427	4465	4450	4410	4123	3574	3506
	>250	280																				0	0	0	0	0	0	0	0	0	0
	200-249	225	Number																			0	0	0	0	0	0	0	0	0	0
	160-199	180	of																			0	0	0	0	0	0	0	0	0	0
	120-159	140	Vehicles																			1106	1106	1106	1106	1106	1106	1066	1066	1066	1066
	<120	80																				3306	3350	3338	3321	3359	3344	3344	3057	2508	2440
			Average_Max._Vel.																			95,0408	94,89228	94,93249	94,98984	94,86226	94,91236	94,5034	95,51298	97,89591	98,24301
CH			Total Rolling Stock	412	424	459	467	482	311	310	315	316	306	314	324	325	334	333	333	333	358	400	411	417	421	422	430	430	436	462	244
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200-249	225	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	32
	160-199	180	of	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12	12	12	12	12	20	20	20	20	20
	120-159	140	Vehicles	40	60	60	60	70	70	70	70	70	67	77	77	77	77	77	77	77	77	89	109	108	104	104	104	104	104	104	61
	<120	80		372	364	399	407	412	241	240	245	246	239	237	247	248	257	256	256	256	269	299	290	297	305	306	306	306	312	312	131
			Average_Max._Vel.	[illegible]	[illegible]	[illegible]	87,70878	88,71369	93,50482	93,54839	93,33333	93,29114	93,13725	94,71338	94,25926	94,21538	93,83234	93,87387	93,87387	93,87387	96,25698	96,35	98,83212	98,41727	97,67221	97,63033	99,16279	99,16279	98,		
CIE			Total Rolling Stock	278	265	260	260	218	213	213	192	192	192	192	173	196	193	170	166	169	169	166	166	166	152	160	162	162	158	158	172
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200-249	225	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160-199	180	of	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	22	22	22	22	34
	120-159	140	Vehicles	116	116	116	116	125	134	134	121	121	121	121	121	121	121	121	121	121	121	121	121	121	95	92	92	83	79	79	79
	<120	80		162	149	144	144	93	79	79	71	71	71	71	52	75	72	49	45	48	48	45	45	45	57	56	48	57	57	57	59
			Average_Max._Vel.	[illegible]	[illegible]	106,7692	106,7692	114,4037	117,7465	117,7465	117,8125	117,8125	117,8125	117,8125	121,9653	117,0408	117,6166	122,7059	123,7349	122,9586	122,9586	123,7349	123,7349	123,7349	117,5	122	127,6543	124,321	123,9241	12	
CP			Total Rolling Stock	576	575	565	575	509	522	560	595	601	621	628	620	604	594	587	546	593	543	593	601	591	608	620	633	637	618	618	624
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200-249	225	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	30	30	30	30	30	40
	160-199	180	of	0	0	2	12	12	12	12	12	12	12	12	12	12	12	12	21	21	21	21	21	21	21	21	21	21	21	21	21
	120-159	140	Vehicles	95	96	97	97	97	112	133	166	166	183	183	182	187	192	197	197	203	203	203	203	205	215	225	238	245	225	230	260
	<120	80		481	479	466	466	400	398	415	417	423	426	433	426	405	390	378	328	369	319	369	377	365	355	344	344	341	342	337	303
			Average_Max._Vel.	[illegible]	[illegible]	[illegible]	92,2087	93,79175	95,17241	96,39286	98,7563	98,56905	99,61353	99,3949	99,54839	100,5629	101,4141	102,1806	105,4945	104,0809	106,2983	104,0809	103,7604	104,3655	108,7253	112,1774	112,7488	113,2025	112		
DB			Total Rolling Stock	9883	9938	9996	9860	9665	9634	9630	9549	9499	9518	9395	9208	8909	8779	8634	8403	8164	8123	8123	8180	8198	8140						
	>250	280		0	0	0	0	0	0	0	5	5	5	5	5	5	5	5	5	3	0	0	120	120	120						
	200-249	225	Number	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	207	202	202	202	202	202	202						
	160-199	180	of	94	94	348	348	348	348	348	348	348	348	348	278	178	148	148	148	148	144	144	144	189	189						
	120-159	140	Vehicles	2384	2384	2417	2417	2417	2422	2422	2422	2422	2430	2430	2430	2397	2397	2547	2505	2456	2456	2456	2456	2757	2757						
	<120	80		7258	7313	7084	6948	6753	6717	6713	6627	6577	6588	6465	6348	6182	6082	5787	5538	5355	5321	5321	5258	4930	4872						
			Average_Max._Vel.	97,5812	97,4839	100,1215	100,3991	100,8107	100,9088	100,9174	101,1996	101,3112	101,3191	101,5982	101,2766	100,646	100,61	101,9985	103,3387	103,524	103,5196	103,5196	106,2897	108,9839	109,1904						
DBAG			Total Rolling Stock																							13569	11741	10396	10163	9508	9812
	>250	280																								122	122	165	167	167	167
	200-249	225	Number																							208	208	205	350	350	393
	160-199	180	of																							299	299	349	349	349	349
	120-159	140	Vehicles																							4541	4546	4493	4639	4709	4829
	<120	80																								8399	6566	5184	4658	3933	4074
			Average_Max._Vel.																							106,3041	110,425	115,3218	119,1016	122,2371	122,2977
DSB			Total Rolling Stock	797	791	775	777	787	772	765	810	802	793	836	866	882	816	811	802	778	757	752	766	772	798	782	783	666	588	510	433
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200-249	225	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160-199	180	of	20	20	20	20	20	20	35	35	42	42	62	72	94	94	94	94	94	129	133	149	153	179	170	168	193	206	206	206
	120-159	140	Vehicles	156	169	174	174	178	178	188	278	278	278	280	280	280	280	288	286	273	221	221	216	216	216	209	210	222	234	234	234
	<120	80		621	602	581	583	589	574	542	497	482	473	494	514	508	442	429	422	411	407	398	401	403	403	403	405	251	148	70	-7
			Average_Max._Vel.	[illegible]	[illegible]	[illegible]	96,0103	96,11182	96,42487	99,32026	104,9136	106,0349	106,3304	107,512	107,7136	109,7052	112,1078	112,8977	113,1172	113,1362	114,5575	115,3191	116,3708	116,6062	118,6717	117,7749	117,5479	128,979	138		
EVR			Total Rolling Stock																					276	264	255	253	240	201	196	195
	>250	280																						0	0	0	0	0	0	0	0
	200-249	225	Number																					0	0	0	0	0	0	0	0
	160-199	180	of																					7	7	7	7	7	7	7	7
	120-159	140	Vehicles																					6	6	6	6	6	6	6	6
	<120	80																						263	251	242	240	227	188	183	182
			Average_Max._Vel.																					83,84058	84,01515	84,15686	84,18972	84,41667	85,27363	85,40816	85,4359
FS			Total Rolling Stock	5152	5137	5207	5172	5048	5127	5371	5407	5506	5602	5596	5519	5578	5589	5458	5398	5433	5341	5292	5382	5337	5177	5186	5175	5055	5055	5012	5123
	>250	280		0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	12	12	12	12	16	16	23	25	25	55	70	70	70
	200-249	225	Number	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	116	116	113	115	115	115	155	155	159	179	179	259
	160-199	180	of	82	82	82	82	90	90	90	90	90	90	156	156	156	156	156	153	153	203	208	266	266	266	266	266	266	266	266	266
	120-159	140	Vehicles	1020	1020	1308	1805	1815	1895	2061	2212	2312	2408	2448	2535	2615	2635	2627	2647	2697	2669	2640	2620	2596	2566	2539	2552	2521	2526	2546	2606
	<120	80		3936	3921	3703	3171	3028	3027	3105	2990	2989	2989	2877	2713	2692	2683	2560	2472	2455	2341	2319	2365	2344	2207	2201	2177	2054	2014	1951	1922
			Average_Max._Vel.	[illegible]	[illegible]	[illegible]	105,7212	106,67	107,1952	107,8142	109,3046	109,8674	110,3838	112,0247	113,4173	113,9243	114,0723	114,8021	115,7632	116,1384	117,3825	117,4121	117,8437	117,893	118,9869	119,8024	120,0377	121,9219	123		
MAV			Total Rolling Stock																					1766	1751	1680	1605	1639	1564	1483	1461
	>250	280																						0	0	0	0	0	0	0	0
	200-249	225	Number																					0	0	0	0	0	0	0	0
	160-199	180	of																					5	5	7	8	8	8	8	8
	120-159	140	Vehicles																					444	444	443	444	444	444	444	444
	<120	80																						1317	1302	1230	1153	1187	1112	1031	1009
			Average_Max._Vel.																					95,36806	95,49971	96,2381	97,09657	96,74192	97,54476	98,50303	98,78166
NS			Total Rolling Stock	1285	1284	1284	1293	1289	1284	1277	1288	1298	1302	1324	1279	1291	1271	1263	1252	1235	1258	1244	1221	1238	1210	1210	1171	1287	1153	1040	1019
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
	200-249	225	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160-199	180	of	0	0	0	0	0	0	0	0	0	30	58	58	122	132	137	142	147	172	182	182	215	244	285	325	373	373	373	373
	120-159	140	Vehicles	754	754	754	784	784	784	784	814	844	844	844	814	778	778	768	753	740	721	707	705	665	625	584	536	580	605	605	605
	<120	80		531	530	530	509	505	500	493	474	454	428	422	407	391	361	358	357	348	365	355	334	358	341	341	310	334	173	60	39
			Average_Max._Vel.	[illegible]	[illegible]	[illegible]	116,3805	116,4934	116,6355	116,8363	117,9193	119,0139	121,1982	122,6284	122,7209	125,6081	127,1125	127,3317	127,4281	127,8543	128,0604	128,7299	129,5495	129,5961	131,157	132,5124	135,2178	136,0218	1		
NSB			Total Rolling Stock	597	592	602	606	613	611	610	620	620	621	611	618	610	594	557	586	524	513	486	482	484	473	442	380	353	333	330	330
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200-249	225	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	22	38	54
	160-199	180	of	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16	16	16	16	16	16	16
	120-159	140	Vehicles	40	40	40	40	40	57	64	74	79	80	80	83	88	94	94	104	104	104	104	104	96	179	176	176	196	196	196	196
	<120	80		557	552	562	566	573	554	546	546	541	541	531	535	522	500	463	482	420	409	382	378	372	278	250	188	119	99	80	64
			Average_Max._Vel.	[illegible]	[illegible]	83,98671	83,9604	83,91517	85,59738	86,29508	87,16129	87,64516	87,72947	87,85597	88,05825	88,65574	89,49495	90,12567	90,64846	91,9084	92,16374	92,83951	92,94606	95,20661	106,0888	107,5113	112	126,8839	129,6997		
OBB			Total Rolling Stock	1391	1380	1415	1409	1405	1401	1393	1428	1450	1464	1469	1478	1493	1508	1525	1536	1532	1545	1553	1595	1628	1603	1600	1582	1582	1566	1533	1531
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200-249	225	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
	160-199	180	of	0	0	19	27	27	27	28	28	43	56	71	80	91	107	123	123	123	123	123	173	213	231	231	231	234	237	237	237
	120-159	140	Vehicles	342	342	342	342	342	342	346	364	389	399	409	419	429	448	460	469	480	500	526	526	566	571	591	583	583	583	583	583
	<120	80		1049	1038	1054	1040	1036	1032	1019	1036	1018	1009	989	979	973	953	942	943	928	921	903	895	848	800	777	767	764	745	712	710
			Average_Max._Vel.	[illegible]	[illegible]	[illegible]	96,47977	96,52669	96,57388	96,91314	97,2549	99,06207	100,1776	101,5385	102,4222	103,3356	104,9204	106,1639	106,4225	106,9223	107,4725	108,3355	110,7241	114,0326	115,8734	116,6906	116,8047	116,9943	1		
PKP			Total Rolling Stock																		8799	8576	8292	7961	7751	7614	7466	7296	7216	5871	5425
	>250	280																			0	0	0	0	0	0	0	0	0	0	0
	200-249	225	Number																		0	0	0	0	0	0	0	0	0	0	0
	160-199	180	of																		75	74	74	74	74	74	74	74	74	74	74
	120-159	140	Vehicles																		1959	1959	1959	1959	1959	1959	1957	1957	1957	1957	1957
	<120	80																			6765	6543	6259	5928	5718	5581	5435	5265	5185	3840	3394
			Average_Max._Vel.																		94,21071	94,56856	95,06753	95,69401	96,11921	96,40925	96,71846	97,108	97,29767	101,2604	103,0083
RENFE			Total Rolling Stock	2070	1984	1884	1834	1821	1833	1865	1841	1860	1893	1956	2036	2087	2108	2116	2078	1994	1970	1972	1933	1901	1899	1867	1843	1768	1759	1699	1718
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	8	8	8	8	8	8	8
	200-249	225	Number	0	0	0	0	0	0	0	0	4	4	4	12	12	12	12	12	12	12	12	12	23	23	23	23	29	29	29	39
	160-199	180	of	5	5	50	50	50	50	50	50	70	70	70	70	70	70	68	68	97	97	97	97	121	121	159	159	159	175	175	175
	120-159	140	Vehicles	280	388	470	545	595	645	670	670	748	819	895	935	968	988	996	996	996	996	999	1038	1106	1099	1104	1120	1157	1178	1178	1178
	<120	80		1785	1591	1364	1239	1176	1138	1145	1121	1038	1000	987	1019	1037	1038	1040	1002	889	865	864	786	645	648	573	533	415	369	309	318
			Average_Max._Vel.	[illegible]	[illegible]	[illegible]	100,5562	102,3504	103,8407	104,2359	104,5519	108,2043	109,963	111,3292	111,8468	112,0172	112,2676	112,2779	112,8681	115,7071	116,1421	116,1968	118,1376	123,6586	123,694	126,639	127,7672	131,5413	133		
SJ			Total Rolling Stock	1884	1854	1834	1791	1765	1749	1711	1713	1758	1685	1655	1630	1592	1554	1539	1517	1498	1445	1413	1333	1248	1132	1158	1148	1092	1045	1057	1032
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200-249	225	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	14	14	14	36	40	43	43	46	46
	160-199	180	of	37	37	37	37	37	37	37	37	37	37	37	37	37	87	137	137	137	137	137	145	145	133	141	146	147	147	148	148
	120-159	140	Vehicles	215	209	203	263	303	333	333	377	421	433	433	484	534	534	534	534	534	524	524	519	516	516	502	482	442	412	412	412
	<120	80		1632	1608	1594	1491	1425	1379	1341	1299	1300	1215	1185	1109	1021	933	868	846	827	770	738	655	573	469	479	480	460	443	451	426
			Average_Max._Vel.	[illegible]	[illegible]	[illegible]	90,87661	92,3966	93,53917	93,83986	95,36486	96,47327	97,61424	97,93353	100,0859	102,4497	106,2162	109,7206	110,1516	110,534	112,6436	113,3829	115,7614	118,0529	120,8922	122,6943	122,9617	123,457	123		
SNCB			Total Rolling Stock	1574	1632	1664	1679	1696	1735	1738	1757	1794	1784	1835	1864	1866	1877	1827	1730	1753	1740	1727	1738	1718	1697	1607	1574	1573	1589	1597	1621
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	11	11	11
	200-249	225	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
	160-199	180	of	13	19	19	24	34	44	44	44	122	152	212	242	302	302	314	314	314	314	314	314	314	314	314	308	358	358	428	428
	120-159	140	Vehicles	1022	1074	1106	1116	1123	1152	1155	1169	1169	1169	1169	1169	1169	1181	1172	1187	1219	1209	1199	1199	1192	1172	1122	1074	1023	1023	973	935
	<120	80		539	539	539	539	539	539	539	544	503	463	454	453	395	394	341	229	220	217	214	225	212	211	167	188	188	197	185	187
			Average_Max._Vel.	[illegible]	[illegible]	[illegible]	121,3103	121,7335	122,3746	122,4051	122,4246	125,8974	127,8363	129,7766	130,6116	133,7728	133,8412	135,676	139,3179	139,6349	139,7356	139,8379	139,4591	139,9069	139,9411	141,9291	141,0165	142,2886	14		
SNCF			Total Rolling Stock	7545	7543	7590	7637	7627	7642	7676	7622	7611	7622	7615	7602	7537	7495	7468	7432	7390	7422	7422	7475	7479	7256	7183	7216	7198	7164	7203	7129
	>250	280		0	0	0	0	0	0	98	98	98	106	106	106	109	109	109	109	179	214	214	214	254	254	284	324	330	330	350	356
	200-249	225	Number	74	74	74	74	78	78	78	78	78	78	78	78	78	78	78	78	196	196	196	220	220	220	220	220	220	312	312	312
	160-199	180	of	512	512	512	512	714	714	714	714	789	789	824	824	860	860	882	882	865	865	865	865	865	839	839	839	839	985	985	1033
	120-159	140	Vehicles	3091	3091	3151	3218	3293	3333	3333	3333	3517	3517	3517	3569	3569	3629	3687	3687	3474	3474	3474	3474	3474	3433	3442	3597	3656	3567	3567	3567
	<120	80		3868	3866	3853	3833	3542	3517	3453	3399	3129	3132	3090	3025	2921	2819	2712	2676	2676	2673	2673	2702	2666	2510	2398	2236	2153	1970	1989	1861
			Average_Max._Vel.	[illegible]	[illegible]	[illegible]	113,3914	116,7497	116,9916	119,3812	119,6602	122,1535	122,3025	122,8011	123,2847	124,2152	124,9433	125,8664	126,0885	128,6008	129,3344	129,3344	129,4502	130,4934	131,3479	132,7802	134,9363	135,7321			
SZ			Total Rolling Stock																					344	335	336	336	323	323	323	297
	>250	280																						0	0	0	0	0	0	0	0
	200-249	225	Number																					0	0	0	0	0	0	0	0
	160-199	180	of																					0	0	0	0	0	0	0	0
	120-159	140	Vehicles																					97	95	95	95	95	95	95	95
	<120	80																						247	240	241	241	228	228	228	202
			Average_Max._Vel.																					96,9186	97,01493	96,96429	96,96429	97,64706	97,64706	97,64706	99,19192
TCDD			Total Rolling Stock	1067	1057	1059	1067	1037	1043	1028	1057	1101	1115	1107	1088	1079	1154	1138	1098	1040	1071	901	902	900	918	926	893	869	871	854	842
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200-249	225	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160-199	180	of	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-159	140	Vehicles	436	436	436	436	436	436	437	443	456	456	456	456	456	542	532	492	447	447	453	453	455	497	519	518	505	519	539	539
	<120	80		631	621	623	631	601	607	591	614	645	659	651	632	623	612	606	606	593	624	448	449	445	421	407	375	364	352	315	303
			Average_Max._Vel.	[illegible]	[illegible]	[illegible]	104,5173	105,2266	105,0815	105,5058	105,1466	104,8501	104,5381	104,7154	105,1471	105,3568	108,1802	108,0492	106,8852	105,7885	105,042	110,1665	110,133	110,3333	112,4837	113,6285	114,804	114,8677	115		
VR			Total Rolling Stock	1144	1153	1149	1188	961	989	1000	1008	1012	988	969	961	945	936	923	756	701	683	662	792	771	770	765	756	748	747	743	742
	>250	280		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	200-249	225	Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	22	22	22	22
	160-199	180	of	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
	120-159	140	Vehicles	270	325	380	425	465	493	504	512	516	516	516	516	516	516	539	519	499	486	473	473	473	474	474	426	427	427	427	427
	<120	80		874	828	769	763	496	496	496	496	496	472	453	445	429	420	384	237	202	197	189	319	298	296	291	308	299	298	294	273
			Average_Max._Vel.	[illegible]	[illegible]	[illegible]	101,4646	109,0323	109,909	110,24	110,4762	110,5929	111,336	111,9505	112,2164	112,7619	113,0769	115,0379	121,1905	122,7104	122,694	122,8701	115,8333	116,8093	116,9351	117,1765	118,0291	118,516	118,567		
ZSR			Total Rolling Stock																						1759	1773	1723	1659	1665	1628	1637
	>250	280																							0	0	0	0	0	0	0
	200-249	225	Number																						0	0	0	0	0	0	0
	160-199	180	of																						18	18	18	18	18	18	18
	120-159	140	Vehicles																						234	234	245	245	245	245	245
	<120	80																							1507	1521	1460	1396	1402	1365	1374
			Average_Max._Vel.																						89,00512	88,93401	89,57632	89,94575	89,90991	90,13514	90,07941

A2.8.2.Variables related with quality of service

		X1			X2			X3			X4
		Potential maximum velocity of tractive stock			**%Electrified**			**%Double Track**			**Train movements/kms of line**
1992	BC	80,45105	1992	BC	14,94169	1992	BC	16,78207	1992	BC	15,12937
1993	BC	80,55556	1993	BC	15,01912	1993	BC	16,85782	1993	BC	13,10013
1994	BC	80,60606	1994	BC	15,78568	1994	BC	17,60779	1994	BC	11,20368
1995	BC	80,64738	1995	BC	15,78568	1995	BC	31,04817	1995	BC	10,66841
1996	BC	80,64164	1996	BC	15,77429	1996	BC	30,16045	1996	BC	10,48567
1997	BC	80,64164	1997	BC	15,78852	1997	BC	30,04331	1997	BC	10,67322
1998	BC	80,64164	1998	BC	15,838	1998	BC	29,09058	1998	BC	10,40915
1999	BC	80,64164	1999	BC	15,86095	1999	BC	30,05613	1999	BC	10,17309
1989	BDZ	94,03571	1989	BDZ	60,67442	1989	BDZ	22,25581	1989	BDZ	13,97256
1990	BDZ	94,61818	1990	BDZ	61,40963	1990	BDZ	22,33077	1990	BDZ	13,76971
1991	BDZ	94,61818	1991	BDZ	61,40963	1991	BDZ	22,33077	1991	BDZ	9,498488
1992	BDZ	95,43353	1992	BDZ	61,71402	1992	BDZ	22,35678	1992	BDZ	10,74592
1993	BDZ	95,58366	1993	BDZ	61,71402	1993	BDZ	22,35678	1993	BDZ	10,97718
1994	BDZ	96,60104	1994	BDZ	61,64064	1994	BDZ	22,46563	1994	BDZ	11,05407
1995	BDZ	96,63551	1995	BDZ	61,85375	1995	BDZ	22,56637	1995	BDZ	11,08011
1996	BDZ	97,83964	1996	BDZ	63,12602	1996	BDZ	22,57163	1996	BDZ	10,49569
1997	BDZ	98,71495	1997	BDZ	63,18733	1997	BDZ	22,57689	1997	BDZ	10,61184
1998	BDZ	100,0501	1998	BDZ	63,12354	1998	BDZ	24,59207	1998	BDZ	9,500233
1999	BDZ	100,2018	1999	BDZ	63,12354	1999	BDZ	24,59207	1999	BDZ	9,426107
1972	BR	114,3607	1972	BR	16,73972	1972	BR	72,2765	1972	BR	22,76834
1973	BR	115,0235	1973	BR	18,12029	1973	BR	73,37081	1973	BR	23,61129
1974	BR	115,1204	1974	BR	19,53511	1974	BR	72,52445	1974	BR	23,78948
1975	BR	115,8255	1975	BR	20,0011	1975	BR	71,38999	1975	BR	24,00077
1976	BR	119,8631	1976	BR	20,45731	1976	BR	70,36319	1976	BR	23,62845
1977	BR	122,1672	1977	BR	20,85047	1977	BR	70,806	1977	BR	23,66059
1978	BR	122,7414	1978	BR	20,99571	1978	BR	70,84797	1978	BR	23,96081
1979	BR	123,2259	1979	BR	20,86093	1979	BR	71,05736	1979	BR	23,9464
1980	BR	123,29	1980	BR	21,01752	1980	BR	71,17581	1980	BR	24,32295
1981	BR	123,0801	1981	BR	15,53199	1981	BR	65,5548	1981	BR	23,8424
1982	BR	121,9517	1982	BR	21,58684	1982	BR	71,70802	1982	BR	21,42481
1983	BR	121,2883	1983	BR	21,89858	1983	BR	71,59151	1983	BR	23,49418
1984	BR	120,3645	1984	BR	22,30646	1984	BR	70,97672	1984	BR	28,67891
1985	BR	121,0739	1985	BR	23,34868	1985	BR	70,30307	1985	BR	23,50296
1986	BR	124,409	1986	BR	24,91902	1986	BR	70,07798	1986	BR	23,66125
1987	BR	123,9839	1987	BR	25,29765	1987	BR	70,11425	1987	BR	23,57186
1988	BR	124,0136	1988	BR	26,39918	1988	BR	70,07651	1988	BR	25,61269
1989	BR	123,6445	1989	BR	27,40535	1989	BR	70,12901	1989	BR	26,50482
1990	BR	124,0555	1990	BR	29,61891	1990	BR	70,13989	1990	BR	26,05204
1991	BR	125,3986	1991	BR	29,61891	1991	BR	70,13989	1991	BR	25,80686
1992	BR	126,7715	1992	BR	30,57841	1992	BR	70,03872	1992	BR	25,20831
1993	BR	126,3265	1993	BR	30,612	1993	BR	70,05322	1993	BR	25,31785
1994	BR	126,0109	1994	Railtrack	30,72929	1994	Railtrack	70,10384	1994	BR	24,44518
1993	CD	88,20233	1993	CD	28,66222	1993	CD	31,25728	1993	CD	15,22858
1994	CD	87,7959	1994	CD	28,04632	1994	CD	21,53405	1994	CD	15,80028
1995	CD	87,89348	1995	CD	29,08802	1995	CD	21,49523	1995	CD	16,83807
1996	CD	87,73778	1996	CD	30,30207	1996	CD	20,57234	1996	CD	16,2902
1997	CD	87,71704	1997	CD	30,31813	1997	CD	20,58324	1997	CD	15,25536
1998	CD	87,8667	1998	CD	31,64369	1998	CD	20,57264	1998	CD	14,48812
1999	CD	87,97342	1999	CD	30,35771	1999	CD	20,59797	1999	CD	14,57437
1993	ZSR	89,00512	1993	ZSR	39,06037	1993	ZSR	27,91269	1993	ZSR	16,11636
1994	ZSR	88,93401	1994	ZSR	39,72715	1994	ZSR	27,91269	1994	ZSR	17,42619
1995	ZSR	89,57632	1995	ZSR	40,13086	1995	ZSR	27,94438	1995	ZSR	17,58479
1996	ZSR	89,94575	1996	ZSR	41,27416	1996	ZSR	27,63409	1996	ZSR	16,42254
1997	ZSR	89,90991	1997	ZSR	41,88267	1997	ZSR	26,95771	1997	ZSR	16,9618
1998	ZSR	90,13514	1998	ZSR	41,85983	1998	ZSR	27,78838	1998	ZSR	16,13553
1999	ZSR	90,07941	1999	ZSR	41,94429	1999	ZSR	27,85363	1999	ZSR	15,57755
1986	CSD	87,20835	1986	CSD	26,91369	1986	CSD	22,1409	1986	CSD	19,48933
1987	CSD	87,27123	1987	CSD	28,35445	1987	CSD	22,17982	1987	CSD	19,41688
1988	CSD	87,93365	1988	CSD	28,99115	1988	CSD	22,22222	1988	CSD	19,73916
1989	CSD	87,75373	1989	CSD	29,40672	1989	CSD	22,34977	1989	CSD	19,64059
1990	CSD	87,59191	1990	CSD	29,82229	1990	CSD	22,47731	1990	CSD	19,18854
1991	CSD	88,20258	1991	CSD	30,276	1991	CSD	22,49924	1991	CSD	17,56618
1992	CSD	88,19273	1992	CSD	30,26949	1992	CSD	22,55134	1992	CSD	17,35323
1972	CFF	103,884	1972	CFF	99,45074	1972	CFF	46,24099	1972	CFF	30,96567
1973	CFF	104,575	1973	CFF	99,45074	1973	CFF	46,51562	1973	CFF	31,06934
1974	CFF	104,9474	1974	CFF	99,45074	1974	CFF	46,65294	1974	CFF	30,94816
1975	CFF	105,0871	1975	CFF	99,45149	1975	CFF	46,96606	1975	CFF	30,34213
1976	CFF	105,3457	1976	CFF	99,45205	1976	CFF	47,15753	1976	CFF	31,33322
1977	CFF	105,516	1977	CFF	99,45224	1977	CFF	47,17562	1977	CFF	31,80178
1978	CFF	105,516	1978	CFF	99,45224	1978	CFF	47,68915	1978	CFF	31,96234
1979	CFF	105,5317	1979	CFF	99,45224	1979	CFF	47,96303	1979	CFF	32,24273
1980	CFF	105,2984	1980	CFF	99,45318	1980	CFF	48,22283	1980	CFF	32,78264
1981	CFF	105,4357	1981	CFF	99,45467	1981	CFF	48,60259	1981	CFF	32,52999
1982	CFF	105,6951	1982	CFF	99,45597	1982	CFF	48,75893	1982	CFF	34,58211
1983	CFF	105,6153	1983	CFF	99,45689	1983	CFF	49,0835	1983	CFF	35,94942
1984	CFF	105,9139	1984	CFF	99,4611	1984	CFF	49,78107	1984	CFF	35,80498
1985	CFF	105,9564	1985	CFF	99,49766	1985	CFF	49,83255	1985	CFF	35,43603
1986	CFF	105,9888	1986	CFF	99,49766	1986	CFF	49,89953	1986	CFF	35,46082
1987	CFF	106,1366	1987	CFF	99,49833	1987	CFF	49,96656	1987	CFF	37,34047
1988	CFF	106,3249	1988	CFF	99,49833	1988	CFF	49,96656	1988	CFF	39,31706
1989	CFF	107,0247	1989	CFF	99,499	1989	CFF	50,3674	1989	CFF	39,55544
1990	CFF	107,3266	1990	CFF	99,56347	1990	CFF	50,97381	1990	CFF	40,90296
1991	CFF	107,9511	1991	CFF	99,56405	1991	CFF	51,14017	1991	CFF	41,27297
1992	CFF	114,6381	1992	CFF	99,46399	1992	CFF	51,15578	1992	CFF	40,69715
1993	CFF	116,6316	1993	CFF	99,46363	1993	CFF	51,32417	1993	CFF	39,45525

A2.8.2.Variables related with quality of service

X1			X2			X3			X4		
Potential maximum velocity of tractive stock			%Electrified			%Double Track			Train movements/kms of line		
1994	CFF	118,6026	1994	CFF/SBB/F	99,46363	1994	CFF/SBB/F	51,55883	1994	CFF/SBB/F	40,65102
1995	CFF	119,4068	1995	CFF/SBB/F	99,46435	1995	CFF/SBB/F	52,12588	1995	CFF/SBB/F	39,1088
1996	CFF	120,751	1996	CFF/SBB/F	99,53162	1996	CFF/SBB/F	51,45534	1996	CFF/SBB/F	38,86818
1997	CFF	122,008	1997	CFF/SBB/F	99,7278	1997	CFF/SBB/F	53,86186	1997	CFF/SBB/F	39,74617
1998	CFF	121,8531	1998	CFF/SBB/F	0,997251	1998	CFF/SBB/F	54,39863	1998	CFF/SBB/F	42,4354
1999	CFF	122,9351	1999	CFF/SBB/F	0,997243	1999	CFF/SBB/F	54,54859	1999	CFF/SBB/F	43,93522
1972	CFL	107,6	1972	CFL	50,55351	1972	CFL	59,40959	1972	CFL	16,51292
1973	CFL	106,7961	1973	CFL	50,55351	1973	CFL	59,40959	1973	CFL	16,56827
1974	CFL	106,7961	1974	CFL	50,55351	1974	CFL	59,40959	1974	CFL	17,10332
1975	CFL	110,2913	1975	CFL	49,81818	1975	CFL	58,54545	1975	CFL	15,80727
1976	CFL	110,5882	1976	CFL	50	1976	CFL	58,75912	1976	CFL	15,86131
1977	CFL	111,2	1977	CFL	50	1977	CFL	58,75912	1977	CFL	15,23723
1978	CFL	112,1649	1978	CFL	50,74074	1978	CFL	59,62963	1978	CFL	16,04444
1979	CFL	112,1649	1979	CFL	50,74074	1979	CFL	59,62963	1979	CFL	16,58148
1980	CFL	114,5833	1980	CFL	52,96296	1980	CFL	59,62963	1980	CFL	16,11111
1981	CFL	114,2268	1981	CFL	60	1981	CFL	59,62963	1981	CFL	15,65926
1982	CFL	112,8713	1982	CFL	60	1982	CFL	59,62963	1982	CFL	15,48519
1983	CFL	112,8713	1983	CFL	60	1983	CFL	60	1983	CFL	14,9
1984	CFL	113,5354	1984	CFL	60	1984	CFL	60	1984	CFL	15,50741
1985	CFL	112,8713	1985	CFL	60	1985	CFL	60	1985	CFL	16,13704
1986	CFL	112,8713	1986	CFL	60	1986	CFL	60	1986	CFL	18,95556
1987	CFL	112,8713	1987	CFL	60	1987	CFL	60	1987	CFL	18,75556
1988	CFL	112,6	1988	CFL	59,55882	1988	CFL	59,92647	1988	CFL	16,07721
1989	CFL	113,3333	1989	CFL	72,42647	1989	CFL	64,33824	1989	CFL	16,48897
1990	CFL	115,3535	1990	CFL	72,69373	1990	CFL	64,20664	1990	CFL	18,09225
1991	CFL	124,6429	1991	CFL	81,18081	1991	CFL	57,19557	1991	CFL	19,54982
1992	CFL	126,5517	1992	CFL	80	1992	CFL	57,45455	1992	CFL	23,07273
1993	CFL	126,5517	1993	CFL	95,27273	1993	CFL	50,90909	1993	CFL	25,38545
1994	CFL	129,0909	1994	CFL	95,27273	1994	CFL	50,90909	1994	CFL	26,28364
1995	CFL	129,0909	1995	CFL	95,27273	1995	CFL	50,90909	1995	CFL	26,21091
1996	CFL	138,1818	1996	CFL	95,25547	1996	CFL	51,09489	1996	CFL	26,56204
1997	CFL	137,5926	1997	CFL	95,25547	1997	CFL	51,09489	1997	CFL	26,05474
1998	CFL	135,0442	1998	CFL	95,25547	1998	CFL	51,09489	1998	CFL	26,67153
1999	CFL	152,96	1999	CFL	95,25547	1999	CFL	51,09489	1999	CFL	27,42701
1990	CFR	95,0408	1990	CFR	32,78992	1990	CFR	25,98328	1990	CFR	10,41532
1991	CFR	94,89228	1991	CFR	32,38011	1991	CFR	25,98328	1991	CFR	10,39974
1992	CFR	94,93249	1992	CFR	33,08836	1992	CFR	25,94926	1992	CFR	10,43622
1993	CFR	94,98984	1993	CFR	33,02285	1993	CFR	26,06327	1993	CFR	10,32496
1994	CFR	94,86226	1994	CFR	33,9898	1994	CFR	26,07702	1994	CFR	10,20793
1995	CFR	94,91236	1995	CFR	33,98383	1995	CFR	26,07243	1995	CFR	10,75677
1996	CFR	94,5034	1996	CFR	34,1502	1996	CFR	26,05182	1996	CFR	10,98129
1997	CFR	95,51298	1997	CFR	34,64851	1997	CFR	23,92794	1997	CFR	10,63067
1998	CFR	97,89591	1998	CFR	34,57409	1998	CFR	23,82084	1998	CFR	9,566086
1999	CFR	98,24301	1999	CFR	34,57409	1999	CFR	23,82084	1999	CFR	8,712601
1972	CH	85,82524	1972	CH	0	1972	CH	3,973249	1972	CH	7,135327
1973	CH	88,49057	1973	CH	0	1973	CH	3,973249	1973	CH	7,106806
1974	CH	87,84314	1974	CH	0	1974	CH	3,973249	1974	CH	7,078285
1975	CH	87,70878	1975	CH	0	1975	CH	4,725363	1975	CH	7,218094
1976	CH	88,71369	1976	CH	0	1976	CH	4,997968	1976	CH	7,02438
1977	CH	93,50482	1977	CH	0	1977	CH	4,997968	1977	CH	6,95002
1978	CH	93,54839	1978	CH	0	1978	CH	4,997968	1978	CH	6,807802
1979	CH	93,33333	1979	CH	0	1979	CH	4,997968	1979	CH	6,657863
1980	CH	93,29114	1980	CH	0	1980	CH	4,997968	1980	CH	6,071516
1981	CH	93,13725	1981	CH	0	1981	CH	4,997968	1981	CH	6,210484
1982	CH	94,71338	1982	CH	0	1982	CH	4,997968	1982	CH	6,46282
1983	CH	94,25926	1983	CH	0	1983	CH	4,997968	1983	CH	6,623324
1984	CH	94,21538	1984	CH	0	1984	CH	6,176351	1984	CH	6,718407
1985	CH	93,83234	1985	CH	0	1985	CH	7,842341	1985	CH	6,613572
1986	CH	93,87387	1986	CH	0	1986	CH	7,842341	1986	CH	6,733442
1987	CH	93,87387	1987	CH	0	1987	CH	10,44776	1987	CH	6,463897
1988	CH	93,87387	1988	CH	0	1988	CH	10,85115	1988	CH	6,454215
1989	CH	96,25698	1989	CH	0	1989	CH	10,85115	1989	CH	6,454215
1990	CH	96,35	1990	CH	0	1990	CH	12,07729	1990	CH	6,441224
1991	CH	98,83212	1991	CH	0	1991	CH	12,07729	1991	CH	6,441224
1992	CH	98,41727	1992	CH	0	1992	CH	10,78905	1992	CH	6,441224
1993	CH	97,67221	1993	CH	0	1993	CH	10,73288	1993	CH	6,172607
1994	CH	97,63033	1994	CH	0	1994	CH	11,84317	1994	CH	6,863783
1995	CH	99,16279	1995	CH	0	1995	CH	12,28779	1995	CH	7,319725
1996	CH	99,16279	1996	CH	0	1996	CH	12,24737	1996	CH	7,767179
1997	CH	98,89908	1997	CH	0	1997	CH	12,14543	1997	CH	7,360368
1998	CH	105,9957	1998	CH	0	1998	CH	13,96259	1998	CH	7,210526
1999	CH	122,2131	1999	CH	0	1999	CH	13,96259	1999	CH	7,290996
1972	CIE	105,036	1972	CIE	0	1972	CIE	22,43033	1972	CIE	5,064413
1973	CIE	106,2642	1973	CIE	0	1973	CIE	22,43033	1973	CIE	5,735952
1974	CIE	106,7692	1974	CIE	0	1974	CIE	22,43033	1974	CIE	4,16857
1975	CIE	106,7692	1975	CIE	0	1975	CIE	24,37687	1975	CIE	5,384347
1976	CIE	114,4037	1976	CIE	0	1976	CIE	24,22886	1976	CIE	5,09005
1977	CIE	117,7465	1977	CIE	0	1977	CIE	24,3014	1977	CIE	5,350299
1978	CIE	117,7465	1978	CIE	0	1978	CIE	24,26507	1978	CIE	6,476831
1979	CIE	117,8125	1979	CIE	0	1979	CIE	24,49698	1979	CIE	6,863682
1980	CIE	117,8125	1980	CIE	0	1980	CIE	24,40866	1980	CIE	6,760443
1981	CIE	117,8125	1981	CIE	0	1981	CIE	24,25767	1981	CIE	6,723704
1982	CIE	117,8125	1982	CIE	0	1982	CIE	24,308	1982	CIE	6,134373
1983	CIE	121,9653	1983	CIE	1,903292	1983	CIE	26,74897	1983	CIE	6,201132
1984	CIE	117,0408	1984	CIE	1,903292	1984	CIE	26,74897	1984	CIE	6,355967

A2.8.2.Variables related with quality of service

X1			X2			X3			X4		
Potential maximum velocity of tractive stock			**%Electrified**			**%Double Track**			**Train movements/kms of line**		
1985	CIE	117,6166	1985	CIE	1,903292	1985	CIE	26,74897	1985	CIE	7,016975
1986	CIE	122,7059	1986	CIE	1,903292	1986	CIE	26,74897	1986	CIE	7,147119
1987	CIE	123,7349	1987	CIE	1,903292	1987	CIE	26,74897	1987	CIE	7,162551
1988	CIE	122,9586	1988	CIE	1,903292	1988	CIE	26,74897	1988	CIE	6,805556
1989	CIE	122,9586	1989	CIE	1,903292	1989	CIE	26,74897	1989	CIE	7,035494
1990	CIE	123,7349	1990	CIE	1,903292	1990	CIE	26,74897	1990	CIE	7,32356
1991	CIE	123,7349	1991	CIE	1,903292	1991	CIE	26,74897	1991	CIE	7,076646
1992	CIE	123,7349	1992	CIE	1,903292	1992	CIE	26,74897	1992	CIE	7,130144
1993	CIE	117,5	1993	CIE	1,90036	1993	CIE	24,65331	1993	CIE	7,070365
1994	CIE	122	1994	CIE	1,90036	1994	CIE	24,65331	1994	CIE	7,242938
1995	CIE	127,6543	1995	CIE	1,893552	1995	CIE	22,46673	1995	CIE	6,830604
1996	CIE	124,321	1996	CIE	1,897933	1996	CIE	23,53379	1996	CIE	7,874104
1997	CIE	123,9241	1997	CIE	1,902314	1997	CIE	24,60084	1997	CIE	7,987147
1998	CIE	123,9241	1998	CIE	1,938188	1998	CIE	25,66789	1998	CIE	8,101624
1999	CIE	127,3256	1999	CIE	2,501303	1999	CIE	26,10735	1999	CIE	8,059406
1972	CP	89,89583	1972	CP	10,96467	1972	CP	11,18901	1972	CP	8,294728
1973	CP	90,01739	1973	CP	10,96467	1973	CP	11,18901	1973	CP	8,265844
1974	CP	90,65487	1974	CP	10,96467	1974	CP	11,18901	1974	CP	8,349972
1975	CP	92,2087	1975	CP	10,96467	1975	CP	11,18901	1975	CP	8,378575
1976	CP	93,79175	1976	CP	10,96467	1976	CP	11,18901	1976	CP	8,150589
1977	CP	95,17241	1977	CP	10,96467	1977	CP	11,18901	1977	CP	8,642457
1978	CP	96,39286	1978	CP	11,98439	1978	CP	11,84504	1978	CP	8,670569
1979	CP	98,7563	1979	CP	11,98439	1979	CP	11,84504	1979	CP	9,165273
1980	CP	98,56905	1980	CP	11,91466	1980	CP	11,77612	1980	CP	9,634525
1981	CP	99,61353	1981	CP	11,9469	1981	CP	11,75332	1981	CP	10,28429
1982	CP	99,3949	1982	CP	12,66593	1982	CP	11,75332	1982	CP	10,16399
1983	CP	99,54839	1983	CP	12,67645	1983	CP	11,76308	1983	CP	9,79297
1984	CP	100,5629	1984	CP	12,67645	1984	CP	11,76308	1984	CP	10,41074
1985	CP	101,4141	1985	CP	12,71163	1985	CP	11,79573	1985	CP	10,9567
1986	CP	102,1806	1986	CP	12,71163	1986	CP	11,79573	1986	CP	10,64946
1987	CP	105,4945	1987	CP	12,80488	1987	CP	11,8071	1987	CP	10,86086
1988	CP	104,0809	1988	CP	12,80488	1988	CP	11,8071	1988	CP	11,23947
1989	CP	106,2983	1989	CP	15,04569	1989	CP	13,70757	1989	CP	11,9109
1990	CP	104,0809	1990	CP	15,04569	1990	CP	13,70757	1990	CP	10,99641
1991	CP	103,7604	1991	CP	14,79461	1991	CP	13,76765	1991	CP	11,72304
1992	CP	104,3655	1992	CP	15,05552	1992	CP	14,10843	1992	CP	11,99249
1993	CP	108,7253	1993	CP	15,05552	1993	CP	14,72894	1993	CP	11,99216
1994	CP	112,1774	1994	CP	17,0804	1994	CP	16,9322	1994	CP	12,77881
1995	CP	112,7488	1995	CP	18,31579	1995	CP	15,96491	1995	CP	13,05228
1996	CP	113,2025	1996	CP	21,89474	1996	CP	16,52632	1996	CP	13,66316
1997	CP	112,2816	1997	REFER	26,57013	1997	REFER	16,58456	1997	CP	17,06127
1998	CP	112,767	1998	REFER	31,24553	1998	REFER	16,64281	1998	CP	16,44989
1999	CP	117,6603	1999	REFER	32,02986	1999	REFER	17,70352	1999	CP	16,33878
1972	DB	97,5812	1972	DB	31,31714	1972	DB	41,69004	1972	DB	21,04078
1973	DB	97,4839	1973	DB	32,34274	1973	DB	42,03456	1973	DB	21,35514
1974	DB	100,1215	1974	DB	33,25036	1974	DB	42,2803	1974	DB	21,60942
1975	DB	100,3991	1975	DB	34,22413	1975	DB	42,3767	1975	DB	20,30247
1976	DB	100,8107	1976	DB	35,51865	1976	DB	42,63982	1976	DB	19,9007
1977	DB	100,9088	1977	DB	36,59151	1977	DB	42,77062	1977	DB	19,76428
1978	DB	100,9174	1978	DB	37,15927	1978	DB	42,83512	1978	DB	20,14302
1979	DB	101,1996	1979	DB	37,73691	1979	DB	42,9217	1979	DB	20,93347
1980	DB	101,3112	1980	DB	38,659	1980	DB	43,01795	1980	DB	21,25144
1981	DB	101,3191	1981	DB	39,30394	1981	DB	43,1643	1981	DB	21,05275
1982	DB	101,5982	1982	DB	39,50316	1982	DB	43,36196	1982	DB	20,53836
1983	DB	101,2766	1983	DB	39,80092	1983	DB	43,62958	1983	DB	20,30736
1984	DB	100,646	1984	DB	40,28957	1984	DB	43,94868	1984	DB	20,75096
1985	DB	100,61	1985	DB	41,23905	1985	DB	44,32583	1985	DB	21,28823
1986	DB	101,9985	1986	DB	41,58967	1986	DB	44,37614	1986	DB	21,45256
1987	DB	103,3387	1987	DB	41,93313	1987	DB	44,65308	1987	DB	21,27976
1988	DB	103,524	1988	DB	42,76866	1988	DB	45,49919	1988	DB	21,51616
1989	DB	103,5196	1989	DB	43,21686	1989	DB	45,79035	1989	DB	21,94365
1990	DB	103,5196	1990	DB	43,38937	1990	DB	45,93862	1990	DB	22,31894
1991	DB	106,2897	1991	DB	44,49204	1991	DB	46,78902	1991	DB	23,35891
1992	DB	108,9839	1992	DB	45,36764	1992	DB	47,358	1992	DB	24,41757
1993	DB	109,1904	1993	DB	46,1212	1993	DB	48,06912	1993	DB	24,46928
1994	DBAG	106,3041	1994	DBAG	42,86853	1994	DBAG	41,63909	1994	DB AG	21,05007
1995	DBAG	110,425	1995	DBAG	43,53996	1995	DBAG	42,26233	1995	DB AG	20,52929
1996	DBAG	115,3218	1996	DBAG	45,21628	1996	DBAG	43,24205	1996	DB AG	20,79905
1997	DBAG	119,1016	1997	DBAG	48,50975	1997	DBAG	45,01951	1997	DB AG	21,7825
1998	DBAG	122,2371	1998	DBAG	48,922	1998	DBAG	45,40209	1998	DB AG	22,86977
1999	DBAG	122,2977	1999	DB AG	50,45703	1999	DB AG	46,78215	1999	DB AG	24,82199
1972	DSB	94,25345	1972	DSB	4,111601	1972	DSB	35,68282	1972	DSB	19,72247
1973	DSB	95,34766	1973	DSB	4,972376	1973	DSB	37,31793	1973	DSB	20,84078
1974	DSB	96,05161	1974	DSB	4,952476	1974	DSB	37,16858	1974	DSB	21,34717
1975	DSB	96,0103	1975	DSB	4,952476	1975	DSB	37,16858	1975	DSB	22,04152
1976	DSB	96,11182	1976	DSB	4,952476	1976	DSB	37,16858	1976	DSB	22,21911
1977	DSB	96,42487	1977	DSB	5,139721	1977	DSB	37,27545	1977	DSB	22,17066
1978	DSB	99,32026	1978	DSB	6,187625	1978	DSB	37,27545	1978	DSB	22,28343
1979	DSB	104,9136	1979	DSB	6,699752	1979	DSB	37,61787	1979	DSB	22,62978
1980	DSB	106,0349	1980	DSB	6,699752	1980	DSB	37,61787	1980	DSB	23,90571
1981	DSB	106,3304	1981	DSB	6,699752	1981	DSB	37,61787	1981	DSB	24,57072
1982	DSB	107,512	1982	DSB	6,699752	1982	DSB	37,61787	1982	DSB	24,87841
1983	DSB	107,7136	1983	DSB	5,800654	1983	DSB	31,90359	1983	DSB	20,63317
1984	DSB	109,7052	1984	DSB	5,800654	1984	DSB	31,90359	1984	DSB	20,48611
1985	DSB	112,1078	1985	DSB	6,191825	1985	DSB	36,46297	1985	DSB	20,3278

A2.8.2.Variables related with quality of service

X1			X2			X3			X4		
Potential maximum velocity of tractive stock			%Electrified			%Double Track			Train movements/kms of line		
1986	DSB	112,8977	1986	DSB	8,05342	1986	DSB	32,41603	1986	DSB	20,22461
1987	DSB	113,1172	1987	DSB	8,037157	1987	DSB	36,79321	1987	DSB	20,52706
1988	DSB	113,1362	1988	DSB	9,289176	1988	DSB	37,03554	1988	DSB	20,19992
1989	DSB	114,5575	1989	DSB	9,812287	1989	DSB	37,62799	1989	DSB	21,22867
1990	DSB	115,3191	1990	DSB	9,812287	1990	DSB	39,54778	1990	DSB	22,25256
1991	DSB	116,3708	1991	DSB	10,79352	1991	DSB	38,56655	1991	DSB	23,33618
1992	DSB	116,6062	1992	DSB	12,14224	1992	DSB	35,29922	1992	DSB	25,12706
1993	DSB	118,6717	1993	DSB	14,06318	1993	DSB	34,44396	1993	DSB	24,63825
1994	DSB	117,7749	1994	DSB	15,75138	1994	DSB	38,18646	1994	DSB	24,44019
1995	DSB	117,5479	1995	DSB	18,47595	1995	DSB	40,78331	1995	DSB	25,29885
1996	DSB	128,979	1996	DSB	18,47595	1996	DSB	40,78331	1996	DSB	24,55172
1997	DSB	138,9116	1997	BS	28,00179	1997	BS	37,99283	1997	DSB	26,47043
1998	DSB	147,9216	1998	BS	19,78799	1998	BS	33,08304	1998	DSB	26,83348
1999	DSB	160	1999	BS	26,37694	1999	BS	38,46816	1999	DSB	26,16523
1992	EVR	83,84058	1992	EVR	12,9666	1992	EVR	10,90373	1992	EVR	8,602161
1993	EVR	84,01515	1993	EVR	12,89063	1993	EVR	10,44922	1993	EVR	8,451172
1994	EVR	84,15686	1994	EVR	12,89063	1994	EVR	10,44922	1994	EVR	7,875977
1995	EVR	84,18972	1995	EVR	12,9285	1995	EVR	10,18609	1995	EVR	7,719882
1996	EVR	84,41667	1996	EVR	12,94118	1996	EVR	10,09804	1996	EVR	7,221569
1997	EVR	85,27363	1997	EVR	13,6646	1997	EVR	10,76605	1997	EVR	8,163561
1998	EVR	85,40816	1998	EVR	13,6646	1998	EVR	11,90476	1998	EVR	8,569358
1999	EVR	85,4359	1999	EVR	13,63636	1999	EVR	10,84711	1999	EVR	9,170455
1972	FS	96,67896	1972	FS	49,51812	1972	FS	31,19443	1972	FS	16,73948
1973	FS	96,72766	1973	FS	49,60159	1973	FS	31,3247	1973	FS	17,02148
1974	FS	99,82139	1974	FS	49,40891	1974	FS	31,48955	1974	FS	17,09464
1975	FS	105,7212	1975	FS	49,39354	1975	FS	31,51085	1975	FS	16,57032
1976	FS	106,67	1976	FS	50,40575	1976	FS	31,79087	1976	FS	17,42972
1977	FS	107,1952	1977	FS	51,18062	1977	FS	32,38966	1977	FS	17,35258
1978	FS	107,8142	1978	FS	52,03777	1978	FS	32,9585	1978	FS	17,51708
1979	FS	109,3046	1979	FS	53,14833	1979	FS	33,09482	1979	FS	17,61144
1980	FS	109,8674	1980	FS	53,80896	1980	FS	33,11845	1980	FS	17,76867
1981	FS	110,3838	1981	FS	54,16847	1981	FS	33,18066	1981	FS	17,37408
1982	FS	112,0247	1982	FS	54,25492	1982	FS	33,27759	1982	FS	17,69373
1983	FS	113,4173	1983	FS	54,26059	1983	FS	33,30443	1983	FS	17,78858
1984	FS	113,9243	1984	FS	54,98945	1984	FS	33,44917	1984	FS	18,09768
1985	FS	114,0723	1985	FS	55,22397	1985	FS	33,82144	1985	FS	18,06352
1986	FS	114,8021	1986	FS	56,46627	1986	FS	34,39134	1986	FS	18,20519
1987	FS	115,7632	1987	FS	53,55355	1987	FS	32,93882	1987	FS	17,10081
1988	FS	116,1384	1988	FS	58,13924	1988	FS	35,06088	1988	FS	18,68042
1989	FS	117,3825	1989	FS	58,9083	1989	FS	35,46475	1989	FS	18,8466
1990	FS	117,4121	1990	FS	59,20578	1990	FS	35,92058	1990	FS	18,81153
1991	FS	117,8437	1991	FS	60,38217	1991	FS	35,93925	1991	FS	18,94728
1992	FS	117,893	1992	FS	61,66832	1992	FS	36,44489	1992	FS	19,08515
1993	FS	118,9869	1993	FS	62,91557	1993	FS	37,20989	1993	FS	18,91519
1994	FS	119,8024	1994	FS	63,26709	1994	FS	37,43282	1994	FS	19,51437
1995	FS	120,0377	1995	FS	63,7568	1995	FS	37,61795	1995	FS	20,31213
1996	FS	121,9219	1996	FS SpA	64,43737	1996	FS SpA	37,74198	1996	FS SpA	20,34289
1997	FS	123,1484	1997	FS SpA	64,61634	1997	FS SpA	37,81036	1997	FS SpA	20,31728
1998	FS	123,758	1998	FS SpA	65,22388	1998	FS SpA	38,15299	1998	FS SpA	19,95815
1999	FS	125,7769	1999	FS SpA	66,35212	1999	FS SpA	38,32257	1999	FS SpA	19,07835
1992	MAV	95,36806	1992	MAV	29,84341	1992	MAV	15,20642	1992	MAV	12,36133
1993	MAV	95,49971	1993	MAV	28,7104	1993	MAV	15,4463	1993	MAV	11,67964
1994	MAV	96,2381	1994	MAV	28,80242	1994	MAV	15,5909	1994	MAV	12,70593
1995	MAV	97,09657	1995	MAV	29,71338	1995	MAV	15,57981	1995	MAV	12,05009
1996	MAV	96,74192	1996	MAV Rt.	29,70948	1996	MAV Rt.	15,52517	1996	MAV Rt.	12,32878
1997	MAV	97,54476	1997	MAV Rt.	30,08151	1997	MAV Rt.	16,03997	1997	MAV Rt.	11,30647
1998	MAV	98,50303	1998	MAV Rt.	32,23066	1998	MAV Rt.	16,66881	1998	MAV Rt.	11,11945
1999	MAV	98,78166	1999	MAV Rt.	32,56952	1999	MAV Rt.	16,64521	1999	MAV Rt.	12,35646
1972	NS	115,2062	1972	NS	58,04517	1972	NS	55,18701	1972	NS	37,36556
1973	NS	115,2336	1973	NS	58,08616	1973	NS	55,22599	1973	NS	37,61935
1974	NS	115,2336	1974	NS	60,45198	1974	NS	55,61441	1974	NS	37,7846
1975	NS	116,3805	1975	NS	60,60177	1975	NS	55,78761	1975	NS	37,70053
1976	NS	116,4934	1976	NS	60,84956	1976	NS	55,78761	1976	NS	38,09097
1977	NS	116,6355	1977	NS	60,73684	1977	NS	55,7193	1977	NS	37,83825
1978	NS	116,8363	1978	NS	60,98748	1978	NS	55,21558	1978	NS	37,47914
1979	NS	117,9193	1979	NS	61,07639	1979	NS	55,65972	1979	NS	37,46007
1980	NS	119,0139	1980	NS	61,04167	1980	NS	55,625	1980	NS	38,3566
1981	NS	121,1982	1981	NS	60,85927	1981	NS	56,05548	1981	NS	38,12991
1982	NS	122,6284	1982	NS	63,15789	1982	NS	58,14035	1982	NS	39,96947
1983	NS	122,7209	1983	NS	62,97335	1983	NS	58,8359	1983	NS	39,4169
1984	NS	125,6081	1984	NS	62,97335	1984	NS	58,8359	1984	NS	40,05891
1985	NS	127,1125	1985	NS	64,58924	1985	NS	59,63173	1985	NS	40,18555
1986	NS	127,3317	1986	NS	65,35321	1986	NS	60,52538	1986	NS	40,52006
1987	NS	127,4281	1987	NS	68,74333	1987	NS	62,26415	1987	NS	41,31506
1988	NS	127,8543	1988	NS	69,20085	1988	NS	63,36634	1988	NS	41,62907
1989	NS	128,0604	1989	NS	69,20085	1989	NS	63,36634	1989	NS	41,77617
1990	NS	128,7299	1990	NS	69,94282	1990	NS	64,04575	1990	NS	41,92781
1991	NS	129,5495	1991	NS	69,7482	1991	NS	63,81295	1991	NS	42,39424
1992	NS	129,5961	1992	NS	72,17581	1992	NS	64,32982	1992	NS	42,45217
1993	NS	131,157	1993	NS	72,21618	1993	NS	65,07073	1993	NS	43,82564
1994	NS	132,5124	1994	NS	72,21618	1994	NS	65,54226	1994	NS	42,14454
1995	NS	135,2178	1995	NS	72,69076	1995	NS	65,97298	1995	NS	42,81073
1996	NS	136,0218	1996	NS	72,69076	1996	NS	65,97298	1996	NS	43,08694
1997	NS	144,1804	1997	NS B.V.	73,36898	1997	NS B.V.	69,09091	1997	NS N.V.	43,20856
1998	NS	151,1538	1998	NS B.V.	73,39744	1998	NS B.V.	69,80057	1998	NS N.V.	43,3255

A2.8.2.Variables related with quality of service

X1			X2			X3			X4		
Potential maximum velocity of tractive stock			%Electrified			%Double Track			Train movements/kms of line		
1999	NS	152,6202	1999	NS B.V.	73,39744	1999	NS B.V.	69,80057	1999	NS N.V.	45,94017
1972	NSB	84,0201	1972	NSB	57,52358	1972	NSB	1,792453	1972	NSB	7,478538
1973	NSB	84,05405	1973	NSB	57,52358	1973	NSB	2,146226	1973	NSB	7,344104
1974	NSB	83,98671	1974	NSB	57,5336	1974	NSB	2,14572	1974	NSB	7,632162
1975	NSB	83,9604	1975	NSB	57,5336	1975	NSB	2,14572	1975	NSB	7,798397
1976	NSB	83,91517	1976	NSB	57,5336	1976	NSB	2,14572	1976	NSB	7,996227
1977	NSB	85,59738	1977	NSB	57,5336	1977	NSB	2,14572	1977	NSB	8,058241
1978	NSB	86,29508	1978	NSB	57,5336	1978	NSB	2,14572	1978	NSB	8,022165
1979	NSB	87,16129	1979	NSB	57,56075	1979	NSB	2,146733	1979	NSB	8,043878
1980	NSB	87,64516	1980	NSB	57,58076	1980	NSB	2,192879	1980	NSB	8,189578
1981	NSB	87,72947	1981	NSB	57,59076	1981	NSB	2,215936	1981	NSB	8,158652
1982	NSB	87,85597	1982	NSB	57,59076	1982	NSB	2,215936	1982	NSB	8,063649
1983	NSB	88,05825	1983	NSB	57,59076	1983	NSB	2,215936	1983	NSB	7,84347
1984	NSB	88,65574	1984	NSB	57,59076	1984	NSB	2,215936	1984	NSB	7,74446
1985	NSB	89,49495	1985	NSB	57,77935	1985	NSB	2,23951	1985	NSB	7,730552
1986	NSB	90,12567	1986	NSB	58,4203	1986	NSB	2,111006	1986	NSB	7,931926
1987	NSB	90,64846	1987	NSB	58,05075	1987	NSB	2,252786	1987	NSB	7,810766
1988	NSB	91,9084	1988	NSB	58,05988	1988	NSB	2,275449	1988	NSB	7,486707
1989	NSB	92,16374	1989	NSB	59,99011	1989	NSB	2,448071	1989	NSB	7,671118
1990	NSB	92,83951	1990	NSB	60,58941	1990	NSB	2,472527	1990	NSB	9,167083
1991	NSB	92,94606	1991	NSB	60,24336	1991	NSB	2,458406	1991	NSB	8,041718
1992	NSB	95,20661	1992	NSB	60,24336	1992	NSB	2,458406	1992	NSB	8,208344
1993	NSB	106,0888	1993	NSB	60,20383	1993	NSB	2,46085	1993	NSB	8,466319
1994	NSB	107,5113	1994	NSB	60,20383	1994	NSB	2,759135	1994	NSB	9,242108
1995	NSB	112	1995	NSB	60,20383	1995	NSB	2,858563	1995	NSB	9,089734
1996	NSB	126,8839	1996	JBV (NSB)	61,07933	1996	JBV (NSB)	3,257896	1996	NSB BA	9,258393
1997	NSB	129,6997	1997	JBV (NSB)	61,07933	1997	JBV (NSB)	3,257896	1997	NSB BA	9,199702
1998	NSB	137,1818	1998	JBV (NSB)	61,30804	1998	JBV (NSB)	3,270095	1998	NSB BA	9,34024
1999	NSB	144,2121	1999	JBV (NSB)	60,27758	1999	JBV (NSB)	4,426896	1999	NSB BA	8,558268
1972	OBB	94,75198	1972	OBB	41,35121	1972	OBB	24,57987	1972	OBB	14,9304
1973	OBB	94,86957	1973	OBB	42,38444	1973	OBB	24,74842	1973	OBB	15,08136
1974	OBB	95,84452	1974	OBB	43,22526	1974	OBB	24,93174	1974	OBB	15,42816
1975	OBB	96,47977	1975	OBB	45,21695	1975	OBB	25,07687	1975	OBB	15,28972
1976	OBB	96,52669	1976	OBB	46,19064	1976	OBB	25,11104	1976	OBB	15,8683
1977	OBB	96,57388	1977	OBB	47,1985	1977	OBB	25,28186	1977	OBB	15,76614
1978	OBB	96,91314	1978	OBB	49,00922	1978	OBB	25,38435	1978	OBB	15,78083
1979	OBB	97,2549	1979	OBB	49,98291	1979	OBB	25,46138	1979	OBB	16,32861
1980	OBB	99,06207	1980	OBB	50,53911	1980	OBB	25,72309	1980	OBB	16,74773
1981	OBB	100,1776	1981	OBB	51,31647	1981	OBB	26,07124	1981	OBB	16,82791
1982	OBB	101,5385	1982	OBB	52,12195	1982	OBB	26,41607	1982	OBB	17,16421
1983	OBB	102,4222	1983	OBB	52,85317	1983	OBB	26,73974	1983	OBB	17,1658
1984	OBB	103,3356	1984	OBB	53,45518	1984	OBB	26,91036	1984	OBB	17,40122
1985	OBB	104,9204	1985	OBB	54,00624	1985	OBB	27,24592	1985	OBB	17,62851
1986	OBB	106,1639	1986	OBB	54,27328	1986	OBB	27,50218	1986	OBB	17,66997
1987	OBB	106,4225	1987	OBB	54,4458	1987	OBB	27,91021	1987	OBB	17,67252
1988	OBB	106,9223	1988	OBB	56,5897	1988	OBB	28,65009	1988	OBB	18,34796
1989	OBB	107,4725	1989	OBB	57,40117	1989	OBB	29,00195	1989	OBB	19,29782
1990	OBB	108,3355	1990	OBB	57,71693	1990	OBB	29,51636	1990	OBB	20,48684
1991	OBB	110,7241	1991	OBB	57,70941	1991	OBB	29,78837	1991	OBB	22,6132
1992	OBB	114,0326	1992	OBB	57,91258	1992	OBB	29,97324	1992	OBB	24,39411
1993	OBB	115,8734	1993	OBB	58,44643	1993	OBB	30,125	1993	OBB	23,74179
1994	OBB	116,6906	1994	OBB	58,69411	1994	OBB	30,60681	1994	OBB	23,42477
1995	OBB	116,8047	1995	OBB	60,26093	1995	OBB	31,15303	1995	OBB	22,57616
1996	OBB	116,9943	1996	OBB	60,26093	1996	OBB	31,15303	1996	OBB	21,30748
1997	OBB	117,5639	1997	OBB	60,26093	1997	OBB	31,15303	1997	OBB	22,24101
1998	OBB	118,3725	1998	OBB	60,73011	1998	OBB	31,31313	1998	OBB	23,75066
1999	OBB	118,4226	1999	OBB	61,24402	1999	OBB	31,31313	1999	OBB	24,77654
1989	PKP	94,21071	1989	PKP	41,34514	1989	PKP	42,57619	1989	PKP	14,71772
1990	PKP	94,56856	1990	PKP	43,41543	1990	PKP	42,80921	1990	PKP	13,73429
1991	PKP	95,06753	1991	PKP	44,52956	1991	PKP	34,7493	1991	PKP	12,23054
1992	PKP	95,69401	1992	PKP	45,5215	1992	PKP	35,20234	1992	PKP	11,02004
1993	PKP	96,11921	1993	PKP	46,06435	1993	PKP	35,86215	1993	PKP	11,27662
1994	PKP	96,40925	1994	PKP	47,76457	1994	PKP	36,74166	1994	PKP	11,96611
1995	PKP	96,71846	1995	PKP	48,47411	1995	PKP	37,12582	1995	PKP	11,73772
1996	PKP	97,108	1996	PKP	49,64133	1996	PKP	37,93339	1996	PKP	11,93399
1997	PKP	97,29767	1997	PKP	49,83711	1997	PKP	38,11728	1997	PKP	11,98448
1998	PKP	101,2604	1998	PKP	50,03878	1998	PKP	38,22921	1998	PKP	11,74313
1999	PKP	103,0083	1999	PKP	52,27819	1999	PKP	38,87117	1999	PKP	11,70259
1972	RENFE	88,35749	1972	RENFE	23,24188	1972	RENFE	15,49212	1972	RENFE	9,38416
1973	RENFE	91,98589	1973	RENFE	25,44912	1973	RENFE	15,29631	1973	RENFE	9,768692
1974	RENFE	97,62208	1974	RENFE	25,6626	1974	RENFE	15,40351	1974	RENFE	9,681358
1975	RENFE	100,5562	1975	RENFE	27,15418	1975	RENFE	15,41824	1975	RENFE	9,471364
1976	RENFE	102,3504	1976	RENFE	32,0379	1976	RENFE	16,00415	1976	RENFE	9,740247
1977	RENFE	103,8407	1977	RENFE	35,32496	1977	RENFE	15,74594	1977	RENFE	10,00561
1978	RENFE	104,2359	1978	RENFE	36,14128	1978	RENFE	15,8132	1978	RENFE	10,07367
1979	RENFE	104,5519	1979	RENFE	40,4183	1979	RENFE	16,34765	1979	RENFE	9,879979
1980	RENFE	108,2043	1980	RENFE	40,41501	1980	RENFE	16,77005	1980	RENFE	10,11638
1981	RENFE	109,963	1981	RENFE	45,45522	1981	RENFE	16,94602	1981	RENFE	10,40021
1982	RENFE	111,3292	1982	RENFE	45,57177	1982	RENFE	17,74241	1982	RENFE	10,61671
1983	RENFE	111,8468	1983	RENFE	45,78943	1983	RENFE	17,96213	1983	RENFE	10,67892
1984	RENFE	112,0172	1984	RENFE	45,64273	1984	RENFE	18,32781	1984	RENFE	11,10409
1985	RENFE	112,2676	1985	RENFE	48,78049	1985	RENFE	19,89772	1985	RENFE	11,94634
1986	RENFE	112,2779	1986	RENFE	48,80119	1986	RENFE	20,14779	1986	RENFE	12,27443
1987	RENFE	112,8681	1987	RENFE	49,66104	1987	RENFE	20,5108	1987	RENFE	12,32232
1988	RENFE	115,7071	1988	RENFE	50,31873	1988	RENFE	20,81275	1988	RENFE	12,66566

A2.8.2.Variables related with quality of service

X1			X2			X3			X4		
Potential maximum velocity of tractive stock			**%Electrified**			**%Double Track**			**Train movements/kms of line**		
1989	RENFE	116,1421	1989	RENFE	51,11023	1989	RENFE	20,93912	1989	RENFE	12,57994
1990	RENFE	116,1968	1990	RENFE	51,0828	1990	RENFE	21,52866	1990	RENFE	13,44793
1991	RENFE	118,1376	1991	RENFE	51,12172	1991	RENFE	21,59109	1991	RENFE	13,73564
1992	RENFE	123,6586	1992	RENFE	52,86404	1992	RENFE	23,48746	1992	RENFE	13,65977
1993	RENFE	123,694	1993	RENFE	54,70994	1993	RENFE	25,64876	1993	RENFE	13,22832
1994	RENFE	126,639	1994	RENFE	55,34556	1994	RENFE	25,85007	1994	RENFE	12,1886
1995	RENFE	127,7672	1995	RENFE	55,81433	1995	RENFE	26,55537	1995	RENFE	13,11669
1996	RENFE	131,5413	1996	RENFE	55,82058	1996	RENFE	27,2224	1996	RENFE	12,99048
1997	RENFE	133,4309	1997	RENFE	56,4015	1997	RENFE	27,77778	1997	RENFE	13,42443
1998	RENFE	135,3178	1998	RENFE	56,49029	1998	RENFE	27,67618	1998	RENFE	13,49533
1999	RENFE	135,5501	1999	RENFE	56,48997	1999	RENFE	27,71329	1999	RENFE	13,65987
1972	SJ	88,81104	1972	SJ	61,32175	1972	SJ	10,14569	1972	SJ	8,71169
1973	SJ	88,75944	1973	SJ	61,22646	1973	SJ	10,13549	1973	SJ	8,732624
1974	SJ	88,65867	1974	SJ	61,22646	1974	SJ	10,13549	1974	SJ	8,934894
1975	SJ	90,87661	1975	SJ	61,22646	1975	SJ	10,13549	1975	SJ	8,703854
1976	SJ	92,3966	1976	SJ	61,22646	1976	SJ	10,13549	1976	SJ	8,752068
1977	SJ	93,53917	1977	SJ	61,17802	1977	SJ	10,12747	1977	SJ	8,741011
1978	SJ	93,83986	1978	SJ	61,68512	1978	SJ	10,12124	1978	SJ	8,637059
1979	SJ	95,36486	1979	SJ	61,68512	1979	SJ	10,12124	1979	SJ	8,695308
1980	SJ	96,47327	1980	SJ	61,68512	1980	SJ	10,12124	1980	SJ	8,737656
1981	SJ	97,61424	1981	SJ	62,02822	1981	SJ	10,15873	1981	SJ	8,775926
1982	SJ	97,93353	1982	SJ	60,36565	1982	SJ	9,795918	1982	SJ	8,594898
1983	SJ	100,0859	1983	SJ	60,54451	1983	SJ	9,831868	1983	SJ	8,852693
1984	SJ	102,4497	1984	SJ	60,90917	1984	SJ	9,899459	1984	SJ	9,096331
1985	SJ	106,2162	1985	SJ	62,08947	1985	SJ	10,40298	1985	SJ	9,308273
1986	SJ	109,7206	1986	SJ	62,25525	1986	SJ	10,49306	1986	SJ	9,228462
1987	SJ	110,1516	1987	SJ	62,48883	1987	SJ	10,53243	1987	SJ	9,053689
1988	SJ	110,534	1988	BV (SJ)	63,15457	1988	BV (SJ)	10,64464	1988	SJ	9,182918
1989	SJ	112,6436	1989	BV (SJ)	63,46398	1989	BV (SJ)	10,73308	1989	SJ	9,053801
1990	SJ	113,3829	1990	BV (SJ)	64,76252	1990	BV (SJ)	11,02676	1990	SJ	9,124988
1991	SJ	115,7614	1991	BV (SJ)	66,10757	1991	BV (SJ)	11,66819	1991	SJ	8,74485
1992	SJ	118,0529	1992	BV (SJ)	73,81678	1992	BV (SJ)	13,18302	1992	SJ	9,495836
1993	SJ	120,8922	1993	BV (SJ)	69,35624	1993	BV (SJ)	12,57601	1993	SJ	8,857832
1994	SJ	122,6943	1994	BV	74,34013	1994	BV	13,8495	1994	SJ	10,05113
1995	SJ	122,9617	1995	BV	74,80065	1995	BV	14,41423	1995	SJ	10,25813
1996	SJ	123,457	1996	BV	75,19601	1996	BV	14,76428	1996	SJ	10,53345
1997	SJ	123,689	1997	BV	72,20375	1997	BV	14,17677	1997	SJ	9,728393
1998	SJ	123,6991	1998	BV	73,37308	1998	BV	14,40636	1998	SJ	9,90611
1999	SJ	124,7578	1999	BV	75,43596	1999	BV	16,34596	1999	SJ	10,17909
1972	SNCB	119,784	1972	SNCB	29,75267	1972	SNCB	61,83317	1972	SNCB	20,46193
1973	SNCB	120,6495	1973	SNCB	31,10837	1973	SNCB	62,70936	1973	SNCB	21,51921
1974	SNCB	121,0216	1974	SNCB	31,50074	1974	SNCB	63,42249	1974	SNCB	22,26226
1975	SNCB	121,3103	1975	SNCB	31,88878	1975	SNCB	64,17836	1975	SNCB	21,54359
1976	SNCB	121,7335	1976	SNCB	32,23223	1976	SNCB	64,21421	1976	SNCB	21,65666
1977	SNCB	122,3746	1977	SNCB	32,47564	1977	SNCB	64,15189	1977	SNCB	21,86835
1978	SNCB	122,4051	1978	SNCB	32,23652	1978	SNCB	63,48342	1978	SNCB	22,47551
1979	SNCB	122,4246	1979	SNCB	33,61681	1979	SNCB	64,25713	1979	SNCB	23,57104
1980	SNCB	125,8974	1980	SNCB	34,56511	1980	SNCB	64,42936	1980	SNCB	23,9173
1981	SNCB	127,8363	1981	SNCB	39,12494	1981	SNCB	64,66869	1981	SNCB	24,49772
1982	SNCB	129,7766	1982	SNCB	43,91548	1982	SNCB	65,14766	1982	SNCB	24,0499
1983	SNCB	130,6116	1983	SNCB	46,9171	1983	SNCB	66,63212	1983	SNCB	23,50699
1984	SNCB	133,7728	1984	SNCB	49,54979	1984	SNCB	69,01483	1984	SNCB	24,97299
1985	SNCB	133,8412	1985	SNCB/NMI	53,94055	1985	SNCB/NMI	71,3117	1985	SNCB/NMI	25,80393
1986	SNCB	135,676	1986	SNCB/NMI	59,59093	1986	SNCB/NMI	72,5539	1986	SNCB/NMI	25,34024
1987	SNCB	139,3179	1987	SNCB/NMI	61,65919	1987	SNCB/NMI	73,71076	1987	SNCB/NMI	26,1264
1988	SNCB	139,6349	1988	SNCB/NMI	63,70287	1988	SNCB/NMI	74,42319	1988	SNCB/NMI	25,95357
1989	SNCB	139,7356	1989	SNCB/NMI	64,50327	1989	SNCB/NMI	74,5232	1989	SNCB/NMI	26,28124
1990	SNCB	139,8379	1990	SNCB/NMI	65,93849	1990	SNCB/NMI	74,27422	1990	SNCB/NMI	26,476
1991	SNCB	139,4591	1991	SNCB/NMI	66,09925	1991	SNCB/NMI	74,23543	1991	SNCB/NMI	26,62608
1992	SNCB	139,9069	1992	SNCB/NMI	66,75408	1992	SNCB/NMI	74,97086	1992	SNCB/NMI	27,01078
1993	SNCB	139,9411	1993	SNCB/NMI	69,26686	1993	SNCB/NMI	75,21994	1993	SNCB/NMI	26,67859
1994	SNCB	141,9291	1994	SNCB/NMI	69,58186	1994	SNCB/NMI	75,55948	1994	SNCB/NMI	26,57303
1995	SNCB	141,0165	1995	SNCB/NMI	70,39786	1995	SNCB/NMI	75,95012	1995	SNCB/NMI	25,99495
1996	SNCB	142,2886	1996	SNCB/NMI	72,75148	1996	SNCB/NMI	76,18343	1996	SNCB/NMI	26,59556
1997	SNCB	142,5425	1997	SNCB/NMI	73,26125	1997	SNCB/NMI	76,62186	1997	SNCB/NMI	26,30888
1998	SNCB	144,7339	1998	SNCB/NMI	73,63636	1998	SNCB/NMI	76,33431	1998	SNCB/NMI	27,34018
1999	SNCB	147,736	1999	SNCB/NMI	77,79378	1999	SNCB/NMI	75,66244	1999	SNCB/NMI	27,30991
1972	SNCF	112,7886	1972	SNCF	26,69902	1972	SNCF	45,22955	1972	SNCF	13,39614
1973	SNCF	112,7973	1973	SNCF	26,82927	1973	SNCF	45,22262	1973	SNCF	13,60142
1974	SNCF	113,0685	1974	SNCF	27,04904	1974	SNCF	45,31441	1974	SNCF	14,23553
1975	SNCF	113,3914	1975	SNCF	27,24909	1975	SNCF	44,81519	1975	SNCF	13,93809
1976	SNCF	116,7497	1976	SNCF	27,1928	1976	SNCF	44,42083	1976	SNCF	14,02317
1977	SNCF	116,9916	1977	SNCF	27,70211	1977	SNCF	44,52271	1977	SNCF	14,2454
1978	SNCF	119,3812	1978	SNCF	28,07238	1978	SNCF	44,56385	1978	SNCF	14,40467
1979	SNCF	119,6602	1979	SNCF	28,60664	1979	SNCF	44,5064	1979	SNCF	14,66892
1980	SNCF	122,1535	1980	SNCF	29,35764	1980	SNCF	44,62927	1980	SNCF	14,89636
1981	SNCF	122,3025	1981	SNCF	29,58353	1981	SNCF	44,18916	1981	SNCF	14,45629
1982	SNCF	122,8011	1982	SNCF	30,58824	1982	SNCF	44,50354	1982	SNCF	14,36482
1983	SNCF	123,2847	1983	SNCF	31,20975	1983	SNCF	44,58082	1983	SNCF	14,365
1984	SNCF	124,2152	1984	SNCF	32,25342	1984	SNCF	44,75414	1984	SNCF	14,14294
1985	SNCF	124,9433	1985	SNCF	33,12954	1985	SNCF	44,14292	1985	SNCF	13,88038
1986	SNCF	125,8664	1986	SNCF	33,43919	1986	SNCF	44,77612	1986	SNCF	13,38491
1987	SNCF	126,0885	1987	SNCF	33,74704	1987	SNCF	44,77573	1987	SNCF	13,54685
1988	SNCF	128,6008	1988	SNCF	34,74235	1988	SNCF	44,83696	1988	SNCF	13,84116
1989	SNCF	129,3344	1989	SNCF	36,21584	1989	SNCF	45,69955	1989	SNCF	13,99429

A2.8.2.Variables related with quality of service

X1			X2			X3			X4		
Potential maximum velocity of tractive stock			%Electrified			%Double Track			Train movements/kms of line		
1990	SNCF	129,3344	1990	SNCF	37,0091	1990	SNCF	46,33695	1990	SNCF	14,14734
1991	SNCF	129,4502	1991	SNCF	38,35735	1991	SNCF	47,05495	1991	SNCF	14,30231
1992	SNCF	130,4934	1992	SNCF	39,67493	1992	SNCF	48,1684	1992	SNCF	14,65586
1993	SNCF	131,3479	1993	SNCF	41,66181	1993	SNCF	49,23417	1993	SNCF	14,33979
1994	SNCF	132,7802	1994	SNCF	42,57785	1994	SNCF	49,87452	1994	SNCF	14,67077
1995	SNCF	134,9363	1995	SNCF	43,20423	1995	SNCF	50,06105	1995	SNCF	14,10752
1996	SNCF	135,7321	1996	SNCF	44,50724	1996	SNCF	50,23076	1996	SNCF	15,50002
1997	SNCF	139,1513	1997	RFF	44,56177	1997	RFF	50,15242	1997	SNCF	15,77524
1998	SNCF	139,3864	1998	RFF	44,54703	1998	RFF	50,13077	1998	SNCF	15,834
1999	SNCF	140,8444	1999	RFF	44,75292	1999	RFF	50,36247	1999	SNCF	16,37576
1992	SZ	96,9186	1992	SZ	41,54871	1992	SZ	27,64363	1992	SZ	15,73356
1993	SZ	97,01493	1993	SZ	41,54871	1993	SZ	27,64363	1993	SZ	15,13905
1994	SZ	96,96429	1994	SZ	41,54871	1994	SZ	27,56037	1994	SZ	15,4821
1995	SZ	96,96429	1995	SZ	41,54871	1995	SZ	27,56037	1995	SZ	15,41632
1996	SZ	97,64706	1996	SZ	41,54871	1996	SZ	27,56037	1996	SZ	15,27311
1997	SZ	97,64706	1997	SZ	41,54871	1997	SZ	27,56037	1997	SZ	15,26395
1998	SZ	97,64706	1998	SZ	41,54871	1998	SZ	27,56037	1998	SZ	15,04663
1999	SZ	99,19192	1999	SZ	41,93012	1999	SZ	27,53744	1999	SZ	15,08403
1972	TCDD	104,5173	1972	TCDD	0,958938	1972	TCDD	1,475289	1972	TCDD	4,811286
1973	TCDD	104,7493	1973	TCDD	1,327597	1973	TCDD	1,475108	1973	TCDD	4,959066
1974	TCDD	104,7025	1974	TCDD	1,326618	1974	TCDD	1,47402	1974	TCDD	4,887852
1975	TCDD	104,5173	1975	TCDD	1,326781	1975	TCDD	1,474201	1975	TCDD	4,818673
1976	TCDD	105,2266	1976	TCDD	1,327107	1976	TCDD	2,457606	1976	TCDD	4,834972
1977	TCDD	105,0815	1977	TCDD	2,309866	1977	TCDD	2,50645	1977	TCDD	4,704141
1978	TCDD	105,5058	1978	TCDD	2,309866	1978	TCDD	2,50645	1978	TCDD	4,609289
1979	TCDD	105,1466	1979	TCDD	2,311854	1979	TCDD	2,508608	1979	TCDD	4,600467
1980	TCDD	104,8501	1980	TCDD	2,48993	1980	TCDD	2,294642	1980	TCDD	4,329672
1981	TCDD	104,5381	1981	TCDD	2,294642	1981	TCDD	2,48993	1981	TCDD	4,936653
1982	TCDD	104,7154	1982	TCDD	2,501226	1982	TCDD	2,305051	1982	TCDD	4,713585
1983	TCDD	105,1471	1983	TCDD	2,497246	1983	TCDD	2,301383	1983	TCDD	4,824336
1984	TCDD	105,3568	1984	TCDD	3,562248	1984	TCDD	2,301383	1984	TCDD	5,432121
1985	TCDD	108,1802	1985	TCDD	3,562248	1985	TCDD	2,301383	1985	TCDD	5,576815
1986	TCDD	108,0492	1986	TCDD	3,561812	1986	TCDD	2,301102	1986	TCDD	5,548592
1987	TCDD	106,8852	1987	TCDD	3,562248	1987	TCDD	2,301383	1987	TCDD	5,355001
1988	TCDD	105,7885	1988	TCDD	3,564429	1988	TCDD	2,302793	1988	TCDD	5,332925
1989	TCDD	105,042	1989	TCDD	5,682088	1989	TCDD	2,218268	1989	TCDD	5,177817
1990	TCDD	110,1665	1990	TCDD	7,153874	1990	TCDD	2,242259	1990	TCDD	5,242615
1991	TCDD	110,133	1991	TCDD	7,913157	1991	TCDD	2,242259	1991	TCDD	5,131332
1992	TCDD	110,3333	1992	TCDD	10,73547	1992	TCDD	2,241993	1992	TCDD	5,135824
1993	TCDD	112,4837	1993	TCDD	10,73547	1993	TCDD	3,155397	1993	TCDD	5,201661
1994	TCDD	113,6285	1994	TCDD	11,1098	1994	TCDD	3,407478	1994	TCDD	5,21415
1995	TCDD	114,804	1995	TCDD	10,98374	1995	TCDD	3,731431	1995	TCDD	5,071353
1996	TCDD	114,8677	1996	TCDD	17,70652	1996	TCDD	4,263971	1996	TCDD	5,172999
1997	TCDD	115,752	1997	TCDD	19,82108	1997	TCDD	4,263971	1997	TCDD	5,354479
1998	TCDD	117,8689	1998	TCDD	19,82108	1998	TCDD	4,263971	1998	TCDD	5,100383
1999	TCDD	118,4086	1999	TCDD	20,30638	1999	TCDD	4,895185	1999	TCDD	5,01889
1972	VR	94,16084	1972	VR	1,789634	1972	VR	7,833868	1972	VR	7,32855
1973	VR	96,9124	1973	VR	1,837182	1973	VR	7,820664	1973	VR	7,474465
1974	VR	99,84334	1974	VR	2,90903	1974	VR	7,852699	1974	VR	7,755003
1975	VR	101,4646	1975	VR	5,996976	1975	VR	7,844784	1975	VR	7,459264
1976	VR	109,0323	1976	VR	6,609629	1976	VR	8,018789	1976	VR	7,261198
1977	VR	109,909	1977	VR	7,594308	1977	VR	7,809398	1977	VR	7,015718
1978	VR	110,24	1978	VR	9,934211	1978	VR	8,552632	1978	VR	6,823684
1979	VR	110,4762	1979	VR	11,33037	1979	VR	7,82766	1979	VR	7,069396
1980	VR	110,5929	1980	VR	12,32922	1980	VR	7,81893	1980	VR	7,396543
1981	VR	111,336	1981	VR	15,33158	1981	VR	7,797111	1981	VR	7,467334
1982	VR	111,9505	1982	VR	17,3399	1982	VR	7,799672	1982	VR	7,305911
1983	VR	112,2164	1983	VR	19,29392	1983	VR	7,848933	1983	VR	7,189984
1984	VR	112,7619	1984	VR	22,65755	1984	VR	7,969323	1984	VR	7,222741
1985	VR	113,0769	1985	VR	24,52542	1985	VR	8,101695	1985	VR	7,372034
1986	VR	115,0379	1986	VR	24,49568	1986	VR	8,153924	1986	VR	6,497372
1987	VR	121,1905	1987	VR	24,55812	1987	VR	8,174711	1987	VR	7,256628
1988	VR	122,7104	1988	VR	27,80421	1988	VR	8,174711	1988	VR	7,14344
1989	VR	122,694	1989	VR	27,80421	1989	VR	8,174711	1989	VR	6,673351
1990	VR	122,8701	1990	VR	28,34498	1990	VR	8,198398	1990	VR	8,697119
1991	VR	115,8333	1991	VR	28,32823	1991	VR	8,205652	1991	VR	6,829077
1992	VR	116,8093	1992	VR	28,32823	1992	VR	8,699353	1992	VR	6,843207
1993	VR	116,9351	1993	VR	29,1079	1993	VR	8,4452	1993	VR	6,945794
1994	VR	117,1765	1994	VR	33,16327	1994	VR	8,435374	1994	VR	7,031293
1995	VR	118,0291	1995	RHK	34,93197	1995	RHK	8,435374	1995	VR	6,968027
1996	VR	118,516	1996	RHK	35,10838	1996	RHK	8,465608	1996	VR	6,933094
1997	VR	118,5676	1997	RHK	35,14066	1997	RHK	8,644501	1997	VR	7,52549
1998	VR	118,7752	1998	RHK	37,44674	1998	RHK	8,641554	1998	VR	7,581558
1999	VR	121,5229	1999	RHK	38,27964	1999	RHK	8,687457	1999	VR	7,591672
1993	ZSR	89,00512	1993	ZSR	39,06037	1993	ZSR	27,91269	1993	ZSR	16,11636
1994	ZSR	88,93401	1994	ZSR	39,72715	1994	ZSR	27,91269	1994	ZSR	17,42619
1995	ZSR	89,57632	1995	ZSR	40,13086	1995	ZSR	27,94438	1995	ZSR	17,58479
1996	ZSR	89,94575	1996	ZSR	41,27416	1996	ZSR	27,63409	1996	ZSR	16,42254
1997	ZSR	89,90991	1997	ZSR	41,88267	1997	ZSR	26,95771	1997	ZSR	16,9618
1998	ZSR	90,13514	1998	ZSR	41,85983	1998	ZSR	27,78838	1998	ZSR	16,13553
1999	ZSR	90,07941	1999	ZSR	41,94429	1999	ZSR	27,85363	1999	ZSR	15,57755

A2.8.3.Quality of service variable : Qvmax

		Variables				Variables normalised to unit length						First principal component	Quality of service variable - Qvmax
		X1	X2	X3	X4	x1	x2	x3	x4			Y=a.x	(Qvmax = Y+2.6)
1992	BC	80,45105	14,94169	16,78207	15,12937	-1,964344935	-0,912368	-0,687742	-0,130283	1992	BC	-1,697289626	0,902710374
1993	BC	80,55556	15,01912	16,85782	13,10013	-1,957310895	-0,909449	-0,684132	-0,342625	1993	BC	-1,810948658	0,789051342
1994	BC	80,60606	15,78568	17,60779	11,20368	-1,953911486	-0,880554	-0,648394	-0,541072	1994	BC	-1,889385222	0,710614778
1995	BC	80,64738	15,78568	31,04817	10,66841	-1,951130152	-0,880554	-0,007917	-0,597083	1995	BC	-1,560332127	1,039667873
1996	BC	80,64164	15,77429	30,16045	10,48567	-1,951516818	-0,880983	-0,05022	-0,616205	1996	BC	-1,595228354	1,004771646
1997	BC	80,64164	15,78852	30,04331	10,67322	-1,951516818	-0,880447	-0,055802	-0,596579	1997	BC	-1,587047681	1,012952319
1998	BC	80,64164	15,838	29,09058	10,40915	-1,951516818	-0,878582	-0,101202	-0,624212	1998	BC	-1,627358509	0,972641491
1999	BC	80,64164	15,86095	30,05613	10,17309	-1,951516818	-0,877717	-0,055191	-0,648913	1999	BC	-1,615125241	0,984874759
1989	BDZ	94,03571	60,67442	22,25581	13,97256	-1,049984491	0,81151	-0,426901	-0,251333	1989	BDZ	-0,497104192	2,102895808
1990	BDZ	94,61818	61,40963	22,33077	13,76971	-1,010779598	0,839224	-0,423329	-0,272559	1990	BDZ	-0,478395171	2,121604829
1991	BDZ	94,61818	61,40963	22,33077	9,498488	-1,010779598	0,839224	-0,423329	-0,719505	1991	BDZ	-0,730913126	1,869086874
1992	BDZ	95,43353	61,71402	22,35678	10,74592	-0,955900177	0,850698	-0,42209	-0,588972	1992	BDZ	-0,627781699	1,972218301
1993	BDZ	95,58366	61,71402	22,35678	10,97718	-0,945795077	0,850698	-0,42209	-0,564773	1993	BDZ	-0,609715716	1,990284284
1994	BDZ	96,60104	61,64064	22,46563	11,05407	-0,87731706	0,847932	-0,416903	-0,556727	1994	BDZ	-0,573643863	2,026356137
1995	BDZ	96,63551	61,85375	22,56637	11,08011	-0,874996422	0,855965	-0,412102	-0,554002	1995	BDZ	-0,565023942	2,034976058
1996	BDZ	97,83964	63,12602	22,57163	10,49569	-0,793948518	0,903923	-0,411851	-0,615156	1996	BDZ	-0,544034315	2,055965685
1997	BDZ	98,71495	63,18733	22,57689	10,61184	-0,735032926	0,906234	-0,411601	-0,603003	1997	BDZ	-0,510436648	2,089563352
1998	BDZ	100,0501	63,12354	24,59207	9,500233	-0,645169005	0,903829	-0,31557	-0,719322	1998	BDZ	-0,484188999	2,115811001
1999	BDZ	100,2018	63,12354	24,59207	9,426107	-0,634958144	0,903829	-0,31557	-0,727079	1999	BDZ	-0,48413124	2,11586876
1972	BR	114,3607	16,73972	72,2765	22,76834	0,318053738	-0,844592	1,956744	0,669067	1972	BR	1,259613582	3,859613582
1973	BR	115,0235	18,12029	73,37081	23,61129	0,362664821	-0,792551	2,008892	0,757274	1973	BR	1,379991042	3,979991042
1974	BR	115,1204	19,53511	72,52445	23,78948	0,369189508	-0,73922	1,96856	0,775921	1974	BR	1,393141535	3,993141535
1975	BR	115,8255	20,0011	71,38999	24,00077	0,416648777	-0,721655	1,914499	0,79803	1975	BR	1,40330998	4,00330998
1976	BR	119,8631	20,45731	70,36319	23,62845	0,688415401	-0,704458	1,865569	0,75907	1976	BR	1,479238273	4,079238273
1977	BR	122,1672	20,85047	70,806	23,66059	0,843500533	-0,689638	1,88667	0,762433	1977	BR	1,566649285	4,166649285
1978	BR	122,7414	20,99571	70,84797	23,96081	0,882143001	-0,684164	1,88867	0,793848	1978	BR	1,6046253	4,2046253
1979	BR	123,2259	20,86093	71,05736	23,9464	0,91475527	-0,689244	1,898648	0,792341	1979	BR	1,621420091	4,221420091
1980	BR	123,29	21,01752	71,17581	24,32295	0,919068163	-0,683341	1,904293	0,831743	1980	BR	1,651206498	4,251206498
1981	BR	123,0801	15,53199	65,5548	23,8424	0,904941647	-0,890117	1,636434	0,781458	1981	BR	1,379398046	3,979398046
1982	BR	121,9517	21,58684	71,70802	21,42481	0,828993293	-0,661881	1,929654	0,528479	1982	BR	1,463953086	4,063953086
1983	BR	121,2883	21,89858	71,59151	23,49418	0,784337487	-0,65013	1,924102	0,74502	1983	BR	1,568699878	4,168699878
1984	BR	120,3645	22,30646	70,97672	28,67891	0,722161142	-0,634755	1,894806	1,287556	1984	BR	1,838206355	4,438206355
1985	BR	121,0739	23,34868	70,30307	23,50296	0,769906352	-0,59547	1,862704	0,745939	1985	BR	1,551456336	4,151456336
1986	BR	124,409	24,91902	70,07798	23,66125	0,994388253	-0,536276	1,851978	0,762502	1986	BR	1,677288583	4,277288583
1987	BR	123,9839	25,29765	70,11425	23,57186	0,965774287	-0,522003	1,853706	0,753148	1987	BR	1,666530177	4,266530177
1988	BR	124,0136	26,39918	70,07651	25,61269	0,967778063	-0,480482	1,851908	0,966703	1988	BR	1,804499399	4,404499399
1989	BR	123,6445	27,40535	70,12901	26,50482	0,94293524	-0,442555	1,854409	1,060057	1989	BR	1,863785792	4,463785792
1990	BR	124,0555	29,61891	70,13989	26,05204	0,970598282	-0,359115	1,854928	1,012677	1990	BR	1,884407588	4,484407588
1991	BR	125,3986	29,61891	70,13989	25,80686	1,060999244	-0,359115	1,854928	0,987022	1991	BR	1,90922294	4,50922294
1992	BR	126,7715	30,57841	70,03872	25,20831	1,153406054	-0,322947	1,850107	0,924389	1992	BR	1,926514719	4,526514719
1993	BR	126,3265	30,612	70,05322	25,31785	1,123453573	-0,321681	1,850798	0,935851	1993	BR	1,920885881	4,520885881
1994	BR	126,0109	30,72929	70,10384	24,44518	1,102212873	-0,31726	1,85321	0,844534	1994	BR	1,863268977	4,463268977
1993	CD	88,20233	28,66222	31,25728	15,22858	-1,442619288	-0,395178	0,002048	-0,119902	1993	CD	-0,860006016	1,739993984
1994	CD	87,7959	28,04632	21,53405	15,80028	-1,469975916	-0,418394	-0,461295	-0,060079	1994	CD	-1,107927584	1,492072416
1995	CD	87,89348	29,08802	21,49523	16,83807	-1,463408076	-0,379127	-0,463145	0,048517	1995	CD	-1,028250664	1,571749336
1996	CD	87,73778	30,30207	20,57234	16,2902	-1,473887975	-0,333364	-0,507124	-0,008813	1996	CD	-1,07064821	1,52935179
1997	CD	87,71704	30,31813	20,58324	15,25536	-1,475283517	-0,332758	-0,506604	-0,1171	1997	CD	-1,131889281	1,468110719
1998	CD	87,8667	31,64369	20,57264	14,48812	-1,465210072	-0,282792	-0,507109	-0,197384	1998	CD	-1,152150395	1,447849605
1999	CD	87,97342	30,35771	20,59797	14,57437	-1,45802701	-0,331266	-0,505902	-0,188359	1999	CD	-1,163624582	1,436375418
1972	CFF	103,884	99,45074	46,24099	30,96567	-0,38711426	2,273169	0,716069	1,526845	1972	CFF	2,05166961	4,65166961
1973	CFF	104,575	99,45074	46,51562	31,06934	-0,340603214	2,273169	0,729156	1,537694	1973	CFF	2,085369448	4,685369448
1974	CFF	104,9474	99,45074	46,65294	30,94816	-0,315535352	2,273169	0,7357	1,525013	1974	CFF	2,092778532	4,692778532
1975	CFF	105,0871	99,45149	46,96606	30,34213	-0,306137018	2,273198	0,750621	1,461597	1975	CFF	2,069423448	4,669423448
1976	CFF	105,3457	99,45205	47,15753	31,33322	-0,288730129	2,273219	0,759745	1,565306	1976	CFF	2,140716758	4,740716758
1977	CFF	105,516	99,45224	47,17562	31,80178	-0,2772681	2,273226	0,760608	1,614336	1977	CFF	2,173889462	4,773889462
1978	CFF	105,516	99,45224	47,68915	31,96234	-0,2772681	2,273226	0,785079	1,631138	1978	CFF	2,197117143	4,797117143
1979	CFF	105,5317	99,45224	47,96303	32,24273	-0,276212515	2,273226	0,79813	1,660477	1979	CFF	2,221478055	4,821478055
1980	CFF	105,2984	99,45318	48,22283	32,78264	-0,291911284	2,273261	0,81051	1,716975	1980	CFF	2,253535382	4,853535382
1981	CFF	105,4357	99,45467	48,60259	32,52999	-0,282670302	2,273318	0,828607	1,690537	1981	CFF	2,252798264	4,852798264
1982	CFF	105,6951	99,45597	48,75893	34,58211	-0,265209723	2,273367	0,836057	1,905274	1982	CFF	2,38591587	4,98591587
1983	CFF	105,6153	99,45689	49,0835	35,94942	-0,270579909	2,273401	0,851524	2,04835	1983	CFF	2,473113004	5,073113004
1984	CFF	105,9139	99,4611	49,78107	35,80498	-0,250483379	2,27356	0,884765	2,033236	1984	CFF	2,492037062	5,092037062
1985	CFF	105,9564	99,49766	49,83255	35,43603	-0,247624468	2,274938	0,887219	1,994629	1985	CFF	2,47342381	5,07342381
1986	CFF	105,9888	99,49766	49,89953	35,46082	-0,245444705	2,274938	0,89041	1,997222	1986	CFF	2,477628307	5,077628307
1987	CFF	106,1366	99,49833	49,96656	37,34047	-0,235491498	2,274963	0,893604	2,193911	1987	CFF	2,594886067	5,194886067
1988	CFF	106,3249	99,49833	49,96656	39,31706	-0,222820986	2,274963	0,893604	2,400743	1988	CFF	2,717253112	5,317253112
1989	CFF	107,0247	99,499	50,3674	39,55544	-0,175715173	2,274989	0,912706	2,425688	1989	CFF	2,762562476	5,362562476
1990	CFF	107,3266	99,56347	50,97381	40,90296	-0,1553967	2,277419	0,941603	2,566694	1990	CFF	2,868304576	5,468304576
1991	CFF	107,9511	99,56405	51,14017	41,27297	-0,113366307	2,277441	0,949531	2,605412	1991	CFF	2,912915947	5,512915947
1992	CFF	114,6381	99,46399	51,15578	40,69715	0,336724251	2,273669	0,950275	2,545158	1992	CFF	3,073424422	5,673424422
1993	CFF	116,6316	99,46363	51,32417	39,45525	0,470906486	2,273655	0,958299	2,415204	1993	CFF	3,062848679	5,662848679
1994	CFF	118,6026	99,46363	51,55883	40,65102	0,603571043	2,273655	0,969481	2,540331	1994	CFF	3,197508767	5,797508767
1995	CFF	119,4068	99,46435	52,12588	39,1088	0,657701781	2,273682	0,996503	2,378952	1995	CFF	3,145048308	5,745048308
1996	CFF	120,751	99,53162	51,45534	38,86818	0,748178832	2,276218	0,964549	2,353773	1996	CFF	3,153296842	5,753296842
1997	CFF	122,008	99,7278	53,86186	39,74617	0,832783497	2,283613	1,079228	2,445646	1997	CFF	3,309469383	5,909469383
1998	CFF	121,8531	0,997251	54,39863	42,4354	0,822356375	-1,437998	1,104807	2,72705	1998	CFF	1,914042814	4,514042814
1999	CFF	122,9351	0,997243	54,54859	43,93522	0,89518077	-1,437998	1,111953	2,883993	1999	CFF	2,038391538	4,638391538
1972	CFL	107,6	50,55351	59,40959	16,51292	-0,136995643	0,430006	1,343595	0,014493	1972	CFL	0,883491415	3,483491415
1973	CFL	106,7961	50,55351	59,40959	16,56827	-0,191103665	0,430006	1,343595	0,020285	1973	CFL	0,863235217	3,463235217
1974	CFL	106,7961	50,55351	59,40959	17,10332	-0,191103665	0,430006	1,343595	0,076273	1974	CFL	0,894868076	3,494868076
1975	CFL	110,2913	49,81818	58,54545	15,80727	0,044148603	0,402289	1,302416	-0,059347	1975	CFL	0,885779648	3,485779648
1976	CFL	110,5882	50	58,75912	15,86131	0,064137358	0,409142	1,312598	-0,053692	1976	CFL	0,906262243	3,506262243
1977	CFL	111,2	50	58,75912	15,23723	0,105314193	0,409142	1,312598	-0,118997	1977	CFL	0,887271244	3,487271244
1978	CFL	112,1649	50,74074	59,62963	16,04444	0,170263221	0,437064	1,354081	-0,034529	1978	CFL	0,998256584	3,598256584
1979	CFL	112,1649	50,74074	59,62963	16,58148	0,170263221	0,437064	1,354081	0,021667	1979	CFL	1,030006601	3,630006601
1980	CFL	114,5833	52,96296	59,62963	16,11111	0,333040567	0,52083	1,354081	-0,027553	1980	CFL	1,108188551	3,708188551
1981	CFL	114,2268	60	59,62963	15,65926	0,309043196	0,786089	1,354081	-0,074835	1981	CFL	1,182530969	3,782530969
1982	CFL	112,8713	60	59,62963	15,48519	0,217805668	0,786089	1,354081	-0,09305	1982	CFL	1,13256547	3,73256547
1983	CFL	112,8713	60	60	14,9	0,217805668	0,786089	1,37173	-0,154285	1983	CFL	1,107875181	3,707875181
1984	CFL	113,5354	60	60	15,50741	0,262502841	0,786089	1,37173	-0,090725	1984	CFL	1,163221854	3,763221854
1985	CFL	112,8713	60	60	16,13704	0,217805668	0,786089	1,37173	-0,02484	1985	CFL	1,181009703	3,781009703
1986	CFL	112,8713	60	60	18,95556	0,217805668	0,786089	1,37173	0,270093	1986	CFL	1,347642552	3,947642552
1987	CFL	112,8713	60	60	18,75556	0,217805668	0,786089	1,37173	0,249165	1987	CFL	1,335818407	3,935818407
1988	CFL	112,6	59,55882	59,92647	16,07721	0,199545796	0,769459	1,368226	-0,031101	1988	CFL	1,160575771	3,760575771
1989	CFL	113,3333	72,42647	64,33824	16,48897	0,248905207	1,2545	1,578461	0,011987	1989	CFL	1,528253202	4,128253202
1990	CFL	115,3535	72,69373	64,20664	18,09225	0,384881546	1,264574	1,57219	0,179756	1990	CFL	1,68288338	4,28288338
1991	CFL	124,6429	81,18081	57,19557	19,54982	1,010129891	1,584491	1,23809	0,332277	1991	CFL	1,987881671	4,587881671
1992	CFL	126,5517	80	57,45455	23,07273	1,13861246	1,539981	1,250431	0,700919	1992	CFL	2,240247218	4,840247218
1993	CFL	126,5517	95,27273	50,90909	25,38545	1,13861246	2,115681	0,938519	0,942925	1993	CFL	2,44387987	5,04387987
1994	CFL	129,0909	95,27273	50,90909	26,28364	1,309520652	2,115681	0,938519	1,036912	1994	CFL	2,571299472	5,171299472
1995	CFL	129,0909	95,27273	50,90909	26,21091	1,309520652	2,115681	0,938519	1,029301	1995	CFL	2,566999783	5,166999783
1996	CFL	138,1818	95,25547	51,09489	26,56204	1,921414178	2,115031	0,947373	1,066045	1996	CFL	2,858533731	5,458533731
1997	CFL	137,5926	95,25547	51,09489	26,05474	1,881754412	2,115031	0,947373	1,01296	1997	CFL	2,811296011	5,411296011
1998	CFL	135,0442	95,25547	51,09489	26,67153	1,710229686	2,115031	0,947373	1,077502	1998	CFL	2,773174441	5,373174441
1999	CFL	152,96	95,25547	51,09489	27,42701	2,916108293	2,115031	0,947373	1,156555	1999	CFL	3,342208013	5,942208013
1990	CFR	95,0408	32,78992	25,98328	10,41532	-0,982334039	-0,239585	-0,249275	-0,623567	1990	CFR	-1,020083357	1,579916643
1991	CFR	94,89228	32,38011	25,98328	10,39974	-0,992330514	-0,255033	-0,249275	-0,625197	1991	CFR	-1,031844076	1,568155924
1992	CFR	94,93249	33,08836	25,94926	10,43622	-0,989623834	-0,228336	-0,250896	-0,62138	1992	CFR	-1,018199031	1,581800969
1993	CFR	94,98984	33,02285	26,06327	10,32496	-0,985764252	-0,230805	-0,245463	-0,633022	1993	CFR	-1,021087274	1,578912726
1994	CFR	94,86226	33,9898	26,07702	10,20793	-0,994350977	-0,194356	-0,244808	-0,645268	1994	CFR	-1,016052119	1,583947881
1995	CFR	94,91236	33,98383	26,07243	10,75677	-0,990978999	-0,194582	-0,245027	-0,587837	1995	CFR	-0,982355419	1,617644581
1996	CFR	94,5034	34,1502	26,05182	10,98129	-1,018505275	-0,18831	-0,246009	-0,564343	1996	CFR	-0,978966482	1,621033518
1997	CFR	95,51298	34,64851	23,92794	10,63067	-0,950552535	-0,169527	-0,347218	-0,601032	1997	CFR	-1,019059076	1,580940924
1998	CFR	97,89591	34,57409	23,82084	9,566086	-0,790160994	-0,172332	-0,352322	-0,712431	1998	CFR	-1,016296306	1,583703694
1999	CFR	98,24301	34,57409	23,82084	8,712601	-0,766798487	-0,172332	-0,352322	-0,801741	1999	CFR	-1,056595885	1,543404115
1972	CH	85,82524	0	3,973249	7,135327	-1,602617274	-1,475589	-1,298123	-0,966789	1972	CH	-2,591934035	0,008065965
1973	CH	88,49057	0	3,973249	7,106806	-1,423218925	-1,475589	-1,298123	-0,969773	1973	CH	-2,515609868	0,084390132
1974	CH	87,84314	0	3,973249	7,078285	-1,466796248	-1,475589	-1,298123	-0,972758	1974	CH	-2,536245389	0,063754611
1975	CH	87,70878	0	4,725363	7,218094	-1,475839642	-1,475589	-1,262282	-0,958128	1975	CH	-2,51179549	0,08820451
1976	CH	88,71369	0	4,997968	7,02438	-1,408200635	-1,475589	-1,249292	-0,978398	1976	CH	-2,486544181	0,113455819
1977	CH	93,50482	0	4,997968	6,95002	-1,085717864	-1,475589	-1,249292	-0,986179	1977	CH	-2,35071062	0,24928938
1978	CH	93,54839	0	4,997968	6,807802	-1,082785649	-1,475589	-1,249292	-1,001061	1978	CH	-2,35784363	0,24215637
1979	CH	93,33333	0	4,997968	6,657863	-1,09726055	-1,475589	-1,249292	-1,016751	1979	CH	-2,373002462	0,226997538
1980	CH	93,29114	0	4,997968	6,071516	-1,100100562	-1,475589	-1,249292	-1,078107	1980	CH	-2,408902684	0,191097316
1981	CH	93,13725	0	4,997968	6,210484	-1,110458254	-1,475589	-1,249292	-1,063565	1981	CH	-2,405190784	0,194809216
1982	CH	94,71338	0	4,997968	6,46282	-1,004372255	-1,475589	-1,249292	-1,037161	1982	CH	-2,344141584	0,255858416
1983	CH	94,25926	0	4,997968	6,623324	-1,034938061	-1,475589	-1,249292	-1,020365	1983	CH	-2,347943845	0,252056155
1984	CH	94,21538	0	6,176351	6,718407	-1,037891189	-1,475589	-1,193138	-1,010416	1984	CH	-2,312088446	0,287911554
1985	CH	93,83234	0	7,842341	6,613572	-1,06367358	-1,475589	-1,113749	-1,021386	1985	CH	-2,284937564	0,315062436
1986	CH	93,87387	0	7,842341	6,733442	-1,060877692	-1,475589	-1,113749	-1,008842	1986	CH	-2,276634989	0,323365011
1987	CH	93,87387	0	10,44776	6,463897	-1,060877692	-1,475589	-0,989592	-1,037048	1987	CH	-2,222883598	0,377116402
1988	CH	93,87387	0	10,85115	6,454215	-1,060877692	-1,475589	-0,970369	-1,038061	1988	CH	-2,21266655	0,38733345
1989	CH	96,25698	0	10,85115	6,454215	-0,900474681	-1,475589	-0,970369	-1,038061	1989	CH	-2,142916223	0,457083777
1990	CH	96,35	0	12,07729	6,441224	-0,894213882	-1,475589	-0,91194	-1,03942	1990	CH	-2,10816617	0,49183383
1991	CH	98,83212	0	12,07729	6,441224	-0,72714685	-1,475589	-0,91194	-1,03942	1991	CH	-2,035518032	0,564481968
1992	CH	98,41727	0	10,78905	6,441224	-0,755069734	-1,475589	-0,973329	-1,03942	1992	CH	-2,082116769	0,517883231
1993	CH	97,67221	0	10,73288	6,172607	-0,805218256	-1,475589	-0,976005	-1,067529	1993	CH	-2,121306768	0,478693232
1994	CH	97,63033	0	11,84317	6,863783	-0,808036944	-1,475589	-0,923096	-0,995203	1994	CH	-2,051972752	0,548027248
1995	CH	99,16279	0	12,28779	7,319725	-0,704889756	-1,475589	-0,901909	-0,947493	1995	CH	-1,96827184	0,63172816
1996	CH	99,16279	0	12,24737	7,767179	-0,704889756	-1,475589	-0,903835	-0,900671	1996	CH	-1,942899187	0,657100813
1997	CH	98,89908	0	12,14543	7,360368	-0,722639498	-1,475589	-0,908693	-0,94324	1997	CH	-1,977395304	0,622604696
1998	CH	105,9957	0	13,96259	7,210526	-0,244980282	-1,475589	-0,822099	-0,95892	1998	CH	-1,729942971	0,870057029
1999	CH	122,2131	0	13,96259	7,290996	0,846588091	-1,475589	-0,822099	-0,950499	1999	CH	-1,25052331	1,34947669
1972	CIE	105,036	0	22,43033	5,064413	-0,30957603	-1,475589	-0,418584	-1,183491	1972	CIE	-1,658425498	0,941574502
1973	CIE	106,2642	0	22,43033	5,735952	-0,226909356	-1,475589	-0,418584	-1,113221	1973	CIE	-1,58277647	1,01722353
1974	CIE	106,7692	0	22,43033	4,16857	-0,192913298	-1,475589	-0,418584	-1,277233	1974	CIE	-1,660658256	0,939341744
1975	CIE	106,7692	0	24,37687	5,384347	-0,192913298	-1,475589	-0,325826	-1,150013	1975	CIE	-1,536716734	1,063283266
1976	CIE	114,4037	0	24,22886	5,09005	0,320947717	-1,475589	-0,332879	-1,180809	1976	CIE	-1,334625206	1,265374794
1977	CIE	117,7465	0	24,3014	5,350299	0,545946477	-1,475589	-0,329422	-1,153576	1977	CIE	-1,219459377	1,380540623
1978	CIE	117,7465	0	24,26507	6,476831	0,545946477	-1,475589	-0,331153	-1,035694	1978	CIE	-1,153829593	1,446170407
1979	CIE	117,8125	0	24,49698	6,863682	0,550390246	-1,475589	-0,320102	-0,995214	1979	CIE	-1,122823457	1,477176543
1980	CIE	117,8125	0	24,40866	6,760443	0,550390246	-1,475589	-0,324311	-1,006017	1980	CIE	-1,131289476	1,468710524
1981	CIE	117,8125	0	24,25767	6,723704	0,550390246	-1,475589	-0,331506	-1,009861	1981	CIE	-1,137499793	1,462500207
1982	CIE	117,8125	0	24,308	6,134373	0,550390246	-1,475589	-0,329107	-1,07153	1982	CIE	-1,170995349	1,429004651
1983	CIE	121,9653	1,903292	26,74897	6,201132	0,82990931	-1,403845	-0,212787	-1,064544	1983	CIE	-0,950057967	1,649942033
1984	CIE	117,0408	1,903292	26,74897	6,355967	0,498449539	-1,403845	-0,212787	-1,048342	1984	CIE	-1,085037362	1,514962638
1985	CIE	117,6166	1,903292	26,74897	7,016975	0,537203227	-1,403845	-0,212787	-0,979173	1985	CIE	-1,02910626	1,57089374
1986	CIE	122,7059	1,903292	26,74897	7,147119	0,879755434	-1,403845	-0,212787	-0,965555	1986	CIE	-0,872455194	1,727544806
1987	CIE	123,7349	1,903292	26,74897	7,162551	0,949019526	-1,403845	-0,212787	-0,96394	1987	CIE	-0,841423745	1,758576255
1988	CIE	122,9586	1,903292	26,74897	6,805556	0,896764072	-1,403845	-0,212787	-1,001296	1988	CIE	-0,885252583	1,714747417
1989	CIE	122,9586	1,903292	26,74897	7,035494	0,896764072	-1,403845	-0,212787	-0,977235	1989	CIE	-0,871658467	1,728341533
1990	CIE	123,7349	1,903292	26,74897	7,32356	0,949019526	-1,403845	-0,212787	-0,947092	1990	CIE	-0,831904822	1,768095178
1991	CIE	123,7349	1,903292	26,74897	7,076646	0,949019526	-1,403845	-0,212787	-0,972929	1991	CIE	-0,846502531	1,753497469
1992	CIE	123,7349	1,903292	26,74897	7,130144	0,949019526	-1,403845	-0,212787	-0,967331	1992	CIE	-0,843339694	1,756660306
1993	CIE	117,5	1,90036	24,65331	7,070365	0,529356406	-1,403956	-0,312652	-0,973586	1993	CIE	-1,085460943	1,514539057
1994	CIE	122	1,90036	24,65331	7,242938	0,832243702	-1,403956	-0,312652	-0,955528	1994	CIE	-0,943549493	1,656450507
1995	CIE	127,6543	1,893552	22,46673	6,830604	1,212826366	-1,404212	-0,41685	-0,998675	1995	CIE	-0,861024963	1,738975037
1996	CIE	124,321	1,897933	23,53379	7,874104	0,988465407	-1,404047	-0,366001	-0,889482	1996	CIE	-0,868284743	1,731715257
1997	CIE	123,9241	1,902314	24,60084	7,987147	0,961748255	-1,403882	-0,315153	-0,877653	1997	CIE	-0,844609621	1,755390379

characteristic vector (a)			
0,434844	0,420312	0,561284	0,564986
characteristic root			
$l = a'Ra$	2,300296		

A2.8.3.Quality of service variable : Qvmax

		Variables				Variables normalised to unit length						First principal component	Quality of service variable - Qvmax
		X1	X2	X3	X4	x1	x2	x3	x4			Y=a.x	(Qvmax = Y+2.6)
1998	CIE	123,9241	1,938188	25,66789	8,101624	0,961748255	-1,40253	-0,264304	-0,865674	1998	CIE	-0,808732889	1,791267111
1999	CIE	127,3256	2,501303	26,10735	8,059406	1,190699467	-1,381304	-0,243363	-0,870092	1999	CIE	-0,690994824	1,909005176
1972	CP	89,89583	10,96467	11,18901	8,294728	-1,32863279	-1,06228	-0,954269	-0,845468	1972	CP	-2,037530453	0,562469547
1973	CP	90,01739	10,96467	11,18901	8,265844	-1,320450931	-1,06228	-0,954269	-0,84849	1973	CP	-2,035680256	0,564319744
1974	CP	90,65487	10,96467	11,18901	8,349972	-1,277543516	-1,06228	-0,954269	-0,839687	1974	CP	-2,012048513	0,587951487
1975	CP	92,2087	10,96467	11,18901	8,378575	-1,172957987	-1,06228	-0,954269	-0,836694	1975	CP	-1,964879039	0,635120961
1976	CP	93,79175	10,96467	11,18901	8,150589	-1,066405408	-1,06228	-0,954269	-0,860551	1976	CP	-1,932023991	0,667976009
1977	CP	95,17241	10,96467	11,18901	8,642457	-0,973475193	-1,06228	-0,954269	-0,809081	1977	CP	-1,862534252	0,737465748
1978	CP	96,39286	11,98439	11,84504	8,670569	-0,891329241	-1,023842	-0,923007	-0,806139	1978	CP	-1,791448661	0,808551339
1979	CP	98,7563	11,98439	11,84504	9,165273	-0,732249779	-1,023842	-0,923007	-0,754373	1979	CP	-1,693026581	0,906973419
1980	CP	98,56905	11,91466	11,77612	9,634525	-0,744853319	-1,026471	-0,926292	-0,70527	1980	CP	-1,673713003	0,926286997
1981	CP	99,61353	11,9469	11,75332	10,28429	-0,674551496	-1,025255	-0,927378	-0,637277	1981	CP	-1,604826822	0,995173178
1982	CP	99,3949	12,66593	11,75332	10,16399	-0,689266576	-0,998152	-0,927378	-0,649866	1982	CP	-1,606945832	0,993054168
1983	CP	99,54839	12,67645	11,76308	9,79297	-0,678935922	-0,997755	-0,926913	-0,68869	1983	CP	-1,623961131	0,976038869
1984	CP	100,5629	12,67645	11,76308	10,41074	-0,61064986	-0,997755	-0,926913	-0,624046	1984	CP	-1,557744371	1,042255629
1985	CP	101,4141	12,71163	11,79573	10,9567	-0,553355194	-0,996429	-0,925357	-0,566916	1985	CP	-1,499121686	1,100878314
1986	CP	102,1806	12,71163	11,79573	10,64946	-0,501767578	-0,996429	-0,925357	-0,599066	1986	CP	-1,494853593	1,105146407
1987	CP	105,4945	12,80488	11,8071	10,86086	-0,278712874	-0,992914	-0,924815	-0,576944	1987	CP	-1,383579574	1,216420426
1988	CP	104,0809	12,80488	11,8071	11,23947	-0,373857254	-0,992914	-0,924815	-0,537327	1988	CP	-1,402569272	1,197430728
1989	CP	106,2983	15,04569	13,70757	11,9109	-0,224607978	-0,908447	-0,834252	-0,467067	1989	CP	-1,211639166	1,388360834
1990	CP	104,0809	15,04569	13,70757	10,99641	-0,373857254	-0,908447	-0,834252	-0,562761	1990	CP	-1,330604715	1,269395285
1991	CP	103,7604	14,79461	13,76765	11,72304	-0,39543259	-0,917912	-0,831389	-0,486725	1991	CP	-1,299398702	1,300601298
1992	CP	104,3655	15,05552	14,10843	11,99249	-0,354705496	-0,908077	-0,81515	-0,45853	1992	CP	-1,252510467	1,347489533
1993	CP	108,7253	15,05552	14,72894	11,99216	-0,061251679	-0,908077	-0,78558	-0,458564	1993	CP	-1,108326328	1,491673672
1994	CP	112,1774	17,0804	16,9322	12,77881	0,171102616	-0,83175	-0,680588	-0,376249	1994	CP	-0,869769612	1,730230388
1995	CP	112,7488	18,31579	15,96491	13,05228	0,20956229	-0,785182	-0,726682	-0,347632	1995	CP	-0,843176709	1,756823291
1996	CP	113,2025	21,89474	16,52632	13,66316	0,240099832	-0,650275	-0,69993	-0,283709	1996	CP	-0,722063219	1,877936781
1997	CP	112,2816	26,57013	16,58456	17,06127	0,1781117	-0,474038	-0,697154	0,071874	1997	CP	-0,472486769	2,127513231
1998	CP	112,767	31,24553	16,64281	16,44989	0,210785626	-0,297801	-0,694378	0,007898	1998	CP	-0,418791512	2,181208488
1999	CP	117,6603	32,02986	17,70352	16,33878	0,540142991	-0,268235	-0,643832	-0,003729	1999	CP	-0,241343687	2,358656313
1986	CSD	87,20835	26,91369	22,1409	19,48933	-1,50952244	-0,461088	-0,432377	0,325948	1986	CSD	-0,908738301	1,691261699
1987	CSD	87,27123	28,35445	22,17982	19,41688	-1,505290274	-0,406779	-0,430522	0,318367	1987	CSD	-0,887313142	1,712686858
1988	CSD	87,93365	28,99115	22,22222	19,73916	-1,460703925	-0,382779	-0,428501	0,352091	1988	CSD	-0,837649894	1,762350106
1989	CSD	87,75373	29,40672	22,34977	19,64059	-1,472814137	-0,367114	-0,422424	0,341776	1989	CSD	-0,838748366	1,761251634
1990	CSD	87,59191	29,82229	22,47731	19,18854	-1,483706223	-0,351449	-0,416346	0,294473	1990	CSD	-0,860214387	1,739785613
1991	CSD	88,20258	30,276	22,49924	17,56618	-1,442603102	-0,334347	-0,415301	0,124707	1991	CSD	-0,930481425	1,669518575
1992	CSD	88,19273	30,26949	22,55134	17,35323	-1,443265775	-0,334592	-0,412818	0,102424	1992	CSD	-0,94206869	1,65793131
1972	DB	97,5812	31,31714	41,69004	21,04078	-0,811343915	-0,295101	0,499202	0,488293	1972	DB	0,079230011	2,679230011
1973	DB	97,4839	32,34274	42,03456	21,35514	-0,817893002	-0,256442	0,51562	0,521188	1973	DB	0,120431075	2,720431075
1974	DB	100,1215	33,25036	42,2803	21,60942	-0,640357402	-0,222229	0,52733	0,547796	1974	DB	0,233617363	2,833617363
1975	DB	100,3991	34,22413	42,3767	20,30247	-0,621676754	-0,185523	0,531924	0,411036	1975	DB	0,182479201	2,782479201
1976	DB	100,8107	35,51865	42,63982	19,9007	-0,593974696	-0,136727	0,544462	0,368994	1976	DB	0,198319847	2,798319847
1977	DB	100,9088	36,59151	42,77062	19,76428	-0,587371508	-0,096286	0,550695	0,354719	1977	DB	0,21362244	2,81362244
1978	DB	100,9174	37,15927	42,83512	20,14302	-0,586786946	-0,074884	0,553769	0,394351	1978	DB	0,246988124	2,846988124
1979	DB	101,1996	37,73691	42,9217	20,93347	-0,567795471	-0,053111	0,557895	0,477065	1979	DB	0,313446338	2,913446338
1980	DB	101,3112	38,659	43,01795	21,25144	-0,560284633	-0,018353	0,562481	0,510337	1980	DB	0,352694286	2,952694286
1981	DB	101,3191	39,30394	43,1643	21,05275	-0,559753639	0,005958	0,569455	0,489546	1981	DB	0,355311098	2,955311098
1982	DB	101,5982	39,50316	43,36196	20,53836	-0,540967163	0,013468	0,578874	0,435719	1982	DB	0,341512113	2,941512113
1983	DB	101,2766	39,80092	43,62958	20,30736	-0,56261238	0,024692	0,591627	0,411547	1983	DB	0,330318584	2,930318584
1984	DB	100,646	40,28957	43,94868	20,75096	-0,605059094	0,043111	0,606833	0,457966	1984	DB	0,354363779	2,954363779
1985	DB	100,61	41,23905	44,32583	21,28823	-0,607482032	0,078902	0,624806	0,514187	1985	DB	0,410204878	3,010204878
1986	DB	101,9985	41,58967	44,37614	21,45256	-0,5140234	0,092118	0,627203	0,531383	1986	DB	0,467460814	3,067460814
1987	DB	103,3387	41,93313	44,65308	21,27976	-0,42381722	0,105065	0,6404	0,513301	1987	DB	0,509319188	3,109319188
1988	DB	103,524	42,76866	45,49919	21,51616	-0,411343697	0,136559	0,68072	0,538038	1988	DB	0,564588138	3,164588138
1989	DB	103,5196	43,21686	45,79035	21,94365	-0,411637985	0,153454	0,694595	0,582771	1989	DB	0,604622131	3,204622131
1990	DB	103,5196	43,38937	45,93862	22,31894	-0,411637985	0,159957	0,701661	0,622041	1990	DB	0,633508317	3,233508317
1991	DB	106,2897	44,49204	46,78902	23,35891	-0,225187603	0,201522	0,742185	0,730865	1991	DB	0,816285264	3,416285264
1992	DB	108,9839	45,36764	47,358	24,41757	-0,043847804	0,234527	0,769299	0,841644	1992	DB	0,986819178	3,586819178
1993	DB	109,1904	46,1212	48,06912	24,46928	-0,029947352	0,262932	0,803186	0,847056	1993	DB	1,026880624	3,626880624
1994	DBAG	106,3041	42,86853	41,63909	21,05007	-0,224222105	0,140324	0,496774	0,489266	1994	DBAG	0,516737527	3,116737527
1995	DBAG	110,425	43,53996	42,26233	20,52929	0,0531507	0,165633	0,526474	0,434771	1995	DBAG	0,633870264	3,233870264
1996	DBAG	115,3218	45,21628	43,24205	20,79905	0,382742691	0,228822	0,57316	0,462998	1996	DBAG	0,845903083	3,445903083
1997	DBAG	119,1016	48,50975	45,01951	21,7825	0,637160269	0,352968	0,657862	0,565907	1997	DBAG	1,114398806	3,714398806
1998	DBAG	122,2371	48,922	45,40209	22,86977	0,848200042	0,368507	0,676093	0,679681	1998	DBAG	1,28721312	3,88721312
1999	DBAG	122,2977	50,45703	46,78215	24,82199	0,852281157	0,42637	0,741857	0,883963	1999	DBAG	1,465636567	4,065636567
1972	DSB	94,25345	4,111601	35,68282	19,72247	-1,035329043	-1,320604	0,212939	0,350344	1972	DSB	-0,68781441	1,91218559
1973	DSB	95,34766	4,972376	37,31793	20,84078	-0,961679591	-1,288157	0,290857	0,467366	1973	DSB	-0,532300734	2,067699266
1974	DSB	96,05161	4,952476	37,16858	21,34717	-0,914297806	-1,288907	0,28374	0,520355	1974	DSB	-0,486068731	2,113931269
1975	DSB	96,0103	4,952476	37,16858	22,04152	-0,917078776	-1,288907	0,28374	0,593012	1975	DSB	-0,446227713	2,153772287
1976	DSB	96,11182	4,952476	37,16858	22,21911	-0,91024557	-1,288907	0,28374	0,611595	1976	DSB	-0,432757155	2,167242845
1977	DSB	96,42487	5,139721	37,27545	22,17066	-0,889174479	-1,281849	0,288833	0,606525	1977	DSB	-0,420634048	2,179365952
1978	DSB	99,32026	6,187625	37,27545	22,28343	-0,69429067	-1,242349	0,288833	0,618326	1978	DSB	-0,31262016	2,28737984
1979	DSB	104,9136	6,699752	37,61787	22,62978	-0,317813957	-1,223045	0,30515	0,654568	1979	DSB	-0,111162846	2,488837154
1980	DSB	106,0349	6,699752	37,61787	23,90571	-0,242338989	-1,223045	0,30515	0,788083	1980	DSB	-0,002909057	2,597090943
1981	DSB	106,3304	6,699752	37,61787	24,57072	-0,222450857	-1,223045	0,30515	0,85767	1981	DSB	0,045055197	2,645055197
1982	DSB	107,512	6,699752	37,61787	24,87841	-0,142921349	-1,223045	0,30515	0,889867	1982	DSB	0,097829137	2,697829137
1983	DSB	107,7136	5,800654	31,90359	20,63317	-0,129347681	-1,256936	0,032847	0,445641	1983	DSB	-0,314334455	2,285665545
1984	DSB	109,7052	5,800654	31,90359	20,48611	0,004702802	-1,256936	0,032847	0,430252	1984	DSB	-0,264737597	2,335262403
1985	DSB	112,1078	6,191825	36,46297	20,3278	0,16641956	-1,242191	0,250115	0,413687	1985	DSB	-0,075628344	2,524371656
1986	DSB	112,8977	8,05342	32,41603	20,22461	0,219580593	-1,172019	0,057266	0,402888	1986	DSB	-0,13736194	2,46263806
1987	DSB	113,1172	8,037157	36,79321	20,52706	0,234358112	-1,172632	0,265853	0,434537	1987	DSB	0,003764134	2,603764134
1988	DSB	113,1362	9,289176	37,03554	20,19992	0,235639649	-1,125437	0,2774	0,400305	1988	DSB	0,011298488	2,611298488
1989	DSB	114,5575	9,812287	37,62799	21,22867	0,331299324	-1,105719	0,305632	0,507954	1989	DSB	0,137849987	2,737849987
1990	DSB	115,3191	9,812287	39,54778	22,25256	0,382567055	-1,105719	0,397117	0,615095	1990	DSB	0,272025313	2,872025313
1991	DSB	116,3708	10,79352	38,56655	23,33618	0,453349005	-1,068732	0,350358	0,728486	1991	DSB	0,356169919	2,956169919
1992	DSB	116,6062	12,14224	35,29922	25,12706	0,469197444	-1,017892	0,194659	0,915886	1992	DSB	0,402917033	3,002917033
1993	DSB	118,6717	14,06318	34,44396	24,63825	0,608220127	-0,945483	0,153903	0,864737	1993	DSB	0,442030474	3,042030474
1994	DSB	117,7749	15,75138	38,18646	24,44019	0,547861882	-0,881847	0,332245	0,844011	1994	DSB	0,53092191	3,13092191
1995	DSB	117,5479	18,47595	40,78331	25,29885	0,532579983	-0,779145	0,455994	0,933863	1995	DSB	0,687665934	3,287665934
1996	DSB	128,979	18,47595	40,78331	24,55172	1,301986828	-0,779145	0,455994	0,855683	1996	DSB	0,978067422	3,578067422
1997	DSB	138,9116	28,00179	37,99283	26,47043	1,970532161	-0,420072	0,323018	1,056458	1997	DSB	1,458501715	4,058501715
1998	DSB	147,9216	19,78799	33,08304	26,83348	2,576980104	-0,729688	0,089051	1,094448	1998	DSB	1,482218397	4,082218397
1999	DSB	160	26,37694	38,46816	26,16523	3,38995864	-0,48132	0,345669	1,024522	1999	DSB	2,044657779	4,644657779
1992	EVR	83,84058	12,9666	10,90373	8,602161	-1,736201543	-0,986818	-0,967864	-0,813298	1992	EVR	-2,172496271	0,427503729
1993	EVR	84,01515	12,89063	10,44922	8,451172	-1,724451414	-0,989682	-0,989523	-0,829097	1993	EVR	-2,189673985	0,410326015
1994	EVR	84,15686	12,89063	10,44922	7,875977	-1,714913074	-0,989682	-0,989523	-0,889286	1994	EVR	-2,219532255	0,380467745
1995	EVR	84,18972	12,9285	10,18609	7,719882	-1,712701285	-0,988254	-1,002061	-0,90562	1995	EVR	-2,234236609	0,365763391
1996	EVR	84,41667	12,94118	10,09804	7,221569	-1,697426117	-0,987776	-1,006257	-0,957764	1996	EVR	-2,259209294	0,340790706
1997	EVR	85,27363	13,6646	10,76605	8,163561	-1,639745258	-0,960507	-0,974425	-0,859193	1997	EVR	-2,149107185	0,450892815
1998	EVR	85,40816	13,6646	11,90476	8,569358	-1,630690178	-0,960507	-0,920161	-0,81673	1998	EVR	-2,090721417	0,509278583
1999	EVR	85,4359	13,63636	10,84711	9,170455	-1,628823439	-0,961572	-0,970562	-0,753831	1999	EVR	-2,083108771	0,516891229
1972	FS	96,67896	49,51812	31,19443	16,73948	-0,872072172	0,390978	-0,000947	0,0382	1972	FS	-0,193831877	2,406168123
1973	FS	96,72766	49,60159	31,3247	17,02148	-0,868794095	0,394124	0,005261	0,067709	1973	FS	-0,170927545	2,429072455
1974	FS	99,82139	49,40891	31,48955	17,09464	-0,660560277	0,386861	0,013116	0,075365	1974	FS	-0,074696652	2,525303348
1975	FS	105,7212	49,39354	31,51085	16,57032	-0,263455059	0,386282	0,014131	0,020499	1975	FS	0,067310603	2,667310603
1976	FS	106,67	50,40575	31,79087	17,42972	-0,199594485	0,424437	0,027475	0,110428	1976	FS	0,169415022	2,769415022
1977	FS	107,1952	51,18062	32,38966	17,35258	-0,164239287	0,453645	0,05601	0,102356	1977	FS	0,208520781	2,808520781
1978	FS	107,8142	52,03777	32,9585	17,51708	-0,122579063	0,485955	0,083116	0,11957	1978	FS	0,265157252	2,865157252
1979	FS	109,3046	53,14833	33,09482	17,61144	-0,02226159	0,527817	0,089613	0,129443	1979	FS	0,335599242	2,935599242
1980	FS	109,8674	53,80896	33,11845	17,76867	0,015620337	0,55272	0,090739	0,145896	1980	FS	0,37246666	2,97246666
1981	FS	110,3838	54,16847	33,18066	17,37408	0,050376596	0,566271	0,093703	0,104606	1981	FS	0,371611423	2,971611423
1982	FS	112,0247	54,25492	33,27759	17,69373	0,160820677	0,56953	0,098322	0,138055	1982	FS	0,442497715	3,042497715
1983	FS	113,4173	54,26059	33,30443	17,78858	0,2545559	0,569744	0,099601	0,14798	1983	FS	0,489673152	3,089673152
1984	FS	113,9243	54,98945	33,44917	18,09768	0,288685234	0,597218	0,106499	0,180324	1984	FS	0,538207298	3,138207298
1985	FS	114,0723	55,22397	33,82144	18,06352	0,298642768	0,606058	0,124238	0,176749	1985	FS	0,554190125	3,154190125
1986	FS	114,8021	56,46627	34,39134	18,20519	0,347767081	0,652886	0,151396	0,191574	1986	FS	0,618852805	3,218852805
1987	FS	115,7632	53,55355	32,93882	17,10081	0,412458444	0,543092	0,082179	0,07601	1987	FS	0,496693513	3,096693513
1988	FS	116,1384	58,13924	35,06088	18,68042	0,437710343	0,715948	0,183301	0,241303	1988	FS	0,730474366	3,330474366
1989	FS	117,3825	58,9083	35,46475	18,8466	0,521448533	0,744937	0,202547	0,258692	1989	FS	0,799698721	3,399698721
1990	FS	117,4121	59,20578	35,92058	18,81153	0,523442129	0,756151	0,224269	0,255022	1990	FS	0,815397124	3,415397124
1991	FS	117,8437	60,38217	35,93925	18,94728	0,552492849	0,800494	0,225159	0,269227	1991	FS	0,855193155	3,455193155
1992	FS	117,893	61,66832	36,44489	19,08515	0,555809307	0,848975	0,249254	0,283655	1992	FS	0,898687808	3,498687808
1993	FS	118,9869	62,91557	37,20989	18,91519	0,629434742	0,89599	0,285708	0,26587	1993	FS	0,960877362	3,560877362
1994	FS	119,8024	63,26709	37,43282	19,51437	0,68432381	0,90924	0,296332	0,328568	1994	FS	1,031701736	3,631701736
1995	FS	120,0377	63,7568	37,61795	20,31213	0,70016338	0,9277	0,305154	0,412047	1995	FS	1,098463558	3,698463558
1996	FS	121,9219	64,43737	37,74198	20,34289	0,826984201	0,953353	0,311064	0,415265	1996	FS	1,169529372	3,769529372
1997	FS	123,1484	64,61634	37,81036	20,31728	0,909538382	0,9601	0,314323	0,412586	1997	FS	1,208578233	3,808578233
1998	FS	123,758	65,22388	38,15299	19,95815	0,950570382	0,983001	0,33065	0,375005	1998	FS	1,223978342	3,823978342
1999	FS	125,7769	66,35212	38,32257	19,07835	1,086459603	1,025529	0,338731	0,282942	1999	FS	1,253465812	3,853465812
1991	MAV	94,69617	28,13273	18,02212	12,55237	-1,005530451	-0,415137	-0,62865	-0,399943	1991	MAV	-1,190548818	1,409451182
1992	MAV	95,36806	29,84341	15,20642	12,36133	-0,960306352	-0,350653	-0,762827	-0,419934	1992	MAV	-1,230386354	1,369613646
1993	MAV	95,49971	28,7104	15,4463	11,67964	-0,951445146	-0,393361	-0,751396	-0,491267	1993	MAV	-1,278370052	1,321629948
1994	MAV	96,2381	28,80242	15,5909	12,70593	-0,901746	-0,389893	-0,744505	-0,383875	1994	MAV	-1,19075793	1,40924207
1995	MAV	97,09657	29,71338	15,57981	12,05009	-0,843963317	-0,355554	-0,745034	-0,452502	1995	MAV	-1,190268947	1,409731053
1996	MAV	96,74192	29,70948	15,52517	12,32878	-0,8678347	-0,355701	-0,747637	-0,42334	1996	MAV	-1,18569638	1,41430362
1997	MAV	97,54476	30,08151	16,03997	11,30647	-0,813796831	-0,341678	-0,723106	-0,530316	1997	MAV	-1,20297434	1,39702566
1998	MAV	98,50303	32,23066	16,66881	11,11945	-0,749296823	-0,260666	-0,693139	-0,549886	1998	MAV	-1,135113952	1,464886048
1999	MAV	98,78166	32,56952	16,64521	12,35646	-0,730543253	-0,247893	-0,694264	-0,420443	1999	MAV	-1,049088539	1,550911461
1972	NS	115,2062	58,04517	55,18701	37,36556	0,374966384	0,712402	1,142376	2,196537	1972	NS	2,344691645	4,944691645
1973	NS	115,2336	58,08616	55,22599	37,61935	0,376811922	0,713947	1,144233	2,223093	1973	NS	2,362190265	4,962190265
1974	NS	115,2336	60,45198	55,61441	37,7846	0,376811922	0,803126	1,162742	2,240386	1974	NS	2,41983209	5,01983209
1975	NS	116,3805	60,60177	55,78761	37,70053	0,454005481	0,808772	1,170996	2,231588	1975	NS	2,455434691	5,055434691
1976	NS	116,4934	60,84956	55,78761	38,09097	0,46160427	0,818112	1,170996	2,272445	1976	NS	2,485748047	5,085748047
1977	NS	116,6355	60,73684	55,7193	37,83825	0,471169335	0,813863	1,167741	2,245999	1977	NS	2,471352952	5,071352952
1978	NS	116,8363	60,98748	55,21558	37,47914	0,484686262	0,823311	1,143737	2,208421	1978	NS	2,446498008	5,046498008
1979	NS	117,9193	61,07639	55,65972	37,46007	0,557575719	0,826663	1,164902	2,206426	1979	NS	2,490354358	5,090354358
1980	NS	119,0139	61,04167	55,625	38,3566	0,631252235	0,825354	1,163247	2,30024	1980	NS	2,5739167	5,1739167
1981	NS	121,1982	60,85927	56,05548	38,12991	0,778273001	0,818478	1,183761	2,276519	1981	NS	2,633069871	5,233069871
1982	NS	122,6284	63,15789	58,14035	39,96947	0,874540148	0,905124	1,283112	2,469013	1982	NS	2,875869934	5,475869934
1983	NS	122,7209	62,97335	58,8359	39,4169	0,88076461	0,898168	1,316257	2,411191	1983	NS	2,86158822	5,46158822
1984	NS	125,6081	62,97335	58,8359	40,05891	1,075095758	0,898168	1,316257	2,478371	1984	NS	2,984047837	5,584047837
1985	NS	127,1125	64,58924	59,63173	40,18555	1,176357985	0,959078	1,354181	2,491624	1985	NS	3,082455672	5,682455672
1986	NS	127,3317	65,35321	60,52538	40,52006	1,191114652	0,987876	1,396766	2,526627	1986	NS	3,144655263	5,744655263
1987	NS	127,4281	68,74333	62,26415	41,31506	1,197600829	1,115665	1,479624	2,609817	1987	NS	3,294694892	5,894694892
1988	NS	127,8543	69,20085	63,36634	41,62907	1,226283314	1,132911	1,532146	2,642675	1988	NS	3,362460564	5,962460564
1989	NS	128,0604	69,20085	63,36634	41,77617	1,240159748	1,132911	1,532146	2,658067	1989	NS	3,377191335	5,977191335
1990	NS	128,7299	69,94282	64,04575	41,92781	1,285221986	1,160879	1,564523	2,673935	1990	NS	3,435678908	6,035678908
1991	NS	129,5495	69,7482	63,81295	42,39424	1,340390956	1,153543	1,553429	2,722744	1991	NS	3,477935027	6,077935027
1992	NS	129,5961	72,17581	64,32982	42,45217	1,34352572	1,245051	1,57806	2,728805	1992	NS	3,535009184	6,135009184
1993	NS	131,157	72,21618	65,07073	43,82564	1,448587362	1,246573	1,613366	2,872526	1993	NS	3,682351639	6,282351639
1994	NS	132,5124	72,21618	65,54226	42,14454	1,539815124	1,246573	1,635836	2,696615	1994	NS	3,635246068	6,235246068
1995	NS	135,2178	72,69076	65,97298	42,81073	1,721908671	1,264462	1,656361	2,766326	1995	NS	3,77285375	6,37285375
1996	NS	136,0218	72,69076	65,97298	43,08694	1,776024092	1,264462	1,656361	2,795228	1996	NS	3,812715117	6,412715117
1997	NS	144,1804	73,36898	69,09091	43,20856	2,325168379	1,290027	1,804941	2,807954	1997	NS	4,152837776	6,752837776
1998	NS	151,1538	73,39744	69,80057	43,3255	2,79453917	1,2911	1,838758	2,820191	1998	NS	4,383286731	6,983286731
1999	NS	152,6202	73,39744	69,80057	45,94017	2,893238007	1,2911	1,838758	3,093793	1999	NS	4,58078667	7,18078667
1972	NSB	84,0201	57,52358	1,792453	7,478538	-1,724118306	0,692741	-1,402045	-0,930875	1972	NSB	-1,771431536	0,828568464
1973	NSB	84,05405	57,52358	2,146226	7,344104	-1,721832951	0,692741	-1,385187	-0,944942	1973	NSB	-1,768923227	0,831076773
1974	NSB	83,98671	57,5336	2,14572	7,632162	-1,726365699	0,693118	-1,385211	-0,914799	1974	NSB	-1,753718896	0,846281104
1975	NSB	83,9604	57,5336	2,14572	7,798397	-1,728136911	0,693118	-1,385211	-0,897404	1975	NSB	-1,744661201	0,855338799

A2.8.3.Quality of service variable : Qvmax

		Variables				Variables normalised to unit length				First principal component	Quality of service variable - Qvmax
		X1	X2	X3	X4	x1	x2	x3	x4	Y=a.x	(Qvmax = Y+2.6)
1976	NSB	83,91517	57,5336	2,14572	7,996227	-1,731180912	0,693118	-1,385211	-0,876703	-1,734288973	0,865711027
1977	NSB	85,59738	57,5336	2,14572	8,058241	-1,617954233	0,693118	-1,385211	-0,870214	-1,68138671	0,91861329
1978	NSB	86,29508	57,5336	2,14572	8,022165	-1,570993199	0,693118	-1,385211	-0,873989	-1,663098837	0,936901163
1979	NSB	87,16129	57,56075	2,146733	8,043878	-1,512690198	0,694142	-1,385162	-0,871717	-1,636005235	0,963994765
1980	NSB	87,64516	57,58076	2,192879	8,189578	-1,480121671	0,694896	-1,382963	-0,856471	-1,611677767	0,988322233
1981	NSB	87,72947	57,59076	2,215936	8,158652	-1,474447091	0,695273	-1,381865	-0,859707	-1,610263464	0,989736536
1982	NSB	87,85597	57,59076	2,215936	8,063649	-1,465932241	0,695273	-1,381865	-0,869648	-1,612177438	0,987822562
1983	NSB	88,05825	57,59076	2,215936	7,84347	-1,452317214	0,695273	-1,381865	-0,892688	-1,619274173	0,980725827
1984	NSB	88,65574	57,59076	2,215936	7,74446	-1,412101503	0,695273	-1,381865	-0,903048	-1,607640139	0,992359861
1985	NSB	89,49495	57,77935	2,23951	7,730552	-1,355615594	0,702382	-1,380741	-0,904504	-1,58028139	1,01971861
1986	NSB	90,12567	58,4203	2,111006	7,931926	-1,313162658	0,726542	-1,386865	-0,883432	-1,543197705	1,056802295
1987	NSB	90,64846	58,05075	2,252786	7,810766	-1,277974497	0,712612	-1,380109	-0,89611	-1,537122276	1,062877724
1988	NSB	91,9084	58,05988	2,275449	7,486707	-1,193170579	0,712956	-1,379029	-0,93002	-1,518653541	1,081346459
1989	NSB	92,16374	59,99011	2,448071	7,671118	-1,175983694	0,785716	-1,370803	-0,910723	-1,465078698	1,134921302
1990	NSB	92,83951	60,58941	2,472527	9,167083	-1,130499211	0,808306	-1,369637	-0,754183	-1,346708317	1,253291683
1991	NSB	92,94606	60,24336	2,458406	8,041718	-1,123327384	0,795262	-1,37031	-0,871943	-1,415982461	1,184017539
1992	NSB	95,20661	60,24336	2,458406	8,208344	-0,971173399	0,795262	-1,37031	-0,854507	-1,339968169	1,260031831
1993	NSB	106,0888	60,20383	2,46085	8,466319	-0,23871227	0,793772	-1,370194	-0,827512	-1,006770896	1,593229104
1994	NSB	107,5113	60,20383	2,759135	9,242108	-0,142965066	0,793772	-1,35598	-0,746333	-0,911292344	1,688707656
1995	NSB	112	60,20383	2,858563	9,089734	0,159160823	0,793772	-1,351241	-0,762277	-0,786263686	1,813736314
1996	NSB	126,8839	61,07933	3,257896	9,258393	1,160967464	0,826774	-1,332212	-0,744629	-0,316110548	2,283889452
1997	NSB	129,6997	61,07933	3,257896	9,199702	1,350497305	0,826774	-1,332212	-0,75077	-0,237164492	2,362835508
1998	NSB	137,1818	61,30804	3,270095	9,34024	1,85410589	0,835395	-1,331631	-0,736064	-0,005914721	2,594085279
1999	NSB	144,2121	60,27758	4,426896	8,558268	2,32730355	0,796552	-1,276505	-0,817891	0,168236636	2,768236636
1972	OBB	94,75198	41,35121	24,57987	14,9304	-1,001774074	0,083129	-0,316152	-0,151103	-0,66349769	1,93650231
1973	OBB	94,86957	42,38444	24,74842	15,08136	-0,993859412	0,122077	-0,30812	-0,135307	-0,630253124	1,969746876
1974	OBB	95,84452	43,22526	24,93174	15,42816	-0,928236675	0,153771	-0,299384	-0,099018	-0,562989823	2,037010177
1975	OBB	96,47977	45,21695	25,07687	15,28972	-0,885479091	0,228847	-0,292468	-0,113504	-0,517144507	2,082855493
1976	OBB	96,52669	46,19064	25,11104	15,8683	-0,882321154	0,26555	-0,29084	-0,052961	-0,465224787	2,134775213
1977	OBB	96,57388	47,1985	25,28186	15,76614	-0,879145185	0,303541	-0,2827	-0,063651	-0,449346048	2,150653952
1978	OBB	96,91314	49,00922	25,38435	15,78083	-0,856310087	0,371795	-0,277816	-0,062113	-0,407118125	2,192881875
1979	OBB	97,2549	49,98291	25,46138	16,32861	-0,83330648	0,408498	-0,274145	-0,004794	-0,347243573	2,252756427
1980	OBB	99,06207	50,53911	25,72309	16,74773	-0,711669163	0,429464	-0,261674	0,039064	-0,253759275	2,346240725
1981	OBB	100,1776	51,31647	26,07124	16,82791	-0,636584973	0,458766	-0,245083	0,047454	-0,194740756	2,405259244
1982	OBB	101,5385	52,12195	26,41607	17,16421	-0,544987419	0,489128	-0,228651	0,082645	-0,113043009	2,486956991
1983	OBB	102,4222	52,85317	26,73974	17,1658	-0,485505025	0,516691	-0,213228	0,082811	-0,06684176	2,53315824
1984	OBB	103,3356	53,45518	26,91036	17,40122	-0,424027396	0,539384	-0,205097	0,107446	-0,012088686	2,587911314
1985	OBB	104,9204	54,00624	27,24592	17,62851	-0,317353289	0,560156	-0,189106	0,13123	0,065441908	2,665441908
1986	OBB	106,1639	54,27328	27,50218	17,66997	-0,233654758	0,570222	-0,176895	0,135568	0,11537375	2,71537375
1987	OBB	106,4225	54,4458	27,91021	17,67252	-0,2162494	0,576725	-0,157451	0,135835	0,136740233	2,736740233
1988	OBB	106,9223	56,5897	28,65009	18,34796	-0,182608871	0,657538	-0,122193	0,206513	0,245056984	2,845056984
1989	OBB	107,4725	57,40117	29,00195	19,29782	-0,145577995	0,688127	-0,105426	0,305908	0,339583963	2,939583963
1990	OBB	108,3355	57,71693	29,51636	20,48684	-0,087491763	0,700029	-0,080913	0,430329	0,453899867	3,053899867
1991	OBB	110,7241	57,70941	29,78837	22,6132	0,073284732	0,699745	-0,067951	0,652833	0,656680489	3,256680489
1992	OBB	114,0326	57,91258	29,97324	24,39411	0,295968639	0,707404	-0,059141	0,83919	0,866965993	3,466965993
1993	OBB	115,8734	58,44643	30,125	23,74179	0,419870217	0,727527	-0,051909	0,77093	0,894795089	3,494795089
1994	OBB	116,6906	58,69411	30,60681	23,42477	0,474878761	0,736863	-0,028949	0,737757	0,916784174	3,516784174
1995	OBB	116,8047	60,26093	31,15303	22,57616	0,482555448	0,795924	-0,00292	0,648958	0,909385803	3,509385803
1996	OBB	116,9943	60,26093	31,15303	21,30748	0,495319345	0,795924	-0,00292	0,516201	0,839930343	3,439930343
1997	OBB	117,5639	60,26093	31,15303	22,24101	0,533654509	0,795924	-0,00292	0,613887	0,911791322	3,511791322
1998	OBB	118,3725	60,73011	31,31313	23,75066	0,588081021	0,81361	0,004709	0,771859	1,036425905	3,636425905
1999	OBB	118,4226	61,24402	31,31313	24,77654	0,591455006	0,832981	0,004709	0,879207	1,106685554	3,706685554
1989	PKP	94,21071	41,34514	42,57619	14,71772	-1,038206114	0,082901	0,54143	-0,173358	-0,210662998	2,389337002
1990	PKP	94,56856	43,41543	42,80921	13,73429	-1,014119327	0,160939	0,552534	-0,276266	-0,21929686	2,38070314
1991	PKP	95,06753	44,52956	34,7493	12,23054	-0,980534407	0,202936	0,168454	-0,43362	-0,491521936	2,108478064
1992	PKP	95,69401	45,5215	35,20234	11,02004	-0,938367561	0,240327	0,190043	-0,560288	-0,516918444	2,083081556
1993	PKP	96,11921	46,06435	35,86215	11,27662	-0,909747933	0,260789	0,221485	-0,533439	-0,463055546	2,136944454
1994	PKP	96,40925	47,76457	36,74166	11,96611	-0,890226126	0,324879	0,263396	-0,46129	-0,363341827	2,236658173
1995	PKP	96,71846	48,47411	37,12582	11,73772	-0,869413672	0,351624	0,281703	-0,485189	-0,34627726	2,25372274
1996	PKP	97,108	49,64133	37,93339	11,93399	-0,843193904	0,395622	0,320186	-0,464651	-0,283179502	2,316820498
1997	PKP	97,29767	49,83711	38,11728	11,98448	-0,830427713	0,403002	0,328949	-0,459368	-0,266622614	2,333377386
1998	PKP	101,2604	50,03878	38,22921	11,74313	-0,563701069	0,410604	0,334282	-0,484623	-0,158718206	2,441281794
1999	PKP	103,0083	52,27819	38,87117	11,70259	-0,44605545	0,495018	0,364874	-0,488865	-0,057306662	2,542693338
1972	RENFE	88,35749	23,24188	15,49212	9,38416	-1,432176185	-0,599495	-0,749212	-0,731468	-1,708538187	0,891461813
1973	RENFE	91,98589	25,44912	15,29631	9,768692	-1,187954849	-0,516294	-0,758543	-0,69123	-1,549873187	1,050126813
1974	RENFE	97,62208	25,6626	15,40351	9,681358	-0,808592309	-0,508247	-0,753435	-0,700369	-1,383823272	1,216176728
1975	RENFE	100,5562	27,15418	15,41824	9,471364	-0,61110436	-0,452022	-0,752733	-0,722343	-1,286335915	1,313664085
1976	RENFE	102,3504	32,0379	16,00415	9,740247	-0,490340129	-0,267932	-0,724813	-0,694207	-1,124879331	1,475120669
1977	RENFE	103,8407	35,32496	15,74594	10,00561	-0,390027804	-0,144028	-0,737117	-0,666439	-1,020398146	1,579601854
1978	RENFE	104,2359	36,14128	15,8132	10,07367	-0,363425776	-0,113257	-0,733912	-0,659317	-0,990074349	1,609925651
1979	RENFE	104,5519	40,4183	16,34765	9,879979	-0,342159787	0,047964	-0,708444	-0,679585	-0,910220406	1,689779594
1980	RENFE	108,2043	40,41501	16,77005	10,11638	-0,096321173	0,047839	-0,688315	-0,654848	-0,778096993	1,821903007
1981	RENFE	109,963	45,45522	16,94602	10,40021	0,022055299	0,237828	-0,679929	-0,625148	-0,625280121	1,974719879
1982	RENFE	111,3292	45,57177	17,74241	10,61671	0,114013342	0,242222	-0,641979	-0,602493	-0,549345342	2,050654658
1983	RENFE	111,8468	45,78943	17,96213	10,67892	0,14884639	0,250427	-0,631508	-0,595983	-0,521194974	2,078805026
1984	RENFE	112,0172	45,64273	18,32781	11,10409	0,160321867	0,244896	-0,614083	-0,551493	-0,48361237	2,11638763
1985	RENFE	112,2676	48,78049	19,89772	11,94634	0,177169302	0,363173	-0,539271	-0,463359	-0,334788277	2,265211723
1986	RENFE	112,2779	48,80119	20,14779	12,27443	0,177864638	0,363954	-0,527355	-0,429027	-0,308072542	2,291927458
1987	RENFE	112,8681	49,66104	20,5108	12,32232	0,217594005	0,396365	-0,510056	-0,424016	-0,264632334	2,335367666
1988	RENFE	115,7071	50,31873	20,81275	12,66566	0,408680815	0,421156	-0,495667	-0,388089	-0,14274499	2,45725501
1989	RENFE	116,1421	51,11023	20,93912	12,57994	0,437960635	0,450992	-0,489646	-0,397058	-0,119160136	2,480839864
1990	RENFE	116,1968	51,0828	21,52866	13,44793	0,441637187	0,449958	-0,461552	-0,306231	-0,050911409	2,549088591
1991	RENFE	118,1376	51,12172	21,59109	13,73564	0,572272839	0,451425	-0,458577	-0,276125	0,025190713	2,625190713
1992	RENFE	123,6586	52,86404	23,48746	13,65977	0,943881277	0,517101	-0,368209	-0,284064	0,260623473	2,860623473
1993	RENFE	123,694	54,70994	25,64876	13,22832	0,946267273	0,586682	-0,265216	-0,329212	0,323206969	2,923206969
1994	RENFE	126,639	55,34556	25,85007	12,1886	1,14448638	0,610641	-0,255623	-0,438009	0,363387495	2,963387495
1995	RENFE	127,7672	55,81433	26,55537	13,11669	1,2204259	0,628311	-0,222013	-0,340892	0,477570759	3,077570759
1996	RENFE	131,5413	55,82058	27,2224	12,99048	1,474451568	0,628547	-0,190227	-0,354099	0,598510203	3,198510203
1997	RENFE	133,4309	56,4015	27,77778	13,42443	1,601639804	0,650444	-0,163762	-0,308689	0,703531608	3,303531608
1998	RENFE	135,3178	56,49029	27,67618	13,49533	1,728644307	0,653791	-0,168603	-0,301271	0,761639177	3,361639177
1999	RENFE	135,5501	56,48997	27,71329	13,65987	1,74427492	0,653779	-0,166835	-0,284053	0,779151978	3,379151978
1972	SJ	88,81104	61,32175	10,14569	8,71169	-1,401648349	0,835911	-1,003987	-0,801836	-1,274702508	1,325297492
1973	SJ	88,75944	61,22646	10,13549	8,732624	-1,405121543	0,83232	-1,004473	-0,799646	-1,276757631	1,323242369
1974	SJ	88,65867	61,22646	10,13549	8,934894	-1,411904164	0,83232	-1,004473	-0,77848	-1,26774867	1,33225133
1975	SJ	90,87661	61,22646	10,13549	8,703854	-1,262618711	0,83232	-1,004473	-0,802656	-1,216491998	1,383508002
1976	SJ	92,3966	61,22646	10,13549	8,752068	-1,160310429	0,83232	-1,004473	-0,797611	-1,169153385	1,430846615
1977	SJ	93,53917	61,17802	10,12747	8,741011	-1,083406357	0,830494	-1,004855	-0,798768	-1,137347762	1,462652238
1978	SJ	93,83986	61,68512	10,12124	8,637059	-1,063167126	0,849608	-1,005152	-0,809646	-1,126825025	1,473174975
1979	SJ	95,36486	61,68512	10,12124	8,695308	-0,960522172	0,849608	-1,005152	-0,80355	-1,078746683	1,521253317
1980	SJ	96,47327	61,68512	10,12124	8,737656	-0,885917121	0,849608	-1,005152	-0,799119	-1,043801487	1,556198513
1981	SJ	97,61424	62,02822	10,15873	8,775926	-0,809119828	0,862541	-1,003365	-0,795115	-1,001705502	1,598294498
1982	SJ	97,93353	60,36565	9,795918	8,594898	-0,787628869	0,799871	-1,020654	-0,814058	-1,039107876	1,560892124
1983	SJ	100,0859	60,54451	9,831868	8,852693	-0,642757551	0,806614	-1,018941	-0,787082	-0,957075061	1,642924939
1984	SJ	102,4497	60,90917	9,899459	9,096331	-0,483650238	0,820359	-1,01572	-0,761587	-0,865898759	1,734101241
1985	SJ	106,2162	62,08947	10,40298	9,308273	-0,230135761	0,86485	-0,991726	-0,739409	-0,710961401	1,889038599
1986	SJ	109,7206	62,25525	10,49306	9,228462	0,005738163	0,871099	-0,987433	-0,747761	-0,608075684	1,991924316
1987	SJ	110,1516	62,48883	10,53243	9,053689	0,034749195	0,879904	-0,985557	-0,766049	-0,601039294	1,998960706
1988	SJ	110,534	63,15457	10,64464	9,182918	0,060489928	0,904999	-0,98021	-0,752526	-0,568657171	2,031342829
1989	SJ	112,6436	63,46398	10,73308	9,053801	0,202480344	0,916662	-0,975996	-0,766037	-0,507279175	2,092720825
1990	SJ	113,3829	64,76252	11,02676	9,124988	0,252239658	0,96561	-0,962001	-0,758588	-0,453004579	2,146995421
1991	SJ	115,7614	66,10757	11,66819	8,74485	0,412336934	1,016311	-0,931435	-0,798366	-0,367394786	2,232605214
1992	SJ	118,0529	73,81678	13,18302	9,495836	0,566570123	1,306907	-0,859248	-0,719782	-0,093270397	2,506729603
1993	SJ	120,8922	69,35624	12,57601	8,857832	0,75768134	1,138768	-0,888174	-0,786544	-0,134792326	2,465207674
1994	SJ	122,6943	74,34013	13,8495	10,05113	0,878975881	1,326634	-0,827488	-0,661675	0,101525074	2,701525074
1995	SJ	122,9617	74,80065	14,41423	10,25813	0,896972229	1,343994	-0,800577	-0,640015	0,143989486	2,743989486
1996	SJ	123,457	75,19601	14,76428	10,53345	0,930309165	1,358896	-0,783896	-0,611205	0,190389652	2,790389652
1997	SJ	123,689	72,20375	14,17677	9,728393	0,945927078	1,246104	-0,811893	-0,695447	0,086463584	2,686463584
1998	SJ	123,6991	73,37308	14,40636	9,90611	0,94661048	1,290182	-0,800952	-0,676851	0,1219345	2,7219345
1999	SJ	124,7578	75,43596	16,34596	10,17909	1,017863263	1,367941	-0,708524	-0,648286	0,253619144	2,853619144
1972	SNCB	119,784	29,75267	61,83317	20,46193	0,683087851	-0,354073	1,459086	0,427722	1,208833736	3,808833736
1973	SNCB	120,6495	31,10837	62,70936	21,51921	0,741344519	-0,302971	1,500839	0,538357	1,341588085	3,941588085
1974	SNCB	121,0216	31,50074	63,42249	22,26226	0,766391603	-0,28818	1,534822	0,61611	1,421699591	4,021699591
1975	SNCB	121,3103	31,88878	64,17836	21,54359	0,785821428	-0,273554	1,570842	0,540908	1,414025232	4,014025232
1976	SNCB	121,7335	32,23223	64,21421	21,65666	0,814305408	-0,260607	1,572551	0,552739	1,439496682	4,039496682
1977	SNCB	122,3746	32,47564	64,15189	21,86835	0,857460063	-0,251432	1,56958	0,574891	1,47296702	4,07296702
1978	SNCB	122,4051	32,23652	63,48342	22,47551	0,859507818	-0,260446	1,537726	0,638425	1,488085187	4,088085187
1979	SNCB	122,4246	33,61681	64,25713	23,57104	0,86082195	-0,208416	1,574596	0,753062	1,595987963	4,195987963
1980	SNCB	125,8974	34,56511	64,42936	23,9173	1,094573439	-0,17267	1,582803	0,789295	1,737735671	4,337735671
1981	SNCB	127,8363	39,12494	64,66869	24,49772	1,225076601	-0,000789	1,594208	0,850032	1,907444569	4,507444569
1982	SNCB	129,7766	43,91548	65,14766	24,0499	1,355671095	0,179788	1,617032	0,803171	2,026466976	4,626466976
1983	SNCB	130,6116	46,9171	66,63212	23,50699	1,411874944	0,292933	1,687772	0,746361	2,106071209	4,706071209
1984	SNCB	133,7728	49,54979	69,01483	24,97299	1,624649097	0,392172	1,801315	0,899764	2,390706542	4,990706542
1985	SNCB	133,8412	53,94055	71,3117	25,80393	1,629257024	0,55768	1,910768	0,986714	2,57283535	5,17283535
1986	SNCB	135,676	59,59093	72,5539	25,34024	1,75274993	0,770669	1,969963	0,938194	2,72186913	5,32186913
1987	SNCB	139,3179	61,65919	73,71076	26,1264	1,997883184	0,848631	2,025091	1,020458	2,938653246	5,538653246
1988	SNCB	139,6349	63,70287	74,42319	25,95357	2,019219406	0,925667	2,05904	1,002374	2,989147627	5,589147627
1989	SNCB	139,7356	64,50327	74,5232	26,28124	2,025998738	0,955838	2,063806	1,036661	3,02682381	5,62682381
1990	SNCB	139,8379	65,93849	74,27422	26,476	2,032880132	1,009938	2,051942	1,057041	3,05740966	5,65740966
1991	SNCB	139,4591	66,09925	74,23543	26,62608	2,007389091	1,015997	2,050093	1,072746	3,056707649	5,656707649
1992	SNCB	139,9069	66,75408	74,97086	27,01078	2,037524358	1,040681	2,085139	1,113001	3,122600855	5,722600855
1993	SNCB	139,9411	69,26686	75,21994	26,67859	2,039826572	1,135399	2,097008	1,07824	3,150436132	5,750436132
1994	SNCB	141,9291	69,58186	75,55948	26,57303	2,173634633	1,147273	2,113189	1,067194	3,216453061	5,816453061
1995	SNCB	141,0165	70,39786	75,95012	25,99495	2,112212997	1,178032	2,131804	1,006704	3,178944703	5,778944703
1996	SNCB	142,2886	72,75148	76,18343	26,59556	2,197836008	1,266751	2,142922	1,069552	3,295215818	5,895215818
1997	SNCB	142,5425	73,26125	76,62186	26,30888	2,214922828	1,285966	2,163814	1,039554	3,305500434	5,905500434
1998	SNCB	144,7339	73,63636	76,33431	27,34018	2,362421972	1,300106	2,150112	1,147469	3,428862408	6,028862408
1999	SNCB	147,736	77,79378	75,66244	27,30991	2,564487472	1,456818	2,118095	1,144302	3,562837552	6,162837552
1972	SNCF	112,7886	26,69902	45,22955	13,39614	0,212240255	-0,46918	0,667871	-0,311651	0,09387652	2,69387652
1973	SNCF	112,7973	26,82927	45,22262	13,60142	0,212825418	-0,46427	0,667541	-0,29017	0,108145525	2,708145525
1974	SNCF	113,0685	27,04904	45,31441	14,23553	0,231080482	-0,455986	0,671915	-0,223816	0,159509999	2,759509999
1975	SNCF	113,3914	27,24909	44,81519	13,93809	0,252812501	-0,448445	0,648125	-0,25494	0,141191938	2,741191938
1976	SNCF	116,7497	27,1928	44,42083	14,02317	0,478855334	-0,450567	0,629333	-0,246037	0,233076033	2,833076033
1977	SNCF	116,9916	27,70211	44,52271	14,2454	0,495138571	-0,431368	0,634188	-0,222783	0,264088881	2,864088881
1978	SNCF	119,3812	28,07238	44,56385	14,40467	0,655975958	-0,417411	0,636148	-0,206116	0,350411429	2,950411429
1979	SNCF	119,6602	28,60664	44,5064	14,66892	0,674755378	-0,397272	0,63341	-0,178465	0,381127695	2,981127695
1980	SNCF	122,1535	29,35764	44,62927	14,89636	0,842572972	-0,368964	0,639266	-0,154665	0,482733653	3,082733653
1981	SNCF	122,3025	29,58353	44,18916	14,45629	0,852607505	-0,360449	0,618293	-0,200715	0,452886965	3,052886965
1982	SNCF	122,8011	30,58824	44,50354	14,36482	0,886161043	-0,322577	0,633274	-0,210286	0,486396869	3,086396869
1983	SNCF	123,2847	31,20975	44,58082	14,365	0,918712097	-0,299149	0,636957	-0,210267	0,512476211	3,112476211
1984	SNCF	124,2152	32,25342	44,75414	14,14294	0,981345357	-0,259809	0,645216	-0,233505	0,547754107	3,147754107
1985	SNCF	124,9433	33,12954	44,14292	13,88038	1,030351884	-0,226783	0,61609	-0,260979	0,551074576	3,151074576
1986	SNCF	125,8664	33,43919	44,77612	13,38491	1,092481985	-0,215111	0,646263	-0,312825	0,570641161	3,170641161
1987	SNCF	126,0885	33,74704	44,77573	13,54685	1,107436064	-0,203507	0,646245	-0,29588	0,591584533	3,191584533
1988	SNCF	128,6008	34,74235	44,83696	13,84116	1,276533049	-0,165989	0,649163	-0,265083	0,699922501	3,299922501
1989	SNCF	129,3344	36,21584	45,69955	13,99429	1,325910362	-0,110447	0,690268	-0,249059	0,776863811	3,376863811
1990	SNCF	129,3344	37,0091	46,33695	14,14734	1,325910362	-0,080545	0,720642	-0,233043	0,81552909	3,41552909
1991	SNCF	129,4502	38,35735	47,05495	14,30231	1,333701702	-0,029723	0,754857	-0,216828	0,868644123	3,468644123
1992	SNCF	130,4934	39,67493	48,1684	14,65586	1,403918666	0,019942	0,807917	-0,179832	0,970736247	3,570736247
1993	SNCF	131,3479	41,66181	49,23417	14,33979	1,461431484	0,094837	0,858704	-0,212906	1,037044127	3,637044127
1994	SNCF	132,7802	42,57785	49,87452	14,67077	1,557838851	0,129367	0,889218	-0,178272	1,13017455	3,73017455

A2.8.3.Quality of service variable : Qvmax

		Variables				Variables normalised to unit length				First principal component	Quality of service variable - Qvmax
		X1	X2	X3	X4	x1	x2	x3	x4	Y=a.x	(Qvmax = Y+2.6)
1995	SNCF	134,9363	43,20423	50,06105	14,10752	1,702960727	0,152978	0,898107	-0,237211	1,174893735	3,774893735
1996	SNCF	135,7321	44,50724	50,23076	15,50002	1,75653106	0,202095	0,906195	-0,091498	1,305697312	3,905697312
1997	SNCF	139,1513	44,56177	50,15242	15,77524	1,986669154	0,20415	0,902461	-0,062698	1,420811576	4,020811576
1998	SNCF	139,3864	44,54703	50,13077	15,834	2,002490282	0,203595	0,90143	-0,05655	1,430352672	4,030352672
1999	SNCF	140,8444	44,75292	50,36247	16,37576	2,100630573	0,211356	0,912471	0,000141	1,514517084	4,114517084
1992	SZ	96,9186	41,54871	27,64363	15,73356	-0,855942076	0,090574	-0,170154	-0,06706	-0,467525132	2,132474868
1993	SZ	97,01493	41,54871	27,64363	15,13905	-0,849458893	0,090574	-0,170154	-0,12927	-0,499853497	2,100146503
1994	SZ	96,96429	41,54871	27,56037	15,4821	-0,852867362	0,090574	-0,174122	-0,093373	-0,483281494	2,116718506
1995	SZ	96,96429	41,54871	27,56037	15,41632	-0,852867362	0,090574	-0,174122	-0,100256	-0,487170367	2,112829633
1996	SZ	97,64706	41,54871	27,56037	15,27311	-0,806911073	0,090574	-0,174122	-0,115242	-0,475653454	2,124346546
1997	SZ	97,64706	41,54871	27,56037	15,26395	-0,806911073	0,090574	-0,174122	-0,116201	-0,476194942	2,123805058
1998	SZ	97,64706	41,54871	27,56037	15,04663	-0,806911073	0,090574	-0,174122	-0,138941	-0,489042993	2,110957007
1999	SZ	99,19192	41,93012	27,53744	15,08403	-0,702929167	0,104951	-0,175215	-0,135028	-0,436186463	2,163813537
1972	TCDD	104,5173	0,958938	1,475289	4,811286	-0,344484322	-1,439442	-1,417159	-1,209979	-2,233861023	0,366138977
1973	TCDD	104,7493	1,327597	1,475108	4,959066	-0,328872023	-1,425546	-1,417168	-1,194515	-2,212499255	0,387500745
1974	TCDD	104,7025	1,326618	1,47402	4,887852	-0,332018071	-1,425583	-1,417219	-1,201967	-2,218122108	0,381877892
1975	TCDD	104,5173	1,326781	1,474201	4,818673	-0,344484322	-1,425577	-1,417211	-1,209206	-2,227625437	0,372374563
1976	TCDD	105,2266	1,327107	2,457606	4,834972	-0,296744108	-1,425564	-1,370348	-1,2075	-2,179594044	0,420405956
1977	TCDD	105,0815	2,309866	2,50645	4,704141	-0,306511857	-1,38852	-1,368021	-1,221191	-2,174699551	0,425300449
1978	TCDD	105,5058	2,309866	2,50645	4,609289	-0,277950198	-1,38852	-1,368021	-1,231116	-2,167887393	0,432112607
1979	TCDD	105,1466	2,311854	2,508608	4,600467	-0,302127008	-1,388445	-1,367918	-1,232039	-2,178832853	0,421167147
1980	TCDD	104,8501	2,48993	2,294642	4,329672	-0,322084265	-1,381732	-1,378114	-1,260376	-2,206422381	0,393577619
1981	TCDD	104,5381	2,294642	2,48993	4,936653	-0,343085773	-1,389094	-1,368808	-1,19686	-2,177540257	0,422459743
1982	TCDD	104,7154	2,501226	2,305051	4,713585	-0,331149957	-1,381306	-1,377618	-1,220202	-2,187209915	0,412790085
1983	TCDD	105,1471	2,497246	2,301383	4,824336	-0,302098914	-1,381456	-1,377793	-1,208613	-2,168190745	0,431809255
1984	TCDD	105,3568	3,562248	2,301383	5,432121	-0,287980796	-1,341312	-1,377793	-1,145014	-2,10924548	0,49075452
1985	TCDD	108,1802	3,562248	2,301383	5,576815	-0,097940505	-1,341312	-1,377793	-1,129873	-2,018053177	0,581946823
1986	TCDD	108,0492	3,561812	2,301102	5,548592	-0,106760145	-1,341328	-1,377806	-1,132826	-2,023571316	0,576428684
1987	TCDD	106,8852	3,562248	2,301383	5,355001	-0,185104518	-1,341312	-1,377793	-1,153084	-2,069069761	0,530930239
1988	TCDD	105,7885	3,564429	2,302793	5,332925	-0,258927196	-1,341229	-1,377726	-1,155394	-2,102403987	0,497596013
1989	TCDD	105,042	5,682088	2,218268	5,177817	-0,309169113	-1,261405	-1,381754	-1,171625	-2,102131115	0,497868885
1990	TCDD	110,1665	7,153874	2,242259	5,242615	0,035749845	-1,205927	-1,38061	-1,164844	-1,92435429	0,67564571
1991	TCDD	110,133	7,913157	2,242259	5,131332	0,033498787	-1,177306	-1,38061	-1,176489	-1,919882537	0,680117463
1992	TCDD	110,3333	10,73547	2,241993	5,135824	0,046980343	-1,07092	-1,380623	-1,176019	-1,869046383	0,730953617
1993	TCDD	112,4837	10,73547	3,155397	5,201661	0,191715158	-1,07092	-1,337096	-1,16913	-1,777786198	0,822213802
1994	TCDD	113,6285	11,1098	3,407478	5,21415	0,268773024	-1,05681	-1,325084	-1,167823	-1,73086658	0,86913342
1995	TCDD	114,804	10,98374	3,731431	5,071353	0,347895373	-1,061561	-1,309647	-1,182765	-1,698235356	0,901764644
1996	TCDD	114,8677	17,70652	4,263971	5,172999	0,352178376	-0,808149	-1,284269	-1,172129	-1,569607362	1,030392638
1997	TCDD	115,752	19,82108	4,263971	5,354479	0,411702137	-0,728441	-1,284269	-1,153139	-1,499492544	1,100507456
1998	TCDD	117,8689	19,82108	4,263971	5,100383	0,554183234	-0,728441	-1,284269	-1,179727	-1,452557768	1,147442232
1999	TCDD	118,4086	20,30638	4,895185	5,01889	0,590509423	-0,710148	-1,25419	-1,188255	-1,417007505	1,182992495
1972	VR	94,16084	1,789634	7,833868	7,32855	-1,04156255	-1,40813	-1,114152	-0,94657	-2,204925236	0,395074764
1973	VR	96,9124	1,837182	7,820664	7,474465	-0,856359537	-1,406337	-1,114782	-0,931301	-2,115363996	0,484636004
1974	VR	99,84334	2,90903	7,852699	7,755003	-0,65908301	-1,365934	-1,113255	-0,901945	-1,995155182	0,604844818
1975	VR	101,4646	5,996976	7,844784	7,459264	-0,549955785	-1,249535	-1,113632	-0,932892	-1,916473888	0,683526112
1976	VR	109,0323	6,609629	8,018789	7,261198	-0,040592805	-1,226442	-1,10534	-0,953617	-1,692329491	0,907670509
1977	VR	109,909	7,594308	7,809398	7,015718	0,018419125	-1,189325	-1,115318	-0,979305	-1,671181233	0,928818767
1978	VR	110,24	9,934211	8,552632	6,823684	0,040698236	-1,101123	-1,079901	-0,999399	-1,615894969	0,984105031
1979	VR	110,4762	11,33037	7,82766	7,069396	0,056595813	-1,048495	-1,114448	-0,973688	-1,591725986	1,008274014
1980	VR	110,5929	12,32922	7,81893	7,396543	0,064450347	-1,010844	-1,114864	-0,939455	-1,55337763	1,04662237
1981	VR	111,336	15,33158	7,797111	7,467334	0,1144703	-0,897671	-1,115904	-0,932047	-1,480457141	1,119542859
1982	VR	111,9505	17,3399	7,799672	7,305911	0,155826666	-0,821968	-1,115782	-0,948939	-1,440129694	1,159870306
1983	VR	112,2164	19,29392	7,848933	7,189984	0,17372911	-0,748312	-1,113434	-0,961069	-1,406922491	1,193077509
1984	VR	112,7619	22,65755	7,969323	7,222741	0,210443328	-0,621521	-1,107697	-0,957642	-1,332509145	1,267490855
1985	VR	113,0769	24,52542	8,101695	7,372034	0,231646672	-0,551112	-1,10139	-0,942019	-1,281328511	1,318671489
1986	VR	115,0379	24,49568	8,153924	6,497372	0,363638005	-0,552234	-1,098901	-1,033545	-1,274717764	1,325282236
1987	VR	121,1905	24,55812	8,174711	7,256628	0,77775604	-0,54988	-1,09791	-0,954096	-1,04820782	1,55179218
1988	VR	122,7104	27,80421	8,174711	7,14344	0,880060431	-0,42752	-1,09791	-0,96594	-0,958983652	1,641016348
1989	VR	122,694	27,80421	8,174711	6,673351	0,878955456	-0,42752	-1,09791	-1,01513	-0,987256108	1,612743892
1990	VR	122,8701	28,34498	8,198398	8,697119	0,890808012	-0,407136	-1,096781	-0,803361	-0,853254295	1,746745705
1991	VR	115,8333	28,32823	8,205652	6,829077	0,417175926	-0,407767	-1,096436	-0,998835	-1,169721906	1,430278094
1992	VR	116,8093	28,32823	8,699353	6,843207	0,482869165	-0,407767	-1,072909	-0,997356	-1,127115197	1,472884803
1993	VR	116,9351	29,1079	8,4452	6,945794	0,491331594	-0,378378	-1,08502	-0,986622	-1,111815378	1,488184622
1994	VR	117,1765	33,16327	8,435374	7,031293	0,507580195	-0,225512	-1,085489	-0,977675	-1,035706674	1,564293326
1995	VR	118,0291	34,93197	8,435374	6,968027	0,564969257	-0,158841	-1,085489	-0,984295	-0,986469132	1,613530868
1996	VR	118,516	35,10838	8,465608	6,933094	0,597744506	-0,152192	-1,084048	-0,987951	-0,970678668	1,629321332
1997	VR	118,5676	35,14066	8,644501	7,52549	0,601214987	-0,150975	-1,075523	-0,925962	-0,92885034	1,67114966
1998	VR	118,7752	37,44674	8,641554	7,581558	0,615190326	-0,064048	-1,075664	-0,920095	-0,883001049	1,716998951
1999	VR	121,5229	38,27964	8,687457	7,591672	0,800131661	-0,032652	-1,073476	-0,919036	-0,787558461	1,812441539
1993	ZSR	89,00512	39,06037	27,91269	16,11636	-1,388585412	-0,003223	-0,157333	-0,027003	-0,708737861	1,891262139
1994	ZSR	88,93401	39,72715	27,91269	17,42619	-1,393371461	0,021911	-0,157333	0,110059	-0,622816654	1,977183346
1995	ZSR	89,57632	40,13086	27,94438	17,58479	-1,35013866	0,037129	-0,155822	0,126654	-0,587396944	2,012603056
1996	ZSR	89,94575	41,27416	27,63409	16,42254	-1,325272954	0,080225	-0,170609	0,005036	-0,635482573	1,964517427
1997	ZSR	89,90991	41,88267	26,95771	16,9618	-1,327685319	0,103163	-0,202841	0,061464	-0,613100377	1,986899623
1998	ZSR	90,13514	41,85983	27,78838	16,13553	-1,312525795	0,102302	-0,163256	-0,024997	-0,633501774	1,966498226
1999	ZSR	90,07941	41,94429	27,85363	15,57755	-1,316276319	0,105485	-0,160147	-0,083385	-0,665037457	1,934962543

Iterative process of vector (*a*) convergence

Matrix of correlation: R				a(0)	a(1)	a(2)	a(3)	a(4)
				a(i)=(R^i).a(0)				
1	0,247405	0,564638	0,423908	41903	105537,5	265819,1	669525,9	1686354,816
0,247405078	1	0,388035	0,553925	40500	102010	256935,4	647150,7	1629998,021
0,564637744	0,388035	1	0,78553	54080	136222,8	343110,6	864203,6	2176695,868
0,423907572	0,553925	0,78553	1	54444	137122,5	345373,7	869903,2	2191051,569
					a(i) - normalised to unit length			
					0,434847	0,434845	0,434844	**0,434844249**
					0,420313	0,420312	0,420312	**0,42031206**
					0,56128	0,561283	0,561284	**0,561283825**
					0,564987	0,564986	0,564986	**0,564985592**

a=a(4)	R				
0,434844227	1	0,247405	0,564638	0,423908	*l = a'Ra*
0,420312056	0,247405	1	0,388035	0,553925	**2,300296**
0,561283833	0,564638	0,388035	1	0,78553	
0,564985604	0,423908	0,553925	0,78553	1	

Note: a = characteristic vector corresponding to the largest characteristic root *l*

A2.9.1.High Speed dummy variables: DHS220, DTT, DUMMYHS and DUMMYTT

Year	Company	Designation	Total trainset stock	HS>220	TT
1976	FS	ETR401	1	0	1
1977	FS	ETR401	1	0	1
1978	FS	ETR401	1	0	1
1979	FS	ETR401	1	0	1
1980	FS	ETR401	1	0	1
1981	SNCF	TGV SE	24	24	0
1981	FS	ETR401	1	0	1
1982	FS	ETR401	1	0	1
1982	SNCF	TGV SE	42	42	0
1983	FS	ETR401	1	0	1
1983	SNCF	TGV SE	64	64	0
1984	FS	ETR401	1	0	1
1984	CFF/SBB/FFS	TGV SE	1	1	0
1984	SNCF	TGV SE	81	81	0
1985	FS	ETR401	1	0	1
1985	CFF/SBB/FFS	TGV SE	1	1	0
1985	SNCF	TGV SE	107	107	0
1986	FS	ETR401	1	0	1
1986	CFF/SBB/FFS	TGV SE	1	1	0
1986	SNCF	TGV SE	106	106	0
1987	FS	ETR401	1	0	1
1987	CFF/SBB/FFS	TGV SE	1	1	0
1987	SNCF	TGV SE	107	107	0
1988	FS Spa	total	12	0	12
1988	CFF/SBB/FFS	TGV SE	1	1	0
1988	SNCF	TGV SE	107	107	0
1989	FS Spa	total	12	0	12
1989	CFF/SBB/FFS	TGV SE	1	1	0
1989	SNCF	total	157	157	0
1990	FS Spa	ETR 450	15	0	15
1990	SJ	X2000	4	0	4
1990	CFF/SBB/FFS	TGV SE	1	1	0
1990	SNCF	total	177	177	0
1991	FS Spa	ETR 450	15	0	15
1991	SJ	X2000	14	0	14
1991	DB	ICE 1	25	25	0
1991	CFF/SBB/FFS	TGV SE	1	1	0
1991	SNCF	total	187	187	0
1992	FS Spa	ETR 450	15	0	15
1992	RENFE	Ave	16	16	0
1992	SJ	X2000	14	0	14
1992	DB	ICE 1	45	45	0
1992	CFF/SBB/FFS	TGV SE	1	1	0
1992	SNCF	total	239	239	0
1993	FS Spa	ETR 450	15	0	15
1993	RENFE	Ave	16	16	0
1993	SJ	X2000	20	0	20
1993	DB	ICE 1	60	60	0
1993	CFF/SBB/FFS	TGV SE	1	1	0
1993	SNCF	total	260	260	0
1994	FS Spa	total	22	0	22
1994	RENFE	Ave	16	16	0
1994	SJ	X2000	20	0	20
1994	DB	ICE 1	60	60	0
1994	SNCB/NMBS	Eurostar	4	4	0
1994	CFF/SBB/FFS	TGV SE	1	1	0
1994	SNCF	total	268	268	0
1995	VR	S220	2	0	2
1995	FS Spa	total	22	0	22
1995	RENFE	Ave	16	16	0
1995	SJ	Total	35	0	35
1995	DB	ICE 1	60	60	0
1995	SNCB/NMBS	Eurostar	4	4	0
1995	CFF/SBB/FFS	TGV SE	1	1	0
1995	SNCF	total	302	302	0
1996	DB Ag	Total	82	82	0
1996	CFF/SBB/FFS	TGV SE	1	1	0
1996	FS Spa	ETR500	12	12	0
1996	FS Spa	Total	34	0	34
1996	RENFE	Total	18	18	0
1996	SJ	Total	39	0	39
1996	SNCB/NMBS	Total	5	5	0
1996	SNCF	Total	316	316	0
1996	VR	S220	2	0	2
1997	DB Ag	Total	69	69	0
1997	CFF/SBB/FFS	TGV SE	1	1	0
1997	FS Spa	ETR500	28	28	0
1997	FS Spa	Total	33	0	33
1997	NS	Thalys	2	2	0
1997	RENFE	Total	24	24	0
1997	SJ	Total	43	0	43
1997	SNCB/NMBS	Total	11	11	0
1997	SNCF	Total	341	341	0
1997	VR	S220	2	0	2
1998	DB Ag	Total	103	103	0

		Dummy variables			
		DHS220	DTT	DUMMYHS	DUMMYTT
1992	BC	0	0	0	0
1993	BC	0	0	0	0
1994	BC	0	0	0	0
1995	BC	0	0	0	0
1996	BC	0	0	0	0
1997	BC	0	0	0	0
1998	BC	0	0	0	0
1999	BC	0	0	0	0
1989	BDZ	0	0	0	0
1990	BDZ	0	0	0	0
1991	BDZ	0	0	0	0
1992	BDZ	0	0	0	0
1993	BDZ	0	0	0	0
1994	BDZ	0	0	0	0
1995	BDZ	0	0	0	0
1996	BDZ	0	0	0	0
1997	BDZ	0	0	0	0
1998	BDZ	0	0	0	0
1999	BDZ	0	0	0	0
1972	BR	0	0	0	0
1973	BR	0	0	0	0
1974	BR	0	0	0	0
1975	BR	0	0	0	0
1976	BR	0	0	0	0
1977	BR	0	0	0	0
1978	BR	0	0	0	0
1979	BR	0	0	0	0
1980	BR	0	0	0	0
1981	BR	0	0	0	0
1982	BR	0	0	0	0
1983	BR	0	0	0	0
1984	BR	0	0	0	0
1985	BR	0	0	0	0
1986	BR	0	0	0	0
1987	BR	0	0	0	0
1988	BR	3,433987	0	1	0
1989	BR	3,433987	0	1	0
1990	BR	3,433987	0	1	0
1991	BR	3,433987	0	1	0
1992	BR	3,433987	0	1	0
1993	BR	3,433987	0	1	0
1994	BR	3,433987	0	1	0
1993	CD	0	0	0	0
1994	CD	0	0	0	0
1995	CD	0	0	0	0
1996	CD	0	0	0	0
1997	CD	0	0	0	0
1998	CD	0	0	0	0
1999	CD	0	0	0	0
1993	ZSR	0	0	0	0
1994	ZSR	0	0	0	0
1995	ZSR	0	0	0	0
1996	ZSR	0	0	0	0
1997	ZSR	0	0	0	0
1998	ZSR	0	0	0	0
1999	ZSR	0	0	0	0
1986	CSD	0	0	0	0
1987	CSD	0	0	0	0
1988	CSD	0	0	0	0
1989	CSD	0	0	0	0
1990	CSD	0	0	0	0
1991	CSD	0	0	0	0
1992	CSD	0	0	0	0
1972	CFF	0	0	0	0
1973	CFF	0	0	0	0
1974	CFF	0	0	0	0
1975	CFF	0	0	0	0
1976	CFF	0	0	0	0
1977	CFF	0	0	0	0
1978	CFF	0	0	0	0
1979	CFF	0	0	0	0
1980	CFF	0	0	0	0
1981	CFF	0	0	0	0
1982	CFF	0	0	0	0
1983	CFF	0	0	0	0
1984	CFF	0	0	1	0
1985	CFF	0	0	1	0
1986	CFF	0	0	1	0
1987	CFF	0	0	1	0
1988	CFF	0	0	1	0
1989	CFF	0	0	1	0
1990	CFF	0	0	1	0
1991	CFF	0	0	1	0
1992	CFF	0	0	1	0
1993	CFF	0	0	1	0

A2.9.1.High Speed dummy variables: DHS220, DTT, DUMMYHS and DUMMYTT

Year	Company	Designation	Total trainset stock	HS>220	TT
1998	CFF/SBB/FFS	TGV SE	1	1	0
1998	FS Spa	ETR500	29	29	0
1998	FS Spa	Total	30	0	30
1998	NS	Thalys	2	2	0
1998	RENFE	Total	24	24	0
1998	SJ	Total	43	0	43
1998	SNCB/NMBS	Total	11	11	0
1998	SNCF	Total	348	348	0
1998	VR	S220	2	0	2
1999	DB Ag	ICE 1& 2	103	103	0
1999	DB Ag	ICE T/VT/T	91	0	91
1999	CFF/SBB/FFS	TGV SE	1	1	0
1999	FS Spa	ETR500	30	30	0
1999	FS Spa	Total	39	0	39
1999	NS N.V.	Thalys	2	2	0
1999	RENFE	Total	24	24	0
1999	RENFE	ALARIS	10	0	10
1999	SJ	Total	43	0	43
1999	SNCB/NMBS	Total	11	11	0
1999	SNCF	Total	351	351	0
1999	VR	S220	2	0	2
1999	CP	Pendoluso	10	0	10
1988	BR	IC225	31	31	0
1989	BR	IC225	31	31	0
1990	BR	IC225	31	31	0
1991	BR	IC225	31	31	0
1992	BR	IC225	31	31	0
1993	BR	IC225	31	31	0
1994	BR	IC225	31	31	0
1980	RENFE	TALGO	5	0	5
1981	RENFE	TALGO	7	0	7
1982	RENFE	TALGO	9	0	9
1983	RENFE	TALGO	17	0	17
1984	RENFE	TALGO	17	0	17
1985	RENFE	TALGO	17	0	17
1986	RENFE	TALGO	17	0	17
1987	RENFE	TALGO	17	0	17
1988	RENFE	TALGO	17	0	17
1989	RENFE	TALGO	17	0	17
1990	RENFE	TALGO	24	0	24
1991	RENFE	TALGO	24	0	24
1992	RENFE	TALGO	24	0	24
1993	RENFE	TALGO	24	0	24
1994	RENFE	TALGO	24	0	24
1995	RENFE	TALGO	24	0	24
1996	RENFE	TALGO	24	0	24
1997	RENFE	TALGO	24	0	24
1998	RENFE	TALGO	24	0	24
1999	RENFE	TALGO	24	0	24
1992	DB	VT610	20	0	20
1993	DB	VT610	20	0	20
1994	DB	VT610/talgo	24	0	24
1995	DB	VT610/talgo	24	0	24
1996	DBag	VT610/1/T	74	0	74
1997	DBag	VT610/1/T	74	0	74
1998	DBag	VT610/1/T	74	0	74

		Dummy variables			
		DHS220	DTT	DUMMYHS	DUMMYTT
1994	CFF	0	0	1	0
1995	CFF	0	0	1	0
1996	CFF	0	0	1	0
1997	CFF	0	0	1	0
1998	CFF	0	0	1	0
1999	CFF	0	0	1	0
1972	CFL	0	0	0	0
1973	CFL	0	0	0	0
1974	CFL	0	0	0	0
1975	CFL	0	0	0	0
1976	CFL	0	0	0	0
1977	CFL	0	0	0	0
1978	CFL	0	0	0	0
1979	CFL	0	0	0	0
1980	CFL	0	0	0	0
1981	CFL	0	0	0	0
1982	CFL	0	0	0	0
1983	CFL	0	0	0	0
1984	CFL	0	0	0	0
1985	CFL	0	0	0	0
1986	CFL	0	0	0	0
1987	CFL	0	0	0	0
1988	CFL	0	0	0	0
1989	CFL	0	0	0	0
1990	CFL	0	0	0	0
1991	CFL	0	0	0	0
1992	CFL	0	0	0	0
1993	CFL	0	0	0	0
1994	CFL	0	0	0	0
1995	CFL	0	0	0	0
1996	CFL	0	0	0	0
1997	CFL	0	0	0	0
1998	CFL	0	0	0	0
1999	CFL	0	0	0	0
1990	CFR	0	0	0	0
1991	CFR	0	0	0	0
1992	CFR	0	0	0	0
1993	CFR	0	0	0	0
1994	CFR	0	0	0	0
1995	CFR	0	0	0	0
1996	CFR	0	0	0	0
1997	CFR	0	0	0	0
1998	CFR	0	0	0	0
1999	CFR	0	0	0	0
1972	CH	0	0	0	0
1973	CH	0	0	0	0
1974	CH	0	0	0	0
1975	CH	0	0	0	0
1976	CH	0	0	0	0
1977	CH	0	0	0	0
1978	CH	0	0	0	0
1979	CH	0	0	0	0
1980	CH	0	0	0	0
1981	CH	0	0	0	0
1982	CH	0	0	0	0
1983	CH	0	0	0	0
1984	CH	0	0	0	0
1985	CH	0	0	0	0
1986	CH	0	0	0	0
1987	CH	0	0	0	0
1988	CH	0	0	0	0
1989	CH	0	0	0	0
1990	CH	0	0	0	0
1991	CH	0	0	0	0
1992	CH	0	0	0	0
1993	CH	0	0	0	0
1994	CH	0	0	0	0
1995	CH	0	0	0	0
1996	CH	0	0	0	0
1997	CH	0	0	0	0
1998	CH	0	0	0	0
1999	CH	0	0	0	0
1972	CIE	0	0	0	0
1973	CIE	0	0	0	0
1974	CIE	0	0	0	0
1975	CIE	0	0	0	0
1976	CIE	0	0	0	0
1977	CIE	0	0	0	0
1978	CIE	0	0	0	0
1979	CIE	0	0	0	0
1980	CIE	0	0	0	0
1981	CIE	0	0	0	0
1982	CIE	0	0	0	0
1983	CIE	0	0	0	0
1984	CIE	0	0	0	0

A2.9.1.High Speed dummy variables: DHS220, DTT, DUMMYHS and DUMMYTT

								Dummy variables			
Year	Company	Designation	Total trainset stock	HS>220	TT			DHS220	DTT	DUMMYHS	DUMMYTT
						1985	CIE	0	0	0	0
						1986	CIE	0	0	0	0
						1987	CIE	0	0	0	0
						1988	CIE	0	0	0	0
						1989	CIE	0	0	0	0
						1990	CIE	0	0	0	0
						1991	CIE	0	0	0	0
						1992	CIE	0	0	0	0
						1993	CIE	0	0	0	0
						1994	CIE	0	0	0	0
						1995	CIE	0	0	0	0
						1996	CIE	0	0	0	0
						1997	CIE	0	0	0	0
						1998	CIE	0	0	0	0
						1999	CIE	0	0	0	0
						1972	CP	0	0	0	0
						1973	CP	0	0	0	0
						1974	CP	0	0	0	0
						1975	CP	0	0	0	0
						1976	CP	0	0	0	0
						1977	CP	0	0	0	0
						1978	CP	0	0	0	0
						1979	CP	0	0	0	0
						1980	CP	0	0	0	0
						1981	CP	0	0	0	0
						1982	CP	0	0	0	0
						1983	CP	0	0	0	0
						1984	CP	0	0	0	0
						1985	CP	0	0	0	0
						1986	CP	0	0	0	0
						1987	CP	0	0	0	0
						1988	CP	0	0	0	0
						1989	CP	0	0	0	0
						1990	CP	0	0	0	0
						1991	CP	0	0	0	0
						1992	CP	0	0	0	0
						1993	CP	0	0	0	0
						1994	CP	0	0	0	0
						1995	CP	0	0	0	0
						1996	CP	0	0	0	0
						1997	CP	0	0	0	0
						1998	CP	0	0	0	0
						1999	CP	0	2,302585	0	1
						1972	DB	0	0	0	0
						1973	DB	0	0	0	0
						1974	DB	0	0	0	0
						1975	DB	0	0	0	0
						1976	DB	0	0	0	0
						1977	DB	0	0	0	0
						1978	DB	0	0	0	0
						1979	DB	0	0	0	0
						1980	DB	0	0	0	0
						1981	DB	0	0	0	0
						1982	DB	0	0	0	0
						1983	DB	0	0	0	0
						1984	DB	0	0	0	0
						1985	DB	0	0	0	0
						1986	DB	0	0	0	0
						1987	DB	0	0	0	0
						1988	DB	0	0	0	0
						1989	DB	0	0	0	0
						1990	DB	0	0	0	0
						1991	DB	3,218876	0	1	0
						1992	DB	3,806662	2,995732	1	1
						1993	DB	4,094345	2,995732	1	1
						1994	DBAG	4,094345	3,178054	1	1
						1995	DBAG	4,094345	3,178054	1	1
						1996	DBAG	4,406719	4,304065	1	1
						1997	DBAG	4,234107	4,304065	1	1
						1998	DBAG	4,634729	4,304065	1	1
						1999	DBAG	4,634729	4,51086	1	1
						1972	DSB	0	0	0	0
						1973	DSB	0	0	0	0
						1974	DSB	0	0	0	0
						1975	DSB	0	0	0	0
						1976	DSB	0	0	0	0
						1977	DSB	0	0	0	0
						1978	DSB	0	0	0	0
						1979	DSB	0	0	0	0
						1980	DSB	0	0	0	0
						1981	DSB	0	0	0	0
						1982	DSB	0	0	0	0
						1983	DSB	0	0	0	0
						1984	DSB	0	0	0	0
						1985	DSB	0	0	0	0

A2.9.1.High Speed dummy variables: DHS220, DTT, DUMMYHS and DUMMYTT

Year	Company	Designation	Total trainset stock	HS>220	TT

		Dummy variables			
		DHS220	DTT	DUMMYHS	DUMMYTT
1986	DSB	0	0	0	0
1987	DSB	0	0	0	0
1988	DSB	0	0	0	0
1989	DSB	0	0	0	0
1990	DSB	0	0	0	0
1991	DSB	0	0	0	0
1992	DSB	0	0	0	0
1993	DSB	0	0	0	0
1994	DSB	0	0	0	0
1995	DSB	0	0	0	0
1996	DSB	0	0	0	0
1997	DSB	0	0	0	0
1998	DSB	0	0	0	0
1999	DSB	0	0	0	0
1992	EVR	0	0	0	0
1993	EVR	0	0	0	0
1994	EVR	0	0	0	0
1995	EVR	0	0	0	0
1996	EVR	0	0	0	0
1997	EVR	0	0	0	0
1998	EVR	0	0	0	0
1999	EVR	0	0	0	0
1972	FS	0	0	0	0
1973	FS	0	0	0	0
1974	FS	0	0	0	0
1975	FS	0	0	0	0
1976	FS	0	0	0	1
1977	FS	0	0	0	1
1978	FS	0	0	0	1
1979	FS	0	0	0	1
1980	FS	0	0	0	1
1981	FS	0	0	0	1
1982	FS	0	0	0	1
1983	FS	0	0	0	1
1984	FS	0	0	0	1
1985	FS	0	0	0	1
1986	FS	0	0	0	1
1987	FS	0	0	0	1
1988	FS	0	2,484907	0	1
1989	FS	0	2,484907	0	1
1990	FS	0	2,70805	0	1
1991	FS	0	2,70805	0	1
1992	FS	0	2,70805	0	1
1993	FS	0	2,70805	0	1
1994	FS	0	3,091042	0	1
1995	FS	0	3,091042	0	1
1996	FS	2,484907	3,526361	1	1
1997	FS	3,332205	3,496508	1	1
1998	FS	3,367296	3,401197	1	1
1999	FS	3,401197	3,663562	1	1
1991	MAV	0	0	0	0
1992	MAV	0	0	0	0
1993	MAV	0	0	0	0
1994	MAV	0	0	0	0
1995	MAV	0	0	0	0
1996	MAV	0	0	0	0
1997	MAV	0	0	0	0
1998	MAV	0	0	0	0
1999	MAV	0	0	0	0
1972	NS	0	0	0	0
1973	NS	0	0	0	0
1974	NS	0	0	0	0
1975	NS	0	0	0	0
1976	NS	0	0	0	0
1977	NS	0	0	0	0
1978	NS	0	0	0	0
1979	NS	0	0	0	0
1980	NS	0	0	0	0
1981	NS	0	0	0	0
1982	NS	0	0	0	0
1983	NS	0	0	0	0
1984	NS	0	0	0	0
1985	NS	0	0	0	0
1986	NS	0	0	0	0
1987	NS	0	0	0	0
1988	NS	0	0	0	0
1989	NS	0	0	0	0
1990	NS	0	0	0	0
1991	NS	0	0	0	0
1992	NS	0	0	0	0
1993	NS	0	0	0	0
1994	NS	0	0	0	0
1995	NS	0	0	0	0
1996	NS	0	0	0	0
1997	NS	0,693147	0	1	0

A2.9.1.High Speed dummy variables: DHS220, DTT, DUMMYHS and DUMMYTT

Year	Company	Designation	Total trainset stock	HS>220	TT			Dummy variables			
								DHS220	DTT	DUMMYHS	DUMMYTT
						1998	NS	0,693147	0	1	0
						1999	NS	0,693147	0	1	0
						1972	NSB	0	0	0	0
						1973	NSB	0	0	0	0
						1974	NSB	0	0	0	0
						1975	NSB	0	0	0	0
						1976	NSB	0	0	0	0
						1977	NSB	0	0	0	0
						1978	NSB	0	0	0	0
						1979	NSB	0	0	0	0
						1980	NSB	0	0	0	0
						1981	NSB	0	0	0	0
						1982	NSB	0	0	0	0
						1983	NSB	0	0	0	0
						1984	NSB	0	0	0	0
						1985	NSB	0	0	0	0
						1986	NSB	0	0	0	0
						1987	NSB	0	0	0	0
						1988	NSB	0	0	0	0
						1989	NSB	0	0	0	0
						1990	NSB	0	0	0	0
						1991	NSB	0	0	0	0
						1992	NSB	0	0	0	0
						1993	NSB	0	0	0	0
						1994	NSB	0	0	0	0
						1995	NSB	0	0	0	0
						1996	NSB	0	0	0	0
						1997	NSB	0	0	0	0
						1998	NSB	0	0	0	0
						1999	NSB	0	0	0	0
						1972	OBB	0	0	0	0
						1973	OBB	0	0	0	0
						1974	OBB	0	0	0	0
						1975	OBB	0	0	0	0
						1976	OBB	0	0	0	0
						1977	OBB	0	0	0	0
						1978	OBB	0	0	0	0
						1979	OBB	0	0	0	0
						1980	OBB	0	0	0	0
						1981	OBB	0	0	0	0
						1982	OBB	0	0	0	0
						1983	OBB	0	0	0	0
						1984	OBB	0	0	0	0
						1985	OBB	0	0	0	0
						1986	OBB	0	0	0	0
						1987	OBB	0	0	0	0
						1988	OBB	0	0	0	0
						1989	OBB	0	0	0	0
						1990	OBB	0	0	0	0
						1991	OBB	0	0	0	0
						1992	OBB	0	0	0	0
						1993	OBB	0	0	0	0
						1994	OBB	0	0	0	0
						1995	OBB	0	0	0	0
						1996	OBB	0	0	0	0
						1997	OBB	0	0	0	0
						1998	OBB	0	0	0	0
						1999	OBB	0	0	0	0
						1989	PKP	0	0	0	0
						1990	PKP	0	0	0	0
						1991	PKP	0	0	0	0
						1992	PKP	0	0	0	0
						1993	PKP	0	0	0	0
						1994	PKP	0	0	0	0
						1995	PKP	0	0	0	0
						1996	PKP	0	0	0	0
						1997	PKP	0	0	0	0
						1998	PKP	0	0	0	0
						1999	PKP	0	0	0	0
						1972	RENFE	0	0	0	0
						1973	RENFE	0	0	0	0
						1974	RENFE	0	0	0	0
						1975	RENFE	0	0	0	0
						1976	RENFE	0	0	0	0
						1977	RENFE	0	0	0	0
						1978	RENFE	0	0	0	0
						1979	RENFE	0	0	0	0
						1980	RENFE	0	1,609438	0	1
						1981	RENFE	0	1,94591	0	1
						1982	RENFE	0	2,197225	0	1
						1983	RENFE	0	2,833213	0	1
						1984	RENFE	0	2,833213	0	1
						1985	RENFE	0	2,833213	0	1
						1986	RENFE	0	2,833213	0	1
						1987	RENFE	0	2,833213	0	1

A2.9.1.High Speed dummy variables: DHS220, DTT, DUMMYHS and DUMMYTT

								Dummy variables			
Year	Company	Designation	Total trainset stock	HS>220	TT			DHS220	DTT	DUMMYHS	DUMMYTT
						1988	RENFE	0	2,833213	0	1
						1989	RENFE	0	2,833213	0	1
						1990	RENFE	0	3,178054	0	1
						1991	RENFE	0	3,178054	0	1
						1992	RENFE	2,772589	3,178054	1	1
						1993	RENFE	2,772589	3,178054	1	1
						1994	RENFE	2,772589	3,178054	1	1
						1995	RENFE	2,772589	3,178054	1	1
						1996	RENFE	2,890372	3,178054	1	1
						1997	RENFE	3,178054	3,178054	1	1
						1998	RENFE	3,178054	3,178054	1	1
						1999	RENFE	3,178054	3,526361	1	1
						1972	SJ	0	0	0	0
						1973	SJ	0	0	0	0
						1974	SJ	0	0	0	0
						1975	SJ	0	0	0	0
						1976	SJ	0	0	0	0
						1977	SJ	0	0	0	0
						1978	SJ	0	0	0	0
						1979	SJ	0	0	0	0
						1980	SJ	0	0	0	0
						1981	SJ	0	0	0	0
						1982	SJ	0	0	0	0
						1983	SJ	0	0	0	0
						1984	SJ	0	0	0	0
						1985	SJ	0	0	0	0
						1986	SJ	0	0	0	0
						1987	SJ	0	0	0	0
						1988	SJ	0	0	0	0
						1989	SJ	0	0	0	0
						1990	SJ	0	1,386294	0	1
						1991	SJ	0	2,639057	0	1
						1992	SJ	0	2,639057	0	1
						1993	SJ	0	2,995732	0	1
						1994	SJ	0	2,995732	0	1
						1995	SJ	0	3,555348	0	1
						1996	SJ	0	3,663562	0	1
						1997	SJ	0	3,7612	0	1
						1998	SJ	0	3,7612	0	1
						1999	SJ	0	3,7612	0	1
						1972	SNCB	0	0	0	0
						1973	SNCB	0	0	0	0
						1974	SNCB	0	0	0	0
						1975	SNCB	0	0	0	0
						1976	SNCB	0	0	0	0
						1977	SNCB	0	0	0	0
						1978	SNCB	0	0	0	0
						1979	SNCB	0	0	0	0
						1980	SNCB	0	0	0	0
						1981	SNCB	0	0	0	0
						1982	SNCB	0	0	0	0
						1983	SNCB	0	0	0	0
						1984	SNCB	0	0	0	0
						1985	SNCB	0	0	0	0
						1986	SNCB	0	0	0	0
						1987	SNCB	0	0	0	0
						1988	SNCB	0	0	0	0
						1989	SNCB	0	0	0	0
						1990	SNCB	0	0	0	0
						1991	SNCB	0	0	0	0
						1992	SNCB	0	0	0	0
						1993	SNCB	0	0	0	0
						1994	SNCB	1,386294	0	1	0
						1995	SNCB	1,386294	0	1	0
						1996	SNCB	1,609438	0	1	0
						1997	SNCB	2,397895	0	1	0
						1998	SNCB	2,397895	0	1	0
						1999	SNCB	2,397895	0	1	0
						1972	SNCF	0	0	0	0
						1973	SNCF	0	0	0	0
						1974	SNCF	0	0	0	0
						1975	SNCF	0	0	0	0
						1976	SNCF	0	0	0	0
						1977	SNCF	0	0	0	0
						1978	SNCF	0	0	0	0
						1979	SNCF	0	0	0	0
						1980	SNCF	0	0	0	0
						1981	SNCF	3,178054	0	1	0
						1982	SNCF	3,73767	0	1	0
						1983	SNCF	4,158883	0	1	0
						1984	SNCF	4,394449	0	1	0
						1985	SNCF	4,672829	0	1	0
						1986	SNCF	4,663439	0	1	0
						1987	SNCF	4,672829	0	1	0
						1988	SNCF	4,672829	0	1	0

A2.9.1.High Speed dummy variables: DHS220, DTT, DUMMYHS and DUMMYTT

Year	Company	Designation	Total trainset stock	HS>220	TT			Dummy variables			
								DHS220	DTT	DUMMYHS	DUMMYTT
						1989	SNCF	5,056246	0	1	0
						1990	SNCF	5,17615	0	1	0
						1991	SNCF	5,231109	0	1	0
						1992	SNCF	5,476464	0	1	0
						1993	SNCF	5,560682	0	1	0
						1994	SNCF	5,590987	0	1	0
						1995	SNCF	5,710427	0	1	0
						1996	SNCF	5,755742	0	1	0
						1997	SNCF	5,831882	0	1	0
						1998	SNCF	5,852202	0	1	0
						1999	SNCF	5,860786	0	1	0
						1992	SZ	0	0	0	0
						1993	SZ	0	0	0	0
						1994	SZ	0	0	0	0
						1995	SZ	0	0	0	0
						1996	SZ	0	0	0	0
						1997	SZ	0	0	0	0
						1998	SZ	0	0	0	0
						1999	SZ	0	0	0	0
						1972	TCDD	0	0	0	0
						1973	TCDD	0	0	0	0
						1974	TCDD	0	0	0	0
						1975	TCDD	0	0	0	0
						1976	TCDD	0	0	0	0
						1977	TCDD	0	0	0	0
						1978	TCDD	0	0	0	0
						1979	TCDD	0	0	0	0
						1980	TCDD	0	0	0	0
						1981	TCDD	0	0	0	0
						1982	TCDD	0	0	0	0
						1983	TCDD	0	0	0	0
						1984	TCDD	0	0	0	0
						1985	TCDD	0	0	0	0
						1986	TCDD	0	0	0	0
						1987	TCDD	0	0	0	0
						1988	TCDD	0	0	0	0
						1989	TCDD	0	0	0	0
						1990	TCDD	0	0	0	0
						1991	TCDD	0	0	0	0
						1992	TCDD	0	0	0	0
						1993	TCDD	0	0	0	0
						1994	TCDD	0	0	0	0
						1995	TCDD	0	0	0	0
						1996	TCDD	0	0	0	0
						1997	TCDD	0	0	0	0
						1998	TCDD	0	0	0	0
						1999	TCDD	0	0	0	0
						1972	VR	0	0	0	0
						1973	VR	0	0	0	0
						1974	VR	0	0	0	0
						1975	VR	0	0	0	0
						1976	VR	0	0	0	0
						1977	VR	0	0	0	0
						1978	VR	0	0	0	0
						1979	VR	0	0	0	0
						1980	VR	0	0	0	0
						1981	VR	0	0	0	0
						1982	VR	0	0	0	0
						1983	VR	0	0	0	0
						1984	VR	0	0	0	0
						1985	VR	0	0	0	0
						1986	VR	0	0	0	0
						1987	VR	0	0	0	0
						1988	VR	0	0	0	0
						1989	VR	0	0	0	0
						1990	VR	0	0	0	0
						1991	VR	0	0	0	0
						1992	VR	0	0	0	0
						1993	VR	0	0	0	0
						1994	VR	0	0	0	0
						1995	VR	0	0,693147	0	1
						1996	VR	0	0,693147	0	1
						1997	VR	0	0,693147	0	1
						1998	VR	0	0,693147	0	1
						1999	VR	0	0,693147	0	1
						1993	ZSR	0	0	0	0
						1994	ZSR	0	0	0	0
						1995	ZSR	0	0	0	0
						1996	ZSR	0	0	0	0
						1997	ZSR	0	0	0	0
						1998	ZSR	0	0	0	0
						1999	ZSR	0	0	0	0

A2.10.1.External physical environment variables: weather (SNOW) and terrain (SURVEY)

Survey	Percentage of the total area						
Altitude interval (m)	0-153	153-305	305-610	610-1525	1525-3050	>3050	Survey
Country	%	%	%	%	%	%	Index
Portugal	0,250042	0,309803	0,289753	0,14957	0,000833	0	384,2062
Spain	0,033862	0,126947	0,341368	0,468876	0,028948	0	754,5804
France	0,378966	0,299049	0,188908	0,098803	0,033062	0,001212	369,8489
Belgium	0,66954	0,149867	0,180592	0	0	0	168,1605
Netherlands	0,757399	0	0,004737	0	0	0	60,108
Luxembourg	0	0,273021	0,726979	0	0	0	395,1147
Austria	0,023636	0,146595	0,270593	0,355284	0,177988	0,025904	1049,205
Italy	0,23092	0,251588	0,30044	0,17132	0,045733	0	500,2285
Switzerland	0,033499	0,009863	0,286481	0,405364	0,216144	0,04865	1257,641
Germany	0,434674	0,203014	0,299145	0,061901	0,001266	0	285,577
Wgermany-1994	0,341155	0,232618	0,345616	0,080611	0	0	323,5395
Belarus	0,479792	0,517263	0,002945	0	0	0	156,5045
Latvia	0,863096	0,135938	0,000965	0	0	0	97,59838
Lithuania	0,85718	0,14282	0	0	0	0	98,2801
Poland	0,539999	0,369496	0,066873	0,023632	0	0	181,7463
Hungary	0,72009	0,230862	0,049048	0	0	0	130,3938
Bulgaria	0,130674	0,346372	0,281639	0,206533	0,034782	0	518,2035
Estonia	0,971689	0,028311	0	0	0	0	80,81739
Romania	0,32847	0,233373	0,264456	0,156818	0,016883	0	405,5828
Czech R.	0,003344	0,273725	0,536054	0,186877	0	0	507,6748
Slovakia	0,102894	0,288083	0,326728	0,282295	0	0	524,6699
Czechoslovakia	0,04154	0,279234	0,455739	0,223487	0	0	514,1955
Slovenia	0	0,275323	0,439173	0,266161	0,019343	0	592,3438
Turkey	0,008828	0,006031	0,236817	0,584196	0,159267	0,004861	1117,795
Greece	0,1826	0,385765	0,170436	0,225734	0,035465	0	502,3804
Denmark	1	0	0	0	0	0	76,5
Finland	0,572547	0,356024	0,058071	0,013358	0	0	166,1563
Norway	0,017517	0,150586	0,453498	0,361463	0,016936	0	667,9029
Sweden	0,223134	0,209406	0,463481	0,103979	0	0	388,0639
Ireland	0,717552	0,215483	0,061788	0,005177	0	0	138,033
Great Britain	0,558789	0,266936	0,142798	0,031477	0	0	202,8077

Snow	Percentage of the total area								
Snow days inte	0-10	10-25	25-50	50-100	100-150	150-200	200-250	250-365	Snow
Country	%	%	%	%	%	%	%	%	index
Portugal	0,984743	0,015257	0	0	0	0	0	0	0,190714
Spain	0,513699	0,433644	0,044265	0,00607	0,002322	0	0	0	7,825975
France	0,353926	0,339534	0,195949	0,06136	0,0138	0,013748	0	0,021683	26,28798
Belgium	0,138937	0,36944	0,194107	0,297516	0	0	0	0	34,21072
Netherlands	0	0,85749	0,14251	0	0	0	0	0	16,06276
Luxembourg	0	0	0,563253	0,436747	0	0	0	0	53,87801
Austria	0	0	0,379535	0,354678	0,034232	0,116407	0,018095	0,097053	96,24452
Italy	0,665888	0,121501	0,048128	0,082201	0	0,039262	0	0,043019	28,18983
Switzerland	0	0	0	0,593766	0,051354	0,033981	0	0,320899	145,1456
Germany	0	0	0,515178	0,463186	0,021636	0	0	0	56,76264
Wgermany-199	0	0	0,597312	0,379963	0,022725	0	0	0	53,73701
Belarus	0	0	0	0,389061	0,610939	0	0	0	105,5469
Latvia	0	0	0	0,458151	0,541849	0	0	0	102,0924
Lithuania	0	0	0	0,746823	0,253177	0	0	0	87,65884
Poland	0	0	0,071843	0,916836	0,011321	0	0	0	72,87195
Hungary	0	0	0,848379	0,151621	0	0	0	0	43,1858
Bulgaria	0	0,187796	0,331655	0,440732	0,039817	0	0	0	52,81655
Estonia	0	0	0	0,117291	0,882709	0	0	0	119,1355
Romania	0	0,015297	0,438659	0,448053	0,097991	0	0	0	62,49371
Czech R.	0	0	0,590109	0,409891	0	0	0	0	52,87092
Slovakia	0	0	0,239173	0,397356	0,363471	0	0	0	84,20453
Czechoslovakia	0	0	0,504837	0,406845	0,088318	0	0	0	60,48451
Slovenia	0	0	0,44855	0,55145	0	0	0	0	58,17936
Turkey	0,12193	0,553669	0,067827	0,235156	0,017733	0,003684	0	0	29,96244
Greece	0,666943	0,176049	0,061534	0,095475	0	0	0	0	11,66874
Denmark	0	0	0	0,486877	0,513123	0	0	0	100,6561
Finland	0	0	0	0	0,327702	0,53089	0,136287	0,005121	165,9414
Norway	0	0	0	0,066408	0,126652	0,224708	0,444697	0,137535	198,015
Sweden	0	0	0,019848	0,182588	0,151975	0,363907	0,214056	0,067626	163,8788
Ireland	0	0,732542	0,256437	0,008171	0,00285	0	0	0	19,74228
Great Britain	0,366275	0,247713	0,152379	0,112589	0,121043	0	0	0	32,38523

A2.11.1.External population environment variables: population density (DENS) and number of principal city agglomerations (AGM)

DENS : Population density (people per sq km)			AGM:Number of principal city agglomerations (AGM)		
1992	BC	49,45087	1992	BC	8,55
1993	BC	49,658	1993	BC	8,55
1994	BC	49,65318	1994	BC	8,55
1995	BC	49,52312	1995	BC	8,55
1996	BC	49,3738	1996	BC	8,55
1997	BC	49,22929	1997	BC	8,55
1998	BC	48,77168	1998	BC	8,55
1999	BC	48,3237	1999	BC	8,55
1989	BDZ	80,29851	1989	BDZ	23,25
1990	BDZ	78,86024	1990	BDZ	23,25
1991	BDZ	78,08231	1991	BDZ	23,25
1992	BDZ	77,25011	1992	BDZ	23,25
1993	BDZ	76,63501	1993	BDZ	23,25
1994	BDZ	76,30032	1994	BDZ	23,25
1995	BDZ	75,98372	1995	BDZ	23,25
1996	BDZ	75,58571	1996	BDZ	23,25
1997	BDZ	75,18833	1997	BDZ	23,25
1998	BDZ	74,69019	1998	BDZ	23,25
1999	BDZ	74,24695	1999	BDZ	23,25
1972	BR	232,0263	1972	BR	51,825
1973	BR	232,5475	1973	BR	51,825
1974	BR	232,5339	1974	BR	51,825
1975	BR	232,4926	1975	BR	51,825
1976	BR	232,4512	1976	BR	51,825
1977	BR	232,3341	1977	BR	51,825
1978	BR	232,3517	1978	BR	51,825
1979	BR	232,6357	1979	BR	51,825
1980	BR	233,0864	1980	BR	51,825
1981	BR	233,1871	1981	BR	51,825
1982	BR	233,0561	1982	BR	51,825
1983	BR	233,3002	1983	BR	51,825
1984	BR	233,8341	1984	BR	51,825
1985	BR	234,6136	1985	BR	51,825
1986	BR	235,3146	1986	BR	51,825
1987	BR	235,9644	1987	BR	51,825
1988	BR	236,5811	1988	BR	51,825
1989	BR	237,4089	1989	BR	51,825
1990	BR	238,2492	1990	BR	51,825
1991	BR	239,2715	1991	BR	51,825
1992	BR	240,0911	1992	BR	51,825
1993	BR	240,8568	1993	BR	51,825
1994	BR	241,7012	1994	BR	51,825
1993	CD	133,6827	1993	CD	38,5
1994	CD	133,7474	1994	CD	38,5
1995	CD	133,6827	1995	CD	38,5
1996	CD	133,4757	1996	CD	38,5
1997	CD	133,3346	1997	CD	38,5
1998	CD	133,2156	1998	CD	38,5
1999	CD	132,9992	1999	CD	38,5
1993	ZSR	110,7446	1993	ZSR	23,725
1994	ZSR	111,2167	1994	ZSR	23,725
1995	ZSR	110,8985	1995	ZSR	23,725
1996	ZSR	111,1273	1996	ZSR	23,725
1997	ZSR	111,9655	1997	ZSR	23,725
1998	ZSR	112,1256	1998	ZSR	23,725
1999	ZSR	112,2296	1999	ZSR	23,725
1986	CSD	121,7669	1986	CSD	11,42
1987	CSD	121,9585	1987	CSD	11,42
1988	CSD	122,2173	1988	CSD	11,42
1989	CSD	122,4268	1989	CSD	11,42
1990	CSD	122,3252	1990	CSD	38,5
1991	CSD	121,903	1991	CSD	38,5
1992	CSD	122,1571	1992	CSD	38,5
1972	CFF	161,4412	1972	CFF	42,775
1973	CFF	162,6043	1973	CFF	42,775
1974	CFF	162,9077	1974	CFF	42,775
1975	CFF	161,9469	1975	CFF	42,775
1976	CFF	160,4551	1976	CFF	42,775
1977	CFF	159,9747	1977	CFF	42,775
1978	CFF	160,2276	1978	CFF	42,775
1979	CFF	160,5815	1979	CFF	42,775
1980	CFF	159,7724	1980	CFF	42,775
1981	CFF	160,6574	1981	CFF	42,775
1982	CFF	161,5929	1982	CFF	42,775
1983	CFF	162,3009	1983	CFF	42,775
1984	CFF	162,8824	1984	CFF	42,775
1985	CFF	163,5904	1985	CFF	42,775
1986	CFF	164,4501	1986	CFF	42,775
1987	CFF	165,4867	1987	CFF	42,775
1988	CFF	166,0936	1988	CFF	42,775
1989	CFF	168,0657	1989	CFF	42,775
1990	CFF	169,7092	1990	CFF	42,775
1991	CFF	171,9343	1991	CFF	42,775
1992	CFF	173,8306	1992	CFF	42,775
1993	CFF	175,4235	1993	CFF	42,775
1994	CFF	176,8394	1994	CFF	42,775
1995	CFF	178,0278	1995	CFF	42,775
1996	CFF	178,8622	1996	CFF	42,775
1997	CFF	179,2162	1997	CFF	42,775
1998	CFF	179,7724	1998	CFF	42,775
1999	CFF	180,4298	1999	CFF	42,775
1972	CFL	134,0294	1972	CFL	61,05
1973	CFL	135,5375	1973	CFL	61,05
1974	CFL	137,3163	1974	CFL	61,05
1975	CFL	138,8244	1975	CFL	61,05
1976	CFL	139,5205	1976	CFL	61,05
1977	CFL	139,7912	1977	CFL	61,05
1978	CFL	140,0232	1978	CFL	61,05
1979	CFL	140,3712	1979	CFL	61,05
1980	CFL	140,9126	1980	CFL	61,05
1981	CFL	141,2993	1981	CFL	61,05
1982	CFL	141,3766	1982	CFL	61,05
1983	CFL	141,4153	1983	CFL	61,05
1984	CFL	141,5313	1984	CFL	61,05
1985	CFL	141,802	1985	CFL	61,05
1986	CFL	142,4594	1986	CFL	61,05
1987	CFL	143,3101	1987	CFL	61,05
1988	CFL	144,3542	1988	CFL	61,05
1989	CFL	145,669	1989	CFL	61,05
1990	CFL	147,4865	1990	CFL	64,45
1991	CFL	149,6906	1991	CFL	64,45
1992	CFL	151,7788	1992	CFL	64,45
1993	CFL	153,9443	1993	CFL	64,45
1994	CFL	156,1485	1994	CFL	64,45
1995	CFL	158,43	1995	CFL	64,45
1996	CFL	160,7115	1996	CFL	64,45
1997	CFL	162,7997	1997	CFL	64,45
1998	CFL	164,9265	1998	CFL	64,45
1999	CFL	167,2467	1999	CFL	64,45
1990	CFR	100,7511	1990	CFR	17,15
1991	CFR	100,6556	1991	CFR	17,15
1992	CFR	98,93636	1992	CFR	17,15
1993	CFR	98,78875	1993	CFR	17,15
1994	CFR	98,68456	1994	CFR	17,15
1995	CFR	98,46748	1995	CFR	17,15
1996	CFR	98,15056	1996	CFR	17,15
1997	CFR	97,91612	1997	CFR	17,15
1998	CFR	97,69471	1998	CFR	17,15
1999	CFR	97,49931	1999	CFR	17,15

A2.11.1.External population environment variables: population density (DENS) and number of principal city agglomerations (AGM)

DENS : Population density (people per sq km)			AGM:Number of principal city agglomerations (AGM)		
1972	CH	68,96043	1972	CH	18,1
1973	CH	69,27075	1973	CH	18,1
1974	CH	69,52676	1974	CH	18,1
1975	CH	70,18619	1975	CH	18,1
1976	CH	71,11714	1976	CH	18,1
1977	CH	72,21877	1977	CH	18,1
1978	CH	73,15749	1978	CH	18,1
1979	CH	74,07292	1979	CH	18,1
1980	CH	74,80993	1980	CH	18,1
1981	CH	75,47711	1981	CH	18,1
1982	CH	75,95035	1982	CH	18,1
1983	CH	76,39256	1983	CH	18,1
1984	CH	76,77269	1984	CH	18,1
1985	CH	77,0675	1985	CH	18,1
1986	CH	77,30023	1986	CH	18,1
1987	CH	77,58728	1987	CH	18,1
1988	CH	77,86656	1988	CH	18,1
1989	CH	78,27773	1989	CH	18,1
1990	CH	78,82855	1990	CH	19,3
1991	CH	79,49574	1991	CH	19,3
1992	CH	80,07758	1992	CH	19,3
1993	CH	80,51202	1993	CH	19,3
1994	CH	80,88441	1994	CH	19,3
1995	CH	81,13266	1995	CH	19,3
1996	CH	81,26455	1996	CH	19,3
1997	CH	81,43522	1997	CH	19,3
1998	CH	81,57487	1998	CH	19,3
1999	CH	81,7533	1999	CH	19,3
1972	CIE	43,89606	1972	CIE	1,025
1973	CIE	44,60735	1973	CIE	1,025
1974	CIE	45,34766	1974	CIE	1,025
1975	CIE	46,117	1975	CIE	1,025
1976	CIE	46,85731	1976	CIE	1,025
1977	CIE	47,49601	1977	CIE	1,025
1978	CIE	48,10567	1978	CIE	1,025
1979	CIE	48,88953	1979	CIE	1,025
1980	CIE	49,36856	1980	CIE	1,025
1981	CIE	49,97823	1981	CIE	1,025
1982	CIE	50,51532	1982	CIE	1,025
1983	CIE	50,8637	1983	CIE	1,025
1984	CIE	51,22659	1984	CIE	1,025
1985	CIE	51,38627	1985	CIE	1,025
1986	CIE	51,40078	1986	CIE	1,025
1987	CIE	51,48788	1987	CIE	1,025
1988	CIE	51,25127	1988	CIE	1,025
1989	CIE	50,94353	1989	CIE	1,025
1990	CIE	50,88982	1990	CIE	1,025
1991	CIE	51,17869	1991	CIE	1,025
1992	CIE	51,51836	1992	CIE	1,025
1993	CIE	51,72449	1993	CIE	1,025
1994	CIE	51,83191	1994	CIE	1,025
1995	CIE	52,28625	1995	CIE	1,025
1996	CIE	52,72173	1996	CIE	1,025
1997	CIE	53,27333	1997	CIE	1,025
1998	CIE	53,883	1998	CIE	1,025
1999	CIE	54,46364	1999	CIE	1,025
1972	CP	94,32787	1972	CP	10,6
1973	CP	94,34972	1973	CP	10,6
1974	CP	95,67213	1974	CP	10,6
1975	CP	99,37705	1975	CP	10,6
1976	CP	102,2404	1976	CP	10,6
1977	CP	103,3333	1977	CP	10,6
1978	CP	104,459	1978	CP	10,6
1979	CP	105,5847	1979	CP	10,6
1980	CP	106,7322	1980	CP	10,6
1981	CP	107,6612	1981	CP	10,6
1982	CP	108,3224	1982	CP	10,6
1983	CP	108,7924	1983	CP	10,6
1984	CP	109,1694	1984	CP	10,6
1985	CP	109,4142	1985	CP	10,6
1986	CP	109,4066	1986	CP	10,6
1987	CP	109,224	1987	CP	10,6
1988	CP	108,9399	1988	CP	10,6
1989	CP	108,6011	1989	CP	10,6
1990	CP	108,153	1990	CP	10,6
1991	CP	107,8579	1991	CP	10,6
1992	CP	107,8361	1992	CP	10,6
1993	CP	107,9891	1993	CP	10,6
1994	CP	108,2186	1994	CP	10,6
1995	CP	108,4918	1995	CP	10,6
1996	CP	108,5246	1996	CP	10,6
1997	CP	108,6885	1997	CP	10,6
1998	CP	108,9399	1998	CP	10,6
1999	CP	109,1694	1999	CP	10,6
1972	DB	248,363	1972	DB	59,55
1973	DB	249,559	1973	DB	59,55
1974	DB	249,6416	1974	DB	59,55
1975	DB	248,2446	1975	DB	59,55
1976	DB	247,7147	1976	DB	59,55
1977	DB	247,2435	1977	DB	59,55
1978	DB	246,8972	1978	DB	59,55
1979	DB	247,4179	1979	DB	59,55
1980	DB	248,2982	1980	DB	59,55
1981	DB	248,3952	1981	DB	59,55
1982	DB	248,218	1982	DB	59,55
1983	DB	247,3522	1983	DB	59,55
1984	DB	246,3535	1984	DB	59,55
1985	DB	245,7454	1985	DB	59,55
1986	DB	245,9146	1986	DB	59,55
1987	DB	245,9589	1987	DB	59,55
1988	DB	247,4569	1988	DB	59,55
1989	DB	249,9295	1989	DB	59,55
1990	DB	227,4258	1990	DB	62,95
1991	DB	229,0892	1991	DB	62,95
1992	DB	230,8357	1992	DB	62,95
1993	DB	232,3589	1993	DB	62,95
1994	DBAG	233,3896	1994	DBAG	62,95
1995	DBAG	233,7504	1995	DBAG	62,95
1996	DBAG	234,5234	1996	DBAG	62,95
1997	DBAG	234,9787	1997	DBAG	62,95
1998	DBAG	234,91	1998	DBAG	62,95
1999	DBAG	235,0617	1999	DBAG	62,95
1972	DSB	117,8192	1972	DSB	18,4
1973	DSB	118,5273	1973	DSB	18,4
1974	DSB	119,0701	1974	DSB	18,4
1975	DSB	119,4241	1975	DSB	18,4
1976	DSB	119,7309	1976	DSB	18,4
1977	DSB	120,085	1977	DSB	18,4
1978	DSB	120,4626	1978	DSB	18,4
1979	DSB	120,7409	1979	DSB	18,4
1980	DSB	120,8825	1980	DSB	18,4
1981	DSB	120,8589	1981	DSB	18,4
1982	DSB	120,7645	1982	DSB	18,4
1983	DSB	120,6701	1983	DSB	18,4
1984	DSB	120,6229	1984	DSB	18,4
1985	DSB	120,6701	1985	DSB	18,4
1986	DSB	120,8353	1986	DSB	18,4
1987	DSB	120,9483	1987	DSB	18,4
1988	DSB	121,0191	1988	DSB	18,4

A2.11.1.External population environment variables: population density (DENS) and number of principal city agglomerations (AGM)

DENS : Population density (people per sq km)			AGM:Number of principal city agglomerations (AGM)		
1989	DSB	121,0899	1989	DSB	18,4
1990	DSB	121,255	1990	DSB	21,6
1991	DSB	121,5853	1991	DSB	21,6
1992	DSB	121,8477	1992	DSB	21,6
1993	DSB	122,2955	1993	DSB	21,6
1994	DSB	122,6726	1994	DSB	21,6
1995	DSB	123,2147	1995	DSB	21,6
1996	DSB	124,016	1996	DSB	21,6
1997	DSB	124,5397	1997	DSB	21,6
1998	DSB	124,9352	1998	DSB	21,6
1999	DSB	125,5244	1999	DSB	21,6
1992	EVR	36,52709	1992	EVR	8,625
1993	EVR	35,88834	1993	EVR	8,625
1994	EVR	35,4625	1994	EVR	8,625
1995	EVR	35,10764	1995	EVR	8,625
1996	EVR	34,75278	1996	EVR	8,625
1997	EVR	34,49231	1997	EVR	8,625
1998	EVR	34,29643	1998	EVR	8,625
1999	EVR	34,12326	1999	EVR	8,625
1972	FS	184,9128	1972	FS	13,025
1973	FS	186,1709	1973	FS	13,025
1974	FS	187,395	1974	FS	13,025
1975	FS	188,5171	1975	FS	13,025
1976	FS	189,459	1976	FS	13,025
1977	FS	190,2649	1977	FS	13,025
1978	FS	190,9644	1978	FS	13,025
1979	FS	191,5187	1979	FS	13,025
1980	FS	191,9132	1980	FS	13,025
1981	FS	192,1445	1981	FS	13,025
1982	FS	192,2873	1982	FS	13,025
1983	FS	192,3553	1983	FS	13,025
1984	FS	192,3995	1984	FS	13,025
1985	FS	192,4539	1985	FS	13,025
1986	FS	192,4641	1986	FS	13,025
1987	FS	192,4845	1987	FS	13,025
1988	FS	192,5763	1988	FS	13,025
1989	FS	192,7226	1989	FS	13,025
1990	FS	192,8824	1990	FS	13,025
1991	FS	192,9912	1991	FS	13,025
1992	FS	193,3585	1992	FS	13,025
1993	FS	194,0046	1993	FS	13,025
1994	FS	194,2461	1994	FS	13,025
1995	FS	194,5317	1995	FS	13,025
1996	FS	195,1302	1996	FS	13,025
1997	FS	195,6165	1997	FS	13,025
1998	FS	195,8376	1998	FS	13,025
1999	FS	196,0348	1999	FS	13,025
1991	MAV	112,0424	1991	MAV	15,775
1992	MAV	111,8042	1992	MAV	15,775
1993	MAV	111,4793	1993	MAV	15,775
1994	MAV	111,1219	1994	MAV	15,775
1995	MAV	110,7862	1995	MAV	15,775
1996	MAV	110,3855	1996	MAV	15,775
1997	MAV	109,9729	1997	MAV	15,775
1998	MAV	109,53	1998	MAV	15,775
1999	MAV	109,0318	1999	MAV	15,775
1972	NS	395,2847	1972	NS	63,35
1973	NS	397,486	1973	NS	63,35
1974	NS	400,6211	1974	NS	63,35
1975	NS	404,2	1975	NS	63,35
1976	NS	407,3943	1976	NS	63,35
1977	NS	408,1296	1977	NS	63,35
1978	NS	410,6628	1978	NS	63,35
1979	NS	413,4904	1979	NS	63,35
1980	NS	416,6667	1980	NS	63,35
1981	NS	419,8939	1981	NS	63,35
1982	NS	421,8391	1982	NS	63,35
1983	NS	423,5554	1983	NS	63,35
1984	NS	425,2358	1984	NS	63,35
1985	NS	427,2406	1985	NS	63,35
1986	NS	429,5991	1986	NS	63,35
1987	NS	432,3408	1987	NS	63,35
1988	NS	435,1415	1988	NS	63,35
1989	NS	437,7653	1989	NS	63,35
1990	NS	440,8019	1990	NS	65,45
1991	NS	444,2807	1991	NS	65,45
1992	NS	447,4646	1992	NS	65,45
1993	NS	450,4452	1993	NS	65,45
1994	NS	453,4531	1994	NS	65,45
1995	NS	455,7783	1995	NS	65,45
1996	NS	457,4587	1996	NS	65,45
1997	NS	460,112	1997	NS	65,45
1998	NS	462,7948	1998	NS	65,45
1999	NS	465,9493	1999	NS	65,45
1972	NSB	12,81817	1972	NSB	3,125
1973	NSB	12,90943	1973	NSB	3,125
1974	NSB	12,98765	1974	NSB	3,125
1975	NSB	13,05935	1975	NSB	3,125
1976	NSB	13,12127	1976	NSB	3,125
1977	NSB	13,17668	1977	NSB	3,125
1978	NSB	13,22882	1978	NSB	3,125
1979	NSB	13,27445	1979	NSB	3,125
1980	NSB	13,33312	1980	NSB	3,125
1981	NSB	13,36245	1981	NSB	3,125
1982	NSB	13,41133	1982	NSB	3,125
1983	NSB	13,47	1983	NSB	3,125
1984	NSB	13,49281	1984	NSB	3,125
1985	NSB	13,53518	1985	NSB	3,125
1986	NSB	13,58733	1986	NSB	3,125
1987	NSB	13,64599	1987	NSB	3,125
1988	NSB	13,71769	1988	NSB	3,125
1989	NSB	13,77636	1989	NSB	3,125
1990	NSB	13,82362	1990	NSB	3,125
1991	NSB	13,88945	1991	NSB	3,125
1992	NSB	13,96995	1992	NSB	3,125
1993	NSB	14,05338	1993	NSB	3,125
1994	NSB	14,13356	1994	NSB	3,125
1995	NSB	14,20982	1995	NSB	3,125
1996	NSB	14,27826	1996	NSB	3,125
1997	NSB	14,35355	1997	NSB	3,125
1998	NSB	14,44448	1998	NSB	3,125
1999	NSB	14,53574	1999	NSB	3,125
1972	OBB	90,79918	1972	OBB	17,05
1973	OBB	91,31907	1973	OBB	17,05
1974	OBB	91,45206	1974	OBB	17,05
1975	OBB	91,35534	1975	OBB	17,05
1976	OBB	91,29594	1976	OBB	17,05
1977	OBB	91,38056	1977	OBB	17,05
1978	OBB	91,30803	1978	OBB	17,05
1979	OBB	91,26073	1979	OBB	17,05
1980	OBB	91,29699	1980	OBB	17,05
1981	OBB	91,44204	1981	OBB	17,05
1982	OBB	91,55083	1982	OBB	17,05
1983	OBB	91,2849	1983	OBB	17,05
1984	OBB	91,2849	1984	OBB	17,05
1985	OBB	91,32117	1985	OBB	17,05
1986	OBB	91,44204	1986	OBB	17,05
1987	OBB	91,53874	1987	OBB	17,05
1988	OBB	91,80466	1988	OBB	17,05

A2.11.1.External population environment variables: population density (DENS) and number of principal city agglomerations (AGM)

DENS : Population density (people per sq km)			AGM:Number of principal city agglomerations (AGM)		
1989	OBB	92,24465	1989	OBB	17,05
1990	OBB	93,38451	1990	OBB	31,15
1991	OBB	94,59567	1991	OBB	31,15
1992	OBB	95,62916	1992	OBB	31,15
1993	OBB	96,5611	1993	OBB	31,15
1994	OBB	97,03252	1994	OBB	31,15
1995	OBB	97,26822	1995	OBB	31,15
1996	OBB	97,41327	1996	OBB	31,15
1997	OBB	97,57259	1997	OBB	31,15
1998	OBB	97,64294	1998	OBB	31,15
1999	OBB	97,81216	1999	OBB	31,15
1989	PKP	124,7019	1989	PKP	18,1
1990	PKP	125,2178	1990	PKP	18,1
1991	PKP	125,6304	1991	PKP	18,1
1992	PKP	126,0256	1992	PKP	18,1
1993	PKP	126,3353	1993	PKP	18,1
1994	PKP	126,6132	1994	PKP	18,1
1995	PKP	126,7578	1995	PKP	18,1
1996	PKP	126,8576	1996	PKP	18,1
1997	PKP	126,9627	1997	PKP	18,1
1998	PKP	127,0158	1998	PKP	18,1
1999	PKP	126,9759	1999	PKP	18,1
1972	RENFE	68,92633	1972	RENFE	15,825
1973	RENFE	69,65065	1973	RENFE	15,825
1974	RENFE	70,32916	1974	RENFE	15,825
1975	RENFE	71,0826	1975	RENFE	15,825
1976	RENFE	71,93587	1976	RENFE	15,825
1977	RENFE	72,80098	1977	RENFE	15,825
1978	RENFE	73,62521	1978	RENFE	15,825
1979	RENFE	74,28434	1979	RENFE	15,825
1980	RENFE	74,85134	1980	RENFE	15,825
1981	RENFE	75,56361	1981	RENFE	15,825
1982	RENFE	75,96805	1982	RENFE	15,825
1983	RENFE	76,32902	1983	RENFE	15,825
1984	RENFE	76,63183	1984	RENFE	15,825
1985	RENFE	76,90213	1985	RENFE	15,825
1986	RENFE	77,12438	1986	RENFE	15,825
1987	RENFE	77,30458	1987	RENFE	15,825
1988	RENFE	77,46877	1988	RENFE	15,825
1989	RENFE	77,62294	1989	RENFE	15,825
1990	RENFE	77,75909	1990	RENFE	15,825
1991	RENFE	77,91927	1991	RENFE	15,825
1992	RENFE	78,09947	1992	RENFE	15,825
1993	RENFE	78,25365	1993	RENFE	15,825
1994	RENFE	78,37378	1994	RENFE	15,825
1995	RENFE	78,50793	1995	RENFE	15,825
1996	RENFE	78,62945	1996	RENFE	15,825
1997	RENFE	78,73418	1997	RENFE	15,825
1998	RENFE	78,83029	1998	RENFE	15,825
1999	RENFE	78,90912	1999	RENFE	15,825
1972	SJ	19,73179	1972	SJ	3,125
1973	SJ	19,76823	1973	SJ	3,125
1974	SJ	19,82654	1974	SJ	3,125
1975	SJ	19,90428	1975	SJ	3,125
1976	SJ	19,97473	1976	SJ	3,125
1977	SJ	20,04762	1977	SJ	3,125
1978	SJ	20,10592	1978	SJ	3,125
1979	SJ	20,14965	1979	SJ	3,125
1980	SJ	20,18852	1980	SJ	3,125
1981	SJ	20,21282	1981	SJ	3,125
1982	SJ	20,22496	1982	SJ	3,125
1983	SJ	20,23954	1983	SJ	3,125
1984	SJ	20,25412	1984	SJ	3,125
1985	SJ	20,2857	1985	SJ	3,125
1986	SJ	20,33429	1986	SJ	3,125
1987	SJ	20,40474	1987	SJ	3,125
1988	SJ	20,49463	1988	SJ	3,125
1989	SJ	20,63311	1989	SJ	3,125
1990	SJ	20,79345	1990	SJ	3,125
1991	SJ	20,93533	1991	SJ	3,125
1992	SJ	21,05826	1992	SJ	3,125
1993	SJ	21,18119	1993	SJ	3,125
1994	SJ	21,33205	1994	SJ	3,125
1995	SJ	21,45425	1995	SJ	3,125
1996	SJ	21,48341	1996	SJ	3,125
1997	SJ	21,49905	1997	SJ	3,125
1998	SJ	21,50479	1998	SJ	3,125
1999	SJ	21,51839	1999	SJ	3,125
1972	SNCB	295,8257	1972	SNCB	63,5
1973	SNCB	296,7093	1973	SNCB	63,5
1974	SNCB	297,6234	1974	SNCB	63,5
1975	SNCB	298,4461	1975	SNCB	63,5
1976	SNCB	298,9336	1976	SNCB	63,5
1977	SNCB	299,2687	1977	SNCB	63,5
1978	SNCB	299,5125	1978	SNCB	63,5
1979	SNCB	299,7258	1979	SNCB	63,5
1980	SNCB	300,0305	1980	SNCB	63,5
1981	SNCB	300,1828	1981	SNCB	63,5
1982	SNCB	300,3047	1982	SNCB	63,5
1983	SNCB	300,3047	1983	SNCB	63,5
1984	SNCB	300,2133	1984	SNCB	63,5
1985	SNCB	300,3656	1985	SNCB	63,5
1986	SNCB	300,4875	1986	SNCB	63,5
1987	SNCB	300,7313	1987	SNCB	63,5
1988	SNCB	301,7063	1988	SNCB	63,5
1989	SNCB	302,8032	1989	SNCB	63,5
1990	SNCB	303,699	1990	SNCB	63,5
1991	SNCB	304,8294	1991	SNCB	63,5
1992	SNCB	306,0634	1992	SNCB	63,5
1993	SNCB	307,2669	1993	SNCB	63,5
1994	SNCB	308,2145	1994	SNCB	63,5
1995	SNCB	308,8604	1995	SNCB	63,5
1996	SNCB	309,4759	1996	SNCB	63,5
1997	SNCB	310,2072	1997	SNCB	63,5
1998	SNCB	310,8775	1998	SNCB	63,5
1999	SNCB	311,5783	1999	SNCB	63,5
1972	SNCF	93,98473	1972	SNCF	53,85
1973	SNCF	94,74277	1973	SNCF	53,85
1974	SNCF	95,36448	1974	SNCF	53,85
1975	SNCF	95,79894	1975	SNCF	53,85
1976	SNCF	96,18069	1976	SNCF	53,85
1977	SNCF	96,60971	1977	SNCF	53,85
1978	SNCF	97,02963	1978	SNCF	53,85
1979	SNCF	97,44774	1979	SNCF	53,85
1980	SNCF	97,94583	1980	SNCF	53,85
1981	SNCF	98,49482	1981	SNCF	53,85
1982	SNCF	99,03654	1982	SNCF	53,85
1983	SNCF	99,48737	1983	SNCF	53,85
1984	SNCF	99,88548	1984	SNCF	53,85
1985	SNCF	100,2909	1985	SNCF	53,85
1986	SNCF	100,6981	1986	SNCF	53,85
1987	SNCF	101,1271	1987	SNCF	53,85
1988	SNCF	101,5888	1988	SNCF	53,85
1989	SNCF	102,5923	1989	SNCF	53,85
1990	SNCF	103,1358	1990	SNCF	53,85
1991	SNCF	103,5766	1991	SNCF	53,85
1992	SNCF	104,058	1992	SNCF	53,85
1993	SNCF	104,471	1993	SNCF	53,85
1994	SNCF	104,8195	1994	SNCF	53,85

A2.11.1.External population environment variables: population density (DENS) and number of principal city agglomerations (AGM)

DENS : Population density (people per sq km)			AGM:Number of principal city agglomerations (AGM)		
1995	SNCF	105,1576	1995	SNCF	53,85
1996	SNCF	105,4888	1996	SNCF	53,85
1997	SNCF	105,8188	1997	SNCF	53,85
1998	SNCF	106,1592	1998	SNCF	53,85
1999	SNCF	106,563	1999	SNCF	53,85
1992	SZ	99,2346	1992	SZ	29,275
1993	SZ	97,75348	1993	SZ	29,275
1994	SZ	98,85189	1994	SZ	29,275
1995	SZ	98,90656	1995	SZ	29,275
1996	SZ	98,95626	1996	SZ	29,275
1997	SZ	98,70576	1997	SZ	29,275
1998	SZ	98,53876	1998	SZ	29,275
1999	SZ	98,6829	1999	SZ	29,275
1972	TCDD	48,32164	1972	TCDD	21,95
1973	TCDD	49,57834	1973	TCDD	21,95
1974	TCDD	50,81391	1974	TCDD	21,95
1975	TCDD	52,00551	1975	TCDD	21,95
1976	TCDD	53,15704	1976	TCDD	21,95
1977	TCDD	54,25985	1977	TCDD	21,95
1978	TCDD	55,35834	1978	TCDD	21,95
1979	TCDD	56,52369	1979	TCDD	21,95
1980	TCDD	57,7992	1980	TCDD	21,95
1981	TCDD	59,18169	1981	TCDD	21,95
1982	TCDD	60,67331	1982	TCDD	21,95
1983	TCDD	62,20262	1983	TCDD	21,95
1984	TCDD	63,7696	1984	TCDD	21,95
1985	TCDD	65,33789	1985	TCDD	21,95
1986	TCDD	66,83731	1986	TCDD	21,95
1987	TCDD	68,30425	1987	TCDD	21,95
1988	TCDD	69,80367	1988	TCDD	21,95
1989	TCDD	71,33558	1989	TCDD	21,95
1990	TCDD	72,92595	1990	TCDD	21,95
1991	TCDD	74,14472	1991	TCDD	21,95
1992	TCDD	75,27123	1992	TCDD	21,95
1993	TCDD	76,41594	1993	TCDD	21,95
1994	TCDD	77,57754	1994	TCDD	21,95
1995	TCDD	78,6092	1995	TCDD	21,95
1996	TCDD	79,81108	1996	TCDD	21,95
1997	TCDD	81,09222	1997	TCDD	21,95
1998	TCDD	82,34216	1998	TCDD	21,95
1999	TCDD	83,65708	1999	TCDD	21,95
1972	VR	15,23359	1972	VR	2,335
1973	VR	15,31895	1973	VR	2,335
1974	VR	15,40103	1974	VR	2,335
1975	VR	15,46669	1975	VR	2,335
1976	VR	15,51594	1976	VR	2,335
1977	VR	15,55862	1977	VR	2,335
1978	VR	15,60458	1978	VR	2,335
1979	VR	15,64398	1979	VR	2,335
1980	VR	15,69323	1980	VR	2,335
1981	VR	15,75889	1981	VR	2,335
1982	VR	15,84753	1982	VR	2,335
1983	VR	15,94274	1983	VR	2,335
1984	VR	16,0281	1984	VR	2,335
1985	VR	16,09377	1985	VR	2,335
1986	VR	16,1463	1986	VR	2,335
1987	VR	16,19554	1987	VR	2,335
1988	VR	16,25464	1988	VR	2,335
1989	VR	16,29075	1989	VR	2,335
1990	VR	16,36955	1990	VR	6,775
1991	VR	16,46147	1991	VR	6,775
1992	VR	16,5534	1992	VR	6,775
1993	VR	16,63219	1993	VR	6,775
1994	VR	16,7077	1994	VR	6,775
1995	VR	16,77008	1995	VR	6,775
1996	VR	16,8259	1996	VR	6,775
1997	VR	16,87462	1997	VR	6,775
1998	VR	16,91782	1998	VR	6,775
1999	VR	16,9605	1999	VR	6,775

A2.12.Variables used in the cost and input cost share equations

Firms	Year	TIME	VC_T	VC_P	SHLB_T	SHLB_P	SHEM_T	SHEM_P	SHEQ_T	SHEQ_P	PKQ_T	Kq_T	Kq_P	PKQ_P	PEQ_P	PEQ_T	PLB	PEM	NET	Qvmax	TKMPASS	TKMFRG	PASSKM	TONKM	DHS220	DTT	SURVEY	SNOW	AGM	DENS	CUK
BC	1992	21	2891485		0,24694113		0,75007228		0,002987		-0,834386	11381875				0,001	9,43556	26,12095	5488	0,90271037	44325	38705	18017000	56441000	0	0	156,5045	105,5469	8,55	49,45087	0,329328
BC	1993	22	2201748		0,23757974		0,75670543		0,005715		-0,836454	13498662				0,001	7,415518	23,15311	5493	0,78905134	45517	26442	19500000	42919000	0	0	156,5045	105,5469	8,55	49,658	0,285156
BC	1994	23	1979824		0,21079806		0,7836364		0,005566		-0,86418	16372358				0,001	5,998549	24,98248	5543	0,71061478	43640	18462	16063000	27963000	0	0	156,5045	105,5469	8,55	49,65318	0,243875
BC	1995	24																	5543	1,03966787	42984	16151	12505000	25510000	0	0	156,5045	105,5469	8,55	49,52312	0,232224
BC	1996	25	2435365		0,16854971		0,50157789		0,329872		0,101347	15367699				0,131469	6,080737	21,0014	5547	1,00477165	41576	16588	11657000	26018000	0	0	156,5045	105,5469	8,55	49,3738	0,228246
BC	1997	26	1620915		0,24445446		0,74938304		0,006162		-0,220411	18051347				0,001	5,705482	20,53535	5542	1,01295232	40082	19069	12909000	30636000	0	0	156,5045	105,5469	8,55	49,22929	0,232329
BC	1998	27	1375595		0,3166215		0,67629291		0,007086		-0,254364	17953873				0,001	6,247657	16,1587	5531	0,97264149	38946	18627	13268000	30370000	0	0	156,5045	105,5469	8,55	48,77168	0,226581
BC	1999	28	1553082		0,28672052		0,70751446		0,005765		-0,62649	9925959				0,001	6,363979	19,55696	5523	0,98487476	37882	18304	16874000	30529000	0	0	156,5045	105,5469	8,55	48,3237	0,221442
BDZ	1992	21	980909,6		0,48656028		0,50364476		0,009795		-0,002669	1821578				0,027453	8,587112	10,7065	4294	1,9722183	34497	11646	5393000	7758000	0	0	518,2035	52,81655	23,25	77,25011	0,233911
BDZ	1993	22	1006478		0,49587081		0,46088507		0,043244		0,063986	1788604				0,095426	9,779232	9,841113	4294	1,99028428	33271	13865	5837000	7702000	0	0	518,2035	52,81655	23,25	76,63501	0,238945
BDZ	1994	23	719132,6		0,48399916		0,47724556		0,038755		0,016264	1869206				0,048835	7,263196	7,235529	4291	2,02635614	32026	15407	5059000	7750000	0	0	518,2035	52,81655	23,25	76,30032	0,240619
BDZ	1995	24	755959,5		0,49307275		0,48425746		0,02267		-0,00815	1854852				0,021973	7,920254	7,694292	4294	2,03497606	30754	16824	4693000	8595000	0	0	518,2035	52,81655	23,25	75,98372	0,241186
BDZ	1996	25	634398,1		0,44666638		0,48128742		0,072046		0,027215	1887140				0,059308	6,078562	6,776329	4293	2,05596568	29985	15073	5065000	7517000	0	0	518,2035	52,81655	23,25	75,58571	0,228464
BDZ	1997	26	474146,2		0,49278036		0,50608498		0,001135		-0,809046	1633004				0,001	5,067119	5,268482	4292	2,08956335	30885	14661	5886000	7405000	0	0	518,2035	52,81655	23,25	75,18833	0,230993
BDZ	1998	27	512979,8		0,51905501		0,4799099		0,001035		-0,05688	1714714				0,001	5,799837	6,040437	4290	2,115811	29816	10940	4740000	18286000	0	0	518,2035	52,81655	23,25	74,69019	0,206796
BDZ	1999	28	693966,1		0,39098236		0,50546641		0,103551		0,11084	1843311				0,145542	6,631517	8,674429	4290	2,11586876	30105	10333	3819000	5209000	0	0	518,2035	52,81655	23,25	74,24695	0,205182
BR	1972	1	7514823	7180142	0,63518905	0,664796	0,295518	0,3092927	0,069293	0,025911	0,023683	7452728	642083	0,023683	0,053805	0,053805	23,96793	5,150628	18937	3,85961358	329888	101276	29129000	21030000	0	0	202,8077	32,38523	51,825		
BR	1973	2	7987500	7483737	0,61147607	0,652637	0,29011728	0,3096463	0,098407	0,037716	0,050309	8137906	1363084	0,050043	0,082437	0,08245	25,20794	5,356634	18322	3,97999104	328472	104134	29773000	22960000	0	0	202,8077	32,38523	51,8		
BR	1974	3	8654156	8357870	0,61923254	0,641184	0,32545619	0,3369936	0,055311	0,021822	0,015002	8783215	2045341	0,014513	0,048837	0,0492	27,78349	6,505918	18198	3,99314154	334571	98350	30899000	21630000	0	0	202,8077	32,38523	51,825		
BR	1975	4	8728007	8725823	0,64550996	0,645672	0,35377877	0,3538673	0,000711	0,000461	-0,11081	2108533	2184894	-0,109681	0,001	0,001	29,28115	7,090692	18144	4,00330998	345104	90366	30256000	20990000	0	0	202,8077	32,38523	51,825	232	
BR	1976	5	8539225	8481236	0,62817438	0,632469	0,34100505	0,3433366	0,030821	0,024194	0,008699	2249131	2324283	0,009807	0,047575	0,040683	24,19814	6,823045	18062	4,07923827	320189	106588	28607600	23045800	0	0	202,8077	32,38523	51,		
BR	1977	6	8439024	8384252	0,60058674	0,60451	0,36723737	0,3696364	0,032176	0,025853	0,006261	2432819	2506712	0,007333	0,046799	0,040176	23,46086	7,280855	17990	4,16664929	324060	101594	29290000	20000000	0	0	202,8077	32,38523	51,8		

A2.12.Variables used in the cost and input cost share equations

Firms	Year	TIME	VC_T	VC_P	SHLB_T	SHLB_P	SHEM_T	SHEM_P	SHEQ_T	SHEQ_P	PKQ_T	Kq_T	Kq_P	PKQ_P	PEQ_P	PEQ_T	PLB	PEM	NET	Qvmax	TKMPASS	TKMFRG	PASSKM	TONKM	DHS220	DTT	SURVEY	SNOW	AGM	DENS	CUK
CP/REFER	[illegible]	[illegible]	810432	810432	0,44518222	0,445182	0,41877221	0,4187722	0,136046	0,136046	0,016642	5378907	5378907	0,016642	0,050266	0,050266	28,27729	7,384225	2813	2,35865631	38660	7301	4329000	2562000	0	2,302585	384,2062	0,190			
CSD	1990	19	3273153		0,40513783		0,58617374		0,008688		-0,044386	54997509				0,001	6,271266	7,626317	13111	1,73978561	139605	111976	19335000	59370000	0	0	514,1955	60,48451	38,5	122,3252	0,417686
CSD	1991	20	3895497		0,39135018		0,600591		0,008059		-0,043849	60473779				0,001	7,73675	10,1546	13116	1,66951857	139309	91089	19263000	45819000	0	0	514,1955	60,48451	38,5	121,903	0,382371
CSD	1992	21	4108669		0,43691791		0,55586065		0,007221		-0,043268	62347969				0,001	11,32866	10,04728	13099	1,65793131	140482	86828	16898000	44046000	0	0	514,1955	60,48451	38,5	122,1571	0,377735
DB	[illegible]	1	19537567	18494962	0,71823787	0,758727	0,20508424	0,2166453	0,076678	0,024628	0,039658	48960837	6692188	0,039658	0,06978	0,06978	35,92443	6,514965	29230	2,67923001	406670	208352	38823692	63836255	0	0	323,5395	53,73701	59		
DB	[illegible]	2	20395909	19348756	0,7318313	0,771438	0,19236408	0,2027748	0,075805	0,025787	0,039241	50405319	8358997	0,039139	0,07113	0,071284	38,04543	6,312004	29107	2,72043107	411121	210463	38944764	66356165	0	0	323,5395	53,73701	59		
DB	[illegible]	3	21820563	20589797	0,7241265	0,767412	0,18818261	0,1994313	0,087691	0,033157	0,051137	52054807	10237795	0,050865	0,08443	0,0851	40,17035	6,569223	28926	2,83361736	414478	210596	39734181	68273729	0	0	323,5395	53,73701	59,		
DB	[illegible]	4	20887947	19761893	0,72852058	0,770032	0,18619825	0,196808	0,085281	0,033159	0,042969	53535785	11955401	0,042513	0,07822	0,079203	39,74825	6,648659	28813	2,7824792	398991	185984	36896958	54311105	0	0	323,5395	53,73701	59		
DB	[illegible]	[illegible]	20929729	19650335	0,70663941	0,752647	0,19391619	0,2065417	0,099444	0,040811	0,053009	55016948	13680867	0,052346	0,089997	0,091576	40,14552	7,115705	28661	2,79831985	383533	186841	37211565	58390106	0	0	323,5395	53,7370			
DB	[illegible]	6	20668022	19501174	0,71111102	0,75366	0,19503345	0,2067032	0,093856	0,039637	0,043685	56426573	15342850	0,042806	0,082527	0,084795	41,4796	7,14016	28564	2,81362244	379488	185059	37347955	54886022	0	0	323,5395	53,73701	59		
DB	[illegible]	7	20065465	18792021	0,74485408	0,795329	0,14741728	0,157407	0,107729	0,047264	0,050365	57865975	17043067	0,049253	0,091237	0,094285	44,03465	5,145039	28542	2,84698812	381852	193070	37589332	56467254	0	0	323,5395	53,73701			
DB	[illegible]	8	20559412	19236547	0,72098441	0,770565	0,16910745	0,1807367	0,109908	0,048698	0,052718	59222048	18668848	0,051368	0,096502	0,100126	45,4323	5,81838	28545	2,91344634	392245	205301	39380052	65222340	0	0	323,5395	53,73701	5		
DB	[illegible]	9	20966327	19640080	0,70891485	0,756786	0,18156102	0,1938214	0,109524	0,049392	0,051337	60605719	20331581	0,049734	0,097561	0,10224	46,74741	6,281568	28516	2,95269429	401452	204554	40499295	63765411	0	0	323,5395	53,73701			
DB	[illegible]	10	20773496	19295800	0,69883019	0,752347	0,17606578	0,1895491	0,125104	0,058103	0,06182	61810026	21824797	0,059968	0,110705	0,116611	46,18	6,113607	28417	2,9553111	399004	199252	41795330	61036916	0	0	323,5395	53,73701	59,		
DB	[illegible]	11	19769418	18303207	0,69914059	0,755146	0,1697721	0,183372	0,131087	0,061482	0,058799	62858785	23172847	0,056696	0,111089	0,118244	45,03852	5,77462	28299	2,94151211	390704	190511	40030410	56511296	0	0	323,5395	53,73701	5		
DB	[illegible]	[illegible]	19385861	17775288	0,68883183	0,751245	0,16291271	0,1776738	0,148255	0,071081	0,068882	63848784	24473086	0,066517	0,124855	0,13356	45,16645	5,528622	28130	2,93031858	385366	185880	38754915	55059386	0	0	323,5395	53,7370			
DB	[illegible]	[illegible]	19165047	17430637	0,67116069	0,737944	0,16706059	0,1836837	0,161779	0,078373	0,077152	65007289	25953394	0,074492	0,138379	0,148583	45,30233	5,529614	27903	2,95436378	382253	196761	39074559	58885883	0	0	323,5395	53,737			
DB	[illegible]	14	18738563	17033095	0,66692636	0,733704	0,17065356	0,1877405	0,16242	0,078556	0,071053	66471069	27751196	0,068062	0,137498	0,149893	45,96703	5,43586	27634	3,01020488	383210	205069	42707000	62911000	0	0	323,5395	53,73701			
DB	[illegible]	[illegible]	19340182	17442785	0,64982882	0,720516	0,17412483	0,1930658	0,176046	0,086418	0,085316	68271075	29898155	0,081968	0,157884	0,173007	48,05916	5,71041	27490	3,06746081	387890	201841	41397000	59581000	0	0	323,5395	53,7370			
DB	[illegible]	[illegible]	20391180	18470226	0,62398108	0,688877	0,20878951	0,2305042	0,167229	0,080619	0,081523	70531346	32519073	0,077798	0,164176	0,181946	50,60518	7,294676	27427	3,10931919	388073	195567	39174000	58047000	0	0	323,5395	53,737			
DB	[illegible]	[illegible]	20203375	18279389	0,61680524	0,681727	0,21532322	0,2379869	0,167872	0,080286	0,074564	72100355	34463252	0,070504	0,164627	0,187331	51,74932	7,410404	27284	3,16458814	392270	194777	40959000	58972000	0	0	323,5395	53,737			
DB	[illegible]	[illegible]	20338828	18358520	0,59665779	0,661018	0,23362846	0,2588296	0,169714	0,080152	0,070185	73645856	36399342	0,065786	0,170331	0,199248	52,23964	8,006742	27045	3,20462213	397437	196029	41144000	61109000	0	0	323,5395	53,737			
DB	[illegible]	[illegible]	20843096	18592146	0,58843241	0,659674	0,22273699	0,2497037	0,188831	0,090622	0,089772	74855835	38016298	0,085035	0,198129	0,236252	54,1022	7,718598	26949	3,23350832	404268	197205	43560000	61357000	0	0	323,5395	53,7370			
DB	[illegible]	[illegible]	[illegible]	19002607	0,66656567	0,633808	0,27805845	0,2643936	0,055376	0,101798	0,141963	30198250	37710550	0,093233	0,231864	0,115131	53,94175	7,942896	27079	3,41628526	429546	202990	45639000	61991000	3,218876	0	323,539				
DB	1992	[illegible]	[illegible]	[illegible]	0,68013215	0,653372	0,27887853	0,2679059	0,040989	0,078722	0,052288	31235847	37393038	0,053755	0,172299	0,077306	55,78391	7,588634	26779	3,58681918	455018	198860	46407000	55848000	3,806662	2,995732					
DB	[illegible]	[illegible]	[illegible]	[illegible]	0,6799051	0,658275	0,27677934	0,2679739	0,043316	0,073751	0,041637	32811950	37063060	0,051249	0,16159	0,0767	55,36676	7,416803	26387	3,62688062	462653	183018	47576000	51786000	4,094345	2,995732	323,				
DB AG	1994	[illegible]	[illegible]	[illegible]	0,62121966	0,62122	0,35511765	0,3551176	0,023663	0,023663	0,057249	9940183	9940183	0,057249	0,087371	0,087371	24,44814	5,187923	41401	3,11673753	645372	226122	61333000	70554000	4,094345	3,178054					
DB AG	[illegible]	[illegible]	[illegible]	[illegible]	0,530636	0,530636	0,43763072	0,4376307	0,031733	0,031733	0,06076	12684684	12684684	0,06076	0,092454	0,092454	22,5324	6,327785	41718	3,23387026	640400	216041	60514000	69490000	4,094345	3,178054	28				
DB AG	[illegible]	[illegible]	[illegible]	[illegible]	0,46127659	0,461277	0,50200091	0,5020009	0,036723	0,036723	0,062514	15244703	15244703	0,062514	0,095751	0,095751	23,34288	7,621402	40826	3,44590308	644646	204496	59309000	67880000	4,406719	4,304					
DB AG	[illegible]	[illegible]	[illegible]	[illegible]	0,45661543	0,456615	0,49692825	0,4969282	0,046456	0,046456	0,059773	18634797	18634797	0,059773	0,09382	0,09382	25,29433	7,666792	38450	3,71439881	646133	191404	59628000	72614000	4,234107	4,30406					
DB AG	[illegible]	[illegible]	[illegible]	[illegible]	0,46952748	0,469527	0,48292395	0,482924	0,047549	0,047549	0,050897	20663784	20663784	0,050897	0,086255	0,086255	30,75875	7,367447	38126	3,88721312	683935	187998	59184000	73613000	4,634729	4,3040					
DB AG	1999	[illegible]	[illegible]	[illegible]	0,42473654	0,424737	0,5249435	0,5249435	0,05032	0,05032	0,050646	22104130	22104130	0,050646	0,085699	0,085699	26,19192	9,504485	37525	4,06563657	726938	204507	72822000	70948000	4,634729	4,51086	2				
DSB	1972	1	805680,5	805680,5	0,5919493	0,591949	0,35139947	0,3513995	0,056651	0,056651	0,020698	1181184	1181184	0,020698	0,05082	0,05082	24,21293	7,026424	2043	1,91218559	32653	7640	3613668	1878852	0	0	76,5	100,6561	18,4	117,8192	0
DSB	1973	2	775910	775910	0,56533345	0,565333	0,37088405	0,3708841	0,063783	0,063783	0,019411	1273018	1273018	0,019411	0,051328	0,051328	22,99716	6,935283	1991	2,06769927	33655	7839	3465275	2003336	0	0	76,5	100,6561	18,4	118,5273	0,
DSB	1974	3	796632,2	796632,2	0,51866533	0,518665	0,40361969	0,4036197	0,077715	0,077715	0,025887	1355652	1355652	0,025887	0,05956	0,05956	22,49485	7,534891	1999	2,11393127	34776	7897	3307036	2200309	0	0	76,5	100,6561	18,4	119,0701	
DSB	1975	4	845375,3	845375,3	0,49387665	0,493877	0,44589388	0,4458939	0,060229	0,060229	0,009794	1457927	1457927	0,009794	0,045162	0,045162	22,87105	8,555132	1999	2,15377229	36229	7832	3333440	1967065	0	0	76,5	100,6561	18,4	119,42	
DSB	1976	5	909618,7	909618,7	0,48189309	0,481893	0,3901152	0,3901152	0,127992	0,127992	0,059475	1588571	1588571	0,059475	0,09667	0,09667	23,86947	7,989375	1999	2,16724284	36849	7567	2852798	1782563	0	0	76,5	100,6561	18,4	119,7309	0
DSB	1977	6	914278,6	914278,6	0,51610889	0,516109	0,3503059	0,3503059	0,133585	0,133585	0,053478	1653471	1653471	0,053478	0,091958	0,091958	25,91538	7,20858	2004	2,17936595	37113	7317	2997463	1869560	0	0	76,5	100,6561	18,4	120,085	0
DSB	1978	7	907657,6	907657,6	0,49063275	0,490633	0,34077806	0,3407781	0,168589	0,168589	0,069327	1765764	1765764	0,069327	0,10982	0,10982	25,07611	6,9265	2004	2,28737984	37547	7109	3128000	1762428	0	0	76,5	100,6561	18,4	120,4626	0,
DSB	1979	8	1058627	1058627	0,55162434	0,551624	0,24576685	0,2457668	0,202609	0,202609	0,098406	1892341	1892341	0,098406	0,140089	0,140089	32,44248	5,705729	2015	2,48883715	38627	6972	1989000	1701000	0	0	76,5	100,6561	18,4	120,7409	
DSB	1980	9	1153731	1153731	0,51389728	0,513897	0,26791602	0,267916	0,218187	0,218187	0,110334	1976838	1976838	0,110334	0,153515	0,153515	32,18256	6,41692	2015	2,59709094	39280	8890	3353000	1619000	0	0	76,5	100,6561	18,4	120,8825	0,
DSB	1981	10	1185047	1185047	0,50980205	0,509802	0,28597127	0,2859713	0,204227	0,204227	0,091776	2047009	2047009	0,091776	0,136035	0,136035	31,77339	6,844866	2015	2,6450552	40630	8880	4003000	1476000	0	0	76,5	100,6561	18,4	120,8589	
DSB	1982	11	1307080	1307080	0,47792196	0,477922	0,2896278	0,2896278	0,23245	0,23245	0,113677	2145141	2145141	0,113677	0,159274	0,159274	33,11681	7,551702	2015	2,69782914	41330	8800	4215000	1652000	0	0	76,5	100,6561	18,4	120,7645	0,
DSB	1983	12	1238016	1238016	0,49937083	0,499371	0,29164722	0,2916472	0,208982	0,208982	0,082155	2277916	2277916	0,082155	0,129839	0,129839	32,80078	7,148364	2448	2,28566555	41610	8900	4391000	1627000	0	0	76,5	100,6561	18,4	120,670	
DSB	1984	13	1276599	1276599	0,47100232	0,471002	0,28297032	0,2829703	0,246027	0,246027	0,101188	2387765	2387765	0,101188	0,15083	0,15083	32,66234	7,203181	2448	2,3352624	41350	8800	4421000	1635000	0	0	76,5	100,6561	18,4	120,6229	0,
DSB	1985	14	1244794	1244794	0,46233016	0,46233	0,29531045	0,2953104	0,242359	0,242359	0,086241	2507643	2507643	0,086241	0,137501	0,137501	35,03626	7,318347	2471	2,52437166	41430	8800	4508000	1648000	0	0	76,5	100,6561	18,4	120,6701	
DSB	1986	15	1229908	1229908	0,45758045	0,45758	0,29422973	0,2942297	0,24819	0,24819	0,082404	2611685	2611685	0,082404	0,136487	0,136487	36,46851	7,241132	2471	2,46263806	41175	8800	4707000	1791000	0	0	76,5	100,6561	18,4	120,8353	0,
DSB	1987	16	1223908	1223908	0,48057682	0,480577	0,26097644	0,2609764	0,258447	0,258447	0,082726	2727720	2727720	0,082726	0,140205	0,140205	38,19364	6,284531	2476	2,60376413	42125	8700	4782000	1680000	0	0	76,5	100,6561	18,4	120,948	
DSB	1988	17	1299836	1299836	0,47099781	0,470998	0,25474899	0,254749	0,274253	0,274253	0,096422	2815734	2815734	0,096422	0,157656	0,157656	39,95954	6,620654	2476	2,61129849	41610	8405	4726000	1657000	0	0	76,5	100,6561	18,4	121,0191	
DSB	1989	18	1221962	1221962	0,47485696	0,474857	0,27426609	0,2742661	0,250877	0,250877	0,070042	2875574	2875574	0,070042	0,134832	0,134832	36,44372	6,735181	2344	2,73784999	42410	7350	4649000	1677000	0	0	76,5	100,6561	18,4	121,089	
DSB	1990	19	1305362	1305362	0,42440906	0,424409	0,27006176	0,2700618	0,305529	0,305529	0,095743	3118220	3118220	0,095743	0,158219	0,158219	35,41343	6,758598	2344	2,87202531	45230	6930	4855000	1730000	0	0	76,5	100,6561	21,6	121,255	0,484381
DSB	1991	20	1324839	1324839	0,42123315	0,421233	0,25880322	0,2588032	0,319964	0,319964	0,093704	3207520	3207520	0,09370	0,165191	0,165191	36,57532	6,268238	2344	2,95616992	47950	6750	4797000	1858000	0	0	76,5	100,6561	21,6	121,5853	
DSB	1992	21	1322421	1322421	0,41392398	0,413924	0,26749484	0,2674948	0,318581	0,318581	0,091941	3294671	3294671	0,091941	0,158531	0,158531	36,06654	6,104981	2306	3,00291703	51047	6896	4600000	1870000	0	0	76,5	100,6561	21,6	121,847	
DSB	1993	22	1325425	1325425	0,43276833	0,432768	0,26556238	0,2655624	0,301669	0,301669	0,083777	3397150	3397150	0,083777	0,14681	0,14681	39,31742	6,181754	2311	3,04203047	49937	7002	4596000	1796000	0	0	76,5	100,6561	21,6	122,2955	0
DSB	1994	23	1315111	1315111	0,43088664	0,430887	0,26890194	0,2689019	0,300211	0,300211	0,084226	3539625	3539625	0,084226	0,146559	0,146559	39,32981	6,159832	2349	3,13092191	50437	6973	5773000	2008000	0	0	76,5	100,6561	21,6	122,672	
DSB	1995	24	828253,2	828253,2	0,43754535	0,437545	0,40664718	0,4066472	0,155807	0,155807	0,073867	3682184	3682184	0,073867	0,103989	0,103989	25,47258	5,667572	2349	3,28766593	51937	7490	4784000	1926000	0	0	76,5	100,6561	21,6	123,2	
DSB	1996	25	905619,9	905619,9	0,48812238	0,488122	0,393007	0,393007	0,118871	0,118871	0,051739	3820377	3820377	0,051739	0,083727	0,083727	30,78151	6,171365	2349	3,57806742	50662	7010	4718000	1757000	0	0	76,5	100,6561	21,6	124,016	0
DSB	1997	26																	2232	4,05850171	52283,5	6798,5	4988000	1619000	0	0	76,5	100,6561	21,6	124,5397	0,576194
DSB	1998	27																	2264	4,0822184	53905	6846	5369000	2058000	0	0	76,5	100,6561	21,6	124,9352	0,584096
DSB	1999	28																	2324	4,64465778	53950	6858	5113000	1938000	0	0	76,5	100,6561	21,6	125,5244	0,56955
EVR	1992	21	164212	164212	0,35995067	0,359951	0,63938605	0,6393861	0,000663	0,000663	-0,850353	154923,2	154923	-0,850353	0,001	0,001	7,445299	11,98982	1018	0,42750373	5426	3331	950000	3373000	0	0	80,81739	119,1355	8,625	36,52709	0,
EVR	1993	22	191033,4	191033,4	0,38791592	0,387916	0,61071312	0,6107131	0,001371	0,001371	-0,276767	253107,2	253107	-0,276767	0,001	0,001	9,334288	13,48124	1024	0,41032602	5479	3175	722000	3743000	0	0	80,81739	119,1355	8,625	35,888	
EVR	1994	23	208007,3	208007,3	0,39682864	0,396829	0,60193109	0,6019311	0,00124	0,00124	-0,103078	342842,4	342842	-0,103078	0,001	0,001	10,46441	15,52462	1024	0,38046775	5200	2865	537000	3326000	0	0	80,81739	119,1355	8,625	35,4625	0
EVR	1995	24	166252,8	166252,8	0,46254586	0,462546	0,5358763	0,5358763	0,001578	0,001578	-0,103709	340884,2	340884	-0,103709	0,001	0,001	9,941762	11,30308	1021	0,36576339	4974	2908	421000	3573000	0	0	80,81739	119,1355	8,625	35,1076	
EVR	1996	25	143780,5	143780,5	0,47322256	0,473223	0,52491293	0,5249129	0,001865	0,001865	-0,065636	339407,3	339407	-0,065636	0,001	0,001	9,031086	10,24603	1020	0,34079071	4276	3090	309000	3894000	0	0	80,81739	119,1355	8,625	34,752	
EVR	1997	26	227378,5	227378,5	0,31423232	0,314232	0,52429085	0,5242908	0,161477	0,161477	0,099008	339773,6	339774	0,099008	0,138867	0,138867	10,53674	15,11697	966	0,45089281	4229	3657	262000	4806000	0	0	80,81739	119,1355	8,625	34,	
EVR	1998	27	235910,1	235910,1	0,3224028	0,322403	0,52028963	0,5202896	0,157308	0,157308	0,090539	363060	363060	0,090539	0,132223	0,132223	12,58823	14,82744	966	0,50927858	4160	4118	236000	5786000	0	0	80,81739	119,1355	8,625	34,296	

A2.12.Variables used in the cost and input cost share equations

		Variables																													
Firms	Year	TIME	VC_T	VC_P	SHLB_T	SHLB_P	SHEM_T	SHEM_P	SHEQ_T	SHEQ_P	PKQ_T	Kq_T	Kq_P	PKQ_P	PEQ_P	PEQ_T	PLB	PEM	NET	Qvmax	TKMPASS	TKMFRG	PASSKM	TONKM	DHS220	DTT	SURVEY	SNOW	AGM	DENS	CUK
[illegible]	[illegible]	[illegible]	9486889	9486889	0,29872635	0,298726	0,20090609	0,2009061	0,500368	0,500368	0,115038	53873893	53873893	0,115038	0,159055	0,159055	13,12765	6,817421	23328	2,33337739	169463	110111	19928000	67679000	0	0	181,7463	72,8719			
[illegible]	[illegible]	27	9850395	9850395	0,29236022	0,29236	0,17019815	0,1701981	0,537442	0,537442	0,133291	53585380	53585380	0,133291	0,180754	0,180754	13,54491	6,151054	23210	2,44128179	171833	100725	20553000	60937000	0	0	181,7463	72,87195			
[illegible]	[illegible]	28	8976449	8976449	0,30790025	0,3079	0,15728988	0,1572899	0,53481	0,53481	0,115956	53207095	53207095	0,115956	0,167289	0,167289	13,86014	5,270582	22891	2,54269334	175696	92188	21518000	55076000	0	0	181,7463	72,87195	18,1		
[illegible]	[illegible]	1	2330253	2330253	0,63445734	0,634457	0,26835703	0,268357	0,097186	0,097186	0,030435	7870660	7870660	0,030435	0,060557	0,060557	19,9844	4,927737	13523	0,89146181	84036	42866	14390700	9761400	0	0	754,5804	7,825975	15,82		
[illegible]	[illegible]	2	2167529	2167529	0,64349812	0,643498	0,28423601	0,284236	0,072266	0,072266	0,007628	9170688	9170688	0,007628	0,039625	0,039625	19,54323	4,701288	13415	1,05012681	84122	46925	15639950	11253150	0	0	754,5804	7,825975	15,		
[illegible]	[illegible]	[illegible]	2380400	2380400	0,64003739	0,640037	0,34067133	0,3406713	0,019291	0,019291	-0,022841	10351718	10351718	-0,022841	0,011137	0,011137	22,37809	6,236036	13432	1,21617673	82651	47389	16078627	12267046	0	0	754,5804	7,8259			
[illegible]	[illegible]	[illegible]	2535758	2535758	0,62273472	0,622735	0,36825164	0,3682516	0,009014	0,009014	-0,030715	11347823	11347823	-0,030715	0,005376	0,005376	23,35988	7,304706	13497	1,31366409	83754	44081	16146200	10426317	0	0	754,5804	7,8259			
[illegible]	[illegible]	5	2821666	2821666	0,62026835	0,620268	0,36265161	0,3626516	0,01708	0,01708	-0,027174	11547290	11547290	-0,027174	0,011403	0,011403	25,7037	7,776821	13509	1,47512067	86225	45356	16686000	10493500	0	0	754,5804	7,825975	1		
[illegible]	[illegible]	6	2905182	2905182	0,64691157	0,646912	0,3516321	0,3516321	0,001456	0,001456	-0,085301	12326587	12326587	-0,085301	0,001	0,001	27,60123	7,540488	13540	1,57960185	91227	44249	17163000	11025000	0	0	754,5804	7,825975	15,82		
[illegible]	[illegible]	7	2832243	2832243	0,68432731	0,684327	0,31415179	0,3141518	0,001521	0,001521	-0,047289	12767734	12767734	-0,047289	0,001	0,001	28,45371	6,526617	13533	1,60992565	92781	43546	16758000	10377000	0	0	754,5804	7,825975	15,8		
[illegible]	[illegible]	[illegible]	2921600	2921600	0,66977085	0,669771	0,28569139	0,2856914	0,044538	0,044538	-0,016883	13412007	13412007	-0,016883	0,029483	0,029483	29,19512	6,243556	13531	1,68977959	92189	41497	16609000	10262100	0	0	754,5804	7,8259			
[illegible]	[illegible]	[illegible]	3511637	3511637	0,5779759	0,577976	0,29859554	0,2985955	0,123429	0,123429	0,045896	14228364	14150530	0,045921	0,094535	0,094535	30,35432	7,65394	13542	1,82190301	94685	42311	13527000	10527800	0	1,609438	754,5804	7,8			
[illegible]	[illegible]	[illegible]	3771009	3771009	0,54955059	0,549551	0,32053606	0,3205361	0,129913	0,129913	0,052694	14935991	14927704	0,052693	0,103896	0,103896	30,48889	8,581785	13543	1,97471988	100083	40767	14261000	10267000	0	1,94591	754,5804				
[illegible]	[illegible]	[illegible]	4569856	4569856	0,56691551	0,566916	0,3263348	0,3263348	0,10675	0,10675	0,041513	15545122	15536894	0,041513	0,09211	0,09211	37,11796	10,3498	13572	2,05065466	103191	40899	14703000	10193000	0	2,197225	754,5804	7,825			
RENFE	1983	12		4914097		0,540506		0,3111327		0,148361	.		17062684	0,071947	0,122118		37,18621	10,54839	13573	2,07880503	103001	41944	15092000	10209600	0	2,833213	754,5804	7,825975	15,825	76,32902	0,232453
RENFE	1984	13		4795317		0,529883		0,3050178		0,165099	.		18348943	0,070524	0,121099		36,26003	9,703307	13575	2,11638763	104132	46606	15574000	11352800	0	2,833213	754,5804	7,825975	15,825	76,63183	0,241708
RENFE	1985	14		4647391		0,509624		0,2933562		0,197019	.		18992071	0,078946	0,1302		35,7293	8,978918	12710	2,26521172	102984	48854	15979000	14546000	0	2,833213	754,5804	7,825975	15,825	76,90213	0,260041

A2.13.Variables used in the demand equations

Year	Firms	Price_PK	Price_TK	Net	TKM_P	TKM_F	PASSKM	TONKM	survey	Snow	AGL	Density	OILPCP	GASHP	GDP_cap	POP	AirCDep	CO2e	Vehic_cap	OREM_EI	Food_EI	Fuel_EI	Manuf_EI	Agrm_EI	OILDEM	URBAND	TIME	DUMMYHS	DUMMYTT	DHS220	DTTT	Qvmax	KQEQ	KQP_O
1972	BR	10,00551057	12,93001818	18937	329888	101276	29129000	21030000	202,8077	32,38523	51,825	232,0263	0,6809343	0,651473329	12054,11	56097000	435200	11,35039	0,23731	1,789387	4,557217	2,11116	20,72966	1,537874	109990	88,58	1	0	0	0	0	3,859614	3457741	642083
1973	BR	9,876728178	11,93177808	18322	328472	104134	29773000	22960000	202,8077	32,38523	51,825	232,5475	0,69450639	0,664458212	12898,45	56223000	446300	11,72463	0,25132	2,199111	5,129044	2,527574	23,40433	1,909532	112354	88,62	2	0	0	0	0	3,979991	3423967	1363084
1974	BR	9,158876432	11,32905162	18198	334571	98350	30899000	21630000	202,8077	32,38523	51,825	232,5339	0,8668671	0,82936165	12691,13	56236000	429400	10,99871	0,25372	2,757469	5,572029	5,656947	27,2812	2,055977	105130	88,66	3	0	0	0	0	3,993142	3734612	2045341
1975	BR	9,593592649	10,83648412	18144	345104	90366	30256000	20990000	202,8077	32,38523	51,825	232,4926	0,85294748	0,816044271	12622,78	56226000	397100	10,78354	0,2559	1,871122	5,220266	4,326927	25,03387	1,4122	92300	88,7	4	0	0	0	0	4,00331	4023676	2184894
1976	BR	10,36680426	10,42525432	18062	320189	106588	28607600	23045800	202,8077	32,38523	51,825	232,4512	0,84307466	0,806598603	12974,94	56216000	409300	10,70398	0,26099	2,062279	5,083155	4,861045	27,69477	1,746757	91460	88,72	5	0	0	0	0	4,079238	4313072	2324283
1977	BR	10,44814593	11,92820442	17990	324060	101594	29290000	20000000	202,8077	32,38523	51,825	232,3341	0,83185716	0,795866436	13278,33	56190000	413300	10,81157	0,26158	1,927501	5,308427	4,433283	29,26062	1,609064	91826	88,74	6	0	0	0	0	4,166649	4631775	2506712
1978	BR	10,55846626	11,76852553	17937	330023	99762	30740000	20000000	202,8077	32,38523	51,825	232,3517	0,78726489	0,753203472	13725,37	56178000	462600	10,89052	0,26234	1,60616	4,88882	3,62486	28,61525	1,28411	93386	88,76	7	0	0	0	0	4,204625	5090993	3176943
1979	BR	10,07909666	11,56130527	17818	330374	96303	32030000	19893000	202,8077	32,38523	51,825	232,6357	0,87636316	0,863875819	14067,76	56242000	476900	11,5238	0,26919	1,937796	4,414607	4,486824	28,07484	1,271316	93931	88,78	8	0	0	0	0	4,22142	5481653	3366247
1980	BR	10,17718658	11,40094048	17690	342591	87682	31704000	17640000	202,8077	32,38523	51,825	233,0864	0,8998884	0,928895458	13749,94	56330000	477500	10,49453	0,27593	2,631349	4,23428	5,583705	27,78116	1,167642	80139	88,8	9	0	0	0	0	4,251206	5922212	3462595
1981	BR	10,11614941	10,85609325	17538	337592	80556	30740000	17505000	202,8077	32,38523	51,825	233,1871	0,95394445	1,006901722	13543,59	56352000	434000	9,88029	0,276	1,871577	4,320365	6,658974	25,59712	1,080506	74009	88,82	10	0	0	0	0	3,979398	5362073	2815075
1982	BR	9,569430021	10,21386576	17330	300612	70680	27360000	15879000	202,8077	32,38523	51,825	233,0561	0,95302997	1,007914705	13821,1	56318000	433200	9,86433	0,277159	1,656202	4,302015	6,745278	26,03527	1,045106	75763	88,84	11	0	0	0	0	4,063953	5350686	2874787
1983	BR	10,17339923	9,970365825	17097	326112	75568	30100000	17144000	202,8077	32,38523	51,825	233,3002	0,95923266	1,040741979	14305,75	56377000	435600	9,822941	0,285721	2,008718	4,257687	6,655482	26,92694	1,123609	72173	88,86	1	0	0	0	0	4,1687	5271020	2883777
1984	BR	10,54649406	8,378359413	16883	403937	80249	36400000	15842000	202,8077	32,38523	51,825	233,8341	0,95217466	1,030748612	14634,53	56506000	457900	9,31452	0,291123	1,896302	4,490461	7,89903	29,68487	1,259309	89486	88,88	13	0	0	0	0	4,438206	5341289	3043726
1985	BR	11,29446898	7,2052056	16729	323397	69784	30256000	16047000	202,8077	32,38523	51,825	234,6136	0,97627132	1,039027814	15114,66	56685000	471700	9,843966	0,299735	1,674575	4,306521	7,747291	30,38818	1,128339	77522	88,9	14	0	0	0	0	4,151456	5416074	3343727
1986	BR	12,02860933	7,468354101	16670	326472	67961	31106000	16565000	202,8077	32,38523	51,825	235,3146	0,81634244	0,886484588	15665,07	56852000	498900	9,963667	0,309799	1,491389	4,330739	3,950519	30,0132	1,039469	77605	88,94	15	0	0	0	0	4,277289	5463589	3682861
1987	BR	11,89069538	7,282818596	16630	342000	50000	33140000	17466000	202,8077	32,38523	51,825	235,9644	0,76285632	0,847946575	16325,71	57009000	522900	10,04189	0,320891	1,379059	4,02374	3,556054	30,82522	1,086765	75310	88,98	16	0	0	0	0	4,26653	5413040	4021867

A2.13.Variables used in the demand equations

Year	Firms	Price_PK	Price_TK	Net	TKM_P	TKM_F	PASSKM	TONKM	survey	Snow	AGL	Density	OILPCP	GASHP	GDP_cap	POP	AirCDep	CO2e	Vehic_cap	OREM_EI	Food_EI	Fuel_EI	Manuf_EI	Agrm_EI	OILDEM	URBAND	TIME	DUMMYHS	DUMMYTT	DHS220	DTTT	Qvmax	KQEQ	KQP_O
1989	DSB	5,425042264	7,144161676	2344	42410	7350	4649000	1677000	76,5	100,6561	18,4	121,0899	0,52461872	0,848741509	21006	5133000	87500	9,454804	0,317326	1,043951	10,77766	2,692121	34,68424	2,087885	9601	84,7	18	0	0	0	0	2,73785	2273653	2875574
1990	DSB	5,37507728	6,998397495	2344	45230	6930	4855000	1730000	76,5	100,6561	21,6	121,255	0,49320023	0,703501821	21179,83	5140000	90600	10,03166	0,320153	0,901639	10,49849	2,657764	34,92693	1,764283	8937	84,8	19	0	0	0	0	2,872025	2520722	3118220
1991	DSB	6,335460429	7,383688455	2344	47950	6750	4797000	1858000	76,5	100,6561	21,6	121,5853	0,50629424	0,66800283	21366,08	5154000	87400	12,37485	0,320014	0,781069	10,83801	2,37292	35,36749	1,732838	9103	84,86	20	0	0	0	0	2,95617	2566127	3207520
1992	DSB	6,920204249	7,067896617	2306	51047	6896	4600000	1870000	76,5	100,6561	21,6	121,8477	0,49801923	0,630609743	21429,98	5170000	91100	10,71192	0,321183	0,746843	10,57792	2,13576	34,95602	1,647877	8939	84,92	21	0	0	0	0	3,002917	2657521	3294671
1993	DSB	6,799493859	7,299663041	2311	49937	7002	4596000	1796000	76,5	100,6561	21,6	122,2955	0,51621495	0,6575221	21351,16	5189000	101900	11,20503	0,323534	0,642927	10,03595	1,947284	31,36819	1,403821	9491	84,98	22	0	0	0	0	3,04203	2723526	3397150
1994	DSB	5,424113351	6,322024006	2349	50437	6973	5773000	2008000	76,5	100,6561	21,6	122,6726	0,53386024	0,735894277	22448,94	5205000	97200	11,97927	0,319374	0,744241	10,01756	1,700019	33,17345	1,541308	10067	85,04	23	0	0	0	0	3,130922	2693880	3539625
1995	DSB	6,645889107	6,649984459	2349	51937	7490	4784000	1926000	76,5	100,6561	21,6	123,2147	0,51987278	0,64	22974,16	5228000	101600	10,96144	0,319166	0,866314	9,777568	1,579241	35,16136	1,553912	10580	85,1	24	0	0	0	0	3,287666	1240975	3682184
1996	DSB	6,487148732	6,901886099	2349	50662	7010	4718000	1757000	76,5	100,6561	21,6	124,016	0,57708793	0,755029368	23400,43	5262000	107800	12,7951	0,330171	0,737038	9,429967	2,148685	34,01521	1,490255	11433	85,14	25	0	0	0	0	3,578067	1285741	3820377
1992	EVR	2,046683703	3,827595849	1018	5426	3331	950000	3373000	80,81739	119,1355	8,625	36,52709	0,97603857	0,976038567	6850,389	1544000	5500	16,14058	0,183594	0,430458	2,87986	1,739724	13,48005	1,092618	1662	70,62	21	0	0	0	0	0,427504	108918	154923
1993	EVR	2,992372733	3,463253722	1024	5479	3175	722000	3743000	80,81739	119,1355	8,625	35,88834	0,92651471	0,926514713	6329,297	1517000	5700	13,97006	0,209245	0,797899	5,327459	3,212586	24,92295	2,026523	1750	70,38	22	0	0	0	0	0,410326	261899	253107
1994	EVR	4,317748237	4,089787746	1024	5200	2865	537000	3326000	80,81739	119,1355	8,625	35,4625	0,90331619	0,903316193	6269,942	1499000	5700	13,77532	0,225358	1,075269	7,37691	4,55485	34,76729	2,708001	1671	70,14	23	0	0	0	0	0,380468	257985	342842
1995	EVR	5,735944613	3,038070132	1021	4974	2908	421000	3573000	80,81739	119,1355	8,625	35,10764	0,9051119	0,905111902	6558,69	1484000	6500	12,43563	0,258385	1,389133	9,5282	5,882116	44,90378	3,498681	1291	69,9	24	0	0	0	0	0,365763	262320	340884
1996	EVR	6,669847037	2,942554617	1020	4276	3090	309000	3894000	80,81739	119,1355	8,625	34,75278	0,9422546	0,942254597	6839,782	1469000	5100	13,19888	0,276786	2,045765	18,55097	9,638824	85,47018	5,831255	1366	69,64	25	0	0	0	0	0,340791	268081	339407
1997	EVR	8,396745798	2,817470144	966	4229	3657	262000	4806000	80,81739	119,1355	8,625	34,49231	1,03746927	1,198406796	7727,882	1458000	7800	13,08142	0,293334	3,815395	25,05721	11,23258	107,4144	7,889893	1342	69,38	26	0	0	0	0	0,450893	264399	339774
1998	EVR	7,368259914	2,907902316	966	4160	4118	236000	5786000	80,81739	119,1355	8,625	34,29643	0,84760583	0,979090764	7812,694	1449700	11400	11,87208	0,311065	4,120318	24,96058	7,469268	109,569	8,246443	1332	69,12	27	0	0	0	0	0,509279	280665	363060
1999	EVR	6,335638987	2,800966141	968	4093	4784	238000	7020000	80,81739	119,1355	8,625	34,12326	0,9258949	1,069524434	7834,542	1442500	10600	11,33068	0,318014	5,439636	16,31843	7,952387	96,39895	8,54864	1290	68,86	28	0	0	0	0	0,516891	301592	408108
1972	FS	6,047700549	10,10452803	16083	206545	62676	35393645	17120197	500,2285	28,18983	13,025	184,9128	0,66411879	1,248765411	11732,94	54381000	204800	6,022217	0,22969	1,331816	4,73138	2,92611	18,62851	1,595854	97015	64,82	1	0	0	0	0	2,406168	9696562	13012801
1973	FS	5,54012535	8,685847887	16064	210642	62791	36358751	17574134	500,2285	28,18983	13,025	186,1709	0,67963244	1,277936254	12416,81	54751000	184900	6,482812	0,24456	1,495724	5,109266	3,252081	19,34656	1,998398	103042	65,08	2	0	0	0	0	2,429072	9979175	13961819
1974	FS	5,596994402	9,033958916	16072	212970	61775	37880133	18145443	500,2285	28,18983	13,025	187,395	0,8455626	1,589940457	12986,75	55111000	185100	6,551135	0,25821	2,220472	5,018247	7,105637	21,5314	1,992254	99513	65,34	3	0	0	0	0	2,525303	10554687	14727743
1975	FS	5,54860661	8,578994604	16077	212554	53847	36331888	14885332	500,2285	28,18983	13,025	188,5171	0,82691883	1,55488393	12644,82	55441000	171700	6,166631	0,26986	1,425261	4,99377	6,014608	20,84887	1,535615	92272	65,6	4	0	0	0	0	2,667311	11576690	15542931
1976	FS	4,85628865	8,249263107	16143	223338	58030	39117508	16375607	500,2285	28,18983	13,025	189,459	0,82160848	1,544898698	13403,3	55718000	171100	6,651793	0,28471	1,588981	4,946954	6,414421	23,2294	2,02558	98013	65,8	5	0	1	0	0	2,769415	12307500	16357174
1977	FS	7,285833922	9,743096162	16178	222564	58166	38361012	17099649	500,2285	28,18983	13,025	190,2649	0,81276219	1,528264706	13661,35	55955000	166900	6,473588	0,29203	1,492768	5,003474	6,265219	24,02052	1,988607	93570	66	6	0	1	0	0	2,808521	13385924	17180835
1978	FS	7,430458166	9,941538659	16096	225435	56520	39211486	16639173	500,2285	28,18983	13,025	190,9644	0,76865923	1,445336392	14109,75	56155000	159700	6,729219	0,3024	1,427523	4,704823	5,822227	24,32753	1,748524	97181	66,2	7	0	1	0	0	2,865157	14282023	18090786
1979	FS	7,726567846	9,524429072	16072	226691	56360	39687543	17741546	500,2285	28,18983	13,025	191,5187	0,75311511	1,352153456	14847,21	56318000	160700	7,031916	0,30798	1,619821	4,820984	6,339829	25,23586	2,009033	100809	66,4	8	0	1	0	0	2,935599	14939890	18938629
1980	FS	7,610896948	9,146223963	16133	229206	57456	39586578	18384082	500,2285	28,18983	13,025	191,9132	0,89031298	1,462150258	15331,95	56434000	162500	6,958769	0,31356	1,688744	4,145997	7,198832	24,62564	1,742394	98200	66,6	9	0	1	0	0	2,972467	15712449	19831691
1981	FS	9,876689394	10,28843468	16157	226846	53867	40090440	17115132	500,2285	28,18983	13,025	192,1445	0,94460346	1,573283941	15430,79	56502000	152800	6,828741	0,315963	1,336323	4,261755	9,192773	25,53983	1,735276	93504	66,64	10	0	1	0	0	2,971611	16579669	20867037
1982	FS	10,10093821	8,865594348	16146	230227	55456	40019094	16904331	500,2285	28,18983	13,025	192,2873	0,9839496	1,556338883	15519,04	56544000	158900	6,617348	0,318582	1,202705	4,387341	8,283712	24,44275	1,513916	90052	66,68	11	0	1	0	0	3,042498	18382286	22203975
1983	FS	10,83930942	9,210214498	16148	233002	54248	37150000	16745884	500,2285	28,18983	13,025	192,3553	0,99871961	1,539727859	15705,21	56564000	160700	6,400567	0,326816	1,131277	3,935458	6,934196	22,92842	1,359582	89421	66,72	12	0	1	0	0	3,089673	19196840	24153864
1984	FS	11,85349973	7,31857979	16114	234898	56728	37127000	17870507	500,2285	28,18983	13,025	192,3995	0,99004177	1,53925126	16134,83	56577000	161100	6,52496	0,345798	1,329053	3,942595	6,646741	24,64743	1,6829	85688	66,76	13	0	1	0	0	3,138207	20706748	27051981
1985	FS	5,675143431	3,992256952	16185	235472	56886	39265000	17963000	500,2285	28,18983	13,025	192,4539	0,96882721	1,451974766	16609,96	56593000	174700	6,636674	0,366802	1,232841	4,280919	6,35022	24,8258	1,571287	84499	66,8	14	0	1	0	0	3,15419	21433044	29164002
1986	FS	5,217677691	4,214701371	16068	235784	56737	40500000	17476000	500,2285	28,18983	13,025	192,4641	0,81334019	1,303653805	17028,58	56596000	172400	6,464219	0,385303	0,936555	3,557765	3,308574	23,09301	1,289112	85862	66,78	1	0	1	0	0	3,218853	10513973	2145385
1987	FS	5,066410494	4,262933802	16983	229139	61284	41395000	18626000	500,2285	28,18983	13,025	192,4845	0,80243172	1,252935985	17535,09	56602000	180100	6,748125	0,40768	0,890028	3,41142	2,630934	23,52943	1,231465	89910	66,76	16	0	1	0	0	3,096694	11556945	6087851
[illegible]	[illegible]	[illegible]	[illegible]	16015	236002	63165	43343000	19663000	500,2285	28,18983	13,025	192,5763	0,80051288	1,223842825	18218,69	56629000	189700	6,890292	0,437896	1,070411	3,26319	1,716381	23,8584	1,28101	90714	66,74	17	0	1					
1989	FS	[illegible]	[illegible]	[illegible]	236451	65660	44443000	20587000	500,2285	28,18983	13,025	192,7226	0,81063185	1,178807652	18727,8	56672000	214200	7,23587	0,460388	1,249382	3,306473	2,029413	25,25865	1,240836	93887	66,72	18	0						
1990	FS	[illegible]	[illegible]	[illegible]	[illegible]	66579	45512000	21217000	500,2285	28,18983	13,025	192,8824	0,86008564	1,157373964	19081,54	56719000	229400	7,383491	0,476031	1,008877	2,988817	2,110103	24,21829	1,024007	92608	66,7	19							
1991	FS	[illegible]	[illegible]	[illegible]	[illegible]	67310	46427000	21680000	500,2285	28,18983	13,025	192,9912	0,88530084	1,106037472	19336,06	56751000	231500	7,439758	0,493383	0,863245	3,080911	1,837995	23,0582	0,886145	91647	66,68	20							
1992	FS	[illegible]	[illegible]	[illegible]	[illegible]	65400	48361000	21962000	500,2285	28,18983	13,025	193,3585	0,86407428	1,079518374	19446,09	56859000	261400	7,510623	0,51759	0,797916	2,984949	1,641968	22,98162	0,828698	93587	66,66	21							
1993	FS	[illegible]	[illegible]	[illegible]	[illegible]	60163	47101000	20226000	500,2285	28,18983	13,025	194,0046	0,85782666	1,043685872	19209,84	57049000	265300	7,149261	0,519764	0,839247	3,173163	1,785384	24,66435	0,858219	92748	66,64	22							
1994	FS	[illegible]	[illegible]	[illegible]	[illegible]	64682	48900000	22563000	500,2285	28,18983	13,025	194,2461	0,85700107	1,052737646	19580,99	57120000	268900	7,056471	0,519351	1,02332	3,352979	1,661983	27,38688	1,068608	91685	66,62	23							
[illegible]	[illegible]	[illegible]	[illegible]	16003	256165	68890	49700000	24525000	500,2285	28,18983	13,025	194,5317	0,90169356	1,11	20119,3	57204000	280000	7,430546	0,524439	1,258266	3,569837	1,665995	31,71457	1,220896	95168	66,6	24	0	1	0	3,091			
[illegible]	[illegible]	[illegible]	[illegible]	16014	257345	68426	50300000	23360000	500,2285	28,18983	13,025	195,1302	0,91035774	1,108030111	20305,13	57380000	306800	7,310631	0,533287	0,999779	3,332459	1,69423	29,70774	0,9517	94127	66,68	25	1	1					
1997	FS	[illegible]	[illegible]	[illegible]	[illegible]	69675	49500000	25228000	500,2285	28,18983	13,025	195,6165	0,90075501	1,107905475	20675,07	57523000	321400	7,38297	0,538915	1,073547	3,307482	1,745906	30,83017	0,982758	94570	66,76	26							
1998	FS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	41475000	24704000	500,2285	28,18983	13,025	195,8376	0,86808518	1,076047317	21018,28	57589000	338200	7,328742	0,544098	1,075594	3,290502	1,269314	31,64643	0,928567	94822	66,84	2							
1999	FS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40971000	23781000	500,2285	28,18983	13,025	196,0348	0,91731362	1,125259188	21331,49	57649000	356500	7,335026	0,549004	0,998463	3,177233	1,472153	30,97687	0,873354	91874	66,92	2							
1991	MAV	5,214024245	15,33467882	7685	69268	27197	7478000	11367000	130,3938	43,1858	15,775	112,0424	1,4152176	1,912834343	9315,398	10346000	16600	5,940773	0,194805	2,718349	9,526536	6,052372	43,9441	2,212014	7883	62,2	20	0	0	0	0	1,409451	3733234	11471773
1992	MAV	4,965816502	6,754043334	7727	71461	24055	6820000	9580000	130,3938	43,1858	15,775	111,8042	1,44655905	1,934582433	9115,507	10324000	19800	5,576598	0,199374	1,732097	8,066696	5,340977	39,35123	1,664396	7947	62,4	21	0	0	0	0	1,369614	3821660	11704056
1993	MAV	7,270079241	11,34725544	7607	71022	17825	6355000	7521000	130,3938	43,1858	15,775	111,4793	1,46210402	1,774265983	9010,933	10294000	23100	5,765977	0,203189	1,517109	6,416729	5,130494	36,33414	1,402952	7784	62,6	22	0	0	0	0	1,32163	3978613	11854266
1994	MAV	6,422965795	9,284961623	7607	70210	26444	6288000	7293000	130,3938	43,1858	15,775	111,1219	1,32643374	1,604658353	9283,051	10261000	20900	5,491751	0,212155	2,099493	7,363209	5,038724	41,30567	1,618297	7856	62,8	23	0	0	0	0	1,409242	4176364	11941776
1995	MAV	4,165901245	9,170760998	7606	73106	18547	6120000	8031000	130,3938	43,1858	15,775	110,7862	1,35796788	1,6	9577,07	10230000	21600	5,787544	0,223226	2,784721	7,886701	4,903781	44,59584	1,676271	7516	63	24	0	0	0	0	1,409731	4319596	12328747
1996	MAV	3,842803462	7,997583208	7607	76367	17418	6292000	7318000	130,3938	43,1858	15,775	110,3855	1,40690867	1,617920074	9595,295	10193000	24900	6,048853	0,238815	2,835157	8,837593	6,598264	53,07531	1,81018	6998	63,2	25	0	0	0	0	1,414304	4270683	12481282
1997	MAV	4,183874251	8,282734011	7606	69010	16987	6394000	7803000	130,3938	43,1858	15,775	109,9729	1,41435217	1,62813935	9872,122	10155000	25700	5,864911	0,226208	2,783486	8,027248	5,239489	68,74101	1,567497	7124	63,4	26	0	0	0	0	1,397026	4444661	12593464
1998	MAV	3,581635687	8,6238503	7769	69611	16776	6659000	7732000	130,3938	43,1858	15,775	109,53	1,3948665	1,599787161	10233,28	10114000	27500	6,014538	0,233834	2,616692	7,812943	4,373851	85,54815	1,523016	7494	63,6	27	0	0	0	0	1,464886	4543180	12668724
1999	MAV	4,219351171	8,133593867	7768	79574	16411	6699000	7381000	130,3938	43,1858	15,775	109,0318	1,53896814	1,772283221	10718,15	10068000	30200	6,088423	0,238379	2,317725	6,287475	4,209927	93,78252	1,438222	7129	63,8	28	0	0	0	0	1,550911	5757240	12961714
1972	NS	7,22085385	14,61506149	2834	89860	16034	8039077	3071161	60,108	16,06276	63,35	395,2847	0,42066849	0,615589195	14337,57	13329000	85900	10,61518	0,20397	2,400856	13,09519	8,507259	40,39716	2,83653	39737	87,02	1	0	0	0	0	4,944692	1932292	2228416
1973	NS	7,10317878	8,899010898	2832	90786	15752	8172481	3463251	60,108	16,06276	63,35	397,486	0,43049057	0,629962423	14889,14	13439000	87500	10,81029	0,22001	2,752773	14,30804	9,39222	41,59801	3,037258	40991	87,48	2	0	0	0	0	4,96219	1979017	2358381
1974	NS	6,800918057	8,569599425	2832	91791	15215	8588874	3369962	60,108	16,06276	63,35	400,6211	0,5356072	0,783785839	15359,63	13545000	88700	10,25268	0,23284	3,559394	15,08032	14,37042	47,63942	3,219473	35187	87,94	3	0	0	0	0	5,019832	2017162	2441350
1975	NS	6,50573721	8,870526066	2825	92463	14041	8501103	2720856	60,108	16,06276	63,35	404,2	0,52378871	0,766491148	15214,2	13666000	85100	9,817408	0,24829	2,722631	14,98669	13,452	42,98428	2,507028	34299	88,4	4	0	0	0	0	5,055435	2102531	2536095
1976	NS	6,576030911	8,608093383	2825	93913	13694	8218419	2696487	60,108	16,06276	63,35	407,3943	0,52041969	0,761561055	15861,81	13774000	85300	10,43588	0,26354	2,815126	14,58435	14,5564	43,24275	2,725673	39117	88,4	5	0	0	0	0	5,085748	2161598	2676571
1977	NS	6,541320368	8,040890794	2850	94168	13671	8013054	2805449	60,108	16,06276	63,35	408,1296	0,51482577	0,753375142	16132,21	13856000	89100	10,19994	0,27799	2,837761	14,12273	13,67924	41,05625	2,546996	37028	88,4	6	0	0	0	0	5,071353	1905225	3175682
1978	NS	6,40647284	7,748216092	2876	94088	13702	8146316	2882150	60,108	16,06276	63,35	410,6628	0,48688638	0,712489771	16414,35	13942000	93300	10,46952	0,28835	2,393798	13,72145	11,31471	41,03633	2,415032	38542	88,4	7	0	0	0	0	5,046498	1898069	3391989
1979	NS	6,409162628	7,168335202	2880	93731	14154	8514078	3376201	60,108	16,06276	63,35	413,4904	0,55552376	0,769976274	16666,31	14038000	93100	11,16541	0,29652	2,85901	14,10574	15,21381	43,0002	2,565542	40692	88,4	8	0	0	0	0	5,090354	1935827	3608461
1980	NS	6,464284571	6,635538557	2880	95999	14468	8909975	3467656	60,108	16,06276	63,35	416,6667	0,65196416	0,877290155	16731,39	14150000	93800	10,91957	0,30401	3,309694	14,68955	19,32846	43,85433	2,525997	38149	88,4	9	0	0	0	0	5,173917	2009487	3848892
1981	NS	6,640277909	6,674945288	2956	98401	14311	9230164	3319113	60,108	16,06276	63,35	419,8939	0,73222991	0,991168883	16530,9	14247000	91700	10,2009	0,305	3,020464	16,53349	22,55232	45,0547	2,550427	35460	88,42	10	0	0	0	0	5,23307	2114866	4051918
1982	NS	6,723222677	6,719260308	2850	100292	13621	9376224	2886576	60,108	16,06276	63,35	421,8391	0,72944806	0,96344788	16264,3	14313000	97000	7,710937	0,3065	2,751465	16,3905	21,90395	44,59733	2,538196	31880	88,44	11	0	0	0	0	5,47587	2233501	4258085
1983	NS	6,717481547	6,764719666	2852	99538	12879	9051584	2835000	60,108	16,06276	63,35	423,5554	0,6919564	0,940944803	16477,97	14367000	96000	7,847392	0,308	2,888055	16,16707	21,27807	45,55883	2,643226	29317	88,46	12	0	0	0	0	5,461588	2260022	4668193
1984	NS	6,913743322	6,174593144	2852	101461	12787	8997357	3157231	60,108	16,06276	63,35	425,2358	0,74004114	1,017005297	16954,92	14424000	94600	8,422551	0,308973	3,090791	17,42591	22,24525	50,64923	2,953265	28383	88,48	13	0	0	0	0	5,584048	2282708	4904787
1985	NS	7,012269667	5,755760579	2824	100903	12581	9226000	3269000	60,108	16,06276	63,35	427,2406	0,73955893	0,999065206	17398,55	14492000	98700	8,93344	0,318691	2,985218	17,15836	22,1947	53,80795	3,02533	29014	88,5	14	0	0	0	0	5,682456	2335492	5299282
1986	NS	7,202836545	5,569926572	2817	101985	12160	8919000	3107000	60,108	16,06276	63,35	429,5991	0,54996399	0,808265359	17780,87	14572000	102600	8,404067	0,327106	2,344147	14,93895	11,21322	51,7104	2,838637	32015	88,54	15	0	0	0	0	5,744655	2337937	5420363
1987	NS	7,113233822	5,538463072	2809	104189	11865	9396000	2995000	60,108	16,06276	63,35	432,3408	0,58424372	0,873258413	17913	14665000	118100	8,473146	0,330132	2,196693	14,77542	8,828732	51,96206	2,883343	32021	88,58	16	0	0	0	0	5,894695	2306553	5616377
1988	NS	7,219381633	4,944403625	2828	106078	11649	9664000	3200000	60,108	16,06276	63,35	435,1415	0,5607739	0,856689977	18338,86	14760000	121700	8,196314	0,337865	2,646809	15,32952	7,336131	53,86088	2,98157	34100	88,62	17	0	0	0	0	5,962461	2308221	5866256
1989	NS	7,125830775	4,783308429	2828	106664	11479	10162000	3108000	60,108	16,06276	63,35	437,7653	0,56405394	0,801589203	19138,06	14849000	122200	9,370479	0,354209	3,04263	15,02816	8,447132	57,17123	3,137821	33630	88,66	18	0	0	0	0	5,977191	2410261	6092347
1990	NS	6,99227074	4,608155194	2798	105742	11572	11060000	3070000	60,108	16,06276	65,45	440,8019	0,65621924	0,907744285	19781,39	14952000	115000	10,15522	0,368446	2,506875	14,2553	8,603156	56,73195	2,927242	34699	88,7	19	0	0	0	0	6,035679	2556539	6411166
1991	NS	6,601984411	4,424088815	2780	106374	11482	12796000	3038000	60,108	16,06276	65,45	444,2807	0,65882048	0,908921883	20110,68	15070000	130500	10,10902	0,369542	2,208516	14,43477	8,132289	56,15808	2,79197	35554	88,76	20	0	0	0	0	6,077935	2475543	6986746
1992	NS	5,635012452	4,351686011	2791	107442	11042	15350000	2764000	60,108	16,06276	65,45	447,6464	0,66424692	0,929882164	20300,6	15178000	173200	9,901056	0,372776	2,007827	14,44991	6,886568	53,8959	2,749114	36267	88,82	21	0	0	0	0	6,135009	2650127	7388089
1993	NS	5,794899924	3,903674298	2793	111845	10560	12245000	2681000	60,108	16,06276	65,45	450,4452	0,75035237	0,887132992	20336,64	15279000	189800	10,2482	0,349562	2,149475	14,68548	7,351702	52,10249	2,575745	36129	88,88	22	0	0	0	0	6,282352	2814927	8030773
1994	NS	6,415628796	3,790545511	2795	108089	9705	14439000	2830000	60,108	16,06276	65,45	453,4531	0,76541546	0,909647092	20738,83	15381000	176800	9,452211	0,35472	2,266318	15,50547	6,560548	55,43771	2,878083	36166	88,94	23	0	0	0	0	6,235246	3054513	8416848
1995	NS	7,37552397	5,606115176	2795	109951	9705	13977000	3097000	60,108	16,06276	65,45	455,7783	0,77880071	0,93	21248,96	15460000	203100	9,960155	0,360996	2,780996	15,37675	6,552212	60,59746	2,870671	37555	89	24	0	0	0	0	6,372854	3793721	7286971
1996	NS	7,43831987	4,933147755	2795	110727	9701	14092000	3123000	60,108	16,06276	65,45	457,4587	0,81602811	0,951140892	21801,72	15517000	206000	11,01368	0,365019	2,379767	15,31776	7,840827	62,62746	2,759653	37102	89,08	25	0	0	0	0	6,412715	4039982	7994331
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	112700	8500	14425000	3406000	60,108	16,06276	65,45	460,112	0,79777001	1,04046775	22521,1	15607000	185700	10,48561	0,372269	2,595281	13,41807	7,683123	72,0093	2,635226	38568	89,16	26	1						
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14879000	3778000	60,108	16,06276	65,45	462,7948	0,76623305	1,018912061	23356,97	15698000	188200	10,74953	0,389859	2,635875	14,19121	6,371897	72,90381	2,804055	38411	89,24								
1972	NSB	7,524088762	8,90982194	4240	21956	9753	1622100	2558639	667,9029	198,015	3,125	12,81817	0,46699711	0,545235413	11903,94	3933000	110700	6,950793	0,2173	6,322766	5,483582	2,570269	32,02549	1,972368	8249	66,52	1	0	0	0	0	0,828568	633357	1661471
1973	NSB	7,216751944	6,848638611	4240	21726	9413	1640200	2747402	667,9029	198,015	3,125	12,90943	0,4779071	0,557973217	12338,15	3961000	120900	6,992866	0,21161	6,147559	5,938244	2,814893	35,35301	2,256664	8384	67,08	2	0	0	0	0	0,831077	658340	1703030
1974	NSB	6,650934107	6,848187164	4241	21771	10597	1883900	2885337	667,9029	198,015	3,125	12,98765	0,59458666	0,694200665	12775,96	3985000	126900	6,231742	0,22322	6,362676	5,707071	5,411626	37,26613	2,562341	7727	67,64	3	0	0	0	0	0,846281	691474	1778972
1975	NSB	6,556724058	7,627504202	4241	22340	10733	1948200	2560782	667,9029	198,015	3,125	13,05935	0,5814725	0,678889428	13447,23	4007000	137700	8,054399	0,23808	4,668466	4,496032	6,230936	37,72456	1,955112	7944	68,2	4	0	0	0	0	0,855339	684439	1822611
1976	NSB	6,739152796	7,925944101	4241	23011	10901	1997100	2709395	667,9029	198,015	3,125	13,12127	0,57774366	0,674535884	14167,32	4026000	141700	8,202865	0,25384	4,92046	4,734959	8,225463	36,45008	1,82914	8580	68,66	5	0	0	0	0	0,865711	740863	1921422
1977	NSB	6,920048593	7,73786641	4241	23112	11063	2003700	2566687	667,9029	198,015	3,125	13,17668	0,57152189	0,667271746	14703,17	4043000	149700	7,676637	0,27387	4,346438	4,821129	7,979596	36,5168	1,515943	8964	69,12	6	0	0	0	0	0,918613	764586	1972335
1978	NSB	6,791737539	7,895918743	4241	22892	11130	2058300	2649909	667,9029	198,015	3,125	13,22882	0,54050836	0,631062368	15132,95	4059000	150000	8,270855	0,28296	4,39776	4,4129	8,157019	32,17257	1,454671	9121	69,58	7	0	0	0	0	0,936901	776371	2035758
1979	NSB	6,22090197	6,807982392	4239	22812	11286	2265100	3022355	667,9029	198,015	3,125	13,27445	0,62733266	0,63851691	15744,84	4073000	167800	9,240333	0,29238	4,541979	4,306933	13,76899	29,09627	1,560688	9463	70,04	8	0	0	0	0	0,963995	810041	2096150
1980	NSB	5,927261285	6,363739468	4241	23274	11458	2393500	3014317	667,9029	198,015	3,125	13,33312	0,7874113	0,75687778	16472,13	4091000	171100	22,35577	0,30163	4,445299	3,930087	18,80948	27,15578	1,460027	8947	70,5	9	0	0	0	0	0,988322	834393	2145710
1981	NSB	6,12654371	6,592512758	4242	23654	10955	2424500	2825200	667,9029	198,015	3,125	13,36245	0,81495056	0,78664197	16573,84	4100000	158800	21,5781	0,304251	3,997267	3,835444	18,35586	26,77311	1,344332	8388	70,66	10	0	0	0	0	0,989737	862258	2185415
1982	NSB	6,471762107	7,438735718	4242	23544	10662	2241600	2479143	667,9029	198,015	3,125	13,41133	0,75084905	0,755936029	16541,93	4115000	161100	22,13706	0,309409	3,257966	3,438553	18,26546	27,77644	1,165861	7968	70,82	11	0	0	0	0	0,987823	890436	2235516
1983	NSB	6,530105984	7,121608093	4242	23037	10235	2175100	2398381	667,9029	198,015	3,125	13,47	0,71752593	0,75560719	17074,19	4133000	169400	21,7106	0,314568	3,61655	3,569214	18,18198	25,9722	1,082626	7970	70,98	12	0	0	0	0	0,980726	886302	2267135
1984	NSB	6,430664585	6,203670441	4242	22752	10100	2198000	2592458	667,9029	198,015	3,125	13,49281	0,69529215	0,755882315	18024,27	4140000	177100	22,55077	0,335446	4,231024	3,380544	19,44069	26,04112	1,127186	8402	71,14	13	0	0	0	0	0,99236	909080	2358371
1985	NSB	6,743646259	5,769806971	4242	22644	10149	2241000	2867000	667,9029	198,015	3,125	13,53518	0,66610962	0,719326948	18905,27	4153000	190500	22,52535	0,354394	3,884034	3,28807	19,05465	28,58395	1,088087	8728	71,3	14	0	0	0	0	1,019719	932479	2413297
1986	NSB	7,507857445	5,939448342	4216	22688	10753	2225000	2954000	667,9029	198,015	3,125	13,58733	0,53799011	0,651826903	19516,31	4169000	229900	23,39546	0,367334	3,334045	3,496138	11,83095	30,84188	1,094341	9083	71,44	15	0	0	0	0	1,056802	942019	2480046
1987	NSB	7,341108642	5,832248632	4217	22525	10413	2187000	2774000	667,9029	198,015	3,125	13,64599	0,53413722	0,645451871	19817,45	4187000	233300	23,21166	0,374013	3,363768	3,376252	10,93474	29,55948	1,281395	9294	71,58	16	0	0	0	0	1,062878	961084	2551426
1988	NSB	7,464016822	5,90978498	4175	22065	9192	2110000	2576000	667,9029	198,015	3,125	13,71769	0,52113516	0,636398269	19691,74	4209000	222600	10,19304	0,3741	4,56823	3,361326	9,212304	27,98186	1,198226	9025	71,72	17	0	0	0	0	1,081346	938200	2641872
1989	NSB	8,293076229	5,935758713	4044	21461	9561	2136000	2749000	667,9029	198,015	3,125	13,77636	0,54867724	0,648344208	19788,41	4227000	221400	8,69149	0,3742	5,210583	3,340965	12,55648	28,75873	1,227881	8781	71,86	18	0	0	0	0	1,134921	950589	2694388
1990	NSB	6,712912228	4,872031545	4004	25296	11409	2104000	2568000	667,9029	198,015	3,125	13,82362	0,60437437	0,692155017	20112,09	4241500	233500	11,41433	0,380299	4,31229	3,435834	15,1281	28,94563	1,04502	8961	72	19	0	0	0	0	1,253292	931730	2685084
1991	NSB	7,837296447	5,393721589	4027	23591	8793	2150000	2641000	667,9029	198,015	3,125	13,88945	0,63912983	0,77751149	20636,66	4261700	228000	12,69164	0,378868	3,74826	3,549076	15,06088	27,22968	0,878205	8453	72,34	20	0	0	0	0	1,184018	294501	155920
1992	NSB	8,011247021	6,399812981	4027	24313	8742	2256000	2136000	667,9029	198,015	3,125	13,96995	0,66354995	0,855064059	21198,31	4286400	253700	13,06574	0,377808	3,281428	3,598569	14,53718	25,83988	0,849682	8460	72,68	21	0	0	0	0	1,260032	348698	187987
1993	NSB	8,067412651	4,03588331	4023	25268	8792	2316000	2853000	667,9029	198,015	3,125	14,05338	0,68577731	0,887132992	21644,73	4312000	249800	14,39157	0,378731	3,174847	3,625712	14,76034	25,50865	0,771155	8670	73,02	22	0	0	0	0	1,593229	440190	233049
1972	OBB	7,1931621	12,20015869	5891	54536	33419	6569148	9869410	1049,205	96,24452	17,05	90,79918	0,63840919	0,721116485	12796,28	7510000	18400	7,882186	0,19492	1,595082	3,027312	1,951221	31,74683	2,377667	10651	65,32	1	0	0	0	0	1,936502	4767748	10274712
1973	OBB	7,181540131	11,31269886	5863	54097	34325	6513293	10347704	1049,205	96,24452	17,05	91,31907	0,6533211	0,737960272	13347,36	7553000	20900	8,353658	0,20492	1,708223	3,03716	2,121418	31,9963	2,822791	11605	65,28	2	0	0	0	0	1,969747	4999329	10368962
1974	OBB	6,45485097	11,13646212	5860	54406	36003	6575104	11085230	1049,205	96,24452	17,05	91,45206	0,81282934	0,918133148	13850,02	7564000	20000	7,987317	0,21732	2,078654	2,750381	3,411716	33,75312	2,964968	10240	65,24	3	0	0	0	0	2,03701	5146648	10692661
1975	OBB	8,788203086	11,80040083	5854	55553	33953	6470014	9378377	1049,205	96,24452	17,05	91,35534	0,79490987	0,897892173	13836,25	7556000	21000	7,5771	0,22876	1,62789	2,745113	3,427577	32,91036	2,140802	10465	65,2	4	0	0	0	0	2,082855	5443920	10968285
1976	OBB	8,089485687	11,06040824	5854	57024	35869	6499579	10547877	1049,205	96,24452	17,05	91,29594	0,78980382	0,892124627	14494,4	7552000	23100	8,134691	0,24327	1,737193	2,915654	3,607237	35,4017	2,577009	11090	65,14	5	0	0	0	0	2,134775	5632940	11238308
1977	OBB	8,602313712	12,05822564	5854	57234	35061	6773065	9887904	1049,205	96,24452	17,05	91,38056	0,78129746	0,882516247	15198,6	7559000	24000	7,813496	0,26161	1,85632	2,865913	3,179561	36,10356	2,469762	10962	65,08	6	0	0	0	0	2,150654	5355115	11913226
1978	OBB	9,467568607	12,02487615	5854	57884	34497	7108657	9498043	1049,205	96,24452	17,05	91,30803	0,73890422	0,834630874	15146,18	7553000	25800	7,973044	0,27171	1,935931	2,826601	3,119705	35,99312	2,32175	11539	65,02	7	0	0	0	0	2,192882	5513037	12293751
1979	OBB	9,80942919	11,04003887	5852	58981	36574	7240962	10697966	1049,205	96,24452	17,05	91,26073	0,7818492	0,863875819	15971,53	7550000	26100	8,489367	0,2855	2,329843	2,794458	3,757199	37,76353	2,592022	12094	64,96	8	0	0	0	0	2,252756	5748301	12757939
1980	OBB	9,431672654	10,43877322	5843	60244	37613	7380425	11001966	1049,205	96,24452	17,05	91,29699	0,92292155	0,946097226	16327,85	7553000	27200	7,29739	0,2984	2,379338	2,880322	5,081752	39,19989	2,890397	11956	64,9	9	0	0	0	0	2,346241	5937694	13213440
1981	OBB	10,88997211	11,03411801	5811	60723	37064	7042802	10318429	1049,205	96,24452	17,05	91,44204	1,02204461	1,085565919	16277,48	7565000	27800	7,789185	0,297396	2,303409	3,019049	6,080833	39,23289	2,699824	10771	64,86	10	0	0	0	0	2,405259	6067580	13654295
1982	OBB	9,992479386	10,44552837	5773	62756	36333	7217242	10102617	1049,205	96,24452	17,05	91,55083	0,98714976	1,11167063	16604,22	7574000	36400	7,457986	0,304334	2,093556	2,956039	4,890429	38,42517	2,325801	10344	64,82	11	0	0	0	0	2,486957	6219676	14113654
1983	OBB	9,908007682	10,3843923	5748	63552	35117	7022915	10230116	1049,205	96,24452	17,05	91,2849	0,94957268	1,054998718	17104,13	7552000	37700	7,17095	0,316605	2,046462	2,838253	4,135224	38,41321	2,273533	10065	64,78	12	0	0	0	0	2,533158	6353163	14636994
1984	OBB	10,20939941	9,873297242	5745	63824	36146	7003549	11247103	1049,205	96,24452	17,05	91,2849	0,93357457	1,044491927	17159,45	7552000	38000	7,46443	0,317957	2,498207	3,047793	4,842093	40,71537	2,414022	9874	64,74	13	0	0	0	0	2,587911	6444142	15081429
1985	OBB	7,529988367	7,23062943	5766	64474	37172	7290000	11903000	1049,205	96,24452	17,05	91,32117	0,94027262	1,065669553	17558,74	7555000	37800	7,460495	0,326966	2,49831	3,081282	5,148863	43,69349	2,308856	9762	64,7	14	0	0	0	0	2,665442	6474490	15498790
1986	OBB	7,002420213	7,20560825	5745	64967	36547	7332000	11273000	1049,205	96,24452	17,05	91,44204	0,74666075	0,834338435	17909,83	7565000	37700	7,345582	0,336184	1,960275	2,722831	2,709626	42,04913	2,01487	10310	64,66	15	0	0	0	0	2,715374	6455769	15882757
1987	OBB	6,639966593	7,020659711	5747	65639	35925	7363000	11114000	1049,205	96,24452	17,05	91,53874	0,69115603	0,772011061	18177,96	7573000	38700	7,430087	0,342906	1,813938	2,42768	2,365179	41,23247	1,95566	10579	64,62	16	0	0	0	0	2,73674	6352922	16142226
1988	OBB	6,50077588	7,267190923	5630	66868	36431	7783000	11213000	1049,205	96,24452	17,05	91,80466	0,65611789	0,734305695	18761,89	7595000	40100	7,137781	0,355356	2,20641	2,441915	1,902446	43,49251	2,035902	10196	64,58	17	0	0	0	0	2,845057	6214649	16500842
1989	OBB	6,064166832	7,02644767	5641	71297	37562	8445000	11849000	1049,205	96,24452	17,05	92,24465	0,65925324	0,766224974	19447,7	7631400	39900	7,268033	0,372005	2,405936	2,567233	2,038497	45,75772	2,159479	10038	64,54	18	0	0	0	0	2,939584	6156113	16893980
1990	OBB	5,929480844	6,580407875	5624	75460	39758	8575000	12682000	1049,205	96,24452	31,15	93,38451	0,69128416	0,79427625	20180,06	7725700	42000	7,761475	0,387186	2,039135	2,418903	2,168653	46,96515	2,066653	10449	64,5	19	0	0	0	0	3,0539	6213848	17356098
1991	OBB	5,777611676	6,857769888	5623	86900	40254	9208000	12864000	1049,205	96,24452	31,15	94,59567	0,64535137	0,733708026	20626,98	7825900	47400	8,02813	0,396122	1,836252	2,340281	2,018687	46,14984	1,784673	11285	64,46	20	0	0	0	0	3,25668	5856350	17900105
1992	OBB	5,337681444	6,813795678	5605	96511	40218	9561000	12207000	1049,205	96,24452	31,15	95,62916	0,62248205	0,748181051	20833,42	7911400	63600	7,446283	0,410158	1,712795	2,230823	1,713148	44,34869	1,585144	11120	64,42	21	0	0	0	0	3,466966	5614522	18091240
1993	OBB	5,314967368	6,804798405	5600	94111	38843	9342000	11798000	1049,205	96,24452	31,15	96,5611	0,61484615	0,730580111	20716,89	7988500	73000	7,337632	0,421559	1,478531	2,174313	1,568997	41,00762	1,384517	11231	64,38	22	0	0	0	0	3,494795	5099584	18396038
1994	OBB	5,713742946	5,56289157	5636	92144	39878	9202000	13049000	1049,205	96,24452	31,15	97,03252	0,60188339	0,74611503	21155,44	8027500	87700	7,40678	0,433459	1,773319	2,348493	1,523191	42,7308	1,582628	11524	64,34	23	0	0	0	0	3,516784	4423190	18432634
1995	OBB	5,419700683	5,222626342	5672	88239	39813	9628000	13714000	1049,205	96,24452	31,15	97,26822	0,65537142	0,82	21453,91	8047000	109000	7,42207	0,446575	1,86406	2,52868	1,514366	42,87693	1,586813	10872	64,3	24	0	0	0	0	3,509386	4118874	18596577
1996	OBB	5,362026088	5,04363448	5672	82539	38317	9689000	13910000	1049,205	96,24452	31,15	97,41327	0,67869015	0,823668401	21848,42	8059000	118100	7,60438	0,457959	1,810094	2,886924	1,883743	45,70743	1,432554	11575	64,38	25	0	0	0	0	3,43993	3876922	18841819
1997	OBB	6,171223016	4,938634208	5672	86194	39957	8140000	14791000	1049,205	96,24452	31,15	97,57259	0,71167787	0,867056459	22161,43	8072200	121300	7,7531	0,46859	1,912605	3,362977	1,773379	49,15814	1,480969	11947	64,46	26	0	0	0	0	3,511791	3535372	19329705
1998	OBB	5,98602731	4,665336278	5643	92800	41225	7971000	15348000	1049,205	96,24452	31,15	97,64294	0,65264785	0,809416123	22923,95	8078000	127900	7,924213	0,481205	1,848776	3,44598	1,446906	51,57013	1,463023	12146	64,54	27	0	0	0	0	3,636426	3262004	19870327
1999	OBB	6,030046142	4,556669045	5643	91723	48091	7997000	15556000	1049,205	96,24452	31,15	97,81216	0,6520609	0,806435751	23527,22	8086100	127200	8,089728	0,495502	1,652011	3,700143	1,677463	53,13264	1,717816	12077	64,62	28	0	0	0	0	3,706686	3133041	20333193
1991	PKP	1,961252711	7,037017445	25848	216554	99581	40115000	63984000	181,7463	72,87195	18,1	125,6304	0,95107064	1,073184874	5915,619	38244000	19600	9,146261	0,159819	2,11796	5,493918	6,122127	23,7306	1,504415	12972	62,18	20	0	0	0	0	2,108478	29314213	47627568
1992	PKP	2,701903452	6,589040191	25254	187131	91169	32571000	56951000	181,7463	72,87195	18,1	126,0256	1,04228509	1,197089682	6045,395	38365000	22400	8,985681	0,16955	2,515439	4,647037	5,209683	22,98909	1,216727	13352	62,56	21	0	0	0	0	2,083082	28756341	47283093
1993	PKP	4,143381485	6,022021556	24926	183047	98034	24742000	63246000	181,7463	72,87195	18,1	126,3353	1,03501656	1,252423047	6256,014	38459000	27600	9,220639	0,176046	2,165999	4,440242	4,370427	27,1739	1,075764	13973	62,94	22	0	0	0	0	2,136944	28498122	47191998
1994	PKP	4,113007678	5,538791048	24313	185851	105081	21762000	64719000	181,7463	72,87195	18,1	126,6132	0,90822969	1,083399907	6568,181	38544000	30500	8,841678	0,185586	2,021437	4,341532	3,889886	27,95345	1,203734	14436	63,32	23	0	0	0	0	2,236658	28224247	47082341
1995	PKP	4,065686046	5,059501843	23986	173639	107902	20960000	68206000	181,7463	72,87195	18,1	126,7578	0,87538894	1,03	7021,508	38588000	32100	9,035821	0,19481	2,339127	4,662162	4,065949	34,24129	1,425502	15012	63,7	24	0	0	0	0	2,253723	30302999	53793563
1996	PKP	4,135261278	5,053365448	23420	169637	109857	19807000	67413000	181,7463	72,87195	18,1	126,8576	0,84856372	1,000168773	7439,052	38618000	35900	9,481494	0,208567	1,868423	4,896759	3,879519	35,19777	1,169405	17056	64,08	25	0	0	0	0	2,31682	30039048	53805169
1997	PKP	3,952830321	4,956915946	23328	169463	110111	19928000	67679000	181,7463	72,87195	18,1	126,9627	0,83365346	0,992297947	7940,332	38650000	38300	9,237337	0,220788	1,78959	4,504375	3,029051	34,64162	1,051323	18123	64,46	26	0	0	0	0	2,333377	29844673	53873893
1998	PKP	3,805960263	4,826921725	23210	171833	100725	20553000	60937000	181,7463	72,87195	18,1	127,0158	0,84596976	1,037957146	8321,432	38666000	38400	9,357274	0,229937	1,605304	4,173341	2,857233	37,65205	0,95082	18860	64,84	27	0	0	0	0	2,441282	29288439	53585380
1999	PKP	3,953936721	4,895945346	22891	175696	92188	21518000	55076000	181,7463	72,87195	18,1	126,9759	1,00147497	1,237785107	8661,409	38695000	43800	9,421131	0,240152	1,622294	3,566628	3,001651	37,16974	0,878174	19971	65,22	28	0	0	0	0	2,542693	28696996	53207095
1972	RENFE	6,376817134	9,677773006	13523	84036	42866	14390700	9761400	754,5804	7,825975	15,825	68,92633	0,64220168	1,020117727	9524,15	34448000	167300	4,272015	0,09437	1,041846	4,32566	2,058291	11,91224	1,190989	33328	67,44	1	0	0	0	0	0,891462	3739714	7870660
1973	RENFE	6,388562558	9,313472914	13415	84122	46925	15639950	11253150	754,5804	7,825975	15,825	69,65065	0,65720372	1,043974999	10173,92	34810000	176400	4,528898	0,10912	1,143517	4,647332	2,085419	12,2056	1,265098	38386	68,16	2	0	0	0	0	1,050127	3953041	9170688
1974	RENFE	5,524722992	8,692954408	13432	82651	47389	16078627	12267046	754,5804	7,825975	15,825	70,32916	0,81765724	1,298823506	10642,54	35147000	178800	5,012186	0,12235	1,425109	4,483633	4,696961	12,65917	1,266785	41954	68,88	3	0	0	0	0	1,216177	4123421	10351718
1975	RENFE	5,394940216	9,142054207	13497	83754	44081	16146200	10426317	754,5804	7,825975	15,825	71,0826	0,79962998	1,270187761	10589,37	35515000	181800	5,138019	0,13551	1,162229	4,123733	4,039394	11,95066	0,979967	42904	69,6	4	0	0	0	0	1,313664	4251678	11347823
1976	RENFE	5,695299154	10,19531429	13509	86225	45356	16686000	10493500	754,5804	7,825975	15,825	71,93587	0,79449501	1,262031024	10810,77	35937000	184500	5,502413	0,14875	1,166538	3,793125	4,764329	12,28323	1,114685	49058	70,24	5	0	0	0	0	1,475121	4226549	11547290
1977	RENFE	5,236924352	9,771077972	13540	91227	44249	17163000	11025000	754,5804	7,825975	15,825	72,80098	0,78593934	1,248440602	10986,18	36367000	192700	5,395431	0,16354	1,093326	3,957445	4,30301	11,96514	1,072153	45720	70,88	6	0	0	0	0	1,579602	4230892	12326587
1978	RENFE	5,398889358	10,64068317	13533	92781	43546	16758000	10377000	754,5804	7,825975	15,825	73,62521	0,74329246	1,180697335	11022,34	36778000	209300	5,327206	0,17777	1,011192	3,753354	3,686294	11,78217	0,926399	47483	71,52	7	0	0	0	0	1,609926	4307547	12767734
1979	RENFE	4,742087729	9,817837765	13531	92189	41497	16609000	10262100	754,5804	7,825975	15,825	74,28434	0,69832342	1,089234729	10928,86	37108000	214200	5,606795	0,18995	1,087707	3,622094	3,92489	11,80202	0,895166	50017	72,16	8	0	0	0	0	1,68978	4413397	13412007
1980	RENFE	5,782610161	9,281801928	13542	94685	42311	13527000	10527800	754,5804	7,825975	15,825	74,85134	0,87407144	1,324536116	11050,54	37386000	207900	5,723116	0,20272	1,305769	3,586699	6,260135	12,50593	0,922265	50850	72,8	9	0	1	0	1,609438	1,821903	4584927	14150530
1981	RENFE	[illegible]	[illegible]	[illegible]	100083	40767	14261000	10267000	754,5804	7,825975	15,825	75,56361	1,06172043	1,463154065	10968,35	37741000	188700	5,666934	0,203	1,292481	3,905369	7,546036	13,37902	0,84513	47549	73,08	10	0						
1982	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14703000	10193000	754,5804	7,825975	15,825	75,96805	0,99540195	1,363649307	11045,66	37943000	191000	5,650303	0,204	1,215831	3,776976	7,393833	14,25792	0,802139	44040	73,36	1							
1983	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15092000	10209600	754,5804	7,825975	15,825	76,32902	1,09021224	1,482700901	11188,4	38121000	194000	5,514271	0,208787	1,352205	4,122952	8,168046	14,97095	0,937664	44298	73,64								
1984	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11352800	754,5804	7,825975	15,825	76,63183	1,08315029	1,443048057	11341,66	38273000	184900	5,097147	0,212972	1,546116	4,269757	7,746729	16,5794	1,052924	40896	73,9								
1985	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15979000	14546000	754,5804	7,825975	15,825	76,90213	1,05023961	1,34540781	11562,36	38408000	181700	5,253578	0,218144	1,469982	3,925896	7,489247	17,22971	1,101178	39993	74,2								
1986	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13994000	754,5804	7,825975	15,825	77,12438	0,85007164	1,06899612	11902,28	38519000	180400	4,806366	0,229509	1,007049	3,724012	3,447274	16,66078	0,959832	41300	74,4								
1987	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13884000	754,5804	7,825975	15,825	77,30458	0,77896907	0,974505766	12531,62	38609000	183000	4,906357	0,251251	0,88945	3,816046	3,277482	18,22795	1,024224	42603	74,6								
1988	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14052000	754,5804	7,825975	15,825	77,46877	0,71665872	0,893405262	13141,11	38691000	207200	5,056701	0,272222	1,067413	3,808129	2,385865	19,46498	1,001336	46887	74,9								
1989	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14048000	754,5804	7,825975	15,825	77,62294	0,68244372	0,848741509	13748,8	38768000	225500	5,727353	0,292412	1,154013	3,678735	2,682478	20,64906	0,976693	46958	75,1								
1990	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15476000	13413000	754,5804	7,825975	15,825	77,75909	0,69466547	0,862357071	14247,03	38836000	244700	5,814095	0,308992	0,892717	3,441389	2,535544	20,21601	0,768339	48347	75,4								
1991	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12499000	754,5804	7,825975	15,825	77,91927	0,73260002	0,876069285	14583,85	38916000	262600	5,871401	0,334053	0,847831	3,678183	2,294514	20,17378	0,649305	51118	75,								
1992	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16350000	11085000	754,5804	7,825975	15,825	78,09947	0,72205768	0,87644066	14686,16	39006000	289700	6,075631	0,333282	0,760658	3,62353	1,974522	20,16651	0,574284	53226	75,84	2							
1993	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8895000	754,5804	7,825975	15,825	78,25365	0,75022487	0,908006709	14505,67	39083000	282200	5,565271	0,332625	0,794317	4,095056	2,066024	20,44392	0,518323	50523	76,0								
1994	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9884000	754,5804	7,825975	15,825	78,37478	0,72096502	0,889205584	14827,09	39143000	282300	5,858057	0,357663	1,005155	4,780528	2,015626	24,09285	0,694121	53709	76,2								
[illegible]	[illegible]	[illegible]	[illegible]	12280	121133	39940	15313000	11423000	754,5804	7,825975	15,825	78,50793	0,7053932	0,87	15212,63	39210000	313200	6,267627	0,362465	1,134367	5,104059	1,898918	26,21573	0,842956	57314	76,5	24	1	1		2,7			
1996	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15605000	11196000	754,5804	7,825975	15,825	78,62945	0,73754497	0,882501858	15561,27	39271000	332800	6,240297	0,375695	1,071609	5,073943	2,278024	27,48722	0,72204	57629	76,72								
1997	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12405000	754,5804	7,825975	15,825	78,73418	0,75662373	0,915226262	16159,29	39323000	370400	6,554258	0,389018	1,298668	5,548752	2,426104	30,12708	0,794652	61245	76,								
1998	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12731000	754,5804	7,825975	15,825	78,83029	0,70667535	0,857028836	16815,06	39371000	387900	6,576302	0,403326	1,173055	5,469678	1,838235	31,95319	0,756086	65655	77,								
1999	RENFE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12934000	754,5804	7,825975	15,825	78,90912	0,72715587	0,872075871	17443,15	39410000	414200	6,714239	0,417466	1,122429	5,235123	2,141817	33,21524	0,70634	67652	77,3								
1972	SJ	8,679884809	5,367359551	11394	56426	42835	4421294	14939126	388,0639	163,8788	3,125	19,73179	0,32890904	0,47488419	14446,97	8122000	104200	10,62551	0,3027	2,066398	2,504318	2,10854	27,68687	3,02393	28673	81,74	1	0	0	0	0	1,325297	2107495	2926409
1973	SJ	8,19016047	4,873179142	11366	55794	43461	4499900	16995242	388,0639	163,8788	3,125	19,76823	0,32931786	0,485975395	14992,54	8137000	102700	10,94927	0,30749	2,239299	2,569517	2,454711	30,41083	3,776516	28408	82,06	2	0	0	0	0	1,323242	2141768	2982599
1974	SJ	7,730720843	4,990340223	11366	56534	45020	5304400	18279753	388,0639	163,8788	3,125	19,82654	0,39860279	0,604624558	15426,52	8161000	103900	9,930243	0,32336	2,759537	2,911153	5,082833	36,34162	4,421536	26286	82,38	3	0	0	0	0	1,332251	2217674	3046979
1975	SJ	7,620677787	5,412193964	11366	57102	41826	5647200	14988412	388,0639	163,8788	3,125	19,90428	0,37524502	0,59128973	15760,47	8193000	98800	10,011	0,33679	2,189424	2,463034	4,217677	32,4032	3,208094	26597	82,7	4	0	0	0	0	1,383508	2247652	3101395
1976	SJ	7,739023605	5,196972671	11366	58343	41133	5376900	15301365	388,0639	163,8788	3,125	19,97473	0,36221874	0,587498679	15869,13	8222000	113800	10,87043	0,3504	2,022851	2,557229	4,43348	32,62613	3,21369	29209	82,78	5	0	0	0	0	1,430847	2282585	3159719
1977	SJ	7,976559669	5,423036486	11375	58530	40899	5377100	14050718	388,0639	163,8788	3,125	20,04762	0,34991941	0,581169658	15560,94	8252000	100800	10,51322	0,34609	1,7845	2,560791	4,407397	32,54533	2,947041	28142	82,86	6	0	0	0	0	1,462652	2337244	3222317
1978	SJ	8,131681225	5,044697909	11382	59133	39174	5369100	13943820	388,0639	163,8788	3,125	20,10592	0,33093253	0,549634966	15787,57	8276000	99800	9,525603	0,34513	1,841277	2,529428	3,94401	32,51129	2,849617	26300	82,94	7	0	0	0	0	1,473175	2395512	3301026
1979	SJ	7,106767865	4,503404476	11382	59491	39479	5978100	16693719	388,0639	163,8788	3,125	20,14965	0,36136629	0,600957092	16356,26	8294000	103700	10,15733	0,34582	2,247493	2,555672	6,363072	35,55501	3,022642	26993	83,02	8	0	0	0	0	1,521253	2453400	3387062
1980	SJ	6,176638599	4,65666099	11382	60029	39423	6786874	15913698	388,0639	163,8788	3,125	20,18852	0,47991635	0,722474245	16597,22	8310000	117100	8,732974	0,34651	2,261148	2,396376	7,242251	34,34432	2,84193	24360	83,1	9	0	0	0	0	1,556199	2489333	3418492
1981	SJ	6,27109495	4,717240767	11340	61200	38319	6850800	14555153	388,0639	163,8788	3,125	20,21282	0,53310494	0,78664197	16549,48	8320000	123400	8,351982	0,347	2,017689	2,333047	7,086537	33,7366	2,766692	22009	83,1	10	0	0	0	0	1,598294	2614071	3967743
1982	SJ	7,490203518	4,931875083	11760	62882	38194	6380500	13643937	388,0639	163,8788	3,125	20,22496	0,59626724	0,815225129	16733,24	8325000	127700	7,421041	0,349981	2,05266	2,575432	7,763281	36,4101	2,71467	19967	83,1	11	0	0	0	0	1,560892	2663113	4142901
1983	SJ	7,006911401	4,400563581	11717	64922	38805	6460160	14950612	388,0639	163,8788	3,125	20,23954	0,58777373	0,798377408	17039,78	8331000	140100	6,896817	0,357256	2,37857	2,709305	7,988774	39,13629	3,117386	17694	83,1	12	0	0	0	0	1,642925	2765800	4369295
1984	SJ	7,186434861	3,504498773	11637	65288	40566	6483000	16944156	388,0639	163,8788	3,125	20,25412	0,58977565	0,755882315	17755,23	8337000	152000	6,745461	0,37476	2,464771	2,717226	6,79107	40,31244	3,328341	16848	83,1	13	0	0	0	0	1,734101	2866196	4576259
1985	SJ	10,20806553	4,389439582	11266	64121	40746	6586000	17587000	388,0639	163,8788	3,125	20,2857	0,6026651	0,772610426	18113,73	8350000	150300	7,328351	0,382871	2,327366	2,636181	6,571803	41,84253	2,899596	17425	83,1	14	0	0	0	0	1,889039	2819081	4879340
1986	SJ	7,618977054	2,826787408	11236	62563	41128	6152000	17754000	388,0639	163,8788	3,125	20,33429	0,45924831	0,651826903	18566,73	8370000	173100	7,217292	0,392428	1,839491	2,358914	3,312242	40,32091	2,610496	17996	83,1	15	0	0	0	0	1,991924	2870820	5150204
1987	SJ	7,841119756	2,677164913	11194	61194	40153	6013000	17630000	388,0639	163,8788	3,125	20,40474	0,46283595	0,632795952	19123,48	8399000	180200	6,981405	0,405698	1,687481	2,141392	2,93567	41,07117	2,671173	17559	83,1	16	0	0	0	0	1,998961	2885263	5385196
1988	SJ	7,994900219	2,513808005	11076	60919	40791	6081000	18094000	388,0639	163,8788	3,125	20,49463	0,4638272	0,636398269	19529,82	8436000	189700	6,897884	0,414514	1,967028	2,088151	2,224202	40,96252	2,663331	16725	83,1	17	0	0	0	0	2,031343	2743205	5651549
1989	SJ/BV	9,109548213	2,584062329	11022	59171	40620	6060000	18532000	388,0639	163,8788	3,125	20,63311	0,49408119	0,636556132	19919,74	8493000	203000	6,592741	0,422925	2,040325	1,986734	2,615387	40,77861	2,587772	15851	83,1	18	0	0	0	0	2,092721	1637520	2933871
1990	SJ/BV	[illegible]	[illegible]	[illegible]	58751	39808	6076000	18756000	388,0639	163,8788	3,125	20,79345	0,61898555	0,782929446	19982,67	8559000	208000	5,815268	0,425867	1,630301	1,918151	2,791404	37,95066	2,170415	15133	83,1	19	0						
1991	SJ/BV	[illegible]	[illegible]	[illegible]	57530	38401	5524000	18575000	388,0639	163,8788	3,125	20,93533	0,59012417	0,744658892	19628,59	8617400	178100	5,978416	0,420012	1,401587	1,869488	2,486866	34,46472	1,799446	15038	83,1	20	0						
[illegible]	[illegible]	[illegible]	[illegible]	9846	59236	34260	5234000	19202000	388,0639	163,8788	3,125	21,05826	0,56162133	0,72680445	19172,62	8668000	186700	6,348299	0,414011	1,343808	1,877197	2,388423	33,65247	1,833299	15780	83,1	21	0	1	0				
[illegible]	[illegible]	[illegible]	[illegible]	10361	58451	33325	5830000	18745000	388,0639	163,8788	3,125	21,18119	0,60721455	0,814074981	18710,35	8718600	183200	5,61035	0,409015	1,553007	2,205505	2,915395	39,10985	2,062021	15646	83,1	22	0	1					
[illegible]	[illegible]	[illegible]	[illegible]	9661	59756	37348	5906000	19060000	388,0639	163,8788	3,125	21,33205	0,64624914	0,776777292	19343,08	8780700	195100	5,853504	0,409329	1,803077	2,607327	2,590273	44,82327	2,451424	16859	83,1	23	0	1					
[illegible]	[illegible]	[illegible]	2,069548867	9782	61259	39086	6219000	18979000	388,0639	163,8788	3,125	21,45425	0,64563751	0,77	19952,46	8831000	170600	5,494174	0,411138	1,979357	2,524985	2,161118	47,65792	2,736333	16745	83,1	24	0	1	0	3,5553			
[illegible]	[illegible]	[illegible]	[illegible]	9821	65730	37719	6191000	18456000	388,0639	163,8788	3,125	21,48341	0,66572299	0,794251672	20135,64	8843000	183500	6,293727	0,413312	1,673252	2,639845	2,56436	46,14563	2,07332	18094	83,14	25	0	1	0				
1997	SJ/BV	[illegible]	[illegible]	[illegible]	65812	33690	6286000	14720000	388,0639	163,8788	3,125	21,49905	0,68275501	0,838154577	20540,86	8849400	207400	5,490344	0,418419	1,92824	2,965668	2,712626	49,75804	2,325264	16954	83,18	26	0						
[illegible]	[illegible]	[illegible]	[illegible]	10065	65641	34064	6997000	14786000	388,0639	163,8788	3,125	21,50479	0,63045354	0,780848495	21264,8	8851800	223400	5,588503	0,428394	1,861593	3,01621	1,902129	52,51798	2,171253	17140	83,22	27	0	1					
1999	SJ/BV	[illegible]	[illegible]	[illegible]	67092	34475	7434000	14948000	388,0639	163,8788	3,125	21,51839	0,65517848	0,806435751	22206,27	8857400	237000	5,514246	0,436584	1,630252	2,877158	2,541603	51,46976	2,101473	16949	83,26	28	0						
1972	SNCB	13,04062262	11,71840693	4124	60282	24103	7509886	7545851	168,1605	34,21072	63,5	295,8257	0,4854927	0,630223192	13596,25	9709000	41000	13,82131	0,23469	6,129877	9,323264	5,399096	56,56526	2,777655	27518	94,54	1	0	0	0	0	3,808834	1458979	1995379
1973	SNCB	13,34096964	11,24092997	4060	61981	25387	7448763	8238019	168,1605	34,21072	63,5	296,7093	0,49716254	0,645371939	14385,68	9738000	40400	14,22199	0,24631	7,47549	10,00468	5,098376	59,94202	3,134417	28843	94,66	2	0	0	0	0	3,941588	1672405	2300798
1974	SNCB	13,46325776	10,29858067	4038	63620	26275	7641182	9199121	168,1605	34,21072	63,5	297,6234	0,6189501	0,803465655	14943,79	9768000	37300	13,80849	0,2574	8,634162	9,58965	8,394837	62,52755	2,876863	25364	94,78	3	0	0	0	0	4,0217	1766535	2598232
1975	SNCB	14,69993587	10,15985604	3992	64564	21438	7649757	6804018	168,1605	34,21072	63,5	298,4461	0,60591054	0,786538859	14704,84	9795000	36100	12,21042	0,26843	5,209623	9,403682	7,907753	55,17844	2,068417	24460	94,9	4	0	0	0	0	4,014025	1951403	2853570
1976	SNCB	15,44363414	10,43561358	3996	65494	21046	7574501	6693032	168,1605	34,21072	63,5	298,9336	0,60236409	0,781935183	15510,73	9811000	39900	12,71237	0,28067	5,64966	9,491061	8,156295	57,2141	2,380831	26379	95	5	0	0	0	0	4,039497	2217461	3123676
1977	SNCB	16,03466236	10,55121691	4003	66631	20908	7346486	6527507	168,1605	34,21072	63,5	299,2687	0,59653816	0,774372487	15590,37	9822000	42800	12,38228	0,29376	5,666303	10,60194	9,117445	62,27535	2,523874	26023	95,1	6	0	0	0	0	4,072967	2438920	4706360
1978	SNCB	17,51107478	9,296006046	4042	69069	21777	7136388	7156924	168,1605	34,21072	63,5	299,5125	0,5645487	0,732846621	16020,39	9830000	46000	13,51256	0,30367	5,084029	10,1754	7,686261	62,87733	2,333988	27626	95,2	7	0	0	0	0	4,088085	2671757	5182717
1979	SNCB	18,98006639	8,599863399	3998	70783	23454	6954843	8573499	168,1605	34,21072	63,5	299,7258	0,65893727	0,788756183	16383,77	9837000	48000	14,00812	0,31379	6,405786	10,99319	10,634	67,2435	2,521625	27631	95,3	8	0	0	0	0	4,195988	2786794	5726959
1980	SNCB	19,69827282	9,320300668	3978	72028	23115	6962918	8036725	168,1605	34,21072	63,5	300,0305	0,82714146	0,980500761	17100,29	9847000	47800	13,30028	0,32139	7,963726	11,05515	14,03657	67,73573	2,412155	25499	95,4	9	0	0	0	0	4,337736	3058215	6330438
1981	SNCB	19,09961643	8,987148479	3954	74523	22341	7078080	7561204	168,1605	34,21072	63,5	300,1828	0,90897791	1,117031598	17038,72	9852000	43000	12,14899	0,321481	7,108256	12,83792	17,03686	69,47499	2,489461	23217	95,52	10	0	0	0	0	4,507445	3376598	6984709
1982	SNCB	19,18438824	9,492177238	3928	73374	21094	6878899	6818396	168,1605	34,21072	63,5	300,3047	0,89553818	1,141315181	17126,79	9856000	40400	11,6045	0,321572	6,724721	14,21408	18,11388	74,621	2,605116	22036	95,64	11	0	0	0	0	4,626467	4902148	8381644
1983	SNCB	18,38285575	8,96525405	3860	70557	20180	6631190	6859783	168,1605	34,21072	63,5	300,3047	0,86583586	1,140539155	17171,37	9856000	39100	10,07555	0,32159	7,495001	13,81888	16,20289	78,08536	2,821023	20019	95,76	12	0	0	0	0	4,706071	5073999	8871925
1984	SNCB	19,96770641	8,403041254	3776	72561	21737	6444231	7928971	168,1605	34,21072	63,5	300,2133	0,8489016	1,113208501	17594,3	9853000	40400	10,32498	0,329996	7,647839	15,0261	17,37618	80,92722	3,207351	19185	95,88	13	0	0	0	0	4,990707	5199872	9160977
1985	SNCB	7,99884515	5,944862323	3667	72310	22313	6572000	9397000	168,1605	34,21072	63,5	300,3656	0,83330711	1,11895303	17881,56	9858000	43200	10,36647	0,333202	7,337067	13,93564	14,77147	82,13254	3,075918	19646	96	14	0	0	0	0	5,172835	5240717	9491494
1986	SNCB	7,623880781	5,769351506	3618	70497	21184	6069000	8524000	168,1605	34,21072	63,5	300,4305	0,60612051	0,821301897	18204,21	9862000	45300	10,06069	0,33821	5,452132	12,3511	8,680505	78,84477	2,526234	22216	96,1	15	0	0	0	0	5,321869	5312198	9772782
1987	SNCB	7,212908521	5,742452734	3568	72107	21112	6270000	8372000	168,1605	34,21072	63,5	300,7313	0,58055761	0,772011061	18602,73	9870000	45900	9,989207	0,346245	4,948146	11,74649	7,077442	78,27617	2,498628	22284	96,2	16	0	0	0	0	5,538653	5258226	9994799
1988	SNCB	7,013608123	5,355455533	3554	71422	20817	6348000	8839000	168,1605	34,21072	63,5	301,7063	0,56170773	0,758782551	19415,73	9902000	51200	9,184903	0,361943	6,230468	11,73397	6,012122	81,33461	2,623161	23013	96,3	17	0	0	0	0	5,589148	4985754	10128560
1989	SNCB	6,756003256	4,957369398	3513	71285	21041	6400000	9275000	168,1605	34,21072	63,5	302,8032	0,61254836	0,81337728	20015,53	9938000	59700	9,643347	0,374025	7,135382	11,76835	6,528224	84,39855	2,675361	22534	96,4	18	0	0	0	0	5,626824	4774143	10199755

A2.13.Variables used in the demand equations

Year	Firms	Price_PK	Price_TK	Net	TKM_P	TKM_F	PASSKM	TONKM	survey	Snow	AGL	Density	OILPCP	GASHP	GDP_cap	POP
1990	SNCB	6,469982548	4,714709698	3479	70695	21415	6539000	9544000	168,1605	34,21072	63,5	303,699	0,6568231	0,816969857	20585,58	9967400
1991	SNCB	6,020531513	5,179333785	3466	71665	20621	6771000	9348000	168,1605	34,21072	63,5	304,8294	0,66682327	0,810364088	20882,33	10005000
1992	SNCB	6,057161082	4,925329477	3432	72150	20551	6798000	9450000	168,1605	34,21072	63,5	306,0634	0,69016534	0,812310856	21113,25	10045000
1993	SNCB	6,136481052	4,688211233	3410	72329	18645	6694000	8614000	168,1605	34,21072	63,5	307,2669	0,69823182	0,824511839	20825,76	10085000
[illegible]	SNCB	[illegible]	[illegible]	3396	72101	18141	6638000	9301000	168,1605	34,21072	63,5	308,2145	0,69384792	0,838101815	21434,51	10116000
[illegible]	[illegible]	[illegible]	4,639111069	3368	70281	17270	6757000	8424000	168,1605	34,21072	63,5	308,8604	0,67877893	0,83	21913,01	10137000
[illegible]	SNCB	[illegible]	[illegible]	3380	72376	17517	6788000	8454000	168,1605	34,21072	63,5	309,4759	0,73071713	0,911918587	22135,7	10159000
[illegible]	[illegible]	[illegible]	[illegible]	3422	72675	17354	6984000	8701000	168,1605	34,21072	63,5	310,2072	0,75935185	0,982663987	22869,5	10181000
[illegible]	[illegible]	[illegible]	[illegible]	3410	74799	18431	7097000	8764000	168,1605	34,21072	63,5	310,8775	0,66813252	0,876073921	23330,58	10204000
[illegible]	SNCB	[illegible]	[illegible]	3472	76844	17976	7354000	8468000	168,1605	34,21072	63,5	311,5783	0,69222493	0,90958451	23990,4	10223000
1972	SNCF	7,83661577	7,228413909	34829	247340	219234	43007090	68104000	369,8489	26,28798	53,85	93,98473	0,63533761	0,831422594	13324,75	51701000
1973	SNCF	7,664972124	6,91783038	34768	251760	221134	44468606	73259000	369,8489	26,28798	53,85	94,74277	0,65019013	0,850859062	13937,86	52118000
1974	SNCF	7,744064053	6,796086649	34382	261666	227780	47054290	76424000	369,8489	26,28798	53,85	95,36448	0,80753989	1,056771859	14277,97	52460000
1975	SNCF	7,735802171	6,938806952	34225	268291	208740	50446706	63473000	369,8489	26,28798	53,85	95,79894	0,78641131	1,029122344	14172,6	52699000
1976	SNCF	8,013129054	6,90938849	34351	276439	205271	50833588	67883000	369,8489	26,28798	53,85	96,18069	0,7819628	1,023300887	14715,21	52909000
1977	SNCF	7,698745811	6,652672906	34214	279559	207833	51576596	65604000	369,8489	26,28798	53,85	96,60971	0,77739293	1,01732061	15120,35	53145000
1978	SNCF	7,797896024	6,673745217	34151	283238	208696	53263011	66677000	369,8489	26,28798	53,85	97,02963	0,73112425	0,956771978	15559,07	53376000
1979	SNCF	7,896231463	6,690995327	34076	286251	213607	53333300	70006000	369,8489	26,28798	53,85	97,44774	0,78728194	0,976555274	16005,05	53606000
1980	SNCF	8,072148711	6,919977563	33906	290477	214599	54251100	68815300	369,8489	26,28798	53,85	97,94583	0,86449449	1,032106064	16179,8	53880000
1981	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	204884	55414200	63729500	369,8489	26,28798	53,85	98,49482	0,92179942	1,06983308	16285,34	54182000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	300259	196692	56605000	60554100	369,8489	26,28798	53,85	99,03654	0,9027559	1,096848355	16615,94	54480000
1983	SNCF 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	58176600	58755600	369,8489	26,28798	53,85	99,48737	0,89691231	1,069255458	16773,3	54728000
1984	SNCF 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	59952600	59501500	369,8489	26,28798	53,85	99,88548	0,90572809	1,085721871	16965,34	54947000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	301282	180034	61640000	55121000	369,8489	26,28798	53,85	100,2909	0,92211621	1,11895303	17125,06	55170000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	59618000	51016000	369,8489	26,28798	53,85	100,6981	0,70688575	0,899521126	17448,32	55394000
[illegible]	SNCF 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	59732000	50600000	369,8489	26,28798	53,85	101,1271	0,69456312	0,898570252	17793,4	55630000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	63057000	51527000	369,8489	26,28798	53,85	101,5888	0,65521568	0,868928405	18511,74	55884000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	52449000	369,8489	26,28798	53,85	102,5923	0,67798991	0,919469968	19172,52	56436000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	318414	163586	63761000	50667000	369,8489	26,28798	53,85	103,1358	0,66393223	0,896397482	19568,03	56735000
[illegible]	SNCF 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	62101000	50632000	369,8489	26,28798	53,85	103,5766	0,65178261	0,865118419	19663,82	57055000
1992	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	159075	62647000	49536000	369,8489	26,28798	53,85	104,058	0,63264354	0,833687457	19858,57	57374000
1993	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	145720	58164000	45033000	369,8489	26,28798	53,85	104,471	0,62826122	0,814074981	19598,5	57667000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	58675000	48750000	369,8489	26,28798	53,85	104,8195	0,635694	0,817660307	19930,77	57928000
[illegible]	[illegible]	[illegible]	[illegible]	31939	307774	142806	55319000	48137000	369,8489	26,28798	53,85	105,1576	0,65502247	0,87	20192,48	58139000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	59519000	60225000	369,8489	26,28798	53,85	105,4888	0,68479095	0,892307434	20345,15	58375000
1997	SNCF/RFF	[illegible]	[illegible]	[illegible]	[illegible]	155574	61573000	65148000	369,8489	26,28798	53,85	105,8188	0,70162791	0,915226262	20661,76	58607000
1998	SNCF/RFF	[illegible]	[illegible]	[illegible]	[illegible]	154077	64186000	65517000	369,8489	26,28798	53,85	106,1592	0,67128175	0,885596464	21289,66	58847000
1999	SNCF/RFF	[illegible]	[illegible]	[illegible]	362527	154767	66298000	53438000	369,8489	26,28798	53,85	106,563	0,71105695	0,91896167	21884,58	59082000
1992	SZ	6,678343692	9,031909216	1201	11666	7230	547000	2574000	592,3438	58,17936	29,275	99,2346	0,9789937	0,999327425	11934,26	1996600
1993	SZ	5,63665105	9,299588725	1201	11505	6677	566000	2262000	592,3438	58,17936	29,275	97,75348	0,93315535	0,952537011	12347,35	1966800
1994	SZ	5,903856234	7,743182763	1201	11535	7059	590000	2448000	592,3438	58,17936	29,275	98,85189	0,89146282	0,909978525	12584,54	1988900
1995	SZ	5,08344307	5,713139259	1201	11469	7046	595000	2881000	592,3438	58,17936	29,275	98,90656	0,90547789	0,924284691	13191,21	1990000
1996	SZ	5,455962105	6,354375199	1201	11403	6940	613000	2550000	592,3438	58,17936	29,275	98,95626	0,94605774	0,965707387	13594,19	1991000
1997	SZ	5,441127597	5,811288904	1201	11047	7285	616000	2852000	592,3438	58,17936	29,275	98,70576	1,12058203	1,143856547	14002,9	1986000
1998	SZ	5,460080723	5,755871377	1201	10598	7473	645000	2860000	592,3438	58,17936	29,275	98,53876	0,92955997	0,948866956	14201,85	1982000
1999	SZ	5,693782245	5,638888257	1202	10511	7620	623000	2784000	592,3438	58,17936	29,275	98,6829	1,01422043	1,035285816	14982,29	1981000
1972	TCDD	1,739502057	6,069542342	8134	18116	21019	5336541	6725520	1117,795	29,96244	21,95	48,32164	0,56411999	0,82269515	3625,381	37190000
1973	TCDD	1,464320932	5,926108731	8135	18709	21633	5215274	6755979	1117,795	29,96244	21,95	49,57834	0,58080672	0,847030564	3651,237	38157000
1974	TCDD	1,187319458	5,307158342	8141	18301	21491	5753306	6403635	1117,795	29,96244	21,95	50,81391	0,72762481	1,061145531	3797,618	39108000
1975	TCDD	1,510731328	7,786467513	8140	18377	20847	4735724	6799389	1117,795	29,96244	21,95	52,00551	0,70897092	1,033941281	3969,46	40025000
1976	TCDD	1,558072404	8,802174465	8138	18208	21139	4615345	7277980	1117,795	29,96244	21,95	53,15704	0,7012075	1,022619341	4289,409	40911000
1977	TCDD	1,298588019	7,411928222	8139	18788	19499	5087257	6353198	1117,795	29,96244	21,95	54,25985	0,69372947	1,011713609	4344,875	41760000
1978	TCDD	1,425822956	6,981147986	8139	19703	17812	5600163	5654312	1117,795	29,96244	21,95	55,35834	0,65605613	0,956771978	4320,055	42605000
1979	TCDD	0,821829231	6,255319892	8132	20380	17031	6799360	5576947	1117,795	29,96244	21,95	56,52369	0,86572076	1,48361282	4205,304	43502000
1980	TCDD	1,236515653	13,25467997	8193	21529	13944	6010878	5029322	1117,795	29,96244	21,95	57,7992	1,14364834	1,582562632	4018,628	44484000
1981	TCDD	1,122483865	11,35818997	8193	22261	18185	6105223	5936161	1117,795	29,96244	21,95	59,18169	1,22421762	1,636215299	4111,865	45548000
1982	TCDD	1,550773231	11,17731971	8156	21255	17189	5440038	5999065	1117,795	29,96244	21,95	60,67331	1,28633777	1,734206184	4153,656	46696000
1983	TCDD	1,554708763	11,35772886	8169	22649	16761	5721729	6116887	1117,795	29,96244	21,95	62,20262	1,26577175	1,696551993	4252,929	47873000
1984	TCDD	1,381846851	10,03290852	8169	24980	19395	6276727	7525799	1117,795	29,96244	21,95	63,7696	1,2841914	1,717914353	4426,836	49079000
1985	TCDD	0,818846775	5,34459733	8169	26194	19363	6489000	7748000	1117,795	29,96244	21,95	65,33789	1,28487195	1,678429546	4501,225	50286000
1986	TCDD	0,951588944	5,909231448	8170	26177	19155	6052000	7219000	1117,795	29,96244	21,95	66,83731	1,10585404	1,420982648	4711,448	51440000
1987	TCDD	0,843972686	5,026939219	8169	26910	16835	6174000	7259000	1117,795	29,96244	21,95	68,30425	0,89693079	1,126376794	5047,594	52569000
1988	TCDD	0,938793166	4,987295003	8164	26104	17434	6708000	8006000	1117,795	29,96244	21,95	69,80367	0,92853517	1,150412255	5043,88	53723000
1989	TCDD	1,066434548	5,210485461	8430	26959	16690	6844000	7564000	1117,795	29,96244	21,95	71,33558	1,04812078	1,190595728	4948,059	54902000
1990	TCDD	1,60600857	5,459551905	8429	26307	17883	6410000	7909000	1117,795	29,96244	21,95	72,92595	1,17195864	1,248148392	5280,012	56126000
1991	TCDD	1,946718517	4,556120948	8429	25647	17605	6048000	7990000	1117,795	29,96244	21,95	74,14472	1,25793101	1,456465186	5226,454	57064000
1992	TCDD	2,725586689	4,143260555	8430	25870	17425	6259000	8242000	1117,795	29,96244	21,95	75,27123	1,24883893	1,485673802	5435,267	57931000
1993	TCDD	1,318021865	3,142296354	8430	26048	17802	7147000	8406000	1117,795	29,96244	21,95	76,41594	0,99670689	1,241986188	5764,778	58812000
1994	TCDD	1,550948165	2,435200835	8452	26640	17430	6335000	8215000	1117,795	29,96244	21,95	77,57754	1,03680522	1,359360261	5352,914	59706000
1995	TCDD	1,548481566	2,356689808	8549	25710	17645	5797000	8516000	1117,795	29,96244	21,95	78,6092	1,00112633	1,31	5637,982	60500000
1996	TCDD	1,9208319	2,377224424	8607	26709	17815	5229000	8914000	1117,795	29,96244	21,95	79,81108	1,13883355	1,402197397	5931,998	61425000
1997	TCDD	1,892691038	2,731667895	8607	26827	19259	5840000	9614000	1117,795	29,96244	21,95	81,09222	1,25638776	1,599237468	6273,539	62411000
1998	TCDD	1,696117915	3,055593151	8607	26721	17178	6160000	8377000	1117,795	29,96244	21,95	82,34216	1,06079209	1,418858851	6363,292	63373000
1999	TCDD	2,061663826	2,496993489	8682	27177	16397	6146000	8237000	1117,795	29,96244	21,95	83,65708	1,32242591	1,725397421	5968,758	64328000
1972	VR	4,945063826	6,469019796	5923	23743	19664	2593859	6502600	166,1563	165,9414	2,335	15,23359	0,5145762	0,693737869	12215,93	4640000
1973	VR	4,796991668	6,110609187	5933	24813	19533	2773200	7007400	166,1563	165,9414	2,335	15,31895	0,5266015	0,709950063	12996,25	4666000
1974	VR	4,375469236	5,626244415	5947	25756	20363	3046900	7484100	166,1563	165,9414	2,335	15,40103	0,65516865	0,883280853	13345,37	4691000
1975	VR	4,549015085	6,154818922	5953	26612	17793	3135164	6435900	166,1563	165,9414	2,335	15,46669	0,64072985	0,86381485	13528,56	4711000
1976	VR	5,196296031	6,625625079	5961	26229	17055	2985300	6544100	166,1563	165,9414	2,335	15,51594	0,63502123	0,856118636	13472,37	4726000
1977	VR	4,966101278	6,296455337	6044	26071	16332	2977100	6396700	166,1563	165,9414	2,335	15,55862	0,62700467	0,845310928	13480,74	4739000
1978	VR	4,904639856	6,070596107	6080	25684	15804	2931000	6325600	166,1563	165,9414	2,335	15,60458	0,58888364	0,793917173	13754,5	4753000
1979	VR	4,842010229	5,535185635	6081	25583	17406	3019900	7365200	166,1563	165,9414	2,335	15,64398	0,61221559	0,788756183	14648,19	4765000
1980	VR	4,74114104	5,434898143	6075	25607	19327	3215600	8333800	166,1563	165,9414	2,335	15,69323	0,75539222	0,963298993	15349,64	4780000
1981	VR	4,980071449	5,587249537	6092	25429	20062	3274100	8389300	166,1563	165,9414	2,335	15,75889	0,8113537	1,022634562	15612,74	4800000
1982	VR	5,244677786	5,585382683	6090	25050	19443	3326069	7998794	166,1563	165,9414	2,335	15,84753	0,77921753	0,978270155	16012,53	4827000
1983	VR	5,348588718	5,644989528	6090	24813	18974	3338647	8089211	166,1563	165,9414	2,335	15,94274	0,76374366	0,955201542	16353,36	4856000
1984	VR	5,603505348	5,647630957	5998	24425	18897	3275840	7978800	166,1563	165,9414	2,335	16,0281	0,73172397	0,907058778	16822,39	4882000
1985	VR	5,60287716	5,22608589	5900	24446	19049	3224000	8066000	166,1563	165,9414	2,335	16,09377	0,72255293	0,89249825	17273,79	4902000
1986	VR	6,312539274	5,423101978	5899	21823	16505	2676000	6951000	166,1563	165,9414	2,335	16,1463	0,56405231	0,690936517	17646,4	4918000
1987	VR	6,086928951	5,435507073	5884	24500	18198	3106000	7404000	166,1563	165,9414	2,335	16,19554	0,5772911	0,683419628	18338,16	4933000
1988	VR	6,2541106	5,193166915	5884	23875	18157	3201000	7816000	166,1563	165,9414	2,335	16,25464	0,5623697	0,660875125	19151,97	4951000
1989	VR	5,814180292	4,549068099	5884	22027	17239	3208000	7958000	166,1563	165,9414	2,335	16,29075	0,58108223	0,660132285	20063,3	4962000
1991	VR	6,26537066	4,725228752	5874	24715	15399	3230000	7634000	166,1563	165,9414	6,775	16,46147	0,63479662	0,700855428	18626,42	5014000
1992	VR	6,54493752	4,342761827	5874	25574	14623	3057000	7848000	166,1563	165,9414	6,775	16,5534	0,59102289	0,662674645	17907,69	5042000
1993	VR	6,55565962	3,870643135	5885	25169	15707	3007000	9259000	166,1563	165,9414	6,775	16,63219	0,66710753	0,803638122	17618,17	5066000
1994	VR	6,393151999	3,672776668	5880	24745	16599	3037000	9949000	166,1563	165,9414	6,775	16,7077	0,60186549	0,756335784	18232,13	5089000
[illegible]	[illegible]	[illegible]	[illegible]	5859	25024	15597	3254000	8806000	166,1563	165,9414	6,775	16,8259	0,68134709	0,911918587	19547,28	5125000
[illegible]	[illegible]	[illegible]	[illegible]	5865	26937	16637	3376000	9856000	166,1563	165,9414	6,775	16,87462	0,67905623	0,905592301	20716,56	5139800
[illegible]	[illegible]	[illegible]	[illegible]	5867	27117	17364	3377000	9885000	166,1563	165,9414	6,775	16,91782	0,65215777	0,876073921	21766,67	5153000
[illegible]	[illegible]	[illegible]	[illegible]	5836	27061	17244	3415000	9753000	166,1563	165,9414	6,775	16,9605	0,69832912	0,93771599	22596,53	5166900
1993	ZSR	2,376991997	6,571576415	3661	35099	23903	4569000	13887000	524,6699	84,20453	23,725	110,7446	1,67058176	2,014313734	8019,649	5324600
1994	ZSR	6,040036624	9,001472718	3665	40049	23818	4548000	12334000	524,6699	84,20453	23,725	111,2167	1,50671069	1,819294184	8400,118	5347300
1995	ZSR	2,766579786	8,295826456	3668	40062	24439	4202000	13763000	524,6699	84,20453	23,725	110,8985	1,40802896	1,64	8915,42	5332000
1996	ZSR	7,574214575	8,993300278	3673	37289	23031	3759000	11880000	524,6699	84,20453	23,725	111,1273	1,45263382	1,666947955	9418,348	5343000
1997	ZSR	9,215736772	7,622561555	3665	38434	23731	3095000	12368000	524,6699	84,20453	23,725	111,9655	1,50786285	1,666675193	9932,774	5383300
1998	ZSR	8,687187419	7,473808197	3667	37107	22062	3116000	11756000	524,6699	84,20453	23,725	112,1256	1,4301023	1,590264618	10311,01	5391000
1999	ZSR	3,93048621	7,970863221	3662	37275	19770	2968000	9862000	524,6699	84,20453	23,725	112,2296	1,62060906	1,800414701	10437,76	5396400

Year	Firms	AirCDep	CO2e	Vehic_cap	OREM_El	Food_El	Fuel_El	Manuf_El	Agrm_El	OILDEM	URBAND	TIME	DUMMYHS	DUMMYTT	DHS220	DTTT	Qvmax	KQEQ	KQP_O
1990	SNCB	66500	10,14406	0,384583	5,506643	10,9183	6,497849	82,33646	2,275657	22601	96,5	19	0	0	0	0	5,65741	4403892	10329899
1991	SNCB	70000	10,71384	0,392714	4,731263	11,45734	6,766726	80,00117	1,96559	24380	96,6	20	0	0	0	0	5,656708	4072284	10417883
1992	SNCB	77100	10,621	0,401098	4,211906	11,15732	5,690057	74,73695	1,794899	24952	96,7	21	0	0	0	0	5,722601	3830677	10575444
1993	SNCB	109100	10,15115	0,407517	3,720111	10,87758	5,327149	73,7968	1,651058	24447	96,8	22	0	0	0	0	5,750436	3953584	10985077
[illegible]	SNCB	118700	10,6103	0,41271	4,275207	11,56635	5,152201	79,89757	1,917975	24876	96,9	23	1	0	1,38				
[illegible]	[illegible]	141200	10,82385	0,418184	4,730892	12,04048	4,792321	82,97736	1,840994	24246	97	24	1	0	1,386294	0	5,		
[illegible]	SNCB	164700	10,85979	0,424112	4,338008	12,14857	5,89771	87,75967	1,665073	27477	97,06	25	1	0	1,60				
[illegible]	[illegible]	182700	10,46516	0,429538	4,790445	13,33743	5,990326	95,3591	1,938907	28568	97,12	26	1	0	2,3				
[illegible]	[illegible]	213000	10,07054	0,440237	4,360508	13,52768	4,861804	102,0529	1,949431	29233	97,18	27	1	0	2,				
[illegible]	SNCB	233300	9,67591	0,448231	4,419373	13,70689	4,928857	103,4027	1,988415	27559	97,24	28	1	0	2,39				
1972	SNCF	232500	9,252449	0,26885	1,20193	4,117444	2,044392	17,11908	1,186725	113471	71,8	1	0	0	0	0	2,693877	18207720	41886493
1973	SNCF	230600	9,794054	0,27815	1,330626	4,476112	2,035125	17,95002	1,389581	125963	72,2	2	0	0	0	0	2,708146	18377355	42289574
1974	SNCF	239100	9,421145	0,28567	1,887392	4,696163	4,636193	20,95722	1,50517	118265	72,6	3	0	0	0	0	2,75951	18608722	42924320
1975	SNCF	246300	8,476933	0,29055	1,235123	4,244295	3,894328	19,28149	1,035806	109141	73	4	0	0	0	0	2,741192	18944059	43628512
1976	SNCF	255700	9,413147	0,30067	1,335274	4,341572	4,33509	20,93279	1,254529	116046	73,06	5	0	0	0	0	2,833076	19231101	44353561
1977	SNCF	256300	8,876539	0,31447	1,357728	4,736074	4,238002	21,55406	1,218037	110494	73,12	6	0	0	0	0	2,864089	19554442	45121723
1978	SNCF	258000	9,309029	0,32628	1,245719	4,761487	3,623243	21,42221	1,0869	117318	73,18	7	0	0	0	0	2,950411	19779652	45970828
1979	SNCF	262400	9,599768	0,34172	1,411289	4,544265	4,387507	22,47346	1,161367	117947	73,2	8	0	0	0	0	2,981128	19913634	46874684
1980	SNCF	248400	9,227799	0,35735	1,64215	4,762954	5,948527	23,13384	1,157108	109349	73,3	9	0	0	0	0	3,082734	20034463	47917242
1981	[illegible]	254400	8,384015	0,35883	1,425528	5,127855	6,68462	23,69178	1,131937	97165	73,38	10							
[illegible]	[illegible]	268600	7,91116	0,363546	1,277816	5,00136	6,156657	24,08876	1,05048	90113	73,46	11	1						
1983	SNCF 1	241000	7,480979	0,365948	1,345194	5,215657	5,484753	24,12028	1,060427	87942	73,54								
1984	SNCF 1	259900	7,168096	0,368863	1,509439	5,441105	5,610859	25,69736	1,19687	84116	73,62								
[illegible]	[illegible]	261200	7,052187	0,371336	1,41975	5,36526	5,27508	26,2217	1,137397	82514	73,7	14	1	0	4				
[illegible]	[illegible]	274400	6,68845	0,376123	1,076656	4,793974	2,655845	24,7386	0,950816	82911	73,76	1							
[illegible]	SNCF 1	314400	6,481131	0,381265	1,010575	4,612845	2,254458	25,13393	0,946099	83843	73,82								
[illegible]	[illegible]	368200	5,971978	0,391618	1,265839	4,787668	1,862157	26,4497	0,974058	84611	73,88	1							
[illegible]	[illegible]	393200	6,467996	0,399838	1,491922	4,967108	2,137607	28,23187	0,987728	86574	73,9								
[illegible]	[illegible]	441700	6,448304	0,405393	1,243012	4,707272	2,267506	27,99942	0,836485	85979	74	19	1						
[illegible]	SNCF 1	408000	6,866668	0,417884	1,10591	4,695493	2,294495	27,92237	0,740247	91310	74,14								
1992	[illegible]	413700	6,454052	0,41962	0,985013	4,602893	1,944587	27,0742	0,686365	91040	74,28	21							
1993	[illegible]	459800	6,217767	0,424312	0,837924	4,411504	1,864423	24,7051	0,573462	88245	74,42	22							
[illegible]	[illegible]	479000	5,849144	0,431833	0,957849	4,476084	1,736161	26,57087	0,676996	87580	74,56	2							
[illegible]	[illegible]	482000	6,134669	0,433902	1,063963	4,528889	1,651019	27,78226	0,714134	90474	74,7	24	1	0	5,7				
[illegible]	[illegible]	549900	6,437922	0,439432	0,971393	4,500197	1,99011	28,59197	0,638342	92174	74,88	2							
1997	SNCF/RFF	667500	6,008716	0,444934	1,076879	4,707566	2,099838	30,87622	0,657136	92746	75,06	26	1	0	5,8				
1998	SNCF/RFF	691800	6,055643	0,459089	0,993648	4,58106	1,626985	32,78126	0,622688	96420	75,24	27	1	0	5,85				
1999	SNCF/RFF	746600	6,019052	0,46878	0,922073	4,4199	1,800185	33,02786	0,594881	95751	75,42	28	1	0	5,860786				
1992	SZ	3900	6,130951	0,303927	3,631822	7,897371	6,556898	78,92685	3,157953	1572	50,28	21	0	0	0	0	2,132475	486900	4338910
1993	SZ	6700	6,51502	0,32162	3,117218	6,627227	7,912854	77,11655	2,62998	1878	50,22	22	0	0	0	0	2,100147	530708	4878106
1994	SZ	6900	5,630022	0,330478	3,669997	6,699326	4,136839	78,94022	3,020943	2031	50,16	23	0	0	0	0	2,116719	634920	5516065
1995	SZ	7800	7,160082	0,35086	3,520875	5,666484	3,85453	77,2938	3,118025	2229	50,1	24	0	0	0	0	2,11283	663120	5915195
1996	SZ	8000	7,48148	0,365421	3,328706	5,750131	4,447137	77,95819	2,30361	2617	50,16	25	0	0	0	0	2,124347	686092	6019181
1997	SZ	8600	7,806728	0,385098	3,996132	5,636734	4,89367	80,15985	2,525413	2550	50,22	26	0	0	0	0	2,123805	695767	6308938
1998	SZ	9900	8,068213	0,402429	3,940894	5,289815	3,379024	82,74746	2,333379	2443	50,28	27	0	0	0	0	2,110957	699683	6561184
1999	SZ	10900	8,434165	0,417867	3,728922	4,817642	3,474304	78,44654	2,211763	2460	50,34	28	0	0	0	0	2,163814	708164	6817872
1972	TCDD	34700	1,547451	0,00499	0,522358	2,601789	0,934318	6,990689	1,435773	10078	39,68	1	0	0	0	0	0,366139	1129173	2176723
1973	TCDD	36700	1,660607	0,00619	0,641964	2,782533	1,116212	7,590877	1,6654	11612	40,32	2	0	0	0	0	0,387501	1215635	2203899
1974	TCDD	30600	1,65154	0,00794	0,851179	3,087176	2,380363	7,333936	1,180348	11981	40,96	3	0	0	0	0	0,381878	1301008	2305895
1975	TCDD	27200	1,751406	0,00977	0,705062	2,341417	1,897915	7,933576	0,94364	13296	41,6	4	0	0	0	0	0,372375	1540369	2391442
1976	TCDD	32000	1,932564	0,01175	0,604333	1,884407	2,264474	7,718811	1,227208	14863	42,04	5	0	0	0	0	0,420406	1758344	2514443
1977	TCDD	33400	2,099105	0,0126	0,609613	1,672489	2,57377	7,428948	0,68197	16777	42,48	6	0	0	0	0	0,4253	2016470	2627992
1978	TCDD	30400	1,996436	0,01363	0,381267	1,834669	2,198152	4,945226	0,738653	16882	42,92	7	0	0	0	0	0,432113	1965494	2954225
1979	TCDD	31400	1,921054	0,0146	0,346611	1,447766	1,972157	3,886943	0,442154	14645	43,36	8	0	0	0	0	0,421167	2084392	3108106
1980	TCDD	18900	1,860334	0,01589	0,681451	2,562872	5,631684	6,089657	0,762328	15083	43,8	9	0	0	0	0	0,393578	2290076	3224143
1981	TCDD	25300	1,966001	0,017081	0,883487	3,393603	5,710153	8,314182	0,888294	14969	45,54	10	0	0	0	0	0,42246	2401934	3340336
1982	TCDD	24000	2,034973	0,017667	0,848278	3,853448	6,532099	10,38794	0,979737	16009	47,28	11	0	0	0	0	0,41279	2628691	3523075
1983	TCDD	24600	2,164809	0,019036	1,156848	3,828665	6,942791	11,28949	1,043432	16934	49,02	12	0	0	0	0	0,431809	4140816	4652781
1984	TCDD	28400	2,172786	0,021164	1,307412	4,685436	7,057803	15,64436	1,128273	16876	50,76	13	0	0	0	0	0,490755	5001263	5166664
1985	TCDD	31600	2,416363	0,022565	1,23608	3,867908	6,185369	16,34826	1,045017	17345	52,5	14	0	0	0	0	0,581947	5563392	5707258
1986	TCDD	31700	2,673744	0,025705	1,220434	3,66574	3,131569	15,38938	1,072848	18823	54,24	15	0	0	0	0	0,576429	6074552	6057921
1987	TCDD	32900	2,782463	0,030335	1,398025	3,79649	3,895285	17,53553	1,247395	21358	55,98	16	0	0	0	0	0,53093	6783450	6447630
1988	TCDD	36800	2,444745	0,031	1,754348	3,820473	3,735007	18,09576	1,227406	20883	57,72	17	0	0	0	0	0,497596	8069609	7603387
1989	TCDD	38300	2,674976	0,032	1,807223	3,66305	3,259491	15,82974	1,02705	21391	59,46	18	0	0	0	0	0,497869	8735904	8813956
1990	TCDD	44200	2,779955	0,033578	1,183405	3,157921	3,274413	14,86838	0,891729	22727	61,2	19	0	0	0	0	0,675646	9543923	9524200
1991	TCDD	38600	2,731909	0,037566	1,075415	3,179926	2,691714	15,13376	0,782922	22168	62,8	20	0	0	0	0	0,680117	10303832	10432109
1992	TCDD	58600	2,774966	0,043585	0,937662	2,936322	2,50509	16,21544	0,80788	23455	64,4	21	0	0	0	0	0,730954	11124488	11325348
1993	TCDD	70500	2,98124	0,054715	0,98359	2,82966	2,290611	17,57221	0,95083	26899	66	22	0	0	0	0	0,822214	11805168	12290134
1994	TCDD	75100	2,865549	0,050716	1,437621	3,949433	3,144145	22,14285	1,153694	25617	67,6	23	0	0	0	0	0,869133	12901283	13731033
1995	TCDD	78500	3,156418	0,053414	1,64328	3,956713	2,903754	23,80647	1,358374	28731	69,2	24	0	0	0	0	0,901765	13882510	14847873
1996	TCDD	84900	3,349054	0,056278	1,47284	4,08159	3,487336	26,02508	1,353112	30041	70,42	25	0	0	0	0	1,030393	14624993	15670448
1997	TCDD	92800	3,46039	0,060361	1,579999	4,079826	2,746886	28,63544	1,371295	29613	71,64	26	0	0	0	0	1,100507	15311465	16580312
1998	TCDD	103900	3,58008	0,06391	1,359599	3,476199	1,95181	27,54505	1,180931	29331	72,86	27	0	0	0	0	1,147442	15964744	17534247
1999	TCDD	111400	3,717835	0,06326	1,267343	3,243096	2,564945	26,9845	0,914566	29117	74,08	28	0	0	0	0	1,182992	16421531	18181334
1972	VR	51500	9,549932	0,17667	1,461553	2,949189	2,936305	30,27477	4,881036	12058	53,5	1	0	0	0	0	0,395075	561089	514536
1973	VR	55100	10,65081	0,19184	1,663678	2,858153	2,902555	30,55083	5,199347	13328	55,1	2	0	0	0	0	0,484636	573311	651290
1974	VR	60700	9,985669	0,20012	2,060073	2,908003	6,169555	33,04518	5,231755	12001	56,7	3	0	0	0	0	0,604845	609826	816924
1975	VR	64300	9,905167	0,21159	1,68259	2,802947	5,039681	31,77418	3,925291	11994	58,3	4	0	0	0	0	0,683526	705219	1057589
1976	VR	62600	10,94021	0,21853	1,594781	2,566498	5,411181	30,29606	4,183349	12909	58,6	5	0	0	0	0	0,907671	784139	1301234
1977	VR	56400	10,73748	0,22693	1,77035	2,983614	6,037599	31,32155	4,511678	12735	58,9	6	0	0	0	0	0,928819	853809	1507283
1978	VR	60000	11,02337	0,23493	1,674154	2,76777	5,750678	32,53339	4,852405	12715	59,2	7	0	0	0	0	0,984105	919565	1679477
1979	VR	61100	11,2103	0,24559	2,211898	2,699085	7,701027	33,87616	5,668004	13178	59,5	8	0	0	0	0	1,008274	941392	1864707
1980	VR	70800	11,67183	0,25621	2,359372	2,955461	9,865442	35,62079	6,019288	12611	59,8	9	0	0	0	0	1,046622	971713	1995318
1981	VR	74100	10,41103	0,263603	2,09013	3,050326	9,647853	34,96002	5,16856	11951	59,8	10	0	0	0	0	1,119543	1008324	2118530
1982	VR	72200	9,178065	0,274836	1,806544	2,763324	8,118628	34,36193	4,092638	11304	59,8	11	0	0	0	0	1,15987	1013744	2221118
1983	VR	68900	8,757307	0,284413	1,925072	2,524163	8,229196	34,03198	4,10435	10672	59,8	12	0	0	0	0	1,193078	1027601	2287631
1984	VR	68800	8,596215	0,297592	1,952697	2,441172	7,431807	33,76235	4,421673	10545	59,8	13	0	0	0	0	1,267491	1033304	2336335
1985	VR	70300	9,854156	0,310275	1,860474	2,241228	6,973731	34,19517	3,79619	10011	59,8	14	0	0	0	0	1,318671	1031162	2374882
1986	VR	66400	11,15911	0,320745	1,464508	2,005127	3,848071	33,78022	3,256544	10924	60,12	15	0	0	0	0	1,325282	1026468	2418714
1987	VR	77300	11,04763	0,340078	1,483514	1,806754	3,455365	34,07032	3,439563	11308	60,44	16	0	0	0	0	1,551792	1011207	2469030
1988	VR	84000	10,28791	0,362505	1,767498	1,534149	2,262807	31,62082	3,012121	11260	60,76	17	0	0	0	0	1,641016	990912	2523477
1989	VR	89800	10,67529	0,388883	1,936546	1,50865	2,280531	32,58044	2,851506	11084	61,08	18	0	0	0	0	1,612744	1039027	2577585
1991	VR	92000	10,53024	0,380891	1,457384	1,508804	2,931452	28,28151	2,032135	10933	62	20	0	0	0	0	1,430278	501077	2345248
1992	VR	93600	9,646523	0,38404	1,880687	1,750648	3,239924	31,93933	2,423178	10951	62,6	21	0	0	0	0	1,472885	563817	2504378
1993	VR	90300	9,849694	0,369706	2,110615	2,234799	3,413889	37,33152	2,791885	10237	63,2	22	0	0	0	0	1,488185	592367	2664973
1994	VR	91000	10,65973	0,367968	2,257688	2,603563	3,340467	40,84445	3,381718	10661	63,8	23	0	0	0	0	1,564293	614390	2882214
[illegible]	[illegible]	103200	11,69449	0,379074	2,300346	2,490835	3,521524	43,9276	2,845476	9854	64,98	25	0	1	0	0			
[illegible]	[illegible]	113300	11,00489	0,379025	2,616972	2,625979	3,206719	46,11993	3,062023	9811	65,56	26	0	1					
[illegible]	[illegible]	119000	11,67436	0,392221	2,204218	2,392476	2,488234	47,78136	2,82426	10147	66,14	27	0	1					
[illegible]	[illegible]	107500	12,01109	0,403132	2,164059	2,127871	2,860257	45,80834	2,725872	10203	66,72	28	0	1		0			
1993	ZSR	1800	7,426953	0,186856	3,855574	6,810677	11,6247	67,21728	2,632341	3322	56,8	22	0	0	0	0	1,891262	1048601	3028480
1994	ZSR	1600	7,070637	0,185897	3,749175	6,59674	10,91149	66,82552	2,641169	3362	56,9	23	0	0	0	0	1,977183	1035416	3136369
1995	ZSR	2400	7,013275	0,190509	4,153481	6,762255	7,640294	68,16013	2,884359	3272	57	24	0	0	0	0	2,012603	1191316	3345583
1996	ZSR	3200	7,602303	0,198096	3,98473	5,939467	8,685327	64,2925	2,493552	3452	57,08	25	0	0	0	0	1,964517	1385982	4169649
1997	ZSR	3500	7,068955	0,211007	3,528201	6,579191	9,055752	76,3241	2,465641	3689	57,16	26	0	0	0	0	1,9869	1503306	4340289
1998	ZSR	5100	6,906884	0,221871	3,674947	5,750559	5,49109	89,23369	2,161023	3785	57,24	27	0	0	0	0	1,966498	1572450	4474961
1999	ZSR	5700	6,770918	0,229132	3,426069	5,430713	7,613323	84,86462	2,202737	3431	57,32	28	0	0	0	0	1,934963	1648541	4554243

A2.14.Variables used in Tobit regression (〉 PGY)

Year	Firms	〉 PGY	GDP	Net	POP	AGL	P_ELECT	PHS	PTT
1972	BR	0	12054,11	18937	56097000	51,825	16,7397	0	0
1973	BR	0	12898,45	18322	56223000	51,825	18,1203	0	0
1974	BR	0	12691,13	18198	56236000	51,825	19,5351	0	0
1975	BR	0	12622,78	18144	56226000	51,825	20,0011	0	0
1976	BR	0	12974,94	18062	56216000	51,825	20,4573	0	0
1977	BR	0	13278,33	17990	56190000	51,825	20,8505	0	0
1978	BR	0	13725,37	17937	56178000	51,825	20,9957	0	0
1979	BR	0	14067,76	17818	56242000	51,825	20,8609	0	0
1980	BR	0	13749,94	17690	56330000	51,825	21,0175	0	0
1981	BR	0	13543,59	17538	56352000	51,825	15,532	0	0
1982	BR	0	13821,1	17330	56318000	51,825	21,5868	0	0
1983	BR	0	14305,75	17097	56377000	51,825	21,8986	0	0
1984	BR	0	14634,53	16883	56506000	51,825	22,3065	0	0
1985	BR	0	15114,66	16729	56685000	51,825	23,3487	0	0
1986	BR	0	15665,07	16670	56852000	51,825	24,919	0	0
1987	BR	0	16325,71	16630	57009000	51,825	25,2977	0	0
1988	BR	-0,000301	17129,01	16599	57158000	51,825	26,3992	0,548964	0
1989	BR	0,01063	17437,21	16588	57358000	51,825	27,4054	0,563636	0
1990	BR	0,013031	17512,59	16584	57561000	51,825	29,6189	0,557153	0
1991	BR	0,012079	17197,4	16584	57808000	51,825	29,6189	0,520309	0
1992	BR	0,018417	17175,67	16528	58006000	51,825	30,5784	0,65222	0
1993	BR	0,020805	17547,76	16536	58191000	51,825	30,612	0,675234	0
1994	BR	0,00402	18301,42	16564	58395000	51,825	30,7293	0,69181	0
1994	CD	0	11668,85	9413	10336000	38,5	28,0463	0	0
1995	CD	0	12369,24	9430	10331000	38,5	29,088	0	0
1996	CD	0	12915,37	9435	10315000	38,5	30,3021	0	0
1997	CD	0	12831,85	9430	10304000	38,5	30,3181	0	0
1998	CD	0	12709,62	9430	10295000	38,5	31,6437	0	0
1999	CD	0	12779,81	9365	10280000	38,5	30,3577	0	0
1972	CFF	0	21946,22	2913	6385000	42,775	99,4507	0	0
1973	CFF	0	22475,11	2913	6431000	42,775	99,4507	0	0
1974	CFF	0	22735,04	2913	6443000	42,775	99,4507	0	0
1975	CFF	0	21263,54	2917	6405000	42,775	99,4515	0	0
1976	CFF	0	21200,11	2920	6346000	42,775	99,4521	0	0
1977	CFF	0	21774,49	2921	6327000	42,775	99,4522	0	0
1978	CFF	0	21804,88	2921	6337000	42,775	99,4522	0	0
1979	CFF	0	22284,81	2921	6351000	42,775	99,4522	0	0
1980	CFF	0	23186,23	2926	6319000	42,775	99,4532	0	0
1981	CFF	0	23391	2934	6354000	42,775	99,4547	0	0
1982	CFF	0	22919,37	2941	6391000	42,775	99,456	0	0
1983	CFF	0	22982,11	2946	6419000	42,775	99,4569	0	0
1984	CFF	-0,000362	23593,96	2969	6442000	42,775	99,4611	0,062383	0
1985	CFF	0,019584	24292,31	2986	6470000	42,775	99,4977	0,062305	0
1986	CFF	0,019425	24541,15	2986	6504000	42,775	99,4977	0,062383	0
1987	CFF	0,01612	24549,87	2990	6545000	42,775	99,4983	0,062112	0
1988	CFF	0,018368	25116,28	2990	6569000	42,775	99,4983	0,061767	0
1989	CFF	0,019603	26301,04	2994	6647000	42,775	99,499	0,06035	0
1990	CFF	0,021476	27021,42	2978	6712000	42,775	99,5635	0,059277	0
1991	CFF	0,020999	26458,22	2982	6800000	42,775	99,5641	0,058962	0
1992	CFF	0,022533	26136,5	2985	6875000	42,775	99,464	0,058377	0
1993	CFF	0,021586	25774,44	2983	6938000	42,775	99,4636	0,056851	0
1994	CFF/SBB/F	0,023282	25704,22	2983	6994000	42,775	99,4636	0,056689	0
1995	CFF/SBB/F	0,023853	25661,39	2987	7041000	42,775	99,4643	0,05787	0
1996	CFF/SBB/F	0,023268	25630,29	2989	7074000	42,775	99,5316	0,059844	0
1997	CFF/SBB/F	0,02249	26009,15	2939	7088000	42,775	99,7278	0,06169	0
1998	CFF/SBB/F	0,021407	26542,91	2910	7106000	42,775	0,997251	0,061463	0
1999	CFF/SBB/F	0,019925	26846,32	2902	7120200	42,775	0,997243	0,063052	0
1972	CFL	0	16646,01	271	348200	61,05	50,5535	0	0
1973	CFL	0	17829,12	271	352700	61,05	50,5535	0	0
1974	CFL	0	18339,48	271	357400	61,05	50,5535	0	0
1975	CFL	0	16948,19	275	360500	61,05	49,8182	0	0
1976	CFL	0	17291,01	274	360900	61,05	50	0	0
1977	CFL	0	17528,44	274	361700	61,05	50	0	0
1978	CFL	0	18212,49	270	362300	61,05	50,7407	0	0
1979	CFL	0	18593,47	270	363500	61,05	50,7407	0	0
1980	CFL	0	18677,78	270	364900	61,05	52,963	0	0
1981	CFL	0	18524,04	270	365600	61,05	60	0	0
1982	CFL	0	18723,35	270	365500	61,05	60	0	0
1983	CFL	0	19277,74	270	365600	61,05	60	0	0
1984	CFL	0	20453,66	270	366200	61,05	60	0	0
1985	CFL	0	21010,36	270	367200	61,05	60	0	0
1986	CFL	0	22534,62	270	369500	61,05	60	0	0
1987	CFL	0	22923	270	371700	61,05	60	0	0
1988	CFL	0	25121,67	272	373300	61,05	59,5588	0	0
1989	CFL	0	27346,43	272	377600	61,05	72,4265	0	0
1990	CFL	0	27591,93	271	381900	64,45	72,6937	0	0
1991	CFL	0	28857,02	271	387100	64,45	81,1808	0	0
1992	CFL	0	29729,95	275	392500	64,45	80	0	0
1993	CFL	0	31865,75	275	398100	64,45	95,2727	0	0
1994	CFL	0	32735,08	275	403800	64,45	95,2727	0	0
1995	CFL	0	33486,19	275	409500	64,45	95,2727	0	0
1996	CFL	0	34186,83	274	415550	64,45	95,2555	0	0

A2.14.Variables used in Tobit regression (〉 PGY)

Year	Firms	〉 PGY	GDP	Net	POP	AGL	P_ELECT	PHS	PTT
1997	CFL	0	36790,51	274	421500	64,45	95,2555	0	0
1998	CFL	0	38430,61	274	426600	64,45	95,2555	0	0
1999	CFL	0	40157,49	274	432000	64,45	95,2555	0	0
1972	CH	0	10036,47	2542	8889000	18,1	0	0	0
1973	CH	0	10800,06	2542	8929000	18,1	0	0	0
1974	CH	0	10067,52	2542	8962000	18,1	0	0	0
1975	CH	0	10609,06	2476	9047000	18,1	0	0	0
1976	CH	0	11186,35	2461	9167000	18,1	0	0	0
1977	CH	0	11340,9	2461	9309000	18,1	0	0	0
1978	CH	0	12005,41	2461	9430000	18,1	0	0	0
1979	CH	0	12246,19	2461	9548000	18,1	0	0	0
1980	CH	0	12207,65	2461	9643000	18,1	0	0	0
1981	CH	0	11911,75	2461	9729000	18,1	0	0	0
1982	CH	0	11703,45	2461	9790000	18,1	0	0	0
1983	CH	0	11510,2	2461	9847000	18,1	0	0	0
1984	CH	0	11683,48	2461	9896000	18,1	0	0	0
1985	CH	0	11930,87	2461	9934000	18,1	0	0	0
1986	CH	0	11952,93	2461	9964000	18,1	0	0	0
1987	CH	0	11643,21	2479	10001000	18,1	0	0	0
1988	CH	0	12098,9	2479	10037000	18,1	0	0	0
1989	CH	0	12492,69	2479	10090000	18,1	0	0	0
1990	CH	0	12405,4	2484	10161000	19,3	0	0	0
1991	CH	0	12682,62	2484	10247000	19,3	0	0	0
1992	CH	0	12678,61	2484	10322000	19,3	0	0	0
1993	CH	0	12407,23	2497	10378000	19,3	0	0	0
1994	CH	0	12598,33	2474	10426000	19,3	0	0	0
1995	CH	0	12828,44	2474	10458000	19,3	0	0	0
1996	CH	0	13103,58	2474	10475000	19,3	0	0	0
1997	CH	0	13550,46	2503	10497000	19,3	0	0	0
1998	CH	0	13982,89	2299	10515000	19,3	0	0	0
1999	CH	0	14437,97	2299	10536000	19,3	0	0	0
1972	CIE	0	8353,588	2189	3024000	1,025	0	0	0
1973	CIE	0	8608,507	2189	3073000	1,025	0	0	0
1974	CIE	0	8828,726	2189	3124000	1,025	0	0	0
1975	CIE	0	9172,521	2006	3177000	1,025	0	0	0
1976	CIE	0	9153,519	2010	3228000	1,025	0	0	0
1977	CIE	0	9771,943	2004	3272000	1,025	0	0	0
1978	CIE	0	10341,48	2007	3314000	1,025	0	0	0
1979	CIE	0	10488,38	1988	3368000	1,025	0	0	0
1980	CIE	0	10706,45	1987	3401000	1,025	0	0	0
1981	CIE	0	10927,51	1987	3443000	1,025	0	0	0
1982	CIE	0	11058,2	1987	3480000	1,025	0	0	0
1983	CIE	0	10952,5	1944	3504000	1,025	1,90329	0	0
1984	CIE	0	11351,69	1944	3529000	1,025	1,90329	0	0
1985	CIE	0	11662,3	1944	3540000	1,025	1,90329	0	0
1986	CIE	0	11609,07	1944	3541000	1,025	1,90329	0	0
1987	CIE	0	12146,98	1944	3547000	1,025	1,90329	0	0
1988	CIE	0	12824,17	1944	3530700	1,025	1,90329	0	0
1989	CIE	0	13650,95	1944	3509500	1,025	1,90329	0	0
1990	CIE	0	14823,6	1944	3505800	1,025	1,90329	0	0
1991	CIE	0	15023,94	1944	3525700	1,025	1,90329	0	0
1992	CIE	0	15399,57	1944	3549100	1,025	1,90329	0	0
1993	CIE	0	15730,15	1947	3563300	1,025	1,90036	0	0
1994	CIE	0	16579,89	1947	3570700	1,025	1,90036	0	0
1995	CIE	0	18157,48	1954	3602000	1,025	1,89355	0	0
1996	CIE	0	19431,14	1954	3632000	1,025	1,89793	0	0
1997	CIE	0	21332,92	1945	3661000	1,025	1,90231	0	0
1998	CIE	0	22892,52	1909	3705000	1,025	1,93819	0	0
1999	CIE	0	25106,65	1919	3727200	1,025	2,5013	0	0
1972	CP	0	7625,986	3566	8631000	10,6	10,9647	0	0
1973	CP	0	8477,201	3566	8633000	10,6	10,9647	0	0
1974	CP	0	8455,584	3566	8754000	10,6	10,9647	0	0
1975	CP	0	7786,468	3566	9093000	10,6	10,9647	0	0
1976	CP	0	8090,659	3566	9355000	10,6	10,9647	0	0
1977	CP	0	8453,591	3566	9455000	10,6	10,9647	0	0
1978	CP	0	8597,988	3588	9558000	10,6	11,9844	0	0
1979	CP	0	8985,997	3588	9661000	10,6	11,9844	0	0
1980	CP	0	9297,358	3609	9766000	10,6	11,9147	0	0
1981	CP	0	9367,237	3616	9851000	10,6	11,9469	0	0
1982	CP	0	9508,384	3616	9911500	10,6	12,6659	0	0
1983	CP	0	9450,924	3613	9954500	10,6	12,6764	0	0
1984	CP	0	9241,685	3613	9989000	10,6	12,6764	0	0
1985	CP	0	9480,26	3603	10011000	10,6	12,7116	0	0
1986	CP	0	9872,833	3603	10011000	10,6	12,7116	0	0
1987	CP	0	10520,72	3608	9994000	10,6	12,8049	0	0
1988	CP	0	11338,13	3608	9968000	10,6	12,8049	0	0
1989	CP	0	12106,03	3064	9937000	10,6	15,0457	0	0
1990	CP	0	12632,59	3064	9896000	10,6	15,0457	0	0
1991	CP	0	13221,8	3116	9869000	10,6	14,7946	0	0
1992	CP	0	13372,37	3062	9867000	10,6	15,0555	0	0
1993	CP	0	13081,05	3062	9881000	10,6	15,0555	0	0
1994	CP	0	13178,6	2699	9902000	10,6	17,0804	0	0

A2.14.Variables used in Tobit regression (〉 PGY)

Year	Firms	〉 PGY	GDP	Net	POP	AGL	P_ELECT	PHS	PTT
1995	CP	0	13723,18	2850	9927000	10,6	18,3158	0	0
1996	CP	0	14193,99	2850	9930000	10,6	21,8947	0	0
1997	CP/REFER	0	14727,31	2856	9945000	10,6	26,5701	0	0
1998	CP/REFER	0	15362,35	2794	9968000	10,6	31,2455	0	0
1999	CP/REFER	-0,001167	15861,45	2813	9990000	10,6	32,0299	0	1,60256
1972	DB	0	13084,83	29230	61674000	59,55	31,3171	0	0
1973	DB	0	13639,81	29107	61971000	59,55	32,3427	0	0
1974	DB	0	13698,01	28926	61991500	59,55	33,2504	0	0
1975	DB	0	13606,42	28813	61644600	59,55	34,2241	0	0
1976	DB	0	14352,23	28661	61513000	59,55	35,5186	0	0
1977	DB	0	14817,18	28564	61396000	59,55	36,5915	0	0
1978	DB	0	15277,28	28542	61310000	59,55	37,1593	0	0
1979	DB	0	15908,55	28545	61439300	59,55	37,7369	0	0
1980	DB	0	16069,9	28516	61657900	59,55	38,659	0	0
1981	DB	0	16064,03	28417	61682000	59,55	39,3039	0	0
1982	DB	0	15954,31	28299	61638000	59,55	39,5032	0	0
1983	DB	0	16246,52	28130	61423000	59,55	39,8009	0	0
1984	DB	0	16764,89	27903	61175000	59,55	40,2896	0	0
1985	DB	0	17171,68	27634	61024000	59,55	41,2391	0	0
1986	DB	0	17581,8	27490	61066000	59,55	41,5897	0	0
1987	DB	0	17833,71	27427	61077000	59,55	41,9331	0	0
1988	DB	0	18405,89	27284	61449000	59,55	42,7687	0	0
1989	DB	0	18989,49	27045	62063000	59,55	43,2169	0	0
1990	DB	0	19902,56	26949	63253000	62,95	43,3894	0	0
1991	DB	-0,000441	20754,66	27079	64074000	62,95	44,492	0,305623	0
1992	DB	0,055651	21058,69	26779	64865000	62,95	45,3676	0,548914	0,243962
1993	DB	0,137978	20679,83	26387	65534000	62,95	46,1212	0,737101	0,2457
1994	DB AG	0,003457	21101,95	41401	81516000	62,95	42,8685	0,442184	0,176874
1995	DB AG	0,009453	21403,79	41718	81642000	62,95	43,54	0,510074	0,20403
1996	DB AG	0,005188	21505,88	40826	81912000	62,95	45,2163	0,787099	0,710309
1997	DB AG	0,027243	21764,19	38450	82071000	62,95	48,5098	0,678933	0,728131
1998	DB AG	0,039885	22196,14	38126	82047000	62,95	48,922	1,0833	0,778292
1999	DB AG	0,001663	22634,37	37525	82027000	62,95	50,457	1,04974	0,927436
1972	DSB	0	16536,45	2043	4992000	18	4,1116	0	0
1973	DSB	0	17023,04	1991	5022000	18	4,97238	0	0
1974	DSB	0	16712,23	1999	5045000	18	4,95248	0	0
1975	DSB	0	16375,71	1999	5060000	18	4,95248	0	0
1976	DSB	0	17384,86	1999	5073000	18	4,95248	0	0
1977	DSB	0	17526,23	2004	5088000	18	5,13972	0	0
1978	DSB	0	17792,58	2004	5104000	18	6,18762	0	0
1979	DSB	0	18304,68	2015	5117000	18	6,69975	0	0
1980	DSB	0	18177,16	2015	5123000	18	6,69975	0	0
1981	DSB	0	17807,66	2015	5122000	18	6,69975	0	0
1982	DSB	0	18310,87	2015	5118000	18	6,69975	0	0
1983	DSB	0	18644,04	2448	5114000	18	5,80065	0	0
1984	DSB	0	19305,99	2448	5112000	18	5,80065	0	0
1985	DSB	0	19983,75	2471	5114000	18	6,19183	0	0
1986	DSB	0	20756,94	2471	5121000	18	8,05342	0	0
1987	DSB	0	20738,97	2476	5127000	18	8,03716	0	0
1988	DSB	0	20978,57	2476	5130000	18	9,28918	0	0
1989	DSB	0	21006	2344	5133000	18	9,81229	0	0
1990	DSB	0	21179,83	2344	5140000	22	9,81229	0	0
1991	DSB	0	21366,08	2344	5154000	22	10,7935	0	0
1992	DSB	0	21429,98	2306	5170000	22	12,1422	0	0
1993	DSB	0	21351,16	2311	5189000	22	14,0632	0	0
1994	DSB	0	22448,94	2349	5205000	22	15,7514	0	0
1995	DSB	0	22974,16	2349	5228000	22	18,4759	0	0
1996	DSB	0	23400,43	2349	5262000	22	18,4759	0	0
1992	EVR	0	6850,389	1018	1544000	8,625	12,9666	0	0
1993	EVR	0	6329,297	1024	1517000	8,625	12,8906	0	0
1994	EVR	0	6269,942	1024	1499000	8,625	12,8906	0	0
1995	EVR	0	6558,69	1021	1484000	8,625	12,9285	0	0
1996	EVR	0	6839,782	1020	1469000	8,625	12,9412	0	0
1997	EVR	0	7727,882	966	1458000	8,625	13,6646	0	0
1998	EVR	0	7812,694	966	1449700	8,625	13,6646	0	0
1999	EVR	0	7834,542	968	1442500	8,625	13,6364	0	0
1972	FS	0	11732,94	16083	54381000	13,025	49,5181	0	0
1973	FS	0	12416,81	16064	54751000	13,025	49,6016	0	0
1974	FS	0	12986,75	16072	55111000	13,025	49,4089	0	0
1975	FS	0	12644,82	16077	55441000	13,025	49,3935	0	0
1976	FS	-0,001103	13403,3	16143	55718000	13,025	50,4057	0	0,01981
1977	FS	0,001919	13661,35	16178	55955000	13,025	51,1806	0	0,019505
1978	FS	0,001879	14109,75	16096	56155000	13,025	52,0378	0	0,018619
1979	FS	0,002222	14847,21	16072	56318000	13,025	53,1483	0	0,018495
1980	FS	0,002609	15331,95	16133	56434000	13,025	53,809	0	0,018162
1981	FS	0,002017	15430,79	16157	56502000	13,025	54,1685	0	0,017851
1982	FS	0,002005	15519,04	16146	56544000	13,025	54,2549	0	0,01787
1983	FS	0,001605	15705,21	16148	56564000	13,025	54,2606	0	0,018119
1984	FS	0,001249	16134,83	16114	56577000	13,025	54,9895	0	0,017928
1985	FS	0,001485	16609,96	16185	56593000	13,025	55,224	0	0,017892
1986	FS	0,00229	17028,58	16068	56596000	13,025	56,4663	0	0,018322
1987	FS	0,002359	17535,09	16983	56602000	13,025	53,5536	0	0,018525

A2.14.Variables used in Tobit regression (〉 PGY)

Year	Firms	〉 PGY	GDP	Net	POP	AGL	P_ELECT	PHS	PTT
1988	FS	-0,004677	18218,69	16015	56629000	13,025	58,1392	0	0,220872
1989	FS	0,002626	18727,8	16030	56672000	13,025	58,9083	0	0,224677
1990	FS	-0,004635	19081,54	16066	56719000	13,025	59,2058	0	0,283447
1991	FS	0,002857	19336,06	16066	56751000	13,025	60,3822	0	0,278707
1992	FS	0,003704	19446,09	16112	56859000	13,025	61,6683	0	0,281057
1993	FS	0,004607	19209,84	15942	57049000	13,025	62,9156	0	0,289743
1994	FS	-0,009055	19580,99	16002	57120000	13,025	63,2671	0	0,424219
1995	FS	0,00501	20119,3	16003	57204000	13,025	63,7568	0	0,425121
1996	FS	-0,00592	20305,13	16014	57380000	13,025	64,4374	0,237389	0,672601
1997	FS	0,096308	20675,07	16030	57523000	13,025	64,6163	0,553907	0,652819
1998	FS	0,065727	21018,28	16080	57589000	13,025	65,2239	0,578611	0,598563
1999	FS	0,011812	21331,49	16108	57649000	13,025	66,3521	0,585594	0,761273
1991	MAV	0	9315,398	7685	10346000	15,775	30,1597	0	0
1992	MAV	0	9115,507	7727	10324000	15,775	29,8434	0	0
1993	MAV	0	9010,933	7607	10294000	15,775	28,7104	0	0
1994	MAV	0	9283,051	7607	10261000	15,775	28,8024	0	0
1995	MAV	0	9577,07	7606	10230000	15,775	29,7134	0	0
1996	MAV	0	9595,295	7607	10193000	15,775	29,7095	0	0
1997	MAV	0	9872,122	7606	10155000	15,775	30,0815	0	0
1998	MAV	0	10233,28	7769	10114000	15,775	32,2307	0	0
1999	MAV	0	10718,15	7768	10068000	15,775	32,5695	0	0
1972	NS	0	14337,57	2834	13329000	63,35	58,0452	0	0
1973	NS	0	14889,14	2832	13439000	63,35	58,0862	0	0
1974	NS	0	15359,63	2832	13545000	63,35	60,452	0	0
1975	NS	0	15214,2	2825	13666000	63,35	60,6018	0	0
1976	NS	0	15861,81	2825	13774000	63,35	60,8496	0	0
1977	NS	0	16132,21	2850	13856000	63,35	60,7368	0	0
1978	NS	0	16414,35	2876	13942000	63,35	60,9875	0	0
1979	NS	0	16666,31	2880	14038000	63,35	61,0764	0	0
1980	NS	0	16731,39	2880	14150000	63,35	61,0417	0	0
1981	NS	0	16530,9	2956	14247000	63,35	60,8593	0	0
1982	NS	0	16264,3	2850	14313000	63,35	63,1579	0	0
1983	NS	0	16477,97	2852	14367000	63,35	62,9734	0	0
1984	NS	0	16954,92	2852	14424000	63,35	62,9734	0	0
1985	NS	0	17398,55	2824	14492000	63,35	64,5892	0	0
1986	NS	0	17780,87	2817	14572000	63,35	65,3532	0	0
1987	NS	0	17913	2809	14665000	63,35	68,7433	0	0
1988	NS	0	18338,86	2828	14760000	63,35	69,2008	0	0
1989	NS	0	19138,06	2828	14849000	63,35	69,2008	0	0
1990	NS	0	19781,39	2798	14952000	65,45	69,9428	0	0
1991	NS	0	20110,68	2780	15070000	65,45	69,7482	0	0
1992	NS	0	20300,6	2791	15178000	65,45	72,1758	0	0
1993	NS	0	20336,64	2793	15279000	65,45	72,2162	0	0
1994	NS	0	20738,83	2795	15381000	65,45	72,2162	0	0
1995	NS	0	21248,96	2795	15460000	65,45	72,6908	0	0
1996	NS	0	21801,72	2795	15517000	65,45	72,6908	0	0
1997	NS B.V./N.	-0,000151	22521,1	2805	15607000	65,45	73,369	0,173461	0
1998	NS B.V./N.	0,005857	23356,97	2808	15698000	65,45	73,3974	0,192308	0
1972	NSB	0	11903,94	4240	3933000	3,125	57,5236	0	0
1973	NSB	0	12338,15	4240	3961000	3,125	57,5236	0	0
1974	NSB	0	12775,96	4241	3985000	3,125	57,5336	0	0
1975	NSB	0	13447,23	4241	4007000	3,125	57,5336	0	0
1976	NSB	0	14167,32	4241	4026000	3,125	57,5336	0	0
1977	NSB	0	14703,17	4241	4043000	3,125	57,5336	0	0
1978	NSB	0	15132,95	4241	4059000	3,125	57,5336	0	0
1979	NSB	0	15744,84	4239	4073000	3,125	57,5607	0	0
1980	NSB	0	16472,13	4241	4091000	3,125	57,5808	0	0
1981	NSB	0	16573,84	4242	4100000	3,125	57,5908	0	0
1982	NSB	0	16541,93	4242	4115000	3,125	57,5908	0	0
1983	NSB	0	17074,19	4242	4133000	3,125	57,5908	0	0
1984	NSB	0	18024,27	4242	4140000	3,125	57,5908	0	0
1985	NSB	0	18905,27	4242	4153000	3,125	57,7793	0	0
1986	NSB	0	19516,31	4216	4169000	3,125	58,4203	0	0
1987	NSB	0	19817,45	4217	4187000	3,125	58,0507	0	0
1988	NSB	0	19691,74	4175	4209000	3,125	58,0599	0	0
1989	NSB	0	19788,41	4044	4227000	3,125	59,9901	0	0
1990	NSB	0	20112,09	4004	4241500	3,125	60,5894	0	0
1991	NSB	0	20636,66	4027	4261700	3,125	60,2434	0	0
1992	NSB	0	21198,31	4027	4286400	3,125	60,2434	0	0
1993	NSB	0	21644,73	4023	4312000	3,125	60,2038	0	0
1972	OBB	0	12796,28	5891	7510000	17,05	41,3512	0	0
1973	OBB	0	13347,36	5863	7553000	17,05	42,3844	0	0
1974	OBB	0	13850,02	5860	7564000	17,05	43,2253	0	0
1975	OBB	0	13836,25	5854	7556000	17,05	45,2169	0	0
1976	OBB	0	14494,4	5854	7552000	17,05	46,1906	0	0
1977	OBB	0	15198,6	5854	7559000	17,05	47,1985	0	0
1978	OBB	0	15146,18	5854	7553000	17,05	49,0092	0	0
1979	OBB	0	15971,53	5852	7550000	17,05	49,9829	0	0
1980	OBB	0	16327,85	5843	7553000	17,05	50,5391	0	0
1981	OBB	0	16277,48	5811	7565000	17,05	51,3165	0	0
1982	OBB	0	16604,22	5773	7574000	17,05	52,1219	0	0
1983	OBB	0	17104,13	5748	7552000	17,05	52,8532	0	0

A2.14.Variables used in Tobit regression (〉 PGY)

Year	Firms	〉 PGY	GDP	Net	POP	AGL	P_ELECT	PHS	PTT
1984	OBB	0	17159,45	5745	7552000	17,05	53,4552	0	0
1985	OBB	0	17558,74	5766	7555000	17,05	54,0062	0	0
1986	OBB	0	17909,83	5745	7565000	17,05	54,2733	0	0
1987	OBB	0	18177,96	5747	7573000	17,05	54,4458	0	0
1988	OBB	0	18761,89	5630	7595000	17,05	56,5897	0	0
1989	OBB	0	19447,7	5641	7631400	17,05	57,4012	0	0
1990	OBB	0	20180,06	5624	7725700	31,15	57,7169	0	0
1991	OBB	0	20626,98	5623	7825900	31,15	57,7094	0	0
1992	OBB	0	20833,42	5605	7911400	31,15	57,9126	0	0
1993	OBB	0	20716,89	5600	7988500	31,15	58,4464	0	0
1994	OBB	0	21155,44	5636	8027500	31,15	58,6941	0	0
1995	OBB	0	21453,91	5672	8047000	31,15	60,2609	0	0
1996	OBB	0	21848,42	5672	8059000	31,15	60,2609	0	0
1997	OBB	0	22161,43	5672	8072200	31,15	60,2609	0	0
1998	OBB	0	22923,95	5643	8078000	31,15	60,7301	0	0
1999	OBB	0	23527,22	5643	8086100	31,15	61,244	0	0
1991	PKP	0	5915,619	25848	38244000	18,1	44,5296	0	0
1992	PKP	0	6045,395	25254	38365000	18,1	45,5215	0	0
1993	PKP	0	6256,014	24926	38459000	18,1	46,0644	0	0
1994	PKP	0	6568,181	24313	38544000	18,1	47,7646	0	0
1995	PKP	0	7021,508	23986	38588000	18,1	48,4741	0	0
1996	PKP	0	7439,052	23420	38618000	18,1	49,6413	0	0
1997	PKP	0	7940,332	23328	38650000	18,1	49,8371	0	0
1998	PKP	0	8321,432	23210	38666000	18,1	50,0388	0	0
1999	PKP	0	8661,409	22891	38695000	18,1	52,2782	0	0
1972	RENFE	0	9524,15	13523	34448000	15,825	23,2419	0	0
1973	RENFE	0	10173,92	13415	34810000	15,825	25,4491	0	0
1974	RENFE	0	10642,54	13432	35147000	15,825	25,6626	0	0
1975	RENFE	0	10589,37	13497	35515000	15,825	27,1542	0	0
1976	RENFE	0	10810,77	13509	35937000	15,825	32,0379	0	0
1977	RENFE	0	10986,18	13540	36367000	15,825	35,325	0	0
1978	RENFE	0	11022,34	13533	36778000	15,825	36,1413	0	0
1979	RENFE	0	10928,86	13531	37108000	15,825	40,4183	0	0
1980	RENFE	-0,00152	11050,54	13542	37386000	15,825	40,415	0	0,268817
1981	RENFE	-0,005474	10968,35	13543	37741000	15,825	45,4552	0	0,369783
1982	RENFE	-0,005414	11045,66	13572	37943000	15,825	45,5718	0	0,460123
1983	RENFE	-0,005374	11188,4	13573	38121000	15,825	45,7894	0	0,834971
1984	RENFE	0,001921	11341,66	13575	38273000	15,825	45,6427	0	0,814566
1985	RENFE	0,002072	11562,36	12710	38408000	15,825	48,7805	0	0,806452
1986	RENFE	0,001906	11902,28	12721	38519000	15,825	48,8012	0	0,803403
1987	RENFE	0,001992	12531,62	12686	38609000	15,825	49,661	0	0,818094
1988	RENFE	0,002557	13141,11	12550	38691000	15,825	50,3187	0	0,852558
1989	RENFE	0,002577	13748,8	12565	38768000	15,825	51,1102	0	0,862944
1990	RENFE	-0,007303	14247,03	12560	38836000	15,825	51,0828	0	1,21704
1991	RENFE	0,002746	14583,85	12570	38916000	15,825	51,1217	0	1,24159
1992	RENFE	0,001628	14686,16	13041	39006000	15,825	52,864	0,841662	1,26249
1993	RENFE	0,013012	14505,67	12601	39083000	15,825	54,7099	0,842549	1,26382
1994	RENFE	0,01344	14827,09	12646	39143000	15,825	55,3456	0,85699	1,28548
1995	RENFE	0,013527	15212,63	12280	39210000	15,825	55,8143	0,86815	1,30222
1996	RENFE	0,063389	15561,27	12284	39271000	15,825	55,8206	1,0181	1,35747
1997	RENFE	0,071798	16159,29	12294	39323000	15,825	56,4015	1,36441	1,36441
1998	RENFE	0,015569	16815,06	12303	39371000	15,825	56,4903	1,4126	1,4126
1999	RENFE	0,004081	17433,15	12319	39410000	15,825	56,49	1,39697	1,97905
1972	SJ	0	14446,97	11394	8122000	3,125	61,3217	0	0
1973	SJ	0	14992,54	11366	8137000	3,125	61,2265	0	0
1974	SJ	0	15426,52	11366	8161000	3,125	61,2265	0	0
1975	SJ	0	15760,47	11366	8193000	3,125	61,2265	0	0
1976	SJ	0	15869,13	11366	8222000	3,125	61,2265	0	0
1977	SJ	0	15560,94	11375	8252000	3,125	61,178	0	0
1978	SJ	0	15787,57	11382	8276000	3,125	61,6851	0	0
1979	SJ	0	16356,26	11382	8294000	3,125	61,6851	0	0
1980	SJ	0	16597,22	11382	8310000	3,125	61,6851	0	0
1981	SJ	0	16549,48	11340	8320000	3,125	62,0282	0	0
1982	SJ	0	16733,24	11760	8325000	3,125	60,3656	0	0
1983	SJ	0	17039,78	11717	8331000	3,125	60,5445	0	0
1984	SJ	0	17755,23	11637	8337000	3,125	60,9092	0	0
1985	SJ	0	18113,73	11266	8350000	3,125	62,0895	0	0
1986	SJ	0	18566,73	11236	8370000	3,125	62,2553	0	0
1987	SJ	0	19123,48	11194	8399000	3,125	62,4888	0	0
1988	SJ	0	19529,82	11076	8436000	3,125	63,1546	0	0
1989	SJ/BV	0	19919,74	11022	8493000	3,125	63,464	0	0
1990	SJ/BV	-0,001498	19982,67	10801	8559000	3,125	64,7625	0	0,283086
1991	SJ/BV	-0,006204	19628,59	10970	8617400	3,125	66,1076	0	1,05026
1992	SJ/BV	0,001607	19172,62	9846	8668000	3,125	73,8168	0	1,12179
1993	SJ/BV	-0,004631	18710,35	10361	8718600	3,125	69,3562	0	1,76678
1994	SJ/BV	0,001005	19343,08	9661	8780700	3,125	74,3401	0	1,72712
1995	SJ/BV	-0,003172	19952,46	9782	8831000	3,125	74,8007	0	3,04878
1996	SJ/BV	-0,006872	20135,64	9821	8843000	3,125	75,196	0	3,57143
1997	SJ/BV	-0,006945	20540,86	10228	8849400	3,125	72,2038	0	4,11483
1998	SJ/BV	0,002139	21264,8	10065	8851800	3,125	73,3731	0	4,06812
1999	SJ/BV	0,002588	22206,27	9978	8857400	3,125	75,436	0	4,16667
1972	SNCB	0	13596,25	4124	9709000	63,5	29,7527	0	0

A2.14.Variables used in Tobit regression (〉 PGY)

Year	Firms	〉 PGY	GDP	Net	POP	AGL	P_ELECT	PHS	PTT
1973	SNCB	0	14385,68	4060	9738000	63,5	31,1084	0	0
1974	SNCB	0	14943,79	4038	9768000	63,5	31,5007	0	0
1975	SNCB	0	14704,84	3992	9795000	63,5	31,8888	0	0
1976	SNCB	0	15510,73	3996	9811000	63,5	32,2322	0	0
1977	SNCB	0	15590,37	4003	9822000	63,5	32,4756	0	0
1978	SNCB	0	16020,39	4042	9830000	63,5	32,2365	0	0
1979	SNCB	0	16383,77	3998	9837000	63,5	33,6168	0	0
1980	SNCB	0	17100,29	3978	9847000	63,5	34,5651	0	0
1981	SNCB	0	17038,72	3954	9852000	63,5	39,1249	0	0
1982	SNCB	0	17126,79	3928	9856000	63,5	43,9155	0	0
1983	SNCB	0	17171,37	3860	9856000	63,5	46,9171	0	0
1984	SNCB	0	17594,3	3776	9853000	63,5	49,5498	0	0
1985	SNCB	0	17881,56	3667	9858000	63,5	53,9406	0	0
1986	SNCB	0	18204,21	3618	9862000	63,5	59,5909	0	0
1987	SNCB	0	18602,73	3568	9870000	63,5	61,6592	0	0
1988	SNCB	0	19415,73	3554	9902000	63,5	63,7029	0	0
1989	SNCB	0	20015,53	3513	9938000	63,5	64,5033	0	0
1990	SNCB	0	20585,58	3479	9967400	63,5	65,9385	0	0
1991	SNCB	0	20882,33	3466	10005000	63,5	66,0992	0	0
1992	SNCB	0	21113,25	3432	10045000	63,5	66,7541	0	0
1993	SNCB	0	20825,76	3410	10085000	63,5	69,2669	0	0
1994	SNCB	-0,000219	21434,51	3396	10116000	63,5	69,5819	0,248911	0
1995	SNCB	0,019441	21913,01	3368	10137000	63,5	70,3979	0,25413	0
1996	SNCB	0,149335	22135,7	3380	10159000	63,5	72,7515	0,317864	0
1997	SNCB	0,066467	22869,5	3422	10181000	63,5	73,2613	0,692259	0
1998	SNCB	0,012185	23330,58	3410	10204000	63,5	73,6364	0,688791	0
1999	SNCB	0,011569	23990,4	3472	10223000	63,5	77,7938	0,678593	0
1972	SNCF	0	13324,75	34829	51701000	53,85	26,699	0	0
1973	SNCF	0	13937,86	34768	52118000	53,85	26,8293	0	0
1974	SNCF	0	14277,97	34382	52460000	53,85	27,049	0	0
1975	SNCF	0	14172,6	34225	52699000	53,85	27,2491	0	0
1976	SNCF	0	14715,21	34351	52909000	53,85	27,1928	0	0
1977	SNCF	0	15120,35	34214	53145000	53,85	27,7021	0	0
1978	SNCF	0	15559,07	34151	53376000	53,85	28,0724	0	0
1979	SNCF	0	16005,05	34076	53606000	53,85	28,6066	0	0
1980	SNCF	0	16179,8	33906	53880000	53,85	29,3576	0	0
1981	SNCF	-0,00034	16285,34	34384	54182000	53,85	29,5835	0,314878	0
1982	SNCF	0,054019	16615,94	34595	54480000	53,85	30,5882	0,551543	0
1983	SNCF	0,051287	16773,3	34627	54728000	53,85	31,2097	0,841884	0
1984	SNCF	0,047571	16965,34	34694	54947000	53,85	32,2534	1,0747	0
1985	SNCF	0,056008	17125,06	34676	55170000	53,85	33,1295	1,42762	0
1986	SNCF	0,055408	17448,32	34639	55394000	53,85	33,4392	1,41939	0
1987	SNCF	0,063205	17793,4	34646	55630000	53,85	33,747	1,43972	0
1988	SNCF	0,014607	18511,74	34563	55884000	53,85	34,7424	1,4479	0
1989	SNCF	0,072672	19172,52	34322	56436000	53,85	36,2158	2,11533	0
1990	SNCF	0,063411	19568,03	34070	56735000	53,85	37,0091	2,3848	0
1991	SNCF	0,047247	19663,82	33446	57055000	53,85	38,3574	2,50167	0
1992	SNCF	0,042027	19858,57	32731	57374000	53,85	39,6749	3,19561	0
1993	SNCF	0,04468	19598,5	32579	57667000	53,85	41,6618	3,58324	0
1994	SNCF	0,051196	19930,77	32275	57928000	53,85	42,5778	3,73103	0
1995	SNCF	0,041866	20192,48	31939	58139000	53,85	43,2042	4,18514	0
1996	SNCF	0,057518	20345,15	31851	58375000	53,85	44,5072	4,39011	0
1997	SNCF/RFF	0,01629	20661,76	31821	58607000	53,85	44,5618	4,75991	0
1998	SNCF/RFF	0,018753	21289,66	31735	58847000	53,85	44,547	4,83132	0
1999	SNCF/RFF	0,019637	21884,58	31589	59082000	53,85	44,7529	4,92355	0
1992	SZ	0	11934,26	1201	1996600	29,275	41,5487	0	0
1993	SZ	0	12347,35	1201	1966800	29,275	41,5487	0	0
1994	SZ	0	12584,54	1201	1988900	29,275	41,5487	0	0
1995	SZ	0	13191,21	1201	1990000	29,275	41,5487	0	0
1996	SZ	0	13594,19	1201	1991000	29,275	41,5487	0	0
1997	SZ	0	14002,9	1201	1986000	29,275	41,5487	0	0
1998	SZ	0	14201,85	1201	1982000	29,275	41,5487	0	0
1999	SZ	0	14982,29	1202	1981000	29,275	41,9301	0	0
1972	TCDD	0	3625,381	8134	37190000	21,95	0,958938	0	0
1973	TCDD	0	3651,237	8135	38157000	21,95	1,3276	0	0
1974	TCDD	0	3797,618	8141	39108000	21,95	1,32662	0	0
1975	TCDD	0	3969,46	8140	40025000	21,95	1,32678	0	0
1976	TCDD	0	4289,409	8138	40911000	21,95	1,32711	0	0
1977	TCDD	0	4344,875	8139	41760000	21,95	2,30987	0	0
1978	TCDD	0	4320,055	8139	42605000	21,95	2,30987	0	0
1979	TCDD	0	4205,304	8132	43502000	21,95	2,31185	0	0
1980	TCDD	0	4018,628	8193	44484000	21,95	2,48993	0	0
1981	TCDD	0	4111,865	8193	45548000	21,95	2,29464	0	0
1982	TCDD	0	4153,656	8156	46696000	21,95	2,50123	0	0
1983	TCDD	0	4252,929	8169	47873000	21,95	2,49725	0	0
1984	TCDD	0	4426,836	8169	49079000	21,95	3,56225	0	0
1985	TCDD	0	4501,225	8169	50286000	21,95	3,56225	0	0
1986	TCDD	0	4711,448	8170	51440000	21,95	3,56181	0	0
1987	TCDD	0	5047,594	8169	52569000	21,95	3,56225	0	0
1988	TCDD	0	5043,88	8164	53723000	21,95	3,56443	0	0
1989	TCDD	0	4948,059	8430	54902000	21,95	5,68209	0	0
1990	TCDD	0	5280,012	8429	56126000	21,95	7,15387	0	0

A2.14.Variables used in Tobit regression (〉PGY)

Year	Firms	〉PGY	GDP	Net	POP	AGL	P_ELECT	PHS	PTT
1991	TCDD	0	5226,454	8429	57064000	21,95	7,91316	0	0
1992	TCDD	0	5435,267	8430	57931000	21,95	10,7355	0	0
1993	TCDD	0	5764,778	8430	58812000	21,95	10,7355	0	0
1994	TCDD	0	5352,914	8452	59706000	21,95	11,1098	0	0
1995	TCDD	0	5637,982	8549	60500000	21,95	10,9837	0	0
1996	TCDD	0	5931,998	8607	61425000	21,95	17,7065	0	0
1997	TCDD	0	6273,539	8607	62411000	21,95	19,8211	0	0
1998	TCDD	0	6363,292	8607	63373000	21,95	19,8211	0	0
1999	TCDD	0	5968,758	8682	64328000	21,95	20,3064	0	0
1972	VR	0	12215,93	5923	4640000	2,335	1,78963	0	0
1973	VR	0	12996,25	5933	4666000	2,335	1,83718	0	0
1974	VR	0	13345,37	5947	4691000	2,335	2,90903	0	0
1975	VR	0	13528,56	5953	4711000	2,335	5,99698	0	0
1976	VR	0	13472,37	5961	4726000	2,335	6,60963	0	0
1977	VR	0	13480,74	6044	4739000	2,335	7,59431	0	0
1978	VR	0	13754,5	6080	4753000	2,335	9,93421	0	0
1979	VR	0	14648,19	6081	4765000	2,335	11,3304	0	0
1980	VR	0	15349,64	6075	4780000	2,335	12,3292	0	0
1981	VR	0	15612,74	6092	4800000	2,335	15,3316	0	0
1982	VR	0	16012,53	6090	4827000	2,335	17,3399	0	0
1983	VR	0	16353,36	6090	4856000	2,335	19,2939	0	0
1984	VR	0	16822,39	5998	4882000	2,335	22,6576	0	0
1985	VR	0	17273,79	5900	4902000	2,335	24,5254	0	0
1986	VR	0	17646,4	5899	4918000	2,335	24,4957	0	0
1987	VR	0	18338,16	5884	4933000	2,335	24,5581	0	0
1988	VR	0	19151,97	5884	4951000	2,335	27,8042	0	0
1989	VR	0	20063,3	5884	4962000	2,335	27,8042	0	0
1991	VR	0	18626,42	5874	5014000	6,775	28,3282	0	0
1992	VR	0	17907,69	5874	5042000	6,775	28,3282	0	0
1993	VR	0	17618,17	5885	5066000	6,775	29,1079	0	0
1994	VR	0	18232,13	5880	5089000	6,775	33,1633	0	0
1996	VR/RHK	-0,001285	19547,28	5859	5125000	6,775	35,1084	0	0,26738
1997	VR/RHK	0,000799	20716,56	5865	5139800	6,775	35,1407	0	0,267738
1998	VR/RHK	0,000966	21766,67	5867	5153000	6,775	37,4467	0	0,269179
1999	VR/RHK	0,000901	22596,53	5836	5166900	6,775	38,2796	0	0,269542
1993	ZSR	0	8019,649	3661	5324600	23,725	39,0604	0	0
1994	ZSR	0	8400,118	3665	5347300	23,725	39,7271	0	0
1995	ZSR	0	8915,42	3668	5332000	23,725	40,1309	0	0
1996	ZSR	0	9418,348	3673	5343000	23,725	41,2742	0	0
1997	ZSR	0	9932,774	3665	5383300	23,725	41,8827	0	0
1998	ZSR	0	10311,01	3667	5391000	23,725	41,8598	0	0
1999	ZSR	0	10437,76	3662	5396400	23,725	41,9443	0	0

A3.1. GDP Deflator

Series Code	Series Name	Country Name	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Austria	[illegible]	[illegible]	[illegible]	[illegible]	46,90233	49,5412	52,35644	55,48357	57,41306	60,28197	64,23726	67,66314	70,13735	73,38705	75,64926	77,69568	79,33582	80,58688	82,79504	85,6490307	88,85675	92,70251	95,28115	97,91541	100	101,			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Belarus																		0,002076	0,002095	0,00231611	0,004724	0,055378	0,644657	13,32697	100	149,5151	258,1123	449,6973	1897,844
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Belgium	[illegible]	[illegible]	[illegible]	[illegible]	42,16227	45,38219	48,82984	51,02418	53,40934	55,64425	58,72319	62,76315	66,42775	69,82888	74,05621	76,71456	78,34565	80,00746	83,70889	86,3406239	89,10101	92,33024	96,17028	98,36005	100	101,			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Bulgaria										3,260256	3,352225	3,41647	3,394424	3,487321	3,495313	3,542342	3,544604	3,353559	3,579243	4,51657443	14,74952	23,53893	35,5636	61,4075	100	221,0481	2319,09	2834,73	2922,175
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Croatia																				0,20663449	0,411876	2,861932	44,84029	94,95313	100	103,6416	111,2693	121,3179	126,1866
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Czech Republic																				43,2040845	58,84006	66,1122	80,0047	90,73335	100	108,6068	116,4712	128,3308	131,3399
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Denmark	[illegible]	[illegible]	[illegible]	28,13499	32,0299	34,92309	38,36649	42,00512	45,32433	49,22446	55,02253	61,13471	66,2596	70,25097	73,70957	76,62855	80,55821	82,609	86,93035	90,1075205	92,6059	95,28669	96,60647	98,2715	100	102,4826	1		
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Estonia																				1,33125513	3,096106	30,14501	54,25839	75,83671	100	123,9944	137,4761	149,6566	155,4828
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Finland	[illegible]	[illegible]	[illegible]	[illegible]	28,39556	32,15926	35,28752	37,99459	41,38008	45,40893	50,38189	54,91108	59,52693	64,56093	68,10786	71,03111	74,04142	80,05353	84,95789	89,5676715	91,22025	92,00506	94,16084	96,03987	100	99,			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	France	[illegible]	[illegible]	[illegible]	[illegible]	30,60769	34,01565	37,16544	40,92568	45,02065	50,03568	55,55449	61,94616	67,52392	72,25983	76,18402	80,07147	82,36563	84,84738	87,49288	90,0362544	92,69322	94,53977	96,73124	98,35582	100	101,4			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Germany	42,47995	44,8145	47,9493	51,28831	54,33482	56,66937	58,76108	60,33952	62,82308	66,22832	70,41726	74,12605	76,55442	78,39777	80,10867	80,00853	80,20214	81,22361	83,48019	85,73121	87,80634	92,23034	95,6144	98,0134	100	101,0255	101,8189	102,8707	103,8796
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Greece	[illegible]	[illegible]	[illegible]	[illegible]	4,810643	5,551019	6,270017	7,081724	8,401955	9,888045	11,84142	14,81309	17,64499	21,22398	24,9737	29,34874	33,53324	38,76032	44,35194	53,4884185	64,12541	73,76348	82,88344	91,84025	100	107,			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Hungary	[illegible]	[illegible]	[illegible]	[illegible]	10,18214	10,75068	11,00114	11,95181	12,0353	12,76071	13,41812	14,18434	14,88801	15,83066	16,76622	17,39365	18,82855	22,12846	26,27457	33,018216	44,81082	54,44925	66,03521	78,90618	100	121,1			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Ireland	[illegible]	[illegible]	[illegible]	[illegible]	22,23669	26,9123	30,48253	33,69073	38,29807	43,93067	51,59248	59,42563	65,78943	69,98719	73,61544	78,43787	80,16147	82,76377	87,33344	86,6969624	88,25895	90,74088	95,43773	97,05477	100	102,			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Italy	[illegible]	[illegible]	[illegible]	[illegible]	12,8253	15,17043	17,96399	20,43612	23,71715	28,67616	34,14976	39,97177	45,99214	51,27705	55,84687	60,26544	63,9925	68,32576	72,73672	78,7197014	84,68384	88,53368	92,01118	95,21451	100	105,2			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Latvia	[illegible]	[illegible]	[illegible]	[illegible]	1,158793	1,156269	1,152008	1,159458	1,175981	1,179665	1,209735	1,236741	1,180529	1,158499	1,130029	1,112007	1,10197	1,100421	1,139177	1,31846242	3,37773	36,34193	62,34165	86,2426	100	116,535			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Lithuania																					1,058565	11,03337	44,81652	72,44054	100	125,0852	141,6078	151,0594	156,0574
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Luxembourg	[illegible]	[illegible]	[illegible]	[illegible]	42,33698	47,50886	48,06576	50,5319	53,74263	57,99987	62,16536	68,88572	73,58356	76,82557	79,115	81,29331	82,04967	82,62898	85,49492	88,4230811	89,73246	93,57109	94,26159	99,29558	100	101,71			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Moldova																					0,190767	1,993572	19,14741	72,07872	100	127,8841	143,9386	157,4871	220,3859
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Netherlands	[illegible]	[illegible]	[illegible]	49,7483	54,82386	59,73388	63,71112	67,08879	69,85423	73,7119	77,66953	81,84422	83,55041	84,7225	86,21125	86,32912	85,70484	86,711	87,77029	89,7991649	92,22824	94,31761	96,14359	98,39798	100	101,1699	10		
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Norway	[illegible]	[illegible]	[illegible]	[illegible]	34,60456	37,19302	40,28764	42,87326	45,28485	51,22485	57,81375	63,8195	68,27996	72,61352	76,39993	75,67572	80,92129	84,93555	89,78675	93,2579138	95,53387	95,11907	97,16046	97,00638	100	104,			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Poland																				21,0369551	33,19734	46,20244	56,91337	77,75612	100	118,7503	135,4223	151,4361	161,7648
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Portugal	[illegible]	[illegible]	[illegible]	4,489335	5,217972	6,067152	7,668885	9,382745	11,20651	13,54901	15,93484	19,23182	23,96385	29,87711	36,37077	43,809	48,2323	53,61763	60,2744	67,974011	76,26002	83,87975	89,50163	95,11977	100	103,2618	1		
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Romania						0,789737	0,743224	0,742102	0,765626	0,770106	0,780056	0,874335	0,870271	0,871589	0,874782	0,87637	0,929823	0,947657	0,939093	1,06797024	3,15051	9,448376	30,92458	73,90977	100	144,6051	356,7281	552,8868	809,1987
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Slovak Republic														38,46749	39,13051	39,1359	39,14451	39,82518	40,94271	43,750204	58,89614	65,62857	80,10664	91,12588	100	104,513	111,3982	117,1	124,8001
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Slovenia																					16,7671	51,63768	70,81438	86,83347	100	111,1412	120,886	130,3397	138,9033
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Spain	[illegible]	[illegible]	[illegible]	[illegible]	13,58325	15,82312	19,52305	23,55086	27,5384	31,21611	35,14244	40,03767	44,77511	49,97853	53,81943	59,77526	63,26995	66,84777	71,58794	76,8214429	82,28126	87,93506	91,75164	95,4075	100	103,4			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Sweden	[illegible]	[illegible]	[illegible]	[illegible]	24,65939	27,59845	30,50441	33,41728	36,07169	40,29847	44,14644	47,79049	52,60164	56,58993	60,34198	64,47927	67,55103	71,93056	77,70615	84,5773409	91,03245	91,98781	94,36988	96,61206	100	101			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Switzerland	[illegible]	[illegible]	[illegible]	[illegible]	54,11849	55,59627	55,73864	57,75266	58,90184	60,49587	63,98476	68,31985	70,1393	72,60026	74,31778	76,60711	78,70479	80,94585	83,43583	87,0022046	92,2253	94,7508	97,27663	98,88162	100	100,36			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	Turkey	[illegible]	[illegible]	[illegible]	0,016133	0,01944	0,022275	0,027552	0,040417	0,071071	0,131513	0,1899	0,243434	0,307287	0,457395	0,696042	0,942304	1,25886	2,131848	3,744683	5,92462806	9,40673	15,42997	25,82024	53,47751	100	178,2623			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	United Kingdom	[illegible]	[illegible]	[illegible]	[illegible]	22,81708	26,28008	29,89858	33,35268	38,18882	45,58682	50,72568	54,48943	57,39189	60,00544	63,38279	65,35402	68,75181	72,90146	78,34221	84,3411146	89,95436	93,52255	96,08221	97,54943	100	103			
NY.GDP.DEFL.KD.ZG	Inflation, GDP deflator (annual %)	United States	[illegible]	[illegible]	[illegible]	[illegible]	40,71658	43,04134	45,83525	49,12351	53,2484	58,13356	63,56132	67,46602	70,14227	72,76265	75,07017	76,70748	79,01441	81,70984	84,83148	88,1305439	91,31698	93,56024	95,81427	97,84014	100	101,9			

Source: http://www.worldbank.org/data/

A3.2.PPPs for GDP - Historical series

BASE YEAR	1995

UNITED STATES		1,00
AUSTRIA		13,7
BELGIUM		36,7
CZECH REPUBLIC		10,8
DENMARK		8,42
FINLAND		5,86
FRANCE		6,46
GERMANY		2,02
GREECE		203
HUNGARY		60,6
ICELAND		75,9
IRELAND		0,635
ITALY		1550
LUXEMBOURG		38,9
NETHERLANDS		2,03
NORWAY		9,14
POLAND		1,14
PORTUGAL		119
SLOVAK REPUBLIC		11,90
SPAIN		122
SWEDEN		9,73
SWITZERLAND		2,01
TURKEY		22334
UNITED KINGDOM		0,654
Belarus	*	2,27551
Bulgaria	*	0,020408
Estonia	*	4,265306
Latvia	*	0,193878
Lithuania	*	1,173469
Slovenia	*	86,35714
Romania	*	495,9694

Source: http:/www.oecd.org/std/ppp/pps.htm

* Note: For these countries the indicated figures of PPP were extracted from The World Bank Group Data: http://www.worldbank.org/data/

A3.3.GDP PER CAPITA

MEASURE																	
HVPVOB	Gross domestic product	TIME PERIOD	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
US $, 1995 prices and 1995 PPPs																	
COUNTRY	Austria		11580,46	12117,4	12796,28	13347,36	13850,02	13836,25	14494,4	15198,6	15146,18	15971,53	16327,85	16277,48	16604,22	17104,13	17159,45
	Belarus			..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Belgium		12541,82	12965,43	13596,25	14385,68	14943,79	14704,84	15510,73	15590,37	16020,39	16383,77	17100,29	17038,72	17126,79	17171,37	17594,3
	Bulgaria												5001,362	5013,93	4873,09	4833,733	4998,416
	Czech Republic		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Denmark		15618,14	15912,3	16536,45	17023,04	16712,23	16375,71	17384,86	17526,23	17792,58	18304,68	18177,16	17807,66	18310,87	18644,04	19305,99
	Estonia																
	Finland		11159,5	11407,66	12215,93	12996,25	13345,37	13528,56	13472,37	13480,74	13754,5	14648,19	15349,64	15612,74	16012,53	16353,36	16822,39
	France		12402,29	12873,05	13324,75	13937,86	14277,97	14172,6	14715,21	15120,35	15559,07	16005,05	16179,8	16285,34	16615,94	16773,3	16965,34
	Germany		12322,8	12627,46	13084,83	13639,81	13698,01	13606,42	14352,23	14817,18	15277,28	15908,55	16069,9	16064,03	15954,31	16246,52	16764,89
	Greece		8540,583	9170,634	10036,47	10800,06	10067,52	10609,06	11186,35	11340,9	12005,41	12246,19	12207,65	11911,75	11703,45	11510,2	11683,48
	Hungary		-	-	7161,461	7723,031	8034,321	8224,095	8054,28	8389,656	8409,863	9368,996	9462,881	9561,067	9497,21	9131,285	9503,859
	Ireland		7771,607	7965,666	8353,588	8608,507	8828,726	9172,521	9153,519	9771,943	10341,48	10488,38	10706,45	10927,51	11058,2	10952,5	11351,69
	Italy		11274,33	11438,91	11732,94	12416,81	12986,75	12644,82	13403,3	13661,35	14109,75	14847,21	15331,95	15430,79	15519,04	15705,21	16134,83
	Latvia																
	Lithuania																
	Luxembourg		15541,79	15807,21	16646,01	17829,12	18339,48	16948,19	17291,01	17528,44	18212,49	18593,47	18677,78	18524,04	18723,35	19277,74	20453,66
	Netherlands		13620,59	14021,25	14337,57	14889,14	15359,63	15214,2	15861,81	16132,21	16414,35	16666,31	16731,39	16530,9	16264,3	16477,97	16954,92
	Norway		10928,43	11418,72	11903,94	12338,15	12775,96	13447,23	14167,32	14703,17	15132,95	15744,84	16472,13	16573,84	16541,93	17074,19	18024,27
	Poland		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Portugal		6553,414	7049,454	7625,986	8477,201	8455,584	7786,468	8090,659	8453,591	8597,988	8985,997	9297,358	9367,237	9508,384	9450,924	9241,685
	Romania			..	..	..	..	5786,93	6105,944	6508,942	6998,441	7552,81	7934,281	7589,758	7433,993	7568,033	8043,509
	Slovak Republic		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Slovenia			..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Spain		8569,697	8885,78	9524,15	10173,92	10642,54	10589,37	10810,77	10986,18	11022,34	10928,86	11050,54	10968,35	11045,66	11188,4	11341,66
	Sweden		14128,97	14165,57	14446,97	14992,54	15426,52	15760,47	15869,13	15560,94	15787,57	16356,26	16597,22	16549,48	16733,24	17039,78	17755,23
	Switzerland		20869,78	21460,07	21946,22	22475,11	22735,04	21263,54	21200,11	21774,49	21804,88	22284,81	23186,23	23391	22919,37	22982,11	23593,96
	Turkey		3367,098	3462,292	3625,381	3651,237	3797,618	3969,46	4289,409	4344,875	4320,055	4205,304	4018,628	4111,865	4153,656	4252,929	4426,836
	United Kingdom		11491,2	11668,3	12054,11	12898,45	12691,13	12622,78	12974,94	13278,33	13725,37	14067,76	13749,94	13543,59	13821,1	14305,75	14634,53

NATIONAL ACCOUNTS of OECD Countries (www.oecd.org/std/national-accounts)
Note: Figures in BOLD were extracted from The World Bank Group Data: (http://www.worldbank.org/data/)

A3.3.GDP PER CAPI

MEASURE																
HVPVOB	Gross domestic product	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
US $, 1995 prices and 1995 PPPs																
COUNTRY	Austria	17558,74	17909,83	18177,96	18761,89	19447,7	20180,06	20626,98	20833,42	20716,89	21155,44	21453,91	21848,42	22161,43	22923,95	23527,22
	Belarus	..	..	7789,263	8253,547	8594,887	8135,057	7895,596	7209,387	6649,052	5845,832	5217,67	5317,515	5777,293	6159,914	6448,073
	Belgium	17881,56	18204,21	18602,73	19415,73	20015,53	20585,58	20882,33	21113,25	20825,76	21434,51	21913,01	22135,7	22869,5	23330,58	23990,4
	Bulgaria	5201,04	5706,562	6403,946	7339,238	6982,384	6604,316	6158,625	5348,586	5290,35	5394,769	5679,51	5133,347	4683,223	4596,636	4755,017
	Czech Republic	-	-	-	-	-	12936,55	11493,87	11425,67	11419,58	11668,85	12369,24	12915,37	12831,85	12709,62	12779,81
	Denmark	19983,75	20756,94	20738,97	20978,57	21006	21179,83	21366,08	21429,98	21351,16	22448,94	22974,16	23400,43	23985,81	24471,18	24951,71
	Estonia			9826,435	10300,56	10149,91	9182,322	8340,497	6850,389	6329,297	6269,942	6558,69	6839,782	7727,882	7812,694	7834,542
	Finland	17273,79	17646,4	18338,16	19151,97	20063,3	19981,14	18626,42	17907,69	17618,17	18232,13	18856,32	19547,28	20716,56	21766,67	22596,53
	France	17125,06	17448,32	17793,4	18511,74	19172,52	19568,03	19663,82	19858,57	19598,5	19930,77	20192,48	20345,15	20661,76	21289,66	21884,58
	Germany	17171,68	17581,8	17833,71	18405,89	18989,49	19902,56	20754,66	21058,69	20679,83	21101,95	21403,79	21505,88	21764,19	22196,14	22634,37
	Greece	11930,87	11952,93	11643,21	12098,9	12492,69	12405,4	12682,62	12678,61	12407,23	12598,33	12828,44	13103,58	13550,46	13982,89	14437,97
	Hungary	9656,432	10358,85	11392,91	11713,3	11516,26	10761,9	9315,398	9115,507	9010,933	9283,051	9577,07	9595,295	9872,122	10233,28	10718,15
	Ireland	11662,3	11609,07	12146,98	12824,17	13650,95	14823,6	15023,94	15399,57	15730,15	16579,89	18157,48	19431,14	21332,92	22892,52	25106,65
	Italy	16609,96	17028,58	17535,09	18218,69	18727,8	19081,54	19336,06	19446,09	19209,84	19580,99	20119,3	20305,13	20675,07	21018,28	21331,49
	Latvia						9666,535	8545,136	5705,468	4906,816	4985,316	5037,37	5200,015	5578,391	5709,24	5874,078
	Lithuania						9722,35	8976,841	7169,541	5975,582	5379,408	5626,7	5916,959	6293,24	6479,072	6241,119
	Luxembourg	21010,36	22534,62	22923	25121,67	27346,43	27591,93	28857,02	29729,95	31865,75	32735,08	33486,19	34186,83	36790,51	38430,61	40157,49
	Netherlands	17398,55	17780,87	17913	18338,86	19138,06	19781,39	20110,68	20300,6	20336,64	20738,83	21248,96	21801,72	22521,1	23356,97	24127,38
	Norway	18905,27	19516,31	19817,45	19691,74	19788,41	20112,09	20636,66	21198,31	21644,73	22651,1	23524,18	24630,19	25767,02	26283,45	26663,68
	Poland	-	-	-	-	-	6382,925	5915,619	6045,395	6256,014	6568,181	7021,508	7439,052	7940,332	8321,432	8661,409
	Portugal	9480,26	9872,833	10520,72	11338,13	12106,03	12632,59	13221,8	13372,37	13081,05	13178,6	13723,18	14193,99	14727,31	15362,35	15861,45
	Romania	8064,428	8629,132	8569,032	8676,874	7793,675	7087,032	6101,242	5772,345	5843,806	6038,779	6543,39	6788,753	6240,234	5813,96	5665,108
	Slovak Republic	-	-	-	-	-	-	-	7896,696	8019,649	8400,118	8915,42	9418,348	9932,774	10311,01	10437,76
	Slovenia	..	..	..	..	..		12420,71	11934,26	12347,35	12584,54	13191,21	13594,19	14002,9	14201,85	14982,29
	Spain	11562,36	11902,28	12531,62	13141,11	13748,8	14247,03	14583,85	14686,16	14505,67	14827,09	15212,63	15561,27	16159,29	16815,06	17433,15
	Sweden	18113,73	18566,73	19123,48	19529,82	19919,74	19982,67	19628,59	19172,62	18710,35	19343,08	19952,46	20135,64	20540,86	21264,8	22206,27
	Switzerland	24292,31	24541,15	24549,87	25116,28	26301,04	27021,42	26458,22	26136,5	25774,44	25704,22	25661,39	25630,29	26009,15	26542,91	26846,32
	Turkey	4501,225	4711,448	5047,594	5043,88	4948,059	5280,012	5226,454	5435,267	5764,778	5352,914	5637,982	5931,998	6273,539	6363,292	5968,758
	United Kingdom	15114,66	15665,07	16325,71	17129,01	17437,21	17512,59	17197,4	17175,67	17547,76	18301,42	18764,17	19192,66	19783,87	20285,56	20682,23

A3.4.Interest Rates

			Years	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Country	DATABASE	SERIES_CODE	DESCRIPTOR																	
AUSTRIA	IFS	12261...ZF...	GOVERNMENT BOND YIELD	1,50	-0,23	0,20	0,24	3,15	3,12	3,06	2,24	4,48	4,24	4,05	4,59	4,52	3,38	4,69	4,62	4,80
Belarus	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
BELGIUM	IFS	12461...ZF...	GOVERNMENT BOND YIELD	1,72	0,60	0,30	-3,96	-3,73	1,41	1,20	3,96	4,83	7,86	8,17	6,68	6,02	6,86	4,56	4,34	5,70
Bulgaria	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Czech Republic	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
DENMARK	IFS	12861...ZF...	GOVERNMENT BOND YIELD	3,01	0,51	0,32	0,92	-0,74	4,18	3,52	5,06	7,92	9,06	7,14	9,28	6,08	7,93	6,39	5,95	5,93
Estonia	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Finland	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	-0,629558	-4,827806	-13,23178	-4,011727	-4,004546	-0,799619	0,507896	-0,808406	0,028514	-1,002542	0,3038	1,068319	1,874775	4,660063	4,594064	4,47963
FRANCE	IFS	13261...ZF...	GOVERNMENT BOND YIELD	1,39	0,37	-0,19	-1,37	-3,40	-1,81	0,61	-0,62	-0,20	1,89	4,76	4,18	4,62	5,53	5,51	3,34	6,56
GERMANY	IFS	13461...ZF...	GOVERNMENT BOND YIELD	2,76	2,40	2,30	3,44	2,56	3,50	2,51	3,11	3,28	3,08	4,06	3,68	4,62	5,37	4,68	6,04	5,60
Greece	Wbreallrates	FR.INR.RINR	Real interest rate (%)	4,696913	2,825966	-8,732958	-7,52599	-0,411015	-3,371499	-0,843316	0,453744	-1,630496	3,027153	1,318051	-3,673657	1,160576	0,180147	2,407297	2,536981	6,619239
Hungary	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IRELAND	IFS	17861...ZF...	GOVERNMENT BOND YIELD	-2,06	-3,92	-2,94	10,77	-5,49	-5,54	-1,97	2,31	1,39	0,64	-0,18	1,87	3,19	8,23	7,46	4,52	9,08
ITALY	IFS	13661...ZF...	GOVERNMENT BOND YIELD	1,62	1,33	-6,27	-10,75	-4,56	-5,21	-3,80	-0,07	-2,00	-4,80	1,47	3,85	2,96	3,46	4,09	2,61	3,50
Latvia	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lithuania	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
LUXEMBOURG	IFS	13761...ZF...	GOVERNMENT BOND YIELD	8,39	1,46	-5,40	-9,71	7,59	-4,99	5,86	1,51	0,43	-0,42	1,50	-0,31	3,01	5,82	6,55	5,91	7,03
NETHERLANDS	IFS	13861...ZF...	GOVERNMENT BOND YIELD	-0,75	-2,49	-1,09	0,67	-1,41	-0,01	1,44	2,44	4,66	4,69	6,18	4,72	6,53	6,93	5,59	6,18	7,13
NORWAY	IFS	14261...ZF...	GOVERNMENT BOND YIELD	-0,27	1,26	-2,99	-3,15	-2,75	-0,23	-0,93	2,03	2,97	-2,85	-0,55	2,82	5,87	5,81	7,37	14,42	6,63
Poland	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
PORTUGAL	IFS	18261...ZF...	GOVERNMENT BOND YIELD	0,68	-1,80	-3,97	-11,37	-9,73	-6,54	-15,60	-6,18	-2,75	-4,22	-0,90	-3,90	-5,38	-3,17	-0,99	-4,91	4,93
Romania	OECDdata	826293D	Long-term interest rate\Quantum (non																	
Slovak Republic	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Slovenia	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
SPAIN	IFS	18461...ZF...	GOVERNMENT BOND YIELD	2,15	1,48	-0,85	-3,95	-4,78	-4,49	-10,35	-6,61	-3,62	2,61	3,23	2,06	5,08	4,90	5,68	0,29	6,97
SWEDEN	IFS	14461...ZF...	GOVERNMENT BOND YIELD	0,12	0,32	0,36	-1,67	-5,72	-2,64	-0,79	0,54	2,53	0,02	3,94	4,79	2,23	4,70	6,46	3,41	6,92
SWITZERLAND	IFS	14661...ZF...	GOVERNMENT BOND YIELD	-3,88	-4,83	-2,54	0,22	-0,69	2,26	3,79	-0,28	1,46	2,06	-0,20	-1,94	1,85	1,19	2,41	1,21	1,38
TURKEY	IFS	18660...ZF...	DISCOUNT RATE (END OF PERIOD)	-6,497643	-0,036918	-11,59609	-18,46952	-9,495901	-3,583671	-12,68923	-34,69181	-63,09563	-57,04478	-10,89581	5,309227	24,26973	5,15062	1,824673	14,61972	13,40615
UNITED KINGD	IFS	11261...ZF...	GOVT BOND YIELD: LONG-TERM	-0,36	0,81	3,42	-0,17	-12,64	-0,75	-1,04	0,92	-1,51	-5,59	3,47	5,46	5,48	5,87	4,87	6,75	4,27

Note:

Figures in yellow cells are obtained by extrapolation of figures from other sources

A3.4.Interest Rates

Country	DATABASE	SERIES_CODE	DESCRIPTOR	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
AUSTRIA	IFS	12261...ZF...	GOVERNMENT BOND YIELD	5,09	4,40	5,30	4,87	3,94	3,86	3,93	4,34	4,02	3,18	3,67	3,21
Belarus	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	..	-85	-85,25684	-87,97946	-63,35083	8,573232	-23,65306	-27,11071	-64,21042
BELGIUM	IFS	12461...ZF...	GOVERNMENT BOND YIELD	5,73	4,01	6,94	6,06	5,01	3,03	5,54	5,78	5,29	4,40	3,14	3,89
Bulgaria	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	-54,56511	-1,828304	4,77658	-0,052341	-2,376396	1,101639	-82,466	-7,305979	9,412381
Czech Republic	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	-6	-6	-6	-5,737123	-0,257202	2,34647	3,625386	5,560283	2,382186	6,194184
DENMARK	IFS	12861...ZF...	GOVERNMENT BOND YIELD	7,24	4,52	7,09	6,82	6,57	5,69	5,69	5,83	3,56	3,45	2,52	1,56
Estonia	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	..	-86,59673	-29,27435	-11,94076	-12,06734	-8,326483	8,069725	7,174279	4,626805
Finland	Wbreallrates	FR.INR.RINR	Real interest rate (%)	1,475284	3,944487	5,871301	9,777857	11,1793	7,404243	5,80199	3,482162	6,398927	3,171648	2,173412	4,029629
FRANCE	IFS	13261...ZF...	GOVERNMENT BOND YIELD	6,05	5,67	7,04	6,10	6,61	4,59	5,67	5,92	4,94	4,34	3,81	4,31
GERMANY	IFS	13461...ZF...	GOVERNMENT BOND YIELD	4,83	4,31	6,19	6,94	2,92	2,61	4,16	4,47	4,60	4,29	3,36	3,28
Greece	Wbreallrates	FR.INR.RINR	Real interest rate (%)	6,318928	7,723024	5,818875	7,977091	11,89107	14,41261	15,01279	13,00943	12,64422	11,48851	13,00889	11,63457
Hungary	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	1,344818	2,473974	-0,459612	9,497899	3,419028	6,618855	4,636165	5,062144	2,783458	5,891763	6,756238
IRELAND	IFS	17861...ZF...	GOVERNMENT BOND YIELD	6,24	3,42	10,81	7,37	6,30	2,54	6,49	5,27	5,15	2,09	-0,78	-0,43
ITALY	IFS	13661...ZF...	GOVERNMENT BOND YIELD	3,39	4,27	3,28	5,60	8,72	7,38	7,08	7,18	4,12	4,43	2,24	3,25
Latvia	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	-30	-80	8,637183	12,66434	16,05092	7,932183	8,114511	8,342012	12,00756
Lithuania	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	-52	-52	-52,77097	0,406442	-7,941961	-2,818233	1,045365	5,185206	9,463289
LUXEMBOURG	IFS	13761...ZF...	GOVERNMENT BOND YIELD	6,42	4,21	5,08	6,67	3,62	6,19	1,04	5,34	3,49	2,06	3,79	3,50
NETHERLANDS	IFS	13861...ZF...	GOVERNMENT BOND YIELD	5,24	6,00	6,61	6,03	5,84	4,57	4,85	5,57	5,32	3,83	2,99	3,62
NORWAY	IFS	14261...ZF...	GOVERNMENT BOND YIELD	8,01	5,12	6,85	7,43	10,22	4,37	7,29	3,74	1,59	2,13	6,14	-1,21
Poland	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	-2,041465	-0,125835	9,796338	-2,773017	3,765538	6,168129	9,578225	11,32491	9,507698
PORTUGAL	IFS	18261...ZF...	GOVERNMENT BOND YIELD	2,71	3,22	5,78	6,08	5,38	5,74	4,55	5,21	3,98	2,45	0,04	0,00
Romania	OECDdata	826293D	Long-term interest rate\Quantum (non					-35	-40	-30	-5	-10	-74,19125	0,411719	19,24117
Slovak Republi	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	-6	-6	-6,269942	0,706306	6,476033	8,995989	11,31818	15,26683	13,60088
Slovenia	Wbreallrates	FR.INR.RINR	Real interest rate (%)	..	..	..	..	-4,175574	8,364855	13,24914	7,117045	10,30941	10,3488	7,66525	5,447701
SPAIN	IFS	18461...ZF...	GOVERNMENT BOND YIELD	6,09	6,61	7,37	5,33	5,30	5,82	5,71	6,22	4,74	3,70	2,25	1,15
SWEDEN	IFS	14461...ZF...	GOVERNMENT BOND YIELD	4,87	3,15	4,23	3,06	8,97	5,95	7,03	6,35	4,88	4,71	3,62	3,97
SWITZERLAND	IFS	14661...ZF...	GOVERNMENT BOND YIELD	1,30	2,12	2,41	0,35	2,74	1,38	3,58	2,60	3,26	3,18	2,51	2,93
TURKEY	IFS	18660...ZF...	DISCOUNT RATE (END OF PERIOD)	-13,34747	-19,65431	-11,21442	-8,773338	-14,03114	-17,33832	-50,11465	-34,99449	-26,26232	-12,53622	-6,679161	5,804543
UNITED KINGD	IFS	11261...ZF...	GOVT BOND YIELD: LONG-TERM	3,33	2,12	3,42	3,26	5,16	5,13	6,52	5,74	4,84	4,18	2,43	2,23

Note:
Figures in yellow cells are obtained by extrapolation of figures from other sources

A3.5.Energy prices (at constant 1995 US$)

		OILPCP	GASHP
1972	United Kingdom	0,680934	0,651473
1973		0,694506	0,664458
1974		0,866867	0,829362
1975		0,852947	0,816044
1976		0,843075	0,806599
1977		0,831857	0,795866
1978		0,787265	0,753203
1979		0,876363	0,863876
1980		0,899888	0,928895
1981		0,953944	1,006902
1982		0,95303	1,007915
1983		0,959233	1,040742
1984		0,952175	1,030749
1985		0,976271	1,039028
1986		0,816342	0,886485
1987		0,762856	0,847947
1988		0,713215	0,795498
1989		0,714418	0,801589
1990		0,737023	0,794276
1991		0,72592	0,777511
1992		0,747668	0,801623
1993		0,768398	0,814075
1994		0,77635	0,81766
1994	Czech Republic	1,581404	1,931722
1995		1,470843	1,78
1996		1,419414	1,715976
1997		1,452573	1,714845
1998		1,296085	1,561697
1999		1,329344	1,603494
1972	Switzerland	0,579427	0,580407
1973		0,592972	0,593974
1974		0,737731	0,738978
1975		0,721462	0,722681
1976		0,71684	0,718051
1977		0,709125	0,710324
1978		0,670643	0,671776
1979		0,764577	0,769976
1980		0,847032	0,825685
1981		0,859489	0,849573
1982		0,797415	0,800403
1983		0,754928	0,755607
1984		0,728841	0,728396
1985		0,730728	0,745969
1986		0,548602	0,560571
1987		0,527742	0,518893
1988		0,502607	0,489537
1989		0,536769	0,530463
1990		0,552874	0,521953
1991		0,533013	0,50374
1992		0,517719	0,491662
1993		0,560861	0,553154
1994		0,55519	0,562141
1995		0,546379	0,57
1996		0,545643	0,558918
1997		0,597041	0,616573
1998		0,555174	0,580875
1999		0,568611	0,590761
1972	Luxembourg	0,315055	0,422538
1973		0,322413	0,432406
1974		0,40113	0,537979

A3.5.Energy prices (at constant 1995 US$)

		OILPCP	GASHP
1975		0,392286	0,526117
1976		0,389767	0,522738
1977		0,38557	0,51711
1978		0,364648	0,48905
1979		0,462091	0,619737
1980		0,572177	0,739676
1981		0,63322	0,818108
1982		0,700204	0,889337
1983		0,697318	0,869661
1984		0,722748	0,865829
1985		0,687019	0,852536
1986		0,494342	0,63879
1987		0,462913	0,62014
1988		0,459604	0,648637
1989		0,47014	0,660132
1990		0,464051	0,624074
1991		0,44082	0,558494
1992		0,465981	0,56648
1993		0,51423	0,594901
1994		0,523961	0,613245
1995		0,5325	0,64
1996		0,541818	0,637362
1997		0,554769	0,655109
1998		0,513391	0,618965
1999		0,539846	0,656401
1972	Greece	0,547471	1,055296
1973		0,560259	1,079947
1974		0,697044	1,343613
1975		0,681674	1,313986
1976		0,677297	1,305547
1977		0,670003	1,291489
1978		0,633648	1,221411
1979		0,721922	1,314594
1980		0,89053	1,444948
1981		0,893149	1,400223
1982		0,772428	1,230249
1983		0,771675	1,183309
1984		0,730339	1,099465
1985		0,783247	1,158916
1986		0,744739	1,121142
1987		0,672648	0,974506
1988		0,585448	0,844452
1989		0,512977	0,742649
1990		0,599272	0,873704
1991		0,673747	0,865118
1992		0,768448	0,897817
1993		0,822659	1,06456
1994		0,737523	0,970972
1995		0,735084	0,94
1996		0,753571	0,941335
1997		0,730748	0,915226
1998		0,671498	0,857029
1999		0,71462	0,862699
1972	Ireland	0,538193	0,685855
1973		0,550844	0,701978
1974		0,685322	0,873352
1975		0,670245	0,854138
1976		0,665903	0,848605
1977		0,658688	0,83941
1978		0,622989	0,793917

A3.5.Energy prices (at constant 1995 US$)

		OILPCP	GASHP
1979		0,643565	0,807536
1980		0,824372	0,997703
1981		0,953073	1,132764
1982		1,016426	1,185782
1983		1,058234	1,240336
1984		1,075181	1,236898
1985		1,055069	1,265483
1986		0,915704	1,05596
1987		0,884628	1,037785
1988		0,851426	0,991313
1989		0,847446	1,001987
1990		0,865001	0,998519
1991		0,871359	0,996529
1992		0,857643	0,972635
1993		0,820236	0,908007
1994		0,834062	0,899426
1995		0,809272	0,89
1996		0,846582	0,84328
1997		0,853938	0,886324
1998		0,716705	0,790371
1999		0,690089	0,768927
1972	Portugal	0,873588	1,688469
1973		0,893994	1,727909
1974		1,11226	2,149773
1975		1,087738	2,102376
1976		1,080752	2,088874
1977		1,069115	2,066382
1978		1,011103	1,954258
1979		1,138817	2,08457
1980		1,329154	2,287835
1981		1,45704	2,312727
1982		1,496586	2,252986
1983		1,624617	2,380875
1984		1,662907	2,308877
1985		1,603231	2,184623
1986		1,356381	1,877261
1987		1,274732	1,759173
1988		1,208482	1,639949
1989		1,140605	1,53245
1990		1,121092	1,429697
1991		1,096788	1,357907
1992		1,020738	1,261219
1993		1,017535	1,26286
1994		1,019971	1,308256
1995		1,001227	1,29
1996		0,994886	1,264919
1997		1,044794	1,329487
1998		0,956588	1,228408
1999		0,910714	1,181522
1972	Germany	0,539786	0,581237
1973		0,555674	0,598345
1974		0,690722	0,743764
1975		0,677259	0,729266
1976		0,677264	0,729272
1977		0,669756	0,721187
1978		0,623868	0,671776
1979		0,656945	0,694857
1980		0,739211	0,791281
1981		0,833058	0,928238
1982		0,809709	0,874514

A3.5.Energy prices (at constant 1995 US$)

		OILPCP	GASHP
1983		0,769242	0,841148
1984		0,78277	0,852086
1985		0,789727	0,865857
1986		0,564502	0,612717
1987		0,526866	0,582172
1988		0,497248	0,550729
1989		0,541496	0,636556
1990		0,555266	0,646768
1991		0,579536	0,689905
1992		0,583198	0,726804
1993		0,559105	0,688833
1994		0,605201	0,766557
1995		0,602047	0,77
1996		0,626342	0,784446
1997		0,657001	0,828521
1998		0,608126	0,780848
1999		0,658186	0,834567
1972	Denmark	0,386383	0,552578
1973		0,395728	0,565944
1974		0,494805	0,707636
1975		0,489984	0,700742
1976		0,486529	0,6958
1977		0,483274	0,691145
1978		0,455496	0,651419
1979		0,552712	0,751196
1980		0,703353	0,928895
1981		0,747435	0,991169
1982		0,732527	1,007915
1983		0,689182	0,969458
1984		0,647939	0,907059
1985		0,640306	0,892498
1986		0,539895	0,899521
1987		0,528198	0,885914
1988		0,505876	0,844452
1989		0,524619	0,848742
1990		0,4932	0,703502
1991		0,506294	0,668003
1992		0,498019	0,63061
1993		0,516215	0,657522
1994		0,53386	0,735894
1995		0,519873	0,64
1996		0,577088	0,755029
1992	Estonia	0,976039	0,976039
1993		0,926515	0,926515
1994		0,903316	0,903316
1995		0,905112	0,905112
1996		0,942255	0,942255
1997		1,037469	1,198407
1998		0,847606	0,979091
1999		0,925895	1,069524
1972	Italy	0,664119	1,248765
1973		0,679632	1,277936
1974		0,845563	1,58994
1975		0,826919	1,554884
1976		0,821608	1,544899
1977		0,812762	1,528265
1978		0,768659	1,445336
1979		0,753115	1,352153
1980		0,890313	1,46215
1981		0,944603	1,573284

A3.5.Energy prices (at constant 1995 US$)

		OILPCP	GASHP
1982		0,98395	1,556339
1983		0,99872	1,539728
1984		0,990042	1,539251
1985		0,968827	1,451975
1986		0,81334	1,303654
1987		0,802432	1,252936
1988		0,800513	1,223843
1989		0,810632	1,178808
1990		0,860086	1,157374
1991		0,885301	1,106037
1992		0,864074	1,079518
1993		0,857827	1,043686
1994		0,857001	1,052738
1995		0,901694	1,11
1996		0,910358	1,10803
1997		0,900755	1,107905
1998		0,868085	1,076047
1999		0,917314	1,125259
1991	Hungary	1,415218	1,912834
1992		1,446559	1,934582
1993		1,462104	1,774266
1994		1,326434	1,604658
1995		1,357968	1,6
1996		1,406909	1,61792
1997		1,414352	1,628139
1998		1,394867	1,599787
1999		1,538968	1,772283
1972	Netherlands	0,420668	0,615589
1973		0,430491	0,629962
1974		0,535607	0,783786
1975		0,523789	0,766491
1976		0,52042	0,761561
1977		0,514826	0,753375
1978		0,486886	0,71249
1979		0,555524	0,769976
1980		0,651964	0,87729
1981		0,73223	0,991169
1982		0,729448	0,963448
1983		0,691956	0,940945
1984		0,740041	1,017005
1985		0,739559	0,999065
1986		0,549964	0,808265
1987		0,584244	0,873258
1988		0,560774	0,85669
1989		0,564054	0,801589
1990		0,656219	0,907744
1991		0,65882	0,908922
1992		0,664247	0,929882
1993		0,750352	0,887133
1994		0,765415	0,909647
1995		0,778801	0,93
1996		0,816028	0,951141
1997		0,79777	1,040468
1998		0,766233	1,018912
1972	Norway	0,466997	0,545235
1973		0,477907	0,557973
1974		0,594587	0,694201
1975		0,581472	0,678889
1976		0,577744	0,674536
1977		0,571522	0,667272

A3.5.Energy prices (at constant 1995 US$)

		OILPCP	GASHP
1978		0,540508	0,631062
1979		0,627333	0,638517
1980		0,787411	0,756878
1981		0,814951	0,786642
1982		0,750849	0,755936
1983		0,717526	0,755607
1984		0,695292	0,755882
1985		0,66611	0,719327
1986		0,53799	0,651827
1987		0,534137	0,645452
1988		0,521135	0,636398
1989		0,548677	0,648344
1990		0,604374	0,692155
1991		0,63913	0,777511
1992		0,66355	0,855064
1993		0,685777	0,887133
1972	Austria	0,638409	0,721116
1973		0,653321	0,73796
1974		0,812829	0,918133
1975		0,79491	0,897892
1976		0,789804	0,892125
1977		0,781297	0,882516
1978		0,738904	0,834631
1979		0,781849	0,863876
1980		0,922922	0,946097
1981		1,022045	1,085566
1982		0,98715	1,111671
1983		0,949573	1,054999
1984		0,933575	1,044492
1985		0,940273	1,06567
1986		0,746661	0,834338
1987		0,691156	0,772011
1988		0,656118	0,734306
1989		0,659253	0,766225
1990		0,691284	0,794276
1991		0,645351	0,733708
1992		0,622482	0,748181
1993		0,614846	0,73058
1994		0,601883	0,746115
1995		0,655371	0,82
1996		0,67869	0,823668
1997		0,711678	0,867056
1998		0,652648	0,809416
1999		0,652061	0,806436
1991	Poland	0,951071	1,073185
1992		1,042285	1,19709
1993		1,035017	1,252423
1994		0,90823	1,0834
1995		0,875389	1,03
1996		0,848564	1,000169
1997		0,833653	0,992298
1998		0,84597	1,037957
1999		1,001475	1,237785
1972	Spain	0,642202	1,020118
1973		0,657204	1,043948
1974		0,817657	1,298824
1975		0,79963	1,270188
1976		0,794495	1,262031
1977		0,785939	1,248441
1978		0,743292	1,180697

A3.5.Energy prices (at constant 1995 US$)

		OILPCP	GASHP
1979		0,698323	1,089235
1980		0,874071	1,324536
1981		1,06172	1,463154
1982		0,995402	1,363649
1983		1,090212	1,482701
1984		1,08315	1,443048
1985		1,05024	1,345408
1986		0,850072	1,068996
1987		0,778969	0,974506
1988		0,716659	0,893405
1989		0,682444	0,848742
1990		0,694665	0,862357
1991		0,7326	0,876069
1992		0,722058	0,876441
1993		0,750225	0,908007
1994		0,720965	0,889206
1995		0,705393	0,87
1996		0,737545	0,882502
1997		0,756624	0,915226
1998		0,706675	0,857029
1999		0,727156	0,872076
1972	Sweden	0,328909	0,474884
1973		0,329318	0,485975
1974		0,398603	0,604625
1975		0,375245	0,59129
1976		0,362219	0,587499
1977		0,349919	0,58117
1978		0,330933	0,549635
1979		0,361366	0,600957
1980		0,479916	0,722474
1981		0,533105	0,786642
1982		0,596267	0,815225
1983		0,587774	0,798377
1984		0,589776	0,755882
1985		0,602665	0,77261
1986		0,459248	0,651827
1987		0,462836	0,632796
1988		0,463827	0,636398
1989		0,494081	0,636556
1990		0,618986	0,782929
1991		0,590124	0,744659
1992		0,561621	0,726804
1993		0,607215	0,814075
1994		0,646249	0,776777
1995		0,645638	0,77
1996		0,665723	0,794252
1997		0,682755	0,838155
1998		0,630454	0,780848
1999		0,655178	0,806436
1972	Belgium	0,485493	0,630223
1973		0,497163	0,645372
1974		0,61895	0,803466
1975		0,605911	0,786539
1976		0,602364	0,781935
1977		0,596538	0,774372
1978		0,564549	0,732847
1979		0,658937	0,788756
1980		0,827141	0,980501
1981		0,908978	1,117032
1982		0,895538	1,141315

A3.5.Energy prices (at constant 1995 US$)

		OILPCP	GASHP
1983		0,865836	1,140539
1984		0,848902	1,113209
1985		0,833307	1,118953
1986		0,606121	0,821302
1987		0,580558	0,772011
1988		0,561708	0,758783
1989		0,612548	0,813377
1990		0,656823	0,81697
1991		0,666823	0,810364
1992		0,690165	0,812311
1993		0,698232	0,824512
1994		0,693848	0,838102
1995		0,678779	0,83
1996		0,730717	0,911919
1997		0,759352	0,982664
1998		0,668133	0,876074
1999		0,692225	0,909585
1972	France	0,635338	0,831423
1973		0,65019	0,850859
1974		0,80754	1,056772
1975		0,786411	1,029122
1976		0,781963	1,023301
1977		0,777393	1,017321
1978		0,731124	0,956772
1979		0,787282	0,976555
1980		0,864494	1,032106
1981		0,921799	1,069833
1982		0,902756	1,096848
1983		0,896912	1,069255
1984		0,905728	1,085722
1985		0,922116	1,118953
1986		0,706886	0,899521
1987		0,694563	0,89857
1988		0,655216	0,868928
1989		0,67799	0,91947
1990		0,663932	0,896397
1991		0,651783	0,865118
1992		0,632644	0,833687
1993		0,628261	0,814075
1994		0,635694	0,81766
1995		0,655022	0,87
1996		0,684791	0,892307
1997		0,701628	0,915226
1998		0,671282	0,885596
1999		0,711057	0,918962
1992	Slovenia	0,978994	0,999327
1993		0,933155	0,952537
1994		0,891463	0,909979
1995		0,905478	0,924285
1996		0,946058	0,965707
1997		1,120582	1,143857
1998		0,92956	0,948867
1999		1,01422	1,035286
1972	Turkey	0,56412	0,822695
1973		0,580807	0,847031
1974		0,727625	1,061146
1975		0,708971	1,033941
1976		0,701207	1,022619
1977		0,693729	1,011714
1978		0,656056	0,956772

A3.5.Energy prices (at constant 1995 US$)

		OILPCP	GASHP
1979		0,865721	1,483613
1980		1,143648	1,582563
1981		1,224218	1,636215
1982		1,286338	1,734206
1983		1,265772	1,696552
1984		1,284191	1,717914
1985		1,284872	1,67843
1986		1,105854	1,420983
1987		0,896931	1,126377
1988		0,928535	1,150412
1989		1,048121	1,190596
1990		1,171959	1,248148
1991		1,257931	1,456465
1992		1,248839	1,485674
1993		0,996707	1,241986
1994		1,036805	1,35936
1995		1,001126	1,31
1996		1,138834	1,402197
1997		1,256388	1,599237
1998		1,060792	1,418859
1999		1,322426	1,725397
1972		0,514576	0,693738
1973	Finland	0,526602	0,70995
1974		0,655169	0,883281
1975		0,64073	0,863815
1976		0,635021	0,856119
1977		0,627005	0,845311
1978		0,588884	0,793917
1979		0,612216	0,788756
1980		0,755392	0,963299
1981		0,811354	1,022635
1982		0,779218	0,97827
1983		0,763744	0,955202
1984		0,731724	0,907059
1985		0,722553	0,892498
1986		0,564052	0,690937
1987		0,577291	0,68342
1988		0,56237	0,660875
1989		0,581082	0,660132
1991		0,634797	0,700855
1992		0,591023	0,662675
1993		0,667108	0,803638
1994		0,601865	0,756336
1996		0,681347	0,911919
1997		0,679056	0,905592
1998		0,652158	0,876074
1999		0,698329	0,937716
1993	Slovak Republic	1,670582	2,014314
1994		1,506711	1,819294
1995		1,408029	1,64
1996		1,452634	1,666948
1997		1,507863	1,666675
1998		1,430102	1,590265
1999		1,620609	1,800415

A4.1.Age-efficiency & age-price profile - Transport Equipment

Age-Efficiency Profile - Hs
Retirement Patterns - Fs

- Average life 25 years
- Retirement patterns - 10 years delayed linear
- Age-efficiency profile - hyperbolic Hs=(T-(t-1))/(T-d0*v/3++="V?52."d=0.5

t	T	t-1	T-(t-1)	T-0.5*(t-1)	Hs	Fs	Hs*Fs	S
1	30	0	30	30	1	1	1	0
2	30	1	29	29,5	0,983050847	1	0,983050847	1
3	30	2	28	29	0,965517241	1	0,965517241	2
4	30	3	27	28,5	0,947368421	1	0,947368421	3
5	30	4	26	28	0,928571429	1	0,928571429	4
6	30	5	25	27,5	0,909090909	1	0,909090909	5
7	30	6	24	27	0,888888889	1	0,888888889	6
8	30	7	23	26,5	0,867924528	1	0,867924528	7
9	30	8	22	26	0,846153846	1	0,846153846	8
10	30	9	21	25,5	0,823529412	1	0,823529412	9
11	30	10	20	25	0,8	1	0,8	10
12	30	11	19	24,5	0,775510204	1	0,775510204	11
13	30	12	18	24	0,75	1	0,75	12
14	30	13	17	23,5	0,723404255	1	0,723404255	13
15	30	14	16	23	0,695652174	1	0,695652174	14
16	30	15	15	22,5	0,666666667	1	0,666666667	15
17	30	16	14	22	0,636363636	1	0,636363636	16
18	30	17	13	21,5	0,604651163	1	0,604651163	17
19	30	18	12	21	0,571428571	1	0,571428571	18
20	30	19	11	20,5	0,536585366	1	0,536585366	19
21	30	20	10	20	0,5	0,9	0,45	20
22	30	21	9	19,5	0,461538462	0,8	0,369230769	21
23	30	22	8	19	0,421052632	0,7	0,294736842	22
24	30	23	7	18,5	0,378378378	0,6	0,227027027	23
25	30	24	6	18	0,333333333	0,5	0,166666667	24
26	30	25	5	17,5	0,285714286	0,4	0,114285714	25
27	30	26	4	17	0,235294118	0,3	0,070588235	26
28	30	27	3	16,5	0,181818182	0,2	0,036363636	27
29	30	28	2	16	0,125	0,1	0,0125	28
30	30	29	1	15,5	0,064516129	0	0	29

Age-Price Profile - Zs
Age-Price Profile * Retirement Patterns - Zs*Fs

- Discount rate -(1+r)/(1+d)= 0,04
Age-price profile-Zs=¬H(v+s)*F(v+s)*(1,04^-(v+1))/¬H(v)*F(v)*(1,04^-(v+1))

H(τ+s)*F(τ+s)	[illegible]	[illegible]	0,965517	[illegible]	0,928571	0,909091	0,888889	0,867925	0,846154	0,823529	0,8	0,77551	0,75	0,723404	0,695652
S \ τ + S	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,634184	0,594496	0,556347	0,519665	0,484381	0,450431	0,417748	0,386271
1		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,659551	0,618276	0,578601	0,540451	0,503757	0,468448	0,434458	0,401722
2			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,685933	0,643007	0,601745	0,562069	0,523907	0,487186	0,451836	0,417791
3				[illegible]	[illegible]	[illegible]	[illegible]	0,713371	0,668728	0,625815	0,584552	0,544863	0,506673	0,46991	0,434502
4					[illegible]	[illegible]	0,790219	0,741906	0,695477	0,650847	0,607934	0,566658	0,52694	0,488706	0,451882
5						[illegible]	0,821828	0,771582	0,723296	0,676881	0,632252	0,589324	0,548018	0,508254	0,469958
6							0,854701	0,802445	0,752228	0,703956	0,657542	0,612897	0,569938	0,528584	0,488756
7								0,834543	0,782317	0,732115	0,683843	0,637413	0,592736	0,549728	0,508306
8									0,813609	0,761399	0,711197	0,662909	0,616445	0,571717	0,528638
9										0,791855	0,739645	0,689426	0,641103	0,594586	0,549784
10											0,769231	0,717003	0,666747	0,618369	0,571775
11												0,745683	0,693417	0,643104	0,594646
12													0,721154	0,668828	0,618432
13														0,695581	0,64317
14															0,668896
15															
16															
17															
18															
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25															
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28															
29															

H(τ+s)*F(τ+s)	0,666667	0,636364	0,604651	0,571429	0,536585	0,45	0,369231	0,294737	0,227027	0,166667	0,114286	0,070588	0,036		
S \ τ + S	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	0,355939	0,326692	0,298473	0,271224	0,244891	0,197475	0,155799	0,119582	0,088568	0,062519					
1	0,370176	0,33976	0,310412	0,282073	0,254686	0,205374	0,162031	0,124366	0,092111	0,06502	0,04287	0,0			
2	0,384983	0,35335	0,322828	0,293356	0,264874	0,213589	0,168512	0,12934	0,095795	0,067621	0,044585	0,026479	0,		
3	0,400383	0,367484	0,335741	0,30509	0,275469	0,222133	0,175253	0,134514	0,099627	0,070326	0,046369	0,027538	0,013641	0,	
4	0,416398	0,382184	0,349171	0,317294	0,286487	0,231018	0,182263	0,139895	0,103612	0,073139	0,048223	0,02864	0,014186	0,004689	0
5	0,433054	0,397471	0,363138	0,329986	0,297947	0,240259	0,189553	0,14549	0,107757	0,076064	0,050152	0,029785	0,014754	0,004877	0
6	0,450376	0,41337	0,377663	0,343185	0,309865	0,249869	0,197135	0,15131	0,112067	0,079107	0,052159	0,030976	0,015344	0,005072	0
7	0,468391	0,429904	0,39277	0,356913	0,322259	0,259864	0,205021	0,157362	0,11655	0,082271	0,054245	0,032216	0,015958	0,005274	0
8	0,487127	0,447101	0,408481	0,371189	0,33515	0,270258	0,213222	0,163657	0,121212	0,085562	0,056415	0,033504	0,016596	0,005485	0
9	0,506612	0,464985	0,42482	0,386037	0,348556	0,281069	0,22175	0,170203	0,12606	0,088985	0,058671	0,034844	0,01726	0,005705	0
10	0,526876	0,483584	0,441813	0,401478	0,362498	0,292311	0,23062	0,177011	0,131102	0,092544	0,061018	0,036238	0,01795	0,005933	0
11	0,547951	0,502927	0,459485	0,417537	0,376998	0,304004	0,239845	0,184092	0,136347	0,096246	0,063459	0,037688	0,018668	0,00617	0
12	0,569869	0,523045	0,477865	0,434239	0,392078	0,316164	0,249439	0,191455	0,1418	0,100096	0,065997	0,039195	0,019415	0,006417	0
13	0,592664	0,543966	0,496979	0,451608	0,407761	0,328811	0,259417	0,199114	0,147472	0,1041	0,068637	0,040763	0,020191	0,006674	0
14	0,616371	0,565725	0,516858	0,469673	0,424071	0,341963	0,269793	0,207078	0,153371	0,108263	0,071383	0,042393	0,020999	0,006941	0
15	0,641026	0,588354	0,537533	0,48846	0,441034	0,355642	0,280585	0,215361	0,159506	0,112594	0,074238	0,044089	0,021839	0,007218	0
16		0,611888	0,559034	0,507998	0,458675	0,369867	0,291808	0,223976	0,165886	0,117098	0,077207	0,045853	0,022713	0,007507	0
17			0,581395	0,528318	0,477022	0,384662	0,303481	0,232935	0,172522	0,121782	0,080296	0,047687	0,023621	0,007807	0
18				0,549451	0,496103	0,400048	0,31562	0,242252	0,179423	0,126653	0,083507	0,049594	0,024566	0,00812	0
19					0,515947	0,41605	0,328245	0,251942	0,1866	0,131719	0,086848	0,051578	0,025549	0,008445	0
20						0,432692	0,341375	0,26202	0,194064	0,136988	0,090322	0,053641	0,026571	0,008782	0
21							0,35503	0,272501	0,201826	0,142467	0,093935	0,055787	0,027633	0,009134	0
22								0,283401	0,209899	0,148166	0,097692	0,058018	0,028739	0,009499	0
23									0,218295	0,154093	0,1016	0,060339	0,029888	0,009879	0
24										0,160256	0,105664	0,062753	0,031084	0,010274	0
25											0,10989	0,065263	0,032327	0,010685	0
26												0,067873	0,03362	0,011112	0
27													0,034965	0,011557	0
28														0,012019	0
29															0

H(τ+s)*F(τ+s)*(1,04^-(τ+1))

¬H(τ+s)*F(τ+s)*(1,04^-(τ+1))	¬H(τ)*F(τ)*(1,04^-(τ+1))	Zs	Fs	Zs*Fs	S
		1	1	1	0
		0,956264	1	0,956263835	1
		0,912197	1	0,91219748	2
		0,867837	1	0,867836668	3
9		0,823221	1	0,823221136	4
9,295804		0,778395	1	0,778394971	5
8,758545	11,94227	0,733407	1	0,733406983	6
8,219998	11,94227	0,688311	1	0,688311115	7
7,680873	11,94227	0,643167	1	0,643166888	8
7,141955	11,94227	0,59804	1	0,598039885	9
6,604103	11,94227	0,553002	1	0,553002286	10
6,068267	11,94227	0,508133	1	0,508133445	11
5,535488	11,94227	0,463521	1	0,463520532	12
5,006907	11,94227	0,419259	1	0,41925923	13
4,483779	11,94227	0,375455	1	0,375454501	14
3,967478	11,94227	0,332221	1	0,332221435	15
3,459511	11,94227	0,289686	1	0,289686182	16
2,961528	11,94227	0,247987	1	0,247986979	17
2,475338	11,94227	0,207275	1	0,207275288	18
2,002923	11,94227	0,167717	1	0,167717063	19
1,546454	11,94227	0,129494	0,9	0,11654473	20
1,158312	11,94227	0,096993	0,8	0,077594109	21
0,835414	11,94227	0,069954	0,7	0,048968061	22
0,574094	11,94227	0,048072	0,6	0,028843449	23
0,370031	11,94227	0,030985	0,5	0,015492469	24
0,218165	11,94227	0,018268	0,4	0,007307323	25
0,112606	11,94227	0,009429	0,3	0,002828758	26
0,046522	11,94227	0,003896	0,2	0,000779115	27
0,012019	11,94227	0,001006	0,1	0,000100644	28
0	11,94227	0	0	0	29

A4.2.Age-efficiency & age-price profile - Way & Structures

Age-Efficiency Profile - Hs

- Average life 50 years
- Retirement patterns - Simultaneous exit
- Age-efficiency profile - hyperbolic Hs=(T-(t-1))/(T-d*(t-1)), d=0.75

t	T	t-1	T-(t-1)	T-0.75*(t-1)	Hs	S
1	50	0	50	50	1	0
2	50	1	49	49,25	0,994924	1
3	50	2	48	48,5	0,989691	2
4	50	3	47	47,75	0,984293	3
5	50	4	46	47	0,978723	4
6	50	5	45	46,25	0,972973	5
7	50	6	44	45,5	0,967033	6
8	50	7	43	44,75	0,960894	7
9	50	8	42	44	0,954545	8
10	50	9	41	43,25	0,947977	9
11	50	10	40	42,5	0,941176	10
12	50	11	39	41,75	0,934132	11
13	50	12	38	41	0,926829	12
14	50	13	37	40,25	0,919255	13
15	50	14	36	39,5	0,911392	14
16	50	15	35	38,75	0,903226	15
17	50	16	34	38	0,894737	16
18	50	17	33	37,25	0,885906	17
19	50	18	32	36,5	0,876712	18
20	50	19	31	35,75	0,867133	19
21	50	20	30	35	0,857143	20
22	50	21	29	34,25	0,846715	21
23	50	22	28	33,5	0,835821	22
24	50	23	27	32,75	0,824427	23
25	50	24	26	32	0,8125	24
26	50	25	25	31,25	0,8	25
27	50	26	24	30,5	0,786885	26
28	50	27	23	29,75	0,773109	27
29	50	28	22	29	0,758621	28
30	50	29	21	28,25	0,743363	29
31	50	30	20	27,5	0,727273	30
32	50	31	19	26,75	0,71028	31
33	50	32	18	26	0,692308	32
34	50	33	17	25,25	0,673267	33
35	50	34	16	24,5	0,653061	34
36	50	35	15	23,75	0,631579	35
37	50	36	14	23	0,608696	36
38	50	37	13	22,25	0,58427	37
39	50	38	12	21,5	0,55814	38
40	50	39	11	20,75	0,53012	39
41	50	40	10	20	0,5	40
42	50	41	9	19,25	0,467532	41
43	50	42	8	18,5	0,432432	42
44	50	43	7	17,75	0,394366	43
45	50	44	6	17	0,352941	44
46	50	45	5	16,25	0,307692	45
47	50	46	4	15,5	0,258065	46
48	50	47	3	14,75	0,20339	47
49	50	48	2	14	0,142857	48
50	50	49	1	13,25	0,075472	49

Age-Price Profile - Zs

- Discount rate -(1+r)/(1+d)= 0,04

Age-price profile-Zs=¬H(v+s)*(1,04^-(v+1))/¬H(v)*(1,04^-(v+1))

τ+s	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
H(τ+S)	1	0,994924	0,989691	0,984293	0,978723	0,972973	0,967033	0,960894	0,954545	0,947977	0,941176	0,934132	0,926829	0,919255	0,911392	0,903226	0,894737

τ+s	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
H(τ+S)	0,885906	0,876712	0,867133	0,857143	0,846715	0,835821	0,824427	0,8125	0,8	0,786885	0,773109	0,758621	0,743363	0,727273	0,71028	0,692308	0,673267

τ+s	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
H(τ+S)	0,653061	0,631579	0,608696	0,58427	0,55814	0,53012	0,5	0,467532	0,432432	0,394366	0,352941	0,307692	0,258065	0,20339	0,142857	0,075472

H(τ+s)*(1,04^-(τ+1))

τ \ S	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,751202	0,739645
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,711197	0,699538
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,672633	0,660857
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,657542	0,646762	0,635439	0,623531
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,642131	0,632252	0,621887	0,610999	0,599549	0,58749
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,607934	0,597968	0,587499	0,576489	0,564895	0,552668
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,574969	0,564903	0,554317	0,543168	0,531411	0,518995
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,552855	0,543176	0,532997	0,522277	0,510972	0,499034	0,486406
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,512497	0,502189	0,491319	0,47984	0,467698	0,454835
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,527785	0,519665	0,511146	0,502197	0,492786	0,482874	0,472422	0,461385	0,44971	0,437342	0,424216
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,507485	0,499678	0,491486	0,482882	0,473832	0,464302	0,454252	0,443639	0,432413	0,420521	0,4079	0,394482
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,487966	0,480459	0,472583	0,464309	0,455608	0,446444	0,436781	0,426576	0,415782	0,404347	0,392212	0,37931	0,365567
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,46198	0,454407	0,446451	0,438085	0,429274	0,419982	0,410169	0,39979	0,388795	0,377127	0,364721	0,351507	0,337401
14	0,506064	0,501529	0,496816	0,491912	0,486807	0,481488	0,475941	0,470151	0,464102	0,457775	0,451152	0,444212	0,436929	0,42928	0,421235	0,412763	0,403829	0,394393	0,384414	0,373841	0,362822	0,350693	0,337987	0,324424	0,309915
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,4338	0,427127	0,420124	0,412769	0,405034	0,396887	0,388297	0,379224	0,369629	0,359463	0,348675	0,337205	0,324988	0,311946	0,297995	0,283036
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,417116	0,410699	0,403966	0,396894	0,389456	0,381623	0,373362	0,364639	0,355412	0,345637	0,335264	0,324236	0,312488	0,299948	0,286534	0,27215	0,256687
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,394902	0,388429	0,381628	0,374477	0,366945	0,359002	0,350614	0,341743	0,332344	0,322369	0,311765	0,300469	0,288412	0,275513	0,261682	0,246814	0,230787
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,385647	0,379714	0,373489	0,36695	0,360074	0,352832	0,345194	0,337129	0,328599	0,319561	0,309971	0,299774	0,288913	0,277319	0,264917	0,251618	0,237321	0,221911	0,20525
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,370814	0,36511	0,359124	0,352837	0,346225	0,339261	0,331918	0,324163	0,31596	0,30727	0,298049	0,288244	0,277801	0,266653	0,254728	0,24194	0,228193	0,213376	0,197357	0,179984
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,351067	0,345312	0,339266	0,332908	0,326213	0,319152	0,311695	0,303808	0,295452	0,286585	0,277158	0,267116	0,256397	0,24493	0,232635	0,219417	0,205169	0,189766	0,173061	0,15488
21	[illegible]	[illegible]	[illegible]	0,342839	0,337564	0,33203	0,326218	0,320104	0,313666	0,306877	0,299707	0,292123	0,284089	0,275563	0,266498	0,256842	0,246536	0,23551	0,223687	0,210978	0,197278	0,182467	0,166405	0,148925	0,129832
22	[illegible]	[illegible]	[illegible]	0,324581	0,31926	0,313671	0,307792	0,301602	0,295074	0,288179	0,280887	0,273162	0,264964	0,256248	0,246964	0,237054	0,226452	0,215084	0,202863	0,18969	0,175449	0,160005	0,143198	0,124839	0,104704
23	[illegible]	[illegible]	0,312097	0,306981	0,301607	0,295954	0,290002	0,283725	0,277096	0,270084	0,262656	0,254773	0,246393	0,237465	0,227936	0,217742	0,206811	0,195061	0,182394	0,168701	0,153851	0,13769	0,120037	0,100677	0,07934
24	[illegible]	0,300093	0,295174	0,290006	0,284571	0,278848	0,272812	0,266438	0,259696	0,252554	0,244974	0,236916	0,228332	0,219169	0,209368	0,198857	0,187558	0,175379	0,162213	0,147933	0,132394	0,115421	0,096804	0,076295	0,0535
25	0,288551	0,283821	0,278852	0,273626	0,268123	0,262319	0,25619	0,249708	0,24284	0,235552	0,227804	0,21955	0,21074	0,201315	0,191209	0,180345	0,168634	0,155974	0,142244	0,127302	0,110981	0,093081	0,073361	0,051527	0,027222
26	0,272905	0,268127	0,263102	0,257811	0,25223	0,246337	0,240104	0,2335	0,226492	0,219042	0,211106	0,202634	0,193572	0,183855	0,173408	0,162148	0,149975	0,136773	0,122406	0,106713	0,089501	0,070539	0,049545	0,026175	0
27	0,257815	0,252983	0,247895	0,242529	0,236863	0,230869	0,224519	0,217781	0,210617	0,202986	0,194841	0,186127	0,176783	0,166739	0,155912	0,144206	0,131512	0,117698	0,102608	0,086059	0,067826	0,04764	0,025168	0	0
28	0,243253	0,23836	0,233201	0,227752	0,221989	0,215884	0,209405	0,202517	0,195179	0,187347	0,178968	0,169984	0,160326	0,149915	0,13866	0,126454	0,113171	0,098662	0,082749	0,065217	0,045807	0,0242	0	0	0
29	0,229193	0,224232	0,218993	0,213451	0,207581	0,201351	0,194728	0,187672	0,180141	0,172085	0,163446	0,154159	0,144149	0,133327	0,12159	0,108818	0,094867	0,079566	0,062709	0,044046	0,023269	0	0	0	0
30	0,215607	0,21057	0,205242	0,199597	0,193607	0,187238	0,180454	0,173213	0,165466	0,15716	0,14823	0,138605	0,128199	0,116914	0,104633	0,091219	0,076506	0,060297	0,042351	0,022374	0	0	0	0	0
31	0,202471	0,197348	0,19192	0,18616	0,180037	0,173514	0,166551	0,159102	0,151115	0,142529	0,133274	0,123268	0,112417	0,100609	0,08771	0,073563	0,057978	0,040723	0,021514	0	0	0	0	0	0
32	0,189758	0,184539	0,179	0,173112	0,16684	0,160145	0,152983	0,145303	0,137047	0,128148	0,118527	0,108093	0,096739	0,084337	0,070734	0,055748	0,039156	0,020686	0	0	0	0	0	0	0
33	0,177441	0,172116	0,166454	0,160423	0,153985	0,147099	0,139714	0,131776	0,123219	0,113968	0,103936	0,093018	0,081093	0,068013	0,053604	0,03765	0,019891	0	0	0	0	0	0	0	0
34	0,165496	0,160052	0,154253	0,148063	0,141441	0,134341	0,126708	0,11848	0,109585	0,099938	0,089441	0,077974	0,065398	0,051542	0,036202	0,019126	0	0	0	0	0	0	0	0	0
35	0,153896	0,14832	0,142368	0,136001	0,129174	0,121834	0,113923	0,10537	0,096095	0,086001	0,074975	0,062882	0,04956	0,03481	0,01839	0	0	0	0	0	0	0	0	0	0
36	0,142615	0,136893	0,13077	0,124206	0,117148	0,109541	0,101318	0,092399	0,082693	0,072091	0,060464	0,047654	0,033471	0,017683	0	0	0	0	0	0	0	0	0	0	0
37	0,131627	0,125741	0,119428	0,112643	0,105328	0,097421	0,088845	0,079513	0,069319	0,058138	0,045821	0,032184	0,017003	0	0	0	0	0	0	0	0	0	0	0	0
38	0,120905	0,114835	0,10831	0,101277	0,093674	0,085428	0,076454	0,066652	0,055902	0,044058	0,030946	0,016349	0	0	0	0	0	0	0	0	0	0	0	0	0
39	0,110418	0,104145	0,097382	0,090071	0,082142	0,073514	0,064089	0,053752	0,042364	0,029756	0,01572	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	0,100139	0,093636	0,086607	0,078983	0,070686	0,061624	0,051685	0,040734	0,028611	0,015115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	0,090035	0,083276	0,075945	0,067968	0,059254	0,049697	0,039168	0,027511	0,014534	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	0,080073	0,073024	0,065353	0,056975	0,047785	0,037661	0,026453	0,013975	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	0,070215	0,06284	0,054783	0,045947	0,036213	0,025435	0,013437	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	0,060423	0,052676	0,04418	0,03482	0,024457	0,012921	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	0,05065	0,042481	0,033481	0,023516	0,012424	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	0,040847	0,032193	0,022612	0,011946	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	0,030955	0,021742	0,011486	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	0,020906	0,011045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	0,01062	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

τ \ S	25	26	27	28	29	30	31	32	33	34	35
1	0,72										
2	0										
3	0										
4	0,										
5	0,574										
6	0,										
10	0,										
11	0										
12	0										
13	0,										
14	0,294357	0,277632	0,259604	0,240114	0,218978	0,195976	0,170851	0,143294	0,112935	0,079324	0,041907
15	0										
16	0										
19	0,1										

S	0	1	2	3	4	5	6	7	8	9	10	11	12
¬H(v+s)*(1,04^-(v+1))	18,05893	17,78129	17,49762	17,20783	16,91185	16,6096	16,30102	15,98602	15,66457	15,33661	15,0021	14,661	14,31331
¬H(v)*(1,04^-(v+1))	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893
5	0,486403	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

S	13	14	15	16	17	18	19	20	21	22	23	24
¬H(v+s)*(1,04^-(v+1))	13,95901	13,59812	13,23065	12,85665	12,47618	12,08932	11,69618	11,2969	10,89163	10,48058	10,06398	9,642116
¬H(v)*(1,04^-(v+1))	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0,53392

S	25	26	27	28	29	30	31	32	33	34	35	36	37
¬H(v+s)*(1,04^-(v+1))	9,2153	8,783913	8,348384	7,90921	7,466958	7,022273	6,575891	6,128647	5,681485	5,235477	4,791835	4,351929	3,917311
¬H(v)*(1,04^-(v+1))	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893

S	38	39	40	41	42	43	44	45	46	47	48	49
¬H(v+s)*(1,04^-(v+1))	3,489733	3,071183	2,66391	2,270466	1,893753	1,53707	1,204187	0,899413	0,627697	0,394741	0,20714	0,072569
¬H(v)*(1,04^-(v+1))	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893	18,05893