

**COMMERCIAL CAPITAL, DOMESTIC MARKET AND
MANUFACTURING
IN IMPERIAL BRAZIL:
THE FAILURE OF BRAZILIAN ECONOMIC DEVELOPMENT
IN THE XIXth CENTURY**

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This thesis is dedicated to two generations; the one that precedes me, and the one that succeeds me.

To Damião and Sônia

To Bianca and Luiza

ABSTRACT

This thesis examines Brazilian economic development in Imperial Brazil. It explores the reasons for Brazil's poor economic performance in the XIXth century. To try to answer this question it focuses on the debate concerning the nature of economic development among latecomers in the XIXth century. It considers particularly the Radgar Nurkse-Irving Kravis debate on export-led growth development in the XIXth century and the Rostow-Gerschenkron debate on the nature of the phenomenon of late industrialization in Central and East Europe. This thesis argues that: (i) Brazil's economic performance in the XIXth century was poor. This failure was due not only to Brazil's inability to develop a growing manufacturing sector, but also to her inefficiency in improving agricultural productivity using her huge land resources to increase her share of world trade; (ii) Brazil's failure of economic development was not determined a priori. This thesis rejects those explanations which give structural features as the sole reason for Brazil's poor economic performance. It argues that internal reasons, expressed in the decisions made by economic and political agents, should be the key for an understanding of Brazil's economic performance in so far as these decisions could have contributed either to overcome or to reinforce the barriers to economic change; (iii) In this sense the Brazilian failure should be related to her inability to change the internal economic structure. That is, in so far as there was little opportunity for development through the slow process of internal reinvestment of profits by private firms, as happened in the British case, in Brazil the alternative would have been the paths followed by the XIXth century European latecomers, which did not happen in Brazil due to the action and above all the inaction of the Imperial State; (iv) The success of coffee, which was due more to the weakness of Brazil's competitors than to the dynamism Brazil's coffee industry, was an exception. Brazil, however, was able to benefit enormously from coffee's success. Nevertheless, despite coffee, Brazil was an economic failure in the XIXth century, but due to coffee Brazil was able in the last years of the XIXth century to create the basis for her dynamic economic growth in the XXth century.

CONTENTS

LIST OF TABLES	PAGE	006
ABBREVIATIONS	PAGE	009
ACKNOWLEDGEMENTS	PAGE	010
 CHAPTER I: Introduction		
I.1- The Theme	PAGE	013
I.2- The Hypothesis	PAGE	033
I.3- Workplan and Notes on Sources	PAGE	036
 CHAPTER II: The Failure of Brazilian Economic Development in the XIXth Century		
II.1- Introduction	PAGE	043
II.2- Brazilian Economic Performance in the XIXth Century and in the XXth Century	PAGE	045
II.3- Brazilian Foreign Commerce and Anglo-Brazilian Trade in the First Half of the XIXth Century	PAGE	055
II.4- Conclusion	PAGE	094
 CHAPTER III: Manufacturing and Prerequisites to Industrialization in Brazil in the First half of the XIXth Century		
III.1-Introduction	PAGE	099
III.2-Manufacturing in XIXth Century Brazil: A Survey	PAGE	106
III.3-Barriers to the Development of a Manufacturing Sector in Brazil	PAGE	118
III.4-Conclusion	PAGE	165
 CHAPTER IV: The Domestic Market: Limits of the Domestic Trade in Brazil		
IV.1- Introduction	PAGE	169
IV.2- The Structure of the Distributive Trade in Brazil by the Middle of the XIXth Century	PAGE	172
IV.3- The Coastal Trade	PAGE	184
IV.4- The Internal Interprovincial Commerce	PAGE	200
IV.5- Conclusions	PAGE	208
 CHAPTER V: The Political Economy of Brazil in the Second Empire		
V.1- Introduction	PAGE	211
V.2- The Economic Boom of 1852/57	PAGE	215
V.3- The Crisis of 1857	PAGE	241
V.4- The Crisis of 1864	PAGE	254
The Paraguayan War and its Economic Consequences	PAGE	271
V.5- Conclusion	PAGE	293
 CHAPTER VI: Coffee, Export Houses, Midlemen and Agro-Export Trade in the Last Half of XIXth century Brazil.		
VI.1- Introduction	PAGE	295
VI.2- The Finance of the Export Trade	PAGE	299
VI.3- Coffee and the Operation of the Agro-Export Complex	PAGE	319

VI.4- Conclusion	PAGE	363
CONCLUSION	PAGE	367
STATISTICAL APPENDIX:		
A- Miscellaneous Data on Trade and Production of Manufacturing Products	PAGE	370
B- Miscellaneous Data on Retail and Wholesale Trade and Firms's Ownership	PAGE	377
C- Data on Exchange Rates, Price Indices and Interest Rates	PAGE	380
D- Regression Analysis of Imperial Monetary Policy	PAGE	386
E- Data on Brazilian Foreign Trade	PAGE	388
F- Data on Coastal Trade.	PAGE	393
BIBLIOGRAPHY	PAGE	412

LIST OF TABLES

II.1-	Brazil: Indicators of GDP and Population: Select Years	PAGE	046
II.2-	Brazil : Indicators for GDP under Furtado's Growth Rate Estimate	PAGE	048
II.3-	Brazil: Foreign Immigrant Arrivals	PAGE	050
II.4-	Brazil: Indicators for GDP Under Goldsmith's Growth Rate Estimate	PAGE	052
II.5-	Brazil: Foreign Trade- Select Periods	PAGE	058
II.6-	Brazil: Decennial Exports- Select Products	PAGE	059
II.7-	Brazil: Decennial Exports- Select Products	PAGE	059
II.8-	Brazil: Decennial Exports- Select Products Share in Total Exports	PAGE	060
II.9-	Brazil: Imports From Select Countries	PAGE	078
II.10-	Brazil: Exports to Select Countries	PAGE	078
II.11-	Brazil:Trade Balance with Select Countries	PAGE	079
II.12-	U.K: Imports of Cotton Wool	PAGE	083
II.13-	U.K: Imports of Raw Wool	PAGE	086
II.14-	Raw Cotton Supply from Brazil and Other Suppliers Imports to British, U.S. and European Manufacturing	PAGE	091
II.15-	Brazil: Decennial Trade Balance	PAGE	098
III.1-	Per Capita National Income in the Most Backward European Countries and Per Capita Brazilian GDP	PAGE	118
III.2-	Brazil: Government Receipts and Expenses	PAGE	132
III.3-	Brazil: Quinquennial Number of Limited Liability and Commanditaire Societes Authorized To Start Operation	PAGE	156
III.4-	Rio de Janeiro Stock Exchange Number of Companies Whose Shares were Transacted:1859-1889	PAGE	157
III.5-	Brazil: Industrial Investment, Exports, Imports, Exchange Rates and Real Stock of Money	PAGE	165
IV.1-	Brazil: Coastal Commerce of Domestic Agricultural and Manufacturing Products	PAGE	187
IV.2-	Brazil: Exports by Products (1845-1849)	PAGE	188
IV.3-	Freight Rate From Rio de Janeiro to Europe	PAGE	193
IV.4-	Brazil: Internal, Coastal and Import Trade In Select Fiscal Years	PAGE	201
V.1-	Brazil:Decennial Exports by Value, by Volume and Average Value of Export Products by Unit	PAGE	218
V.2-	Brazil: Paper Money in Circulation	PAGE	265
V.3-	Brazil:Select Indicators of Economic Performance	PAGE	266
V.4-	Brazil: Rate of Price Increase	PAGE	267
V.5-	Banco do Brasil: Exchange of Bank Notes into Bullion	PAGE	282
VI.1-	Brazil Coffee Exports- Select Data	PAGE	320
VI.2-	Average Nominal Slave Price	PAGE	325
VI.3-	Coffee Exports- Average Annual Data	PAGE	337

VI.4-Participation in the Capital of Comissarios Firms by Origin	PAGE	345
VI.5-Ten Leading Coffee Exporters from Rio de Janeiro and Santos	PAGE	345
VI.6-Coffee Market- Average Annual Data	PAGE	348
VI.7-Coffee Market- Select Data in Volume	PAGE	349
VI.8-Coffee Market- Select Data in Value	PAGE	350
VI.9-Coffee Market- Select Data in Value	PAGE	349

STATISTICAL APPENDIX:

A.1- Brazil:Manufactures Which Obtained Benefit of Duty Free Raw Materials Imports -1856	PAGE	370
A.2- Brazil:Export of Craft and Manufacturing Products- 1839/49-	PAGE	372
A.3- Brazil:Coastwise Trade of Craft and Manufacturing Products	PAGE	374
A.4- Brazil: Cotton Textile Industries Select Indicators	PAGE	375
A.5- Brazil: Manufacturing Industry Apparent Consumption	PAGE	376
B.1- Brazil: Firms in the Municipality of the Court and Other Provinces-1856	PAGE	377
B.2- Brazil: Firms in the Municipality of the Court and Other Provinces- 1869	PAGE	379
C.1- Exchange Rate in Brazil (1822-1890)	PAGE	380
C.2- Price Index and Average Discount Rate in Brazil (1850-1888)-	PAGE	384
E.1- Brazil:Foreign Trade	PAGE	388
E.2- Brazil:Coffee Exports	PAGE	391
F.1- Coastal and Foreign Imports into Brazilian Custom Ports	PAGE	397
F.2- Coastal and Foreign Imports into Rio de Janeiro Custom Ports	PAGE	398
F.3- Coastal and Foreign Imports into Bahia Custom Ports	PAGE	399
F.4- Coastal and Foreign Imports into Pernambuco Custom Ports	PAGE	400
F.5- Coastal and Foreign Imports into Maranhao Custom Ports	PAGE	401
F.6- Coastal and Foreign Imports into Para Custom Ports	PAGE	402
F.7- Coastal and Foreign Imports into Paraiba Custom Ports	PAGE	403
F.8- Coastal and Foreign Imports into Rio Grande do Sul Custom Ports	PAGE	404
F.9- Coastal and Foreign Imports into Sao Paulo Custom Ports	PAGE	405
F.10-Coastal and Foreign Imports into Parana Custom Ports	PAGE	406
F.11-Coastal and Foreign Imports into Santa Catarina Custom Ports	PAGE	407
F.12-Coastal and Foreign Imports into Ceara Custom Ports	PAGE	408

F.13-Coastal and Foreign Imports into Alagoas Custom Ports	PAGE 409
F.14-Coastal and Foreign Imports into Sergipe Custom Ports	PAGE 410
F.15-Coastal and Foreign Imports into Other Provinces Custom Ports	PAGE 411

ABBREVIATIONS

ACD	Annais da Camara de Deputados
ASB	Annais do Senado do Brasil
ACE	Atas do Conselho de Estado
AL	Almanack Laemert
ABT	Anglo-Brazilian Times
BOLSA	Bank of London and South America
CIB	Centro Industrial do Brasil
DECB	Documentos Estatísticos Sobre o Comercio do Império do Brasil que Acompanharam o Relatório da Comissão Encarregada da Revisão da Tarifa em Vigor
FINANÇAS	Diretoria do Serviço de Estatística, Finanças, Quadros Synopticos da Receita e Despesa do Brasil
IBGE-AEB	Instituto Brasileiro de Geografia e Estatística- Anuário Estatístico do Brasil
LABA	Latin America Business Archives
M.T.I.C.	Ministério do Trabalho, Industria e Comércio
P.P	Parliamentary Papers
RMF	Relatório Apresentado pelo Ministro de Estado dos negocios da Fazenda à Assembleia Legislativa
RTV	Relatório da Comissão Encarregada da Revisão da Tarifa em Vigor
RMJC	Retrospecto Mensal do Jornal do Comércio

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CHAPTER I: INTRODUCTION

I.1-THE THEME

This thesis examines Brazilian economic development in Imperial Brazil. However, it does not focus on the economic changes that culminated in Brazil's relatively successful - albeit partial - industrialization. Neither does it search for the reasons why Brazil began industrializing at the end of the XIXth century or what were the economic forces behind this. This question has been answered with reasonable accuracy by several books in the last few years.¹ Rather than attempting to answer the question 'why', we concentrate here on the counterfactual question 'why not'. That is, why was it that Brazil did not follow a similar path to the countries of recent settlement or the European latecomers or even that of Japan?

¹ - There is a vast literature on the origin of Brazilian industrialization. Suzigan, in a recent work, introduced several of those approaches to be found in Brazilian economic history literature. According to him those are: (i) the theory of adverse shocks; (ii) the export-led-growth approach; (iii) The late-capitalism approach; (iv) the theory that industrialization was willingly promoted by the government. I do not intend to discuss these approaches, although I will discuss some arguments about Brazilian economic development in the XIXth century arising out of these approaches. Besides W. SUZIGAN, *Industria Brasileira: Origem e Desenvolvimento*, S.Paulo, 1986, see also DEAN, W., *The Industrialization of S.Paulo*, Austin, Texas, 1969; MELLO, J.M. Cardoso de, *O Capitalismo Tardio*, S.Paulo, 1982; FURTADO, C, *Formação Econômica do Brasil*, S.Paulo, 1972; SILVA, Sergio, *Expansão Cafeeira e Origem da Industria no Brasil*, S.Paulo, 1976; VERSIANI & VERSIANI, 'A Industrialização Brasileira antes de 1930' in VERSIANI & BARROS, ed., *Formação Econômica do Brasil: A Experiencia da Industrialização*, S.Paulo, 1978; FISHLOW, Albert, 'Origens e Consequencias da Substituição de Importações no Brasil' in VERSIANI & BARROS, ed., op.cit..as some of the classical references on the theme. For the complete reference of the books cited see the Bibliography.

To try to answer this question, we will focus mainly on the debate on the nature of economic development of the latecomers in the XIXth century. Two approaches are relevant to begin our discussion: (i) the Radgar Nurkse-Irving Kravis debate on export-led growth development in the XIXth century; (ii) The Rostow-Gerschenkron debate on the nature of the phenomenon of latecomers' industrialization in Central and East Europe.

Nurkse argued that trade was an 'engine of growth' in the XIXth century. In his view, the rapid growth of international trade resulting from increasing demand for primary products in the U.K was a very important factor in explaining the rapid income and investment growth in less developed areas, particularly in the 'regions of recent settlement' - the main beneficiaries of this trade. According to Nurkse, the share of world trade of countries such as Canada, Argentina, Uruguay, South Africa, Australia, New Zealand and also the U.S.A grew continually during this period.² Kravis refutes this approach sustaining that : (i) in the XIXth century, rates of export expansion are not the best criteria to differentiate between successful and unsuccessful countries. Growth - where it occurred - was mainly the consequence of favourable internal factors. External demand represented an

² - According to Nurkse the U.K. imports in the XIXth century grew more than twentyfold; the ratio of imports to national income was 12% in the beginning and about 30% at the end of the century; the share of the new countries in the U.K imports grew from 8% to 18% in the same period. This does not include the United States, whose share of British imports remained constant at about 20%. See NURKSE, R. Contrasting Trends in Nineteenth and Twentieth Century World Trade in HABERLER & STERN, ed. *Equilibrium and Growth in the World Economy*, Cambridge, 1962, pp.25/27.

added stimulus which varied in importance from country to country and period to period; (ii) Trade expansion would be better described as a 'handmaiden of successful growth' rather than as an autonomous engine of growth - that is, exogenous demand would have been better supplied by countries whose domestic productivity allowed them to develop economic alternatives at the expense of less productive - and therefore less competitive in the international market - countries.³

At the beginning of the XIXth century, Brazil was one of the U.K.'s most important customers in the American Continent. Also, at the time, Brazilian exports of a commodity as important as cotton were not very different from that of the U.S.A.⁴. The question is, therefore, why did Brazil not follow the same path as countries of recent settlement and was driven by an export led growth to a better economic performance in the XIXth century?

Gerschenkron studied European latecomers' industrialization and showed that there was not just one path to economic development. The absence of prerequisites to industrialization, as understood by Rostow and his

³ - KRAVIS, I, 'Trade as a Handmaiden of Growth: Similarities Between the Nineteenth and Twentieth Centuries', *Economic Journal*, December 1970.

⁴ - Brazil imports of cotton yarns and textiles from U.K in 1831 represent 4% of U.K exports of this product. Thus Brazil, together with the British West Indies, was the second biggest market for these exports in the Americas. In 1850, Brazil imported 5% of all Cotton yarns and Textile imports from the U.K, a share more than twice as high as that of the British West Indies (2%), and more than half of the U.S.(9%). See WOODRUFF, 'W. The Emergence of an International Economy 1700-1914' in CIPPOLA, C. *The Fontana Economic History of Europe; The Emergence of Industrial Societies*, Part Two, Glasgow, 1975, p.718. For Brazilian and U.S. exports of cotton to U.K. see table II.5, in the next chapter.

followers, does not necessarily prevent a country from overcoming its barriers to economic change, as long as this country finds substitutes for the missing prerequisites. His two main points are: (i) that although the concept of prerequisites, developed by Rostow, seems to have rather strong connotations, the individual factors regarded as 'prerequisites' have been rather loosely defined; (ii) it assumes a uniform industrialization process having taken place previously in some other country or region. Thus, such assumptions lead to a far too simplistic view of industrial processes in general and of their initial phases in particular.⁵

Gerschenkron points out that Rostow's procedure to arrive at the prerequisites of industrialization was to first take a look at something like an 'ideal type' of preindustrial economy, say, medieval economy in the fourteenth century Western Europe, emphasizing that in such social frameworks opportunities for growth were rather restricted. A comparison is then made with modern industrial economies highlighting all the changes undergone by the latter which made it different from the former society. Thus, all those basic traits of a modern economy are declared to be 'prerequisites' of industrial development. But how can one identify among all basic traits of an industrial economy, those which were preconditions for industrial development and distinguish them from those which were a result of the

⁵ - See GERSCHENKRON, A, *Economic Backwardness in Historical Perspective*, N.York, 1975, pp.32/40. See ROSTOW, W.W., *The Stages of Economic Growth, - A Non-Communist Manifesto*, Cambridge, 1962.

industrialization process? How can one really know if a country needs to create all those conditions **before** it can embark upon the process of industrialization? In the author's words:

*"The line between what is a precondition of, and what is a response to, industrial development seems to be a rather flexible one. It might be possible to indicate some regularities according to which the relevant phenomena might be found on the one or the other side of that line."*⁶

Gerschenkron argued that, when launched over a long period of time in a backward country, industrialization processes differed considerably from those in more advanced countries, not only with regard to speed of development, i.e. rate of industrial growth, but also in the productive and organizational industrial structures which emerge from those processes. Furthermore, these differences in the speed and character of industrial development were, to a considerable extent, the result of application of institutional instruments for which there was little or no counterpart in an established industrial country.⁷

He pointed out the differences between Britain's industrialization, which was a totally spontaneous process due to the country's high level of accumulation and development, and those of (i) other European countries whose banking system was a means of collecting the capital to be found in these economies and induced their modernization; and (ii) the more backward countries of Eastern and Southeastern Europe, such as Russia, Bulgaria,

⁶ - Idem, p.33.

⁷ - GERSCHENKRON, A, *Continuity in History and Other Essays*, Cambridge, Massachusetts, 1968, p.7.

the Eastern regions of Austria-Hungary, including Hungary, where not enough resources were available to be collected through the banking system, and where, therefore, the feasible alternative was strong state intervention. Gerschenkron called the latter 'the Russian type of industrialization'.⁸

An explanation is needed for the fact that Brazil did not follow the path of the 'countries of recent settlement' and failed both as an exporter in the XIXth century and in developing her domestic economy and manufacturing sector. Covering an area of 3,275 million square miles, by mid-XIXth century Brazil had approximately 7.5 million people, a population which equalled that of Scandinavia, was half that of Spain, a third of Italy's and twice that of Portugal, her former colonial master. She was a politically consolidated nation, an Empire headed by a descendant of one of the oldest European dynasties, the Braganzas, and had been, for several decades, politically more stable than some of the largest European countries, such as France. Economically, Brazil was then the largest Latin American importer of British manufactured goods, second only to the U.S.A. in all the Americas. She also had a relatively large export capacity, although she had been losing her export markets, with the exception of coffee. But, if Brazil was much more backward than the U.S.A., and, unlike the U.S.A., had been stagnant during the first

⁸- See GERSCHENKRON, A., *Economic Backwardness in Historical Perspective*, op.cit.. See also on the industrial development of Eastern Europe the important work of BEREND, Y & RANKI, G., *Economic Development in East-Central Europe in the XIXth and XXth Century*, N.York & London, 1974.

half of the XIXth century, she was not dramatically more backward than some European countries such as the Balkan nations, or some East European regions in the Austria-Hungarian or Russian Empires.⁹ Thus, what went wrong with Brazil?

To further develop this line of arguing let us recall some changes in the world economy following the British industrial revolution. At the beginning of the XIXth century Britain had emerged as the first industrial nation in the world, followed closely by the continental powers impelled by two complementary forces: (i) a response to endogenous pressures towards change, of the kind which precipitated an economic revolution in Britain; and (ii) a reaction to the new techniques developed in that country.¹⁰ The centre of progress was North-West Europe, that is, Britain, France, Germany, Belgium and Holland. The industrial revolution soon began to spread South and eastwards to the rest of the continent, but it lost strength the further it moved from the point of origin.¹¹

⁹-Berend & Ranki, based on data from Bairoch, estimated that by 1860 the countries of Eastern Europe had a per capita GDP of US\$180, 1960 prices (equal to US\$640, 1986 prices), which was between three and half to six-fold higher than Brazilian GDP/per capita data for the time. See BEREND & RANKI, *The European Periphery and Industrialization 1780-1914*, see also BAIROCH, P., *Europe Gross National Product: 1800-1975* in *Journal of European Economic History*, Vol 5, # 2, 1976. For Brazilian data see chapter II. By 1890 the U.S. had a GDP/per capita of US\$836,00, 1958 prices (equal to US\$3074,00, 1986 prices), already one of the highest in the world. Data from U.S. DEPARTMENT OF COMMERCE-BUREAU OF THE CENSUS, *Historical Statistics of the U.S.*, Washington 1975.

¹⁰ - See LANDES, D. *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present*, Cambridge University Press, 1968 p.126.

¹¹ - ALDCROFT, 1978, p.12.

This overwhelmingly complex socio-economic and political phenomenon not only changed the structure of the countries involved, but also put particular pressure on countries unable to keep pace with the new development. The pace of socio-economic changes had accelerated enormously: no place in the world was remote enough to be allowed to ignore its impact.

On the other hand, as noted by Berend & Ránki: "What was a source of danger was also, however, a challenge and an opportunity."¹² International trade grew at a rate unknown in previous historical periods. According to some calculations world trade grew no less than ninefold between 1820 and 1880.¹³ Woodruff estimated that from 1750 to 1913 the value of world trade increased more than fiftyfold.¹⁴

One product, cotton, led all other items in the commerce of the Atlantic basin in the XIXth century. As a result of the steep rise in Europe's demand for raw cotton, the United States' crop multiplied almost sixtyfold between 1790 and 1810, and fifty years later, in 1860 cotton accounted for almost two-thirds of the value of total U.S. exports.¹⁵

From the second half of the XIXth century onwards, north-western European imports of a wide range of food and raw materials became increasingly important. These were paid for with the products of these areas' rapidly expanding industries. Cotton yarns and textiles were

¹²- BEREND, Y & RANKI, G- *The European Periphery and Industrialization 1780-1914*, Cambridge, 1982 p.21

¹³- *ibid.*

¹⁴- WOODRUFF, W.- *The Emergence of an International Economy 1700-1914*, *op.cit.*, p.658.

¹⁵- *Idem*, p.658/659.

Britain's greatest export products during the XIXth century, and cotton textiles alone accounted for between thirty and forty per cent of all British exports during most of the period, whilst, after 1850, the export of iron and steel goods began to boom as a consequence of the spread of railway building.¹⁶

The rapid increase in British exports took British merchants all over the world in search of markets for their manufactured goods.¹⁷ British exports consisted mostly of cotton goods, metals and metal manufactures; merchants of all kinds and from different nations scoured the world in the wake of the British, armed with their own countries' products. From the smallest trading nations, merchants carrying only a small stock of goods - or *pacotille* as the French called it - or immigrants whose only property was their knowledge, willingness to work, and faith in their chance to build a better life, migrated in large numbers to new lands. With the break-down of the mercantilist empires, old merchants lost their place, or changed their methods to adapt to the new world being built. Some manufacturers tried to market their own goods in an attempt to survive the difficult times Europe

¹⁶ - Ibid, p.670/671.

¹⁷ - British exports at the time were dominated by cotton. The fast growth of cottonware exports brought about a spectacular change in the commodity structure of British exports, with a dramatic rise in the ratio of cotton products to total exports. Between 1814 and the 1840s, the export of cotton products increased so rapidly in volume that, despite the fall in prices, their value advanced at a higher rate than those of total exports. Exports of wool products grew slowly in volume and stagnated in value, while exports of linens, metals and metal goods also grew at a rapid pace. See CROUZET, F, *Toward an Export Economy: British Exports during the Industrial Revolution in Explorations in Economic History* 17, p.67.

suffered in the first quarter of the XIXth century. New and innovative intermediaries appeared on the scene, commission agents and wholesale warehouses. Several merchants, partners of limited capital, were backed by the financial strength of London acceptance houses or merchant bankers. This movement was described with precision by Jones as "*The mercantile diaspora*" which "*embraced all the trading and manufacturing nations*". The outcome was a cosmopolitan trading community centered in London, which Jones called the '*Cosmopolitan Bourgeoisie*.'¹⁸

How did Brazil react to the challenges and opportunities brought about by the Industrial Revolution? In 1800 Brazil was Portugal's biggest colony. This small European country lay outside North-West Europe's circle of progress, and had to rely increasingly on the power of her stronger ally, Britain, so as not to sink in the dangerous waters of European politics. Although much poorer and with a smaller population, Brazil was a backward and rural society not unlike the former British colonies which had given origin to the United States. Napoleon's invasion of Portugal, and the Anglo-French economic blockades led, on the one hand, to a reduction in trade with the continent, and, on the other, to the opening of direct trade with Brazil. This happened at the same time as the United States halted British imports as a response to British policies to stop neutral merchant ships from trading with the Continent. Thus, Brazil entered the world market not only

¹⁸- JONES, C.A., *International Business in the Nineteenth Century: The Rise and Fall of a Cosmopolitan Bourgeoisie*, Brighton, 1987, p.28.

as a natural continuation of the old Portuguese trade, but also as an alternative for British imports. Yet, although Brazil had a large export potential, and despite the flooding of British merchants to Brazil, she could not fulfill all these traders' expectations¹⁹. Brazilian trade was very profitable to merchants used to the Portuguese trade, but was a source of difficulty and loss to those used to the U.S. trade, who assumed that it would be enough to simply send goods in demand in the U.S. market to Rio de Janeiro or Salvador.²⁰ However, there was always the problem of the returns and Brazil was not able to pay for British goods with her exports.²¹

In the first years of the XIXth century the mining economy had already fallen into complete decay: Brazilian gold, which had flooded Britain, via Portugal, during the XVIIIth century, became a pale shadow of what it

¹⁹- There is an interesting material about Anglo-Brazilian trade and Anglo-U.S trade in the *Parliamentary Papers* 1812(231..)III.689 and 1812(210.)III.1 where there are testimonies of merchants involved with Brazilian trade and Anglo-U.S trade at the beginning of the XIXth century.

²⁰-See the testimony of Charles Lyne, a merchant who had been engaged in the Portuguese trade for 24 years by 1812, and also entered the Brazilian trade at its opening in 1808 in *P.P.*1812 (231.)III.1, p.548/555. See also the case of Thomas Potts, a Birmingham merchant who in 1812 had been an exporter to the U.S. for eighteen years, testified to his bad experience with the Brazilian and South American trade in 1808. He explained the failure of his goods in the Brazilian market because:"...at Rio there is nothing to equall the ignorance of the people there; I made up about thirty packages that were exactly adapted to the United States, of what we call heavy goods, and that would suit any civilized country;" ..."...., and I sent thirty package of nails, in order that they might judge of the article, and when they got there, they said there was nothing used there less than three inches long, and I lost a hundred per cent, by those articles, which in North America would yield me twenty". See *Parliamentary Papers* 1812 (231.) III.1, pp.249/250.

²¹- See chapter II.2.

had been and was no longer able to sustain a large trade²². A new export product- cotton - exports of which at the time, were not very different from those of the U.S.- began to lose its relative importance from then on.²³ In sugar, Britain had preferential trade with her colonies and British merchants in Brazil had to export Brazilian sugar to other markets, mainly Holland, or the Hanseatic cities. Brazilian tobacco and rum were essentially used as barter for slaves on the African coast; and export receipts for other Brazilian staples, such as hides or cocoa, were too small to be economically significant. Coffee had just begun its long and successful career as the main staple of XIXth century Brazil.²⁴ But Britain did not consume much coffee and the demand for coffee in her domestic market found a supply source in the West Indies. Thus, British merchants had to find returns for their relatively large exports to Brazil either through a triangular trade - exporting coffee to the U.S. and sugar to the Continent - or simply by

²²- The production of gold in the first decade of the century fell to an annual average of 3,750 kgs, from a peak of 14,600 between 1741 and 1760. In the following decade the annual average production of gold fell again to 1,760 kgs. See table II. SIMONSEN, R. *História Econômica do Brasil*, S.Paulo, 1978, p.298.

²³- Although Brazilian cotton exports grew until 1820 to reach 6,000 tons, and then stabilized, U.S. exports grew from 69,000 tons in the quinquennium 1821-25 to 151,000 tons in 1831-35. Because U.S. productivity was much higher than Brazil's, the U.S.A. was able to export this quantity of cotton at a price that fell from 73 sterling pounds in 1821 to 47.6 sterling pounds in 1831. By 1860 Britain was buying more than 1.4 million tons of U.S. cotton for the same price as she had paid at the beginning of the XIXth century. See ALBUQUERQUE, R., *Capital Comercial, Indústria Textil e Produção Agrícola*, S.Paulo-Brasília, 1982, pp.34/35.

²⁴- By the middle of 1830's coffee was already the leading export product with a share of about 40% of the total exports. Data from IBGE, *Séries Estatísticas Retrospectivas*, Rio de Janeiro 1986..

financing Brazil's large trade deficit. Also, exports in Brazil fell in per capita terms in relation to that of the 1798/1802 period and only reached this level again in the middle of the century. However, imports which in the first three decades of the century had fallen in per capita terms at a lower rate than exports, reached the same level as 1798/1802 one decade before the latter.²⁵

As will be shown in the next chapter, it can be said that Brazil failed in economic development in the XIXth century because: (i) Brazil had a very small growth rate in the per capita real product during this period; (ii) Brazil failed to have an export-led growth- she lost importance in the world commodity market during the XIXth century; (iii) Brazil failed to establish and develop a manufacturing sector during most of the century, and she was not able to overcome the barriers that blocked her domestic economy. A comparison with the U.S.A. can highlight Brazil's failure to grow at a time when west-European countries, some peripheral regions in Europe and a few in other continents were going through substantial change. The comparison is relevant in so far as both countries had large territories; both allowed slave labour; (although in the case of the U.S.A. restricted to the Southern States); both were former colonies of European powers; and, finally, both had in the export of primary produce their main source of receipts in international trade. ²⁶

²⁵- See on this subject Chapter II.2, particularly the data on exports and imports per capita in the Table II.5.

²⁶-Considering GALLMAN data for the U.S. average decennial GDP growth rate between 1834-43 and 1894-1903 of 48% (equal

However, these countries followed very different paths. By contrast with Brazil, the rate of growth of U.S. GDP was higher in the XIXth century than in the first half of the XXth century. From an early stage, also in contrast to Brazil, the domestic market was the most dynamic sector of the U.S. economy. However, the U.S. was also an efficient exporter of commodities, and she added to the dynamics of her domestic economy the profits of a growing share of the international trade in several products. U.S. society was more open to private entrepreneurship and encouraged immigrants to own land and settle in unpopulated areas. All these differences, however, do not make the comparison worthless. On the contrary, the fact that societies with fairly similar characteristics and origins produced such different results can give us clues to the reasons for the U.S success and the Brazilian failure.

Following independence, Brazil did not enjoy the rapid economic transformation experienced by the former British colonies in North America. Not unlike Brazil, in 1800, the five million U.S. inhabitants were scattered over a relatively large territory which ran from the St Lawrence

to an annual average of 4.5%), and the U.S. average annual population growth between 1834 and 1904 (data from the U.S. Department of Commerce- Bureau of Census) of 2.5%, the U.S. average annual grow of GDP per capita was of 2.0% in this period. If we take this number as an average for the whole of the XIXth century and project backwards the U.S. GDP per capita from 1890 (US\$3074,00 of 1986), it can be concluded that in the first decades of the XIXth century the U.S. GDP per capita was not very different from that of the Eastern European countries at the time (According to BAIROCH the Eastern European Per Capita GDP in 1800 was US\$ 170,00, 1960 prices, equal to US\$ 605,00, 1986 prices). See GALLMAN *Output, Employment and Productivity in the U.S. after 1800*, op.cit.; see also BAIROCH, *Europe's Gross National Product:1800-1975*, op.cit..

valley to Spanish Florida and from the coast to the Mississippi. This was an agrarian society where farms made their own clothing, candles, soap, furniture, rum and cider. Visits to local merchants were infrequent and they bought sugar, coffee, salt, paint, guns, gunpowder, hardware, china, glass and textiles from general stores.²⁷

In 1848 the U.S. had 123,025 manufacturing establishments. Twenty years later this number had grown to 353,863. There were already 9,886 miles of railways in 1851 and by 1861, 31,286 had been built. The number of banks increased from 85 in 1811 to 1,931 in 1860. Population grew more than four-fold in the first fifty years of the century (3.0 % p.a.). More than 2.5 million immigrants arrived in the country in this period. By the 1850's interregional trade had become much greater than foreign trade, and coastwise commerce was more important than that over any other domestic route; according to some estimates the entire domestic trade exceeded three billion dollars in value.²⁸

In Brazil there were about twenty manufacturing establishments throughout the country in 1822 and less than 100 by 1860. It was not until 1854 that the first fifteen kilometers of railway were inaugurated; by 1848/49 foreign trade was more than four times larger than domestic trade, and of the latter about three fourths consisted of domestic

²⁷- COCHRAN, T. C. & MILLER, W., *The Age of Enterprises: A Social History of Industrial America*, N.York, 1975 p.3.

²⁸- See U.S. DEPARTMENT OF COMMERCE, *Historical Statistics of the U.S.* See also VIOTTI DA COSTA, E., *Política de Terras no Brasil e nos Estados Unidos in Da Monarquia à República: Momentos Decisivos*, S.Paulo, 1985, p.157; see also TAYLOR, G.R., *The Transport Revolution 1815-1860*, N.York, 1957, p.174.

sales of foreign products. By this time there were less than 10 banks in the country. In the first fifty years of the century the Brazilian population had grown little more than two-fold (1.5% p.a.), half the U.S. population growth rate, and included only about 50,000 free immigrants.²⁹

Very early in its history, the U.S. developed internal commercial routes connecting the country's different regions. Thus, trade on the western rivers consisted of Mid-West farm products shipped down the Mississippi River to the Southern planters, and brought back molasses and sugar as returns. The coastwise trade consisted of manufactured goods from the Eastern to the Southern ports, with return cargoes of Southern staples for the East or for export, and Western food products shipments for New England States. Trade over the canals, the Great Lakes, and railroads, consisted of manufactures from the East Coast and Europe shipped westward to Western farmers or sent down the river to the planters, and direct shipment of Western produce along the Erie Canal, which quickly increased after the introduction of the railroads into the Mid-West in the fifties.³⁰

Unlike Brazil, the U.S gave priority to the development of the domestic market and she pursued several policies that effectively stimulated domestic trade. The first of these was the development of various means of transport. The natural advantages of rivers and lakes which

²⁹ - For Brazilian population data see in the next chapter Table II.4. See also VIOTTI DA COSTA, E, *Política de Terras no Brasil e nos Estados Unidos*, op.cit., p.157; see also FARIA, A. de, *Mauá, Irineo Evangelista de Souza 1813-1889*, Rio de Janeiro, 1926, p.165.

³⁰ - Schmidt (1968), p.199/200

were navigable and strategically located for internal trade were developed by human action through the building of Canals, the use of steam boats on the rivers and lakes and the growth of a railway system to the west, even if in the beginning - as suggested by Cochran & Miller - "the railroads' chief function seemed to be to consume capital, wood, and iron and to encourage speculation in stocks and land".³¹ Secondly, through a land policy that stimulated small land ownership under the Homestead Act of 1862, the U.S. granted land to all those who wanted to settle. This law contrasts sharply with the Brazilian legislation represented by the Land Law (lei das Terras) of 1850 that forbade the acquisition of public land by any means other than purchase.³² Thirdly, by the regulation and control of interstate commerce, monopolies were prevented and commissions organised in Congress to discuss aspects linked to the cost of transport etc. Finally, a financial policy was implemented which, if sometimes responsible for instability, was highly stimulating for dynamic entrepreneurs and allowed the rapid monetization of the U.S. economy.³³

³¹-COCHRAN, T. C. & MILLER, W., *The Age of Enterprises: A Social History of Industrial America*, op.cit..

³²- VIOTTI DA COSTA, E, *Política de Terras no Brasil e nos Estados Unidos*, op.cit., passim. It must be noted, that even in the U.S., this kind of legislation generated strong opposition from the plantation interests in the South, which same interests were able to kill the Homestead Bill of 1852 in the Senate, and another attempt eight years later to introduce a similar measure was vetoed by President Buchanan. See MOORE J.R., *Social Origins of Dictatorship and Democracy: Lord and Peasant in the Making of the Modern World*, Penguin Books, 1966, p.129.

³³- For further information on U.S. monetary policy, and particularly on its role as a stimulus for industrialization, see chapter III.

Consequently, the domestic market was very soon the main frontier for capital accumulation in the U.S.A. The development of transportation: canals, steamboats, railroads and coach roads, had their influence on the growth of foreign trade and on the new population settlements in the West. All these were interactive forces which allowed the early rise of a market for the increasing number of manufacturing firms founded, at an earlier stage, by English immigrants and merchants who transferred resources from foreign trade into manufacturing.³⁴

The rapid rise and growth of internal commerce in the U.S. from 1815 to 1860 was accompanied by a relative decline in foreign trade, that is, although the exports value per capita continued to grow, the ratio exports/GDP was falling. Improvements in transportation brought by turnpikes, steamboats, canals and railways, alongside

³⁴ - Taylor shows that after 1815, when the high profits of the Napoleonic Wars became much less common, merchants, especially those engaged in the declining Far-Eastern trade, tended to transfer their funds to domestic employment, including manufacturing. According to him, many of the small mills of Southern New England were financed by such merchants. The funds which made possible the introduction of a large-scale factory system at Waltham, Lowell and Chicopee came chiefly from representatives of great Massachusetts merchant families such as the Lowells, Appletons and Jacksons. This can also be illustrated by the history of the Boston China merchant John Perkins Cushing. He began withdrawing his capital from foreign trade soon after 1828. In 1832 his investments in foreign trade were less than \$10,000.00; those at home over \$1,000,000.00. His most important investments were first transportation, then manufacturing. His investments in the stock of manufacturing companies grew from about \$150,000.00 in 1835 to twice this in 1851. See TAYLOR, G.R., *The Transport Revolution 1815-1860*, op.cit., p.237; see also LARSON, H.M., A China Trader Turns Investor: A Biographical Chapter in America Business History in *Harvard Business Review*, vol XII, #3, April, 1934.

industrial progress and population increase, boosted the wholesale markets of interior cities.³⁵

Brazil had a deficient domestic market and was not able to increase its exports to cope with the growing demands of international trade. By the middle of the century, it had no manufacturing sector, except for a few very small firms, scattered all over the country, supported by the human effort of slaves or foreign workers, using very simple or no tools. The financial sector took a long time to set roots, and, during the whole imperial period, was curbed by inept governments' monetary policies.³⁶

The U.S, on the contrary, was able to develop a large foreign trade, thanks mainly, but not only, to its role in supplying cotton to Britain. With the sterling obtained in this trade, the country could buy machines for her industries and finance large domestic investments which expanded the domestic market for the merchants and manufacturers of New England. Having developed a large internal market and having a large market, the U.S. then took steps to protect it. What would have been the point of protectionist tariffs in Brazil, if there were so many limitations in the domestic market and very little to be protected? In Brazil public expenditure was concentrated on the payment of militaries and financial expenses and very little public money was left to apply to infrastructure. Infrastructural investments came late, and were essentially

³⁵ - See SCHMIDT , p.209; see also JONES, F.M., *Middlemen in the Domestic Trade of the United States*, Urbana, 1937, *passim*.

³⁶ - These aspects of Brazilian economic performance will be discussed in chapter IV.

concentrated on the buildings of means to facilitate the arrival of staples in the export ports. Even if considering that the above arguments are of a rather impressionistic nature, it seems possible to conclude that Brazil did not rise successfully to the challenges and opportunities created by the Industrial Revolution.³⁷

Was there any historical inevitability in these differences between Brazil and the U.S? Would the cause of this failure be the absence of prerequisites for changes, as the defenders of a Rostowian approach would argue? Or - as a 'dependentista-cepalista' would argue - was the failure due to unequal exchanges in the world economy, i.e., Brazil's role as a supplier of tropical products in the international commodities market? Was there some conspiracy of fate stopping those structural changes which could have made it easier for Brazil to industrialize? Why was it that, in Brazil, the domestic and international merchant bourgeoisie did not have the changing role it played in other regions, such as in the U.S.? Or, rather, why did the innovative role of that bourgeoisie have to wait until the eighties, when industrial capitalism made a late and feeble arrival in Brazil? Moreover, what was the role of the State in this process, how did the policies of the imperial administration contribute to this failure? Summing up, our theme is the failure of the merchant bourgeoisie to

³⁷ - A more formal analysis of Brazilian economic performance in the XIXth century will be carried out in the next chapter. It must be noted that it was only after the 1850's, when infrastructural investments were made and, boosted by growing exports, a more complex financial sector was established, that the development of a manufacturing sector became possible.

introduce structural changes in the Brazilian economy, that is, the Brazilian failure of economic development.

I.2-THE HYPOTHESIS

The following hypothesis sustains this work: (i) The Brazilian economic performance throughout the imperial period was mediocre. This failure was due not only to Brazil's inability to develop a growing manufacturing sector but also to its inefficiency in improving agricultural productivity using the huge land resources to increase its share of world trade.

Furthermore, Brazil was unable to integrate its territory building a network of roads, railways and ports to support internal trade and create a domestic market; nor was it able to set up a financial system capable of supplying the demand for commercial and industrial credit, and to establish and maintain a stable currency to facilitate transactions. Brazil could not - and did not - set up a legal system suitable for the development of joint stock companies. In Imperial Brazil, manufacturing firms depended on political influences which granted - or not - special taxes and credit privileges which guaranteed their viability.

Neither was Brazil capable of creating a labour market to act as a suitable alternative for those entrepreneurs who did not want to use slave labour. It did not use its idle latifundia to provide land for immigrants so that rural Brazil could have become an attractive place for Europeans emigrants. The latifundia was also not able to produce a food surplus to sell in the market, and not

infrequently they even needed to buy some foodstuffs from long distances to feed their slaves.

Therefore, Brazil did not fail only as a manufacturer. She also failed to make proper use of the growing international market, of the huge available supply of European immigrants of the 'diaspora of the mercantile bourgeoisie', of the existing cheap credit to be invested in infrastructure or imports. Unlike the United States, Brazil lost these and all those many other opportunities for change, and for the setting up of a progressive and modern society, which the Industrial Revolution had made possible.

(ii)- I reject, however, the argument that the path followed by Brazil was determined **a priori**. And that its failure to develop was the sole result of an 'absence of prerequisites to change', or of its integration as 'periphery' in World Capitalism.

Besides more general causes there are several internal reasons for Brazil's failure. The complexity of economic development does not warrant explanations based on simple relations of cause and effect and these can very seldom provide necessary and sufficient reasons to explain why some things happen and others are aborted. Nevertheless, we argue that internal reasons, **expressed in the decisions of economic and political agents**, should be the key for an understanding of Brazil's economic performance in so far as these decisions could have contributed either to overcome or to reinforce the barriers to economic change. This thesis sustains the hypothesis

that several very important decisions were taken on Brazil's economic policies which seriously curtailed a possible operation of the mechanism Gerschenkron called 'substitution of the missing prerequisites'.

(iii)- Brazil did not follow Nurkse's model of 'export led growth' because she was a relatively inefficient exporter. Neither was she able to follow Gerschenkron's model of economic changes in the less developed European countries. By contrast with those countries, where the state stimulated modernization and industrialization from above, the Brazilian State did not contribute to such changes and - worse still - acted as a brake to prevent merchants' and financial entrepreneurs' attempts to adopt action against the stagnation of the Brazilian economy.³⁸ In Brazil entrepreneurial activity was curbed by the state directly through ad hoc parliamentary decisions and other political action which limited the possibility of action outside the power system and the privileged groups organized around the imperial state. The state in Brazil also curbed entrepreneurial activity, indirectly, through lack of investment in transport and communication, and a monetary policy which handicapped the development of a domestic market ³⁹. In the power game of

³⁸ - The failed attempt of Mauã to create a Banco do Brasil in the model of the Credit Mobilier is a good example of this kind of action. See chapter IV.

³⁹ -The patrimonialist nature of the Brazilian State can be well perceived in the congress debates where the arguments of those forces opposing and supporting modernization were at work. We do not ask here whether it was feasible for the State to behave differently. But it is worth mentioning that one of the assumptions of this work is that we are dealing with a patrimonialist state. It is my understanding that the use of some Weberian concepts, as done by Faoro, throw some light on the role and nature of the Imperial

this political system very little space was left for innovations. Thus, Brazil's failure both as a manufacturing and as an export country has the same origin: the Brazilian inability to change itself and to improve the productivity of all sectors of her economy.

I.3-WORKPLAN AND NOTES ON SOURCES

This thesis has six chapters, of which this introduction is the first. In the second chapter I intend to show that :(i) the available data, however limited, indicates that Brazilian XIXth economic performance was poor: the rate of real income growth was, in all estimates, very low in the century as a whole, and zero or negative to the first fifty years; exports per capita grew at a lower rate than that of world international trade during the century and therefore Brazil's share of world trade in the same period decreased; (ii)- Brazil's failure

State. According to this approach, the Brazilian state has a patriarchal web, linking the role of the upper levels of society to the lower, so that the whole society symbolically becomes an extension of the monarch's house. Far from being liberal, this State directs the nation towards its objectives, which are frequently interpreted by the bureaucratic group which controls its apparatus. According to Faoro, in the Patrimonialist state: industrial activity, when it emerges, occurs through stimuli, favours and privileges, and the individual enterprise, rationally based on calculation, is not able to develop autonomously, uncurbed by government intervention. An improvement to Faoro's original approach was proposed by Carvalho, who, although emphasizing the relative autonomy of the bureaucratic 'estate' controlling the State apparatus, points out that such political elite could not have maintained order without the landowners' cooperation. Therefore, some kind of arrangement - no matter how unsatisfactory - between the interests of those two groups must be reached. In several aspects, our analysis is consistent with those views. See FAORO, R. *Os Donos do Poder: Formação do Patronato Político Brasileiro*, Rio de Janeiro, 1975, p.22; see also CARVALHO, J. *A Construção da Ordem: A Elite Política Imperial*, S.Paulo, 1980, p.179.

as an export country in the first half of the XIXth century was due not only to unequal treaties with potential clients which imposed high tariffs on imports of Brazilian tropical products, but also to the country's own deficiencies - as for instance in the case of cotton.

In the third chapter I sustain that Brazil failed in its attempts to establish and develop a manufacturing sector for most of the XIXth century - several obstacles to change existed and she could not find substitute mechanisms for the missing prerequisites for economic change. In this chapter it will be also argued that several constraints were imposed on those who wished to develop entrepreneurial urban activities: government granted unequal advantages to different firms in the same industries; the labour market was inadequate making it very difficult to hire free workmen; and the domestic market was very small. However, following the other large countries' experiences it would be conceivable to say that a dynamic domestic trade and larger domestic market could have created opportunities for investments. Those could have helped Brazil to overcome the barriers to modernization discussed in this chapter. The next chapter will raise this question.

Chapter fourth discusses Brazilian domestic trade **vis a vis** its domestic market structure. This discussion is necessary, given the relevance it has for two theoretical propositions I put forward in this thesis: (i) that the internal aspects of the economy, expressed in the decisions of economic and political agents, should be the focus of our attention if we wish to understand Brazil's failure of

economic development; (ii) the greater the accumulation of monetary wealth and size of the domestic market, the easier it becomes for a peripheral country to begin a process of substituting for the missing prerequisites to industrialization in as far as there is an element that can organize the transference of this wealth to finance productive investments. Chapter four, therefore, discusses all aspects of domestic trade in Brazil: coastal and internal wholesale interregional trades and retail activities. It shows the level of backwardness of these activities Brazil encountered in her attempts to develop a larger scale wholesale trade.

In Chapter five I discuss the political economy of Brazil in the second empire. It focus on the financial crisis of the period and on the debate between 'papelistas' and 'metalistas'. I do not intend in this chapter to write a history of the period's politics and therefore I am not particularly concerned in explaining the relationship of the 'Conselho de Estado' and Parliament or the mechanism of the political decisions. It is my intention to show the economic debate in Parliament and the Press as a reflex of the kind of options open , at the period, to the decision-makers. Nevertheless I also intend to show there were contradictions in the metallists' economic policies which not only prevented them from reaching their objectives (i.e., monetary circulation based essentially on gold, fiscal budget balance and fixed exchange rate), but also acted as an important brake on economic development.

Chapter six hopes to demonstrate that, although Brazil has failed as an exporter and although the financial structure of the country was inadequate to develop both manufacturing and agricultural activities, Brazil had succeeded in sustaining prices and exports in coffee. The planters in coffee, such as in other crops were, however, subjected to increase pressure to reduce the price of the product. When the export houses began to increase the control of the market, by-passing the 'comissarios' as an attempt to buy coffee at lower prices, first the particular characteristics of the world's coffee trade and later the planter's policy of valorization prevented them from succeeding. The coffee planters were able to impose better prices for- coffee. This was, however, only possible, for coffee. When a policy to sustain rubber prices was tried by the big 'casas aviadoras' it was a complete failure. If coffee was a big exception, it was also too little and too late, and although it helped to change one region in Brazil, namely the province of S.Paulo after the continuous decay of Rio de Janeiro in the aftermath of the Paraguayan War, its success was built on a series of failures of other crops over a long period of time, and it was not strong enough to change Brazil economically as a whole.

I have drawn largely on primary and secondary sources to sustain my arguments, but I did not choose to research comprehensively one specific source - or small group of sources - as a basis for this thesis. That is, for each one of the arguments presented we have chosen primary or secondary sources according to availability.

Nevertheless I am aware that all data related to XIXth century Brazil, particularly printed statistical sources, should be treated with care and the inaccuracies of data collection at the time should be considered in any generalization based upon those data.

From British Official publications I used largely Parliamentary Papers, particularly enquiries and evidences presented to House of Commons Committees in so far as contemporaries' testimonies can be a rich and stimulating way to illustrate economic problems- as well understood by economic agents at the times. However, given my choice to compare Brazil and the U.S., I have preferred U.S. Commercial and Consular Reports to British ones. Other British sources were Directories and Catalogues which gave some idea as to the kind of firms operating in the Brazilian market and Business Archives - particularly that of Edward Johnston & Co Papers (LABA) and British and Brazilian Bank Papers (Bolsa). In consulting the former, my main interest was to understand the role of foreign export merchant houses in financing export crops and their relationship with 'comissarios' and planters. The latter provided me with clues to the different behaviour of foreigners and Brazilian banks in the domestic market.⁴⁰ Finally, as British sources, we used travellers and merchants' accounts, pamphlets and newspapers all of which had different degrees of relevance for this work.

Brazilian sources were largely used. Although well-known, official Brazilian sources, such as Minister

⁴⁰ - I used this data mainly in chapter VI.

of Finance's reports, have been used mostly by historians, who have different objectives from those of economists. I used those in particular to prepare a table of coastal trade in Brazil as a useful proxy to the level of domestic activity, since there is no available data on internal trade by land. Chamber of Deputies and of the Senate's annals were paramount in reflecting the debate on the economic scenario of the period. They also helped to show the kind of society we had in Brazil at the time, and made clear that economic problems, particularly those related to monetary policy, were an important subject throughout the whole imperial period. I also used the 'Atas do Conselho de Estado', but given that my objectives were to show the alternative economic policies in the agenda, I considered the annals of congress more adequate. The Balanço Geral do Império is an important source of data for fiscal receipts and public expenditure. In Brazil, this source is particularly important given that the data of the Anuário Estatístico do Brazil (1939-40), the most employed source of historical data in Brazil, has some errors in relation to the public deficit. These can be corrected by using the Balanços, a more reliable source on the subject. I used them as source of data to develop an econometric study showing the effects of metallist monetary policies. I used the reports of Banco do Brasil as an important source of data, and as a source of information on the evaluation of its directors of the contemporaries economic affairs. Finally I also used of the most influential Rio de Janeiro newspapers, such as the Jornal do Comércio, particularly

the 'Retrospecto Commercial do Jornal do Comércio' (monthly and annual issues) and other documents (such as the 'Relatorio da Comissao Encarregada da Revisao da Tarifa em vigor) I found in the rich Brazilian Collection of the British Museum Library.

CHAPTER II
THE FAILURE OF BRAZILIAN ECONOMIC DEVELOPMENT
IN THE NINETEENTH CENTURY
II.1- INTRODUCTION

Brazil had a poor economic performance in the nineteenth century. Brazil's economic development was a failure in this century because: (i) Brazil's rate of per capita real product growth was very low in the century as a whole, and zero or negative in the first fifty years - that is, although there was some growth in the second half of the century, this was not enough to change substantially the picture of the century as a whole;

(ii) Brazil failed to have an export led growth - exports per capita grew at a lower rate than that of world international trade during the century and therefore Brazil's share of world trade in the same period decreased.

(iii) Brazil failed to establish and develop a manufacturing sector for most of the century - there were barriers in this society which would have had to be overcome to make a successful process of economic growth viable. Several constraints were imposed on those who wished to develop entrepreneurial urban activities: government granted unequal advantages to different firms in the same industries; the labour market was inadequate making it very difficult to hire free workmen; there was an inadequate financial market and a monetary policy that hindered industrial and commercial development; and both domestic trade and the domestic market were very small.

This chapter will discuss the first two aspects of the failure of Brazil's economic development in the XIXth century, listed above. It has four sections, including this introduction. In the second section the available data are shown to support my statement that Brazilian economic growth in the XIXth century was very low and the literature on that subject will be discussed. In section three I discuss Brazil's foreign trade, particularly in the first half of the XIXth century. It is suggested that, in the first half of the century, Brazil failed as an exporter, not only because her largest potential clients imposed on her high tariff barriers, but also - and that was the case of cotton - because of the country's inability to improve competitiveness by increasing efficiency and productivity, i.e. to sell more goods at lower prices. In this section I also discuss the best explanatory model for the performance of exports in the Brazilian economy, that is, I discuss whether one can apply Nurkse's model of trade as an 'engine of growth', or the Kravis model of trade as a 'handmaiden of growth'.¹ The fourth section discusses the role of the London money market making possible British and French trade with Brazil in spite of their protectionist colonial policy and the absence of returns for their products during the first half of the XIXth century.

¹- See NURKSE, R., *Contrasting Trends in Nineteenth and Twentieth Century* op.cit.; see also KRAVIS, I., *Trade as a Handmaiden of Growth*, op.cit..

II.2-BRAZILIAN ECONOMIC PERFORMANCE IN THE XIXTH AND IN THE XXTH CENTURY

If Brazil's economic performance in the XXth century can be considered successful, even by comparison with the most dynamic Western industrial economies, there is strong evidence that a different story happened in the XIXth century. Brazilian real GDP grew at a yearly average of 5.3% between 1900 and 1987. This means a growth of 2.8% per capita, since the population grew at a rate of 2.4% p.a. in the same period (See Table II.1). This growth rate is among the highest in the world, excellent even in comparison with countries recognized as having had an above average performance in this century, such as the U.S.A., France, Germany, Italy and Japan.²

If, on the other hand, we project this same growth rate of Brazilian per capita GDP observed between 1900 and 1987 backwards to the XIXth century, we would arrive, in about a quarter of a century, at a per capita income of US\$100 (dollar of 1987) which would not be much higher than the subsistence level.³

²- For data on GDP growth in these countries see KUZNETS, S., *O Crescimento Econômico do Pós-Guerra*, Rio de Janeiro, 1966, passim.

³- The poorest country in the world at present is Ethiopia which has a per capita income of US\$120 (1986 prices) and this income has been stagnant for 25 years. Thus, I consider it fairly justifiable to use Ethiopia's level of per capita income as not very far from the subsistence level, and for the sake of argument I will postulate that this level is US\$100 (1987 prices).

TABLE II.1
BRAZIL: INDICATORS OF GDP AND POPULATION: SELECT YEARS

ANO	(i) GDP/CZ\$	(ii)GDP/US\$	POPULATION	GDP/PER CAPITA (in US\$)
1987	12 788 578 655	326 239 251	141 452 187	2 306
1980	10 555 388 833	269 270 123	119 002 706	2 263
1970	5 960 850 14	117 247 067	93 139 037	1 259
1960	2 565 575 814	65 448 363	70 191 370	932
1950	1 328 312 223	33 885 516	51 944 397	652
1940	774 536 986	19 758 597	41 236 315	476
1930	505 132 817	12 886 041	37 625 436	342
1920	324 282 796	8 272 520	30 635 605	270
1910	214 525 542	5 472 590	23 151 669	236
1900	140 938 292	3 595 365	17 438 434	206

SOURCE: Computed from IBGE-AEB (several Numbers), HADDAD, C, 'Crescimento do Produto Real no Brasil:1900-1947', 1978; Dados Censitários, exceto para 1987, 1930 e 1910.

If we follow this logic it would be reasonable to affirm that the rate of growth of Brazil's per capita income could not have been very high, and was most certainly very low for the whole of the XIXth century. In addition to the comparison between Brazil's poor economic performance in the XIXth century and its XXth century performance, there is strong evidence which allows us to state that the per capita real product growth rate during the XIXth century was irregular, with long periods of negative growth, but also periods when the economy showed some dynamism which could have set up a basis upon which the XXth century economy might have been built.

However, there are few estimates of the XIXth real product, and those that exist are not based on direct data of production or income. Among these, four studies must be noted which make a systematic attempt to estimate Brazil's economic performance in this period.⁴ The work of Contador & Haddad is essentially based on a deflated price-series of foreign trade and government expenditure. Leff has another type of approach. Based on the quantity theory of money, he built a model of domestic monetary product growth rate from the supply of money, an estimate of the speed of money circulation and a price index. Although relevant for a period where little statistical data is available, these studies are very abstract and based on very indirect information. They can only give a superficial idea of the real movement of the economy during this period. The work of Furtado (based on a qualitative study of the real product behaviour) and Goldsmith's work, which estimates income based on the data of the variations of real wages in Rio de Janeiro, exports plus imports, public expenditure and monetary supply (M2), are more elaborate works.

Based on an evaluation of the performance of several sectors of the economy, Furtado estimated growth rates of 3.5% for the Brazilian Real Product and of 1.5%

⁴- These works are FURTADO, C., *Formação Econômica do Brasil*, op.cit.'; GOLDSMITH, R., *Desenvolvimento Financeiro sob um Século de Inflação*, S.Paulo, 1986; CONTADOR & HADDAD, *Produto Real, Moeda e Preços: A Experiência Brasileira no Período 1861-1970* in *Revista Brasileira de Estatística*, number 36, 1975 and LEFF, N. *Underevelopment and Development in Brazil*, London, 1982.

for per capita income during the second half of the XIXth century. His per capita income data were a result of his estimate that the real product during this period grew at the fast rate of 3.5% p.a. and the population at 2.0% p.a..⁵ Starting from the premise that, between 1850 and 1950, Brazilian per capita income would have grown at a more or less constantly accelerating rate, he inferred that the rate must have been negative during the first half of the century. If this was not so, using his estimate of Brazilian per capita income at the beginning of the XIXth century (US\$50 at 1959 prices, equal to US\$229 at 1986 prices), Brazil should have had in 1950 a per capita income similar to that of Western Europe countries.⁶

TABLE II.2
BRAZIL: INDICATORS FOR GDP UNDER FURTADO'S
GROWTH RATE ESTIMATE (1987 Prices)

ANO	(i) GDP/CZ\$	(ii) GDP/US\$	POPULATION	GDP PER CAPITA (in US \$)
1900	140 938 292	3 595 365	17 318 556	208
1890	99 909 745	2 548 718	14 333 915	178
1880	70 825 019	1 806 761	11 808 215	153
1872	53 783 746	1 372 034	10 112 061	136
1854	28 953 362	738 606	7 677 800	96

SOURCE: Computed by the author based on (a) TABLE II.1; (b) Furtado's Growth Rate estimations; (c) Census data of population to 1873 and 1900; (d) Brazilian population in 1854.

We can analyse Furtado's hypothesis under the assumption that there is a level of per capita income below

⁵ - FURTADO, *Formação Econômica do Brasil*, op.cit., pp.149/150.

⁶ - Ibid.

which population growth rates would be affected, which we assume to be around US\$100 (1987 prices). Thus, assuming that during the second half of the XIXth the per capita GDP growth rate was 1.5%, we obtain a GDP per capita of US\$ 98 in 1850 and US\$ 104 dollars (1987 prices) in 1854. This figure is compatible with our assumption that there is a subsistence level of around US\$100 (1987 prices).

Furtado's estimate of the growth rate of the real product for the period 1850-1900, however, is almost certainly overestimated. Furtado projects a rate of population growth for the period based on the census data of 1873 to 1900; however, this is a period when immigration to Brazil increased enormously, following the decay of slavery and the development of a capitalist coffee agriculture in the west of S.Paulo state (See Table II.3 below)⁷. Also, the development of other export crops, such as rubber, opened a new alternative for the surplus population of north-eastern states. For these reasons I consider that this period cannot be used as a yardstick to estimate population growth rates for the whole of the second half of the XIXth century. Using an alternative source for an estimate of the Brazilian population at the time, a survey published by the Ministry of Empire in 1856, we would find a figure of 7.5 million people in 1854. We can then arrive at a rate of

⁷- See Table II.3. The Brazilian population was around 13,000,000 in 1885 and of 15,755,000 in 1895. Therefore an average annual foreign immigration of more than 80,000 people must have significantly affected the Brazilian population growth rate.

1.5% p.a between this year and the 1872 Census. According to these assumptions, a good estimate of Brazilian population growth would be 1.5% between 1854 and 1872, and 1.9% between this date and 1900, that is, an average growth rate of 1.8% p.a. for the whole period and not 2.0% as in Furtado's estimation. If we take the rate of 3.5% per year of real product growth for the period 1850-1900, as estimated by Furtado, and the rate of 1.8% of population growth for this period, in a backwards projection we would arrive at a per capita income of US\$96,00 in 1854 and US\$90,00 in 1850 - below the postulated level of subsistence. Based on these arguments we can state that Brazil's real product grew at a rate that could not have been bigger than 3.3% p.a. in this period and, even so, this number is only possible if there was a decrease or a stagnation in Brazilian per capita income in the first half of the XIXth century.

TABLE II.3
BRAZIL: FOREIGN IMMIGRANT ARRIVALS

YEAR	TOTAL ARRIVALS		ANNUAL AVERAGE	
	S.PAULO	BRAZIL*	S.PAULO	BRAZIL*
1865-1874	2 435	N. A.	244	N.A.
1875-1884	25 896	N. A.	2 590	N.A.
1885-1894	487 396	883 668	48 740	88 367
1895-1904	713 081	852 110	71 308	85 211

Source: Computed from IBGE- Series Estatísticas Retrospectivas - Vol.1 - Rio de Janeiro - 1986.

*- The data for foreign immigrants arrivals in Brazil referring to 1884-93, 1894-1903 periods, respectively.

Goldsmith estimated the growth of Brazilian real product in the second half of the XIXth century through an

index based on four indicators (wages paid; money supply (M2); exports plus imports; government expenditure) deflated by a price index. GNP absolute numbers were obtained through a link with Haddad's estimate of Brazil's GNP in current prices for the year 1910⁸. For wage indices Goldsmith used the study of Eulália Lobo who, based on contemporary newspaper information, estimated the evolution of wages in ten activities in Rio de Janeiro.⁹ The supply of M2 was obtained from the work of Suzigan & Pelaez, adjusted according to the author's estimations of bank deposit levels and of the behaviour of the metallic currency stocks.¹⁰ International trade and government expenditure data were based on information published in the ANUARIO ESTATISTICO DO BRASIL/1939-40 and other official publications. The price index was calculated by Goldsmith as an average of four indices, linked to critical dates.¹¹

According to Goldsmith's study, Brazil's per capita real product showed a small growth tendency from 1850 to 1889. During this period the growth rate of the aggregate real product was a little more than 2% p.a. The growth rate,

⁸- See GOLDSMITH, R. *Desenvolvimento Financeiro sob um Século de Inflação*, op.cit, p.24 . See Also HADDAD's *Crescimento do Produto Real do Brasil 1900-1947*, op.cit..

⁹- See LOBO, E. *Evolução dos Preços e Padrão de Vida no Rio de Janeiro, 1820-1980* in *Revista Brasileira de Economia*, 1971, passim.

¹⁰- See PELAEZ & SUZIGAN, W. *História Monetária do Brasil*, op.cit.

¹¹- These indices are those of BUESCU, M, *200 Anos de Inflação*, APEC, 1973; LOBO, E. IN *Evolução dos Preços e Padrão de Vida no Rio de Janeiro*, op.cit.; ONODY, O. in *A Inflação Brasileira: 1820-1958*, Rio de Janeiro, 1960; and VIEIRA, T.D. in *Evolução do Sistema Monetário Brasileiro* in *Revista de Administração*, number 1, 1947.

according to his calculations, was higher during the first half of the period.¹² During the last years of the XIXth century Goldsmith estimates a per capita real product decline. For him the most probable scenario would be a decline of the per capita real product during the 1890's and significant growth during the XXth century until the First World War.¹³

TABLE II.4
BRAZIL: INDICATORS FOR GDP UNDER GOLDSMITH'S
GROWTH RATE ESTIMATE
(1987 Prices)

ANO	(i) GDP/CZ\$	(ii) GDP/US\$	POPULATION	GDP/PER CAPITA (in US\$)
1900	140 938 292	3 595 365	17 318 556	208
1890	138 283 253	3 527 634	14 333 915	246
1880	115 051 669	2 934 992	11 808 215	249
1872	83 263 453	2 124 068	10 112 061	210
1854	56 419 567	1 439 274	7 677 800	187

SOURCE: Computing by the author based on TABLE II.1; Goldsmith's Growth Rate estimations; 1873 and 1900 Census data on population; Enquiry on Brazilian population in 1854.

In order to compare Goldsmith's estimates with Furtado's and with my assumptions, I have prepared a table projecting backwards, from 1900, the GDP that would be compatible with the authors' estimation of Real Product growth rate (Table II.4 above). Since there there are no big differences between Goldsmith's estimation of population

¹²- That rate was between 1.6% and -0.8% for the per capita real product, and 3.2% and 1.0% for the aggregate real product. See Goldsmith, R, *Desenvolvimento Financeiro sob um Século de Inflação*, op.cit., p.21.

¹³- Ibid, p.85.

growth and mine it can be seen that for him the GDP per capita for 1854 should be around US\$187 (1987 prices).

Some remarks must be made about Goldsmith's conclusions. His series present some contradictions with the documentary history and other information for the period. This leads us to believe that his real product per capita growth rate estimate is in fact lower than the actual rate. For example, in his index, the aggregate real product goes through five periods of relatively rapid growth: 1856-60; 1863-67; 1878-79; 1884-85 and 1889-91. Also, according to him, from 1892 until the end of the century, there is rapid decline in the per capita real product, except for 1895. However, there is plenty of evidence, as I intend to show in chapter V, that the 1863-67 period is a period of recession, with a deep crisis in September of 1864 and financial problems linked to the Paraguayan War until the second half of the war. Nevertheless, from 1867, when war expenditure helped to boost domestic demand, there was substantial improvement and growth in the domestic economy. Similarly, there are contradictions with factual information regarding other subperiods, particularly in the years between 1856-60 and 1871-87. It was also in the second half of the XIXth century that the exports of coffee and rubber led to improved export growth rates. In industry also, at least in textiles, we can observe an increase in the number of factories and in production. Thus, the number of textile mills in Brazil grew from 9 in 1866 to 161 in

1907, and the number of workers in these factories from 768 in the first year to 45,943 in the second; also the value of production of cotton textiles grew more than seventy-six times from 1866 to 1907 in constant price of 1913.¹⁴

The limitations of the above works allow us to state that an extensive and conclusive study on Brazilian economic performance in the XIXth century is still not available and that most of the available information is quite precarious. However, some conclusions can be drawn from the above studies: (i) there was some level of per capita GDP growth in the second half of the XIXth century; (ii) Brazilian real product grew at a rate not higher than 3.3% p.a., according to Furtado's optimistic estimation with my corrections, and not less than 2.0% p.a. - according to Goldsmith's more pessimistic calculation. If we assume that Brazilian population grew at about 1.8% p.a. in this period, the Brazilian real product per capita grew not less than 0.2% p.a. and not more than 1.5% p.a.; (iii) Thus, the level of GDP and of GDP per capita in 1850 was certainly very low, and we can reasonably assume that in the first half of the XIXth century the Brazilian real domestic product per capita was at least stagnant with periods of decline during these decades¹⁵; (iv) finally, during the whole of the XIXth century the growth of Brazilian real product and Brazilian

¹⁴ - See Statistical Appendix A, Table A.4.

¹⁵ - The negative growth rate of Brazilian exports per capita in the first thirty years of the XIXth century is a clear indication of a decline in the per capita real product. See Table II.5.

real product per capita was positive, but certainly very low.

II.3-BRAZILIAN FOREIGN COMMERCE AND ANGLO-BRAZILIAN TRADE IN THE FIRST HALF OF THE XIXTH CENTURY

Any analysis of Brazilian economic performance in the XIXth century must begin with a study of foreign trade, without doubt the most dynamic sector of that society. This made us turn to the part played by exports in the Brazilian economy during that century. Is it feasible to see a scenario where a parallel could be made between export-led growth in this country and in the countries of recent settlement - can we apply Nurkse's model to any part of XIXth century Brazil?

As Europe expanded after the Industrial Revolution, demand for tropical products was boosted not only as a result of the increased income, but also as a result of the demands for raw materials for the new industries. On the other hand, the search for markets for cotton goods, a commodity whose share of British exports grew at a fast pace from the 1770's onwards, led British merchants to look for returns for their exports or to count on the financing of exchange bills to make their trade viable. The consequence was a rapid development of world trade, which grew at a fast rate in absolute and per capita terms.¹⁶

¹⁶- According to Ashworth world trade grew at about 2.0% p.a. in the first half of the XIXth century. Woodruff proposes approximately 2.5% p.a. between 1750 and 1914, and about 3.7% p.a. between 1820 and 1880. Kenwood & Loughheed estimate 3.3% in per capita terms between 1800 and 1913, and

Brazil's exports, however, did not grow at the same pace as that of world foreign trade. By the end of the XIXth century, Brazil had a smaller share of the world market than it had in 1800. As shown in table II.5, in the XIXth century, Brazilian per capita exports, in pounds sterling, grew 88%, that is a mere 0.6% average annual growth rate.¹⁷

In the first thirty years of the XIXth century Brazil's per capita exports fell by 1.1% p.a., and only reached the same level of export per capita encountered at the turn of the century in the middle of the XIXth century. In the second half of the XIXth century Brazilian exports per capita grew at a rate of 1.2%. If seemingly high by comparison with Brazilian export performance in the first

4.8% per capita between 1840 and 1870. Cipolla gives the world population growth rate at about 0.5% p.a. between 1750 and 1850, and slightly more (0.6%/0.8%) in the next fifty years, so per capita growth of world trade was not less than 1.5% and not more than 3.3% during the XIXth century. See ASHWORTH, W. *A Short History of the International Economy since 1850*, London, 1975, p.18; WOODRUFF, W. *The Emergence of Industrial Societies*, p.658; KENWOOD & LOUGHEED, *The Growth of the International Economy 1820-1980*, London, 1984, pp.79/80; and CIPOLLA, C., *The Economic History of World Population*, Penguin books, 1978, pp.116/118.

¹⁷- Table II.5 shows the evolution of Brazilian exports and imports in current pounds and on a per capita basis. For this table a Brazilian population growth rate between 1800 and 1854 of 1.5% p.a. was assumed. That is the same growth rate for the 1854-1872 period. This estimate is consistent with the Enquiry on Brazilian population done by Veloso de Oliveira in 1819, who calculated Brazilian population at this date in 4,396,000 people (my estimate for 1820 is 4,627,000 inhabitants). This is also consistent with the observations of most of the travellers in the beginning of the XIXth century, such as: Ewbank 3,000,000, 1798; Humboldt 3,650,000, about 1800; Balbi 3,617,000 in 1810; and Freycinet 3,680,000 in 1800 - my estimate is 3,435,000 in 1800.

half of the century, in international terms this was still a low rate.¹⁸

Therefore the Brazilian foreign trade during the XIXth century was far from showing a picture similar to Nurkse's model of trade as an 'engine of growth'. Brazil's performance as an exporter in the first half of the XIXth was appalling. There was some improvement in the second half of the century, but, (as can be seen in Tables II.6, II.7 and II.8) with the exception of coffee - and I shall insist that coffee is a quite special case - and ephemerally rubber, Brazil was far from being a success like Canada, Australia or Argentina.¹⁹

This poor Brazilian export performance was the result of two main causes: (i) the protectionist policy of

¹⁸- As was shown in the footnote (17), the growth in the per capita world trade was not less than 1.5%, according to the most pessimistic estimate, to the whole of the XIXth century, and was very likely more than that to the second half of the century. For example the per capita exports of Argentina grew at a rate of 4.5% between 1861-1880 in current pesos and all other countries of recent settlement had a much better performance in exports than Brazil. For the export data of Argentina see ORTIZ, R. *Historia Económica de la Argentina*, p.163/4, Buenos Aires, 1987.

¹⁹- Coffee and rubber were the only products during the XIXth century where exports systematically increased by a higher rate than that of population growth. From Independence until 1900 Brazilian population grew by an annual average of 1.7% p.a. During the last seven decades of the XIXth century (that is approximately since Independence) coffee exports grew by an average annual rate of 4.8% and rubber exports grew by an average annual rate of 11.4%. Nevertheless cotton exports did not grow at all, although it had a very good performance during the period that the U.S. was out of the international market due to the U.S. Civil War; sugar grew by an annual average of 0.6% and other products grew by an average of 1.5% p.a.. Therefore, the per capita export value of all Brazilian products, except coffee and rubber, decreased during the XIXth century. See Tables II.6, II.7 and II.8.

Brazil's main European trade partners, namely Britain and France; (ii) Brazil's inability to compete with the U.S. in the export of cotton, a product which was not subject to high tariffs from importing countries.

TABLE II.5
BRAZIL: FOREIGN TRADE- SELECT PERIODS
(in £ 1000, Annual Average)

ANOS	(i)-EXP.	(ii)-IMP.	(iii)-POP	(iv)EX/PC	(v)IMP/PC
1798/1802	3 392	3 152	3 435	0.987	0.918
1828/1832	3 796	3 999	5 370	0.707	0.745
1838/1842	5 091	6 574	6 233	0.817	1.055
1848/52	7 284	8 443	7 237	1.007	1.262
1858/62	12 537	12 259	8 394	1.494	1.460
1868/72	17 345	14 225	9 742	1.780	1.460
1878/82	19 412	16 203	11 808	1.644	1.372
1888/92	26 928	23 922	14 333	1,879	1.669
1898/1902	32 157	22 433	17 318	1,857	1.295

SOURCES: BALBI, A. 'Essai Statistique du Royaume de Portugal et Algarves, Paris, 1821; IBGE, 'Estatísticas Históricas do Brasil', séries Estatísticas Retrospectivas, vol 3, 1987; Relatório do Ministério do Império para 1856; Estimativas de População do autor para anos sem dados oficiais.

Note: (i) Brazilian exports in thousands of pounds sterling (annual average); (ii) Brazilian imports in thousands of pounds sterling (annual average); (iii) population in thousands (annual average); (iv) and (v) referring to exports and imports per capita (average annual data in pounds sterling).

TABLE II.6
BRAZIL: DECENNIAL EXPORTS- SELECT PRODUCTS
(IN £ 1,000)

YEAR	COFFEE	SUGAR	COTTON	RUBBER	OTHER	TOTAL
1821-30	7 189	11 766	8 069	17	12 056	39 097
1831-40	21 529	11 798	5 298	168	10 412	49 205
1841-50	22 655	14 576	4 103	214	13 132	54 680
1851-60	49 741	21 638	6 350	2 282	21 996	102 007
1861-70	68 004	18 307	27 293	4 649	31 180	149 433
1871-80	112 954	23 540	19 070	10 957	33 164	199 685
1881-90	135 657	21 907	9 214	17 610	36 337	220 725
1891-00	187 917	17 358	7 795	43 666	34 281	291 017

SOURCE: Computed from IBGE- Series Estatísticas Retrospectivas, Vol.1- Rio de Janeiro- 1986.

TABLE II.7
BRAZIL: DECENNIAL EXPORTS - SELECT PRODUCTS
(1851-60=100)

YEAR	COFFEE	SUGAR	COTTON	RUBBER	OTHER	TOTAL
1821-30	14	54	127	1	55	38
1831-40	43	55	83	7	47	48
1841-50	46	67	65	9	60	54
1851-60	100	100	100	100	100	100
1861-70	137	85	430	204	142	146
1871-80	227	109	300	408	151	196
1881-90	273	101	145	772	165	216
91-1900	378	80	123	1 913	156	285

SOURCE: Computed from IBGE- Series Estatísticas Retrospectivas, Vol.1- Rio de Janeiro- 1986

TABLE II.8
BRAZIL: DECENNIAL EXPORTS
SELECT PRODUCTS SHARE IN TOTAL EXPORTS
(In percentage)

YEAR	COFFEE	SUGAR	COTTON	RUBBER	OTHER	TOTAL
1821-30	18.4	30.1	20.6	0.1	30.8	100.0
1831-40	43.8	24.0	10.8	0.3	21.2	100.0
1841-50	41.4	26.7	7.5	0.4	24.0	100.0
1851-60	48.8	21.2	6.2	2.3	21.6	100.0
1861-70	45.5	12.3	18.3	3.1	20.9	100.0
1871-80	56.6	11.8	9.5	5.5	16.6	100.0
1881-90	61.5	9.9	4.2	8.0	16.5	100.0
91-1900	64.6	6.0	2.7	15.0	11.8	100.0

SOURCE: Computed from IBGE- Series Estatísticas Retrospectivas, Vol.1- Rio de Janeiro- 1986

Britain and Portugal, old allies in European politics since the XVIIIth century, maintained an intense and - as far as British merchants were concerned - profitable trade. ²⁰ Since the 1640 restoration, a close alliance between the new Braganza dynasty and British rulers developed. Treaties were signed with the Stuarts, Cromwell and again with the restored Stuarts. This created the basis for a pattern of Anglo-Portuguese diplomacy which would be consolidated in the next century - that is, the exchange of political and military support for increasing commercial

²⁰- It is outside our scope to discuss deeply this relationship. For good studies about this trade see the works of SHILLING, V.M. & CHAPMAN, A.B.W., *The Commercial Relations of England and Portugal* specially chapter VII; SHUTERLAND, L.S. *A London Merchant-1695-1774*; PINTO, V.N., *O Ouro Brasileiro e O Comércio Anglo-Português.*; NOVAIS, F. *Portugal e Brasil na Crise do Antigo Sistema Colonial.*

advantages.²¹ Trade relations between the two countries produced a large trade surplus in favour of Britain. This was the result of England exporting to Portugal large quantities of her most important products, particularly textiles and durable products, with high value to bulk ratios, which were sold in Portugal and Portuguese possessions, particularly in Brazil, in exchange for Portuguese products. Britain and Portugal were competitors as exporters of colonial products, brought from their colonies by their merchants, which represented a tiny part of their trade; then, Portugal's main export was wine, representing about 70% of her exports to Britain, followed by fruits and salt.²² This led to a big trade deficit between the two countries, which was financed with credit from British commercial houses to Portuguese merchants and with the export of gold and gold coins to the U.K.²³

The Portuguese colonial monopoly prevented British merchants from having a legal direct trade with Brazil. Business was done either through Portuguese merchants, or through smuggling activities. The Brazilian market, and that of Latin America in general, was only

²¹- NOVAIS, F. *Portugal e Brasil na Crise do Antigo Sistema Colonial*, pp.19/20

²²- In 1776 tropical products represented 2.3% of Portuguese exports to Britain; brown and refined sugar and pau-brasil were the most important tropical products exported from Portugal to Britain. Nevertheless, these two products represented only respectively 0.7% and 0.9% of Portuguese exports to Britain. Wine represented 69.1% of Portuguese exports to Britain, followed by fruits (8.9%) and salt (4.0%). See PINTO, V.N., *O Comércio Anglo-Português...*, p.267.

²³- *Ibid*, chapter IV. See also FISHER, H.E.S. *The Portuguese Trade, A Study of Anglo-Portuguese Commerce 1700-1770*.

opened as an alternative market for direct export by European merchants because of the crisis brought about by the Napoleonic Wars. The French invasion of Portugal, in November of 1807, forced the Royal family and the Court to flee to Brazil which would then become the centre of the Kingdom, not only the heir to a profitable trade with Africa and Asia, but also a promising market for Portugal's largest commercial partner, Britain. As Brazil had become the centre of the kingdom, the Portuguese Prince regent had no alternative but to open Brazilian ports to foreign commerce. In fact, under the prevailing conditions *"the opening of the ports of Brazil to the commerce of the world meant, in reality, that as far as Europe was concerned, they were opened only to the commerce of England as long as the war lasted on the continent"*.²⁴

At this time British merchants were in a very difficult situation, with the commerce with northern Europe blockaded by Napoleon and his Danish, Prussian and Russian allies, the trade with Iberian Peninsula blocked by a hostile Spain and an occupied Portugal; and, finally, trade with the U.S. was greatly reduced by poor diplomatic relations between that country and Britain. At this distressing time the opening of the Brazilian trade was seen as a godsend.

Britain's merchants believed that the size of Brazil and its potential as an exporter of products of

²⁴-MANCHESTER, A.K., *British Preeminence in Brazil, its Rise and Decline: A Study in European Expansion*, Chapel Hill, N.C., 1933.

European interest could make it an important market for British manufactures. A British pamphlet of 1808, written by Ralph Rylance, who was presumably representative of British merchants, states this position very clearly:

*"The commercial relations of this country with the new kingdom of Brazil will also be considered as fraught with mutual benefit. The extension of such trade between the two states as would create new channels for the produce and manufactures of one, while contributing to the increasing prosperity and welfare of the other, might in time create an ample balance for the interruption of the ancient connection which long subsisted between England and Portugal. A new stimulus would be given to the people of Brazil, by the influence of the native government within their boundaries; the various and valuable products of the soil would be raised in greater abundance, and supplied with greater regularity in proportion as their course with this country became enlarged and secured."*²⁵

On the other hand the Portuguese and Brazilians who controlled the trade between Portugal and Brazil were very worried at the arrival of foreign merchants. These worries were not without ground. The trade between Brazil and Portugal produced a huge surplus in the commercial balance in favour of the colony. Brazilian products were reexported and their contribution was always very important for Portugal's foreign trade.²⁶ If the Portuguese merchants knew that the opening of trade to Britain was their only option, given the occupation of Portugal by the French, they

²⁵-RYLANCE, R. *A Sketch of the Causes and Consequences of the Late Emigration to the Brazils of the Regent and the Government of Portugal*, Paris, 1808, p.36.

²⁶- In fact, Brazilian products represented 62.7% of Portuguese exports in 1796, and 62.4% in 1806. After the opening of the Brazilian ports, this share fell to 39.6%. See BALBI, A. *Essai Statistique Sur le Royaume de Portugal et d'Algarve*, Paris 1822.

also knew that the setting-up of British import houses would be a severe blow to their economic hegemony, and, no less importantly, to the high profits of their trade.

A pamphlet written by D. Domingos de Souza Coutinho, Brazilian ambassador to London reveals this conflict very accurately:

"Most of the Brazilian merchants are consignatories from the Lisbon and Porto Merchants and, since their commitments cannot send them the customary fabrics to their country for consumption, the only way they can subsist, and therefore, serve the trade as they have done up to now, is receiving the import fabrics from Britain as they had received from Portugal's harbours. However since the British merchants have their agents in Brazil, they will supply the fabrics for the Brazilian consumption exclusively, and it will be impossible for the Portuguese merchants to compete with them, not only because they do not have the credit already established in Britain to buy those fabrics and benefit from a long period of payment, but neither do they have money to pay cash for them or goods to give in exchange, for the reasons that will be developed below"²⁷

The answer to this problem, according to Coutinho, would be to open only the ports of Rio de Janeiro and Santa Catarina to foreign commerce and also to establish special permits for foreigners in Brazil, preventing them from controlling commerce throughout the country.²⁸

However, despite the Portuguese merchants' resistance, and the bureaucratic behaviour of Customs offices, with their arbitrary system of valuation and determination of the import tariffs - problems that were

²⁷- COUTINHO, S. *Reflexões Políticas sobre o Estabelecimento de Negociantes Ingleses no Império do Brasil*. There is no indication of the date in this pamphlet, but it is very likely published in the year of 1808.

²⁸- Ibid.

resolved with bribes or political pressure - British export houses established themselves in the most dynamic Brazilian cities and began to attain a key position that would be sustained for many years.²⁹ The British merchants arrived in the most important Brazilian cities and soon acquired the best sites to set up their warehouses. They concentrated near harbours and the customs houses, generally in wider streets, where they stocked and sold not only textiles, but also heavier goods such as iron, copper, machines, glass for windows etc.³⁰

Another factor influencing the development of foreign trade structure in Brazil was the commercial treaties first agreed between Portugal and Britain, in 1810, and secondly between independent Brazil and several nations, including the 1827 Treaty with Britain, which was a new

²⁹- See HEATON, H., account of the British merchant J.Luccock in Brazil 'A Merchant Adventure in Brazil -1808-1818', J.E.H.,VI,#1.

³⁰- The importance the new market had for Britain is clearly shown by the fact that as soon as the 'Association of English Merchants' was organized in June 1808 and a meeting of the Portuguese Minister with London merchants- who intended to do business with Brazil- was held, there could be found among them two Members of Parliament, who belonged to the sixteen members of the new organization's permanent committee. See MANCHESTER, K.. *British Preeminence in Brazil...*, p.312. It must also be noted that the number of foreign ships entering Rio de Janeiro Harbour rose from 1 in 1807 to 122 in 1810, and reached 354 in 1820. Of the 1460 ships that entered the port of Rio de Janeiro in 1816, 398 were transoceanic and 1062 coasting vessels; of the transoceanic ships, 113 were British. Among the 53 foreign merchants in Rio de Janeiro in 1824, about 40 were British and of 79 in 1825 about 50 came from that country. For data on this, see SIMONSEN, R. *História Econômica do Brasil 1500/1820*, S.Paulo, 1937,, p.312; RODRIGUES, J.H. *Independência:Revolução e Contra-revolução*,S.Paulo, 1975, T.2,p.93.

version of the old treaty agreed during the Portuguese administration.

The treaty of Commerce and Navigation between Great Britain and Portugal, signed in Rio de Janeiro on 19th of February , 1810, was a result of the peculiar situation of the Prince Regent and the Portuguese court. Britain had given protection to the Prince Regent and helped him to escape from Napoleon; Britain also recognized the Braganza heir as the only legitimate pretender to the title of King of Portugal and advanced him money for his voyage to Brazil.³¹ A British general, Beresford, was named Marshall of the Portuguese Army and a loan to finance the war of liberation in Portugal was granted by Britain enabling this country to demand the repayment of her support by the complete opening to her merchants of the promising market of Portugal's huge South American colony. On the other hand, the Prince Regent, humiliated by the sudden flight from his country, obliged to travel to the distant South American colony, and forced to borrow a large amount from a foreign country which demanded as a guarantee the mortgaging of the

³¹- The royal family fled Portugal in British ships, protected by the British army. Britain signed a convention with Portugal on the 22nd of October, 1807, in which she declared that she would never recognize any prince but the heir and legitimate representative of the Royal Family of Braganza as king of Portugal. For a history of Portugal see NORWEL, C., *History of Portugal* D. Van Nostrand Company inc., 1953; See also the detailed history of Portugal written by ALMEIDA, Fortunato de, *História de Portugal*, Coimbra 1922. For the text of the treaties and state papers relative to Anglo-Portuguese relations see U.K.- DEPARTMENT OF STATE AND OFFICIAL BODIES- FOREIGN OFFICE, *British and Foreign State Papers, 1812-1814 and 1828*.

most profitable areas of his kingdom still not controlled by Napoleon at the time the loan was granted, was in no position to offer any objection to the unequal clauses of the treaty.³²

The treaties signed between Britain and Portugal were typical of the kind of treaty imposed on weaker countries by great powers in the XIXth century - that is, it had the two most common clauses of such unequal treaties: (i) a limit on import tariffs imposed unilaterally; (ii) extraterritorial rights for British citizens.³³

This treaty consolidated a pattern by which British merchants were more interested in selling their own products in the Brazilian market, rather than buying Brazilian ones; a pattern which later caused a huge deficit

³²- On the 21st of April, 1809, Souza Coutinho and Canning, as plenipotentiaries of the Portuguese Regent and the British Crown, signed a convention where by a loan of 600,000 pounds sterlings would be proposed for the Parliament on behalf of the Portuguese Prince Regent. This loan was granted under very harsh condition of interests and of collateral guaranties, allowing the British Government, in case of default, to take the sum owed from the Treasury of Madeira Island, before any other payment whatever be made out of the said treasury. See CONVENTION OF LOAN BETWEEN HIS BRITANNIC MAJESTY AND HIS ROYAL HIGHNESS THE PRINCE REGENT OF PORTUGAL', signed at London in 21st of April of 1809 - British and Foreign State Papers, note 14, p.508.

³³- Other important features of this treaty are: complete freedom given to British merchants to set up commercial houses, live and travel in Portuguese dominions as Portuguese merchants did, having the additional privilege of having their commercial books and papers protected against arbitrary examination or inspection (art.vii); the prohibition to restrict the activity of British merchants by the concession of any monopoly or privilege (art.VIII); the ceiling of 15% import duty to British products when the import duties were of 24% for all nations, and the Portuguese products paid 16% import duties, but Portugal was forced to agreed that Britain should favour the imports of tropical products from her colonies (art.XV).

in the Brazilian trade balance - creating problems of returns for the British merchants- and also compelled them to sell their goods to Portuguese and Brazilian merchants, operating in the wholesale market, giving them very long periods of payment, which often reached eighteen months.³⁴ This was a source of instability which had consequences not only for Anglo-Brazilian political relations, but also for Brazilian economic policies in the years to come.

After Brazil became independent, the signing of a new treaty which repeated the terms of the one signed with Portugal was one of Britain's demands in exchange for recognition of the new country. Brazilian diplomats were initially successful in signing a protocol for a treaty, between the British minister Sir Charles Stuart and the Brazilian representative Vilela Barbosa, that made some significant changes in the clauses of the treaty of 1810. Although ratified by D. Pedro I, this protocol was disavowed by Canning who objected to some of its articles and did not like the premature publication of the treaty in a Rio de Janeiro newspaper, which created some political difficulties for his diplomatic manoeuvres with other countries.³⁵

Brazil's other large commercial partner, France, which, since the Restoration was most interested in

³⁴- My source for the credit period given by British firms is LIMA, Oliveira D. *João VI no Brasil*, José Olympio Editores, 1945.

³⁵- About Canning's objections see his correspondence with Sir Charles Stuart, April 19, 1826; published in WEBSTER, C. K.. *Britain and the Independence of Latin America-1812-1830- Selected Documents of the Foreign Office Archives.*

restricting British influence in Brazil, tried to gain some commercial advantages in exchange for her recognition of Brazilian independence. Thus, on January 1826, Brazil signed a Treaty of Amity, Navigation and Commerce with France, largely based on the disavowed protocol signed with Britain in 1815.³⁶ This active diplomatic French initiative, with commercial consequences, was seen with suspicion by Canning, who complained to Viscount Gravelle that the French mission seemed to have instructions which were "intimating a disposition on the part of France to recognize the independence of Brazil and the title of Emperor, as the price of commercial advantages to be given to France to our (Britain) expense...".³⁷

The treaty with Britain was finally signed on 17th of August , 1827, being a repetition of the 1810 treaty, with the exception of its most draconian clauses.³⁸ The French and British treaties were a model to be repeated with some variations in several treaties signed with

³⁶- There is an English version of the French-Brazilian treaty in 'BRITISH AND FOREIGN STATE PAPERS', London 1841.

³⁷- George Canning to Viscount of Gravelle, letter #65, Confidential, September 13, 1825.

³⁸- The main differences were art.VI in which Britain recognized that the Brazilian constitution abolished all special jurisdictions, but Brazil agreed that the office of judge conservator should continue only until "some satisfactory substitute for that jurisdiction shall be established, capable of providing, in an equal degree, for the protection of the persons and property of His Majesty's subjects" (sic.); article X which reserved the coasting trade for Brazilian nationals; and art.XXVIII which limited the term of the treaty to 15 years and two further years of advance notice in case one of the parties decided to renounce it. See F.O. *British and Foreign State Papers*, volXXVII, 1818, p.15.

different countries.³⁹ These treaties which contributed to expel most of the Portuguese and Brazilian merchants from foreign trade, were blamed on British pressure, and this helped to increase these groups' hostile feelings towards Britain and British merchants.⁴⁰

The fact that the U.K. did not reciprocate the liberal treatment of British products granted by the treaty of 1827 was always a matter of resentment for Brazilian planters and concern to the Manchester merchants because of the consequences of this policy when the treaty finally ended in 1844. In 1840, in a statement to the House of Commons, John Bramley Moore and Charles Saunders, Liverpool merchants who had long operated in the Brazilian trade, declared that when the Anglo-Brazilian trade expired this country would retaliate against the U.K's protective system.⁴¹ Moore and Saunders' opinion was shared by several tradesmen, and there were even more pessimistic viewpoints such as that of John M'Gregor, one of the joint secretaries of the Board of Trade, who believed that the Brazilians were

³⁹- Just in the same year Brazil signed treaties with most-favoured clauses with Austria and the Hanseatic cities. In the following years Brazil signed treaties containing such clauses with Denmark, Holland, United States and Belgium.

⁴⁰- A good evidence of the Rio de Janeiro's merchants feeling about the British is the letter of Viscount Castlereagh, which says that "The merchants of Rio de Janeiro in like manner have suffered severely from the opening of a free trade between this country and Europe, by losing that exclusive monopoly of imports and exports which they formerly possessed, a circumstance which they do not fail to charge upon England." Letter from Viscount Strangford to Viscount Castlereagh, Feb 20, 1814- F.O. 63/167.

⁴¹- Report from the Select Committee on Import Duties, Moore and Saunders Testimony, July of 1840.

anxious to break the treaty, and on breaking it , they would give notice that they would entirely prohibit all British manufactures, unless Britain received Brazilian sugar.⁴²

The British merchants were particularly concerned because of the good record of the Brazilian trade and the British manufactures' dominance of the market. They had some competition from German hosiery; from French silk, from the increasing U.S. export of coarse unbleached cotton textiles, and printed muslin from France and Switzerland through French merchants. However the British tradesmen were more efficient, and carried out their business on a much larger scale, without dividing or subdividing as the French did. The French, their main competitors, imported many articles retail, and sometimes three or four had to join together to make one package. The Portuguese, who together with the French were the great retailers, relied mainly on buying products in the domestic market rather than competing in the foreign trade.⁴³

In France, as in Britain, there was concern about the tariff reforms which might be expected from Brazil, but Brazil in both absolute and relative terms was much less important as a market for the French than it was for Britain. Furthermore, as French products exported to Brazil were mainly bought by the luxury goods market and French

⁴²- *Report from the Select Committee on Import Duties*. See also the testimonies of Hume, Johnston and Cockshot on the Anglo-Brazilian trade.

⁴³- Informations based on the Testimony of Moore and Saunders in the *Report ...on Import Duties*.

retail merchants, any tariff barrier certainly would do less damage to this kind of business than to the huge British export of cotton goods, the consumption of which was widespread, reaching further than the richest segments of the society.

The first British reductions on tropical products import duties were restricted only to countries without slave labour. Such discrimination by the British against Brazilian products only became possible with the abrogation of the 1827 treaty in which Britain conceded to Brazil the position of most favoured nation in regard to all countries except the British colonies and protectorates. This was seen as an attempt to coerce Brazil into accepting a renewal of the treaty, which was strongly opposed by both Parliament and Government in Brazil. In fact the British Government failed in its several attempts to renew it, beginning with a special mission to Brazil in 1842. Later negotiations were resumed in London, but broke down in March 1843. These diplomatic steps were intended not only to obtain a favourable situation for Britain in commercial terms, but also to enforce the end of the slave trade, using the promise of lower tariffs for Brazilian sugar and coffee as an inducement.⁴⁴

⁴⁴- On the Brazilian position in relation to the British Pressure see the R.M.F./1845; on the negotiations over the end of privileges for British citizens see MANCHESTER A., *British Preeminence in Brazil, its Rise and Decline: A Study in European Expansion*, North Carolina, 1933.

Although some of the British merchants' fears regarding the customs tariff in Brazil were made reality by the Imperial Decree of the 12th of August 1844, which heavily increased the rigid old customs tariff, these tariffs were still far from being prohibitive. Actually a reduction of the endemic Brazilian fiscal deficit was no less an important objective than giving protection to Brazilian industry. Since Independence, Brazil always had problems in financing current expenses and as the tax on foreign commerce, particularly imports, was the basis of the Brazilian collection system, the custom tariff reforms offered a relief to the bad state of the public finances. For this reason, it was not wise to have a protectionist tariff so heavy as to prevent a normal flow of import trade and which might lead to a reduction in tariff receipts.⁴⁵

Actually the British Government ended by submitting to the domestic free trade lobby's pressures and soon began to implement laws equalizing duties on tropical products which would end accusations of unfair trade practices against England⁴⁶. This equalization was very

⁴⁵- In the next section I will discuss aspects of Brazil's fiscal deficit.

⁴⁶- Peel made reductions in the coffee tariff in 1842 and again in 1844, reducing it from 15d per lb foreign and 6d per lb colonial to 6d per lb foreign and 4d colonial. But the sugar tariff was more subject to pressure from the West Indian planters. In 1844 the duty on free-grown sugar remained unchanged. In 1845 the duty on free-grown sugar was again reduced to 23s per cwt and the colonial was reduced to 14 s. After the fall of Peel, Russell began to reduce the differentials in favour of colonial sugar which was to fall to 10 s per cwt of standard qualities and reduce the duty on foreign slave-grown sugar to that of free-grown sugar. The duties on coffee were equalized by 1851, and the sugar

advantageous to Brazilian exports: the average of Brazilian sugar imports for British domestic consumption increased about tenfold, from the yearly average of 1841-45 to that of 1846-50; coffee imports for British domestic consumption grew from a trifle of 1,226 lb in 1841 to 980,422lb in 1845, although Brazil never found a large consumer for her coffee in Britain, as this country was able, after the collapse of West Indian production, to substitute imports from Ceylon, which, after the 1840's, became the main supplier of the British market.⁴⁷

It took several decades for Britain to accept and practice free trade, as far as tropical products were concerned. In the eye of British legislation, the trade and navigation of the colonies were to be subjected and subservient to the interest of the mother country, and the latter, in return, would grant colonial products exclusive market preference in her home markets.⁴⁸ Britain was the biggest importer of sugar in the world, which was her leading import product from 1801 to 1831, when raw cotton

tariff was finally equalized only in 1854. See BETHELL, L. *Brazil from Independence to the Middle of the Nineteenth Century* in BETHELL, ed., *The Cambridge History of Latin America*, Cambridge, 1985, pp.727/728. See also REDFORD, A. *Manchester Merchants and Foreign Trade- 1794-1858*, Manchester, 1934,, pp.146/147.

⁴⁷- See BATISTA JR., P.N., *Política Tarifária Britânica e Evolução das Exportações Brasileiras na Primeira Metade do Século XIXth*, R.B.E., R.J, 34 (92):203-239, 1980.

⁴⁸- See LEVI, L. *The History of British Commerce and of the Economic Progress of the British Nation 1763-1878*, London, 1880, p.162.

took over ⁴⁹. In spite of Britain's potential as a buyer of Brazilian sugar, by 1832 76% of her sugar imports came from the West Indies..⁵⁰ A large consumer of tea, Britain did not import significant quantities of the other leading Brazilian staple, coffee, and most British coffee needs were attended by Jamaican plantations that were protected by very high tariffs until the 1840's.⁵¹

France also had a protectionist policy which greatly damaged Brazilian interests and she bought very few Brazilian goods despite being the second largest Brazilian supplier. Brazilian trade had been opened to France by a royal order on the 18th November, 1814, after peace had been made. Soon after, some expeditions were sent to Brazil from Bordeaux and Le Havre. The events of 1815 (the 100 days of Napoleon Bonaparte) interrupted the trade for a time, but it was quickly resumed without any loss or seizure of French properties or ships. Actually Brazilian and Portuguese merchants welcomed the competition of French products which gave them another option against the overwhelming hegemony of British merchants in the market.⁵²

In the beginning, although French products had a good reputation, they had to compete on an unequal footing

⁴⁹- After the 1830's sugar continued to be one Britain's three major import product. Data from WOODRUFF, *The Emergence of an International Economy*, p.663.

⁵⁰- *Ibid.*, table I, p.718.

⁵¹- REDFORD, *R Manchester Merchants and Foreign Trade -1794-1858*, Manchester, 1934, p.146.

⁵²- SAY, *Horace Historie des Relations Commerciales entre La France et le Brèsil, et Considerations Generales sur les Monais, les Changes, les Banques et le Commerce Exterieur*, Paris, 1838, p.63.

with those of British origin because of the differential taxation which benefitted British goods. This handicap lasted for the 11 years after the arrival of the first French ships until 1826, when France was able to exchange her recognition of Brazil as an independent country for a Brazilian-French commercial treaty which, among other advantages, equalled the tariffs paid on French and British goods.

French tradesmen were quite different from the average British merchant who came to set up business in Brazil. The latter, most of whom arrived in the first years after 1808, were rich men, partners in long-established merchant houses operating in the old Portuguese trade.⁵³ The French were mainly people who had previously depended upon the revolutionary regime because of their jobs or for political reasons, who looked to an overseas trade activity for an occupation and as a way to flee from their country, occupied by a foreign army. In Brazil as elsewhere, a great number of small merchants arrived from France with a pack of French products to sell at retail. Say described those men as:

"Administrators, military men, artists, high-minded souls who wanted to keep faith with illustrious unfortunates or who thought they could not live in a homeland occupied by a foreign army, they fled to the ports with some merchandise bought in the market, the first ship

⁵³- A good example of the typical British merchant is the sharp and well-educated Yorkshire merchant Luccock, a partner in the Luptons family commercial house. See Heaton's study of Luccock 'A Merchant Adventure in Brasil'.

that left was the one they took, it being of little importance where it was going."⁵⁴

The French called this 'commerce de pacotille' and this kind of enterprise did not look for huge profits, but only for the small merchant's own survival and that of his family. They arrived in Brazil in great numbers and the most successful of them established and dominated the retail commerce in luxury products. Thus, at first, these were France's most important export product.

According to Say:

"as soon as a ship arrived in Rio de Janeiro, The Brazilians sarcastically asked how many French merchants it brought, and they say the 'pacotilleurs' land by dozens."⁵⁵

As shown in table II.9, in the 1840's Britain remained the main supplier of goods to Brazil, far ahead of her main competitor, France. The other competitors after France were the U.S. and the German states, but these countries were a long way from challenging the other two, particularly Britain, which, in supplying about half of the country's imports, was easily Brazil's biggest trade partner.⁵⁶

All the facts listed above and the Tables II.10 and II.11 tend to support the idea that the failure of Brazilian exports in the first half of the XIXth century was caused just by the policies of the big powers of the period, particularly Britain, who - protecting her colonies' staples

⁵⁴- SAY, H. *Histoire des Relations Commerciales entre La France et le Brésil...*, p.58.

⁵⁵- Ibid, p.59.

⁵⁶- Data from AEB-IBGE, 1939-40.

- prevented a traditional exporter of tropical goods such as Brazil from increasing her participation in those expanding markets. So, it can be argued that the failure to meet the international demand could be due to external limitations of an imperialistic kind. However, there is an important gap this approach cannot explain: why could Brazil not win a larger share of the cotton market, a product that became by far the most important raw material in the world market?

TABLE II.9
BRAZIL:IMPORTS FROM SELECT COUNTRIES
(In thousands of pounds sterling)

YEAR	BRITAIN	FRANCE	U.S.A.	GERMANY	OTHERS	TOTAL
1842/43	2 740	680	665	278	1 293	5 656
1852/53	5 317	1 352	848	587	1 878	9 982
1862/63	5 564	2 015	662	589	2 038	10 868
1872/73	8 416	2 381	915	1 117	3 687	16 516

Source: Computed from IBGE: ANUARIO ESTATISTICO DO BRASIL - ANO V - 1939-40

TABLE II.10
BRAZIL:EXPORTS TO SELECT COUNTRIES
(In thousands of pounds sterling)

YEAR	BRITAIN	FRANCE	U.S.A.	GERMANY	OTHERS	TOTAL
1842/43	1 278	276	759	539	1 732	4 584
1852/53	2 820	495	2 650	408	2 045	8 418
1862/63	5 069	1 693	1 672	554	4 436	13 424
1872/73	8 298	1 960	6 593	1 717	3 824	22 392

Source: Computed from IBGE: ANUARIO ESTATISTICO DO BRASIL - ANO V - 1939-40

TABLE II.11
BRAZIL:TRADE BALANCE WITH SELECT COUNTRIES
(In thousands of pounds sterling)

YEAR	BRITAIN	FRANCE	U.S.A.	GERMANY	OTHERS	TOTAL
1842/43	(1 462)	(404)	94	261	439	(1072)
1852/53	(2 497)	(857)	1 802	(179)	167	(1564)
1862/63	(495)	(322)	1 010	(35)	2 398	2 556
1872/73	(118)	(421)	5 678	600	137	5 876

Source: Computed from IBGE: ANUARIO ESTATISTICO DO BRASIL - ANO V - 1939-40

NOTE: The numbers in Blackets are trade deficiencies.

Cotton is a native plant of the Americas. In Brazil it was found mainly in the Northern and Northeastern regions, particularly in the area from Maranhão to Bahia. Before the machine era English cotton goods were made on a linen warp, as cotton could not be spun strong enough for the warps, and by the middle of the XVIIIth century it was obvious that the English were finding it increasingly difficulty to obtain cotton and even linen yarn. Britain made several attempts to develop her source of supplies, trying also to cut her rival France from access to raw materials in the East and in the West Indies ⁵⁷. In the 1780's British merchants were concerned that their traditional source of cotton, the British West Indies, was not sending adequate consignments of better quality staples required for cloths of an intermediate quality, such as velverets. They wanted the British West Indies to grow more

⁵⁷- KNOWLES, L.C.A. *The Industrial and Commercial Revolutions in Great Britain during the Nineteenth Century*, London, 1930, pp.41-43.

cotton and to improve the quality of their supplies "in order that we may have from our own Islands the raw material in such perfection, as we are under the necessity of drawing from other foreign powers".⁵⁸

As the West Indies governors were attempting to encourage the cultivation of cotton, the Board of Trade send Anton Pantaleon Hove, a Polish botanist, to India, to investigate the methods of cultivating the surat variety of Bombay, which was the most expensive cotton in the British market. Hove shipped to London several seeds, and in consultation with manufacturers and planters in the West Indies it was discovered that Persian seeds could be grown quite successfully in those British possessions.⁵⁹ Africa was also considered as a source of supply and cotton seeds were send to Gambia, Cape Coast and other regions which were considered suitable for cotton growing.⁶⁰ Imports from the British West Indies increased rapidly during the 1780's and early 1790's. However, the British West Indies were unable to supply the fast-growing needs of the industry. The land in the older areas was virtually exhausted and could only yield small crops. The Jamaican soil was also largely unsuitable for cotton. The large sugar plantations were making satisfactory profits for their cultivators who were reluctant to go over to cotton. In Barbados and the Bahamas,

⁵⁸- Petition of the merchants Hilton and Frodsham to the Board of Trade. See EDWARDS, M., *The Growth of British Cotton Trade 1780-1815*, Manchester, p.76.

⁵⁹- See EDWARDS, op.cit., p.77.

⁶⁰- Ibid.

where the gin had been introduced in the late 1780's, the exports increased rapidly until about 1790 after which they declined sharply due to unfavourable climatic factors and insect attacks.⁶¹

British merchants and manufacturers had thus to continue to search for alternative sources. Production of cotton in Africa had a limited response, and from India only limited quantities of finer Indian raw cotton arrived in Britain, since this was consumed locally supplying the production of India muslins.⁶²

At the time Brazil seemed to be the most hopeful source. Brazilian cotton, a tree-grown variety which yields a long staple fibre, rated with the best staples from India, enabled spinners to make the high counts necessary for the luxury cloths.⁶³ Therefore, "it was Brazil that provided the muslin and velveret trade with part of the better quality cotton wool which it had searched for in vain in the West Indies, India and Africa".⁶⁴

⁶¹. Ibid., pp.79/80.

⁶²- CHAPMAN, S.D., *The cotton Industry in the Industrial Revolution*, second Edition, London, 1987, p.36.

⁶³- See EDWARDS, op.cit., p.84; See CHAPMAN, S.D, op.cit.. According to LEFF between 1811 and 1855, the long-staple fiber variety commanded a price premium of 25-35% from 1811 to 1855 over the short-staple cotton produce in the U.S.. LEFF, op.cit, vol II., p.13.

⁶⁴- EDWARDS, OP.CIT., P.83. Edwards' book is a very interesting and well documented study on the British cotton trade being an important source of information on the role of Brazil and the U.S. in the supplying of raw cotton to Britain. According to this author the increased supply of Brazilian cottons after 1788 played a part in the expansion of the finer British muslins trade.(op.cit., p.84)

The commercial exploitation of cotton in Brazil, particularly in Maranhao, in the last decades of the XVIIIth century, was a big success and the export of Maranhão cotton grew tenfold from 1760 to 1783 ⁶⁵. However, her exports were quickly superseded in the 1790's by the rapid expansion of cotton in the Southern plantations of the U.S.A.

Until the early 1790's U.S. exports of cotton were insignificant, as can be seen in table II.12. U.S. merchants and planters were aware of the increased market opened by the expansion of the British cotton trade and the manufacturers's search for greater supplies of a suitable raw material. U.S. planters tried, in the beginning, to cultivate a long staple type of cotton (similar to the Brazilian type) called Sea Island cotton. This variety increased its production quickly in the islands off the coast of Georgia and South Carolina and in the adjacent mainland. Technical improvements were introduced in the early 1790's which increased productivity per acre threefold.⁶⁶ However, the fine Sea Island cotton could only be raised on the islands and on a small section of the adjacent mainlands. There were numerous attempts to introduce Sea Island crops into the interior, but they were unsuccessful,

⁶⁵- See ALBUQUERQUE, R.H.P.L. de, *Capital Comercial, Indústria Têxtil e Produção Agrícola S.Paulo/Brasília*, 1982, p.67; See Also FURTADO, C. *Formação Econômica do Brasil*, pp.89/92.

⁶⁶- This improvement was a new ridge method of planting the seeds more thickly which was brought by a planter from Bahamas. See EDWARDS, op.cit., p.90.

making many planters discontented with the limited possibilities of its cultivation.⁶⁷

TABLE II.12
U.K: IMPORTS OF COTTON WOOL
(Millions of l.b.)

YEAR	BRAZIL	U.S.A.	W.INDIES	OTHER	TOTAL
1780	-	-	2.0	4.	6.8
1781	0.3	-	3.1	1.7	5.1
1782	0.3	-	6.3	5.2	11.8
1783	0.1	-	6.1	3.5	9.7
1784	0.9	-	6.9	3.6	11.4
1785	1.6	-	8.2	8.6	18.4
1786	2.1	-	7.8	9.5	19.4
1787	2.5	-	9.4	11.3	23.2
1788	2.3	0.2	12.2	5.7	20.4
1789	4.8	0.5	12.0	15.2	32.5
1790	5.5	0.4	13.2	12.3	31.4
1791	7.2	Nil	11.8	9.7	28.7
1792	7.7	0.1	12.0	15.1	34.9

Source: EDWARDS, M., *The Growth of British Cotton Trade*, op.cit.. MITCHELL, R.R., *British Historical Statistics*, Cambridge, 1962.

The alternative was to growth on the mainland short staple cotton. But it was the invention of the saw-gin in 1793 that made possible its rapid development. Whitney's gin, by its peculiar suitability for handling short-staple cotton, effectively opened the interior of the southern states of the U.S.A.⁶⁸

⁶⁷ - Ibid.

⁶⁸ - See FARNIE, D.A., *The English Cotton Industry and the World Market - 1815-1896*, Oxford, 1976.

The upland U.S. cotton was not adequate to produce very fine yarns; however, it was stronger than the long staple variety, and was best suited for the production of the cheaper and intermediate yarns. It was also easier to spin by machine than comparable varieties of Brazilian or West Indian cottons - it meant that it was admirably suited to be used in the cheaper calicoes and muslins. And when U.S. production began to dominate the market, particularly after the turn of the century, it brought down the prices of all kinds of cotton.⁶⁹

Nevertheless, despite the falling prices, the U.S. planters made huge profits growing cotton. Edwards collected two examples of the effects of the gin on individual planters that is also very useful to demonstrate this point.⁷⁰

In 1782 Joseph Clay bought Royal vale, a rice plantation in the Chatham county, Georgia, where he grew rice until 1793, when, encouraged by news of the gin, he borrowed \$92,000, most of which was used to buy more slaves, convert some land to cotton growing, and to instal several gins for himself and his neighbours. Before 1800 he had repaid the loan, refurnished his house, built new quarters for his slaves, and installed new equipment.

Peter Gaillard of South Carolina bought in 1774 a good indigo plantation along the coast, but was not in a position to develop it until after the war. Due to the

⁶⁹- Ibid. See also Edwards, p.94.

⁷⁰- Ibid., pp.90/91.

removal of the English export bounty on indigo by 1790, the estate was worthless. In 1794 Gaillard bought some land on credit in the middle of South Carolina; under pressure from a difficult economic situation, Gaillard had tried to cultivate cotton since 1796. By 1800 he was out of debt and in 1803 he was building a mansion on his plantation.

By the turn of the century Brazil was still an important supplier of cotton to Britain and exporting not much less than the U.S., as shown in table II.13. However, rising productivity allowed the U.S.A. crop to rise from 2 million lb to 182 million lb in 1821 despite declining prices. In Brazil no technical improvement was introduced and also, due to the inadequate financial system, the planters depended on credit from merchants, which was not always enough to attend to all the needs of an increasing production, to supply slaves and other products for their farms. So, in this environment, cotton operated as a complement to the subsistence economy⁷¹. Although Brazilian cotton exports continued to grow until 1820, Brazilian cotton became increasingly less important for the European consumer.

⁷¹- See ALBUQUERQUE, R.H.P.L. de, *Capital Comercial, Indústria Têxtil e Produção Agrícola* S.Paulo/Brasília, 1982, p.67; See Also FURTADO, C. *Formação Econômica do Brasil*, pp.89/92 and p.122..

TABLE II.13
U.K: IMPORTS OF RAW COTTON

YEARS	FROM BRAZIL		FROM THE U.S.	
	SACKS	TON	SACKS	TON
1800	30,593	2,294	40,342	3,026
1801	37,900	2,843	51,447	3,859
1802	72,600	5,450	105,187	7,889
1803	70,263	5,270	103,063	7,730
1804	45,739	3,340	102,174	7,663
1805	52,141	3,911	122,078	9,156
1806	47,802	3,585	124,092	9,307
1807(*)	18,981	1,424	171,267	12,845

SOURCE: ALBUQUERQUE, R., 'Capital Comercial, Indústria Textil e Produção Agrícola', op.cit., p.34.

Obs: 1 sack= 5 arrobas = 75 kg

(*)- The small figure for 1807 must be attributed to the continental blockade and does not reflect a fall in Brazilian production.

A contemporary book by a Maranhense farmer, Raimundo José de Sousa Gayoso, written in 1813, has an interesting account of the cost of production of cotton crops, showing that, in contrast with the U.S. case, prices paid for them by British commercial houses were insufficient to pay for their cost. He accused them of price manipulation in order to make huge profits at the expense of local producers.⁷² In fact, as cotton prices continued to decline, and the price of black slaves increased due to the demand for labour for the growing coffee plantations in the South, the decay of the Maranhense cotton plantation became inevitable.

⁷²- GAYOSO, J. de Souza, *Compêndio Histórico-Político dos Princípios da Lavoura do Maranhão*, Paris, 1818.

This is a good example of how the same external fact - the increasing demand for cotton - affected two potential suppliers differently. In the U.S.A., technical progress and the almost unlimited supply of land - particularly after the purchase of Louisiana in 1801 - allowed increasing production at declining prices. This responsiveness of the U.S. planters led to a highly elastic supply of cotton, clearly a crucial factor in the phenomenal growth of the British cotton industry in those years. It was also an important element in the development of the U.S. economy, in so far as, by 1860, cotton accounted for almost two-thirds of total U.S. exports⁷³. On the other hand, the opportunity opened by the increasing demand for cotton, as a result of the Industrial Revolution, was lost in Brazil. In this country declining prices were not answered with attempts to increase productivity, but with a feeling of being compelled to deliver a good at a price below its value. The planters' inability to make improvements led them to keep to a small share of the raw cotton international market, only increasing their production when there was an international crisis in cotton supply, such as the U.S. Civil War. Also, their high production cost gave them smaller profits than those found in other regions. This prevented them from investing and improving future competitiveness, and so, as shown in Table II.14, Brazil had

⁷³- See CHAPMAN, S.D. *The Cotton Industry in the Industrial Revolution*, p.36; see, also, WOODRUFF, W. 'The Emergence of an International Economy', p.659.

her share of the international cotton market reduced not only in relation to the U.S. but also in relation to other countries.

The constraints of the domestic economy that affected the competitiveness of Brazilian cotton can be seen even when this crop was introduced in S.Paulo, after 1850, as an attempt to develop the same U.S. short staple variety. The U.S. advantages were clearly perceived by H.Brown, a U.S. envoy to Brazil in 1870. He verified that the Brazilian cotton yield in S. Paulo region under the best cultivation was a bale of 450 pounds to the acre. The quality was excellent, the crop uncertain. The labour was far inferior to that of the Americans and much more expensive. This difference arose from the great profit in growing coffee, the fact that if well cultivated it seldom fails, and the superior advantages of Brazil over other countries in producing it cheaply. He observed that the most skillful cotton planters in Brazil were U.S. immigrants, who came to Brazil during the U.S. civil war, and their improved methods of working had attracted great attention. However the distance to the plantation from the market and the high cost of rail and mule transportation added greatly to the cost, and tended to prevent the rapid expansion of the culture⁷⁴.

Blow recorded that the cotton was sold in Santos at twenty cents per pound in gold, with a cost of production of about 13 cents per pound. To realize this profit, small

⁷⁴) H.T. Blow, U.S. Commercial Report, July 20, 1870.

farmers as well as labourers had to live in the most frugal manner, "for the simple reason that provision of all kinds are extremely scarce and high in every portion of the empire"⁷⁵. The U.S. envoy noted that as early as 1851 a proposition not to sell cotton under 8 cents per pound was rejected at a convention of the cotton planters in Macon Georgia and that the average price in New Orleans was less than this price from 1840 to 1850. As the U.S. was rapidly returning to the old prices for many of its agricultural products and as cotton prices were falling while its yield per acre was increasing, he maintained that the U.S. should not be afraid of Brazilian competition. Blow's conclusions were precise and show the exact difference between U.S. and Brazilian agriculture, that is, the greater efficiency of the whole U.S. economy was what made the decisive difference in competition between the two countries.

Thus, according to him:

" That so long as we raise cheap food, and the flow of emigration continues, no nation at present engaged in the cotton culture can produce it more cheaply, nor can any nation relying in our raw cotton manufacture the same quality of goods at lower prices".⁷⁶

Thus, what made the difference was not only the quality of the land to raise cotton (Brazil actually had very good land for this crop), but also the whole operation of the economy: the availability of labour, the cost of transport, the technology of production etc.

⁷⁵) Ibid.

⁷⁶) Ibid.

It is therefore misleading to consider the expansion of exports as an independent variable to explain the performance of the economy. Thus, the Irving Kravis thesis, which criticized Nurkse's proposition that trade was an 'engine of growth', and claimed instead it was a 'handmaiden of growth' is the best explanatory model for the comparison of the U.S. success as an exporter and Brazil's failure. ⁷⁷

The main idea of Kravis' thesis is that, if there was an increase in the demand for tropical products, food and raw materials as a result of European expansion, the success or failure of individual countries to meet this demand could not be attributed to external causes. The export success of any individual country was, to a large extent, the result of its capacity to be more efficient than its competitors; that is, its capacity to produce the goods on demand at a better price and in the quality and volume required by customers.

⁷⁷- See KRAVIS, I. 'Trade as a Handmaiden of Growth: Similarities Between the Nineteenth and Twentieth Centuries', op.cit.

TABLE II.14

**RAW COTTON SUPPLY FROM BRAZIL AND OTHER SUPPLIERS
OF IMPORTS TO BRITISH, U.S. AND EUROPEAN MANUFACTURING
(In millions of lb, annual averages)**

PERIOD	BRAZIL	EGYPT	U.S.A	OTHER	TOTAL	BRAZIL/ TOTAL*
1836-40	25	30	586	70	711	3.5
1841-45	19	24	816	82	941	2.0
1846-50	24	30	964	93	1 111	2.2
1851-55	27	60	1 255	141	1 483	1.8
1856-60	28	57	1 634	215	1 934	1.5
1861-65	36	191	532	506	1 265	2.9
1866-70	100	191	1 109	610	2 009	5.0
1871-75	109	238	1 682	581	2 610	4.2
1876-80	44	269	2 232	423	2 967	1.5
1881-85	54	293	2 717	552	3 616	1.5
1886-90	52	302	3 170	597	4 121	1.3
1891-95	51	456	3 774	467	4 747	1.1
1896-1900	25	576	4 595	316	5 511	0.5

SOURCE:LEFF,N, Underdevelopment and Development in Brazil, second volume,, p.13.

*- Brazil raw cotton supply as a percentage of total raw cotton supply.

Thus, it is again relevant to make a comparison with the U.S.A, which was actually Kravis' case study. For that country, which was known to be successful as an exporter of several raw materials and food products during the XIXth century, exports remained a small and relatively constant proportion of the GNP and changes in exports tended to lag behind changes in G.N.P.⁷⁸ Nevertheless this

⁷⁸- Ibid.,p.853. For a similar approach to the Canadian and Australian cases see FOGARTY, 'Staples, Super-Staples and

country was able to use the opportunities opened in the international market to boost her economy. In the case of grain, for example, it was the rapid internal development of the U.S that enabled this country's grain to push its way into the United Kingdom market, and even into the traditional export areas of Continental Europe by the end of the century. That is, the same exogenous phenomenon - U.K increasing imports of wheat- provoked different responses in different countries. The traditional suppliers of U.K, France and Germany saw their exports share decline rapidly, Russian exports revealed no trend and the U.S. was the country that most benefited from British imports.⁷⁹ The rapid internal development of the United States - the settlement on Western lands, the coming of the railroad, the reduction of ocean freights- all contributed to the success of the low price U.S. grains in entering the U.K market and in the closing decades of the century to this invasion of the continental markets.⁸⁰ But most importantly, as Williamson's study of Midwestern grains and U.S growth has shown, this was achieved despite continuous decline in the world market price of grains after 1870.⁸¹ However, in spite of these falling prices, U.S. grain exports soared, midwestern farming boomed and the U.S.A. successfully

the Limits of Staple Theory: The Experiences of Argentina, Australia and Canada Compared' in PLATT, D.C.M. & DI TELLA, G. *Argentina, Austrália & Canadá: Studies in Comparative Development, 1870-1968*, Oxford, 1985.

⁷⁹- KRAVIS, I 'Trade as a Handmaiden of Growth', op.cit., p.857.

⁸⁰- Ibid.

⁸¹- WILLIAMSON (1980), P.209.

exploited a key staple in spite of deteriorating world market conditions. The result was a significant net contribution to U.S. growth performance in the decades following the Civil War, which we cannot say was the result of exogenous changes in the international demand for grain, but the result of increasing productivity in the domestic economy which made the country more efficient and able to expand its share of international trade.

If the U.S.A was a success not only in the export of cotton, but also in the export of other commodities, such as was shown above in the case of grain, Brazil was a failure not only in cotton, but also in the export of other commodities, such as sugar, even after free trade laws were introduced in Britain. Thus, by the 1870's it could already be seen that the reason for the lack of a better performance by Brazilian sugar exports was the traditionalism of the planters who refused to modernize and all the financial, political and economical problems that hindered the Brazilian economy. In this way, the U.S. consul at Bahia noted in 1874 that, although the sugar planters of the region blamed the need for slave-labour for the origin of their crisis, he could see several other problems that had severely affected business:

" The rude manner of its (sugar) preparation and the inferior quality of the article, owing to the fact that the planters will persist in pursuing the old manner of making sugar, and positively refuse to adopt new systems of production, or new improvements in machinery for cultivation, the cost of getting the crop to market owing to the want of facilities of

transportation, the cost of shipping at this port; the gradual diminution of slave-labor, together with the provincial and imperial export duty of 12%, will, it is feared, render Bahia sugar planters ultimately unable to compete with other markets in the production of this article."⁸²

This lack of entrepreneurial spirit among sugar cane planters is well known. Although suffering increasing competition and already incapable of modernizing themselves, they continued in the same region to live "in a stragant style, passing half the year in the city upon voyages, having splendid residences in town and upon their estates, and quite satisfied if their yearly revenue is sufficient to meet their expenditure."⁸³ The failure to modernize the production of sugar in the XIXth century has already been widely studied and I have no new contribution to make to this debate; however, it helps to underline my argument that, in the Brazilian case, the domestic economic structure can help to explain the failure of the performance of her exports.

II.3-CONCLUSION

In this chapter I have shown that (i) the Brazilian economy did not grow in the first half of the XIXth century, and had a small per capita growth in the second half; (ii) Brazil failed as an export country due not only to the tariff imposed on her by her largest potential

⁸²) Commercial Report, November 1874, consul, Richard A. Edes, Bahia.

⁸³) Ibid.

importers, but also due to her own incapacity to increase her productivity in staples, such as cotton.

As will be made clear throughout this thesis, its emphases are on the microeconomic aspects of development as far as this approach is consistent with our proposition that we should look at the domestic aspects of the economy; the domestic inability to overcome the barriers to change - expressed in the wrong decisions of economic and political agents - is an important point to understand better the phenomenon of the Brazilian failure to achieve economic development in this period. By the same token, I will show that this failure in economic growth of the Brazilian economy is linked not only to Brazil's failure as an exporter, but also to the inability of the Brazilian economy to overcome the barriers that hindered its development in the domestic economy, which led to the failure of early attempts to develop manufacturing in Brazil (chapter III) and also to the low level of monetization of the Brazilian economy and its underdeveloped domestic market (chapter IV).

As a consequence of the failure of Brazilian exports, shown in this chapter, from Independence to the end of the 1850's the Brazilian trade balance was always in deficit (See table II.15).⁸⁴ As the protection of British colonies imposed high duties on Brazilian tropical product

⁸⁴- The Brazilian Foreign Trade data is published in the IBGE publications 'Estatísticas Históricas do Brasil', R.J., 1987, and in the Reprint n of the 'Series Estatísticas Retrospectivas', R.J., 1986, which was originally published as an Appendix of the Anuário Estatístico do Brasil - 1939/40.

exports, in order to make business viable, British merchants had: (i) to sell Brazilian products to third countries, receiving as payments letters of exchange payable in London⁸⁵; (ii) to rely on the money market to finance British exports or to make loans to finance the trade deficit. Actually the structure of the London financial market, with merchant banks, bill brokers for country banks, discount houses and the sophisticated financial operations controlled by the Bank of England, all ensured a huge amount of available resources and the technology that made the international operations of the London merchant banks possible. This structure set up conditions for a spiral of growth in financial operations abroad that became detached from the amount of bullion available for international remittance.⁸⁶ The energetic London market made it viable to

⁸⁵- J.B.Moore and C.Saunders, Liverpool merchants, stated to the House of Commons that about 2/3 of the exports of coffee from Brazil to Europe was in the hands of British merchants, but because of the high duties on coffee from Brazil, no coffee came directly for consumption in Britain. They also observed that an increasing share of the Brazilian coffee exports went to the U.S.- about 1/3 of the total by 1840- but the largest market was already in continental Europe, and Britain consumed only the small share that came via the Cape. They also remarked that duties on sugar affected their trade with Brazil in the same manner as coffee. The British merchants were obliged to send all Brazilian sugar to the Continent with the exception of a small quantity, used in England for refining. See 'Report from the Select Committee on Import Duties' P.P. 1840 (601)V.99. Testimony, July of 1840.

⁸⁶- Thus, Swinton Holland, the managing partner of the House of Baring Brothers and Co, in his testimony to the House of Commons Committee, when asked to estimate the value of bullion sent from Britain as a consequence of foreign loans, was able to answer that his house never sent an ounce of either gold or silver out of the country, on account of foreign loans, and that he doubted if anyone did. He explained that the loans were effected in the currency of

supply products independent of adequate returns from countries such as Brazil. The London money market not only made British trade with Brazil possible, but also the trade of her competitors. After trade with France was opened, and particularly after the Franco-Brazilian treaty put this country in a position of competition with similar tariff advantages to that granted to Britain, it was the London financial market which enabled France to maintain her huge surplus with Brazil and become the main British competitor in spite of her protectionist colonial policy and the absence of returns for French products.⁸⁷ The London financial market occasionally showed an euphoric boom followed by a sudden crisis; this happened at least once in every decade - there was financial panic in 1825, 1837,

the country in which the loans had been made, that is, that the payment of such a loan was effected in Bills of Exchange. In his testimony he showed how the London market operated as a clearing house to balance credits and debits in trade transactions among several countries. See 'Reports from the Secret Committee on the Expediency of the Bank resuming Cash Payment', London 1919.

⁸⁷- Thus, in the 1830's the son of J.B. Say, Horace Say, who had come to Brazil after the war as a tradesman, explained how the French trade was financed in the following way: "...as he can make remittances neither of sugar nor of coffee to France, the merchant of French manufacturing goods obtains in Rio de Janeiro as a return a letter of exchange payable at London; this remittance is sent by post to Paris, or it is traded i.e., sold, in the spot. This letter of exchange might then be bought by a Parisian metal merchant who had made a remittance to a London banker, to pay for a credit that was opened in London in favour of a Saint-Petersburg tradesman, who, on his side should deliver copper ingots. In this case, the copper that arrived from Russia was for France, the return of the French goods sent eighteen months before to Brazil. SAY, H. *Histoire des Relations Commerciales entre La France et le Brèsil*, p.63.

1847, 1857 and 1866.⁸⁸ As will be shown in chapter V, after one of these crisis, that of 1857, changes in the structure of the British financial market prevented the merchants, particularly British merchants, to continue to finance importers, in countries with deficitary balance of payments, by bills of exchange discounted in the London market. From that period on, Brazil became less and less an important consumer market and merchants' interests moved toward investments in the export sector, particularly coffee, where production and exports were increasing quickly.

TABLE II.15
BRAZIL:DECENNIAL TRADE BALANCE
(in thousands of pounds sterlings)

PERIOD	EXPORTS	IMPORTS	TRADE BALANCE
1821-30	39 097	42 520	(3 423)
1831-40	49 205	54 291	(5 086)
1841-50	54 680	60 999	(6 319)
1851-60	102 007	115 280	(13 273)
1871-80	149 433	131 866	17 567
1881-90	220 725	192 361	28 364
91-1900	291 017	252 817	38 200

SOURCE: Computed from IBGE: ANUARIO ESTATISTICO DO BRASIL - ANO V - 1939-40

⁸⁸- An account of these crisis can be found in the works of LEVI, L *History of British Commerce*, London 1880; and in JENKS, L.H., *The Migration of British Capital to 1875*, London 1938.

CHAPTER III:
MANUFACTURING AND PRE-REQUISITES TO INDUSTRIALIZATION
IN BRAZIL

III.1-INTRODUCTION

In this chapter I sustain that (i) early attempts to develop manufacturing in Brazil failed; in the first half of the XIXth century the failures i.. the export trade and the curbs on the domestic market combined to present a picture of stagnation and economic recession.

(ii)- There were three main obstacles that entrepreneurs had to overcome when setting up manufacturing firms. The first was the underdeveloped free labour market; the second was the small domestic market and the third was the problem of financing manufacturing activities.

(iii)- Governments hindered private entrepreneurship and blocked the development of the economy: The state in Brazil did not make investments or support legislation that could encourage domestic trade, the state had neither a positive role in the financing of manufacturing industries nor a liberal monetary policy, which might have enlarged the domestic market, developed private financial companies and the monetization of the economy.¹

We cannot start a discussion of manufacturing in XIXth century Brazil, however, without making explicit our position with regard to two essential theoretical questions in economic development: (i) the question of unity or plurality of the path to economic development; and (ii) the

¹- This point will be discussed in depth in chapters IV and V.

relationship between exogenous and endogenous forces leading to economic changes or stagnation.

I will discuss three approaches to these questions: (i) Rostow's theory of the take-off into self-sustained growth; (ii) the 'cepalista-dependentista' approach; and (iii) Gerschenkron's theory of multiple paths to industrialization.

Rostow's model proposes an unchanged pattern of modernization for all nations based on external stimuli and internal preparation until a given moment when the economy is ready to take-off. This model leaves little room for differing forms of industrialization and gives strong emphasis to exogenous variables, as the source that unbalances stable economies and opens space to economic changes.

According to this model the process of establishing preconditions for take-off can be generalized from the study of a traditional society in process of change. The starting point is a stable and traditional society containing a mainly agricultural economy, using more or less unchanging production methods, saving and investing productively little more than is required to meet depreciation. The element of change is generally determined exogenously. This change is characterized by the widening of commercial markets for agricultural products, domestic handicrafts and consumption of imported goods. In this process basic capital is expanded, notably in transport and

communications, often to ease the sale of raw material and financed by foreign capital. Institutions to mobilize capital appear and enterprising men take risks in pursuit of profit. Productive investment rates rise, producing results which will depend on the other characteristics of this society. One possible outcome is that by this time, since public health measures are enormously productive in their early stages of application, the death rate may fall and the population begin to rise, putting pressure on the food supply and the institutional structure of agriculture, creating an economic depressant or stimulus (or both in turn), depending on the society's response. If, in view of traditional low-productivity techniques and old values and institutions, this level of investment is only enough to keep ahead of the population increase, the rural proportion of the population is likely to remain unchanged and little further change will follow. On the other hand, in nations rich in natural resources, with a highly favourable balance between population and natural resources and with a population drawn by emigration from reasonably advanced societies, there is no major problem in overcoming traditional values inappropriate for economic growth, and there is less difficulty in developing an elite effective in the investment process. In this case there is no population problem. Thus, in this type of society, where internally a previous preparatory stage has taken place, a positive external stimulus, such as a newly favourable international

environment, or a negative one, such as war-time blockade of foreign trade, can lead to a self-sustained and self-reinforcing economic response from the society, which in turn will lead to higher rates of investment and of economic growth.²

The 'Cepalista-Dependentista' approach is a traditional reaction to Rostow's theory. It refutes his view of a continuous stream of countries arriving at a moment of suitable domestic conditions for take-off. They argue that in fact underdevelopment actually appeared together with development, so that both are sides of the same coin. Thus, integration in the world economy of peripheral economies did not lay the foundations for self-sustained growth, but, on the contrary, led to modernization under conditions of dependence. Thus, the relationship between external and internal forces formed a complex whole whose structural links are not based on mere external forms of exploitation and coercion, but are rooted in coincidences of interest between local dominant classes and international ones, albeit challenged by local subordinate groups and classes. This integration in the world economy led, therefore, to external domination in a situation of national dependency as opposed to purely colonial situations where oppression by external agents is more direct and where the possibility of the 'internalization of external interest' is not implied.³

²- ROSTOW, W, W, *The Stages of Economic Growth: A Non-Communist Manifesto*, Cambridge, 1962.

³- To summarise the 'cepalista-dependentista' approach I am using the work of CARDOSO & FALETTO *Dependency and*

Gerschenkron's main point is that there is not one but several paths to economic and industrial development. According to him, the concept of prerequisite of industrialization is loosely defined - that is, it is not possible to distinguish factors created during the industrialization process from those which had to be created before a country could embark upon the process of industrialization ⁴. So England's industrialization, the classical case, was a totally spontaneous process resulting from the country's high level of accumulation and development, and quite independent of all external factors. In continental Europe there was a different process. The distinguishing feature in the development of other Western countries and of Central European countries was the role of the banking system and bank financing. The banking system was a means of collecting the capital to be found in these economies; it induced the modernization of the economy, particularly rapid industrialization. In the more backward countries of Eastern and Southern Europe - in Russia,

Development in Latin America, University of California Press, 1979. This is the most complete approach to the question of dependency in Latin America, under a cepalista approach. This book influences also post-cepalista approaches, such as the 'escola de Campinas Approach', originally developed by works of former cepalistas, such as MELLO, J.M.C. de, *O Capitalismo Tardio*, S.Paulo, 1982, and TAVARES, M. DA C., *Acumulação de Capital e Industrialização no Brasil*, Rio de Janeiro, 1974.

⁴- "The line between what is a precondition of, and what is a response to, industrial development seems to be a rather flexible one. It might be possible to indicate some regularities according to which the relevant phenomena might be found on the one or the other side of that line". GERSCHENKRON, A., *Economic Backwardness in a Historical Perspective*, New York, 1965, p.33.

Bulgaria, and the Eastern regions of Austria-Hungary, including Hungary - it would not have been enough to collect resources through the banking system, so, in this case, called by Gerschenkron the 'Russian type of industrialization', there is energetic state intervention. To conclude, what is relevant to research under the Gerschenkronian approach to economic development, is not the availability and the rise of the pre-requisites to industrialization, but the identification of the internal dynamics which are able to create mechanisms to substitute the missing prerequisites. This is so, because the industrialization process launched in a backward country is considerably different from that in more advanced countries. These differences in the speed and character of industrial development are, to a considerable extent, the result of application of institutional instruments for which there was little or no counterpart in an established industrial country.⁵

In spite of the strong ideological differences between the Rostowian and Cepalista approaches - as well as opposite views on the relationship between a tendency to diffusion or a tendency to concentration of the fruits of capitalism - there are important points of similarity between the two views. Both theories agree that there is one general model to economic development; however, for Rostow, the ensuing industrialization will spread to the whole

⁵- GERSCHENKRON, A, *Continuity in History and Other Essays*, Cambridge, Massachusetts, 1968, p.7.

world, given enough time and freedom for the operation of market forces; the Cepalistas sustain that the same economic and political forces that led to the development of some countries led to the underdevelopment of others- they are just one phenomenon. Both theories agree that economic changes are determined by forces essentially exogenous to the traditional economies; thus the process of growth is characterized by well-defined phases where external shocks and domestic responses contribute to allow or delay economic changes.

In this thesis I follow Gerschenkron's analysis supporting his view that there is not just one model for economic changes. I am not convinced that the lack of dynamism in the Brazilian economy is either due to the absence of prerequisites to industrialization or that this happened due to the integration of the Brazilian economy in international capitalism as a peripheral country. This does not mean that those prerequisites are not important aspects or that imperialism is a meaningless word. However, lack of prerequisites must be overcome, and it was overcome in several countries able to begin an industrial revolution during the XIXth century; also, a peripheral position in world capitalism did not prevent several countries, most of them exporters of primary products for a long time, from using their position to absorb investment or sell products that contributed enormously to their economic development. I see the changes in the international economy due to the

Industrial Revolution as a challenge and an opportunity; but countries in different situations were affected differently by those changes and were - or not - able to take up that opportunity or to accept that challenge. Their answers depended on their level of backwardness and capacity to overcome their missing prerequisites to development. We cannot determine a priori if one country will succeed or not in this process; this will depend on objective and subjective conditions. For this reason the study of special cases is essential for the understanding of a country's individual reasons for failure or success. Consistent with this view, in this chapter I will (i) describe manufacturing activities in Brazil in the first half of the XIXth century and compare it with manufacturing in the last years of the empire; (ii) Describe the barriers to industrial growth and put forward some propositions attempting to explain why Brazil failed to overcome these barriers or, in a Gerschenkronian language, why she was unable to substitute the missing prerequisites for industrial growth.

III.2-MANUFACTURING IN BRAZIL DURING THE XIXTH CENTURY: A SURVEY

On April 1st, 1808, the Portuguese Prince Regent repealed the 1785 charter forbidding the establishment of manufacturing industries in Brazil. At that time he also approved legislation that would facilitate the establishment of factories, authorising, for example, that raw material

imports could be made without payment of tax.⁶ The Portuguese administration attempted, at this time, to set up some strategic industries. A state-owned gun powder factory was established at Rio de Janeiro and the Count of Linhares, D.Rodrigo Antonio de Souza Coutinho, governor of Brazil from 1807 to 1812, hired a former German lieutenant, Varnhagem, who had fought against the invading French army in Portugal, to examine the iron ore mines of Sorocaba, S.Paulo, and evaluate the possibility of setting up an ironworks in this area.⁷

However, under Portuguese administration, during the whole First Empire and Regency period, there was no real progress in manufacturing in Brazil: nearly forty years later, already in the Second Empire, when the Alves Branco tariff came into effect in 1844, as the first practical result of the end of the Anglo-Brazilian treaty, only a few manufacturing firms existed in Brazil, nearly all of which relied on human effort with no - or very simple - tools and machines, and all concentrated in Rio de Janeiro, Minas,

⁶- There is a large bibliography on the economical and political changes brought by the coming of the Portuguese Royal family to Brazil. Among these I shall mention two classics: LIMA, Oliveira, *D.João VI no Brasil*, on political, historical and social aspects of this period in Brazil; and LUZ, Nícia Vilella da, *A Luta pela Industrialização no Brasil*, on D.João's attempts to set up manufacturing industries in Brazil. As a contemporary work it must be mentioned the book of Luiz Goncalves dos Santos, known as Padre Perereca, *Memorias para Servir a Historia do Reino do Brazil*, published in 1825.

⁷-See FELICISSIMO Jr., J. *História da Siderurgia em S.Paulo*, S.Paulo, 1969.

Bahia and Pernambuco⁸. There were also various craft activities in cities or in farms that produced simple objects such as shoes, ready-made clothes, coarse cotton textiles etc, a feature common to all agrarian societies.⁹ But this latter craftwork not only was very far from being considered as factories, but also cannot be considered, as well, as 'proto-industrialization' - that is, in contrast with the Western European cases of proto-industrialization, there is a discontinuity between cottage or rural craftshops and modern industrialization in Brazil.¹⁰

⁸- There are very few reliable sources on manufacturing in Brazil before 1850. However, a study prepared to consider reforms on the Customs tariff, published by the MINISTÉRIO DE ESTADO DOS NEGÓCIOS DA FAZENDA, (Rio de Janeiro, 1853) is very detailed and fairly reliable. It is by far the best source of data and information on manufacturing industry in Brazil in the first half of the XIXth century and for a description of the factories and craftworks in Brazil at that time. This study is compounded by a report and a statistical annex; they are *Documentos Estatísticos Sobre o Comércio do Império do Brasil para os Anos de 1845 a 1849 que acompanham o Relatório da Comissão Encarregada da Revisão da Tarifa em Vigor*, and the *Relatório da Comissão Encarregada da Revisão da Tarifa em Vigor*. I will use these documents in this section.

⁹- See the description of these craft activities in the *Relatório da Comissão Encarregada da Revisão da Tarifa em Vigor* (RTV-1853), op.cit..

¹⁰- Mendels' definition of this concept is that protoindustrialization was a historical process that can be viewed as 'pre-industrial, mainly rural industry as part and parcel of the process of industrialization' or rather, as a 'first phase which preceded and prepared modern industrialization' in Western Europe. In Brazil this did not happen: the most famous rural industry, cloth manufactured in farms in the province of Minas Gerais, known as the 'pano de Minas' did not lead to the setting up of a strong regional textile industry. An exception to this case can be found in the history of the 'Fabrica de Cedro' in Minas Gerais, a textile manufacture that started as a rural-craft work, operated by slaves. See MENDELS, F. 'Proto-industrialization: The First Phase of the Industrialization Process' in *Journal of Economic History*, vol 32, 1972, pp.241-61; on Minas rural cloth industry see o Relatório da

In Brazil we can consider as 'industry' the urban manufacturing activities that were able to acquire a share of the domestic market in manufactured products, which had been essentially supplied by imports, independent of the level of mechanization of these activities. The urban manufactures in Brazil, or even some craftshops, however backward in comparison with the manufactures of more developed countries, are elements in the process towards the modernization of Brazilian society; and, as rural proto-industries in Western Europe, there is some degree of continuity between those industries and modern manufactures¹¹. Equally I do not regard as industry the craft activities that took place on the farms, mostly for self-consumption, except when this activity began to be

Comissao de Inquerito Industrial, Rio de Janeiro, 1882; on the Fabrica de Cedro see MASCARANHAS, B. *O Surto Industrial de Minas Gerais*, Grafica Editora Aurora, Rio de Janeiro, 1954. It should be observed that, as in Brazil, all studies that tried to find a link between cottage or rural craftshops with modern industrialization in Latin America concluded that there was no evidence in that direction, but, inversely, there are evidences of discontinuity between 'proto-industries' and modern industrialization. See BERRY, A, 'The Limited Role of Rural Small-Scale Manufacturing for Late-Comers: Some Hypotheses on the Colombian experience, *Jornal of Latin America Studies* 19, 295-322, on Colombia; see GARCIA, R., *Incipient Industrialization in an Underdeveloped Country: The Case of Chile, 1845-1879*, mimeographed, University of Stockholm, Stockholm, 1987.

¹¹- A good example of a traditional urban activity with very low level of mechanization that has a direct link with modern industrialization in Brazil is the hat industry. This industry was widespread in the large Brazilian cities and was influential in the organization of an industrialist lobby in Brazil by the late seventies. See LUZ, N.V., *A Luta pela Industrialização do Brasil*, op.cit..

clearly market-orientated, and had some level of mechanization.¹²

At the time of Brazil's political Independence, in 1822, there are records of only nineteen factories of some importance scattered through Rio, Minas, Bahia and Pernambuco. Among them there were five textiles manufactures, two foundries, and the well-known ironworks of S. Joao de Ipanema, the state-owned gun powder factory in Rio de Janeiro and other smaller businesses, that surely would be more properly called craft-shops, such as the snuff, tanning, chocolate or pasta manufacturers.¹³ Besides these, there are also references to some small ironworks to be found in the mining areas of Minas Gerais, as well as some smaller establishments, such as lithographic and other craft workshops, outside the big centres for which there are no records. Of the firms founded before Independence very few survived until the forties, and most of those founded in the period from independence to 1844 also had a very brief life. The only important exceptions were the ironworks of S. João de Ipanema, in S. Paulo - a product of the work of Varnhagem - and the Rio de Janeiro gun powder mill, which overcame all difficulties and were still in operation by mid-century. In Minas Gerais small ironworks supplied the local market with

¹²- A good example of this last case when we are dealing with a true industrial activity is the already mentioned 'Fabrica de Cedro' in Minas Gerais. See MASCARANHAS, *O Surto Industrial em Minas Gerais*.

¹³-See Relatorio da Comissão da Revisão da Tarifa em Vigor, Rio de Janeiro, 1853, pp.102/103.

agricultural and mining tools, but none survived for long, and those which did, had, by then, become a symbol of Brazil's unsuccessful attempts to set up a metalworking industry.¹⁴

After the failures of iron manufacturing in the beginning of the XIXth century, new attempts to produce

¹⁴- Since the beginning of the XIXth century the Portuguese government had tried to produce iron in Brazil, where a great number of iron ore deposits were to be found and the abundant wood could provide the fuel to operate the forges. A German lieutenant, Varnhagem, was hired by the Count of Linhares, Governor of Brazil from 1807 to 1812, to evaluate the possibility of setting up ironworks in S.Paulo. He recommended the establishment of a factory at Ipanema, which was done under the auspices of the Swedish consul in Brazil, Gustavo Beyer, who hired a group of Swedish engineers led by C.G.Hedberg. The factory was opened in December, 1810; arguments between Varnhagem and Hedberg in relation to the technology and other problems led this factory to be in poor economic and technical shape, as early as 1814. Varnhagem was the new director of the factory, after the dismissal of Hedberg, and was able to improve the situation of the factory. But after he left its administration in 1822 the factory began to decline and in 1860 it was finally closed. It was reopened during the Paraguayan War but the expectations of it becoming a large iron mill were never fulfilled. A book published in 1833 by W.E. Von Eschwege, the well-known *Pluto Brasiliensis*, related with details the difficulties in the administration of the Ipanema Ironwork and related, as well, the several attempts to create ironworks in Minas Gerais that were also a failure. Such was the case of the Morro do Pilar ironwork at Congonhas do Campo, closed in 1830. Their ironmasters, however, taught their arts to followers who created several small foundries in this province. Another example is the Prata ironworks run by Eschwege that had a relative success until 1822 when it closed. Eschwege was a man of great culture and proved to be quite an efficient administrator; however, the difficulties were paramount leading to its inevitable closure. See about this subject ESCHWEGE, W.E. Von, *Pluto Brasiliensis*, Berlin 1933, reprint 1979, Ed.Universidade de S.Paulo, 2 vol.; GOMES, F.M., *História da Siderurgia no Brasil*, S.Paulo, 1983; FELICISSIMO Jr., J. *História da Siderurgia em S.Paulo*, op.cit.; CENTRO INDUSTRIAL DO BRASIL, *O Brasil suas Riquezas Naturaes, Suas Industrias*, Rio de Janeiro, 1907, pp.247/252, vol2.

iron in Minas Gerais were only made in the 1890's.¹⁵ In general, after Independence, only the manufacturing of simple products that demand little mechanization, such as hats and tortoise-shell combs, tallow candles and soap etc, had developed without problems.¹⁶ The development of glass, paper, beer and textile manufacturing was more problematic, because these kind of products suffered heavier competition from foreign products, and very few of the factories were in a good financial position by 1850.¹⁷ There were also several craft shops and traditional skills that survived in different regions of the country but these activities never developed in large manufacturing operations and actually tended to disappear when placed in competition with the urban manufactures in the cities or with import products.

To sum up, by 1844 Brazil had very little manufacturing capacity and what there was was essentially handicraft. The labour in these workshops was performed by foreign workers or by slaves. Most of these businesses were founded by merchants and only survived during the life-time of the founder. These firms completely failed to establish any kind of regular management system that could survive more than one generation. On the other hand, as in commercial activities, there were a large number of foreigners among the manufacturers, which may be deduced

¹⁵- See GOMES, F.M. *Historia da Siderurgia no Brasil*, op.cit.

¹⁶-See Relatorio da Comissão da Revisão da Tarifa em Vigor (RTV-1853), op.cit.

¹⁷- Ibid.

from the foreign names and well-known Portuguese merchants that owned this kind of firm.¹⁸

If this situation was mainly due to the lack of tariff protection, as was generally supported by a whole generation of historians in Brazil¹⁹, it might be supposed that, after the Anglo-Brazilian treaties ended, this situation could have changed. However, ten years after the protectionist tariff was approved the situation had not changed substantially, even if, spurred by the new legislation and especially by allowances for tax-free imports of raw materials, machinery and - in the 1850's - credit availability, several small manufacturing firms had appeared. It cannot be denied, however, that the new tariff did stimulate the establishment of some industries, particularly cotton spinning and weaving mills. Evidence of this stimulus is the foundation in the 1840's of Santo Aleixo mill in Rio and the Todos os Santos mill in Salvador. In fact, most of the nine cotton mills named in national exhibitions twenty years later dated their establishment to this period, particularly those of Bahia.²⁰ But the hard truth was that, at this time, side by side with the few

¹⁸- The RTV-1853 published the names of the owners of the most known manufacturing firms. This document gives also some information on the lifespan of these firms.

¹⁹- An example is Nicia Vilella da Luz who wrote her classical work *A luta da Industrializacao no Brazil* showing the reluctance of Congress and agrarian interests to support protection in Brazil. See also LIMA, Heitor Ferreira, *Historia Politica, Economica e Industrial do Brasil*, S. Paulo, 1970.

²⁰- See STEIN, S. *The Brazilian Cotton Manufacture*, Cambridge, Massachusetts, 1957, p.12.

Brazilian mills producing very coarse textiles, the most important manufactures continued to be small craftshops making hats, snuff, soap and candles [See Table F.1 in the Statistical Appendix]; so, when in 1857 and 1860 the protection given by the Alves Branco tariff was reduced, and duties were placed on imports of raw materials for native mills, Brazilian manufacturers suffered less from foreign competition, imports of which had not increased at a period of domestic difficulties, than from the domestic consequences of the 1857 financial crisis, which led to a change in monetary policy towards a rigid control of monetary expansion and to restrictions on the operation of limited liability companies.²¹

In the second half of the century, manufacturing industry in Brazil performed better than it did in the first half. In the 1850's, particularly after 1852, several new manufacturing industries were set up, following the rapid growth of exports, the establishment of a liberal monetary policy and the creation of several banks during these years²². Evidence of a certain degree of industrial growth in the earlier fifties can be obtained by computing data from the RELATORIO DO MINISTERIO DA FAZENDA-1856, where it can be verified that 95 manufacturing firms

²¹- This subject will be discussed in the chapter V.

²²- From the financial year of 1851/52 to 1857/58 the coastal trade in Brazil grew by an average annual rate of 7.3% and the import trade by an average annual rate of 4%. This shows that there was a rapid increase in the available income during this period. See STATISTICAL APPENDIX, Table F.1. See also GRAHAM, R., *Britain and the Onset of Modernization in Brazil 1850-1914*, op. cit.

obtained benefit of duty free raw materials imports, and hired a total of 2,253 people - slaves, Brazilian and foreign workers ²³. Nevertheless, this is not only a very small number of manufacturing firms but also most of these firms were hat manufactures, and other low-mechanized craft industries, such as snuff, soap and candles, with a near complete absence of cotton textile manufactures. This absence is partly due to the fact that the main raw material for the textile industry, cotton, was bought in the domestic market. But it must be also considered that, until the Paraguayan War, nearly all cotton textiles produced in Brazil were the product of a nationwide rural handicraft industry. In the provinces of the North, such as Maranhão, Ceará, and of the South such as S.Paulo and Santa Catarina an important share of the local needs were supplied by this rural industry. Minas Gerais was famous for her productive rural industry, and the 'brins mineiros' were well known outside the province.²⁴ After the fifties, these handicraft activities began to decline due to the competition from increased imports and the setting up of some textile industries.²⁵

From December 1857 until the middle of the Paraguayan war, economic crisis and several attempts by

²³- See Statistical Appendix A, Table A.1

²⁴- See RELATÓRIO DA COMISSÃO DE INQUÉRITO INDUSTRIAL, 1882, p.13. This document is the report of the commission established by the minister of finance in 1881 to enquire into the situation of the manufacturing industries in the country and their problems.

²⁵- Ibid.

metallist finance ministers to control public deficits and to set up a stable currency based on gold reserves led to a period of recession, that can be seen from the stagnation of the coastal trade, after the peak of 4.5 million pounds sterlings in the financial year 1857/58, until the late 1860's.²⁶

By 1866 there were nine cotton textile industries in the whole of Brazil. This number grew to 40 in 1882 and reached 161 in 1907²⁷. Having begun with a very low base, the cotton textile industry showed a fairly rapid growth rate after the last half of the Paraguayan war and sustained it at a level higher than the manufacturing industry as a whole. The gross value of domestic production (GVP) of cotton textiles, computed at the average price of 1913, grew at a rate of 11.5% from 1866 to 1882, and by a rate of 10.9% between 1882 and 1907. That is, in the whole period from 1866 to 1907 it grew by an average rate of 11.2% p.a.²⁸

However, it was not only cotton textile industries which grew after the late 1860's. If we take the rate of increase of industrial investment as a whole for the same period, we see that it grew by 8% p.a., between 1866 and 1882, and 6.1% between 1882 and 1907, that is, an average of 6.8% p.a. for the whole period. ²⁹

²⁶ - See STATISTICAL APPENDIX F, Table F.1.

²⁷ - See Statistical Appendix A, Table A.2

²⁸ - See Statistical Appendix A, table A.4)

²⁹ - Investment data computed from SUZIGAN, W. *Indústria Brasileira*, op.cit., Appendix 1, table 18. There are several studies on particular industries since the 1870's, among them I shall mention specially Suzigan's *Industria Brasileira*, op.cit; GRAHAM, 'A British Industry in Brazil;

Although the Brazilian economy grew in the second half of the XIXth century, mainly led by coffee exports, and manufacturing production grew with it, at such a rate that by 1907 it accounted for 53.5% of the Brazilian apparent domestic consumption of manufactures³⁰, the level of Brazilian industrial production was quite small in comparison with industrial countries, and even its most advanced industry, textiles, had still a long way to go to match those of most of the European countries - even those considered peripheral, such as the Austro-Hungarian Empire and Russia³¹.

Rio Flour Mills, 1886-1920, in Business History 7/1 (1966); VERSIANI & VERSIANI, 'A Industrialização Brasileira antes de 1930: Uma Contribuição in VERSIANI & BARROS, *Formação Econômica do Brasil: A Experiência da Industrialização*, S.Paulo, 1977; VERSIANI, F.R., *Industrial Investment in an 'Export' Economy: The Brazilian Experience before 1914*, Institute of Latin American Studies, Working Papers 2, 1979; MARTINS, J., *Empresário e Empresa na Biografia do Conde Matarazo*, Rio de Janeiro, 1967, FELICÍSSIMO, *História da Siderurgia em S.Paulo*, op.cit.

³⁰- See Statistical Appendix A, Table A.5

³¹- About the peripheral European industries see statistical data in MITCHELL, 'European Historical Statistics', op.cit., for European data. See also BEREND, Y & RANKI, G. 'Economic Development in East-Central Europe in the XIXth and XXth Century, N.York & London, 1974; BEREND & RANKI, 'The European Periphery and Industrialization 1780-1914', Cambridge, 1982. For a comparison between the most developed Brazilian industry, textiles, with some European countries, see the table below:

NUMBER OF SPINDLES - 1904
(In Thousands)

Austria	3 450	Russia	7 146	Switzerland	1 600
Italia	2 435	Spain	1 865	Brazil*	755

Source: MITCHELL, B.R., Abstract of European Historical Statistics; For Brazilian data, see Statistical Appendix A, Table A.4.

*- The Brazilian data is for 1900.

TABLE III.1
PER CAPITA NATIONAL INCOME IN THE MOST BACKWARD EUROPEAN
COUNTRIES AND PER CAPITA BRAZILIAN GDP
(1986 Prices)

	1870	1890	1910
Bulgaria	789	890	962
Greece	890	1 033	1 157
Romania	748	890	1 093
Portugual	962	962	1 033
Serbia	819	890	1 004
European Average ¹	279	1 382	1 777
Brazil*	136	178	236
Brazil**	210	246	236

Source: For European countries; BEREND & RANKI, European Periphery & Industrialization, 1780-1914, data inflated to 1986 prices; For Brazilian data, tables II.1, II.2 and II.4.

* - Data for 1872 and 1890, 1987 prices, according to Furtado growth rate estimates, see Table II.2.

** - Data for 1872 and 1890, 1987 prices, according to Goldsmith growth rate estimates, see Table II.4.

Brazilian GDP per capita was, by 1890, between a quarter to a fifth of per capita national income of the most backward european countries - including a country with a stagnant economy such as Portugal and a backward agrarian economy such as Bulgaria- and as late as 1910 this situation was not very different.

III.3- BARRIERS TO THE DEVELOPMENT OF A MANUFACTURING SECTOR IN BRAZIL

What were the barriers that prevented Brazilian manufacturing firms from prospering, and what is the degree of importance that we can attribute to each one of them? Although I do not intend to give an exhaustive list, I

suggest that there are three sets of problems that entrepreneurs have to overcome to be successful in the Brazilian environment: (i) the underdeveloped free labour market; (ii) the small domestic market and (iii) the difficulties of financing investments, so as to become competitive with imports. In this section I discuss these three points.

(i) The Underdeveloped free labour market:

The first barrier was the easiest to overcome; this can be shown by contrasting alternative solutions found in other countries with similar difficulties, such as Southern U.S.A. and Czarist Russia, so as to infer to what degree an underdeveloped labour market hindered their industrial development.

Early entrepreneurs in Brazil found it very difficult to set up capitalist manufacturing enterprises based on the free work of Brazilians. The available evidence shows that even entrepreneurs with a bourgeois ideology and training and reluctant to use slaves in their business found it very difficult not to succumb to this practice. Describing his experience at Prata ironworks, in the first decades of the XIXth century, Baron Von Eschwege related that:

"Here, also, the major difficulty was to secure the services of permanent personnel, and overseers on whom one might rely. To begin with, we did not buy slaves, because at that time I still possessed the European mentality and judged that these tasks should be carried out by free men. The consequence of this attitude of mine was

that years passed without it being possible to train one single master or apprentice. In fact after learning the work from the German ironmaster, the workforce dispersed some months later- nor was it possible to retain them. It did not matter to bring them to sign a contract in good legal form for a agreed reward: they ran away under the cover of night, or if they did not, behaved in such a fashion that it was a relief to see the back of them".

"With the hired slaves, the case was even more disagreeable; those their owners judged to be the most able at their work were quickly reclaimed. In this way we waged a constant battle against the ineptitude of apprentices."

Finally, I arrived at the conclusion that it was absolutely necessary to purchase slaves, who might be formed into trustworthy master and apprentices, punishing them when necessary. From the occasion of this decision, it was possible to work well and to greater advantage".³²

A consequence of free labour market difficulties that made Eschwege write so drastic a sentence as "it is almost impossible in Brazil for an industry to prosper when it depends on the co-operation of free men"³³, was that industrial workers in Brazil were, for a long time, essentially slaves, or foreigners, and, as late as 1856 (see Statistical Appendix A, Table A.1), less than a third of the workforce was Brazilian free men.³⁴ However, it must be remarked, that, in this society, slaves did more than just unskilled work. There are several examples of slaves who learned crafts and became quite specialized workers. Soares, who had studied post-mortem inventories from nineteenth century Rio de Janeiro, has shown that the practice of

³²-ESCHWEGE, B. Von, *Pluto Brasiliensis*, p.248.

³³- Idem, p.249.

³⁴- R.M.F. 1856. See Statistical Appendix A , Table A.1.

teaching skills to slaves was widespread among the richest and poorest owners alike.³⁵

In Brazil, where slave-owners' interests had no strong opposition for most of the XIXth century, those interests brought about the Land Law of 1850 which prevented the settlement of small landowners and provided strong resistance to the immigration of settlers, as opposed to the immigration of labour to work on large plantations.³⁶ The recognition that sooner or later there would be no more slaves forced the planters, however, to look for alternatives to slavery. But, with the failure of the first attempts to stimulate and organize immigration during the 1850's, only in the late 1870's did a significant number of immigrants arrive in Brazil³⁷. In the earlier 1870's several alternatives were considered to provide substitutes for the

³⁵ - He cited the cases of Josefa Maria das Graças who died in 1816, possessing among her 15 slaves 6 who were apprenticed to carpenters, 1 to a cobbler and 1 who was a trained cobbler; Antonio Mariano Gonçalves who died in 1836, and had 7 slaves, 2 of whom were skilled carpenters, 1 a seamstress, 1 a ferrier and 1 a comb-maker. Francisco Manoel Ferreira who died in 1838 was the owner of 24 slaves, of whom 5 were leased out (2 stonemasons, 2 carpenters and 1 caulker). Firmino Guedes Monteiro who died in 1843, had 9 slaves, of whom 7 were cigar-makers. Polidora Goç Alves, died in 1857, owned 13 slaves, including 7 skilled metalworkers. Captain Miguel Antonio Pestana, who died in 1859 owned 5 slaves among whom three were a stonemason, a bricklayer and a seamstress. See SOARES, L.C. *Industrial Slavery in Nineteenth-Century Rio de Janeiro*, paper presented at L.S.E., Brazil Workshop, 1986.

³⁶ - See VIOTTI DA COSTA, E., 'Política de Terras no Brasil e nos Estados Unidos' in *Da Monarquia a República*, S.Paulo, 1985.

³⁷ - See table II.3 in the previous chapter. See Viotti da Costa, *Da Monarquia a República*, op.cit... See also SPINDEL, C.R., *Homens e Máquinas na Transição de uma Economia Cafeeira*, S.Paulo, 1979.

slave work-force, among them Chinese immigrants, the use of the free rural population and incentives for European immigrants³⁸. The last was the solution that finally prevailed. Most immigrants who arrived during the Empire were located in rural areas. But many settled in urban centres: 30% of the Rio de Janeiro population were foreign-born in 1872 and at the same date foreigners represented 12% of the population of Porto Alegre, 11% of Curitiba and 8% in S.Paulo.³⁹ With the growth of manufacturing and the arrival of immigrants, a free labour market was created in the large Brazilian cities. So, from the 1880's, the first signs of an urban proletariat can be found in Brazil. For example in 1885, in a letter addressed to the Emperor, the *Corpo Coletivo Uniao Operaria* demanded exemption from import taxes on industrial machinery, exemption from property taxes on factories, tariffs on foreign manufactures and credit facilities.⁴⁰

By blocking the access of poor free men to land ownership, discouraging the immigration of settlers, and encouraging prejudice against manual work, slavery contributed to keep the internal market small and development of the Brazilian economy sluggish. It also

³⁸-VIOTTI DA COSTA, '1870-1889' in BETHELL, ed., *Brazil: Empire and Republic*, Cambridge University Press, 1989, p.199.

³⁹- Ibid.

⁴⁰- Ibid., p.169. According to Viotti da Costa in the 1880's the first socialist groups appeared and occasional workers' demonstrations changed the pace of life in the cities. (ibid.) See also CARONE, E., *Movimento Operário no Brasil (1877-1944)*, S.Paulo, 1979.

retarded for a long time the creation of a free labour market in the country. However, although the underdeveloped labour market was a barrier to manufacturing firms in Brazil, - as it was to a certain degree in the Southern U.S.A. and for most of the second half of the XIXth Century in Russia - the barriers brought about by this kind of labour market could have been overcome through the employment of slaves (at least in the beginning of the process of industrialization, as was done in the Southern U.S.A.) and foreigners. This was, actually, what Brazilians manufacturers did. In 1856, when information on the composition of the Brazilian working force in manufacturing is available, 67% of workers from the manufacturing firms which obtained the benefit of duty free raw materials imports were slaves or foreigners ⁴¹.

However, even if slavery created problems for the development of manufacturing, there is historical evidence that slavery or other pre-capitalist relations did not prevent the establishment and the success of some degree of

⁴¹- See Statistical Appendix A, table A.1. Those were the larger Brazilian manufacturing firms at the time, except in the textile sector. The hiring of foreigners was also easy for manufacturing entrepreneurs because a large number of them were also foreigners. The Financial ministry report of 1856 published data on the ownership of commercial and industrial business in Brazil showing that more than half of manufacturing firms belonged at that date to Portuguese [see table IV.1, in the next chapter]. They were particularly well represented among hat manufacturers and cigar manufacturers. The exception was textiles manufacturers which mainly belong to Brazilians. It must be remarked that these data were neither complete nor very reliable; however, it gives us an idea of the large number of foreigners among the manufacturers in Brazil. See RMF-1856.

industrialization. There are several examples of these in XIXth century Russian history and in the Southern United States⁴². But, if it is true that in a strict sense slavery does not prevent a certain degree of industrialization and that the abolition of slavery is not an essential precondition for an industrialization process to begin, it can also be said that, if slavery remains, it is almost certain that industrialization cannot go very far.

The contradiction of slavery and industrialization is shown best in the U.S. case. In the beginning Southern states' slavery was not a barrier for U.S. industrial development, particularly in the North. In some measure, slavery was even a stimulus, in so far as cotton exports from the South generated hard currency to import industrial machinery in the North and a market for industrial goods from the North developed in the South. On the other hand, in the South, the nature of slave economic organization prevented manufacturing interests from becoming dominant over agrarian ones, and the kind of industrial development defended by this Southern elite was one which reinforced slave production relations and did not challenge them.⁴³ Differences between free and slave states gave origin to strong political problems in the U.S.A., in so far as slave

⁴²- See Gerschenkron, A. 'Agrarian Policies and Industrialization: Russia 1861-1917' in *The Cambridge Economic History of Europe*, VI-Part II, for the Russian case and GENOVESE, E. *A Economia Política da Escravidão*, RJ, 1986, chapter VIII for the U.S. case.

⁴³- Ibid. See also MOORE Jr., B. *Social Origins of Dictatorship and Democracy: Lord and Peasant in the Making of the Modern World*, Penguin Books, 1984, pp.122/9.

societies do not have the same political forms as those based on free labour. For example, consider the case of U.S. policies for establishing small farm production in the West; many Southerners resisted 'radical' notions of giving land away to farmers that would 'abolitionize' the area.⁴⁴

Another example of contradiction between a pre-capitalist labour relation and industrialization is Czarist Russia. Because Russia was, during the second half of the XIXth century, a country much more backward than the U.S.A, this is, also, a useful comparison with Brazil.

Although serfdom was abolished in 1861 in Russia, it took a long time to end feudal obligations, in the same way that Brazil's emancipation of the slave labour force was a slow and continuous process. In Russia, unlike Western Europe, in many respects the status of the serfs deteriorated to the point where several aspects were similar to those of slavery. Sales of serfs with or without land, in families or individually, were an established commercial operation. Serf-owners could transfer serfs at will from work on the land to house services; he could freely select recruits for the army from among his serfs, and he could punish a recalcitrant serf at will by deportation to Siberia.

The emancipation of the serfs in Russia did not give freedom to the peasants to leave their villages or migrate freely looking for better labour conditions or a job

⁴⁴- MOORE JR., op.cit., p.129.

in the city and so did not create in the short-term a free labour market. This was caused by the way that the serfs were emancipated, where large redemption payments were to be made to the state, which financed the operation of redemption to the former serfs for forty nine years. The characteristic feature of the system was that the payment of the redemption was a communal obligation of the *mir*, the basic administrative unit established by the reform, which was based on the traditional *obshchina*, or peasant commune. All sorts of legal barriers were raised to make it difficult for the peasants to leave the *mir*. The cessation of redemption payments, and the complete freedom from the restriction imposed by the subordination of the peasant to the *mir*, was only achieved by 1907, and only after the increased social unrest that ended in the general uprising of 1905. However, Russian entrepreneurs were able to overcome all these difficulties and these barriers did not prevent Russia from going a long way down the path to industrialization before this whole process of peasant emancipation was completed. Recalling Gerschenkron's argument, in Russia agrarian reform was not a pre-requisite of industrialization, but may have been its post-requisite.⁴⁵

⁴⁵ - There is a large bibliography about Russian development after 1861; CRISP, O., *Studies in the Russian Economy before 1914*, London, 1978, which has some stimulating articles on the Russian experience in peripheral industrialization. See also GROSSMAN's article in CIPOLLA's *The Fontana Economic History of Europe*, op.cit., 'Russia and Soviet Union; See also FALKUS, M.E., *The Industrialization of Russia 1700-1914*, London, 1986; PORTAL, R., 'The Industrialization of

These two historical examples, and the widespread use of slaves and foreigners in Brazilian manufactures, suggest that this was not the main problem preventing the development of manufacturing. The establishment of a modern labour market and the spread of payment of wages in Brazil had to wait for the development of the coffee economy and the decay of slavery in the 1870's. Labour could be found- as it was found even in the ante-bellum Southern U.S.A. or in Czarist Russia - and the goods that this labour manufactured found a market and generated a profit for the entrepreneurs. The size of the market and the financing of investments were problems which were much more difficult to overcome. For private entrepreneurs to be successful in overcoming these, the role of the state in peripheral countries was essential; at least, it was necessary to develop a private financial sector committed to invest financial assets in manufacturing or related businesses, as we shall see below.

(ii) The Small Domestic Market:

The study of the role of the domestic market in Brazil is important because: (a) the failure of Brazilian exports, shown in the last chapter, led to a slow growth of domestic demand; (b) the slow growth of demand due to the

Russia' in the *Cambridge Economic History of Europe*, Vol.VI, op.cit.; and last but not least, the classic article of Gerschenkron 'Agrarian Policy and Industrialization: Russia 1861-1917', in *Cambridge Economic History of Europe*, vol VI., op.cit.

poor Brazilian performance as an exporter was aggravated by an unintegrated and underdeveloped domestic market.

The first point is self-explanatory - I have shown in the last chapter that until the 1850's Brazil had a very poor performance as an exporter. After the 1850's there were improvements, but, except in the case of coffee and for a period rubber, Brazilian performance as an exporter was still very poor⁴⁶. However, when coffee exports began to increase quickly in the 1870's, and in the region where it had important linkage effects, namely S.Paulo province, it led to the growth of the regional income and opened a market for manufacturing.⁴⁷ Coffee was an exception - its effects were felt mainly in Southeastern Brazil and particularly in S.Paulo state- and it was only after the 1870's, when it spread to the west S.Paulo, that it began to create a capitalist export complex.⁴⁸

⁴⁶ - See chapter II.

⁴⁷ On the relation between coffee and industrialization in S.Paulo see DEAN, *A Industrialização de S.Paulo*; SILVA, *Expansão Cafeeira e Origem da Indústria no Brasil*; CANO, W., *Raízes da Concentração Industrial em S.Paulo*.

⁴⁸ - The role of coffee in Brazilian industrialization has been carefully studied, I do not intend to make any new contribution in this point. My argument is that coffee exports did not change the picture of Brazilian economic failure in the XIX century. I showed in the last chapter that the growth of exports per capita in Brazil for the whole of the century was low in international terms even considering the outstanding success of coffee exports. I have also shown that Brazilian real product growth was not very high during this century. So, when a manufacturing sector began to grow in Brazil, the starting point was a highly backward economy. Thus, even high growth rates in traditional industries would take a long time to lead to important structural changes. In chapter VI I will discuss some of the particular characteristics of the coffee market. But because coffee was an exception, it led to the highly unequal regional development of Brazil. [In Relation to the

I give considerable importance to the second point above- the unintegrated and underdeveloped domestic market. In this section I will make only some general remarks since it will be discussed in depth in chapter IV. My argument is that, although some manufacturers did have an important share of the local market, they were unable to supplement the small size of their local market by selling to other regions or exporting their products.⁴⁹ This situation arose because (a) the internal interprovincial trade was very small in Brazil and, also, coasting trade in Brazilian craft and manufactured products was insignificant;⁵⁰ (b) in the

literature on regional development in Brazil see CANO, W., *Raizes da Concentração Industrial em S.Paulo*, S.Paulo, 1977, see also GALVAO, O.A., *Regional Development in Brazil*, Ph.D thesis, 1988.]

⁴⁹- An example of locally important manufacturing firms is the case of the 'Fabrica de Queimados' and the 'Fabrica da Conceição' in Bahia, the first using water-powered and the second steam-powered machines, which, according to a report by the president of the province, produced enough coarse textiles to supply the local market demand for slave clothes and also supply sacks for local export staples. Report of the President of Bahia Province, 1852.

⁵⁰- See Statistical Appendix A, Table A.3. On the size of the interprovincial trade see Table IV.6. To the role of the peddlars (mascates) see chapter IV-4. There was also tariffs on imports of manufacturing from other regions established by some provinces which hinder the interprovincial trade of manufacturing products. So the Relatorio da Comissao Industrial of 1882 related the complaints of some textile manufacturers who argued that: "In some provinces import duties were imposed on Brazilian made fabrics, with the intention of protecting the production of similar establishments based in those same provinces. At times these taxes were so heavy that they even equaled the tariffs imposed by the customs on merchandise of foreign origin. This had the result that the manufactures of one province were unable to compete in the other provinces' markets where they encountered advantageous outlets, even if in general the products of protected establishments are not sufficient to meet local needs, nor are they recommended for their superior quality." Relatório da Comissão Industrial, 1882, p.59.

larger cities there was competition from imports; and (c) exports of manufactured products were very small, even if we consider as manufactured products the output of craft industries such as gold and silver-work, liquors, carpentry and joinery ⁵¹.

In relation to the competition between Brazilian manufactured goods and imports, it should be noticed that Brazilian firms since mid-1840's had some advantages. They are: (i) relatively high import tariffs; (ii) some special benefits, such as imports of raw materials free of tax. These advantages were not, however, enough to change the balance in favour of Brazilian manufacturing, ~~EXCEPT~~ in the case of coarse cotton textile products after the 1870's.

The relatively high import tariff was a consequence of the structure of public finances during the Imperial period. During the whole of the imperial period the issue of the public deficit was one of the most frequent debates in Congress and the press; the deficit had important implications for economic policy, particularly for the monetary policy of the empire. At the time, the main source of tributary receipt in Brazil was from taxes on foreign trade, particularly import duties. Government expenditure could not be easily reduced since most of it was payment of interests of external and internal debts and military expenditure. Thus, the key to any reduction in the public deficit could only have been an increase in tax collection,

⁵¹- See Statistical Appendix A, Table A.2.

but that was never enough to match rising expenditure since, during the whole of the imperial period, no important tax reform was enacted.⁵² The tariff system was designed to furnish revenue rather than protection, and high duties were seen largely as a necessary evil.⁵³ This led to the alternation of higher tariffs under the pressure of crisis followed by lower ones in normal times. On the whole, however, the tariff seems to have had a tendency to increase throughout the second half of the XIXth century allowing some authors to claim that it had a positive effect in stimulating the growth of industry in Brazil, particularly in the case of textile products, from the 1870's.⁵⁴

In addition to this degree of tariff protection which Brazilian public finances unwittingly gave to manufacturers, there were also other kinds of benefits that could help some of them to compete with imports. However, they were given to industries during this period in an ad hoc manner depending on the influence of the entrepreneur who owned them.

⁵²- See Table III.2. for data on fiscal deficits in Brazil. Some aspects of the question arising here will be discussed in chapter V.

⁵³- See VERSIANI, *Industrial Investment in an 'Export Economy'*, op.cit., p.18.

⁵⁴- This view is supported by VERSIANI who argues that the implicit tariff rate on cotton textile import prices grew from an index of 100 in 1870 to 110 in 1876-79; 113 in 1880-84 and 124 in 1885-88. He suggested that the nominal rates in the base year of 1870 - which were then close to the actual rates - already reached 50%. Thus according to him both in the 1880's and after the turn of the century declines in import prices of cotton textile were largely offset by increases in tariff rates. VERSIANI, *Industrial Investment in an 'Export Economy'*, pp.19/20.

TABLE III.2
BRAZIL: GOVERNMENT RECEIPTS AND EXPENSES

(data in £ 1,000)				(per capita data)		
YEAR	RECEIPTS	EXPENSE	DEFICIT	RECEIPTS	EXPENSE	DEFICIT
1825	1 020	1 805	786	0.205	0.362	0.158
1829/30	1 636	1 803	167	0.305	0.336	0.031
1839/40	2 100	3 288	1 188	0.337	0.528	0.191
1849/50	3 040	3 121	81	0.420	0.431	0.011
1859/60	4 709	5 655	946	0.561	0.674	0.113
1869/70	7 436	11 101	3 665	0.763	1.139	0.376
1880	11 076	13 812	2 736	0.938	1.170	0.232
1890	18 354	20 741	2 387	1.281	1.447	0.167
1900	12 009	16 909	4 900	0.693	0.976	0.283

SOURCE: 'Balanço Geral da República', several issues; Ministério da Agricultura, Indústria & Comércio, 'Finanças do Brasil', Diretoria do Serviço de Estatística, Rio de Janeiro, 1914; Fiscal data converted in current sterling pounds by the implicit exchange rate of the foreign trade in the years of reference. For the 1829/30 fiscal years and for 1880 the average exchange rate for 1829, 1830 and 1880/1881, respectively, was used. Per capita data was based on population census data, population data estimated by IBGE/AEB, 1919-40, and the author's own estimates in the absence of other sources.

The main benefit allowed Brazilian manufacturers to buy raw materials free of tax- a right that had been granted since the Alves Branco tariff. However, only a few of these firms were able to make use of this benefit, as the concession depended on the issue of a Treasury Tribunal charter which was quite difficult to obtain. To be eligible companies had to have a minimum size, and a certain political influence. Only a few were able to obtain this charter, and fewer still could hope for any kind of

financial support from the government, which, when forthcoming, came as grants linked to lottery proceeds.

The way that the free import of raw material rights was conceded is a very good example of XIXth century state intervention in the economy. The Brazilian government did intervene in the economy, giving concessions according to short-term political interests; economic benefits were products of political considerations and these were stronger than economic or ideological considerations⁵⁵. Although the decree of July 28, 1847, determined that all manufactures established within the Empire were to be considered as national, whether they did or not belong to foreigners, the difficulties in obtaining the charter of a national manufacturer and benefiting from the reductions of custom duties on imported raw material depended on: (i) the payment of 200,000 réis on fees and duties; (ii) the payment of 50,000 reis for stamps and 4,000 reis for processing charges on the order sent to Customs which authorized the benefit each time it was conceded; (iii) to hire an attorney and a solicitor to make the arrangements and generally obtain some political support.⁵⁶

Under these conditions, it was sometimes cheaper not to apply for the right. And in other cases, depending on the size or location of the factory, its owner was simply

⁵⁵- See on the state in imperial Brazil, FAORO, R. *Os Donos do Poder*, See also, CARVALHO, J.M., *A Construção da Ordem*, Rio de Janeiro, 1980; see also from the same author *Teatro de sombras: A politica Imperial*, S.Paulo, 1988.

⁵⁶- See the RTV-1853, p.316.

unable to obtain either the finance or the political influence even to apply successfully for the charter. Thus, of the sixty-three manufacturers registered in the empire in 1853 by the COMISSAO ENCARREGADA DA REFORMA DA TARIFA EM VIGOR, only 21 had this benefit. Of 31 manufacturers of soap and candles in the empire, only 20 enjoyed tax exempted imports of raw materials. The discrimination among different manufacturers was flagrant: a manufacturer of treated and finished hides from the German colony of S.Leopoldo in Rio Grande do Sul could not obtain the benefit, but another manufacturer established in the Court Municipality was able to obtain a very extensive charter.⁵⁷

There were quite extensive differences in what was granted to manufacturers with very similar claims. Thus, in Bahia, the manufacturer A.P.Wilson was not able to obtain exemption from duties on the import of raw tallow for his candle factory because of an alleged surplus of tallow in the country. However, a soap manufacturer from the same city, Wenceslau Miguel de Almeida, obtained exemption in importing 6,000 arrobas of tallow.⁵⁸ The latter also enjoyed other advantages over his competitors. He was granted duty-free imports on lyle, soda, tar and oil. In Maranhão, one of

⁵⁷- This was the manufacture of Luiz João Beau which by a concession of 21/10/1850 was allowed to import without paying duties 43,200 pounds of calf, 60 dozen sheepskins, 2,304 pounds of cordovan, 11,520 pounds of cow hides, 600 pounds of flaxseed oil, 600 pounds of shoe hide. See RTV-1855, p.,316.

⁵⁸- Expediente do Ministério da Fazenda, 27/9/1852, published in Diario do Rio, #9116. See also RTV-1855, p.317.

his competitors - Bottenguyi and Chavanes factory- could import only a limited amount of lyle.

Therefore, the points above lead to the conclusion that the domestic market in Brazil was a difficult barrier to overcome: poor export performance and an underdeveloped domestic trade hindered the growth of domestic demand; domestic manufactures were restricted to the local market - they sold very little to other regions and they did not export. On the other hand, they had to compete with imports. Brazilian manufactures had some protection from tariffs raised for revenue purposes. But this tariff would only have a strong protectionist effect if the tariff did not also increase the price of their inputs. This was an advantage that was given in an ad hoc way; it was expensive to obtain and subject to political considerations, reducing the effectiveness of this protection.

(iii) The financing of manufacturing activities:

The post-1945 theoretical literature on economic development has often assumed that the absolute shortage of internal savings was the crucial blockage to development⁵⁹. More recent research has, however, acknowledged that abundant capital as a necessary and sufficient condition to industrial growth was not a historical observable fact⁶⁰.

⁵⁹) This assumption is supported by, e.g., W.W. Rostow, *The Stages of Economic Growth*, op.cit.

⁶⁰) In the last few years several new contributions on the origins and development of contemporary industrial economies have appeared. New research has been bringing new approaches to traditional themes. For example John Davis says that 'the debate on the causes and nature of industrialization in Europe and in the wider world is now as

Thus, in a pre-factory domestic system almost all capital was embodied in stocks, virtually none in specialized fixed capital at all. Almost all costs, therefore, were variable costs, such as material and labour; not overhead costs, such as capital charges, maintenance and depreciation.⁶¹ However, as manufacturing activities developed, capital accumulation and technical progress affects not only the minimum size of a competitive plant but also increases the demand for working capital and raises the crucial problem of long-term capital financing.

The financing of manufacturing activities must be considered in two aspects (a) financing of working capital for manufacturing firms; (b) financing of medium-and long-term fixed investment - that is financing of building of factories, buying of machinery or introduction of new technology. In a low level of industrial development these two aspects are often the same problem. However, throughout the XIXth century this became increasingly distinct problems as technological progress and minimum size for the use of the standard technology demanded from the latecomers a level

open and as lively as it has ever been..." and Professor Crafts says that "at last there is the prospect of research on the industrial revolution requiring a new generation of textbooks altogether'. In one of these recent works Peter Mathias sustained that '...the problem of a great scarcity of capital holding back the industrial revolution was a false one for late eighteenth-century England - much more so than for the poorest developing countries of the present day." See MATHIAS, P., 'Financing the Industrial Revolution' in MATHIAS & DAVIS, ed., *The First Industrial Revolutions*, Basil Blackwell, 1990, see in the same book CRAFTS, N.F.R., 'The New Economic History and Industrial Revolution.'

⁶¹) MATHIAS, *Financing Industrial Revolution*, p.76.

of capital accumulation that was not required of those manufacturers that began their business in a previous period.⁶² I will therefore in this section discuss both: the financing of working capital and financing of industrial investment in Brazil.

(a) The financing of working capital:

The financing of working capital was a constant problem for industrial entrepreneurs; the financing of production and the availability of cash were always major problems in the Brazilian economy during the XIXth century. Complaints about the scarcity of cash to meet the need for small change, or the needs of payments that had to be made in cash during the harvest periods were recurrent throughout this period⁶³. For example, counselor Ferraz, financial minister in 1860, in his report for the year, mentioned the great difficulty of finding cash for small change and the

⁶²) On this subject it is useful to look into the literature on industrialization- or failure of industrialization - of European latecomers. See on this theme Prof. J.NADAL, 'Spain 1830-1914' in CIPOLLA, *Fontana Economic History of Europe*; see also MORI, J., 'The Genesis of Italian Industrialization', *Journal of European Economic History*, 4:1, 1975; and VACCARO, 'Industrialization in Spain and Italy 1860-1914', *Journal of European Economic History*, 1, 1972.

⁶³) There is reference to this lack of cash and change in several works of contemporaries, such as FERREIRA SOARES, *Elementos de Estatística.*, RJ, 1864; *Esboco ou Primeiros Tracos da Crise Commercial da Cidade do Rio de Janeiro*, RJ, 1865; in speeches in the Parliament, see for example the economic debate in the chamber of deputies in June 1853; in Reports of ministry of finance, see e.g. the R.M.F.-1860, etc..

spreading practice of issuing small value bearer vouchers by private firms or associations, or even individuals. He observed that in Maranhão and in Ceará private firms issued notes of 500 reis and 1\$000 or 2\$000 reis, that had been used in small operations⁶⁴. On the other hand, in contradiction, he recommended a cautious monetary policy to prevent a financial crisis. According to him, it was uncontrolled speculation which had generated the crisis of 1857⁶⁵. Ferraz, like most of his contemporaries, could not make the link between the financial crisis and the liquidity problems that were a continuous phenomenon during this period.⁶⁶

⁶⁴) See RELATÓRIO DO MINISTÉRIO DA FAZENDA-1860.

⁶⁵) Ibid.

⁶⁶) The XIXth century commercial crisis had two main patterns. The first was a chain of bankruptcies which originated in the international financial market, leading to a sudden scarcity of bills of exchange and a consequent fall in the exchange rate and the remittance of cash abroad. This kind of crisis could also disturb the international commodity market, affecting the price or the liquidity of staple exports leading to a fall in the exchange rate that had the same consequences. The other kind of economic crisis was that generated by the implementation of a restrictive monetary policy after a period of liberal monetary policy. This sudden change in monetary policy, which did not give the market time to make the readjustment to the new financial environment, led to the bankruptcy of those firms that were caught with a large stock of bills and were not able to find a way to finance their working capital through the financial system. The bankruptcies of merchants and manufacturers affected the banking houses that financed them. Those banks that could not sustain their clients withdrawals on the one hand and delay in the payment of the bills, on the other, ended by stopping payments, which was the cause of a financial crisis. The first case was illustrated by the crisis of 1857, whilst the second was demonstrated by the crisis of 1864. However none of these were caused by just one factor and the operation of the two aspects, the one internal and other external, that combined in different degrees was the most common case. For example, the economic crisis of 1875 was jointly the result of the

Scarcity of cash - that is problems of monetary circulation - and credit shortage were closely associated: during the first half of the century the trade deficit contributed to scarcity of metal coinage⁶⁷. The widespread use of copper coin minted at different periods and with different face and intrinsic value - widely and easily falsified - and the unpopular notes issued by the first Bank of Brazil, which were viewed with suspicion in the exchange transactions, complemented the means of payments.⁶⁸

In this situation the gold standard became the ideal monetary basis of the Brazilian economy very early, due mainly to the strong belief of the so-called metallist current in the advantages of a monetary system based essentially on metallic coin circulations or at least on a very close relationship between bills in circulation and bullion stocks⁶⁹. As the Brazilian trade balance was in

domestic effects of the international crisis of 1873/75 and the domestic consequences of a restrictive monetary policy, after the heterodox monetary practices during the Paraguayan War. See Chapter V on Brazilian financial crises during the Second Empire.

⁶⁷) For trade balance data, see Statistical Appendix E.

⁶⁸) This kind of copper coin, called bilhão, known by the population as xexem, was considered to be more abundant than those officially made by the treasury. Bills of Banco do Brazil and Treasury bills were by this time not well received and in some places they were subject to discount rates (agios). See CALÓGERAS, *Política Monetária do Brasil*, op.cit., Chapter III-V; SOUZA FRANCO, *Os Bancos do Brasil*, reprint Brasilia 1984, Cap I; CAVALCANTI, A., *O Meio Circulante Nacional 1808-1835*, reprint Brasilia 1983. See also BETHELL, L & CARVALHO, J.M., 'Empire (1822-1850)' in BETHELL, ed, *Brazil, Empire and Republic 1822-1930*, Cambridge University Press, 1989, p.56.

⁶⁹) The debate between metallists and paperists is very important to the understanding of Brazilian economic

deficit for the first six decades of the XIXth century, a monetary system strongly based on metal coinage meant remittance of currency abroad, and thus a tightening of liquidity⁷⁰. This led - in a country where credit and cash tended to be scarce and interest rates tended to be high - to economic crisis⁷¹. But until the late 1850's Brazilian trade deficits were financed mainly by private merchants who discounted bills of exchange in the London market⁷². Thus any crisis in this market led to a fall in the Brazilian exchange rate independently of the level of money supply in the Brazilian economy.⁷³ After the 1860's Brazil was able to realize relatively large trade surpluses. However, although there is no conclusive information on this subject, it is very likely, that despite the trade surplus, the Brazilian

policies in the XIXth century. The metallists feared inflation and economic instability, and defended a rigid monetary control claiming that when material conditions for economic growth were achieved, the stock of bullion would naturally flow into the economy. The paperists supported a more liberal economic policy, freedom of organization for joint stock companies and claiming that it was the domestic demand for transactions that should determine the stock of means of payment - and not the actual stock of bullion in the bank system. See chapter V for a detailed account of the metallist-paperist debate.

⁷⁰- For data on Brazil Trade Balance see Statistical Appendix E, Table E.1.

⁷¹) According to the Relatorio da Comissao Industrial-1882 the cost of money to manufacturing firms in Brazil was three times higher than in Europe. If there was such a difference in the 1880's, when there was already established in Brazil a banking system which included several foreign banks, it is very likely that the difference in interests rate between Brazil and Europe before the 1850's was wider.

⁷²) See chapter II on the financing of Brazil's trade deficit in the first half of the XIXth century.

⁷³) This happened, for example in 1857, as will be shown in V.3.

current account was frequently in deficit.⁷⁴ During this period there were also variables outside the direct control of monetary policy - such as the coffee price - which strongly influenced the exchange rate⁷⁵. The long-term trend in the exchange rate, however, indicates that the Brazilian economy was subject to a tight monetary policy. Despite the relative weakness of the Brazilian balance of payments, the nominal exchange rate is remarkably stable in the long term in Imperial Brazil, whilst the real exchange rate tended to appreciate.⁷⁶

A stable monetary system based on the convertibility of all paper money in circulation into precious metal, although attempted by several finance ministers, was never feasible in Brazil. However an alternative financial system was not created and several economic crises with either foreign or domestic origins struck the Brazilian economy in the XIXth century⁷⁷. This

⁷⁴) Ferreira Soares estimated the payment of capital abroad in 1857/58 as a result of remittances by immigrants, profits, travel and payment on Brazilian foreign debts at about 18,400 contos de reis. That is more than two million pounds and about 20% of the 1856/57 exports. See Ferreira Soares, *Esboco ou Primeiros tracos da Crise Comercial*, pp.62/63. Viotti da Costa also suggested that profit remittance, mainly to British companies and interest payments, severely reduced the effects of the Brazilian trade surplus. See *Brazil:1870-1889*, op.cit., p.165.

⁷⁵) See on this subject DELFIM NETTO, A., 'Foundations for the Analysis of Brazilian Coffee Problems' in *Instituto Brasileiro do Cafe, Essays on Coffee and Economic Development*, Rio de Janeiro, 1973.

⁷⁶) See Statistical Appendix C, Table C.1.

⁷⁷) Mauá, speaking about the crisis of 1857, commented on the government's inability to create an alternative monetary system that attended the business needs - which according to him could not be the metallist proposal to convert all paper money into metal currency. According to him "Shortly after

chronic financial instability added further difficulties to credit operations and demanded from the merchants an increase in working capital costs to face the risks of such an environment .

Following the collapse of the Banco do Brasil in 1829, its bank notes were exchanged for treasury bills, together with a large share of the copper coins (bilhão) in circulation⁷⁸. After the closure of the Banco do Brasil until the failed attempt to found a bank in Ceara in 1836, there were no banks in Brazil. Although a bank was founded in Rio de Janeiro in 1838, it was only in the late 1840's that other banks were established and a financial system began to be organized in Brazil.⁷⁹

Until the establishment of those commercial banks, all credit operations were carried out by private bankers

its beginning this crisis exposed the weak prop on which the adherents of the metallist school relied to shore up their golden dreams of realizing the conversion of our paper money into metal, which I have always considered to be impractical (except on rare occasions) while other elements with a solid base in production, were not brought to support a similar idea. [Mauá, 'Autobiografia', op.cit.,; p.242]

⁷⁸) After this period there were also monetary reforms to adjust the economy to the new monetary system. In the years of 1833 and 1834 a law and several administrative edicts established a new parity for the exchange rate, regulated by the Casa da Moeda at Rio de Janeiro, and demonetized silver, which was restricted to the status of a simple divisionary currency. VIEIRA SOUTO, 'Finanças' in CENTRO INDUSTRIAL DO BRASIL, *O Brasil, Suas Riquezas Naturais, suas Industrias*, Rio de Janeiro, 1907, p.322-323; Calógeras, 'Política Monetária do Brasil', op.cit., pp. 48, 49, Law # 52 of 3/10/1833. About the financial reforms of the period see Law 8/10/1833, Decree of 13/3/34, Administrative order of 18/10/1833. See also Arquivo Nacional, *Organização e Programas Ministeriais: Regime Parlamentar no Império*, 3rd Gabinete, pgs.45/52.

⁷⁹) See chapter V.

such as the firms of Souto & Cia, Bahia Irmaos & Cia, Gomes & Filhos, Montenegro Lima & Cia in Rio de Janeiro; and Marinho & Cia in Bahia who discounted bills of exchange and endorsed bills.⁸⁰

In this situation working capital was easily available only to merchants directly or indirectly involved in foreign trade. The wholesale merchants benefitted from the long-term sales that the import houses usually granted, and generally financed their own sales with long terms for payment, when they did not receive products as payments.⁸¹ The alternative to this was access to the local banking merchants. Buyers of imported products in the domestic market signed invoices or gave letters of exchange to their suppliers, who for their part discounted these documents with their bankers - generally in this case private bank houses.⁸² There were very few places where resources for manufacturing firms could be borrowed. The banks would only

⁸⁰) Those banking houses continued to have a great importance in the financial market and enlarged their operations even after the establishment of bank companies, and there are records of new firms of this type being established during the fifties and the sixties. Examples of such firms are Almeida Reis & Cia, founded in 1858; Antonio Joaquim de Mello (1858), Duarte Souza Kannichfel & Cia (1860), Silva Pinto Mello & Cia (1861), Miranda Jordao & Cia (1860), Silva Pinto Mello & Cia (1861). See AZEVEDO & LINS, *Historia do Banco da Bahia*, op.cit., pp.11; LOBO, E, *Historia do Rio de Janeiro*, op.cit., pp.216/217.

⁸¹) On the London Financial market see Ch. II, pp.96,97, and see also ch. V. passim. On the long term loans given to Brazilian importers see LEVY, M.B., *História da Bolsa de Valores do Rio de Janeiro*, R.J., 1977.

⁸²) Foreign bankers preferred to operate in the export trade, or discounted bills of import houses. See CENTRO INDUSTRIAL DO BRASIL, *O Brasil, Suas Riquezas Naturais, Suas Industrias*, Rio de Janeiro, 1907..

lend them money with high interest rates and strong collateral. They preferred to lend money to commerce, which was a more secure enterprise, and not subject to the risks of a manufacturing activity⁸³.

Brazil failed to organize a financial system capable of supporting the needs of the urban businesses after the 1850's - a point that will be studied in depth in chapter V. An improvement in this situation can only be seen after the 1880's through scattered evidence of banks, specifically foreign banks, financing cotton mills, or Brazilian banks linked to coffee planters who owned textile mills⁸⁴.

(b) Financing of medium and long term investment

There are three models of industrial investment finance that have occurred in the world economy to date: (i) the endogenous process of accumulation by (a) reinvestment of profits (British case), (b) floating of shares in the stock market (U.S. case), (c) linkage effects from exports (Canadian case); (ii) the bank system as a central tool in transferring available capital from other activities to

⁸³) See Relatório da Comissão de Inquérito Industrial, Rio de Janeiro, 1882, p.59/60. According to this report, because the cost of money to manufacturing companies in Europe, especially in Britain, was about one third of that in Brazil, and was widely available, firms in Brazil needed double the net profit of the European companies to pay interest and provide funds to sustain investments in the development of the industry. (See p.60)

⁸⁴) See STEIN, *The Brazilian Cotton Manufacture*, ch.3,6,; DEAN, *The Industrialization of S.Paulo*, ch.4, VERSIANI, *Industrial Investment in an Export Economy*, p.16, CANO, *Raizes da Concentração Industrial em Sao Paulo*.

manufacturing (German case); (iii) the state acting as a source of subsidized capital and/or as the main entrepreneur (Russian case).

Although in all cases where a successful industrial revolution has been accomplished there was some mixing of the three processes referred to above, there are clearly cases where one method of financing predominated over the others⁸⁵. It can be said that there is an association between the level of backwardness and the method of financing industry; in the most developed country (Britain) growth was essentially a product of reinvestment of profit by firms organized as partnerships⁸⁶; in the U.S. case, more backward than Britain, corporations were used more widely than in the British case⁸⁷; in the Canadian case (a country of small population and large natural resources) her success as an exporter and her relatively equal income distribution allowed the spillover of investment from export

⁸⁵) GERSCHENKRON (*Economic Backward in Historical Perspective*, op.cit.) was the first author to call attention to different ways of financing industrial investment in distinct countries. CAMERON edited two very important books testing this hypothesis using the method of comparative economic history. See CAMERON, R., *Banking in the Early Stages of Industrialization*, Oxford University Press, 1967; CAMERON R., ed., *Banking and Economic Development*, New York, 1972.

⁸⁶) On British industrial finance see COTRELL, *Industrial Finance*, MATHIAS, *The First Industrial Nation*, LANDES, *Unbound Prometheus*.

⁸⁷) On U.S. industrial finance see CHANDLER, 'The United States: Evolution of Enterprise' in MATHIAS & POSTAN eds., *The Cambridge Economic History of Europe*, Cambridge, 1978, JAMES, J. *Money and Capital markets in Postbellum American*, Princeton, 1978; SYLLA, R. 'The United States (1863-1913)' in CAMERON, R., *Banking and Economic Development*, N.York, 1972.

activities to manufacturing⁸⁸; in Germany, a country with larger barriers to development than Canada (such as the late political and economic unification of the country) and less developed than Britain and the U.S.A., private financial capital was the leader in the process⁸⁹. In Russia, the most backward of the latecomers, it was the state which had to play a fundamental role.⁹⁰

I sustain that: (i) in XIXth century Brazil, a country more backward than Russia (the most backward of the latecomers), the government did not act according to the Russian model - that is it did not provide state support for industrialization.

(ii) Due to its monetary policies (as well as for political reasons), the government in Brazil undermined the establishment of a system of financial capital that could attempt to play a dynamic role in the economy. So the German and Russian models - the two traditional alternative ways open to latecomers - were closed to Brazil.

⁸⁸) On Canada see the essays of the economic historian who popularized the staples theory of growth H.A. INNIS, *Essays in Canadian Economic History*, University of Toronto Press, 1956; see also M.W. Watkins *Approaches to Canadian Economic History*, Carlton Library, McClelland and Stewart, 1964; See a critique of the staples theory in FOGARTY, 'Staples, Superstaples and Limits of Theory: The Experiences of Argentina, Australia and Canada Compared' in PLATT, D.C.M & DI TELLA, G., *Argentina, Australia & Canada: Studies in Comparative Development, 1870-1968*, Oxford, 1985.

⁸⁹) On Germany see GERSCHENKRON, *Economic Backwardness in Historical Perspective*; MILWARD & SAUL, *Economic Development of Continental Europe*; BORN, Karl Erich, *International Banking in the XIXth and XXth Century*, Berg Publisher, 1984.

⁹⁰) On Russia see CRIPS, O., 'Banking in the Industrialization of Tsarist Russia, 1860-1914' in *Studies in the Russia Economy before 1914*, London, 1976; see also GERSCHENKRON, *Economic Backwardness in Historical Perspective*.

(iii) Brazil also failed as an exporter during the XIXth century, so the Canadian way cannot be considered as feasible for most of the century.

(iv) Brazil delayed setting up legislation that facilitated the establishment of joint stock or corporate firms; however, this legislation - even if it did not create insurmountable difficulties in the establishment of corporations- lagged far behind the legislation of more advanced countries. So the U.S. way was also blocked.

(v) In Brazil early industrial investment was largely financed through internal capitalization, or through transfer of funds from other business to manufacturing. But in Brazil, unlike the U.K, this was a sign of weakness more than of strength. The level of investment depended upon the profit generated by the firm and the size of profit depended on the scale of production; the small and unintegrated Brazilian market, high domestic costs and competition with imports curbed profits and therefore investments and economic development. The investment rate could only grow steadily when increasing profits in other areas (e.g. coffee) created linkages that encouraged investment from merchants (or other entrepreneurs) in manufacturing. But this only happened after the seventies and, furthermore, only in one region, (Southeastern Brazil).

The state in Brazil hindered the development of the system of financial capital which developed in Germany, or the combination of a permissive financial system with wide

use of shares floated to obtain capital, which was adapted in the U.S.A. through (a) a monetary policy and a financial structure that was set up by the metallist current, which controlled most of the finance ministries in Imperial Brazil and was highly inadequate for domestic needs (see chapter V); (b) the delay in implementing liberal legislation in joint stock companies in Brazil and the prevention, for political reasons, of the development of investment banks in Brazil.

Until the middle of the XIXth century, the limited-liability companies were associated in Europe with the charter mercantilist companies of the XVIIIth century. As such, they were generally regarded with suspicion by not a few liberals who supported individual initiatives, and who saw the partnership as the place where the dynamism and creativity of the entrepreneur took full responsibility, with all his personal belongings, for the financial results of his trade. Classical economists such as McCulloch and John Stuart Mill were vehemently opposed to limited-liability, although Ricardo favoured it⁹¹. Statesmen of

⁹¹) McCulloch, following Adam Smith, accepted joint stock companies for public utilities, banks and insurance, but considered it unthinkable that agricultural, manufacturing and commercial business should be organized in any form other than as a partnership. In a pamphlet written in 1856 he stated that "*If honestly conducted they [the joint-stock companies] must fail in their competition with private parties, and if otherwise they will only add to the means, which are already sufficiently extensive, of wasting capital and fleecing the public.*" [McCulloch, J.R. 'Considerations on Partnerships with Limited Liability, 1856, p.6, see also COTRELL, P.L., *British Overseas Investment in the XIXth Century*, London and Basingstoke, 1975pp.49/50]. Jenks perspicaciously observed that Stuart Mill criticized the

finance, such as Lord Overstone, Thomas Tooke, J. Horsley Palmer, George Carr Glyn, were also suspicious of these kinds of organizations⁹². However after the 1850's the limited-liability law was liberalized in country after country until it had spread to most European countries by the seventies.

Outside Europe the United States was a pioneer in liberal corporation law. On the eve of the War of 1812 the state of New York approved a general incorporation law to encourage capital to engage in certain manufacturing industries. This principle spread in the codes of U.S. states and by 1850 incorporation by special legislative act had almost disappeared. In the huge fever of railway building in the U.S.A. in the forties and the fifties, stock flotation would stand together with bonds as an important means of gathering capital⁹³.

The French Commercial Code (1807) was the first modern legislation on limited-liability companies, becoming the basis for the company law of Belgium, Holland,

conducting of business by means of companies on the precise grounds which in other generations had been alleged against government ownership. JENKS, *Migration of British Capital to 1870*, op.cit., p.236, and p.396, n7.

⁹²) Ibid., p.236, see also the several Parliamentary Reports on this subject, First and Second Reports of the Select Committee on Joint Stock Companies 1836 and 1837; Report of the Select Committee on Joint Stock Companies 1844; Report of the Mercantile Law Commission, 1854.

⁹³) JENKS, *Migration of British Capital to 1870*, pp.234/235; DAVIS & GALMANN, 'Capital Formation in the United States during the Nineteenth Century' in MATHIAS & POSTAN eds., *The Cambridge Economic History of Europe*, Cambridge, 1978 ; CHANDLER, 'The United States: Evolution of Enterprise' in MATHIAS & POSTAN eds., *The Cambridge Economic History of Europe*, Cambridge, 1978..

Switzerland, Italy and Spain; it also provided the inspiration for the earlier company law of Germany and strongly influenced the Brazilian Commercial Code of 1850. Among its clauses, this code made the distinction between the true joint stock company (société anonyme) and a mixed form, where there was active and sleeping partnership (société en commandite). The capital of the non-active partners had limited liability, but the active one (gérants) did not⁹⁴.

In Brazil commercial legislation evolved at a slower pace than in Europe and in the United States; the progress achieved through the adoption of the Commercial Code put an end to the complicated old colonial legislation, amended by a mass of decrees and interpretations that regulated commercial activities. This code was approved in 1850, 16 years after the first bill had been proposed by the government based on a draft written by a committee composed of a magistrate (José Clemente Pereira) and four businessmen (José Antonio Lisboa, Ignácio Ratton, Lourenço Wertin and Guilherme Midosi); it was presented to the chamber of deputies in 1834⁹⁵. This law was based on the French Code. However, very soon, some of its more liberal features were changed by further legislation, such as the decree #1487 of December 1854 and Law #1,083 of 22/8/1860, that provided a hostile interpretation of the sociedades comanditárias and

⁹⁴) See CLAPHAM, *Economic Development of France & Germany*, London, 1968, p.130.

⁹⁵) Arquivo Nacional (1962), pp. 106/107.

created more restrictions on the creation of joint stock companies.

A good example of the narrow interpretation of the sociedades comanditarias, implemented for political reasons, showing how government action could hinder the development of financial capital, was the frustrated attempt of Barao de Maua to set up a large investment bank in Brazil.

Mauá intended establishing a large limited-liability firm as a means of creating a large investment bank, to make long-term investments, on the model of Pereire brothers' idea of Credit Mobilier in France⁹⁶. Actually the similarity of the objectives can be perceived from Mauá's description of the role of this bank:

"...the administration of the great bank was concerned with establishing, on a wide base, the credit mechanism which brought it about."

"the creation of a subsidiary branch in each and every one of the capitals of the 20 provinces of the empire, in addition to others in localities where steady economic development became manifest should, it seemed to me, be put forward immediately as a gradual process, but done without delay and with great perseverance. With the governments permission to organize these sub-offices in whatever mode the directors thought most convenient the greatest difficulty disappeared; as with regard to personnel, the

⁹⁶) On the Credit Mobilier, see BORN, *International Banking in the 19th and 20th Century*, op.cit., pp.72/82; JENKS, L, *Migration of British Capital to 1870*, op.cit., pp.240/245. Faria noted the coincidence of dates and the similarity of the Mauá bank and the Credit Mobilier, both around 1853/54, p.245. The Pereire brothers, the founders of the Credit Mobilier, were jews of Portuguese extraction, born in Bourdeaux, and strong supporters of the Saint-Simonian concept that industrialists were the engine of the society, and that banks should be created to free the energies of society. They collected the small savings of the common people idle through lack of alternative and invested them in industry and transport, freeing the industries from the traditional 'haute finance'. See FARIA, Mauá, op.cit.

directors would chose their subordinates, and to capital, nothing would prevent a minimum level appropriate to local demands, from being augmented by means of the transactions undertaken. It was a lesson and a apprenticeship in the use of credit in a land so vast that little was known of it at that period outside the capital; and even there its movements were benumbed, it being certain that its fumbling attempts in a few small provincial capitals did not represent the drawing of any financ.al ideas."

"The bank of Brazil thus had the mission of making known the use of the most powerful tool of modern civilization, in terms of the creation of wealth throughout our native land, and its penetration of the economic life in those localities where the presence of sufficient elements, whether created or creative, would enable it to be employed to advantage." 97

His first attempt to create an investment bank was the foundation of the Banco do Brasil in 1851 with a capital of 5,000 contos de reis⁹⁸. This was a very large venture for the period, made possible because its founder had good connections in the financial market in London, as a result of his long partnership and friendship with the English merchant Richard Carruthers.⁹⁹ This bank was organized as an issue bank, that is, it received deposit in bullion and issued notes convertible to the bearer. At that time the Banco Comercial do Rio de Janeiro also had the right of issue and operated on the line of Mauá's Banco do Brasil¹⁰⁰.

In 1853, the finance minister, Rodrigues Torres, the future Visconde de Itaboraí, a convinced metallist, and a man who carried considerable weight with the Emperor,

⁹⁷) Mauá, *Autobiografia*, op.cit., pp.233/234

⁹⁸) The first Banco do Brazil was closed in 1829. See above

⁹⁹) See MARCHANT, 1965, P.117.

¹⁰⁰) See Calogeras, PACHECO. See also Chapter V.

strongly defended the idea of a single bank of issue (Banco do Brazil), to be created from the merger of the then two banks of issue¹⁰¹. Very soon Mauá's conception of banking came into conflict with the conservative view of making the new Banco do Brasil a "great local discount bank- and as such required to obtain the highest rate possible, the governing factor being the greater or lesser confidence of the directors of the firms involved in these transactions"¹⁰².

Mauá, at odds with the orientation of the Bank of Brazil, refused to enter its administration, and tried to create an alternative bank. The Commercial Code recognized three kinds of companies: (i) The firm of unlimited responsibility; (ii) the joint stock company and the (iii) 'sociedade por comandita', a mixed form, between joint stock company and the firm of unlimited responsibility drawn for the French Commercial Code of 1807.

The commercial code represented a step towards the setting up of a more enlightened entrepreneurial legislation in Brazil but it severely restricted the setting up of joint stock companies, which depended on parliamentary authorization. However, it included the French idea of the 'sociedade por comandita' in its articles, as a compromise

¹⁰¹) See PACHECO, C, *Historia do Banco do Brasil*, vol II, p.129/39.

¹⁰²) Mauá, *Autobiografia*, op.cit., p.235; Marchant (1965), ch.IX; FARIA, *Mauá, Ireneo Evangelista de Souza Barão e Visconde de Mauá, 1813-1889*, Rio de Janeiro, 1926, ch.XV

between the joint stock company of limited responsibility and the traditional firm of unlimited responsibility.

Maua intended to organize a bank that could use private savings from many people which would not have been possible in a firm of unlimited liability (or partnership). Not being able to create a limited -liability society, which would depend on the authorization of parliament, he used the concept of 'sociedade por comandita'. This system would serve the Baron's needs since, according to the code, the managing partner of this society would have unlimited liability, but the other partners, who could not participate in the administration, would have only limited liability.

In July 1854 the banking house Mauá, MacGregor & Co. signed the Memorandum of association (contrato social), the managing partners being Mauá, Donald MacGregor and João Inácio Tavares¹⁰³. Mauá had previously taken care to consult the Marquês of Paraná, then chief of the ministry and minister of finance, who expressed his understanding that there was no law that prevented this kind of business. However, after successfully floating the shares of his company, his opponents, particularly the Visconde de Itaboraí, were successful in preventing its operation. Rodrigues Torres could not accept the creation of a competitor to the new Banco do Brasil and claimed that simply because the law did not prohibit such companies it could not necessarily be assumed that it permitted them¹⁰⁴.

¹⁰³) *ibid.*, p.238

¹⁰⁴) Marchant (1965), p.123

He was able to urge the Council of State to hand down an opinion against the possibility of the creation of such companies, although the old Marquês de Olinda voted against it¹⁰⁵. This was expressed in decree #1487 of December 1854 which forbade 'sociedades em comandita por ações' and decreed the abolition of such societies. Mauá had no alternative but to change the nature of his firm, which prevented him from using it as a means of collecting capital on a large-scale for long-term investment. He explained this with clarity saying that:

*"[with the decree of 12/1854] The mechanism of this institution was therefore discredit at its base - that is the division of social capital into shares that were transferable at their holders will - after the withdrawal of the subscribed capital which, together with the influence which all accorded me at that period, would have aided me in raising a huge sum in social capital, in accordance with my greater vision, as it had been my intention to do what the Bank of Brazil had refused to do."*¹⁰⁶

Banking in Brazil, during the imperial period, did have a limited role in long-term financing. On the other hand, although there were some spurts in the formation of corporations in the late fifties, early seventies and early nineties, they were always followed by longer periods where very few new companies were set up [See Table III.3].

¹⁰⁵) Ibid.

¹⁰⁶) Mauá, *Autobiografia*, op.cit., p.240

TABLE III.3
 BRAZIL: QUINQUENNIAL NUMBER OF LIMITED-LIABILITY AND
 COMMANDITAIRE SOCIETES AUTHORIZED TO START OPERATION
 (1850-1874)

PERIOD	(a) BRAZILIAN	(b) FOREIGN	PERIOD	(a) BRAZILIAN	(b) FOREIGN
1850/54	36	2	1875/79	134	17
1855/59	101	6	1880/84	50	36
1860/64	28	16	1885/89	29	48
1865/69	27	19	1890/94	233	14
1870/74	139	31	1895/99	16	35

Source: (a)- Computed from *Sociedades Mercantis Autorizadas a Funcionar no Brasil (1808-1946)*; (b)- Onody (1973) from 1850 to 1859; Castro (1979) *Tabela Matriz*.

Most of the Brazilian limited-liability companies were banks and insurance organizations, although from the seventies there were a number of railroad, shipping and even some industrial flotations [[See Table III.4] ¹⁰⁷. Even so, although the stock market never contributed significantly to supplying resources for long-term investment or industrialization in Brazil, by the first decade of the XXth century not a few industrial firms were organized as limited liability companies. Thus, by 1907, of the three largest Brazilian industries (textiles, sugar and brewery), 86.4%, 22.6% and 64.5% of their sector's capital belonged respectively to firms organized in this way¹⁰⁸. The operation of the Brazilian stock exchange was another

¹⁰⁷) For a complete list of the limited liability corporations in Brazil see Ministério do Trabalho, Indústria e Comércio - *Sociedades Mercantis autorizadas a funcionar no Brasil (1808-1946)* - 1946.

¹⁰⁸) See CENTRO INDUSTRIAL DO BRASIL, *O Brasil, Suas Riquezas Naturais, Suas Industrias*, op.cit..

barometer for evaluating entrepreneurial finance through floating shares. It can be seen from Table III.4 that the number of companies with shares traded in the stock exchange was very low before the late 1880's, and throughout this period three sectors (banks, insurance and transport) represented nearly the entire stock exchange operations with manufacturing activities representing very little.

TABLE III.4
RIO DE JANEIRO STOCK EXCHANGE: NUMBER OF COMPANIES WHOSE SHARES
WERE TRANSACTED (1859-1889)
(Annual Average) (*)

Sectors	YEARS							
	1850/54	55/59	60/64	65/69	70/74	75/79	80/84	85/89
1-Banks	2	4	4	4	6	6	n.a	6
2-Insurance	1	1	2	2	2	5	n.a	8
3-Textiles	-	-	-0-	-	-	-	n.a	2
4-Food/and Beverage	-	-	-	-	-	-	n.a	1
5-Transport	3	4	5	5	8	7	n.a	20
6-Public Services	-	1	1	2	1	2	n.a	2
7-Others	-	1	-	1	1	2	n.a	6
8-Total(**)	6	10	11	14	19	22	n.a	54

Source: Computed from data collected by Levy (1977), pp.109/112, based on Junta dos Corretores de Fundos Públicos da Cidade do Rio de Janeiro- Livros de Cotações Oficiais de Títulos e Valores.

(*)- Annual Average of the number of firms whose shares were transacted in the years that deals were registered. There are no registers for the years 1851, 1853, 1854, 1860, 1868, 1870, 1871, and from 1880 to 1885. The original research had a sample of six months each year. The months chosen were not the same each year. Numbers approximate to the nearest unit.

(**)- The total might not be equal to the sum of the parts due to the approximation.

Symbols - - = nil;

-0- = less than 0.5

In Brazil early industrial investment was largely financed through internal capitalization, or through transfer of funds from other business to manufacturing. But in Brazil, unlike the U.K, this was a case of weakness more than a case of strength. Brazilian manufacturers had no alternative but to use their own profits as sources of finance. If their capital came from other business, such as the import trade, economic rationality implied that they would invest in manufacturing only in so far as the profit rate was at least equal to that in their main activity. The profit rate would depend, of course, on technology, size of market and competition with imports.

The level of mechanization of Brazilian manufacturing firms was very low throughout the XIXth century.¹⁰⁹ Cotton mills, particularly weaving, appeared to be an exception to this rule. In weaving, the manufacturer needed a relatively small amount of capital in comparison with spinning.¹¹⁰ In the early 1880's a report on the

¹⁰⁹) This is easily seen from the numerous descriptions of manufactures in Brazil, in reports such as RTV-1853, Relatorio da Exposicao Nacional de 1861 or the Relatório da Comissão de Inquerito industrial, in the several RMF, and accounts of Centro Industrial do Brasil.

¹¹⁰) See Relatorio da Comissao de Inquerito Industrial, 1882, p.40. As early as 1853 there are descriptions of several cotton textiles firms with modern machinery imported from Europe or the U.S.A. Such was the case of Joaquim Diogo Hartley's cotton mill in Andarai, Rio de Janeiro, who had 76 looms, that could work up to 60 h.p. each, and who hired 56 employees; In Mage a cotton mill that belonged to a U.S. merchant house had 50 looms, used machines imported from the U.S.A., and hired 116 workers; the spinning and textile cotton mill of Andaray Pequeno, founded in 1850, had 459 spindles for coarse yarn, and 900 spindles for finer yarn, all driven by water power. See RELATÓRIO DA TARIFA EM VIGOR-1853.

textile industry could say that: "imports were soon shown to be matched by the competition that they found in the products of our factories and were obliged to retract considerably and to sacrifice their prices for a time in the hope of undercutting the country's products, but this did not profit them as the industry continued to develop"¹¹¹. However, this did not apply to other manufacturing activities which faced the problem of finding capital to introduce technical improvements so that they could continue to be competitive with imports. The oscillation of exchange rates and of import tariffs was also a further difficulty for investments with longer periods of return. This was noticed by the report on the textile industry, in 1882, that pointed towards the instability of the tariff as a great evil because "the capitalists fear to embark on large-scale enterprises which always demand a period of some years to develop, in case they should be subject to some sudden alteration in import taxation in this period which would upset all their calculations, or paralyze the work of the factories"¹¹².

The difficulties faced by Brazilian industries in transferring technological improvements made abroad is well illustrated by the case of the hat industry, one of the oldest and most important of the empire. In 1846 there were six hat factories in Rio de Janeiro and twenty years later this number had reached 21. In 1852 there were 40 factories

¹¹¹) RELATÓRIO DA COMISSÃO DE INQUÉRITO INDUSTRIAL, p.39.

¹¹²) Idem, p.58.

in the provinces, of which 23 were in Pernambuco¹¹³. In the 1840's the plush silk hats (chapéus de pelúcia de seda) made in the country were considered to be of very good quality, equivalent to that made abroad. The felt hats (chapéus de feltro) were craft-made, as was the case in most of those manufactured in Europe, where only simple tools and bending machines (máquinas de arcar) were used. In spite of the fact that the quality of the felt hats made in Brazil was equal to the imported product, domestic production was not large enough to supply the domestic market and imports were larger than local output. The number of manufacturers was large, although they generally operated on a very small scale; it was an industry with a low level of concentration. Their operations demanded a very limited amount of fixed capital, but a large number of workers and thus the growth of the firm depended upon the availability of working capital for the payment of wages and raw materials stocks. For this reason, there was a tendency among the smaller producers, when they were not able to obtain enough working capital, to sell their premises to larger manufacturers who could obtain resources for their operations¹¹⁴.

¹¹³) Relatório da Comissão de Inquérito Industrial, p.66.

¹¹⁴) A testimony on the relative development of this industry was the report of the National Exposition of 1861 which said that: "It is one of the most advanced and developed industries that we have; the consumption of Brazilian-made silk hats is actually large, to the extent that it considerably diminishes the importation of this article, by reason of the high quality of this same product and the price at which it is sold; the existing factories prosper and multiply, many of them ceasing to delude the public with false labels claiming to be made in Paris, and are very well received and bought on a large scale. The same

However, technical innovations introduced into this field again changed the characteristics of production, demanding changes from the Brazilian manufacturers. As was mentioned, most of the work in the hat factories was done manually, although sewing machines and other simple machines and tools were used. But from the sixties onwards manual work began to be replaced by steam-driven machines, multiplying production and greatly reducing prices. From this period the craft production of the past was progressively replaced by the factory system and the large manufacturers in the country began to buy steam machines and fight for a larger share of the market to make their investment profitable. The use of such machines demanded larger funds for investment, and to pay for it, a larger production and a larger market. However, several manufacturers, established in commercial streets in the central areas of the town, as was the case with the Rio de Janeiro producers, had no space for expansion to introduce the new machines, and also needed to move to other areas where they had more space and better operating conditions. Many small manufacturers were not able to make these changes, and several saw their profits fall rather than increase with the introduction of steam machines, leading

is happening with hats made of otter, hare, rabbit or beaver fur, which improve from day to day displacing the imported articles." Relatório da Exposição Nacional de 1861, p.234, quoted in Relatório da Comissão de Inquérito Industrial Apresentado ao Ministro da Fazenda, R.J., p.69.

several of them to abandon these new techniques and return to the traditional methods.

Nevertheless, the manufacture of felt hats continued to grow until 1874 and domestic producers were able to win an increased share of the market, protected by tariffs high enough to prevent large imports of hats for the mass market. However, by this time a new kind of wool hat had arrived in the market, imported from Europe. This kind of hat, until then a coarse product of bad quality, had undergone several technical improvements and the European manufacturers were able to make them perfectly similar to the hair hat (chapéu de pêlo), which was generally made from rabbit hair and much more expensive to manufacture. This led several manufacturers, who were heavily committed to the hair hat, to stop production and there was a movement among the hat manufacturers to increase protection. This movement led to debates in the "Sociedade Auxiliadora da Indústria Nacional" and was reinforced by the support for a strong protectionist policy among representatives of other industries, such as textiles. This sector, which had been growing fast since the second half of the Paraguayan War, also suffered some difficulties in the late 1870's as a result of the restrictive monetary policy and of the 1875 crisis. This movement gained growing attention in the press and culminated with the setting up of the Associação Industrial, in 1881, to defend the manufacturers' interests. Associação industrial's first president was Felício dos

Santos, a member of the parliament and industrialist, who would lead a large offensive in favour of a policy to increase protection for domestic industry¹¹⁵.

This led the minister of finance, counselor Saraiva, to establish by the end of 1881 a commission to inquire into the situation of the manufacturing industries in the country and their problems¹¹⁶. The commission, in reporting on hat manufactures' complaints on the difficulty of obtaining capital and buying machines, said that:

"All of the hat manufacturers stressed as their most notable difficulty in developing their trade, the small protection offered by the customs tariffs and the constant oscillation of the same, with considerable prejudice to them, preventing them from acquiring modern machinery of any great value and demanding protection for the prosperity of the same industry by raising the duties on imported wool and hair hats, principally those of the modern type with hard brims and hard crowns, whilst at the same time, reducing the duties on raw materials, particularly on sweatbanks, cotton or cotton and

¹¹⁵) The Sociedade Auxiliadora da Indústria Nacional was set up in 1827. It continued until the end of the century, and had an active participation in the diffusion of progressive ideas for the improvement of Brazilian industries, industry being understood in the broader meaning of agricultural, commercial and manufacturing activities. This society regularly published a monthly review from 1833 to 1892, containing the minutes of meetings of the society, articles and studies. This is an important source for the understanding of the debates on tariff protection, and problems of agriculture, and manufacturing industry in Brazil. For a summary of these debates see CARONE E., *O Centro Industrial no Brasil*, Rio de Janeiro, 1978, pp.53-62. Another study on the Sociedade Auxiliadora is Werneck da Silva (1979). See also Luz, *A luta pela Industrialização do Brasil*, S.Paulo, 1965.

¹¹⁶) Aviso of 15/12/1881. Although the importance of this commission's report was reduced by the relatively small number of manufactures investigated (136 from the court municipality and 32 in the provinces), some sectors, such as hats and textiles, provided information important for an understanding of their problems.

silk padding, silk and cotton, or cotton, tapes and laces"¹¹⁷.

The above analysis shows that the hat industry was able to compete with imported products when the technology was not sophisticated and the level of investment was low. As technical improvement demanded increasing levels of investment, they began to have difficulties in keeping up with foreign competition.

Thus, in Brazil to the extent that manufacturing industries depended on their own resources to invest, they were vulnerable to the level of profitability of their businesses and the availability of capital from other businesses to survive in the long-term. Suzigan has shown that the real stock of money, export receipts and exchange rate are relevant variables to explain the level of investment in Brazil [See Table III.5]. The increases in the real stock of money and export receipts implied expansion of the domestic market, while exchange rate devaluation implied higher profits for manufacturing products, as foreign products will now be less competitive. The overvaluation of the mil-reis for long periods due to the restrictive monetary policy certainly added some difficulties to industrial investment, reducing the competitiveness of domestic industries¹¹⁸, but it is in the

¹¹⁷) Relatório da Comissão de Inquérito Industrial, pp.85/86. Ours Italics

¹¹⁸) VERSIANI shows that due to the overvaluation of the mil-reis, there would be a sharp decrease in the domestic production of textile competitiveness vis-a-vis imports, through the period 1860-1913, in the absence of tariffs

study of the domestic market (see chapter IV) and of the Brazilian monetary policy (see chapter V) that I will look for further elements to understand the slow pace of economic growth in Brazil during the XIXth century.

TABLE III.5

BRAZIL: INDUSTRIAL INVESTMENT, EXPORTS, IMPORTS EXCHANGE RATES AND REAL STOCK OF MONEY - 1869-1913- (Annual Growth Rates in Percentage)

Periods	Industrial Investment	Export Receipts	Real Imports	Exchange Rate	Real Stock of money
1869-73	24.6	5.7	2.5	-7.8	8.9
1874-79	-5.9	0.4	-3.2	3.4	-0.7
1880-95	11.2	5.2	-2.0	4.9	4.3
1896-01	-13.6	0.2	1.0	-2.2	-6.7
1902-13	15.5	5.2	2.7	-2.9	5.2

Source: Suzigan, *Industria Brasileira*, p.93.

NOTE:(i)- Industrial Investment was estimated by Suzigan through the exports for Brazil of industrial machinery from U.K., U.S.A., France and Germany.

(ii)- The export receipts were based on the current pounds sterling export values published in AEB-IBGE (1939-40).

(iii)- The real import price was estimated by the author based on the concept of aggregate equivalent ad valorem tariff [See on this concept Malan et al (1977), pp.372-79.], import prices, domestic prices and exchange rate.

(iv)- Real Stock of money used the concept of M2, that is, it included current account deposits, and was deflated by an index of domestic prices.

(v)- Exports receipts and real stock of money were computed with a one year lag.

(vi)- The exchange rate was based on on the relation mil-reis per pounds sterling. Thus, a negative change is equal to a mil-reis appreciation.

III.3-CONCLUSION

Manufacturing was not an exception to the picture of failure and stagnation of the Brazilian economy in the first half of the XIXth century. In the second half of the century, however, particularly after 1867, manufacturing in

increases. See *Industrial Investment in an Export Economy*, pp.22,23.

Brazil performed better. But the better performance of manufacturing in Brazil in this latter period was not enough to change the picture of a very backward economy by the end of the century.

Brazil did not use, as European latecomers and the U.S.A. had done, alternative sources to finance its industrialization. In Brazil it had to be 'spontaneous' as was the case in Britain. The British case, however, can only be understood by considering the special position of this nation as the first industrial country and the characteristics of the London financial market, the financial capital of the world throughout the last century. Britain was a country with a higher per capita income than the continental countries, which meant a market for consumption of the industrial products and availability of savings once channels were developed to use those savings. On the other hand, a fair number of early mill-owners were men with merchant experience selling finished commodities; 'putters-out', who had some direct experience in manufacturing, or a few small producers that had some commercial experience and had accumulated some resources¹¹⁹. All these people had working capital to start a manufacturing business, which in the beginning needed very little fixed capital and depended essentially upon working

¹¹⁹) Landes, *Unbound Prometheus*, op.cit., p.66, CHAPMAN, Stanley *The Early Factory Masters*, Newton Abbot, 1967, p.78. MENDELS, Franklin "Proto-industrialization: The First Phase of the Industrialization Process' in *Journal of Economic History*, vol 32 (1972), p.244.

capital. Their previous business had generally enabled them to accumulate enough resources to establish their firm and their business relations, and they enjoyed easy credit in the banking institution, through their use of discount bills and drafts. On the other hand, in the traditional London market structure of the Bank of England, brokers and agents for country banks, discount houses and private bankers covered everything needed to expand commercial activities domestically and abroad, as well as furnishing a market for bonds and shares for the development of the basic structure that the country needed for business, such as railways, shipping and insurance.

Britain had capital, a developed financial structure and a large market for their products; thus, this country had the requisites to growth based on reinvestment of entrepreneurs' profits. The Brazilian position was, of course, complete different. Brazil's per capita income was low, exports per capita grew slowly, the domestic market was restricted, the financial structure inadequate. So the surprise was not the stagnation, but the fact that some degree of transformation took place towards the end of this period. Therefore, to understand both the slow growth of the Brazilian economy in the second empire period and the beginning of industrialization at the end of this period, we must look to (i) the domestic market in Brazil; (ii) the political economy of the second empire, that is the economic policies implemented in this period; (iii) the

characteristics of coffee, as a product that had an increasing international market, but was not subject to decreasing prices due to international competition. This will be done in the next three chapters.

CHAPTER IV
THE DOMESTIC TRADE
IV.1-INTRODUCTION

This chapter studies the trade in the Brazilian domestic market. It will analyse the operations of the channels of distribution and the major trends in domestic trade, exploiting the links between domestic and foreign trade, wholesale and retail, Brazilian and foreign ownership of commercial outlets and the financing and level of monetization of commercial activities.

However, before starting, it is necessary to make some introductory remarks about the importance of such a chapter in this thesis. In the last two chapters I have shown that Brazil (i) failed as an export country and (ii) failed to set up a manufacturing industry until late in the XIXth century. I have also argued that, even if there were important barriers to economic changes in Brazil, the failure of Brazilian economic development cannot be taken for granted but must be explained. Gerschenkron argued that the degree of difficulty to start an industrial revolution in a country depended on its level of backwardness.¹ However,

¹- I am using the concept 'industrial revolution', with small letters, according to Landes definition as "that complex of technological innovations which, by substituting machines for human skill and inanimate power for human and animal force, brings about a shift from handicraft to manufacture and so doing, gives rise to a modern economy". This concept must be distinguished from 'Industrial Revolution'- with capital letters- defined as "the first historical instance of the breakthrough from an agrarian handicraft economy to one dominated by industry and machine manufacture". See LANDES, D. *The Unbound Prometheus*, Cambridge University Press, 1968, p.1. About Gerschenkron's

this author never developed precisely his concept of backwardness, which was always a weak point in his theory, since it did not lead to a measurable entity. He defined backwardness in relative terms, mixing in this explanation heterogeneous variables such as level of output or level of illiteracy, always comparing country A with country B - a method which I consider highly subjective and unsatisfactory for the construction of his theory. On the other hand, to base a theory of possibilities in starting an industrial revolution on data such as level of output can be very confusing and hardly operational. For this reason I prefer to define backwardness in an objective way by saying that it is a function of the degree of mercantilization of an economy. That is, an economy where the market occupies an important aspect in the organization of productive activities is more advanced than another where the economy is based on autonomous units with a low level of exchange and very low monetization.² The study of the domestic market is thus vital for the analysis of the degree of complexity

definition of backwardness see GERSCHENKRON.A. *Economic Backwardness in Historical Perspective*, op.cit., pp.42/44.

²- Thus, although a society that has a rural handicraft industry and a food commercial industry in Mendel's model of proto-industrialization is as pre-capitalist as the typical feudal society where the fief is essentially supplied by its own food production and its own rural industry, or as a slavocrat economy, where slave labour produces its own food needs, and domestic slaves spin and weave their own clothes, needing very few products from outside the economic unit, the former is more advanced than the others because it demands a much more sophisticated structure of merchant exchanges and opens space for a much larger domestic market. See Mendels, Franklin F. 'Proto-Industrialization: The First Phase of the Industrialization Process' in *Journal of Economic History*, vol 32, 1972.

and monetization of the domestic economy, showing the opportunities open for entrepreneurs to invest. Finally, it can be argued that the higher the level of trade within a pre-capitalist economy, the more easily capitalist relations spread through this economy, and the more easily can money capital be accumulated in trade and transformed into industrial capital in a subsequent period.³

This chapter shows that: (i) domestic trade never had a large economic role in Brazil, lagging far behind foreign trade; (ii) most coastal trade was reselling of imported products and wholesale commerce was essentially integrated with foreign commerce, as the supply of products from abroad was the most important source of goods in the country; (iii) there was a certain degree of complexity of commercial activities in the urban centres, where there was some monetization of the economy, but this complexity never spread to rural areas or smaller cities; (iv) commercial activities were mainly performed by foreigners among urban merchants, particularly in wholesale, but also in retail; (v) finally, because the domestic market was small, and there were no great opportunities for investment due to the lack of dynamism in the domestic trade, the only alternative to capital accumulation was foreign trade, where, as we have

³- This approach is also consistent with Kravis' theory of the role of the domestic market in the economic success of some countries in the XIXth century.

already shown in chapter II, Brazil was relatively inefficient.⁴

IV.2-THE STRUCTURE OF DISTRIBUTIVE TRADES IN BRAZIL: WHOLESALE AND RETAIL BY THE MIDDLE OF THE XIXth CENTURY

Domestic commerce in Brazil can be divided between coastal and internal trade. The first included the major coastal trade (*grande cabotagem*), that was essentially the larger flow among the various regions of the country, and the minor coastal trade (*pequena cabotagem*), that was essentially the small flow along the coast of a province, or between neighbouring provinces with close economic links around one of the larger cities, which was the regional metropolis. The internal trade included trade by land, which until the 1870's was mainly by pack mule, river transport (carried out by steam and sail boats) and the wholesale and retail urban activities.⁵

⁴- This last point assumes that alternative paths to capital accumulation such as was followed by the European latecomers were discarded for the reasons mentioned in chapter III.

⁵- In relation to the interprovincial trade, I was only able to organize a consistent table for the coastal trade, which mainly consisted of the major coastal, but also the minor coastal trade. This table includes all traffic among ports with custom houses; thus, it comprises all coastal trade except for a tiny share representing local trade within the provinces (See Statistical Appendix F). The interprovincial internal trade cannot be determined with any precision because there was no official register to be used as an original source for it. However, information is available in references made by travellers and contemporary analysts, which allow us to gain some idea of its dimensions. For this reason this kind of trade will be analysed in a qualitative way through indirect information, rather than through a quantitative approach using data drawn from registers made by official sources, and organized in a consistent table.

Wholesale and retail had quite distinct roles in Brazil by the middle of the XIXth century. Wholesale was based on the larger cities and had a regular relationship with the import and export houses. It used cash in its operations, although the wholesalers generally benefitted from the long-term sales that the import houses usually granted and generally had to finance their own sales with long terms for payment, or received products as payments; they also sometimes lent money in a manner very similar to banking houses.⁶

The retail business had a completely different character. First more than a small share of their business was done using very little cash. They generally financed their own sales to their clients, receiving some money, or sometimes, particularly in small cities or rural areas, products that could be negotiated with other middlemen.⁷

In the country the small shop owners had close relationships with the planters for whom they had done small

⁶- See LEVI, M.B., *História da Bolsa de Valores do Rio de Janeiro*, Rio de Janeiro, 1977. This well documented book gives us much information on merchants and brokers in XIXth Rio de Janeiro.

⁷- For an impressionistic picture of retail business in the large Brazilian cities, that complemented the few and often incomplete official data on business, I recurred to three sources: travellers' accounts, business directories and contemporary periodical publications. See, e.g., EWBANK, *Life in Brazil*, N.York, 1856; SPIX & MARTIUS, *Viagens pelo Brasil*, 5th edition, Rio de Janeiro, 1918; SAINT-HILAIRE, *Viagem a Provincia de S.Paulo*; KIDDER & FLETCHER, *Brazil and the Brazilians*, 9th edition, London, 1879; BRITISH AND LATIN AMERICA CHAMBER OF COMMERCE, *Commercial Encyclopaedia*, London, 1922; *Impressoes do Brasil no Seculo XX*, Greater Britain Publishing Company, London, 1913; ALMANACK LAEMERT, Rio de Janeiro, 1856.

favours, and generally received the protection of these regional bosses. However, the small merchant had an ambiguous social position, sometimes closer to the planters through mutual commitments, sometimes closer to the poorer groups of the population.⁸ The country shops were supplied by muleteers, or by the owner making a periodic trip to the regional centre. They sold all kinds of products: fabrics, knick-knacks, food, cheap products and some import goods.⁹

In the cities were to be found a great number of peddlers, generally blacks, carrying goods on their heads, or selling them squatting in the busiest streets, a system of selling that attracted the attention of many travellers in Brazil during the XIXth century.¹⁰ But the most important channel of distribution in the retail trade was the small shop (*venda*), whose merchants were closely associated to the community life of the small towns and the residential quarters of the cities. The big planter was generally isolated from the life of the small towns, since the acquisition of products for the farm, or goods for his own and his family's consumption, were generally bought in the big cities or sometimes supplied directly by the middlemen that traded with the plantation for commodities; the small

⁸- Maria Silvia de Carvalho Franco related several cases that clarify the social position of this kind of merchant. See her interesting work, FRANCO, M.S. de C., *Homens Livres na Sociedade Escravocrata*, S.Paulo, 1969.

⁹- Ibid., p.71.

¹⁰- See, e.g., the description of Auguste de Saint-Hilaire of the itinerant commerce in S.Paulo and the comparison with Rio de Janeiro in SAINT-HILAIRE, *Viagem à Província de S.Paulo*, reprint 1940.

merchant (vendedor), however, depended upon these communities for his trade. He was often the only person locally to depend on a flow of currency and use it more or less habitually.¹¹

There are several descriptions of these activities in the writings of the XIXth century travellers, newspaper articles and literature. Saint-Hilaire described several kinds of these establishments, where he was able to verify the cost of transport at that time. In the city of Itapetininga, for example, only 30 leguas (111.6 miles) from S.Paulo, he observed that prices were 100% higher than in that city, a difference that he attributed to the bad quality of the roads, and the small traffic in goods by mule pack.¹²

Thus, the retail business was essentially a question of organizing to meet the small needs of the population and was deeply integrated in everyday life. The retail merchants were mostly from the lower middle class and came from the same strata of the poorer sectors of society. However, there was a great variety of merchants and retail shops. Several of them could not be contained in the above analysis. For example, the retail shops that show luxury products in the big cities had little in common with the rural shops and the shops of the working-class quarters of the cities. In fact the link between the retailers of

¹¹- See FRANCO, M.S. de C., *Homens Livres na Sociedade Escravocrata*, op.cit., p.77.

¹²- SAINT-HILAIRE, *Viagem à Província de S.Paulo*, op.cit., p.201.

luxuries and importers or even direct contact with foreign agents gave them characteristics that were closer to those of the wholesale business than the small retail shop.

The analysis of advertisements appearing during this period is an interesting way of studying the role of the retail business in the urban centre. For example let us consider the following advertisement in AO BAZAR DE PARIS, a retail shop specialized in fabrics, hats, drapery and hosiery in general:

"AO BAZAR DE PARIS
Rua do Ourives, 8

"This New establishment always has a complete range of French and English fabrics for ladies and gentlemen, such as velvets, silks, cashmirs, brocades, merinos, irish linens and calicos, together with all other items of silk, wool, linen and cotton; sun hats for gentlemen and ladies, silk and kid gloves, to *jouvain's* pattern; writing paper by weight or packet and envelopes of all qualities and types."

.....
"We accept orders to ship from Paris any articles (in italics in the original) with particular reference to Porcelain services for luncheon or dinner, with or without monogram or arms, as chosen from a varied assortment of samples which we carry."

.....
"The relations which this establishment maintains with Europe, permit us to state the cost of orders beforehand and delight those persons who honour us with their custom by their moderation. Should noble patrons so desire, a sample of goods may be taken to their house to enable them to make their selection before placing their order, and gentlemen in the interior may place their orders by correspondence. In this case we also accept staples on consignment either for sale or in respect of orders."¹³

The advertisement shows us several important characteristics of this kind of retail business. First there

¹³ - Almanack Laemmert, 1856, pp.544/545.

was a close link with foreign suppliers, probably through a close relationship with an import-export merchant house. It was easy for the consumer to order a wide range of products directly from abroad, through catalogues or samples, and particularly the nobility or other rich clients were offered a very personal service, doing business in their own houses. They also sold products directly to farmers in the backlands, or to country shops, which could pay with their own export products. Thus, this retail business operated as an import agent for private consumers, an export agent for staple products, and a supplier of country shops.

It can be verified from other advertisements that import merchants and wholesalers also sold products manufactured in Brazil:

*"Joaquim Ribeiro Pedrozo
Armazem
Rua do Carmo, 28*

We have always on offer a complete selection of home produced and imported footwear of all qualities;....

All items are for sale retail or wholesale and at competitive price"¹⁴

In a third example an import merchant operated with partners and branches in London and Paris, and maintained stock in a warehouse in Brazil.

*"WALLERTEIN, MASSET & CIA
Rua do Ouvidor, 70*

With houses in Paris and London, we receive goods by every ship from Southampton as well as by all regular packets from Le Havre. Any commission accepted from France or England and we always have available in our warehouses a great supply of French, English, and Indian manufactures..."¹⁵

¹⁴- Idem, p.547.

¹⁵- Ibid., p.572.

If the retail merchants were frequently of low social origins - with the very relevant exceptions of the fancy shops in the big cities, which, as has been explained, held a very special position - the big wholesalers (comerciante a grosso) were very rich men who acted as bankers, commissioners and sometimes as import-export traders. They also had close relationships with the political elite, who generally came from planter families. Since a very large number of the big wholesalers were of Portuguese origin, they had no access to political power, although they were very influential due to their economic role¹⁶. Certainly these merchants had to share its influence with the planters who controlled the state apparatus, yet these landlords depended heavily upon the merchants to finance the productive process, supplying as an advance those few but essential products that were needed from outside their plantation. They needed them to transport their harvest, they needed them to commercialize their crops on the international market and again they needed them to acquire their labour force and the consumer goods, luxuries and food that would allow them to maintain their life style, and clothe and feed the urban bureaucracy that oiled the economic gears.

¹⁶- See the comments about the economic and political role of the merchant bourgeoisie in LOBO, E., *História do Rio de Janeiro : Do Capital Comercial ao Capital Industrial e Financeiro*, Rio de Janeiro, p.19; See also LEVI, B. *História da Bolsa de Valores do Rio de Janeiro*, op.cit.p.17.

The relationship of the merchant and the planter elite during the first half of the XIXth century was generally cordial, although it was not unknown for situations of conflict to arise, especially when there were queries about the price of commodities or executions of debts.¹⁷ The further from the big cities, such as Rio, Salvador and Recife, that a farm was, the more self-sufficient it tended to be. Most farms received only slaves, salt, some agricultural tools, and luxuries from abroad. This trade was carried by pack mule, over very bad roads.¹⁸

We can gain a good idea of the structure of the distributive trade in the 1850's and 1860's through data drawn from reports prepared by the government for fiscal reasons.¹⁹ It can be seen in the Statistical Appendix,

¹⁷- See, e.g., the accusation made by Raimundo de Souza Gayoso, a planter from Maranhão, against the merchant community of S.Luis. According to him, the British and Brazilian houses manipulated the price in the international market. GAYOSO, Raimundo de Souza, *Compendio Histórico-Político dos Princípios da Lavoura no Maranhão*, op.cit..

¹⁸- The Fazenda de S.Sebastião owned by Antonio Mascaranhas was a good example of that self-sufficiency. By the mid XIXth century this farm located in Minas Gerais had a very well organized structure of craft services. On the farm there were carpenters, blacksmiths, tailors, shoemakers, etc. These tasks were generally performed by slaves in the farms' workshops. The cloth used by the farmer and his family, as well as that of slaves and the free labourers was made from cotton cultivated, spun, woven and dyed on the farm. The farmer was proud of buying only paraffin and salt from outside his farm. See TAMM, P., *Uma Dinastia de Tecelões, Minas Gerais*, 1960.

¹⁹- See Statistical Appendix B, Tables B.1 and B.2. These data were published in the R.M.F. intending to give information on tax paid by those firms. The information is more reliable in relation to the large cities, since when data were not received from one region this information was withdrawn from the aggregate data leading to a bias in final results. However it is not always possible to obtain disaggregated data. Tax paid was based on the capital of

Table B.1, that commercial activities were quite diversified, and that there was a certain degree of complexity in the monetized economy of the urban centres²⁰. The Statistical Appendix, Tables B.1 and B.2, shows, also, the importance of the foreign-born merchants. If we analyse the large sectors of commercial activities and distinguish retail from wholesale activity, it will be seen that foreigners have a larger share in wholesale trade than in retail. The data presented also give us some information about manufacturing ownership and the ownership of some service offices, such as commission houses, legal firms, and commercial offices.

It can be seen that in the late 1850's the Portuguese controlled the major share of the wholesale of ironmongery, and liquid products, having respectively 71% and 80% of the firms in these sectors. In wholesale textiles, other nationalities, most probably British, had 62% of the ownership. The size of business is several times larger in wholesale than in retail, as may be seen by the tax paid per firm, which is related to their nominal capital and the value of the rent of their installations²¹. Brazilians had a large share of the retail trade, particularly small businesses such as butchers, greengrocers

the firm and on the value of the estimated rent on their premises; thus, this is a good proxy of the average size of the business.

²⁰- The diversification of commercial activity in Rio de Janeiro can be shown, as well, from sources such as Almanack Laemmert that listed the names of merchants and published advertisements of several trades.

²¹-See Statistical Appendix B, Table B.1.

and taverns, but the Portuguese were also well represented in retail activities. In services the profession of lawyer was the province of the sons of the planter class, educated in S. Paulo or Recife, or abroad at Coimbra. There were a large number of foreign commercial offices, but the commission houses, which were essentially factors (comissarios) that dealt with products from the backlands, were mainly Brazilian and Portuguese.²²

Finally, the craft manufacturing activities, closely linked to commercial activities, had the same kind of shares as the commercial sector. Thus, hat and cigar manufacturers had a largely Portuguese ownership, whilst other industries that needed some special technical skill or larger capital requirements had other characteristics. The brewers were mainly of other nationalities, most probably Germans, and the textile factories were by this time predominantly owned by Brazilians.

In the late 1860's the city and Province of Rio de Janeiro had the largest concentration of Portuguese merchants in the country. This region, which had only 29.1% of the total number of firms in Brazil in 1866, contained a little more than half of the firms under Portuguese ownership in the country as a whole²³. With regard to other nationalities, the largest single concentration was in Rio Grande do Sul, which had an influential German colony. This province, which had 8.4% of the total number of firms in

²²- Ibid.

²³-See Statistical Appendix B, Table B.2

Brazil in the middle of the 1860's, had 29.6% of the firms belonging to foreigners other than Portuguese. The city and province of Rio de Janeiro, together with the Province of Rio Grande do Sul, had 57% of the firms owned by other nationalities in the whole country.²⁴

The importance of the Portuguese merchants in Brazil was a legacy from the colonial period, when there was a clear distinction between the rural aristocracy, most of whom were Brazilians, and the merchants, most of whom were Portuguese. When the Prince Regent arrived from Portugal, he found powerful merchants, such as Elias Antonio Lopes, who gave him one of the most luxurious buildings in the city at that time, the Palace of Quinta da Boa Vista, which was from then on used as the Prince's summer residence²⁵. In S. Luiz, Maranhão, there is record of a Portuguese merchant, who was also a great land owner, called José Gonçalves da Silva, who also acted as the main banker for the region. This man had farms which were worked by 1500 slaves and he made loans to the governor of the capitancy worth eighty thousand contos de reis.²⁶

²⁴ - Ibid.

²⁵ - See BARROS, E. *A Associação Comercial no Império e na República*, Rio de Janeiro, 1975, p.37.

²⁶ - His firm was named José Gonçalves da Silva & Cia; he had as partners Francisco do Vale Porto and Manuel Lopes da Costa. See VIVEIROS, *História do Comércio do Maranhão*, op.cit., p.164. Spix & Martius observed that most of the commercial houses in Maranhão belonged to Portuguese, even though they were excluded from the regional administration, the members of which were always Brazilians. See SPIX, J.B. & MARTIUS, C.F. *Von Viagens pelo Brasil*, Reprint, Rio de Janeiro, 1938.

Wholesale commerce was essentially integrated with foreign commerce as the supply of products from abroad was the most important source of goods in the country. The SOCIEDADE DOS ASSINATES DA PRAÇA founded in Rio de Janeiro in 1834, and changing its name to ASSOCIAÇÃO COMERCIAL in 1867, was one of the first organizations of wholesale merchants and foreign commercial houses in Brazil. The society annually elected a committee of 9 members among whom were represented most of the merchant communities that operated in Rio de Janeiro. The tradition maintained up to 1867 was to elect two Brazilian, two British, one Portuguese, one French, one North American, one Spaniard and one German. The president was a Brazilian, and this committee would represent the interests of the community and also establish a common ground of understanding among the local traders.²⁷

Summing up, merchant activity in Brazil was mainly a business performed by foreigners, either in wholesale or in retail. However, the share of foreigners in the big commercial activities, such as wholesale was particularly relevant. Brazilians were generally restricted to prestigious positions, such as lawyers, who were highly regarded in the rural slave-owning society; few Brazilians with wealth deriving from traditional activities would invest and work in the distributive trades, with the exception of activities such as commodity factoring heavily

²⁷- See BARROS, E., *A Associação Comercial no Império e na República*, op.cit., p.81.

subordinate to agrarian interests²⁸. This pattern of entrepreneurial class structure meant that industrial investment in Brazil depended on creating conditions which enabled a foreign merchant to channel part of his capital into this domestic activity, unless, as happened with European latecomers, the state or an active financial sector assumed the lead and created special conditions to initiate this process.

IV.3- THE COASTAL TRADE

Brazil as a huge country, with few roads, and with a very small railway network during the 1850's and 1860's, had to rely strongly on the coastal trade as the most important means of contact between its various regions. The coastal trade, particularly the large coastal trade, had to link a very large coast that extended 3,256 miles from Rio de Janeiro to Manaus, and 936 miles from Rio de Janeiro to Porto Alegre, or 1,215 miles to Buenos Aires.²⁹ This long coast had few good port sites and supported only a scattering of larger commercial centres. However, the 1850's saw signs of rapid development in the trade mainly as a

²⁸- For this reason it is not surprising that immigrants constituted the bulk of Brazilian industrialists by the end of the century. Few traditional families would stimulate their members to work as import merchants and shopkeepers. Links with industrialists came later through the development of financial capital originating in the coffee trade, or yet later through marriages or closer relationship of the new rich industrialist bourgeoisie with members of the old planter class. See DEAN, *S. Paulo Industrial Elite, 1890-1960*, unpublished Ph.D. dissertation, University of Florida, 1964.

²⁹- INSTITUTO HISTÓRICO GEOGRÁFICO E ETNOGRÁFICO DO BRASIL, *Dicionário Histórico Geográfico e Etnográfico do Brasil*, Rio de Janeiro, p.559.

product of the general growth in the country at this period³⁰, and it was also stimulated by the introduction of steam-ships into the coastal trade.

The main features of the coastal trade from the middle of the 1840's until the end of the 1860's, as shown in the Statistical Appendix, are as follows: (i) It developed very rapidly during the fifties, but the rate of increase was reduced during the 1860's; (ii) on average, the coastal trade in Brazilian products grew more quickly than did the coastal trade in foreign products; thus, the importance of domestic products in the coastal market grew with time; (iii) the largest markets in Brazil, that is, Rio de Janeiro, Bahia and Pernambuco, were essentially provisioned through the foreign trade and imported very little of their needs through the coastal trade; (iv) the medium-size markets in Brazil, with the exception of Rio Grande do Sul, were also largely dependent on foreign supply, although less dramatically than in the case of the large ones; (v) the smaller provinces largely depended on coastwise trade, but because of the tiny economic importance of these regions, the absolute value of this trade was very small.³¹

³⁰- There is the following evidence of economic growth in Brazil from 1850/51 to 1857: (i) the rapid growth of coastal trade; (ii) the rapid growth of foreign trade; (iii) evidence of the creation of an increasing number of manufacturing firms; (iv) the creation of several banks and (v) an increasing supply of money. For (i) see Statistical Appendix, Table A.1; for (ii) see Table II.4; for (iii) see chapter III, passim; for (iv) see chapter V.

³¹- See the Statistical Appendix tables F.2 to F.15.

The general growth of the country after 1850/51 was reflected in the increased demand for Brazilian products, mainly food, to supply the regions most affected by the transfer of slaves from the cultivation of food crops to export plantations, as shown in the Statistical Appendix F, column a.1.³²

Table IV.1 shows that by the end of the 1840's jerked beef and manioc flour were the two most important products in the coastal trade. These products were not only the basis of the slave diet, but were also largely used by the poorest sector of the population in the cities or in activities such as mule packing where the muleteers had to carry their own supply of food³³. The first typical export product to be found on this list, sugar, appeared only in fourth place among the main Brazilian products tradable in the domestic market, and coffee appeared only in eighth place.

³²- The transfer of slaves from food crop production to export plantations was noticed by contemporaries such as FERREIRA SOARES (see *Elementos de Estatística*) and Souza Franco (speech in the Chamber of Deputies in 12/6/1857). It is interesting to notice that after 1850/51 there was an increasing trend in coastal trade of Brazilian products (Statistical Appendix F, Table F.1, column a1) and of direct imports from foreign ports (Table A.1, column c2), but a stagnation in the coastal trade of foreign products (Table F1, column b1). This can be interpreted as an increasing direct importation from foreign ports in the smaller provinces, that used to buy foreign products from big domestic centres.

³³- The increased demand for food was not matched by increased production and led to a continuous increase in the price of these crops. See Ferreira Soares, *Notas Estatísticas sobre a Produção Agrícola e Carestia dos Gêneros Alimentícios no Brasil*, Rio de Janeiro, Typ.nacional, 1865.

TABLE IV-1
BRAZIL: COASTAL COMMERCE OF DOMESTIC AGRICULTURAL
AND MANUFACTURING PRODUCTS ¹
(in 1:000\$000)

PRODUCT	1845/46	%	1846/47	%	1847/48	%	1848/49	%
Jerked Beef	1,475		1,953		1,134		1,215	
Manioc Flour	554		546		358		644	
Shoe leather	600		363		212		67	
Sugar	416		365		193		118	
Hides	613		289		51		36	
Tobacco	381		312		159		95	
Cotton	109		138		160		278	
Coffee	102		58		90		162	
Cigar and Cigs.	67		67		91		50	
Candles	58		23		101		84	
Rum	93		51		34		76	
Rice	111		93		15		72	
Ready-made Cloth	11		13		116		95	
Lard	65		40		26		39	
SUB-TOTAL	4,665	77	4,311	71	2,740	60	3,031	73
Other Products	1,411	23	1,729 ²	29	2,101 ³	46	1,122 ⁴	27
Total	6,076	100	6,040	100	4,571	100	4,153	100

Source: Computed from Documentos Estatísticos Sobre o Comércio do Império do Brasil nos anos de 1845 a 1849 que Acompanharam o Relatório da Comissão Encarregada da Revisão da Tarifa das Alfândegas do Império.

1) The details of the Coastal Commerce in Brazil were obtained from the Comissão Encarregada da Revisão da Tarifa by 'imports' maps prepared by the several customs of the country.

2) Included under this title are 100.8 milreis referring to the Pernambuco Customs and 189.6 thousand reis referring to the Aracaty customs which were derived from the table of receipts, in the absence of the 'imports' maps.

3) Included under this title are 100.8 milreis referring to the Pernambuco Customs, 182.0 milreis referring to Pará, 343.2 milreis referring to Rio Grande do Sul, 72.9 milreis referring to S. José do Norte and 78.2 milreis referring to Paraíba custom house.

4) Included under this title are amounts of 166.6, 217.3, 33.8 and 100.5 milreis referring to Pernambuco, R.G.do Sul, S. José do Norte and Paraíba, respectively.

It should be observed that, as shown in Table IV.1, the domestic market absorbed only 1.8% of the foreign

trade in sugar and less than 0.5% in coffee as an average for the years 1845-46 to 1848-49.

TABLE IV-2
BRAZIL: EXPORTS BY PRODUCTS (1845-46/1848-49)
(in 1:000\$000)

PRODUCT	1845/46	%	1846/47	%	1847/48	%	1848/49	
Coffee	21,307		21,971		25,159		21,513	
Sugar	15,860		14,782		14,121		15,879	
Hides	5,759		5,763		3,913		3,942	
Cotton	2,912		3,152		3,588		3,490	
Tobacco	968		939		747		893	
Cocoa	541		541		468		577	
Yerba Mate	362		398		590		719	
Rubber	209		257		221		257	
SUB-TOTAL	47,918	89	47,603	91	48,807	84	47,270	84
Powder Gold	733		584		789		1,182	
Rum	627		467		664		956	
Rice	488		634		679		518	
SUB-TOTAL	1,848	4	1,685	3	2,132	4	2,656	5
Other	3,864	7	3,161	6	6,987	12	6,364	11
Total	53,630	100	52,449	100	57,926	100	52,290	100

Source: Documentos Estatísticos sobre o Comércio do Império do Brasil nos Anos de 1845 a 1849 que Acompanham o Relatório da Comissão Encarregada da Tarifa das Alfândegas do Império-Typrografia Nacional 1853, R.J.; I.B.G.E.- Anuário Estatístico - 1939/40.

The province of Rio Grande do Sul was the largest supplier of jerked beef, and was also the largest producer of food in the country, the crops being produced not only in the German colony of S.Leopoldo, but also on small farms that belonged to Brazilian owners. This province was among the largest producers of manioc flour, beans and corn, and with S.Catarina was the store-house for Rio de Janeiro,

Bahia and Pernambuco.³⁴ During the late 1840's the province of Rio Grande do Sul sold about 1/3 of its exports to other provinces, which represented about 1/4 of the sales of domestic products through coastal trade in the whole country. Most of Rio Grande do Sul imports also came from the domestic market. This province was largely supplied by foreign as well as domestic products from other Brazilian regions. This was the only province of major economic importance in which the coastal trade had a large role.³⁵

The smaller provinces had to rely on their regional centres as a means of absorbing their produce, even though for most of them foreign ports continued to be their main markets. However, on the whole the share of foreign trade in their total sales was smaller than in the main export provinces, and sometimes they were highly dependent on the regional metropolis for the export of their staples and for their supplies.

The increase of the domestic trade during this period was accompanied by increased prices for foodstuffs. Foodstuff prices grew more quickly than other prices in the economy; since the domestic inflation rate was higher than the devaluation of the milreis during the second empire, it is worth having a brief discussion on the causes of this

³⁴ - Most interprovincial trade of foodstuffs bought in the domestic market came from the Southern provinces. See FERREIRA SOARES, S., *Notas Estatísticas sobre a Produção Agrícola e Carestia dos Gêneros Alimentícios no Brasil*, Rio de Janeiro, Typ.nacional, 1865, p.178.

³⁵ - See Statistical Appendix F.

price increase³⁶. The reason for this was generally attributed to the end of the slave trade, together with the loose monetary policy which increased the liquidity of the economy as a whole³⁷. The argument that the end of the slave trade, and as such the 'scarcity of population' caused the increase in prices was defended by paperists, such as Souza Franco.³⁸ The opposite opinion from the metallists was presented by the deputy Gomes de Souza, who argued that there was a high correlation between the increase in the price of goods and the abundance of the means of payment, and stated that Rio de Janeiro was the place where these products had a higher price, followed by Pernambuco and then Maranhão. According to him, the Treasury of the Banco do Brasil had issued by mid-1857 treble the funds in gold available in Rio de Janeiro, double the funds in gold in Pernambuco and a little more than the available funds in gold in Maranhão. This deputy argued that, if the main reason was the lack of a workforce, Maranhão should be the province which was most affected because about 30,000 slaves

³⁶- For data on the exchange rate in Brazil in the XIXth century see Statistical Appendix, table C.1. It is important to notice that the increased price of foodstuff and a public deficit, financed with treasury bonds - thus increasing the internal debt - allowed the maintenance in the Brazilian economy of a tight monetary policy - reflected in the overvaluation of the milreis in purchasing power terms and high interest rates - and a long term inflation not lower than 2.5% p.a. (Data for internal debt in Brazil can be obtained in the Balanço Geral da União; the level of interest rate can be obtained from the Statistical Appendix, Table C.2; I state that the level of inflation in the long term was not smaller than 2.5% p.a. based on estimates of LEFF, BUESCU, ONODY and LEVI and my own estimations.

³⁷- See, e.g., CALÓGERAS, *A Política Monetária do Brasil*.

³⁸-Annais da Câmara dos Deputados- 13/6/1857.

had been shipped south since the end of the African traffic, so this province should have had the highest food prices, which was not so.³⁹

Ferreira Soares argued that the end of the traffic did not lead to a lack of manpower because in the main export regions the import of slaves from other areas, and the transference of slaves from urban activities to rural areas, as well as the increase in free immigrations, was enough to meet this demand. According to him, these urban activities began to be increasingly performed by free poor men, plentiful in the urban centres, who, with these economic changes, began to be hired for these jobs. He attributed the increase in food prices during the late 1850's to speculation rather than to real causes.⁴⁰

Ferreira Soares was a clever contemporary analyst and his works always give us an accurate description of economic facts. Nevertheless, speculation was the reason quoted by the XIXth century analysts for every sudden increase in price, or every crisis, that they could not explain. In fact there were several different reasons that contributed to this inflation. Ferreira Soares gave evidence that the production of food products had indeed increased, and that the government tried to reduce prices without success by reducing the tax on the import of food. The fact was that the economy was passing through a very strong boom,

³⁹ - Idem - session of 29/7/1857.

⁴⁰ - FERREIRA SOARES, *Notas Estatísticas Sobre a Produção Agrícola ... No Brasil*, op.cit., ch.XXX.

the cause of which I will discuss in chapter V, where the liquidity of the economy was one, but far from exclusive, cause. Data on coastal trade show that the main export regions were increasingly demanding food from domestic suppliers⁴¹. With the information available on the low level of productivity of Brazilian agriculture, even in export crops, it is possible to infer that demand could not be satisfied on time, because the domestic sector had a very low productivity, so that its backwardness caused a sluggish response to market changes. Cost of freight between the ports of the empire was also a heavy burden on an increased trade in foodstuffs, as will be seen below. All these reasons affected the level of prices in the short term and certainly contributed to the long term trend of price increase of foodstuffs after the 1850's.

In the year 1864 thirty seven steam-ships operated in the Brazilian coastal trade, with a total capacity of 13,948 tons and 4,905 h.p., and a total crew of 1,025 people. In the provinces, the internal shipping supported a fleet with a total of 10,311 ton and 4,4485 h.p. operated by 832 people.⁴² Since the fifties transport from Pará to the south of Brazil had been largely by steam-ships, but it was easier and cheaper to transport products from, for example,

⁴¹- As we know that foodstuffs were the main Brazilian goods shipped in the coastal trade, we can assume that the increased domestic trade since the 1850's meant increasing demand for foodstuff from the main export regions. [See tables A.2, for Rio de Janeiro; A.4, for Pernambuco and A.8 to Rio Grande do Sul]

⁴²- FERREIRA SOARES, *Elementos de Estatística*, Rio de Janeiro, Typ. nacional, 1865, p.115.

Pará to the U.S. or Europe than to most of the ports of the Empire. For example, the salsaparilla that was exported from this province to Rio de Janeiro went first to Lisbon to reach Rio de Janeiro as a return product. The freight of one arroba of this product to Lisbon was about 700/800 reis, but the freight direct from Pará to Rio de Janeiro was 3\$000 per arroba. From Bahia by sail boat the freight was about 440 reis per arroba of raw cotton and from Pernambuco it was 480 reis per arroba to Rio de Janeiro.⁴³

TABLE IV.3

FREIGHT RATE FROM RIO DE JANEIRO TO EUROPE - 1824/1846		
Years	England	France
1824/25	34\$445	37\$400
1826/30	31\$556	31\$320
1831/35	25\$333	26\$796
1836/40	28\$445	24\$360
1841/45	24\$000	18\$583
1846	23\$822	21\$245

Source: Computed from RTV- 1853. The original data was based on informations from the merchant houses of Stockmeyer and Lallemand to the above Commission.

There were also institutional limitations that reflected prejudices against the growth of a domestic trade which had developed since the colonial period, and by this time could be considered as an independent reason to reduce the general flow of goods, thus increasing the average price of transporting products between regions. From colonial

⁴³- See 'Relatório da Comissão ... da Tarifa em Vigor', op.cit., see also Table III.3 that shows the average cost of freight to Europe per ton, from 1824 to 1850.

times the Portuguese administrators had always considered the control of tax collection and the struggle against fiscal evasion to be a more important matter than the improvement of the business environment and the stimulation of trade and production. Thus, the Portuguese were keen to forbid the building of new roads from the coast to the mines as a way of reducing the by-passing of the internal custom controls.⁴⁴

Using the same arguments the imperial government created all sorts of difficulties for the expansion of the domestic trade in foreign products, which aggravated the existing lack of incentive for interprovincial trade posed by the high cost of transport and the various taxes that the provincial administrations imposed on imports from other provinces. Thus, although by law coastal and inland commerce was free and open throughout the empire, there were several restrictions on trade in foreign products by the coastal trade. By the decree of July 4, 1850, the free trade in foreign products which had already paid duties in empire ports was no longer allowed, with the exception of those exported from Rio de Janeiro, Bahia, Pernambuco, Maranhão and Rio Grande do Sul. Goods exported against this law had

⁴⁴ - Because several tracks were created by muleteers to avoid the internal customs which imposed heavy duties on old and other products in the trade between Minas and Rio de Janeiro, the Portuguese administrators passed an act in 1733 that forbade the building of new roads in the country as part of the fight against smuggling. See about this subject the work of LENHARO, A- *As Tropas da Moderação: O Abastecimento da Corte na Formação Política do Brasil*, S.Paulo, 1979, p.58

to pay as a fine the same duties as if they had been imported directly from abroad⁴⁵. This decree was particularly restrictive because by a provision of the regulation of July 22, 1836 (arts 311 and 314) foreign goods were to be understood to include not only those in the customs warehouses but any product of foreign origin, including those in private warehouses and all goods exposed for sale including the objects of retail sales. Later another legal disposition restricted the application of this decree to those goods on sale in the market and excluded from it goods in private use or those already naturalised.⁴⁶

These restrictions were based on the fear that imports could be brought into smaller ports as a means of avoiding duties by cheating poorly-trained customs officials in poorly fiscalized regions and then exported through the coastal trade without any fear of later being seized.⁴⁷

This kind of restraint encouraged direct imports and penalized interregional trade. It was particularly damaging to the trade between the larger and smaller regions because when goods left one of the ports authorized to export foreign goods to the domestic market it could only

⁴⁵- It is important to notice that since 1850/51 there was stagnation in the coastal trade of foreign products. It is possible that the reason for this stagnation had nothing to do with this law; however, there is no doubt that this law must have contributed to this.

⁴⁶- Portaria of October 27, 1851.

⁴⁷- At that time there were denunciations of practices such as the importing of goods through the small port of Aracaty, in Ceará, for reexportation for consumption in Recife. See Relatório da Comissão da Tarifa em Vigor', op.cit., p.75.

return to its origin from a smaller port if the goods had not left the customs warehouse. This was a deterrent against the widespread practice in the retail shops of the poorer regions and inland areas of receiving consignments from shops in the big cities, and the spread of agents or warehouses to other regions. Because of this legislation, this kind of business was restricted to the regions surrounding the big cities or to those where access could be gained by pack mule and which were beyond the control of the customs.

Domestic trade was also curbed by all kinds of restrictions that the provinces themselves imposed on the free transit of goods to increase their tax receipts or to protect local interests. Thus, the province of Pernambuco approved a law restricting imports of soap manufactured in other provinces. The province of Bahia imposed an extra tax on exports packed in sacks made from fabric manufactured in other provinces. The province of Espírito Santo demanded pledges on agricultural products sent to the court municipality, as they did for the re-export of foreign products. ⁴⁸

For a long time the coastal trade was restricted to Brazilian ships, but the law allowed the transport of foreign goods from one port of the empire to another in

⁴⁸ - Ibid. In general the tax on exports abroad was 12% and the tax on interprovincial trade was 5% with the addition of a further 1/2% in the arrival port as processing charges (expediente). As late as 1882 there were still bitter complaints against interprovincial tax. See, e.g., Relatório da Comissão Industrial, 1882.

foreign ships, if those goods were part of the cargo that the ships had registered in a Brazilian port on coming from abroad. This transfer was carried out by large houses of Portuguese origin, which operated in the import trade, and as wholesalers in the coastal trade. Houses such as Carneiro, Viuva & Filhos, Joaquim Pereira de Almeida & Cia, José Joaquim da Silveira and others were preeminent in the coastal trade from the years before the political independence of Brazil.⁴⁹ The Portuguese and Brazilian import houses, which were excluded from direct foreign trade by foreign houses, found an important source of income in this business which was protected by the restrictions on foreign ships in coastal trade. These restrictions were progressively dropped and, although there is no doubt that the opening of the coastal trade to foreign ships contributed to reducing the price of freight and in some ways stimulated this business, it was a crippling blow to the Brazilian shipbuilding industry.

The transition to free access for foreign ships in the coastal trade began with a law, passed in 1862, that allowed the government to authorize them to operate in the coastal trade, and extended the benefits that allowed foreign ships to transport some foreign goods between ports.⁵⁰ After this law, the government decided to give

⁴⁹- See the work of Gorenstein on the Portuguese commercial houses in Brasil: GORENSTEIN, R. *O Enraizamento de Interesses Mercantis Portugueses na Região Centro-Sul do Brasil*, S.Paulo, 1978, p.47.

⁵⁰- See 'Regulamento das Alfandegas # 2647 of 19/9/1860; see also law # 1,117 of 9/9/1862 and R.M.F. 1872, p.81.

certain advantages to Brazilian shipowners, such as a reduction in the tax on shipbuilding and exemption from conscription and active service in the national guard for the crews of domestic ships that operated in the coastal trade. In March 1866 the government decided to extend the Freedom of foreign ships to operate in the coastal trade and, as authorized by the law of 1862, gave permission to foreign ships to transport goods of any origin between custom ports of the Empire from 1867.⁵¹ This authorization, after first being operational for an experimental period until 1870, was prorogued until 1873 when it finally became permanent.

There is some evidence to show that free access for foreign ships in the coastal trade led to a real decrease in the price of coastal freight, which according to a contemporary source fell between 20% and 40%, or even 50% in some special circumstances.⁵² The increased participation by foreign ships in the coastal trade facilitated on the one hand the direct import of products from abroad to the smaller ports and on the other contributed to a more rapid expansion of the domestic trade in Brazilian products, increasingly carried by them. This led to a contradictory development of the coastal trade as a whole. There was a rapid expansion of the coastal trade in domestic products, but that expansion was eclipsed by the smaller trade in

⁵¹- R.M.F. 1872, pp.81/82.

⁵²- Report of Associação Comercial to the Ministry of Finance, quoted in R.M.F. 1872, p.83.

foreign products between regions. As table F.1 in the Appendix F shows us, the mean coastal trade in Brazilian products more than trebled between 1850/55 and 1865/70, whilst the coastal trade in foreign products was stagnant in the same period.

Thus, we can conclude that despite the development of one sector of the coastal trade, coastal trade's share in the total trade (that is, coastal plus import trade) remained practically constant over time. Coastal trade share in the total trade increased from 1845/50 average of 23.3% to 25.1% in the 1865/1870 period. This small increase reflects the decline of the imports for reexport trade, rather than any reduction of relative participation in the import trade for domestic consumption⁵³. Despite the fact that the cities by the sea were generally the most important in the country, the coastal trade was not able to integrate the coastal cities in a single market. This sector did not play the important role that it had in, for example, the U.S., where several entrepreneurs first began to accumulate capital in the export trade, then moved to coastal trade, and finally invested in domestic marketing and manufacturing⁵⁴. The large wealth generated in this trade most likely moved to traditional sectors, such as land

⁵³- The data on import trade in the Statistical Appendix F includes imports for reexport. In the original data I used to prepare those Tables there was information for both. I did not consider relevant to make this distinction because import for reexport was a very small share of the whole import trade.

⁵⁴- See TAYLOR, *The Transport Revolution 1815-1860*, op.cit., p.237. See also Chapter I, note 34..

ownership, or, sometimes just lost importance with time, but there is no register of any large industrial entrepreneur coming from the coastal trade.

IV.4- INTERNAL INTERPROVINCIAL TRADE

Internal interprovincial trade in Brazil, that is, trade by land or by river, suffered from the limitations of lack of roads, which reduced the transport of goods by land to practically nothing but mule pack, or the poor infrastructure of ports and support along the navigable rivers which restricted the use of this means of transporting goods to smaller boats, and increased its cost. Due to the scarcity of information available there are few studies to be found on this trade by economists. In general the anthropologists, sociologists or historians that have studied the mule pack trade, have done so from the perspective of its social role within the agrarian society, or as a large cycle linked with the old economic system of the mines and, more recently, with the coffee plantations⁵⁵. Despite the difficulties of obtaining meaningful data, I will attempt in this section to present an overview of this trade in Brazil.

Because of the lack of documentation the amount of internal commerce in Brazil cannot be properly estimated. However, based on information provided by contemporaries

⁵⁵- GOULART, A, *Tropas e Tropeiros na Formação do Brasil*, Rio de Janeiro, 1961, is an example of the first case; ELLIS Jr., A., *O Ciclo do Muar*, 'Revista de História', Jan/March/1950, Ano I, #1 is an example of the second.

some data can be offered that may give a degree of comparison between the internal trade and the total domestic trade. The main flow of goods in the internal interprovincial trade was the supply of import and domestic goods to the central provinces. They were supplied by the coastal provinces and by Montevideo and Buenos Aires, along the rivers of the Plata Region and the River Paraguay. Rio de Janeiro, S.Paulo, Bahia, Maranhão and Pará were the main suppliers of these regions. Table IV.4 shows an estimate of the size of this business in the fiscal years of 1854/55 and 1863/64

TABLE IV-4
BRAZIL: INTERNAL, COASTAL AND IMPORT TRADE
IN SELECT FISCAL YEARS
(in £1000)

Provinces	1854/55	%	1863/64	%
1- Internal Trade				
Minas Gerais	1,001.4	7.1	1,170.7	5.7
Mato Grosso	172.7	1.2	111.5	0.5
Goiás	345.3	2.4	501.7	2.4
Amazonas	115.1	0.8	167.2	0.8
Total	1,634.4	11.6	1,951.2	9.4
2- Coastal Trade				
Total	2,813.5	19.9	4,538.0	21.9
3- Import Trade				
Total	9,671.9	68.5	14,200.3	68.6
4- General Total	14,119.8	100.0	20,689.2	100.0

Source: 1- Ferreira Soares (1865), p.106; 2 and 3- Statistical Appendix, Table A-1. Conversion into sterling was based on the exchange rate of the Comercio Exterior do Brasil, Table III, p.86, Série Estatísticas Retrospectivas, Reprint da Separata do Anuario Estatístico do Brasil, Ano V-1939/40.

Although river transport was largely used in some areas, such as along the river S.Francisco and its

tributaries, on the Tietê, the Paraná and Tributaries, Pardo, Coxim, Taquari, Cuiabá, on the Plata rivers, and on a smaller scale in Amazonas, the most important method of transporting goods overland in Brazil before the railway age was the mule pack.⁵⁶

Unlike the coffee plantations in the south, the northern sugar plantations were close to the coast, with the result that the ox cart was the most important means of transport, and the mule pack was less important in this region. In return for export products, import and domestic goods were sent by pack mule to the markets and farmers of the backlands. But the inland provinces also sent products for the domestic consumption of the coastal cities: from Minas Gerais products such as cotton textiles, raw cotton, tobacco, cheese, salted pork, beef cattle, and particularly gold and precious stones arrived in Rio de Janeiro.⁵⁷

The peddler (mascate), who was also not infrequently the owner of a mule, was another means by which foreign goods reached the farms and small cities in the distant regions of the country. Stein describes the peddlars in Vassouras as "men with small wooden or tin trunks, strapped to their backs, who sell directly to the planters and their slaves; others employed burros or even a porter to

⁵⁶- On the mule transport in Brazil, see AUSTRAGESILO, M.E., *Estudo Sobre Alguns Tipos de Transporte no Brazil Colonial*, Revista de História, Ano I- Oct/December, 1950;: SEE ALSO ELLIS Jr., *O Ciclo do Muar*, op.cit., And CALOGERAS, P, *Transportes Archaicos* in 'O Jornal-Edição Comemorativa do Bicentenário do Café no Brasil', 1924.

⁵⁷-FERREIRA SOARES, *Elementos de Estatísticas*, op.cit., p.106.

carry merchandise ...They sold fancy goods but also sold textiles and sometimes the local commercial houses employed their own peddlars."⁵⁸

The domestic inland trade employed three kinds of mule train: those belonging to independent pack mule owners, pack-mules that belonged to city shops and pack-mules that belonged to the farm owners. Goulart noted that muleteers of all nationalities could be found, but at the beginning of the XIXth century they were predominantly Portuguese.⁵⁹ The pack owner had prestige with the farm owners and was well received on their properties, frequently acting as a trusted agent for them and carrying valuables to and from the larger cities, as well as letters and documents. They generally belonged to a merchant class with some learning and some capital. To buy mules, organize the registers, and enjoy the confidence of clients in receiving goods and valuables to transport, they needed capital, contacts and some basic knowledge; thus, the ownership of this business was not open to every man.⁶⁰ Some families began their fortunes in this business. This was one of the sources of textile manufacturing in Minas Gerais. One such pioneer was a Portuguese who first began working for one of his countrymen

⁵⁸- See STEIN, S. *Vassouras, A Brazilian Coffee County: 1850-1900*, Cambridge, Massachusetts, 1957, p.87.

⁵⁹- See LENHARO, A., *As Tropas da Moderação*, op.cit., p.80.

⁶⁰- See Calógeras, P. *Transportes Archaicos*, op.cit..

as a muleteer and later also became the owner of a pack mule.⁶¹

The muleteers earned commission on the goods that they traded, they carried valuables and documents to be transported from the cities to the farms, and they were also merchants buying imported goods in the cities and selling them to the farms, receiving staples to be sold to export merchants as returns.⁶² Finally the mule trains also had close links with the city merchants, who used their muleteers to sell their goods in the inland regions, and sometimes they were also slave dealers. A good example is the case of the senior partner of the Rio de Janeiro firm of Mesquita & Guimaraes. Mesquita was born in Congonhas do Campo, Minas, and came to Rio to work in his uncle's merchant house. He became one of the biggest entrepreneurs of mule trains to Minas by the 1830's, being an important supplier of slaves to this province, and buying cotton and other staple products from these areas.⁶³

Although it was an expensive way of transporting goods, the mule train was so important in Brazil because the quality of the roads precluded any other method of maintaining a channel of communication between the coastal

⁶¹- See MASCARANHAS, B. *O Surto Industrial de Minas Gerais*, Rio de Janeiro, 1954, pp.22/23; See Also TAMM, *Uma Dinastia de Tecelões*, op.cit.,pp.23/24.

⁶²- See GOULART, A, *Tropas e Tropeiros na Formação do Brasil*, op.cit., p.113. As an appendix to his book Goulart presented some interesting letters between farmers, merchants and muleteers, showing the confidence that the first two groups had in the last as a means of sending and receiving documents, valuables, letters and goods.

⁶³- LENHARO, A., *As tropas da Moderação*, op.cit., p.102.

cities and the backlands. In the beginning of the XIXth century the roads that supplied the court in Rio de Janeiro were the same as those which supplied the Minas region in the XVIIth century.⁶⁴ After that the inland transport improved fairly slowly during the first decades of the XIXth century. Spix and Martius described the important road that linked Rio de Janeiro to S.Paulo in 1817, and in referring to the crossing of the Serra do Mar said that:

"The road was, sometimes, deeply cut in the red clay soil, very narrow and when the mule packs met each other, such as frequently happened, it was dangerous. In relation to paved roads and bridges nothing was done in this wilderness, nevertheless the ground around the several streams, mainly in the rainy season became almost unbridgeable".⁶⁵

In the sixties an article in the Anglo-Brazilian Times was to describe the road from Santos to S.Paulo - a very important route in economics terms, considered to be one of the best mountain roads in the country - in the following way:

"Santos, in point of fact, is the port of the Province, and laborious and exhausting to get from the province to the port. The serra has, in point of fact, always opposed any such communication, and reared its vast forest barriers, imprisoning the industry of the country, like a great Bastille of Progress."

"It has not been without a road of course: but anything more miserable than that road as a means of communication could not very well be conceived! Latterly it had been much improved: but in 1860 it was a sight to see! yet thousands of laden mules insisted on going up and down the 2,500 feet, and scores of creaking bullock-carts floundered and jolted through the holes of mud to an extent that made the stranger stare! talk of toil and labour, and go and see the mules and the bullock-carts toiling up the Serra".

⁶⁴ - Idem, p.30.

⁶⁵ - SPIX & MARTIUS, *Viagens Pelo Brasil*, op.cit.,p.100.

"The passage of anything like a carriage was of course entirely impossible: only on mule back could you go: and even so the whole road up and down like a long great nightmare. To complete the picture it must rain - a good tropical rain - half a dozen drops of which equal a small english shower - and woe betide you if you had a buttoned coat or legging! nothing but a sack of india rubber, without an opening, could protect you from a thorough soaking!."⁶⁶

In the seventies, Kidder, who had travelled this road, would still state that the road "which traversed this range of mountains is probably the finest in Brazil, with the exception of the Imperial highway to Petropolis". At that time, its gradients were no longer as steep as they used to be; however "at a vast expense the whole is finely macadamized. Still, the ascent is too precipitous for heavily-laden carriages."⁶⁷

Only the development of the railway would lead to the decline of the pack mule, but this did not occur until the 1870's. Even so it did not replace, but reduce the role of the mule pack and ox cart in Brazil. They continued to link the farms and the regions that the railway had not reached with their closest stations.⁶⁸ The railway only arrived in the second half of the XIXth century, and only began a more rapid development in the late seventies. It mainly linked the coffee and other staple-growing areas to the export ports, and although they had a large regional

⁶⁶- Anglo-Brazilian times, 24/10/1865.

⁶⁷- KIDDER, D.P. & FLECHER, Brazil and the Brazilians, 9th edition, London, 1879, pp.355/356.

⁶⁸- CALOGERAS, P. Transportes Archaicos, op.cit.

importance, their role in the development of interregional trade in Brazil was quite small.⁶⁹

Thus the internal interprovincial trade in Brazil was for a long time the province of pack train owners, no large internal market ever developed and even in the well-populated region of Minas Gerais and in the S.Paulo hinterland, the level of trade was relatively small due to the widespread autonomous economy, maintained by the large farms. The manufacture of craft products, food and most necessities, except for some tools, raw materials or luxuries, were essentially activities outside the market, even if some farmers eventually sold part of their excess production of these subsistence articles. On the other hand, even after the railways' arrival, they seldom had the impact of opening a large and new market, less because their routes lay from the areas of export crops to the ports, but mainly because of the prevailing structure of land ownership, the small degree of monetization in labour relations and the absence of any stimulus or mechanisms to finance investments in the production of other crops than the traditional staples. Even so, the railways had a favourable impact and in some cases, such as in the development of cotton in S.Paulo, its administration actively promoted the

⁶⁹ - The first line was opened on April 30, 1854, linking the port of Mauá to the Raiz da Serra, as a first stage in a larger project of linking Rio de Janeiro with the Paraíba Valley, which concession was granted to Irineo Evangelista de Souza, Barão de Mauá. See MATOS, Odilon Nogueira de, 'Vias de Comunicação' in BUARQUE DE HOLANDA, Ed., *História Geral da Civilização Brasileira, O Brasil Monárquico*, Tomo II, S.Paulo, 1971.

diversification of products as a means of increasing the demand for transport.⁷⁰ For all these reasons, as in other domestic trade activities, the accumulation of capital in the internal trade was essentially directed towards the acquisition of land, public bonds, urban properties, but was never a source of capital for investment in manufacturing.⁷¹

IV.5- CONCLUSION

Domestic trade from 1844 to 1870 was essentially centered around some large cities, and interregional trade was relatively small during this period. However, after the 1850's there was an increasing growth in the coastal trade in domestic products, and a relative decline of the coastal trade in foreign products. Coastal trade in domestic products lay essentially in food to feed slaves and the poorer population of the cities, and it never became possible to expand the regional market or the sales of some locally manufactured products to other regions. The inland trade was essentially an offshoot of the pack mule business of transporting staples from the backlands to the export ports, from where city merchants sent their products as returns for the staples they received. The level of monetization in the backlands was relatively low throughout

⁷⁰- See LEWIS, C.M. *Railways and Industrialization: Argentina and Brazil, 1870-1929*, in ABEL, C. & LEWIS, C., ed, 'Latin America, Economic Imperialism and the State: The Political Economy of the External Connection from Independence to the Present, Monograph # 13, Institute of Latin American Studies, London, 1984

⁷¹- For a study on the composition of wealth, and its changes in the S.Paulo province, see MELLO, Zélia, M.C. de, *Metamorfoses da Riqueza, S.Paulo- 1845-1895'*, S.Paulo, 1985.

this period, and the need for outside products on the part of the farmers declined the further they were from the larger centres.

Despite a certain degree of dynamism in the growth of the domestic trade during the sixties, it was always very small in comparison with the foreign trade. Their organization and the small scale of their operations was an important curb on the expansion of manufacturers in the cities, who could never find a proper channel of distribution and could never count on a domestic market, apart from the environs of the city or region where they were located. Thus, the entrepreneurs who were manufacturers and were generally also merchants could never in this period have developed a business large enough to consider their activities as middlemen as secondary to any role as industrialists.

During the period under analysis domestic trade was essentially centered around large cities, with a small interregional trade, and most of the urban distributive trades were controlled by foreign merchants. During the 1860's there was an increase in the extent of the domestic trade in Brazilian goods, but the very reasons that allowed this growth led to a reduction in the growth of the domestic trade in foreign goods. Thus the domestic trade as a whole did not increase its importance in relationship to foreign commerce - because of its small size the domestic industrialists were restricted to the areas surrounding the

large cities, and could not count on other regions as a market for their products.

Considering the conditions of the domestic trade and the level of monetization of the economy, Brazil was a very backward country - it could not possibly be assumed that industrial development would be led by this domestic trade, unless the government acted to stimulate its development. The next chapter will discuss imperial economic policy, and analyse what was its role in the failure of Brazilian economic development in the XIXth century.

CHAPTER V
THE POLITICAL ECONOMY OF BRAZIL IN THE SECOND EMPIRE

V.1- INTRODUCTION

This chapter discusses the political economy of Brazil from the beginning of the 1850's until the aftermath of the Paraguayan War in the 1870's. Its core is the study of the debate on what kind of country should have been built in a period where all the institutional tools that would shape the beginning of Brazilian capitalism were created. This chapter will not study the way that the political decisions were taken, but rather which alternatives were on offer and what were the alternatives chosen. Thus, the chapter will discuss more the economic consequences of political decisions than the political decisions themselves. In this vein this chapter will discuss economic policy, particularly monetary policy, and within this, the role of the state in setting up the Brazilian financial system.

In this chapter I intend to show that: (i) From the beginning of the 1850's until the crisis of 1857 there was a period of economic growth in Brazil, a promising change compared with the poor Brazilian performance in the first half of the XIXth century;

(ii) This period of boom was interrupted by (a) a financial crisis originating abroad that hit the Brazilian economy hard; (b) the economic policy put forward by the metallists who were able to take over the government after the crisis-

the same political force that was able to prevent the development of investment banks in Brazil in the 1850's;

(iii) The period of 1857/58 - 1866 is characterized by low levels of economic growth and a big financial crisis in 1864, due essentially to internal causes: that is, the bank reform of 1860 and the monetary policy sustained during the early 1860's;

(iv) From 1867 the Paraguayan War led to an unwilling change in the government's economic policy; these changes were very important for the recovery of the economy and for undermining the foundations of the slavocrat economy;

(v) After the war there were attempts to resume the traditional metallist economic policy to reduce drastically the means of payment in the economy; this, together with an unstable situation in the world economy, which since 1873 was passing through a period of falling prices and profits known as the great depression, led to the crisis of 1875;

(vi) However, in the 1870's the changes in the Brazilian economy brought about by the Paraguayan War and the development of coffee production, trade and exports set up the conditions for a new period of growth, even though the poor performance of the Brazilian economy for most of the century led to a very low starting point for Brazilian growth - that is, Brazil began to grow from a level much lower than the European periphery.

I will use in this chapter five main primary sources: (i) Documents from the legislative power, such as

Annais da Câmara de Deputados, Annais do Senado do Imperio; (ii) Brazilian and British official enquiry reports, particularly the enquiries on the crisis of 1857 and on the crisis of 1864: Relatório da Comissão de Inquerito nomeada por Aviso do Ministério da Fazenda de 10/10/1859; Relatório da Comissão de Inquerito sobre as Causas da Crise na praça do Rio de Janeiro de Setembro de 1864; Report from the Select Committee to Inquire into the Operation of The Bank Act of 1844and into the Causes of the Recent Commercial Distress; (iii) Official publications, such as Balanço Geral da União, Reports of the Financial Ministry and Reports of Banco do Brasil; (iv) contemporary accounts, particularly the books of the most famous Brazilian statistician at that time Sebastião Ferreira Soares, namely Notas Estatísticas sobre a Produção Agrícola e Carestia dos Generos Alimentícios no Brasil (1860); Elementos de Estatística (1865); Esboço ou Primeiros traços da Crise Comercial do Rio de Janeiro (1865); but also the works of the Barão de Mauá: Exposição do Visconde de Mauá aos Credores de Mauá & Cia (1878), O Meio Circulante do Brazil (1878); the book of the politician and famous paperist Souza Franco, Os Bancos do Brazil; and the book of articles on the crisis of 1875 of the journalist Souza Carvalho; (v) contemporary newspapers, particularly, Jornal do Comercio, Correio Mercantil, Anglo-Brazilian Times, Brazil and River Plate Mail.

As a reference for analysis I took the studies inspired by Cameron on the role of banks in economic

development, especially in the early stages of development¹. This author observed that a proliferation in the number and variety of financial institutions and a substantial rise in the ratio of money and other financial assets relative to the total output and tangible wealth are apparently universal characteristics of the process of economic development in market-oriented economies. He argued that the efficiency with which any given financial system performed its functions depends not only on the strength of the demand for its services, but also on a host of legal, institutional, administrative, and even geographical factors as well. He points out three possible forms of interaction between the financial sector and the other sectors of the economy that require its services: (i) the case in which inadequate financing restricts or hinders industrial and commercial development; (ii) the case in which the financial system is purely permissive and accommodates all 'credit-worthy' borrowers; and (iii) the case in which financial institutions either actively promote new investment opportunities or encourage applicants for finance to come forward, provide them with advice and extra services etc.²

I propose that the monetary policy in Brazil and the financial structure that was set up by the metallist

¹- See CAMERON, Rondo , *Banking in the Early stages of Industrialization: A Study in Comparative Economic History*, Oxford University Press, 1967; See also the book organized by him with papers on the same subject: *Banking and Economic Development*, New York, 1972.

²- CAMERON, R., *Banking in the Early stages of Industrialization*, pp.1/2.

current that controlled the financial ministry in Brazil is an example of the first case ³. That is, this policy was highly inadequate for domestic needs, and was a severe hindrance in the path of any industrial and commercial development. The continual search to establish a convertible currency strongly based on gold in a peripheral and liquidity hungry society was not only unattainable but also contributed enormously to reducing the opportunities for productive investment. Finally, this inadequate financial structure and poor monetary policy did not help to overcome the barriers for Brazilian economic development, but on the contrary reinforced the difficulties created by the restrictions on the domestic market and the typical inefficiencies of an agrarian and slavocrat society.

V.2- THE ECONOMIC BOOM OF 1852-57

As was shown in chapter II, Brazilian economic performance in the second half of the XIXth century was better than in the first half. The beginning of the 1850's was seen by contemporaries, and is also considered by present historians, as the beginning of a period of change and of an economic boom that lasted until the financial crisis of 1857. This section proposes that there is a clear connection between credit availability and the expansion of

³-The U.S.A. is a good example of the second case, and Russia and Germany are examples of the third case. See SYLLA, R, 'The United States (1863-1913)' in CAMERON *Banking and Economic Development*, op.cit..; CRIPS, O. 'Banking in the Industrialization of Tsarist Russia, 1860-1914', in *Studies in the Russian Economy before 1914*, London, 1914; see also CAMERON *Banking in the Early Stages of Industrialization*, p.158/181

the economy during this period and intends to show the role of financial policy of the period as having had a catalytic effect at that time, when exports were flourishing and there were unused resources from the slave trade available for investment.

We can state that there was an economic boom in the period 1851/52 to 1857 based on the following evidence: (i) the rapid growth of coastal trade during the period; (ii) the rapid growth of foreign trade; (iii) evidence of creation of several banks and an increasing number of manufacturing firms and increasing manufacturing investment.

The most usual explanation for the economic boom of the 1850's, - when, particularly after 1852, there was a spurt in the creation of new merchant firms, banks and some industrial firms - was that this was the combination of the end of the slave trade, which stimulated the transfer of funds from this business to the domestic economy, and a good performance by exports, as a result of the increasing international demand for tropical products.⁴

In fact, from this period on there was an increasingly satisfactory performance by traditional export products such as tobacco, hides and skins, and sugar, this last product benefiting from the free trade policy that Britain had been progressively introducing for the import of tropical products. This was accompanied by a continuing upward trend in coffee, and a sudden boom in cotton, mainly

⁴- This is the interpretation of Furtado, but also of Caio Prado Jr., Nelson Werneck Sodré, etc.

during the 1860's as a consequence of the civil war which disrupted U.S. exports of this product. At the same time regional staples such as cocoa in Bahia, yerba-mate in southern Brazil, and rubber in the Amazonian Provinces rose from very low figures to become an important source of income in their regions.⁵

Recently, doubts were raised about the contention that the end of the slave trade was the major cause for the origin of this boom. The explanation that the slave traders invested the resources formerly used to finance this trade in the domestic economy - that is, in trading or manufacturing ventures - seems to be in need of further evidence.

⁵- See Table V.1.

TABLE V.1

**BRAZIL: DECENNIAL EXPORTS BY VALUE (IN £1000), BY VOLUME
(1,000 SACKS OR TONS.) AND AVERAGE VALUE OF EXPORT PRODUCTS
BY UNIT
(SELECT PRODUCTS)**

PERIOD	1821-30	1831-40	1841-50	1851-60
1-COFFEE	7 189	21 529	22 655	49 741
1.1-sacks	3 178	9 744	17 121	26 253
1.2-£/sacks	2.26	2.21	1.32	1.89
2-SUGAR	11 766	11 798	14 576	21 638
2.1- tons	479 851	707 264	1 004 043	1 214 698
2.2- £/Tons	24.5	16.7	14.5	17.8
3- COTTON	8 069	5 298	4 103	6 350
3.1-Tons	122 173	113 844	111 111	141 248
3.2- £/Tons	66.0	46.5	36.9	45.0
4- RUBBER	17	168	214	2 282
4.1- Tons	329	2 314	4 693	19 383
4.2- £/Tons	51.7	72.7	45.6	117.7
5- COCOA	201	280	537	1 033
5.1- Tons	11 362	16 558	28 741	35 192
5.2- £/Tons	17.7	17.0	18.7	29.4
6-YERBA MATE	-	244	477	1 583
6.1- Tons	-	19 413	34 165	67 347
6.2-£/Tons	-	12.6	14.0	23.5
7-TOBACCO	988	942	974	2 679
7.1-Tons	42 409	45 454	46 230	80 126
7.2-£/Tons	23.3	20.7	21.4	33.4
8-HIDES/SKINS	5 314	3 906	4 679	7 368
8.1-Tons	77 619	92 425	160 688	164 346
8.2-£/Tons	68.5	42.3	29.1	44.8

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TABLE V.1
BRAZIL: DECENNIAL EXPORTS BY VALUE (IN £1000), BY VOLUME
(1,000 SACKS OR TONS) AND AVERAGE VALUE OF EXPORT PRODUCTS
BY UNIT
-(SELECT PRODUCTS)

PERIOD	1861-70	1871-80	1881-90	1891-1900
1-COFFEE	68 004	112 954	135 657	187 917
1.1-sacks	28 847	36 336	53 326	74 491
1.2-£/sacks	2.36	3.11	2.54	2.52
2-SUGAR	18 307	23 540	21 907	17 358
2.1- tons	1 112 762	1 685 488	2 021 394	1 336 202
2.2- £/Tons	16.4	14.0	10.8	13.0
3- COTTON	27 293	19 070	9 214	7 795
3.1-Tons	288 939	382 436	227 778	159 002
3.2- £/Tons	94.5	49.9	40.4	49.0
4- RUBBER	4 649	10 957	17 610	43 666
4.1- Tons	37 166	60 225	110 048	213 755
4.2- £/Tons	125.1	181.9	160.0	204.3
5- COCOA	1 388	2 438	3 585	4 269
5.1- Tons	33 735	49 967	73 627	104 460
5.2- £/Tons	41.1	48.8	48.7	40.9
6-YERBA MATE	1 817	2 945	2 550	3 931
6.1- Tons	96 169	144 235	161 699	265 892
6.2-£/Tons	18.9	20.4	15.8	14.8
7-TABACCO	4 567	6 870	6 033	6 296
7.1-Tons	126 539	176 535	198 831	211 812
7.2-£/Tons	36.1	38.9	30.3	29.7
8-HIDES/SKINS	8 958	11 106	7 167	6 987
8.1-Tons	212 394	221 936	180 138	246 739
8.2-£/Ton	42.2	50.0	39.8	28.3

Source: Computed from ANUARIO ESTATÍSTICO DO BRASIL - ANO V-1939/1940- QUADROS RETROSPECTIVOS.

NOTE: The exports value are in £1000; the coffee unit is in 1000 of sacks; other products in tons.

Bethell was one of the first authors to ask for further evidence of this theory, suggesting that it cannot be taken for granted that there were no major problems in changing capital from shipping and trading in slaves to domestic investments.⁶ Barbara Levy deals with this question by suggesting that, although there were some resources directly invested in the process of production by former slave merchants, the key to understanding the surge in these domestic activities was the financial market that was able to collect a large share of the resources deriving from this trade.⁷

There is some evidence that slave merchants, or even slave dealers in the city, indulged in financial speculation and some usury business⁸. On the other hand the end of the slave trade led to several plantation owners, particularly in the Southern provinces, incurring debts by importing slaves from other regions or transferring them

⁶- According to Bethell: "It is frequently argued that, by releasing capital for investment in agriculture, commerce, transportation, urban services and manufacturing, the abolition of the slave trade actually provided a considerable stimulus to all round economic development in Brazil during the period 1850-64. This thesis, however, is one which demands more detailed investigation than has hitherto been afforded". See BETHELL, L, *Abolition of the Slave Trade in Brazil*, Cambridge, 1970, p.378.

⁷- LEVI, B. *Historia da Bolsa de Valores do Rio de Janeiro*, op.cit., p.77.

⁸- The following advertisement of the ESCRITORIO COMERCIAL DE IGNACIO DA SILVA AMARAL gives an example of a pawn-broking house which also operated as a slave dealer: "Money lent against the surety of objects of value or mortgages. Slaves of both sexes bought, sold and leased, accepted for sale or leasing, and money advanced against the same. Salaries, annuities, pensions, jointures etc. discounted...". Published in ALMANACK LAEMERT, 1852.

from other activities, which caused a rapid increase in the price of the slaves, and also led to a sudden increase in rural mortgage debts (dividas hipotecarias rurais) which were subject to very high interest rates.⁹ In addition, the most notorious slave merchants, many of whom were of Portuguese origin, were expelled from Brazil, as a result of political pressure from British diplomats who feared the resumption of this trade. These merchants left Brazil with their huge capital and returned to their countries of origin.¹⁰

Thus, the end of the slave trade may have had some contradictory effects on the Brazilian economy. If some evidence points towards the stimulus from the transfer of capital in the slave trade to domestic businesses, other evidence indicates the contrary effect of debts contracted by farmers to buy slaves at inflated prices, diverting capital and labour from foodcrops, as well as the effect of the loss of capital from the deportation of the large slave merchants. Thus, if the consequences of the end of the slave trade were generally beneficial to the stimulation of domestic production, the available evidence does not

⁹- According to Ferreira Soares Bahia, Pernambuco, Minas Gerais and Rio Grande do Sul had a very quick increase in mortgage debts; in some of these regions loans were made with interest rates up to 2.5% to 5% per month. He estimates the emigration of slaves from the Northern Provinces to Rio de Janeiro at 27,411 persons during this period. See FERREIRA SOARES, *Elementos de Estatística*, Rio de Janeiro, 1865, p.227.

¹⁰- FERREIRA SOARES, *Esboço ou Primeiros Traços da Crise da Crise Commercial da Cidade do Rio de Janeiro*, Rio de Janeiro, 1865, pp.30/31.

authorize us to state that these benefits were strong enough to generate such a boom.

I argue instead that changes happened during that decade in the Brazilian and international economic system, particularly in the financial market, that are of enormous importance to understanding the shape the Brazilian economy would take in the following decades. Thus, the 1850's boom and the crisis of 1857 and 1864 must be studied in the same context - that is, considering the economic changes in the domestic and international financial market and the economic policies that were implemented by Brazilian governments as answers to the challenges of the period.¹¹

The Brazilian financial system during the 1850's cannot be understood without considering two important characteristics: first, the integration of domestic credit with international credit; and, secondly, the relative independence of financial operations in the Southern economy, which embodied Rio de Janeiro, S.Paulo, Minas Gerais and Rio Grande do Sul, from the provinces in the North, that covered Bahia and Pernambuco in particular, but also Maranhão and Pará, and was expressed by the sometimes large differences in the exchange rates of the mil reis in those markets and by the periodical movement of bullion between these regions.¹²

¹¹- This section studies the period of the economic boom; the following sections will study the crisis of 1857 and 1864.

¹²- There are references to the distinct exchange rates in the North, Northeast and Southern Brazil in the contemporary press and in speeches in the Camara dos Deputados. See e.g.,

The integration of the domestic and international credit system was made through the export-import trade, by far the most important business in this economy. The letters of exchange issued in London circulated in the domestic economy the same way as endorsed bills and domestic letters of exchange did. That system was clearly explained in a speech in the Chamber of Deputies during the early fifties:

*"... a letter of exchange in London drawn on the market in Rio de Janeiro is issued there by a banker of recognised credit, such as for example the house of Rothschild, on the Barão de Ipanema and in favour of the Barão de Guaratiba. Once this letter of exchange has been accepted by the Barão de Ipanema in Rio de Janeiro and the Barão de Guaratiba has endorsed it and presented it to the bank it has shown incontestible signatures, and as soon as this letter is taken to the bank, it is as secure as the domestic letters because it has the two signatures recognised as guarantors by the Rio de Janeiro market and there would therefore be no reason for this letter to be judged inferior in respect of security or credit to domestic letters."*¹³

The relative autonomy of the Northern and Southern regions in Brazil was the result of: (i) the small level of interregional trade as a result of the difficulties in communication, and transport; (ii) the fact that the most important commercial operations occurred in the foreign trade, which were made directly abroad without the intervention of southern merchants or of the southern banking system¹⁴. Thus, a financial crisis in Rio de Janeiro was frequently restricted to the southern market, with

the debate of economic affairs in June of 1853 in the ANNAIS DA CAMARA DOS DEPUTADOS.

¹³- ANNAIS DA CAMARA DOS DEPUTADOS, 11/6/1853; Silveira da Motta speech.

¹⁴- See the data on domestic trade in the Statistical Appendix Tables F.1 to F.14..

little consequence for the northern provinces. On the other hand, when the movement of capital between these two regions, particularly in the form of metallic coins, intensified as a result of the increasing interregional trade imbalance, the region that exported bullion began to experience a tightening of liquidity, bringing a commercial and financial crisis.¹⁵

At the beginning of the 1850's the reorganization of the Brazilian banking system was concomitant with an increase in the international demand for Brazilian export products and the end of the slave trade. There had been no organized banks in the country for nearly a decade after the first Bank of Brazil had closed its operations by the end of 1829. There was a frustrated attempt to found a bank in Ceará in 1836 but it had closed its doors in 1839, before it had time to consolidate, overwhelmed by financial problems and the lack of resources. The Banco Comercial do Rio de Janeiro was founded in 1838 by some Rio de Janeiro merchants. For a long time this bank had had a very limited role as a financial agent in commerce and industry due to the institutional and financial limitations of operating on a large scale in the discount market. The government itself showed very little interest in its operation and delayed issuing its charter (carta patente) for four years. It was only in the late forties that other banks would follow the bank created in the capital, and between 1845 and 1851

¹⁵- See ANNAIS DA CAMARA DOS DEPUTADOS; Silveira da Motta speech.

several banks were founded in the provinces, always operating on a small scale, making short-term loans to commerce and industry.¹⁶

In 1851, Irineu Evangelista de Souza, the future Barão de Mauá, founded another Banco do Brasil, with a capital of 5,000 contos. This was a very large venture for the period, made possible because its founder had good connections in the financial market in London, as a result of his long partnership and friendship with the English merchant Richard Carruthers.¹⁷

Until the establishment of those commercial banks, all credit operations were carried out by private bankers such as the firms of Souto & Cia, Bahia Irmãos & Cia, Gomes & Filhos, Montenegro Lima & Cia in Rio de Janeiro; and Marinho & cia, Justino José Fernandes & Irmaão, C.F. Deller & Cia in Bahia, who discounted bills of exchange and endorsed bills. Those banking houses continued to have a great importance in the financial market and enlarged their operations even after the establishment of bank companies,

¹⁶- In 1845 the Banco Comercial da Provincia da Bahia was founded, in 1846 the Banco Comercial do Maranhão, in 1847 the Banco Comercial do Pará, in 1851 the Banco da Provincia de Pernambuco. See AZEVEDO, T. & LINS, E.Q.V., *História do Banco da Bahia 1858-1958*, Rio de Janeiro, 1969. In the period without banks see SOUZA FRANCO, B., *Os Bancos do Brasil*, Rio de Janeiro, 1848; PACHECO, C., *História do Banco do Brasil*, Brasília, 1973; INGLEZ DE SOUZA, C., *A Anarquia Monetária e Suas Consequências*, S.Paulo, 1924; NORMANDO, J.F., *Brazil: A Study of Economic Types*, University of Carolina Press; PELAZ, C.M. & SUZIGAN W., *História Monetária do Brasil*, Rio de Janeiro, 1976.

¹⁷- MARCHANT, 1965, P.117.

and there are records of new firms of this type being established during the fifties and the sixties. ¹⁸

The setting-up of several new bank companies from the end of the forties was the result of the increasing demand for resources to finance the increasing exports of regional staples. Fearing an economic crisis as a result of the end of the slave trade, the government had introduced a more liberal monetary policy since the beginning of the 1850's and it had substantially increased its expenditure; it was also increased due to military expenditure, linked to the Brazilian intervention in Uruguay and later in Argentina, leading to a jump in the budget deficit from 528 contos de reis in the fiscal years of 1850/51 to 5,042 in the fiscal year of 1851/52. ¹⁹

From 1850 to 1852 the interest rate on the discounting of letters of exchange or endorsed bills in the bank system fell systematically in the Rio de Janeiro market, to increase again in 1853, after the organization of

¹⁸-Examples of such firms are Almeida Reis & Cia (1858), Antonio Joaquim de Mello (1858), Duarte Souza Kannichfel & Cia (1860), Silva Pinto Mello & Cia (1861), Miranda Jordão & Cia (1862), D'Iilion & Marques Braga (186f2), Caldeira Torres & Penalva (1862). See AZEVEDO & LINS, 'História do Banco da Bahia', op.cit., p.11; LOBO, E., 'História do Rio de Janeiro', op.cit., pp.216/217.

¹⁹- See the debate in the ANNAIS DA CÂMARA DOS DEPUTADOS on the budget proposal during February 1850, especially the debate between Souza Franco and Pereira da Silva. For the war preparations in the Plata region see CALÓGERAS, P., *Formação Histórica do Brasil*, S.Paulo, reprint, 1980, p.185. The expenditure of the ministry of war increased more than 70% between 1850/51 and 1851/52; see BALANÇO GERAL DO IMPERIO, years 1850/51 and 1851/52.

several commercial firms.²⁰ The growth of available credit and the growth of domestic income due to the increase in exports, and the relatively plentiful credit in the London market for the import business into Brazil, had their domestic effects enhanced by the end of the slave trade. The end of this business, which was largely run by Portuguese merchants, led to the introduction of capital in Brazil by two different means: (i) by Portuguese coinage, largely used in this trade, which was treated as national currency; (ii) through goods that were introduced into the Brazilian market without the need for an equivalent return in exports, and without the intermediation of the London market through bills of exchange.²¹

The goods that came to the country as the capital of the former slave merchants added to the business of the traditional import houses. This traditional business was stimulated by the maintenance of the exchange rate, and the availability of financing from abroad, and a tendency for the domestic interest rate to fall. Both operations of the traditional merchants and the import of capital in the form of goods led to the following consequences: first, an immense growth in imports from foreign ports for domestic consumption, which grew in two years, from 1849/50 to

²⁰- See FERREIRA SOARES, *Esboço ou Primeiros Traços da Crise Comercial...*, op.cit., p.202.

²¹- Most factual information about the period 1850/53 I drew from the speech of Lisboa Serra, future President of the Bank of Brazil, to the Camara dos Deputados in June of 1853. See ANNAIS DA CÂMARA DOS DEPUTADOS, session 13/6/1853.

1851/52, by 78%, an astonishing rate of 33.5% per year.²² Second, a net inflow of bullion, or the reduction in the remittance of bullion produced in Brazil, as exporters received part of their payments in specie and not in letters of exchange to be cashed in the domestic market, as had been usual.²³

Under these circumstances Maua's Banco do Brasil, organized in 1851, had no difficulty at all in receiving bullion deposits of thousands of contos de reis in a few months, which were exchanged for notes convertible by the bearer. Credit operations were facilitated during this period, allowing merchants and industrialists to make loans without difficulty.

On the other hand, the northern provinces were also passing through a particularly favourable period for investment. Staples in some of the northern provinces, particularly sugar and cocoa, enjoyed rapid development from the second half of the 1840's. Sugar benefited from the implementation of Britain's free trade policy, after the fall of the British Prime Minister Peel, which led to an increase in the import of Brazilian sugar for U.K. domestic consumption from only 19 cwt per year in 1841-45 to 185,340 cwt per year in 1846-50, and 666,932 per year in 1856-60.²⁴

²²- See Statistical Appendix, Table A.1.

²³- See ANNAIS DA CÂMARA DOS DEPUTADOS, session 13/6/1853.

²⁴- Data from BATISTA JR., *Política Tarifária Britânica e Evolução das Exportações Brasileiras...*, op.cit., p.236.

At the same time, cocoa had been increasing in demand in Europe for the nascent chocolate industry.²⁵

Consequently there was an economic boom in Bahia, the largest exporter of sugar and the only producer of cocoa, that led to the establishment of some of the first Brazilian textile factories, as well as several investments in public works in the backlands and improvements in the capital²⁶. Finally, the Banco Comercial da Provincia da Bahia was founded, one of only two banks in the whole country, the other being the Banco Comercial do Rio de Janeiro.

Two commercial phenomena, which were also a product of the exceptional circumstances in the 1850's, led to an increasing demand for currency for transaction and credit. The first of these was the tendency to set up regional markets in the backlands (interior). This happened because of the scarcity of slaves, which had been the main goods supplied to the plantations by the comissarios. This encouraged merchants to travel directly to the production areas in search of export products rather than wait for the planters to come to the capital. They also intended in this

²⁵ - See data on exports of regional staples in Table V.1.

²⁶ - Examples are the Santo Aleixo Mill in Salvador, referred to by Stein, but there are also references to the setting up of a foundry and a spinning mill belonging to John Smith Gillmer and Antonio Pacheco de Albuquerque in Valença around 1847; in this year the Cia Bonfim was founded for shipping in the Reconcavo, and in 1852 the Cia Santa Cruz was set up for shipping to Sergipe and Alagoas to the north, and Caravelas to the south; in 1853 the concession was given to the Bahia-Juazeiro railway. See STEIN, *The Brazilian Cotton Manufacture*, op.cit., p.12; AZEVEDO & LINS, *História do Banco da Bahia*, op.cit., p.58

way to avoid being bypassed by other merchants who could supply their traditional markets with slaves from alternative sources, and so cut them (the comissarios) off from their traditional source of export goods.²⁷

In order to perform this kind of commercial operation the comissario began to require more cash than they had previously needed when most of their businesses were simply a financial operation in which they advanced resources to the planters to buy slaves, and were paid by the selling of the crops. This system was partially overturned until it was again restored by the conjunction of the growing interregional trade in slaves and the increase in the price of slaves themselves, which placed a very heavy burden on planters to satisfy their labour force needs.

The other commercial phenomenon in the period was the dispute that arose between the import houses and the wholesalers, when the latter decided to boycott the merchants who sold directly to retail shops. The consequence was that some recalcitrant import houses had to use banks to sustain their current expenses. Other merchants, who accepted the wholesalers' demands, benefitted from the opportunity and quickly held large auctions, sharply increasing their sales²⁸. This also generated a new demand for credit, generally supplied by the import houses, who gave the wholesalers generous terms and benefited from the

²⁷- See speech of Lisboa Serra in ANNAIS DA CÂMARA DOS DEPUTADOS.

²⁸- See speech of Lisboa Serra in ANNAIS DA CÂMARA DOS DEPUTADOS, June 1853.

relative availability of credit and the low interest rate, immediately discounting their bills, thus receiving the cash in the short term.²⁹

All this led the banks quickly to run out of funds backed by gold, so they began to float their own bonds, which could be issued for up to one third of their authorized capital. In the second quarter of 1853 there was evidence that a crisis would begin, as was suggested by the increase in the interest rate as well as in the remittance of funds abroad and of bullion from Rio de Janeiro to the provinces.³⁰

By the end of May, 1853, the two banks in the Capital, Banco Comercial do Rio de Janeiro and the Banco do Brasil, and the Commercial Association petitioned the government to fight what they called the scarcity of money (escassez de numerário). The Financial Minister Rodrigues Torres, the future Viscount of Itaboraí, proposed to the Parliament that a loan should be made to the banks in notes from the Treasury, guaranteed by domestic debt bonds. The Finance Commission of the Chamber of Deputies added an increase in the right of issue to the Rio de Janeiro banks, and compulsory acceptance of their letters in government offices and by the private citizens of the capital. Those measures were approved on June 17.³¹

²⁹-Ibid.

³⁰- ANNAIS DA CÂMARA DOS DEPUTADOS, 30/5/1853 and 11/6/1853.

³¹- See the debate during the sessions in the Chamber during the month of June, 1853 in the ANNAIS DA CÂMARA DOS DEPUTADOS.

Rodrigues Torres' own position, which had become the dominant one in the government, was that a strong national bank should be established, which would be the only one authorized to issue paper-money, and which would operate throughout the whole country. The idea of merging Maua's Banco do Brasil and the Banco Comercial do Rio de Janeiro to set up a large Banco do Brasil, along the lines envisaged by Torres, was disclosed in the Press at the beginning of July.³² The Minister himself led the negotiations with the boards of directors of the two banks, and on the last day of August the project for the abolition of Maua's bank and the Banco Comercial and the incorporation of their assets in the new Banco do Brasil was concluded.³³

In September the Ministry collapsed, to be replaced by a new government under the Marques do Paraná, who was also appointed Finance Minister, in which role he continued the monetary policy of the former Ministry. In October shares in the Banco do Brazil were floated; they were enthusiastically greeted in the market, where they had been sold at a premium.³⁴ In April 1854 the bank began its operations, amid general expectations of high profits in a period when the stock market itself was very buoyant.³⁵

³²- See RETROSPECTO MENSAL DO JORNAL DO COMÉRCIO, 6/7/1853.

³³- Decree 1,1123 of 31/8/1853. On these negotiations see also PACHECO, C., *História do Banco do Brasil*, op.cit., vol II, p.129/39.

³⁴- See PACHECO, *História do Banco do Brasil*, op.cit., 146/148.

³⁵- See JORNAL DO COMÉRCIO, May 29, 1854. The number of transactions in the Junta dos Corretores do Rio de Janeiro, the precursor of the Stock Exchange, of which there were only 10 in 1850, jumped to 56 in 1852, 67 in 1855 and 113 in

The Banco do Brasil was liberal in its policy and made rapid use of the right to issue until it reached the limits allowed in its statutes. Thus in December 1854 the accumulated issue was already 14,564 contos de reis, when the legal limit was 15,821 contos. During January the issue continued and it became evident, in the meetings of the board of directors, that they could not be kept within the established limits.³⁶

In April 1855 the government authorized the increase of the issue limit from double to treble the funds available, but with the reservation that this authorization could be cancelled at anytime during its operation and would expire in one year.³⁷ Nevertheless, towards the end of the period the Bank was not able to reduce its issues and the Marques de Paraná published a decree as early as February 1856 authorizing the revision of the statutes of the Banco do Brazil to insert the new limit of issue not only for the headquarters, but also for the provincial branches.³⁸

By the end of 1854 there was heavy pressure for funds to be transferred from Rio de Janeiro to the Northern states, due in part to the payment for slaves, but also to a trade deficit between the Southern and the Northern provinces, which in fact continued throughout the years of

1856. See LEVY, 'História da Bolsa de Valores do Rio de Janeiro', op.cit., table 8, p.109.

³⁶- PACHECO, *História do Banco do Brasil*, op.cit., p.188.

³⁷- Decree # 1581, 1/4/1855.

³⁸- Decree # 1721, 5/2/1856.

1855 and 1856.³⁹ In May 1857 Souza Franco became the Finance Minister in a ministry headed by the Marques de Olinda. He immediately began to fight for a more liberal monetary policy on the two main issues of a plurality of issue banks and freedom of organization for *sociedade por comandita*, a mixed form, between joint stock company and the firm of unlimited responsibility drawn from the French Commercial Code of 1807.⁴⁰

The debates in the Chamber of Deputies during this period show the two tendencies that were to influence the development of the Brazilian economic structure. On one side were the industrialists and the merchants who operated in the import business and domestic trade and tended to support a more liberal economic policy, as well as freedom of organization for joint stock companies. Most of these people belonged to the so-called paperist school. They supported

³⁹- According to the report of the Banco do Brasil of 26/7/1855, pg.14/15, "in this month alone (December 1854) more than 700,000 réis in cash were withdrawn from the bank"...."these withdrawals"..."are easily explained by the necessity of making remittances in cash to the north, not only to pay for the numerous slaves sold hitherto to work in the plantations, etc."....,"in the month of January the demands for currency continued, a sum of 570,000 réis being withdrawn to satisfy the same ends"..."... the previous evil continued before it could be combated, with withdrawals from the bank between the 1st of February and the 24th of March (1855) realizing more than 700,000 réis."

⁴⁰- See chapter III about Brazilian Commercial legislation. In December 1854 a law was passed forbidding banking houses organized as 'sociedades-comanditárias' without the approval of the government. In 1856 an act of parliament forbade this kind of company without the total subscription of the capital. Shares could only be issued, according to this regulation, under the name of its owner, the company had to be approved by the government, and the owners were jointly liable for the company's loss.

the private banks' right of issue and held that the stock of means of payment should be determined by the domestic demand for transaction and not by the actual stock of bullion in the bank system. However, at that time even the paperist understood that a degree of correspondence should exist between gold stock and means of payment. Their opponents were the more traditional politicians, the 'bachareis', i.e., those with a degree in law, who were educated under the idea of austerity and caution. Their ideology was close to that of those farm owners and rentiers who feared inflation and economic instability, but it was also supported by some intellectuals who preached liberal doctrines whose views reflected the European economic debate, particularly the economic debate in England and France. Those, known as metallists, defended a rigid monetary control and held that when material conditions for economic growth were achieved, the stock of bullion would naturally flow into the economy sustaining progress and that increasing the means of payment without considering the stock of bullion would lead to inflation and crisis⁴¹.

⁴¹- It is important to remark that any attempt to associate metallists and paperists with modern economic schools, such as to compare metallists with monetarists, is highly misleading. There is not yet a detailed study of economic thought in Brazil at this time. Although some ideas of liberal economists influenced Brazilian 'bachareis' in the XIXth century, it is rather easier to see some of those ideas 'imported' to support their prejudices than to see a well founded and influential liberal school in Brazil, although some exceptions can be found- such as José da Silva Lisboa, Visconde de Caiuru, author of *Principios de Economia Politica* (1804), a book strong influenced by Adam Smith.

However it is important to note that any rigid division of the support for these two tendencies in parliament in terms of class origin would be misleading. It is not very easy to determine what kind of class supported what kind of policy. In fact, Zelia Cardoso de Mello's study on the evolution of private wealth in S.Paulo shows that an important share of the income among urban property-owners in S.Paulo during the 1850's came from loans (*dividas ativas*), not only those realized through the banking system, but also rents and profits from their businesses. Rural landlords tended to have a smaller percentage of loans as a source of income, their main receipts came from the produce of their farms and rents, while their main wealth lay in slaves, land, animals and machines, unlike the urban owners whose wealth lay essentially in loans, urban buildings, shares and slaves.⁴² Based on such studies, it may be supposed that the different distribution of assets influenced the ideas of these two fractions of the elites, but a thorough study of this theme is yet to be made. Thus I prefer to state that the paperist approach in Brazilian economic policy had the support of urban merchants, particularly those involved in manufacturing and banking, since all evidence gives us firm grounds for this statement. The Barão de Mauá was the typical representative of the modern entrepreneur who strongly supported the Souza Franco policy. With regard to the metallist approach, it seems to have been supported by

⁴²-MELLO, Z.C. de, *Metamorfoses da Riqueza ...*, op.cit., pp.126/130.

intellectuals with a liberal background and conservative ideas, and 'bachareis' linked to agrarian interests. However, support for this tendency was wider than just these two sectors, and cases can be found of merchants and bankers who preferred a much more careful approach to monetary policy, or planters' representatives who supported a contrary view.

As soon as Souza Franco assumed the position of Financial Minister, he announced his intention of authorizing new banks with permission to make issues, putting forward an aggressive paperist policy. Thus, during late 1857 and early 1858 five new banks were created, one in the capital and four in the provinces. Permission to make issues was also granted to the Banco Rural Hipotecario of Rio de Janeiro.⁴³ Sales Torres-Homem, his most obdurate opponent, who was a strong defender of a policy of rigid monetary control in the congress, and one of the leaders of the metallist tendency, criticised him vigorously.

The debate between the two politicians, which reflected the debate on the kind of economic policy and institutional structure to be implemented in Brazil, ranged

⁴³ - The Banco Commercial e Agrícola was created in 31/8/1857, its headquarters were in the court municipality and it had authorization to establish branches in the provinces, its capital was to be of 20,000 contos de reis. The Banco da Provincia do Rio Grande do Sul was created in 24/10/57, with a capital of 1,000 contos de reis; In 11/11/1857 was created The Novo Banco de Pernambuco and in 25/11 the Banco do Maranhão with a capital of respectively 2,000 and 1,000 contos de reis. In April 3 of the next year was created the Banco of Bahia with a capital of 8,000 contos.

from the role of money issue in the finance of economic activities to the origin of the increase in the price of food during the 1850's. Torres-Homem believed that the cause of the increase in the price of food was monetary expansion; according to him, the indication of liquidity problems in Rio de Janeiro in 1857 was caused by remittances of bullion from this city as a consequence of the increasing of the issues without an accompanying guarantee in gold.⁴⁴ Souza Franco held that behind the increase of the domestic prices there was (i) the decrease in the price of gold, caused by increased production in California and Australia; (ii) the scarcity of labour, that is, the transference of slaves from less profitable activities, such as food production, to the more productive export crops; (iii) the difficulty of transportation, which restricted domestic trade, and meant that some products, particularly food, that were abundant in the backlands, and wasted or sold below a reasonable price for lack of market, were scarce and very expensive in urban centres, because the limitations of transport prevented their shipment there; (iv) finally the increase in the interest rate acted as an autonomous element to increase the price of production and thus increase the price of the final good⁴⁵. Souza Franco stated that the three complaints of the market in this period were: (i) the increase in the interest rate; (ii) the limitations of longer payment terms to

⁴⁴- See Torres-Homem speech, ANNAIS DA CÂMARA DOS DEPUTADOS, 12/6/1857.

⁴⁵-Souza Franco speech, ANNAIS DA CÂMARA DOS DEPUTADOS, 13/6/1857.

manufacturing industry, agriculture and the commerce; (iii) the scarcity of means of payment to meet transaction needs.⁴⁶ He offered a completely different explanation for the problem of remitting bullion to the northern provinces. According to him, if there was a deficit in the domestic trade between Rio de Janeiro and the provinces of the North, the South would also generate a foreign trade surplus and the North a deficit in their foreign trade. Thus, the domestic deficit could be paid for by the foreign surplus. For him, what happened was that the northern provinces lacked means of payment and retained the gold coins that were sent from Rio de Janeiro in their domestic transactions, and did not return them to circulation in the south or even use them for the payment of foreign transactions.⁴⁷

These two different policies implied two different conceptions of the kind of economy that should be created in Brazil: conditions could be created to encourage a quick development of manufacturing and commerce through an expansionist policy, through the building of roads to improve transport conditions, through immigration to generate new colonies that could supply cheap food, and also complement the slave labour-force with a free labour-force; or alternatively, steps could be taken to develop a cautious monetary policy to prevent inflation, to prevent the devaluation of rents and a reduction of interest with losses

⁴⁶ - Ibid.

⁴⁷ - Ibid.

for all rentiers in the country; care could be taken not to increase public expenditure in an excessive building program because the only source of income available would be to further tax the big plantation owners either directly through increasing exports tax, or indirectly through increasing tax on the import goods they consumed.

Thus, the 1850's saw a confluence of events with changes that contributed to encourage the rapid development of businesses. These changes were in particular a more flexible monetary policy and the organization of a financial sector, but also the increase of export business and of the domestic trade, the favourable international environment, and the end of the slave trade. However, the crisis of 1857 led to a change in the delicate balance of power in the congress, and also prevented the continuity of those favourable conditions during the first years of the 1850's. The struggle in the Brazilian congress over economic policy, between paperist and metallist views during the 1850's and the 1860's, was the main factor influencing the creation of the legal system and the institutional apparatus with which Brazilian entrepreneurs had to operate during the second half of the XIXth century. Its outcome strongly contributed to the great number of economic crises and the perpetuation of the low productivity level that characterized the Brazilian economy, as I intend to show in the next sections.

V.3- THE CRISIS OF 1857

The crisis of 1857 is a national and international turning-point when changes in the international financial market affected the operation of the merchant houses, and in Brazil led to a change in balance of power in the congress, allowing the metallists to win the battle for the control of the economic policy in the following decades.

The crisis of 1857 began when, at the end of the year, news of a crisis in the U.S.A., which had spread to Europe, arrived in Brazil and sales of the most important export products were halted without any prices being quoted for some time.⁴⁸ The fall in the price of grains in the international market, caused by a good harvest in all the major exporting countries after some bad years, and the increase in the amount of grain available to trade due to other causes, such as the re-establishment of normal commercial relations between Russia and Western Europe after the Crimea War, led to a fall in wheat prices that profoundly affected the whole U.S. market. A fall in the U.S. security prices caused by the failure of the Ohio Life Insurance and Trust Company in August led to a general panic. The fall in agricultural prices left farmers unable to service their debts and institutions that had lent them

⁴⁸- This is considered to be the first real world-wide crisis in history. The crisis broke out in the autumn of 1857 at the same moment in the U.S.A., Britain and Central Europe and its effects were felt in South America, South Africa, Australia and the far East. See CLAPHAM, J., *The Bank of England, A History*, Cambridge, 1958, p.226; MILWARD A. & SAUL, S.B., *The Development of the Economies of Continental Europe, 1850-1914*, Cambridge, Massachusetts, 1977, p.510.

the money were, as a result, endangered. Merchant houses in Britain connected with the U.S. trade began to suspend payments. Exports to the U.S.A. were about twenty per cent of all British exports, so that the U.S. crisis, together with the news of social convulsion in India, a drain of bullion to the East and rising Continental discount rates, created the conditions for the panic to spread quickly to Britain.

Within weeks all the world's major trading cities were paralysed. The Hamburg merchants who formed the link between northern Europe, Britain and the United States made heavy use of bills drawn on London, which led Britain to increase its rate to as high as 12 per cent in November to resist the drain on its resources. The money panic spread to Britain and there were domestic withdrawals by British and Irish depositors. Two Scottish banks, one Liverpool and two leading London bill brokers failed between 12th October and 11th November 1857. Many Hanse merchants went into liquidation, and every centre in northern and central Europe was affected. Adding to this situation there was a drain of gold from Britain to meet contingencies raised by the disorders in India, and with the crisis in the bill of exchange system there was a rapid contraction in international demands. Under this system a trader who was expecting that the bills of exchange that he held would not be paid on time, would postpone his own purchases because he depended on those payments to meet his commitments. The

whole international financial system was highly inflated due to a wide availability of resources during the previous years, as a result of the discoveries of gold in California and Australia, and liberal credit practices. When the crisis came it affected the entire international system of payments and the settlement of international trade that depended on the City of London's bill market.⁴⁹

The news of the crisis arrived in Brazil with the November steamship (paquete), leading to the paralysing of transactions and the fall in the exchange rate. The Casa Souto had to withstand a heavy run from December 1, until the 31st of that month, and it would have been bankrupted if it were not for the support of the Banco do Brasil. The crisis reached its peak in March 1858, and the exchange rate fell to its lowest level.⁵⁰

The firm stand taken by Souza Franco in the Ministry prevented it from having more dramatic consequences. He authorized the Banco do Brasil to issue bank notes to a value four times higher than the available funds, and gave this institution a government bond for a loan from the Rothschild's merchant banks. He also urged the Banco do Brasil to support the exchange rate and he tried to

⁴⁹- See MILWARD & SAUL, *The Development of the Economies of Continental Europe, 1850-1914*; FOREMAN-PECK, *History of the World Economy, International Economic Relations since 1850*, Southampton, 1983, pp.84/85; ANDREADES, *History of the Bank of England 1640 to 1903*, London, 1924, pp.345/352.

⁵⁰-See PACHECO, C., *História do Banco do Brasil*, op.cit., ch.VI; see also PELAEZ & SUZIGAN, *História Monetária do Brasil*, op.cit., pp.107/113. See also Relatório da Comissão de Inquérito Nomeada pelo Aviso do Ministério da Fazenda de 10/10/1859, Rio de Janeiro, 1860.

enforce an anticyclical role through this institution. As he did not have enough support in the administration of the bank to fulfil his objectives, he asked his old friend and parliamentary ally Barão de Mauá to make withdrawals from the London branch of his banking house, Mauá, MacGregor & Cia, to minimize the problems in remitting bullion. Mauá was able to remit 400,000 sterling pounds from his London partner by the March steamship, and 200,000 sterling pounds by the April steamship.⁵¹ The government also made use of funds from a loan to the Pedro II railway to deal with the problems in the balance of payments.⁵²

The crisis had two consequences, one related to domestic politics and the second to the start of an international trend that had important consequences for the Brazilian economy. The first consequence was the weakening of the paperist tendency in Congress which led to Torres Homem taking over the Financial Ministry by December 1858, with the resulting changeover to a tight monetary policy that lasted for several ministries until the Paraguayan War. The Souza Franco monetary policy was blamed for the domestic crisis, an approach which was, for example, put forward in the report submitted in April 1860 by the Committee created

⁵¹- Ibid. This action of Souza Franco caused the government to have a typical anticyclical role on this occasion. Souza Franco was aware that devaluation of the exchange rate, - in as far as it was not possible to change the parity and thus make the currency devaluation represent an improvement of competitiveness - meant remittance of bullion thus tightening of liquidity, bankruptcies and crisis. See Mauá's evaluation of this episode in *Autobiografia*, op.cit., p.242.

⁵²- Relatório da Comissão de Inquérito Nomeada pelo Aviso do Ministério da Fazenda de 10/10/1859, Rio de Janeiro, 1860.

in October 1859 by Silva Ferraz, when he was Financial Minister, to enquire into the causes of the crisis. According to this commission if the situation of the monetary circulation had been normal, then the commercial crisis which had begun in the U.S. would not have provoked such a large domestic crisis, but only a temporary stagnation. They also defended the idea that domestic causes were the main reason for the domestic crisis and the international situation was merely a catalyst.⁵³

The second consequence of the crisis of 1857 was caused by the change in the international financial market that prevented Brazil from continuing largely to finance its deficitary balance of payments by bills of exchange granted to private merchants. Brazil was heavily dependent on credit because of the trade deficit and the large deficit in the balance of services which has very seldom been referred to in Brazilian economic literature.⁵⁴ From that year on Brazil

⁵³- Relatório da Comissão de Inquérito Nomeada pelo Aviso do Ministério da Fazenda de 10/10/1859, Rio de Janeiro, 1860.

⁵⁴- Ferreira Soares was the first to observe this phenomenon. He estimated the remittance of capital abroad as 6,000 contos de reis for the payments of interest, amortization and guarantees for subsidized companies, and payments of the Brazilian debt. He estimated that Portuguese citizens alone must remit about 10,000 contos de reis yearly to Europe, and that Brazilian travellers spent about 2,400 contos de reis with their travels in foreign countries, which made 18,400 contos of remittances in the service balance. He did not estimate the opposite capital flow, but he inferred that it must have been much smaller than these remittances. Even if Ferreira Soares has over-estimated this remittance of funds abroad, the figure he arrived at was of more than two million pounds sterling at the average exchange rate of 1857- more than 15% of exports for 1856/57, and nearly 20% of exports for 1857/58. See FERREIRA SOARES, *Esboço ou Primeiros Traços da Crise Comercial no Rio de Janeiro*, op.cit., p.62/63. This fact was also observed by

became less and less of an important consumer market and more a market where foreign merchants would invest in the export economy, encouraged by the increase in the international demand for tropical products and by the domestic changes that made possible a rapid development of staples production for the international market.

In the U.K. the crisis changed government policy in relation to bills of exchange, mainly through the influence of the conclusions reached by a parliamentary committee appointed to inquire into the nature of the crisis.⁵⁵ This commission noted that during the years when the crisis was maturing there was (i) an unprecedented extension of the U.K. foreign trade; (ii) an importation of gold and silver on a scale unknown in history since the period immediately following the initial discovery of America; and (iii) a most remarkable development of the economy afforded by the practice of a more intensive use of banking to finance businesses and investments. According to their report, the main cause of the failures in the U.K was the great abuse of credit, which flooded out to companies that carried on extensive transactions by fictitious credit, and led to overtrading.⁵⁶

Graziaera, who using the Ferreira Soares information, criticised the vision of most analysts of this period who only saw the monetary causes of this crisis. See GRAZIERA, R.G., *A Guerra do Paraguay e o Capitalismo no Brasil, Moeda e Vida Urbana na Economia Brasileira*, S.Paulo, 1976, p.87.

⁵⁵- See PARLIAMENTARY PAPERS.881.1-1857/58

⁵⁶- *ibid.*

In fact what the commission believed to be the main cause of the failures of merchant houses was the practice of sustaining large export or import businesses by granting large amounts of credit from the firms' headquarters in London to the importers and exporters abroad, without undertaking a fair risk analysis of those business partners and without considering their own capacity to bear losses. This kind of trade was only possible because these merchants were strongly supported by the London financial market, which had a key position in the operation of British commerce. This system was explained to the Bank Committee by James Edward Coleman, an experienced accountant in the City of London:

"The nature of the transactions to which I allude was the system of open credits, which were granted; that was by granting to persons abroad liberty to draw upon the house in England to such an extent as had been agreed upon between them; those drafts were then negotiated upon the foreign exchanges, and found their way to England, with the understanding that they were to be provided for at maturity. They were principally provided for, not by staple commodities but by other bills that were sent to take them up".⁵⁷

Thus, during the 1850's - and particularly after the 1847 financial crisis in Britain - industry and commerce, shipping and agriculture and all kinds of businesses saw in general the beneficial effects of a final abandoning of the old protectionism. During this period the transition to free trade was complete in Britain, and large improvements in this direction were made on the continent.

⁵⁷ - Ibid, p.130.

Britain began to feel the benefits of the new railways system and of the improvement in shipping. At the beginning of the 1850's the new discoveries of gold in California and Australia led to an economic boom in Britain and to a fall in the discount rate, which reached the unprecedented level of 2%⁵⁸. The new joint-stock banks in England competed to pay interest to account holders. At that time the bank account became a convenient and apparently risk-free method of investment. This led to an increase of deposits in the London joint stock-banks of nearly five-fold in a decade.⁵⁹

As a consequence of the simultaneous development of the joint stock banks and foreign trade, the bill market sustained an enormous rate of growth, that was also stimulated by the growth of banking and trade in the U.K outside London. The system of acceptance credits, which had been widespread since the 1840's, was practised on a much larger scale than ever before, and was extended to trades and areas in which it had previously been only exceptionally used. It was especially important in all classes of trade with the U.S.A., Scandinavia, China and the East, and in the colonial trade. Partly as a result of this development, bills drawn to finance overseas trade, as opposed to purely domestic paper, came to play an increasingly important part

⁵⁸- KING, W.T.C., *History of the London Discount Market*, London, 1936, p.170/171; CLAPHAM, J., *The Bank of England, A History*, op.cit., 362.

⁵⁹- King, W.T.C., *History of the London Discount Market*, op.cit., p.174.

in the bill market and bank portfolios from about 1850 onwards.⁶⁰

After the 1850's the discount houses took country paper solely on the strength of the endorsement of the bank which remitted it, without concerning themselves with the quality of the paper itself. Bill dealers even accepted papers that they knew were of bad quality and relied upon the bank's signature. Thus, in order to obtain money, a provincial bank had only to procure a supply of accommodation bills, and remit them duly endorsed to a London discount house. This system stimulated a near unlimited expansion of credit. On the other hand, the increased share of the banks' reserves maintained in highly liquid bills of very short date, and an even larger reserve of actual cash, i.e., current accounts, made the reserves of the joint stock banks highly volatile. Finally, the system of opening a credit upon future remittances allowed merchants in the country to make unlimited sales, without guaranteeing an effective return for their produce.⁶¹

This unbridled financial system was a natural consequence of the development of British capitalism, and it had to be brought under control to prevent the inevitable crisis which followed its chaotic expansion. By this time, the Bank of England had progressively assumed most of the vital functions of a central bank, and had ceased to participate actively in the competitive race for commercial

⁶⁰- Idem, p.177.

⁶¹- Ibid., chapter VI.

banking. But the problem of this bank was how to discipline an organism whose resources had reached a size which completely dwarfed its own. Under pressure from allegations of disgraceful methods used by speculators and by a general belief that the origin of the crisis was due to the absence of any control on mercantile activities and financial abuses, the Bank of England directors were led to withdraw rediscount facilities from the market as a way of controlling the so-called bill market over-trading. This was done immediately and in short order and was only introduced again after some time.⁶² It was only the strength of the bill market, and the continuing trade depression which reduced the demand for bills, that prevented the drastic decisions of the Bank of England from being a crushing blow to its functioning.

The consequences of this decision in the following years and its link with the crisis of the 1860's in Britain lie outside our ambit. But the consequences of the more cautious behaviour of the bills market in the Brazilian economy are a relevant point that should be considered in our argument. **From 1858 onwards it was no longer possible to continue to sustain large trade deficits through financing by private merchants in London.** From this period, if Brazil wanted to continue to import, it had to sell staples to such a value that it could not only pay for her demand for imports, but also for part of the service deficits in the

⁶²- Ibid., p.199/200.

balance of payments. Thus, direct imports began to fall from their 1857-58 peak year after year, and the large trade deficits were overcome, at the beginning of the 1860's, by an increased market for Brazilian staples. These staples included not only coffee, but also the large market for cotton that was opened up with the civil war in the U.S. and the new products in increasing demand in the international market such as cocoa. ⁶³ Meanwhile, imports only began to increase again in 1863-64 mainly due to the performance of exports. On the other hand, other changes in the capital accumulation trends in Britain reduced Brazil's position as an important market for British produce, and also reduced the U.K.'s interest in the Brazilian market.

In the late 1850's a rapid increase began in the number of joint stock companies with a limited liability, which were a new method of financing operations in the U.K. or abroad. These were to prove more flexible and aggressive businesses than the traditional firm based on the unlimited credit of a reliable and cautious single businessman or partnership, such as the men who had headed businesses during the Industrial Revolution. From this period the role of British capital in Brazil would be distinct and would become increasingly important to the development of the domestic export economy and also - in view of the new priorities of the London market - Brazil would not be able to sustain large trade deficits, nor afford to buy

⁶³ - See data in Table V.1.

increasing quantities of British goods, without having the exports to pay for them. However, for the British merchants, the country's capacity to export very valuable commodities to the world could be a source of investment as profitable and less risky than that of a consumer market. On the other hand, the success of the Brazilian export drive would inevitably lead to a larger market for British products.

In Brazil, the 1860's can be considered the beginning of direct investment by British companies in all activities related to the export business, from railroads to joint-stock banks⁶⁴. From the late 1850's on, Brazil's export complex became progressively more important to Britain's entrepreneurs than its role as a consumer of British products. Even if Britain had a large surplus in her balance of trade with Brazil, British firms had a large share of the Brazilian export market, not only to their own country, but also to other parts of the world. From this period on Brazil was able to generate a large trade surplus, although, due to her deficit in the service balance as well as the amortization of past debts, the balance of payments current account would always be a source of difficulties for economic policy.

The operation of the export complex in the Brazilian economy will be the subject of discussion in a

⁶⁴- For a complete list of foreign firms authorized to operate in Brazil see MINISTÉRIO DA FAZENDA, *Sociedades Estrangeiras Autorizadas a Operar no Brazil*, Rio de Janeiro. See also GRAHAM, R. *Britain and the Onset of Modernization in Brazil 1850-1914*, Cambridge University Press, 1972.

later chapter (chapter VI), but at this point it may already be stated that it was the only segment of the Brazilian economy that could hold any interest as an expanding market for investment. The changes in the London bill market and the changes in the character of the British export of capital would prevent Brazil from continuing to buy import goods from Britain, or from other sources, in increased quantities without first producing the means to pay for it, that is, without developing a strong export economy. This situation would limit the kind of development taking place in the domestic market. More than ever, it would increasingly depend on the performance of the export sector for its growth, in so far as imports were essential to the supply of all kinds of goods for domestic consumption from food to manufacturing and the most nationalistically-minded industrialist knew quite well that without the import of inputs, machinery and tools, his entrepreneurship would be impossible.

Summing up, after 1857 Brazil had to increase its exports to sustain a stable economic growth, as far as it needed to import necessities and all kinds of capital goods that were required to increase the productivity of their economic activities. However, the crisis of 1857 created the conditions for the taking-over of the economic policy of the empire by the metallists, and, as will be seen in the next section, they implemented a policy that not only did

not stimulate manufacturing, but was also highly damaging even to domestic export agriculture.

V.4- THE CRISIS OF 1864

Unlike the crisis of 1857, which originated abroad, the crisis of 1864 had an essentially domestic origin. It was the result of the monetary policy implemented by the metallist politicians that would run the Ministry of Finance after the fall of Souza Franco. It was stronger than the crisis of 1857, which - in spite of the complexity of the problems it brought - did not cause a very large number of bankruptcies, and caused the bankruptcy of the most important bank houses in Rio de Janeiro, with effects throughout the country.

In the aftermath of the crisis of 1857 the failure of Brazilian imperial administration to create an adequate financial structure to make economic growth viable was already clear. This failure lay not only in not creating an environment where manufacturing enterprises could flourish, but also in failing to set up a convenient system of rural credit. The increased strength of the metallist tendency in parliament and the press campaign against the financial chaos only made the situation worse.

Souza Franco's attempts to authorize the operation of other banks of issue and break the monopoly of the Banco

do Brasil, in order to increase the money supply, met violent opposition in parliament, in the press, mainly from the *Jornal do Comercio*, and from the administration of the Banco do Brasil. He considered the increase of the money supply to be essential in alleviating the consequences of the crisis of 1857 and, despite the opposition, he was able to gather support to authorize the operation of some banks of issue. After the Banco Comercial e Agrícola began issue in March of 1858, a total of six other banks were authorized to operate during this year.⁶⁵ Nevertheless, he acted cautiously and issues were subject to strong guarantees and restricted to the limits of the social capital of the banks. The bills had to be paid in metal coinage or in Treasury bills, and had to be guaranteed by equal deposits of government bonds (*títulos de dívida interna*) and railroad shares that had their profits guaranteed by the government.⁶⁶

Parliament opened with fierce criticism of Souza Franco. In May 1858 in a succession of violent attacks he was accused of being responsible for the crisis. Silveira da Mota in a speech on May 20, stated that:

"I believe that the Minister cannot disown the fact that it is the doctrines he proclaimed

⁶⁵- These were the above mentioned Banco Comercial e Agrícola; the Banco do Rio Grande do Sul, the Banco de Pernambuco, The Banco do Maranhão, the Banco Rural e Hipotecário and the Banco da Bahia.

⁶⁶- Art 15 of the statutes of the Banco Comercial e Agrícola. Other banks were required to follow the same rule.

*with some exaggeration before becoming minister and even continued with some little reserve once he had become minister, it is these ideas which brought the market of Rio de Janeiro to these excesses, to this exaggeration of transactions with which we are afflicted."*⁶⁷

In the succeeding sessions of the congress speeches were made by the Viscount of Jequitinhonha, by Souza Mello, and others, similarly blaming Souza Franco and his policy for the crisis⁶⁸. The Banco do Brasil, which always had opposed the breaking of its monopoly, joined in the general condemnation. Banco do Brasil's president, Rodrigues Torres, the Viscount of Itaboraí, had already resigned in 1857 to protest against the economic policy of the ministry. Its acting president, Dias de Carvalho, who had gained the position due to the resignation of Rodrigues Torres, became involved in the opposition to the use of Mauá & McGregor's bank house to push through a financial operation which the Banco do Brasil had previously refused to support, to sustain the exchange rate. In July Dias de Carvalho also resigned. In December the Olinda-Souza Franco Ministry fell and a new Ministry was formed, headed by the Viscount of Abaeté, with Torres Homem, Viscount of Inhomirim, as his Financial Minister.⁶⁹

With the new ministry a complete change in monetary policy was put forward. The new financial minister

⁶⁷- Silveira da Mota speech, ANNAIS DA CÂMARA DOS DEPUTADOS, session of 20/5/1858.

⁶⁸- The economic debate in May and June sessions in the ANNAIS DA CÂMARA DOS DEPUTADOS.

⁶⁹- For this period the contemporary press is an important source of information see, e.g., Jornal do Comercio and Correio Mercantil.

was a radical metallist and a fervent opponent of Souza Franco. Rodrigues Torres was invited to return to the Banco do Brasil and a contractionist policy was organized. In the beginning of 1859 the struggle to reduce the issuing limits of the Banco do Brasil began. In April 30th, 1859, this limit was reduced from treble to double the available funds. Contradictorily, in that same month the floating of 16 banks was approved, of which eleven were to operate in the Court municipality and five in the provinces.⁷⁰

They were established, however, on the condition that they were not allowed to issue bills, and should comply with strict rules on their operations. As Torres Homem knew very well, because they were authorized at a time of increasing monetary restriction, and as they were not allowed to make issues, they would find great difficulty in gathering enough capital to commence operations. In the event, none of the Rio de Janeiro banks were able to obtain enough resources to open their doors. This failure reinforced the Financial Minister's theory that there was no capital available to increase the number of banks and that authorizing them to issue would only increase the amount of paper that had no adequate bullion guarantee.⁷¹

⁷⁰- The total capital of the court banks approved was 36,400 contos de reis and for those of the provinces of S. Paulo, Sergipe, Pernambuco, Ceará and Pará a capital of 9,600 contos de reis was approved.

⁷¹- According to Ferreira Soares: "*Counsellor Torres Homem knew that the Rio de Janeiro market at that time was struggling with a thousand difficulties due to the lack of capital, and for this reason was certain that the banks he had approved would be unable to organise and function with capital obtained within the country; imposing restrictions*

In June 1859 Torres-Homem presented his proposal of Bank Reform to the Chamber of Deputies. This project established the convertibility of all bills in circulation in gold that was to be paid in cash by the issuing banks within a period of three years and their issue would be limited to the maximum issued in the first four months of the year.⁷² The proposal met serious opposition in parliament, but despite this, by the end of June, the endorsing of the Commission of Financing and also of the Commission of Civil Justice represented a partial victory for the Torres Homem proposal. Nevertheless, most members of the congress took a dissenting position⁷³.

In the press the *Jornal do Comércio* was militantly in favour of the Torres-Homem project while the *Correio Mercantil* vehemently opposed it. A lobby of Rio de Janeiro

on them in regard to the distribution of their shares, which they could not transfer whilst the banks were not functioning, prevented speculation; and gave a practical demonstration of his proposition that the country could not support so great a number of banks and limited liability companies for want of capital". FERREIRA SOARES, Esboço ou Primeiros Traços da Crise Comercial da Cidade do Rio de Janeiro, op.cit., p.55.

⁷²- ANNAIS DA CÂMARA DOS DEPUTADOS, session of 15/6/1859; CALÓGERAS, *A Política Monetária do Brasil*, op.cit., p.122.

⁷³- Their main argument was that "the obligation of realizing their notes in gold and the limitation of the right of issue, which under this proposal would not exceed the maximum issued by each of these banks in the months of February, March, April and May of the current year, is the great stumbling block which ruins and annuls the basis of the conditions under which these banks were incorporated, offending in this fashion the legitimate interests and acquired rights, which rests undisturbed and which were judged to be completely and entirely guaranteed whilst these banks function within the guidelines laid down by the government for them and as long as they remain within the period which the same government assigned to the duration of each." ANNAIS DA CÂMARA DOS DEPUTADOS, session 22/6/1859.

merchants began to be organized against the project. The *Correio Mercantil* published names of important merchants that were in favour of writing a remonstrance against the project. The *Jornal do Comercio* argued that the project was well received by most of the merchants and the *Correio Mercantil* accused the government of pressure against merchants, mainly of foreign origin, to stop them speaking against the project⁷⁴.

Among its points the *Correio Mercantil* argued that:

*"it still happens that the circumstances of our markets are unsuitable to establish such a conversion. Gold, by its dual nature of money and merchandise, suffers notable variations in its value and even in its use. Today in the foreign markets it obtains a far better price than that which here our monetary standard has quoted for an oitava of this metal and its migration abroad is continuous and will remain so whilst this invincible motive flourishes"*⁷⁵

The *Jornal do Comercio* defended the bank reform by arguing that :

*"As the commercial movement is growing, or (if this unhappily does not happen, because our agricultural production remains static or declines) as the banks are gradually restricting the issue of paper money and it is becoming insufficient to the needs of circulation, the precious metals will flow in, as already happened from 1848 to 1853."*⁷⁶

⁷⁴- See PACHECO, C., *História do Banco do Brasil*, op.cit., Tomo III, p.130.

⁷⁵- CORREIO MERCANTIL, August of 1859. An oitava was the eight part of an ounce.

⁷⁶- JORNAL DO COMERCIO, June 21 1859.

In August the government fell, and Counselor Ferraz became the head of the new cabinet and also acquired the position of Financial Minister. He was more successful than Torres Homem in obtaining support for the bank reform. He organized a commission to study the crisis of 1857, with results which were largely in favour of the bank reform, and obtained the influential support of the State council; so he was able to have his Bank Reform Law approved by August 1860.⁷⁷

The basic point of the law was the establishment of full convertibility in gold of all bank notes over the period of one year. In order to do this the issue banks were forbidden to issue more than the average of their issue in the first half of 1860 and the government was not allowed to increase again the limit of issue of the Banco do Brasil beyond the limit of double the available funds before the full convertibility became guaranteed. Fifty thousand reis was established as the minimum notes authorized to be issued in the Court, and 25,000 reis in the provinces, the only exception being the Banco do Brasil with the proviso that, if it could not realize its notes in gold in six months, these notes should be reduced to 25% of the actual circulation. The government was to exchange the copper coins in circulation for a new issue, in which the nominal value could not be more than 10% of the cost of its minting, with the objective of preventing its disappearance, and the

⁷⁷- Law # 1,083 of 22/8/1860

silver coin of 200 reis was to be taken out of circulation. The compulsory acceptance of the copper coin, however, would be restricted to 500 reis, the value of the smallest silver coin.

Two very important points of this law were that "if by the end of a period of one year from the publication of this law, the banks have still not found a means of exchanging their notes for gold coin, the government will annually restrict the sum of the notes or bills in circulation, in a proportion to be agreed with these same banks, for as long as they do not achieve this result..." (art.1, paragraph 3) and "any issuing bank will be considered to have failed if it does not satisfy on demand, and in hard currency, having verified the reasons of payment foreseen in the previous paragraph, in gold coin, or as the bearer wishes, the value of its bill or note presented for exchange..." (Art 1, paragraph 5). The Law also established penalties for limited-liability companies that began their operation before receiving government authorization, thus restricting the incorporated joint-stock companies. Finally it established that "No bank which was not actually established by decree of the executive power, no company or society of any nature, merchant or individual of any condition may issue, without the authorization of the legislative power, notes, bills I.O.U.s, paper or any voucher to the bearer, or with the name of this left blank, on pain

of a fine of quadruple its value, to be paid in full by both the issuer and the bearer."(Art.1, Paragraph 10)

This metallist reform was made in a particularly unfavourable period. By 1860 the failure of the financial system to support the needs of agriculture was evident. The planters were not able to obtain credit in the banks with a maturity period adequate to their needs and even the little credit that was available was only furnished on collateral considered unacceptable by most of the farmers. They were strongly suspicious of mortgaging their lands, and only accepted this under strong pressure from their creditors.⁷⁸ The lands, anyway, had very little value and it was not unusual to value the farms only on the price of slaves and fixed assets and to give no value for the land.⁷⁹ Thus, the farmer essentially depended upon the factor (comissário) to finance his production, this middleman being the only bridge between the farm in the interior and the urban financial system. The demand for money was also affected by the fact that Brazilian exports - which had had a very poor performance in the first half of the century - had been growing quickly since the beginning of the fifties and, also, the coastal and import trades were showing some

⁷⁸- Ferreira Soares noted that in Bahia, Pernambuco, Minas Gerais and Rio Grande do Sul mortgage debts increased fast and they were a heavy burden on farmers who usually paid 18% p.a. of interest, and mortgages could be found of even 2.5 to 5% interest per month. FERREIRA SOARES, *Elementos de Estatística*, op.cit, p.227.

⁷⁹- Information from a CORREIO MERCANTIL article in the last quarter of 1860, quoted by PACHECO, *História do Banco do Brasil*, op.cit., p.96.

dynamism.⁸⁰ All this would mean an increasing demand for means of payment to meet the needs of the increasing number of transactions. However the approval of the Bank Reform Law resulted in a precisely contrary movement, drastically reducing the money supply.⁸¹

It can be shown by some econometric exercises that the reduction in liquidity had a contrary effect on the public finances from what the metallists expected, increasing, and not reducing, the public deficit. This occurred because the money supply was the main variable to explain the level of imports, and, since the import tax was the main source of income for the government, it affected deeply public receipts. That is, the expansion of the supply of money increased the liquidity in the domestic economy and led, through an increase in the available income, to an increase in imports and also government receipts. The only way for this effect to have a negative impact on the public finance would be when a devaluation of the exchange rate led to the sterilization of the effects on the available income in milreis, but this did not happen in that period.⁸²

⁸⁰- For the data on Brazilian foreign trade, see *Estatísticas Históricas do Brasil*, IBGE, 1990; See also Statistical Appendix E, table E.1. For the data on Brazilian Coastal Trade, see Statistical Appendix Table F.1.

⁸¹- See Table V.2.

⁸²- This confirms the correctness of Souza Franco's attempts to sustain the exchange rate during the crisis of 1857. The regressions (a) and (b) in the Statistical Appendix D show that 68% of current imports variance can be explained by the current money supply. The effects of the money supply on fiscal receipts is even higher - 93% of government tax receipts can be explained by the money supply. These regressions were originally prepared for a Working Paper published by the Department of Economics of Universidade

From 1854 to 1857 both domestic income and the paper money in circulation grew steadily. The available information leads us to conclude that, although there was inflation throughout the period, it was essentially localized in agricultural products for domestic consumption, the most backward and the least capitalised economic activity in Brazil. The indications are that inflation was less than it is generally believed and it was caused by the inelastic supply of domestic food production rather than by a widespread overheating of the economy.⁸³

Thus, Mircea Buescu's data in Table V.4 show that the highest average annual inflation during this period was 6.4% from 1853-56. Actually, low prices obtained by import

Federal Fluminense. See PRADO, Luiz Carlos T.D & Teixeira, A.C., *Guerra do Paraguai E Política Econômica do Governo Imperial*, Niteroi, 1990.

⁸³- The increase in the supply of paper money was 10.4% p.a. from 1854 to 1858 (see Table V.2). Both a proxy for domestic income - that is imports from coastal and foreign ports - and a proxy for manufacturing investments - that is exports of machinery to Brazilian manufacturing from the four largest suppliers (U.K, Germany, France and U.S.A.), - show consistently high rates of growth during this period (see Table V.3). Although these data should be considered with caution they give us ground for stating that the increased supply of money was accompanied by large growth rates of the entire economy. Price index for the Imperial period is shown in Statistical Appendix C; exchange rate variations is shown in Statistical Appendix D. Those data show that there was revaluation of milreis during the Empire. One of the best estimates of inflation for the 1850-1870 period is the one Mircea Buescu presented to the Colloques Internationaux du Centre National de La Recherche Scientifique in Paris on 11/15/1971, which uses an index of both imported and domestic products. His data shown in Table V.3 confirm that, although there was inflation throughout the period, during the years when the stock of money in circulation had grown more rapidly there was not a very high level of inflation.

products seemed to compensate for higher prices of domestic food products. If we can consider the information of Ferreira Soares as a contemporary observer, it seems to be that the agricultural sector supplying food responded to the increased demand by increasing prices rather than by increasing supply, which is also Buescu's opinion.⁸⁴

TABLE V-2

BRAZIL: PAPER MONEY IN CIRCULATION

(in 1:000\$000)

Year	Treasury	B.of Brazil*	Other Banks	Total
1854	46,693	15,531	-	62,224
1855	46,693	21,063	-	67,756
1856	45,693	40,128	-	85,821
1857	43,677	51,540	-	95,216
1858	41,665	41,837	9,068	92,569
1859	40,701	40,942	14,231	95,873
1860	37,600	37,352	13,039	87,990
1861	35,108	33,390	13,513	82,012
1862	33,324	32,357	13,383	79,064
1863	30,594	47,012	4,115	81,723
1864	29,094	66,438	4,011	99,544

Source: Computed from AEB-IBGE (1939/40); Calógeras (1910)

*-Issue of Bank of Brazil from April 1854 and of the Banks that merged with it.

⁸⁴- See BUESCU, M *Pour Une Quantification Globale de l'Économie Brésilienne Depuis l'Époque Coloniale*, op.cit., pp.402/403; FERREIRA SOARES, *Elementos de Estatística*, op.cit., pp.402/403.

TABLE V-3
BRAZIL: SELECT INDICATORS OF ECONOMIC PERFORMANCE

Year	(1)-Bankruptcies	(2)-Coastal and Foreign Import Trade in £ 1,000	(3)-Manufacturing Investment in £ 1,000
1854	37	107,908	n.a
1855	30	108,474	283.5
1856	27	118,330	314.1
1857	49	158,374	711.3
1858	90	170,287	831.1
1859	35	161,360	899.0
1860	45	147,820	755.7
1861	57	162,546	652.8
1862	104	149,375	638.3
1863*	84	131,428	436.5
1864**	112	161,098	529.2

Source: (1)- Calógeras (1910), p.139; (2)- Statistical Appendix; (3)- Computed from Suzigan (1986), appendix.

(*) Until September 1864.

(**) From 10/9 until 31/12/64.

(1)- Number of Bankruptcies of firms in the city of Rio de Janeiro.

(2)- Brazilian Coastal and Foreign Import trade in thousands of current pounds sterling.

(3)- Exports of machines for manufacturing industries from Britain, U.S., Germany and France to Brazil in thousands of current pounds sterling.

TABLE V-4**BRAZIL: RATE OF PRICE INCREASE**
(in %)

PERIOD	GLOBAL		ANNUAL	
	in the period	cumulative*	in the period	cumulative*
1850-1853	16.8	16.8	5.3	5.3
1853-1856	20.9	41.2	6.4	5.9
1856-1862	1.4	43.2	0.2	3.0
1862-1870	25.8	80.1	2.9	3.0

Source: BUESCU, M., *Pour Une Quantification Globale de l'Économie Brésilienne Depuis l'Époque Coloniale.*

(*)- Annual rate of price increase from 1850 to 1853, from 1850 to 1856 etc..

In fact, foodstuff production was the Achilles' heel of the Brazilian economy, since the structure of land tenure and the general level of backwardness in that production meant that a growth in monetary income always brought an increase in price or a very rapid increase in imports. There is no doubt that by the end of 1857 the deficit in the balance of trade was very large, which, combined with the international financial crisis and the changes in the London bills of exchange market, made the position of the Brazilian external account untenable. The very restrictive monetary policy pursued unsuccessfully by Torres Homem, and by Ferraz, with success, favourably affected the position of the balance of trade reducing effective demand, but led immediately to a fall in income and investment. On the other hand, the revaluation of the milreis after 1860 may have contributed to reduce the rate

of growth Brazilian exports⁸⁵. The Ferraz policy, however, began to breed a crisis of large dimensions as could be seen in the increasing number of failures that accompanied the tightening of monetary policy⁸⁶. The crisis was postponed by the favourable effect of the private bank issues, which prevented a more drastic fall in economic activity, and also by the generalized use of bearer IOUs, and bearer vouchers (recibos ao portador) in the economy by the merchants and private banks, though the practice was expressly forbidden by the 1860 law.⁸⁷

The crisis took longer to break than one might have expected. The available data suggest that it should have occurred in 1862. By this year the paper money in

⁸⁵- LEFF supports the view that the exchange rate in Brazil, although adequate for the coffee trade, prevented the exports of sugar from the Northeast being competitive in the international market. See LEFF, *Underdevelopment and Development in Brazil*, vol II, p.23.

⁸⁶- See Table V.3.

⁸⁷- This law established a fine of four times the value of an illegal bearer voucher that should be paid by whoever issued it as well as by the bearer. Even so, in the case of the private bank house of Gomes & Filhos alone, the government fiscal officer who had to deal with the bankrupted firm noted 7,900 bearer bonds in direct contravention of the law (Aviso of 22/10/1864 from Carlos Carneiro de Campos, 1st section of the Ministerio dos Negocios da Fazenda). In view of the size of the problem the government had no alternative but to issue the decree # 3,321 which determined that "considering that the circumstances of the failed banking houses in the court, which have illegally issued bearer vouchers... made the payment of a fine of quadruple face value become inequitable because if it is imposed it will absorb all the assets of the failed concerns, and on the other hand oblige the bearer, apart from losing the titles, to pay the other quadruple value, with the gravest prejudice to all of the interests involved with the banking houses referred to and to commerce in general ... there is an amnesty for contravenors of art 1, paragraph 10 of Law 1,083 of 22/10/1860."

circulation reached its lowest level and the indications are that in the years of 1862/63 income and investment reached their lowest points. On 28/8/1862 the Banco do Brasil was authorized to merge with Banco Comercial e Agrícola and the Banco Rural e Hipotecário sold its issue charter to the Banco do Brasil for 400 contos de reis. In January 1863 the Banco do Brasil with its capital already enlarged to 33,000 contos de reis exceeded the legal limit of issue and the government, fearing a crisis, authorized an increase in this limit for some time, but after March 1863 it had to return gradually to the traditional boundary⁸⁸. In 1863 the situation seemed to improve. A very large surplus in the balance of trade in 1862/63 improved the balance of payments and in 1863 the Bank of Brazil was able to increase substantially its issue. The interest rate that had reached a maximum of 11% in June of 1862 fell to 10% by the end of this year, to 9% in most of 1863 and to 8% in 1864.⁸⁹ However, the deterioration in the position of many firms, particularly of the banking houses that operated with the factors (comisários) and the merchants in the backlands, was already very bad. The tradition in the Brazilian market had always been long-term credit. The law of 1860 led the merchants to reduce the terms of their operations. This law in fact aggravated previous trends because the import houses

⁸⁸ - See Calógeras, *A política Monetária do Brasil*, op.cit., pp.134/135.

⁸⁹ - Idem, p.135.

were no longer able to obtain the same large terms from their suppliers in Britain.⁹⁰

The generalized use of credit from 1852 on had led to the establishment of a large number of urban businesses that depended on it for their operation. The Casa Souto was the largest private bank in operation in Rio de Janeiro. It was considered to be a weathercock for the level of the exchange rate and the rate of discount. There were years in which this house operated on a larger scale than the Banco do Brasil itself.⁹¹ Souto and other large private banking houses such as Montenegro & Lima and Oliveira & Bello, operated largely by paying interest on current account deposits and giving bearer vouchers and I.O.U.s. It should be noted that rural credit was not the major problem at that point as the exports were going through a particularly favourable period, but the reduction of income affected the level of domestic trade and the import business. Delays in payment by urban clients and the inflexible structure of Souto's portfolio, where the agricultural debts could not be realized in the short term, the high level of immobilization and this firm's practice of allowing overdrafts, put Souto in a very difficult financial position by September of 1864. When Souto suspended payment the panic spread quickly and

⁹⁰ Calógeras referred to the reduction of credit terms for all of the textile importers. Ferreira Soares commented that this was a generalized trend. See CALOGERAS, *A Política Monetária do Brasil*, op.cit.; FERREIRA SOARES, *Esboço ou Primeiros Traços da Crise Comercial da Cidade do Rio de Janeiro*, op.cit.

⁹¹- FERREIRA SOARES, op.cit., p.76.

the bearers of vouchers and bonds ran quickly to the other banks. These could not support the pressure and had to close their doors after they had rapidly run through all their funds, generating the worst financial crisis that Brazil had seen until that time.

This crisis was followed by the war with Paraguay, and the development of the financial situation can only be understood by considering the changes that this conflict would bring to Brazil. The war also limited the paths that the government could take to economic recovery, and shows well the dimension of the mistakes that the metallist policies had incurred.

V.5-THE PARAGUAYAN WAR AND ITS ECONOMIC CONSEQUENCES

The year of 1864 was marked by great catastrophies. In September there was the financial crisis, the worst in Brazilian history until then. Before the end of the year a war with Paraguay began as a further complication in the troublesome and unstable Plata region. Both antagonists considered that it would be of short duration, though in fact it lasted for five years, killing no less than 250,000 people. It involved four countries, about 64,000 Paraguayan soldiers at the beginning of the war, and 66,000 allied soldiers during the invasion of that country by the combined armies of Brazil, Argentina and Uruguay, supported by the Brazilian Navy.⁹²

⁹²- The number of the Paraguayan soldiers is highly controversial, and I do not pretend to present a precise figure, but only intend giving an idea of the dimension of the war. I use the data supplied by General Antonio de Souza

The cost of the war was beyond all expectation, bigger than anyone could have ever predicted at the beginning. Brazil supplied the bulk of soldiers and was the only country in the alliance that could support the financial pressure of such a war. The economic situation in Argentina was so bad that, despite Brazilian financing of part of that country's war expenses, it proved necessary by the end of 1865 for the government to try to persuade some rich citizens to make contributions to save the government from financial collapse. This nevertheless turned out to be very difficult to obtain, and drove Argentina to rely deeply on Brazilian financial support.⁹³

Junior (1971), p.301, and of George Thompson, a British citizen and former Paraguayan Colonel, who wrote *La Guerra del Paraguay*, Buenos Aires, 1924, p.42. About the optimism of the allies see BUARQUE DE HOLANDA, *Historia Geral da Civilização Brasileira*, Tomo IV, p.44, who wrote that "the mad optimism of the allies was only surpassed by that of Lopez himself".

⁹³- On 27 December 1865 General Mitre, Argentinian president, and chief of the allied army, received a letter from Buenos Aires that informed him that the financial minister tried to begin the operation of obtaining private financial support by asking a certain Manuel Ocampo for 25,000 pesos, but this man not only refused the proposal, but also said that he believed that all other persons listed as citizens that were thought to be able to give some contribution would also refuse. In January, 1866, the financial minister wrote to Mitre saying that the country was undergoing a severe crisis, there were no resources available, the negotiations to obtain a loan in London were not successful up to that time, they were waiting for Brazilian financial support but he was convinced that the Brazilian money "would be invested in its totality in urgent payments which are due and in returning sums which were lent to the government", and after "we will once again find ourselves with nothing". He ended by saying that "the truth is that paying what we must will enable us to delay again payments which are not so urgent. Our position would be terrible without the aid which I expect from this loan." Archives of Gen.Mitre quoted from REBOLLO PAZ, 1965, pp.84/85.

The immediate cause of the war was the Brazilian intervention in Uruguay in support of the 'colorado' Flores against the 'blanco' Aguirre (August-October 1864) and the offensive actions ordered by Solano Lopez, dictator of Paraguay, against Brazil and Argentina to prevent what he considered to be Brazilian imperialist aims in the Plata. The war began with the seizure in November 1864 of the Brazilian steamship, Marques de Olinda, by Paraguay, when it was sailing up the Paraguay river with the newly nominated president of the Mato Grosso province. Lopez considered this act a move against the Brazilian intervention in the Plata region, and after suspending relations with Brazil, sent an expedition up the river to Mato Grosso one month later. In March 1865 a Paraguayan army was sent against the Argentinian province of Corrientes, after this government denied the Paraguayan Army right to pass through Argentinian territory to invade Brazil. In May of 1865 a treaty of alliance was signed between Argentina, Brazil and Uruguay and the counteroffensive began. ⁹⁴

⁹⁴- The war had three phases. The first was the Paraguayan invasion of Brazil and Argentina. The second was the counteroffensive of the allies involving naval battles in the rivers Paraná and Paraguay, and army battles on the banks of the river until Asunción was captured. The third, known as the 'Campanha das Cordilheiras', was the harrying of Lopez and the remains of the Paraguayan army in the north of the country. The relatively advanced technological level of the War must be noted, where Paraguay relied largely on its famous blast furnaces of Ybycuí and its shipyard managed by British technicians, and Brazil largely used ships manufactured in the 'Arsenal do Rio de Janeiro' and in the 'Ponta de Areia' shipyard. British technicians participated in the war as engineers in the ships of both navies, Brazilian and Paraguayan, and several of them were made

Actually the War was not so unequal as it seemed at first sight. At the beginning of the war the Paraguayan army was much larger and better trained than the allied armies and the strategic peculiarities of the War favoured Paraguay. A keen analyst of these questions was a contemporary Argentinian, Alberdi, who during the war wrote three pamphlets from Paris attacking Mitre and Brazil. These papers, despite very clear exaggerations and some inaccuracies, show with great clarity what seemed to be at stake to contemporary minds.⁹⁵

Alberdi argued convincingly that, as Brazil was not able to supply Mato Grosso except by the Paraguay River, as there were no roads that integrated this area with the rest of the country, the integrity of Brazil was endangered in that Rio de Janeiro would not be capable of administering this area and maintaining real control over its territory.⁹⁶ In fact, the policy of not building roads, and retaining large unexploited areas but never allowing the acquisition of land by poor free men made the country particularly vulnerable in its more remote areas. Considering the nature of the country and all the deficiencies of communication and

prisoners by the Paraguayans. See PLÁ, J. , *The British in Paraguay 1850-70*, Surrey, 1976, p.125; see also Kolisky, C., *Independence or Death: The History of the Paraguayan War*, Gainesville, 1965.

⁹⁵- These pamphlets are 'Las Disensiones de Las Repúblicas del Plata y Las Maquinaciones del Brazil'; 'Los Intereses Argentinos y la Guerra del Paraguay con el Brazil' and 'Crisis Permanente de las Repúblicas del Plata'. I am using an edition of these works that was published under the name *Historia de la Guerra del Paraguay*, Buenos Aires, 1962.

⁹⁶- See Alberdi *Historia de la Guerra do Paraguay*, op.cit., pp.102/103.

the characteristic weaknesses of a slavocrat society, the apparent superiority of Brazil in the confrontation has yet to be proved. An example of Brazil's vulnerability may be seen in the fact that the lower ranks of the infantry were essentially compounded of black and mulattos, or poor free men, many of whom were pressed against their will into military service or, in the case of black slaves, sent in the place of rich whites.⁹⁷

Finally, as Alberdi noted, there was always the problem of financing the war. The distance involved made the struggle something very similar to colonial wars far from the home country's resources. According to him:

"In the area of arms, the struggle between Paraguay and Brazil is less unequal than thought by those who judge respective strength by the dimensions of the territories as seen in maps of the world"... "The mere distance at which Paraguay lies from Rio de Janeiro, the centre of the empire's resources, is a great advantage to the former in the war between them."... "If time is silver then distance is gold. It is a small step for Paraguay to snatch immense areas from Brazil or to exert a disastrous influence on imperial authority within them."... "The capital of the empire is almost as far from the theatre of war both situated in the same continent, the war waged between Brazil and Paraguay is a naval war, in the sense that they must send military expeditions by water over almost transatlantic distances and time. For land so distant from the capital of both countries as to belong to separate continents, communications are an ideal, like the railway between Curicó and Buenos Aires through the Andes and the Pampas."⁹⁸

⁹⁷- The ANGLO BRAZILIAN TIMES of October 24, 1865, commented on the news of "the collection of volunteers and conscripts, interspersed with accounts of conscripting and drafting" that arrived at Rio de Janeiro from the provinces.

⁹⁸- ALBERDI, *Historia de la Guerra del Paraguay*, op.cit., pp.106/107.

All this points to the outstanding financial pressure that the war would place on the Brazilian Treasury. It would also be accompanied by the enormous social upheaval inherent in the organization of a large army. To the government of a country blind to the interests of its people apart from a small number of landowners and citizen bureaucrats, or politicians, the division of the Brazilian nation into free men and slaves could be an enemy worse and more dangerous than the small Paraguayan Republic. If Brazil won the war, it cost the dominant classes more than the simple financial burden. They had to agree to make some concessions to the slaves during and after the war, the conservative monetary policy was checked, and an unprecedented number of people received remuneration in the army, which even if it was small, increased the number of people who had cash in their hands and increased the habit of monetary transactions within the country. This was a classic XIXth century war, and as such the main economic problem was how to finance it. Countries by this time found it much more difficult to raise funds than to produce and supply the materials for war. Weaponry consisted mainly of small arms as well as knives, sabres and bayonets. At this time, even in European wars, an army would be equipped with no more than 20/25% of the guns that troops of the same strength had at their disposal in 1914⁹⁹. The logistic

⁹⁹- BORN, K.E., *International Banking in the XIXth and XXth century*, Leamington Spa, 1984, p.185.

problems were how to supply ammunition, food, manufactures (mainly textile products) and medicines.

More importantly, the drafting of a large army generated financial commitments in cash money previously unknown in Brazilian society. For financing such an enterprise Brazil had few alternatives. Increasing the public debt in the domestic economy and increasing the government issue were two means most commonly used. But this led to a reorganization of the domestic monetary system, in an attempt to reconcile the prejudices of the metallist group that was controlling the imperial monetary policy and the needs of advancing the war effort.

By early 1865 there were already problems in the running of the project to reduce the amount of treasury notes in circulation, which, according to the bank reform, should be done only with convertible bank notes. During the discussion of the budget proposals in May 1865, Dias Carvalho, financial minister in the new Olinda cabinet (from 12/5/65) who had always been in favour of the strict application of the Bank Reform law of 1860, and was against the suspension of the withdrawal from circulation of the government paper-money even after the crisis of 1864, had no alternative but to change his mind and declare himself in favour of the immediate suspension of this withdrawal. The new financial commitments brought by the war made it impossible to issue government bonds just to finance the withdrawal of the treasury notes. On the other hand, the

minister could already observe the heavy burden that the increase of internal debt was putting upon the budget through the payment of interest.¹⁰⁰ By this time the government was reluctant to create new taxes but had already asked for extraordinary credit to deal with the war expenses. The government hoped that the suspension of the withdrawal of the treasury notes was a temporary measure during a period when the Bank of Brazil was unable to pay cash for their notes, as a result of the burden that it had to support during the crisis of 1864. However, at that time it was already very difficult to find Treasury notes in circulation and in the Senate there were comments that to obtain them one had to pay a premium.¹⁰¹

On the other hand, sections of parliament viewed the withdrawal from circulation of treasury notes, at a time when they were to be changed for the Banco do Brasil's inconvertible notes, with suspicion, as this went against the intended aims of the Ferraz bank reform. But, independently of the government's will, the suspension of this withdrawal was already a fact: the Banco do Brasil was unable to obtain these notes easily and the government unable to change them for Treasury bonds without further increasing its already growing budget deficits.

By the middle of 1865 the war had reached a new level. The news of the invasion of Rio Grande do Sul and of the Brazilian naval victory of Riachuelo arrived at the

¹⁰⁰ - See ANNAIS DO SENADO DO BRASIL, session 19/5/1865.

¹⁰¹ - Senador Silveira da Costa comment, Ibid.

court. The emperor decided to travel to Rio Grande do Sul to stimulate the defence of the country with his presence. On July 16, the emperor arrived in Rio Grande do Sul. The difficulties of enlisting troops could be felt throughout the country, and the financial pressures were increasing rapidly.¹⁰²

In August the allies defeated one of the two columns sent by Lopez to take over Rio Grande do Sul: that of Colonel Duarte, who operated on the right bank of the Uruguay river. In September the Estigarribia column, which was occupying the city of Uruguayana, was forced to surrender to the allied troops and 5,500 soldiers were made prisoners. It looked like the war was going to end quickly¹⁰³.

In 1866 the financial question became the major issue of parliamentary debate. By then it had become clear that after the allied troops had entered Paraguayan territory the war had become harder, and any advance was very costly in terms of men and money. Contrary to the belief of the previous year, it looked like the war had still to be fought for a long time, and the problem of how to finance it became more pressing.

It was evident that paying for the war was incompatible with the metallist policy that was dominant in

¹⁰² - Letter from Nabuco de Araujo, minister of justice, to Angelo Ferraz, war minister who accompanied the emperor to the Rio Grande do Sul, quoted in NABUCO, J., *Um Estadista do Império*: Nabuco de Araujo, S. Paulo, 1936, p.480.

¹⁰³ - See NABUCO, J., *Um Estadista do Império...*, p.498.

congress and government circles. The mood in congress and in the government began to turn against the Banco do Brasil which was supposed to be responsible for the so-called monetary chaos, that is, for the increase of note issue beyond the original figure of twice the available funds, and the impossibility of reversing the inconvertibility of those bank notes that had lasted since the crisis of 1864. It was completely forgotten that the bank had increased its issue as the only way of preventing a bigger catastrophe following the crisis, and through the instructions of the government. In fact, the Banco do Brasil had to deal with contradictory demands, in that on the one hand the government asked for loans and authorized issues to finance the war, and on the other it blamed the bank for not being able to return to full convertibility and to have to maintain more than the limit it was supposed to sustain under the Ferraz reform. The nature of this complaint can only be understood in terms of the consequences of the crisis of 1864 on the peculiarities of the Brazilian financial system.

The shock to credit brought about by the crisis was at first conducive to a general withdrawal of private funds from all banks and banking firms.¹⁰⁴ The money that was withdrawn from the banks was placed mainly in treasury bills, which had been increasingly sought by capitalists. The prices of these public bonds rose from 94% to above their face value, although the government had in this period

¹⁰⁴ - See THE ANGLO BRAZILIAN TIMES, Rio de Janeiro 8/1/1866.

floated increasing amounts of them.¹⁰⁵ The two English banks, the British and Brazilian Bank and the English Bank of Rio de Janeiro, and the Mauá & McGregor bank, were able to overcome the crisis without suffering a very strong run on their funds. The three banks, however, needed support from the Banco do Brasil to face the short term demands of their clients, and even the English Bank of Rio de Janeiro, which was the least affected of all, received substantial financial support from the Banco do Brasil. There is not enough evidence, therefore, for the view, deduced from the better performance of these banks at this time, that the entrance of the British banks and the competition that they gave to the traditional banking houses was one of the main causes of the crisis.¹⁰⁶

¹⁰⁵ - See ANGLO-BRAZILIAN TIMES, 8/1/1866.

¹⁰⁶ - This interpretation was suggested by Joslin, D., *A Century of Banking in Latin America*, London, 1963, and supported by LOBO, *História do Rio de Janeiro*, op.cit., p.217; GRAZIERA, R.G., *A Guerra do Paraguai e o Capitalismo no Brasil*, op.cit., pp.78/85, also gave importance to this factor but put it in a different context, that is, the reorganization of the Brazilian financial system in the process of consolidating the export economy. It is my view that there was a clear division of areas of operation between the private bankers, on one side, and the English bankers and the large firm of Mauá & McGregor, on the other. The foreign banks operated mainly in foreign business with exchange bills (cambiais). The Brazilian bank of Mauá & McGregor also used its economic strength to operate as an investment bank, integrating many of its financial activities with all kinds of productive investment, from manufacturing to railways. The British banks and Mauá's bank took little part in the financing of the comissarios and domestic agricultural operation in general. Rural credit and credit to the comissarios in the cities, the mortgaging of farmsteads and slaves, were the markets where the private bankers and Brazilian limited-liability banks operated, although some of them also operated with exchange bills. It is, however, true that the British banks were able to concentrate their operation on the best clients, and

During the crisis the Banco do Brasil faced the dilemma of giving support to commerce in general, that was suddenly without any source of funds, or meeting the increased public demand to change notes into gold. The Banco do Brasil had had to change an increasing amount of notes each day from the beginning of the crisis on September 10, as can be seen in TABLE V.5 below.

TABLE V.5
BANCO DO BRASIL: EXCHANGE OF BANK NOTES INTO BULLION

DAY	VALUE
10/9/1864	5:111\$750
12/9/1864	857:076\$010
13/9/1864	1,452:937\$150
14/9/1864	593:487\$510

Source: Banco do Brasil report, May 1865.

It should be taken into account that the Banco do Brasil's stock of bullion and treasury notes was 14,212:729\$637 on 30/6/1864; thus, if the withdrawal continued at this pace, all the funds would have very quickly been used for this purpose. The government acted

particularly monopolised operations with British firms that had begun to be set up in Brazil since the 1860's. Because of their more efficient and careful practices they were less subject to heavy losses due to bad crops and delays than the Brazilian banks, even though this did not prevent the British and Brazilian Bank from nearly going bankrupt as a consequence of the crisis caused by the bankruptcy of the Overend, Gurney & Co, discount house in London in 1866. Under rumours that its losses in 1864 were larger than had been thought, it suffered a run in Brazil and in London. The Rio de Janeiro manager applied to the Banco do Brasil for help. After some reluctance the Government discounted some of its Treasury bills, and then authorized the Banco do Brasil to issue notes to support the British bank. All this and the failure to merge with Maua's bank led to it being reorganized by its shareholders. See Joslin, *A Century of Banking in Latin America*, op.cit., p.74.

swiftly and decreed the suspension of the obligatory exchange for gold and increased the limit on issue by the Banco do Brasil.¹⁰⁷ The bank notes in circulation then increased by 68.2% from August to September and titles in guarantee increased by 75.1% in the same period.¹⁰⁸

After that the value of bank notes in circulation was practically unchanged, and the new title discount operation seriously affected. The Banco do Brasil gained a large number of papers from the bankrupted bank houses that could not be liquidated very quickly. Most of these titles were from farmers who had current account overdrafts with the private bankers and were not very easily able to pay their debts. The account of 'Títulos em Liquidação' of the Bank of Brazil, which included all letters due until payment, renegotiation or loss, increased quickly between mid-1864 and mid-1865.¹⁰⁹ In this situation the bank curbed new operations and in particular reduced its operation in the provincial branches, particularly in Bahia and Pernambuco.

Thus, several of the Banco do Brasil agencies did not discount or transact banking business but could only maintain notes which had limited circulation in the region of issue, leading to very great exchange oscillations, particularly in relation to the exchange rate in Rio and in

¹⁰⁷- Decrees 3,306 and 3,307

¹⁰⁸- Banco do Brasil report, May 1865, p.8.

¹⁰⁹- Ibid.

the Northern cities.¹¹⁰ In this sense the press in general began to ask the government to take the note issue into its own hands and make the notes current throughout the empire.¹¹¹

By the end of January 1866 the Financial Minister consulted the state council for an opinion on "... the anomalous state of our monetary circulation under the detriment and embarrassment which this is causing to the population in general, and to the commerce and agriculture in particular, as testified by the repeated complaints not only of this exchange, but also of the others of the empire".¹¹²

The opinion of the CONSELHO DO ESTADO and the terms of the projected law that was presented to Congress, suspending the right of issue of the Banco do Brasil and restricting this right to the Treasury, were in direct opposition to the facts and completely ignored the causes because the Banco do Brasil did not follow the principles established in the Bank Reform Law. This was denounced in the Senate, and later in a pamphlet, by the Viscount of Jequitinhonha, Francisco de Montezuma, who particularly doubted the feasibility of the objectives that the Senate commission had established in the project that had reduced

¹¹⁰- See ANGLO-BRAZILIAN TIMES, 8/1/1866 The differences in exchanges rates were frequently 4,8, or even 12% between Rio de Janeiro, Bahia and Pernambuco.

¹¹¹See BRAZIL AND RIVER PLATE MAIL, 7/2/1866. See also ANGLO BRAZILIAN TIMES 8/1/1866.

¹¹²- Petition from the financial minister Dias de Carvalho to the State Council, January 1866.

the monetary circulation and helped to finance the war efforts.¹¹³

On September 12, 1866, the project was approved in Congress and became law. The Banco do Brasil lost its right to issue, and had to withdraw progressively its notes from circulation, but it could continue all other banking operations, including mortgage loans, as established by the law of 1860. To perform this task it had to divide its transactions into two different parts, a commercial loan department, and a mortgage department, each one with independent funds which were not allowed to be transferred or used to help each other.¹¹⁴ The consequence of these changes were not very different from that foreseen by Montezuma in his criticism in the Senate: the changes did not reduce the notes in circulation; on the contrary they were quickly increased, but effectively contributed to the financing of the war through issues.

The war led to public expenditure more than doubling between 1864/65 and 1866/67, almost all of this increase being due to military expenditure and interests on the public debt. An econometric analysis shows well what kind of changes happened in the economy. In order to show which is the best variable to explain the changes in the money supply - understood as the balance of paper money issued - two periods were taken, 1856-1864 and 1864-1870. Between 1856 and 1864 the money supply is better explained

¹¹³ - ANNAIS DO SENADO DO BRASIL, session of 6/8/1866

¹¹⁴ - Law # 1,349 of 12/9/1866

by the lagged public deficit $PS(t-1)$ - that is, the change in the money supply was mainly the result of the financing of the public deficit in the year before. Between 1864 and 1870 it was mainly the interest payments on the domestic debt - a product of the issue of government paper to finance the war - which explains 90% of the money issue variance. In the whole period, 1860-1870, 93% of the money supply variance is explained by the payment of domestic debt interests.¹¹⁵

Looking into the above results, and also the regressions (e), (f) and (g) in the Statistical Appendix D, the contradiction of the metallist policy can be well understood. The concentration of nearly 60% of tax receipts in import duties did not give the government many options to choose among different monetary policies, if it intended to sustain the level of public receipts. On the other hand there was a high degree of incompressibility in public expenses - mainly military and financial expenses - thus leading to an increase in the public deficit in the same amount as the fall in receipts. And so, the increase in the deficit had to be financed with more money issue. It would only be possible to reduce the liquidity in the economy without leading to an increase in the public deficit if there was a tax reform, but it was politically impossible to tax the planters directly through a land tax or indirectly through an income tax. Finally, the limit of the increase in

¹¹⁵- See regressions (c) and (d) presented in Statistical Appendix C.

liquidity without instability would depend on the exchange rate behaviour. However in the second half of the XIXth century there is evidence that there was a revaluation of the milreis in purchasing power terms¹¹⁶. Therefore, there are grounds for stating that it was possible to increase the liquidity of the economy to some extent without creating major problems.

In this sense the reforms put forward by the metallist tendency had a completely different effect from what was intended. The rapid increase in money supply to finance the war also stimulated the domestic economy which had been maintained at a low level since the bank reform of 1860. For the first time an international crisis, with the extension of the Overend, Gurney & Co bankruptcy in 1866, had very little consequence in Brazil, even if it had affected some banks that operated in London, such as the British and Brazilian bank and the Mauá & McGregor bank. It is true that this crisis contributed to a fall in the exchange rate, which the contemporary analysts considered to have been caused by the increased money supply. Nevertheless an exchange rate recovery can be noticed in 1869, before the War finished, when the Treasury issue continued to be very heavy. Therefore the exchange rate began to recover before the post-war contractionist policy went into effect.¹¹⁷

When Barão de Mauá was an old man, and had already endured the ordeal of his bankruptcy, he clearly

¹¹⁶- See Tables C.1 and C.2 in the Statistical Appendix.

¹¹⁷- Ibid.

described this problem in a pamphlet of 1878. According to him:

"We thus arrive at the period in which paper money, which constituted the only impetus for transactions in Brazil, displayed its major power and saved the empire from an immense cataclysm!" "I refer to the war against the Paraguayan dictator..." "once committed to war it was then recognized, and only then, that it was indispensable to mobilize all the resources of the empire, as the particular and local conditions of the enemy gave them means to resist all of the military power which the patriotism of the Brazilians put at the service of the fatherland..." "...During the five years of hostilities it was necessary to augment the amount of nonconvertible paper in circulation from the existing 45,817:615\$, with a further 124,214:316\$. "Examining further the practical result of this great issue of paper money which, in the understanding of the irreconcilable enemies of this instrument of exchange, should have destroyed the value of the currency that we have..." "...the events came once again to give the solemn lie to the forebodings of these prophets of doom, which were avoided by the very act which they condemned!" "...Difficulties were encountered in the transmission of the mass of moderate wealth already accumulated by them..." "these difficulties hindered the greater development of the country's productive forces by the lack of instruments which might have served to fuel the transactions and added to this, the action of two successive bad harvests and the violent restrictions created by the law of 22/8/1860 resulting in the banking crisis of 10/9/64..." "the exigencies of war determined the copious emissions of paper money, which in a satisfactory state of credit assisted the circulation of bonds; weakened the force of that instrument, and proved manifestly insufficient. It was, then, in such circumstances that the presence on a larger scale of the driving power represented by this paper money was a salvation, despite what was said by its enemies."¹¹⁸

I could not be more precise than the old capitalist. The war renewed the opportunities for

¹¹⁸ - Mauá, Visconde de, *Exposição do Visconde de Mauá aos credores de Mauá & Cia e ao Público*, 1878, reprint in 'Autobiografia', Rio de Janeiro, 1942,, pp.330/332.

investment in the country, as can be seen by the boom in the imports of machinery after 1867, and the war also contributed to destroy all that the old slavocrat system represented. The former slaves, who won the war and fought together with troops from countries where there were no slaves, the freeing of the Paraguayan slaves by Count d'Eu, the increasing impatience of the abolitionists, and the more decisive action of the slaves themselves, the vast number of people that for the first time received some cash, even if it was very little, as their payment as soldiers, the new environment of progress and change, all this made of this war a watershed. If the empire had defeated the Paraguayan resistance, this same resistance greatly undermined the basis of an empire that had stubbornly tried to resist the advance of capitalist relations and contributed strongly to the freedom of the slaves, the development of the railways and the seeds of republicanism which came in the aftermath. The Brazilian world of 1870 was no longer the world of 1864.

With the end of the Paraguayan War, the Brazilian government tried to reverse the large public deficits accumulated during this period and tried to progressively reduce the paper money in circulation, whilst concomitantly making large use of the floating of public bonds as an alternative source of finance. Actually - due to the reduction in military expenses and the maintenance of receipts - in the first budget after the war, that of 1870/71, the deficit was reduced from 46,747 contos of reis

in the previous year to 4,189 contos in that year¹¹⁹. In the following year the government was even able to produce a small surplus, due to the continued fall in military expenses and the increase of receipts. However, although the military expenses could be reduced with the end of hostilities, the financial commitments continued, and the government had to rely on a foreign loan and on treasury bonds as a means to finance the budget deficits of the following years.

As a result of the law of 1866 the whole of the banking structure of the country had again been changed with the progressive withdrawal of all bank notes in circulation and the consolidation of the new role of the Banco do Brasil. This bank had its role profoundly changed by the law, and proceeded with the liquidation of all its branches in the provinces, so that by the beginning of the 1870's only the S.Paulo branch survived. The new role of the Banco do Brasil was to support the needs of agriculture; but the only business that it could effectively expand to comply with this aim was the mortgage loans portfolio, in as far as the only kind of credit that the law allowed it to give to agriculture involved the use of this kind of collateral.¹²⁰ The farmowners themselves, however, complained of the inadequacy of this financial system, the terms were considered short, the conditions considered hard, and

¹¹⁹ - Data from Balanço Geral da Republica.

¹²⁰ - See PELAEZ & SUZIGAN, *História Monetária do Brasil*, op.cit., p.145.

several farms went bankrupt when they had to endure a bad harvest.¹²¹

Once again, the authorities' eternal attempt to reduce the stock of paper money to a level which would be just enough for the transactions of the economy was a prelude to a new crisis.¹²² To meet its short-term needs the government decided to issue short-term treasury bonds at 6% interest, much more than it was possible for the private banks to pay their clients on saving accounts. This paradoxical situation was denounced in an article in the press that said:

*"The government, while it required the Banco do Brasil to lend money on mortgages at an interest of 5% announced that it would receive 6% for its own money in treasury bonds, a method which would be a lucrative operation mortgaging farms for that bank and bring to the treasury the product of such loans to gain, without the slightest risk, one percent."*¹²³

The Brazilian exporters had been affected by the international crisis of 1873 that led to a reduction of the sales of the most important staples and a fall of exports in 1873/74. In the following year exports recovered, but in view of the difficulties of the domestic credit system some firms were still operating in a fragile financial position. At the beginning of 1875, in view of the favourable exchange rate, the government decided to anticipate the remittance of funds to Europe to pay for some debts which

¹²¹- Ibid.

¹²²- See the RELATÓRIO DO MINISTERIO DA FAZENDA 1872 for a presentation of the Government's monetary policy after the War.

¹²³- SOUZA CARVALHO from his book of articles published about the crisis of 1875.

had fallen due. There were estimates that about 50,000 contos de reis were sent abroad in the very short term, and that about 40,000 contos de reis were sent as a speculative operation in view of the particularly high exchange rate.¹²⁴

In April, 1875, the government announced that in order to meet its short-term needs it would use a loan contracted in London to the value of five million pounds sterling, of which it had received only 1.1 million, as a guarantee to make domestic loans. The only way that the banks could have cash to prepare for this operation would be to increase pressure on their debtors. This led to a sudden increase of bankruptcies among the firms in Rio de Janeiro.¹²⁵ On the other hand, the Deutsch Brasilianische Bank, intermediary of the government in the London loan, was at this time making very large loans to Maua's bank, which was suffering strong financial problems in the course of losses and crises in its Uruguayan operations. On May 12 the Banco Nacional, that was relatively new but had very large operations in Rio de Janeiro, suspended payments. It was followed by the suspension of payment by Maua's bank and the Deutsch Brasilianische. This news spread with a particularly dramatic impact due to the suicide of the manager of the German bank in Brazil.¹²⁶ To prevent panic spreading, a law was quickly passed on 29/5/1875 to support the banks, with some collaterals, through the issue of paper money by the

¹²⁴- CALÓGERAS, *Política Monetária do Brasil*, op.cit., p.162.

¹²⁵- Ibid, pp.162/163.

¹²⁶- Ibid, ch.9; Relatório do Ministério da Fazenda 1875.

government or bearer bonds, to a total authorized value of 25,000 contos de reis. This public support was used by the Banco do Brasil and by the Deutsch Brasilianische, and after by the Banco Rural e Hypothecario.¹²⁷ Despite the action of the government, the crisis had already broken, and the economy only slowly began to resume its growth.

This was the last big financial crisis of the empire, and like that of 1864 the monetary policy of the government could be blamed for the economic consequences of this crisis. Nevertheless, following a slow recovery, after 1878 the indications were that the economy began to grow more quickly, stimulated by the continuous growth in exports and a period of good prices for coffee, before the bad prices of 1882/1886. Thus, as a whole the financial policy of the government in this period was never able to reach its aims. The financial structure of the empire had always been a complete failure: the complaints of the merchants - due to the difficulties experienced in finding credit and discounting their letters- and of the farmers - about the inadequacy of the rural credit- were echoed in the press as a vivid testimony of this failure.

IV.6-CONCLUSION

In Brazil the banking system and the financial structure was an additional barrier to economic development rather than a stimulus to it, unlike the case in the XIXth century European latecomers. Government policies looked upon

¹²⁷- Relatório do Ministério da Fazenda, 1875.

the banks as a mere instrument to support some operations such as export-import activity or as an instrument to finance the public deficit. The lack of means of payment in Brazil was always a problem in the economy, and the attempt to reduce it as an answer to every crisis never solved the problem and only contributed to the next financial crisis. However, there were periods in which government monetary policies unwittingly had a positive role. This was the case during the Paraguayan War, where the financing of the War and the government's use throughout of note issue to pay for its budget deficits brought a period of economic boom and increased investment in manufacturing. But this lesson was not learnt, and as soon as the War finished the Government attempted to reduce the stock of money and contributed to another crisis. Yet despite the fact that lasting restrictive and metallist policy pursued by the Brazilian imperial government largely contributed to the delay in the modernization of the country, it began to change moved by the consequences of the war, the expansion of the export business, particularly coffee, and the political pressures that would lead to the abolition of slavery and the end of the empire.

CHAPTER VI

COFFEE TRADE, EXPORT HOUSES, MIDDLEMEN AND THE AGRO-EXPORT
ECONOMY IN THE SECOND HALF OF THE NINETEENTH CENTURY

VI.1-INTRODUCTION

This chapter argues that coffee occupied a special case in the Brazilian economy. Brazilian agricultural production was unable to respond to increasing demand by 'deepening' of investment- that is, through technical progress involving a change in the production functions. Instead, it responded extending the traditional pattern of economic activity without qualitative change.¹ Thus, the traditional pattern of Brazilian agricultural production led to decreasing returns or increasing costs when a higher level of production was required. The same reasons that prevented Brazil from starting an earlier industrialization process also prevented her agriculture from withstanding tough competition in the international market, except for coffee.

In this chapter I sustain that: (i) Brazil was able to increase its market share of the world's coffee trade during the century ²; (ii) until the 1870's coffee

¹- See the distinction between 'economic growth' and 'economic expansion' in MATHIAS, P., *The First Industrial Revolution*, p.2.

²- According to TAUNAY the Brazilian share of the world's coffee market was 18% in 1829-30, 51% in 1859-60; a little more than 50% in the beginning of the 1880's; 66% in 1896-1900 and 75% in 1901-1906. According to CIB between 1880 and 1900 coffee production grew by 5.8% p.a., while world production grew by 2.2%. During the 1890's Brazilian production grew by 7.4% p.a., leading Brazil to a very special position in the international coffee trade. See TAUNAY, *Pequena História do Café no Brasil*, p.243; see also

production grew in the traditional pattern - that is by 'economic expansion' - until decreasing returns began to affect the profitability of the activity; (iii)- sustained high prices and the transfer of plantations in west S.Paulo allowed a new period of expansion to this crop; (iv)- the relatively high profit rate of coffee activity generated the capital for investments following the higher productivity of coffee plantations in West S.Paulo, where technical changes were introduced, in contrast with the decay of Paraiba Valley production; (v) as in other crops, there was increased pressure from the export firms to control the activities of the middlemen and to operate by buying direct from the producer, thereby trying to reduce the price of the commodity; (vi) in coffee this pressure was controlled, in the beginning, by the characteristics of coffee production (that is, coffee's short term inelasticity of supply and long-term inelasticity of demand) and the absence of strong competition in the international market; and later, by an intervention in the market known as 'plano de valorizacao'; (vii) finally, only in coffee was it possible to sustain the price and compel the export houses to pay high prices.

Coffee has already been carefully studied and it is not my intention to provide an original contribution to this debate. Brazilian economic failure in the XIXth century is a fact that can be demonstrated despite the success of coffee, as I hope I have shown before in this thesis.

However, besides the large secondary literature available, I use in this chapter useful primary sources to support the arguments above. These are the letters and documents of The British and Brazilian Bank and of Edward Johnston & Co, found in the BOLSA and LABA archives, and a pamphlet on the history of the Edward Johnston Co, found in the LABA archives. I will also use as a contemporary source the work published by the CENTRO INDUSTRIAL DO BRASIL, *O Brasil, Suas Riquezas Naturais e Suas Industrias* (Rio de Janeiro, 1907), and the business directory *IMPRESSÕES DO BRASIL NO SÉCULO XX*, published in London, 1913. Finally I use statistical information available on U.S. and U.K. coffee imports to prepare tables on the behaviour of the world coffee market in the second half of the XIXth century. These sources will be used to illustrate aspects of the operation of the coffee trade to complement secondary sources.

Paul Bairoch's thesis on the importance of agriculture in the Industrial Revolution can be used to highlight the role of coffee in generating a larger urban and manufacturing sector in Brazil. This author argues convincingly that it is impossible to have significant industrial growth without a previous - or at least concomitant - development in agriculture.³ He centered his argument on a model of limited labour supply under pressure of increasing demand for labour in industrial activities.

³- BAIROCH, P., 'Agriculture and the Industrial Revolution 1700-1914' in CIPOLLA, ed., *The Fontana Economic history of Europe*.

His supposition is that if there is an increase of the working population in industrial activities - and this under his assumptions leads to a reduction of the working population in agricultural activities - the reduction in agricultural employment would mean a fall in agricultural supplies at least equal to the proportion of workers taken away from agriculture, if there was no corresponding increase in agricultural productivity⁴. He also shows that if an increased demand for food or industrial products has to be supplied through international trade it means that the country must have sufficient agricultural productivity to allow an important part of its agricultural resources to be allocated to exports.⁵ Therefore, the success of coffee exports had the fundamental role of producing means not only to import machinery and raw materials for Brazilian industry but also to import food for urban and rural labourers to complement the limited food production in Brazil. Coffee also made possible large-scale European immigration to Brazil, the spread of wage payments, the development of an

⁴- Ibid., p.474. It can be argued that Bairoch's model is relevant for Brazil because this country also has a limited supply of labour. Therefore the rapid increase of food prices in the XIXth century can be blamed on low agricultural productivity that prevented food production from responding with increased production rather than increased prices. It must be remarked also that Bairoch's model deals with the opposite situation of Lewis's study which assumed unlimited supply of labour from the agricultural sector. See LEWIS, A., 'Economic Development with Unlimited Supply of Labour', *Manchester School*, XXII, May 1954.

⁵- BAIROCH, P., 'Agriculture and the Industrial Revolution 1700-1914' in CIPOLLA, ed., *The Fontana Economic history of Europe*.

urban financial infrastructure and the building of railways and other means of communication in the country. The success in coffee exports thus explains how it was possible to sustain some level of economic growth in Brazil in the second half of the XIXth century.

VI-2 THE FINANCING OF THE EXPORT TRADE

In the period of study the supply of goods to the Brazilian market depended upon a few export products - some of them with only regional or even local importance. These products created the funds to import a wide range of foodstuffs, raw materials and manufactured goods. On the other hand, each export product represented the wealth of some state or some region. The success of these regional products provided resources for investment locally, as well as wealth and national political influence for the regional ruling class. Together, eight products represented more than 80% of Brazilian exports from Independence until the First World War⁶. A great share of the provincial income depended on the tax which the law authorized them to impose on their exports⁷. Export activities were essential to the regional, as well to the national, economy. they were the economic basis of the political influence of the regional

⁶) These are coffee, sugar, cotton, rubber, cocoa, hides and skins, yerba mate, tobacco. The Brazilian historical data on foreign trade is available in IBGE, *Estatísticas Históricas do Brasil*, Rio de Janeiro, 1987.

⁷) For detailed historical data on public finance in Brazil see the work published by the DIRETORIA DO SERVIÇO DE ESTATÍSTICA from the MINISTERIO DA AGRICULTURA, INDUSTRIA E COMERCIO, *Finanças:Quadros Synopticos da Receita e Despesa do Brasil, 1822-1913*, Rio de Janeiro, 1914.

oligarchies. But the planters and the rest of the rural oligarchy depended upon the urban structure to commercialize their staples in the international market and also to provide support for their agrarian activities. This role was fulfilled in several ways by the export houses.

The amount of capital to be invested in the export crops depends on the characteristic of the product. Those products which depended on a high level of fixed investment were generally in decay during the XIXth century. This was, for example, the case of sugar. In sugar, the failure to modernize production was largely recognized by the end of the first decade of the XXth century. In 1907 the study of agricultural industry made by the 'Centro Industrial do Brasil' (CIB) observed:

"We do not exaggerate in stating that there are lands where for more than two centuries the same strain of sugar cane has been cultivated without interruption, and without ever attempting to replace the slightest amount of the nutrients leached out of the land by this continuous cultivation. This has resulted in a decline in crop yields which do not now reach an average of 50 metric ton per hectare for the whole of Brazil."

"Yet, unhappily, we do not have industrial establishments equipped with the necessary machinery to extract the maximum possible from the cane which is grown, as is done in Hawaii, Cuba, Louisiana, Java, etc."

"We do not extract all sugar which the cane secretes in the fields of its growth; we extract merely 6% of the sugar as opposed to the 15% they obtain, so losing 150%."

"With the small return per hectare, the cost of production, despite the moderate wage paid to the rural worker (an average of 800 reis net), is generally no less than 150 reis per kilo of sugar at the point of sale."⁸

⁸) Ibid. p.132.

Thus, by 1901, Brazil had only 8.5% of the world production of sugar, less than half the production of Cuba, and about 43% of the production of Java. Brazilian production was already smaller than that of the Hawaiian Islands and no more than 15% higher than the Louisiana production⁹.

Other products less dependent on large fixed investment were more successful. This was, for example, the case of cocoa, where international demand grew quickly due to the new chocolate industry¹⁰. This was also the case of rubber, where production and exports had grown rapidly after the 1850's and which in the 1890's would become Brazil's second staple product, surpassing sugar exports¹¹.

Cotton, although it enjoyed a boom during the U.S. civil war, entered again in decay, except for the increasing domestic market to supply Brazilian cotton mills after the 1870's. Other Brazilian staples like tobacco, lost a share of the international market after the end of the slave trade, as it was used as currency to exchange for slaves on

⁹) *ibid.* p. 129.

¹⁰- Cocoa was in the beginning collected from wild trees in Amazonas by 'caboclo' workers. From 1860's landowners using slave labour introduced it in Southern Bahia. Brazil's share of the cocoa world market was always modest; most of the world's cacao came from Britain's West African colonies and Brazil had a little more than a tenth of the world market by the late 1920's. See GRAHAM, R., 'Brazil:1850-1870' in BETHELL, ed., *Brazil Empire and Republic, 1822-1930*, p.118; See also DEAN, W. 'Brazil, First Republic: Economy' in BETHELL, ed., *Brazil Empire and Republic, 1822-1930*, p.228.

¹¹- The demand for rubber began to increase from the discovery of the vulcanization process in 1839 that opened a wide number of industrial applications for the natural rubber.

the coast of Africa; tobacco had to rely increasingly on domestic manufacturers of cigars and snuff. Tobacco production predominated in the Region of Cachoeira, across the bay from Salvador, Bahia, and was raised on relatively small tracts and family farms with few slaves.¹² Cattle raising spread throughout the whole country supplying hides for exports and meat for domestic consumption. Rio Grande do Sul with large extensions of grassy plains was particularly successful in this activity supplying most of the Brazilian exports of hides and supplying other regions through the coastal trade with jerked beef.¹³

The level of production of the export staples depended on an international price that could remunerate the decreasing returns of increasing production - that is, higher production was obtained just by increasing the factors of production along the same supply curve. This was the case of rubber and cocoa where increasing production was accompanied by a long-term trend of increasing prices.¹⁴ In the case of coffee increasing production occurred with

¹²- See GRAHAM, R., *Brazil:1850-1870* in BETHELL, ed., *Brazil Empire and Republic, 1822-1930*, p.118

¹³- Jerked beef was the most important domestic product in the coastal trade. Rio Grande do Sul was the province that depended largely on interregional trade as a supplier and as a consumer from the 1840's on. See Statistical Appendix F.

¹⁴- The cocoa prices rose from £17.7 per ton in 1821-30 (11,362 ton exported) to £ 48.7 per ton in 1881-90 (104,460 ton exported). That is exports grew more than nine fold in volume and the price per ton grew 175% in the same period. The rubber price rose from £51.7 in 1821-30 (329 ton exported) to £160.0 in 1881-90 (110,048 ton exported). Thus, prices increased 209 % and production rose more than three hundred folds. See Chapter V, Table V.1.

prices that were in the long-term relatively stable¹⁵. Therefore, in areas where increasing production led to decreasing returns, the profit rate of coffee production tended to fall; in areas where production was obtained with increasing productivity, the profit rate of coffee tended to increase. The first case occurred in the Paraíba Valley region; the second case occurred in west S.Paulo region.

To the large landowners in Brazil, the opportunity cost of land was zero. The relevant cost to determine the level of production is that of capital and labour. Increasing production was generally possible with little additional capital and depended essentially on the supply of labour. Except in sugar, which required large fixed investments in mills, most investment was working capital to sustain the workforce until the time to sell the staple. In some products, such as coffee, this could mean a long time (not less than four years for the first crop); it thus demanded a high level of working capital. Therefore, given a certain level of international price and the financial needs of each crop, the level of production depended on the available working capital in terms of accumulated profits or advancement on the future returns from the sales of the staple.

The risk of financing production was seldom undertaken by urban financial agents. Banks had a very limited role in directly financing rural activities. There

¹⁵- See Statistical Appendix E, Table E.2

were no mortgage banks in Brazil , such as the Bayerische Hypotheken und Wechselbank (founded in 1835) in Germany, and the Credit Foncier of France (1854) that invested in rural development, although some of the regional banks undertook some of the mortgage banks' characteristics and there were attempts to develop a system of 'caixas economicas' (literally, saving banks) that was never successful.¹⁶

So the export business depended on a chain of middlemen who made possible the flow of products from the source of production up to the international market. These middlemen generally fulfilled the double function of supplying inputs and necessities to the farms or production units and were the channel through which the staples flowed. Finally, they were also the channel for financing production. The steps of this chain can be summarized by the following sequence of activities or roles in the structure of trade: (i) Producer (planter, seringalista, farmer, etc.); (ii) Factor (commissario, aviador house,

¹⁶- A failed attempt to develop the Banco do Brasil's mortgage portfolio happened after the bank reform of 1866. At the time the Banco do Brasil lost its issue right; the reform sponsors argued that the new role for this bank would be to support agriculture. However, at the same time the bank was compelled to close all its provincial branches and in the beginning of the 1870's only the S.Paulo branch survived. The Banco do Brasil not only reached a smaller region of the country but also it was not able to develop good conditions to expand its mortgage loans portfolio. The farmer owners themselves complained of the inadequacy of mortgage loans, the terms were considered short, the conditions considered hard, and several farms went bankrupt in bad harvests. See PELAEZ & SUZIGAN, *História Monetária do Brasil*, p.145.

correspondente, etc.); (iii) Processing Plant (ensacador, usineiro, ginner, etc.); (iv) Broker; (v) Export House.¹⁷

This very general model, although showing the outline of the trade, was different in certain markets. In general the producer sold his product either to the factor or directly to the processing plant, paying a commission to the factor. The latter was usually the main chain in this process. There were cases where the processing plant owner controlled this operation; this was the case of the sugar mills in the sugar market and the gins in the cotton market.¹⁸ There were markets, such as rubber where there was a chain of factors, e.g. a smaller aviador house sold the product to a bigger aviador house, and there was no processing plant as in other markets¹⁹. In this last case the processing of the staple was essentially done by the producer himself. The producers themselves could be more or less powerful depending on their capacity to retain a large share of the economic surplus.

This structure of the export trade was not only characteristic of Brazil, but also of other countries. In the United States, for example, a very similar system of

¹⁷- This structure can be drawn from the studies of each staple; see on sugar EISENBERG, P., *The Sugar Industry in Pernambuco*, University of California Press; CANABRAVA, A.P., 'A Grande Lavoura' in BUARQUE DE HOLANDA, ed. *Historia Geral da Civilização Brasileira*; on coffee, CANO, W. *Raizes da Concentração Industrial em S.Paulo*, on cotton ALBUQUERQUE, R., *Capital Comercial, Industria Textil e Produção Agrícola*, S.Paulo-Brazilia, 1982 etc.

¹⁸- See EISENBERG, *The Sugar Industry in Pernambuco*; See also ALBUQUERQUE, *Capital Comercial, Industria Textil e Producao Agricola*

¹⁹) See section VI-3.

middlemen, largely based on the cotton commission merchants, was widespread. Thus, during the first half of the nineteenth century, and in general up to the Civil War, the southern planter marketed cotton in three main ways: (i) He could consign it directly to a Northern or European market and have it sold for him by an agent; (ii) he could ship the cotton to the nearest port, and have it sold there by a commission merchant or factor; (iii) he could sell the cotton through a cotton factor at the inland assembly point²⁰. In his study of the organization of the Anglo-American trade Buck points out that:

"The system of marketing by factors or commission houses in America was not peculiar to cotton (although possibly it attained a greater degree of development in the cotton trade than in others), But was common to all the staple products of the South as well as other parts of the United States. Tobacco, rice, grain, provisions, and many other products were exported or sold for domestic consumption by commission merchants²¹."

Thus the commercialization system that was found in Brazil was similar to others where a modern system of financing production had not yet been set up, and where the staples were essentially sold to great consumers in other regions, who had not established a system of buying those products directly. Another reason for the spread of this system was the distance of the planters from the markets, their belief in their inability to oversee personally their staple sales, and their ignorance of the international

²⁰) See BUCK, N.S. *The Organization of Anglo-American Trade, 1815-50*, N.Haven, 1925.

²¹) Ibid..

market - reasons that led them to employ a specialist for this function. This was also the case of Southern United States up to the Civil War. There, as in Brazil, the factor advanced large amounts of resources to the planters, without an equivalent formal guarantee, based essentially on their personal relationship and the reputation of the planter as an honest and serious man²².

If the factor was the main agent financing the planter on the farms, at least until the late 1880's, then the comissario himself needed financing, since the performance of this activity needed a large amount of capital. This middleman, frequently financing the supply of products needed by the farms, could obtain credit to buy import products from the import houses or from some wholesalers or large retailers interested in supplying to rural areas. The selling of import products was generally made in the long term, which could be as long as six months or even one year. The buyers of the import products signed the invoices or gave letters of exchange to their suppliers, who for their part discounted these documents with their bankers. These operations were generally financed by private bankers, such as the well-known Casa Souto, or by the Brazilian banks. The foreign banks preferred to operate in the export market, or in financing the export of British

²²) The crisis of Rio de Janeiro's comissarios is a good example of the consequences for the factors of economic difficulties with planters.

products by buying the drafts or discount bills of Brazilian importers.²³

The frustated attempted to establish a number of banks in 1859, several of which were intended to pursue specialized functions, can give some information on the demand for credit at the time.²⁴ An analysis of the statutes of these bank companies, their social objectives and their intended activities offers a good idea of the kind of financial operation which took place in the Brazilian economy and which were considered sufficiently profitable for establishment as joint stock organizations.²⁵ These bank activities were specifically (i) commercial banking operations and discounts of letters of exchange, drafts, bonds, etc. to the small businessman, particularly the retail merchants, and operating as intermediaries between them and the Bank of Brazil; (ii) mortgage banking activities, for rural and urban proprietors; (iii) loans for the emergencies or needs of the urban middle class such as pawnbroking and mortgages, loans on guarantees of income,

²³- On factors in Rio de Janeiro see SWEIGART, J.E., *Coffee Factorage and the Emergence of Brazilian Capital Market 1850-1888*; see also FERREIRA, Marieta de Moraes, *A Crise dos Commissários de Café do Rio de Janeiro*, unpublished Msc. Dissertation, Universidade Federal Fluminense, Niteroi, 1977.

²⁴- Torres-Homen, the finance minister and long-standing enemy of liberal banking activity, apparently agreed to authorize the operation of eighteen bank companies in this one year. However, despite this superficial support, his strictly contractionist policy and the demanding of rigid guarantees, prevented them from acquiring the necessary funds to begin operation.

²⁵-It should be noted that even if these businesses were not able to operate as joint-stock companies, their functions were performed by merchants and private bankers throughout the economy.

and the rent of properties, slaves, etc.; (iv) agricultural credit, advances on crops, and the mortgaging of rural properties or incomes, including the mortgage of rents and slaves; (v) factor activities, including intermediation of sales by auction, or sales of products under the 'del-credere system', i.e., sales where the credit risk belongs to the intermediary - in this case the bank - and not the seller²⁶.

Most of the Brazilian banking firms and the private ones in particular had very easy guarantee practices, so they often did not make any distinction between savings or deposit accounts in relation to the payment of interest, and loans were converted into current account debts²⁷. The inadequacy of the banking structure was particularly relevant to the gap between the well-organized international operation of staple exports and their domestic financing.

Foreign banks, particularly British banks, were organized to attend to the final operation of the export activity, mainly the financing of export houses. British merchants were among the organizers of the first British banks that operated in Brazil, and one of the largest British coffee exporters, Edward Johnston, was a deputy

²⁶) See the statues published in the *Coleção das Leis do Império do Brasil* in decrees during April of 1859.

²⁷- This can be drawn from the description of banking activity in several inquiries on financial crises in the XIXth century, such as *Comissão de Inquerito sobre as Causas na Praça do Rio de Janeiro em 1864*; and contemporary works such as Ferreira Soares' *Esboço ou Primeiros Traços da Crise Commercial da Cidade do Rio de Janeiro*.

chairman of the London and Brazilian bank from 1866 until his death in 1876; at his death his son Charles Edward joined the directors board of the company and occupied his father's position as deputy chairman from 1889. The British banks had organized themselves in such a way that their main market would be the short-term financing of export activities although, particularly in the case of the British and Brazilian bank, they sometimes sought to deal in government securities ²⁸.

The analysis of the operation of one of the British banks, the British and Brazilian Bank, will give us an idea of the role of these banks in the export trade. The Brazilian managers of the British and Brazilian Bank complained of a set of regulations established by the London Headquarters that gave very rigid rules for bank loans²⁹. The establishment of the Bank in Rio de Janeiro consisted of a controller, a manager, a chief cashier, and an accountant (with such assistants in his department as the business might require) tellers and other subordinate clerks. But the affairs of the Bank at Rio de Janeiro were entrusted to the Controller, Manager and Chief Cashiers, who formed a Local Management Committee. They had, by rota, to reside for a period of one month at a time at the house

²⁸) The British from 1860 onwards also opened several insurance companies in Brazil, mainly operating in shipping insurance and in activities related to the export market. Thus between 1864 and 1874 12 British insurance companies were authorized to operate in Brazil [See MINISTÉRIO DO TRABALHO, INDUSTRIA E COMERCIO, *Companhias Estrangeiras Autorizadas a Funcionar no Brasil*. (1945)].

²⁹) BOLSA Archives; Box G37/2.

where the business of the Bank was carried on in Rio, and the Controller had to arrange that there would be no less than three members of the establishment in residence at all times, of whom the Manager, Chief Cashier, or Accountant, had to be one. The Local Committee had to meet daily and record their meetings. No special business or operation could be undertaken, or loan made, unless approved by two of the three current members of the Local Committee, and in all cases where the resolution of the Committee was not passed unanimously, that fact and the votes of the parties had to be recorded in the minutes.

Thus, the policy of the bank attempted to be as impersonal as possible and tried to divide risks and always collect a collateral security. In the export-import market this collateral security was the pledge of bills of lading. The bills of lading are the list of a cargo with the shipping documents, the liberation of which depends upon the payment of the original bill discounted by the bank. If the bill had been dishonoured, either by nonacceptance on presentation, or non-payment, the bank was authorized to sell the goods at their direction, such sales being used for the payment of the bill, subject to all the usual charges for commission, and all other incidental expenses³⁰.

The policy of the bank was to encourage the deposit of money and opening of drawing accounts by the

³⁰) See the form of the mortgage letter, in the Appendix to the Instructions for the management of the Affairs of the Bank at Rio de Janeiro, -BOLSA Archives; Box G37/2.

population. The drawing accounts were acted upon cheques payable on demand and the maximum interest allowed on deposits was to be 2% below the current rate of interest.

The British banks had a very firm policy against advances on produce without clear guarantees, which prevented many of the farmers from having their crops financed, except through the intervention of a private banker or a 'comissario'. Thus, the British and Brazilian Bank directors gave guidance to the Brazilian managers that *'making advances on produce, commodities of a perishable character, or such as are notoriously liable to great or sudden fluctuation in value, are carefully to be avoided'*³¹. Also, according to their instructions, no advances were to be made on growing crops under any circumstances; before the transaction was completed, the merchandise deposited must, except in the case of pledged bills of lading, be absolutely in the possession and under the control of the Bank. Nor should any advance exceed two-thirds of the market-value of the goods pledged as security, and an undertaking was to be given by the borrower, that in the event of a fall in value to the extent of twenty per cent of the estimated value, other such additional security as the bank may think necessary to reestablish the stipulated margin, was to be given by the borrower³². Finally no paper

³¹) Instructions for the management of the Affairs of the Bank at Rio de Janeiro, Art.LXX, p.14; BOLSA Archives, Box G37/2.

³²) Ibid., pp.14/15.

was to be discounted that had more than three months to run, and the renewal of discounted bills should be discouraged.

The instructions for the management of the affairs of the British and Brazilian Bank at Rio de Janeiro clearly show the kind of clientele intended for this bank. It was intended to operate mainly in foreign trade, where it could use its superior information on the market as an asset with which no other Brazilian bank, with the sole exception of the Mauá Banking House, could compete. Actually, this better information was greatly improved through the careful policy of organizing commercial information on their actual and potential clients throughout their Brazilian branches. This was certainly a much more advanced business technique than those of most of their Brazilian competitors, which were strongly based on the traditional personal discretion and subjective information about their clients typical of the Brazilian businessmen.

This well-organized information policy can be seen in the letter that the Rio de Janeiro branch of the British and Brazilian Bank received from the London headquarters in which the Rio de Janeiro manager was ordered to prepare a printed list of company head offices in this port, with columns ruled for information at the head of each sheet. This information was to be used not only for internal consumption but also to satisfy enquiries from the outside world. The same was to be done in other branches of the bank and the final list sent to London. The list was to be kept

up to date by the inclusion of other firms and, when a firm ceased their operations, the date and the cause of it should be entered³³.

Even so, the British and Brazilian Bank was not able to avoid being caught in a large crisis, as happened during the Overand, Gurney & Co bankruptcy in London. To a difficult financial situation in the British and Brazilian Bank's London headquarter were added problems in the Brazilian branches. Nevertheless, a rival of the British and Brazilian Bank, the English bank of Rio de Janeiro, was able to by-pass the economic crisis in London without much problem, and when Carter and Edward Johnston reorganized the former bank in 1869, the latter was in a very flourishing position and had made a net profit of £65,956, while its competitor had about a quarter of million in debts in danger³⁴. After this period this bank administered its loans much more carefully, particularly with regard to the outstanding loans, that were the source of several losses during the earlier period. The legal nuances, the short terms and guarantees demanded by the British banks prevented them from undertaking large operations in the financing of agriculture or in the more simple operations of domestic and commercial credit, and more to the point they were unable to

³³) Letter London to Rio de Janeiro, October 30th, 1873-BOLSA Archives, Box G2/1.

³⁴) This data was mentioned by a shareholder, Mr. Kintrea, at the extraordinary general meeting held at the Terminus Hotel-London in June of 1869 -BOLSA Archives- Box G41.

serve the current needs of the 'comissarios'³⁵. Only the comissarios were flexible enough to deal with the needs of rural credit, but the resources that they had available to finance production were always restricted; the private banks and Brazilian banks that operated with them were unable to attend them in all their needs. This gap between the needs of the agricultural producers and the banking structure had become very clear by the beginning of the 1860's with the difficulties that followed the bad harvests of 1861 and 1862 and the financial crisis³⁶.

The factors were in a key position both with regard to the export houses, because they represented several planters and eventually controlled large quantities of the staples, and also with regard to the planters, because it was through them that they had their financial needs attended and their crops traded. The factors' interest was to sell the crops at a high price, since they received a commission on the sales value. On the other hand the export houses, many of which operated on behalf of foreign clients, had an opposite interest and tried to buy for low prices.³⁷ Therefore, the increased international competition after the 1870's reflected itself domestically in a struggle between export houses and factors, the former trying to cut the

³⁵) GRAZIERA, *A Guerra do Paraguai e o Capitalismo no Brasil*, S.Paulo, 1978, P.82.

³⁶) Ibid., p.81.

³⁷- Nationality of the owners of the main export houses in Brazil and their commercial relations can be seen in Business Directories in the early XXth Century. See, e.g., *Impressões do Brasil no Seculo XX*.

number of middlemen between them and the planters and the latter trying to prevent the export houses expelling them from the export business.

With increasing international competition came also an increasing specialization of the merchants involved in the international trade. This happened in products such as cotton, where the import houses in Britain were originally general commission merchants; they gradually began to devote more and more of their time to cotton and ceased dealing in other articles³⁸. In other products, such as coffee and rubber, the specialization came through the increasing interference of the manufacturer in the international trade, which was the case with U.S. roasters in the coffee trade and rubber manufacturing companies in the rubber trade³⁹.

There was a tendency for the commercialization of staples to be simplified in proportion as the export houses increased their importance. After the 1880's several changes contributed to reduce the number and importance of the middlemen. First there was the improvement of the channels of communication, not only from the rural areas to the cities, but also between these cities and the big consumer

³⁸) GRAZIERA *A Guerra do Paraguai e o Capitalismo no Brasil*, S. Paulo, 1978, p.10

³⁹) The influence of U.S. roaster representatives in the coffee business in S. Paulo region was very strong, and one of the reasons why the coffee planters defended the establishment of a valorization policy was that they argued that these buyers tried to manipulate the price of this product locally. See CENTRO INDUSTRIAL DO BRASIL, *O Brasil, Suas Riquezas Naturais, Suas Industrias*, op.cit..

centres abroad. In the South, telegraph branch lines were extended from Rio de Janeiro to Curitiba and S. Paulo at the beginning of the 1870's, and in the same decade to Jaguarão, Uruguaiana, Montevideo and the Plata Region. In 1883 Uruguaiana was linked to the Argentine network. In northern Brazil, work was begun in 1871 on a line south from Recife that reached Maceió in 1873 and Salvador in 1874. The southern line was extended to Vitória in 1874, and in 1877 the two sections were finally connected. To the north the line was extended to Paraíba in 1875, to Natal in 1876, to Fortaleza in 1881, to S. Luis in 1884, and to Belém in 1886. During the 1880's and early 1890's submarine cables were installed to link Brazil with Europe and United States⁴⁰. Second, there was a development of specialized services, such as the improvement of the banking system that facilitated the direct borrowing of money by big planters. Finally, there was a steady growth in the international demand for some Brazilian staples, such as coffee and rubber, and a growing competition in the international and domestic market for their control.

All this led to a progressive penetration of the export houses into activities that were previously performed by a middleman. Since the Brazilians and Portuguese generally operated exclusively as middlemen, this tendency implied a continuous process of expelling these merchants

⁴⁰) See West, V.R., *The Foreigner in Brazilian Technology 1808-1900*, Unpublished Ph.D dissertation, University of Chicago, 1949, pp.888/889 and ch.XXX).

from the export business. By the beginning of the First World War, the export trade structure could be more accurately described as the following three stage organization: (i) Producer; (ii) Processing Plant; (iii) Export House, or even as a two stage organization: (i) Producer; (ii) Export House.⁴¹

For most products this increased international competition and larger role for export houses buying directly from planters led to falling FOB prices for all Brazilian products, except coffee and rubber. Subject to increasing pressure to reduce its prices by the export houses, the response of the entrepreneurs in those two market had some similarities: both tried to sustain prices rather than increase productivity. In the case of coffee the planters were successful in sustaining prices and also, particularly in the West S.Paulo region, in increasing to some extent productivity; so they were able to maintain a high profit rate that allowed the capitalist coffee complex to generate linkages that led to the creation of the first modern Brazilian industries and the first modern industrial entrepreneurs. In the case of rubber, the export houses and rubber manufacturers were able not only to prevent the control of supply by the 'casas aviadoras', but also were able to develop another source of supply in Asia that could produce more efficiently at lower prices, leading to the collapse of the Brazilian rubber boom. The differences

⁴¹- See on Cotton ALBUQUERQUE, on sugar EISENBERG, on coffee CANO, on rubber SANTOS.

between coffee and rubber, and the special characteristics of coffee will be the theme of the next section.

VI.3-COFFEE AND THE OPERATION OF THE AGRO-EXPORT COMPLEX

In both export activities where Brazil had a good performance during the XIXth century, the same pattern occurred: there was increased pressure from the export firms to control the activities of the middlemen and to operate by buying direct from the producer. This generally increased the pressure to reduce the commodity's price, because unlike the factors (comissarios or casas aviadoras), who were generally interested in a high price for the product, the foreign export houses, several of which were linked to the buyers abroad (U.S. roasters or rubber manufacturing industries) had interest in buying as cheap as possible. The producers' response was not to increase productivity drastically to reduce prices; rather they tried strongly to sustain prices, and, when it was possible, to rely on political action against 'speculative manoeuvres' of the export houses ⁴².

⁴²) Export houses attempts to buy for lower prices, and eventually, their use of buffer stocks for this aim, was seen by the Brazilian planters as 'speculative maneuvres' to increase export houses' profits at the expense of Brazilian producers. This is well perceived in the complaint of Joaquim Francisco de Lacerda about the operation of the U.S. companies in Brazil quoted in CENTRO INDUSTRIAL DO BRASIL, *O Brasil, Suas Riquezas Naturais, Suas Industrias*, op. cit; , p.86.

TABLE VI.1

BRAZIL COFFEE EXPORTS- SELECT DATA

PERIOD	IN £1000	IN 1000 SACKS	AS A PERCENTAGE		PRICE £ PER SACK
			(a) U.S AND U.K IMPs	(b) BRAZIL EXPORTS	
1851-60	4 971	2 625	113	48.8	1.89
1861-70	6 800	2 885	90	45.5	2.36
1871-80	11 295	3 634	86	56.6	3.11
1881-90	13 566	5 333	99	61.5	2.54
1891-1900	18 792	7 450	136	64.5	2.52

Source: IBGE-Serie Estatísticas Retrospectivas, Rio de Janeiro 1986; MITCHELL, B.R., British Historical Statistics, Cambridge University Press, 1988; U.S. DEPARTMENT OF COMMERCE, Historical Statistics of The u.s., Washington , 1975.

NOTE: (a) refers to Total Import of U.S. and U.K in sacks of 60kg (132 pounds) = 100. Total U.K. imports in sacks was computing by the division of total U.K. imports in sterling by the U.S. imports' average annual implicit price of coffee; (b) refers to total Brazil exports in pounds sterlings = 100.

In the second half of the XIXth century coffee exports were the most dynamic sector of the Brazilian economy. From the decade of 1851-60 to 1891-1900 coffee exports grew in value an average of 39% per decade (3.4% p.a.) and in volume at an average of 30% per decade (2.6% p.a.). Therefore, coffee prices grew 33% between these decades, and Brazil benefited not only from increasing exports, but also from increasing prices⁴³.

⁴³- See table VI.1; it must be noted that Brazilian exports grew about the same rate as U.S. imports in volume and less than this in value; U.S. coffee imports grew quicker than the world coffee market, so the good position of Brazilian coffee in the U.S. market must have contributed to Brazilian export performance in coffee.

Coffee profits and income generated in the coffee trade contributed strongly to the creation of the economic basis of capitalism in Brazil and, also, the economic environment in which the first modern Paulista industrialists would flourish.⁴⁴ However, coffee was an exception in the Brazilian economy. Several external and internal conditions converged to make possible an export boom based on 'economic expansion', that is, increasing production due to increasing factor supply without technical change; in west S.Paulo's capitalist coffee economy, domestic and international factors allowed good prices for coffee. Furthermore, increasing productivity led to higher profits rather than smaller prices. With another great Brazilian commodity of the last decades of the XIXth century, rubber, a different history happened. Neither profits nor market share could be maintained under pressure from increased supply and lower prices in the booming international rubber market, whose interests were represented in Brazil by the large export houses. A comparative summary of the operation of the two large agro-export activities in Brazil at the time, coffee and rubber, can clarify the nature of the relationship of the Brazilian producers, international competition and the foreign merchants in these trades⁴⁵.

⁴⁴- See on this theme the vast bibliography on the origin of industrialization in S.Paulo and its relation with coffee economy. See particularly DEAN, *A Industrializacão de S.Paulo*, and CANO, *Origens da Concentração Industrial em S.Paulo*.

⁴⁵) The bibliography on coffee and rubber is extensive and I do not intend to add new information on these subjects. My objective is, through the discussion of the commercial

The coffee industry in Brazil had two distinct periods: in the first, the main site of production was the Paraíba Valley and the structure of production was based on slave labour and traditional practices; in the second, coffee production developed throughout the fertile land of western São Paulo state and the structure of production was increasingly based on the labour of the immigrant colono in a process characterised by rapid and dynamic capital accumulation.

In the first period, the expansion of the coffee plantations was itself closely linked to the transfer of resources from some commercial activities, such as the slave trade, pack transport, trading in foodstuffs between Rio de Janeiro and Minas Gerais etc ⁴⁶. From its beginning coffee had been an activity that needed large resources for its establishment and commercial contacts for its trade. This happened because coffee was a product highly dependent on the international market, first for its consumption, and secondly to provide the workforce for its production. Finally the coffee plantation needed close supervision, care and financing over a period of at least four years, the

structure of the coffee and rubber business, to present elements for the understanding of the relationship between producers, middlemen, and export houses, that is, to give some clues to the behaviour of the producers under pressure to reduce prices.

⁴⁶) See FURTADO, *Formação Econômica do Brasil*, op.cit., MELLO, J.M., *O Capitalismo Tardio*, op.cit.

period before the tree can begin producing tradable fruits without any kind of financial compensation.

Since the 1820's coffee had spread towards the west of Rio de Janeiro province and the Serra do Mar, and then along the Paraíba Valley.⁴⁷ The quality of the land in the Paraíba Valley, seen after the elimination of the native vegetation, was very good for coffee plantation. It was not however very deep and it was also subject to erosion due to the topography of the region. ⁴⁸

During all of this first period there was very little technological change in coffee culture. To large landowners the marginal cost of land was zero; so land was used extensively and, once it showed signs of exhaustion, the plantations moved to new adjacent land. In the new lands the native forest trees were cut and, after the remaining vegetation was dry, it was burned, and the ashes were used as a fertilizer. The coffee trees were planted on this land, and the only work to be done on it was to cut the grass around the trees. At this stage the only instruments that were used were the hoe and the sickle.⁴⁹

Processing the coffee means removing the berries from their two skins, an external (polpa) and an internal (pergaminho or casquinha). There were two techniques to

⁴⁷- According to TAUNAY the first coffee centres were Vassouras, Pirai, Valença, Paraíba do Sul, Barra Mansa and Resende; see TAUNAY, *Pequena História do Café no Brasil*, p.50.

⁴⁸- CANABRAVA, A., 'A Grande Lavoura' in BUARQUE DE HOLANDA, ed., *História Geral da Civilização Brasileira*, p.94.

⁴⁹- *ibid.*, p.96/97.

remove the skin from the berries: the dried process and the wet process. In the first method the grains were dry under the sun for about thirty days and afterwards they were pressed to remove the skins. The second method was to leave the berries in water until the skins became soft before removing them. The second method made a coffee of a better quality, but it needed a larger workforce since it demanded berries to be all uniformly mature. So most coffee produced in Brazil was made through the dry method. For processing the coffee, animal power and water were the only source of energy used in the Paraiba Valley; they moved the 'pilao' and the 'mojolo' that did the final operation to remove the berries' skins. ⁵⁰

In this first phase increasing production was obtained essentially by 'economic expansion'. That is, the production factors were increased proportionally without any change in technology. A coffee plantation did not need a large fixed investment, but it needed working capital due to the long time from planting the trees until the first crop. Decreasing returns would be achieved if any one of the main production factors become scarce. Until the 1850's labour was easily and cheaply supplied from the slave trade; after that, until the 1870's, the interregional slave trade- or transference of urban slaves to rural areas- sustained the

⁵⁰- For a detailed description of the process of work in the early coffee plantation see CANABRAVA, A., 'A Grande Lavoura'. For an description of the process of work in S.Paulo see DEAN, W., Rio Claro: A Brazilian Plantation System, 1820-1920, Stanford, 1976..

labour supply, albeit at a higher price⁵¹. The supply of land seemed in the beginning unlimited; however, the increased distance from the port was a factor that could boost the cost. As far as the cost of labour and the cost of transport did not reduce profits, production could grow with stable prices, or, depending on the quality of the land used and better financing sources, even with falling prices.

TABLE VI.2
AVERAGE NOMINAL SLAVE PRICE
QUINQUENNIAL DATA IN MIL REIS

PERIOD	PRICE	PERIOD	PRICE
1850-54	588	1870-74	923
1855-59	987	1875-79	1023
1860-64	979	1880-84	711
1865-69	851	1885-87	514

Source: SWEIGART, J.E., *Coffee Factorage and the Emergence of a Brazilian Capital Market 1850-1888*.

Coffee prices were stable during the 1820's and 1830's, and fell during the 1840's with increasing production⁵². In the 1830's coffee became not only the main Brazilian export, but also Brazil became the largest world exporter, overtaking Java in the Dutch Indies.⁵³ However, from the 1850's increasing labour costs and increasing transport cost began to affect the profitability of coffee

⁵¹- For price of slaves see Table VI.2

⁵²- Data from IBGE- ANUÁRIO ESTATÍSTICO DO BRASIL, 1930-40.

⁵³- For the coffee share in Brazilian exports see Table VI.1. For a comparison between Brazil and Java coffee exports see TAUNAY, *Pequena História do Café no Brasil*, p.87; See also Van Delden LAERNE, *Brasil e Java*.

activity.⁵⁴ The continuation of coffee expansion required investments to reduce the transport costs and assumed that labour price would not rise too much after the end of the slave trade. Coffee expansion was made possible not only because transport costs were kept under control, mainly due to investments in railways after the 1860's, but also because slave prices were kept to a reasonable level.⁵⁵ Finally high prices for most of the 1870's and for the late 1880's complemented the favourable scenario.

This situation was only possible because Brazil did not have tough competition at the time. Other coffee exporters were also countries with a 'colonial' economy that had very low productivity and a backward agrarian structure⁵⁶. In the Americas, for example, Brazil did not have strong competitors. Coffee exports in Colombia only began to be significant after 1870's. Before that production

⁵⁴- See SPINDEL, *Homens e Maquinas na Transicao de Uma Economia Cafeeira*, S.Paulo, 1980, p.33.

⁵⁵- Even though transport was always a bottleneck in Brazil. For the coffee plantations of the Paraiba Valley transport from the farm to the ports before the railways, and even after that for more than a few regions, was highly dependent on the mule pack, and, in all cases it was expensive and slow. The coffee was transported in bags of 60 Kg (132 pounds) from the farm to the closest railway station by cart, oxcart, pack mule, or small railways. There the weight was confirmed and the product was transported to the big ports of Rio de Janeiro or Santos. By this time the coffee had already paid the state tax of 9% *ad valorem* in S. Paulo and 8.5% in Rio de Janeiro, Minas Gerais and Espírito Santo. From the warehouse of the railways to the docks or to the comissario's warehouse, the planters had to pay further fees per sack in Santos and in Rio de Janeiro. See CENTRO INDUSTRIAL DO BRASIL, *O Brasil, Suas Riquezas Naturais, Suas Industrias*, op. cit;, p.81. On slave prices, see Table VI.2.

⁵⁶- See FAUSTO, B, 'Expansão do Café e Política Cafeeira', in FAUSTO, ed., *História Geral da Civilização Brasileira*, Tomo III, p.356.

and export were minimal. As late as 1874-79 coffee represented only 7% of Colombia exports.⁵⁷ Central America had grown small amounts of coffee since colonial times. Coffee was introduced in Costa Rica and encouraged by the Governor Tomas de Acosta in about 1805. After Independence the town councils of Cartago and S, Jose continued to encourage coffee cultivation; in the 1830's Costa Rica began to make sizable shipments of coffee from Puntarenas to Chile, where Valparaiso had become an important Pacific Coast entrepot for the British and European trade⁵⁸. Larger amounts of coffee began to flow towards European markets in the 1840's. Later, completion of the Panama Railway facilitated more exports⁵⁹. Just as in Brazil, coffee production contributed to the emergence of a strong planter class. Although foreigners in Costa Rica had an important position in production - where they were more represented than in Brazil- and an important marketing role, most of the coffee lands remained in Costa Rican hands. Coffee spread in the 1860's to Guatemala, to El Salvador in the 1870's, Nicaragua and Honduras in 1880's. These small republics never had, however, a very large share of the world's market in volume⁶⁰. Although they had a coffee well reputed for its high quality and special blending uses, even Costa Rica, the

⁵⁷- See MCGREEVEY, W.P, *An Economic History of Colombia 1845-1930*; Cambridge University Press, 1971, pp.195-207. See also PALACIOS, M., *Coffee in Colombia, 1850-1970*, Cambridge University Press, 1980, p.19.

⁵⁸- Woodward Jr., R.L, *Central America : A Nation Divided*, Oxford 1985; chapter VI: Coffee Republics.

⁵⁹- Ibid.

⁶⁰- Ibid.

most successful Central American coffee growing country, employed technology and had financial demands hardly different from Brazil. From the 1850's to the 1870's Brazil's share of the market was sustained, the traditional coffee producer (Java) stagnated, and new competitors began to appear, such as Ceylon in Asia, and Venezuela, Colombia and Central America, in the Americas⁶¹.

Asian producers, traditional coffee exporters since the XVIIIth century, could have been a more serious threat to Brazil than American producers, as they enjoyed strong commercial and political links which their colonial masters and through them had a privileged access to European markets and capital. However, coffee production in those regions was far from efficient.

Java before the 1830's was the biggest world coffee producer. This product was introduced as an export crop as a consequence of Dutch domination, through a system known as *cultuurstelsel* (cultivation system, sometimes less accurately called 'culture' system). The Javanese villages paid a land tax (the 'land rent') to the government, normally calculated as forty per cent of the village's main crop (usually rice). However, the villagers found great difficulty in paying this tax, which usually should be paid in cash.⁶² So it was determined by Java's Governor-General

⁶¹- See TAUNAY, *Pequena História do Café no Brasil*, p.88; see also Table VI.3

⁶²- See RICKLETS, M.C., *A History of Modern Indonesia*, MacMillan Asian History Series, London 1987, pp.113-117; see also DAY, Clive, *The Policy and Administration of the Dutch in Java*, chapter VIII and IX, London, 1904; see DE GRAEFF,

Van den Bosch that each village should set aside part of its land to produce export crops (especially coffee, sugar and indigo) for sale at fixed prices to the colonial government. The village would thereby be able to cover its land tax commitment and if the village earned more by the sale of crops to the government than its land tax obligation it would keep the excess payment; if less, it must still pay the difference from other sources. The crops would then be shipped to Europe by the Netherlands Trading Company (NHM:Nederlandsche Handelsmaatschappij) set up in 1824-5 upon the Dutch king's initiative.⁶³ The technology used to grow the crops was primitive, and the main input into this system was Javanese and Sudanese labour. Some estimations concluded that between 1837 and 1851 70% of agricultural families were producing export crops, over half of them coffee.⁶⁴

The *cultuurstelsel* proved to be immensely profitable for the Dutch: it had been demonstrated that Java was capable of producing a substantial surplus under coercion. By 1831 the colonial Indonesian budget was balanced. Enormous remittances were sent to the Netherlands. Before 1850 these remittances accounted for about 19% of Dutch state revenues, and in 1851-60 for about 32%. The Dutch economy benefited deeply from these resources: debts were redeemed, taxes reduced,

J.A.C., *Netherlands India: A Study of Plural Economy*, chapters V-VI, Cambridge, 1939.

⁶³- RICKLETS, *A History of Modern Indonesia*, p.115.

⁶⁴- *ibid.*

fortifications, waterways and the Dutch state railway built, all on the profits forced out of the villages of Java.⁶⁵

However, as there was no investment in the Javanese economy and both agricultural and administrative techniques were of a traditional kind, from the 1840's problems began to arise. Epidemics broke out in 1846-9 and famines spread in Central Java around 1850. The government meanwhile imposed drastic increases in land tax and other impositions. With this further imposition there was mass flight from villages; food production was even more in decline - in 1845-50 exports of coffee, sugar and indigo, the three main Javanese staples fell. After 1850's better prices led to some degree of recovery. However the political pressures to end the **cultuurstelsel** increased in Netherlands after the mid-XIXth century. As a result of a political debate in the Netherlands the colonial government began abolishing compulsory state crops throughout its Indonesian territories. The first to go were the least profitable crops; coffee and sugar were the most profitable and the last to be abolished. Compulsory coffee cultivation was abolished by slower stages from the 1870's. The gradual freeing of the cultivator from compulsory production of export, and coffee diseases which spread after 1878, affected deeply coffee production: without either the compulsion of forced labour or attractive wages and prices, coffee production fell. If the **cultuurstelsel** was an

⁶⁵- Ibid., p.117.

efficient way of increasing Dutch revenue in Java, its end and the high level of exploitation of Indonesian villages would definitively end any chance that this country could ever depose Brazil as the leading coffee exporter in the world market.

Ceylon was the largest coffee supplier to Britain and the main Brazilian competitor after the decay of Java⁶⁶; its failure to increase its share of the world's coffee market illustrated the reasons for the limited threat that other Asian competitors were to Brazil.

Coffee in Ceylon was cultivated in the highlands of the interior. Although a British colony, just as happened to Brazil for most of the first half of the XIXth century, Ceylonese exports of coffee were affected by the discriminatory import duties in the U.K in favour of West Indian production⁶⁷. A decisive factor in promoting coffee cultivation in Ceylon was the increasing demand in Europe combined with the simultaneous decline in West Indies production.⁶⁸ Coffee was planted in the mountain ranges of Kandy that from the 1840's were rapidly covered with plantations. Planters had to borrow money heavily to finance production expansion and money was borrowed before 1847 at

⁶⁶- More than half U.K. coffee imports came from Ceylon in 1871. The Brazilian share of British coffee imports was less than 20%. See Ceylon- A General Description of the island, London, 1976.

⁶⁷- Only in 1835 were Ceylon and West Indies coffee taxes equalized. See MILLS, L.A., *Ceylon under British Rule -1795-1932*, London, 1964, p.227.

⁶⁸- The West Indies export of coffee to U.K were 291 897 cwt in 1827; they fell to 148,554 cwt in 1835 and to 63,559 cwt in 1845. MILLS, *Ceylon under British Rule*, p.227.

9% - above the cost of money in Brazil - by mortgaging every available security.⁶⁹ Coffee planters in Ceylon were very susceptible in the face of a financial crisis in Europe or coffee prices falling in the British market. In 1847, for example, there was a large crisis that ruined several planters caused by the falling prices of Ceylon coffee due to the end of protection against Java and Brazil. This was aggravated by a plague of rats which gnawed the young shoots and coffee blight which ruined large areas by killing the trees.⁷⁰

Better prices stimulated a recovery in the 1850's, although it was retarded by the inadequacy of roads. As in Brazil communication was essential for the success of this crop. Down to 1861 most of the surplus revenue that the colony could afford was put into the construction of roads and bridges. In addition to the construction of main roads out of public funds, ordinances were passed in 1857 and 1858 providing for the construction of branch roads by means of grants in aid from the government equal to half the estimated cost, the other half being contributed by the estate owners

⁶⁹- As in Brazil planters were financing with advances from the comissarios mostly in goods (slaves, imported food or luxuries etc.) it is difficult to determine the cost of money for them; however the cost of money to the comissarios can be well determined as those borrowed in the bank houses in the cities. In 1850 the average discount rate in Rio de Janeiro was 7.5%; from 1850 to 1855 the average discount rate was always below 8% in Rio de Janeiro. See data on the Statistical Appendix C, table C.2. For Ceylon see MILLS, *Ceylon under British Rule*, p.230..

⁷⁰ - To give an idea of the extension of that crisis MILLS noted the case of a plantation which had been bought in 1843 for £15,000 and was sold by auction in 1847 for £440. See MILLS, *Ceylon under the British Rule*, p. 235-236.

in the district who were interested in the construction of such roads. The coffee crop was moved over the roads in carts drawn by oxen. The great weight and bulk of the coffee necessitated metalled roads, and even so, the heavy tropical rains did much damage to the roads, carried away bridges, and involved continual expense for repairs⁷¹.

In about 1855, however, it was already clear that without railways the future development of coffee would be prevented. Despite the maccadamized roads, the whole crop had to be consigned to the coast in the few weeks which elapsed between the time it was ready and the beginning of the Southwest monsoon. After this date many roads were impassable because of swollen streams and the absence of bridges. As coffee production increased, and the roads had to bear an increasing traffic, the threat of a complete breakdown of road transport became imminent.⁷² Projects for railways were developed in Ceylon as early as 1846, but due to high costs were abandoned. Only in 1867, when Brazil had already 597.5 km of railways, was the first railway from Colombo to Kandy opened with 75 miles. The whole capital for construction purposes was imported from the U.K., while the funds for financing the coffee plantations were provided by drafts on London merchants to whom the crops were

⁷¹- GUILHEBAND, C.W., 'The Crown Colonies, 1845-1870' in ROSE, J.H., NEWTON, A.P. & BENIANS, M.A., ed., *Cambridge History of the British Empire*, Cambridge, 1940, pp. 743/746.

⁷²-MILLS, *Ceylon under the British Rule*, p.240.

consigned. So planters were very vulnerable to financial stringency in Britain.⁷³

In the beginning, the production of coffee was managed by English and Scottish planters, financed by British capital. As the industry progressed and coffee plantations became valuable properties, absentee ownership increased. The plantation depended for labour on the seasonal influx of Indian coolies from Southern India. The vast majority of these workers migrated each year to Ceylon, returning home after the crop season was over. Immigration on a permanent basis was never possible in Ceylon.⁷⁴

Ceylonese production grew quickly from the 1850's to the 1860's; however, it fell again in the beginning of the 1870's, and stagnated thereafter. The problem of transport had been to some extent solved. The railways were owned and operated by the Ceylonese government and from the 1870's they were extended to other coffee districts; also breakwaters were built in Colombo in 1874 and 1886 to improve the port's safety and capacity⁷⁵. However, before the last Colombo breakwater was completed, the coffee plantations had almost ceased to exist. This collapse was caused by a fungus which attacked the leaves of the tree and ultimately destroyed it. Officially known as *Hemileia Vasterix*, it was popularly referred to as the 'coffee bug'.

⁷³- GUILHEBAND, C.W., 'The Crown Colonies, 1845-1870' in ROSE, J.H., NEWTON, A.P. & BENIANS, M.A., ed., *Cambridge History of the British Empire*, Cambridge, 1940, pp., p.747.

⁷⁴- Ibid., p.748.

⁷⁵- -MILLS, *Ceylon under the British Rule*, p.245.

The blight appeared in 1868 when coffee was at the height of its prosperity and rapidly spread throughout the planting area. In 1879 the Governor reported that *Hemileia vastatrix* had 'disastrously affected the productiveness of the coffee trees' and by 1882 it had 'spread over the whole island'.⁷⁶ Reports from Ceylon related the described production and abandoned plantations; in 1883 exports fell to 305,702 cwt, the lowest figure since 1848. The blight affected Java, but did not affect Brazil. The increasing production of Western S.Paulo plantation together with low prices in the 1880's finally destroyed the Ceylonese enterprise. By about 1880 in Ceylon 'anxiety was becoming greater and greater. People were trying to sell out'; but estates found no buyers⁷⁷. A contemporary described the situation, stating that "*All around me there seemed to be an air of expectation of disaster ... the crisis was acute: the colony was practically in a state of paralysis*"⁷⁸; at that time about 400 of the 1700 European planters left Ceylon.⁷⁹

Ceylonese coffee had the same end that Brazilian rubber would have some decades later. It was the combined effect of the 'coffee bug' and the exceptional natural advantages - and also man-made technological improvements - of coffee in West S.Paulo that would determine the collapse of Ceylonese production.

⁷⁶ PARLAMENTARY PAPERS, C.2829 FO 1881, VOL LXIV, 233; quoted in MILLS, *Ceylon under the British Rule*, p.247.

⁷⁷--MILLS, *Ceylon under the British Rule*, p.247.

⁷⁸- LEWIS, *Sixty-Four Yers in Ceylon*, pp.128

⁷⁹--MILLS, *Ceylon under the British Rule*, p.247.

However, Ceylonese coffee production never came close to Brazilian levels; Ceylon exported in its best decade not more than a third of Brazilian coffee exports.⁸⁰ In Ceylon, as in Brazil, capital was scarce and technology primitive; however, Brazil had no absentee landlords and enjoyed a dynamic and politically influential planter class. Supply of labour in Brazil was more reliable, and without doubt Indian coolie work was hardly better than slave labour. Finally, availability of an unlimited supply of good land and the building of railways made Brazilian production more efficient than that of Ceylon, even before coffee spread to western S.Paulo. Finally the deficiencies of Ceylon and other Asian or American coffee producers allowed the productivity gains of West S.Paulo plantations to increase planters' profits rather than reduce prices - a process that was self-reinforcing as higher profits allowed higher investment which improved productivity further.

The improvement in coffee production in Brazil and the exploitation of the advantages after the Asian collapse was a process that took a long time to mature. Its history is linked domestically with the decay of the Paraiba Valley plantations and the rise of West S.Paulo capitalist production.

⁸⁰- See Table VI.3

TABLE VI.3
COFFEE EXPORTS-AVERAGE ANNUAL DATA
(IN £1,000,000)

PERIOD	BRAZIL	COLOMBIA ^a	CEYLON ^b	JAVA ^c
1851-60	5.0	0.1	1.1	1.5
1861-60	6.8	0.2	2.2	1.8
1871-80	11.3	0.3	3.2	2.4
1881-90	13.6	0.2	0.9	1.7
1891-1900	18.8	1.5	0.2	2.3

Source: IBGE- Series Estatísticas Retrospectivas; PALACIOS, M., Coffee in Colombia, 1870-1970; MITCHELL, B.R., International Historical Statistics- Africa and Asia, Macmillan Press, 1982.

NOTES: a- Colombia data were obtained in volume in quinquennial average from 1854/55; there is no data for the quinquennium 1859/60-1863/64. The data in volume were transformed to value by the average implicit price for Brazilian coffee exports in an equivalent period.

b- Ceylon original data from 1873 were in rupees. They were exchange to sterling by the parity rate of 1899: 1s 3 1/4d per rupee. Due to rupee exchange rate oscillations before 1899, however, the absolute value of coffee exports in sterlings for the decades since 1870's must be considered as tentative. Nevertheless these data are correct enough to not reduce their value for sake of comparison over time or with other countries.

c- Java original data was in gulden; it was converted to sterling by the parity rate of 1 guilder(or florint)= at gold par to 1s.8d.

A detailed discussion of the reasons for the decline of the coffee culture in the Paraíba Valley is beyond the scope of this work, even though some comments must be made⁸¹. Its decay is related to the operation of declining returns due to increasing production without technical change⁸². Its main inputs, land and labour, began

⁸¹) On this subject see VIOTTI DA COSTA, *Da Colonia à Senzala*, S.Paulo, 1966; MELLO, *O Capitalismo Tardio*, op.cit; SILVA, S., *Expansão Cafeeira e Origens da Industria no Brasil*, S.Paulo, 1976.

⁸²- See SPINDEL, *Homens e Maquinas na Transicao de Uma Economia Cafeeira*.

to become relatively scarce. The techniques used by the farmers and the land shortage implied a continuous movement from the exhausted lands to new territories. The availability of land with the features necessary for coffee cultivation was limited with the impoverishment of the western region of Rio de Janeiro (Rezende, Vassouras, Valença etc). The productivity of the coffee tree in Rio de Janeiro increased after four years (the first crop) until ten years, and fell quickly after fifteen years.⁸³ Financial problems due to the level of the planter's debt, the high cost of slaves in the mid-1870's, and a scarcity of land suitable for coffee forced several members of families that had farms in the Paraíba Valley to move resources to S.Paulo⁸⁴. In this province the new lands of western S.Paulo (Campinas, São Carlos, Araraquara, Ribeirão Preto, etc), with rich lands known as 'terras roxas' - with soil as deep as twenty metres - proved to be exceptional for coffee plantations, and also seemed to continue for ever towards the west.⁸⁵ Higher profits allowed the Paulista planters to invest in their farms and also in related activities. For example, the 'despolpador', a machine that removed the skin

⁸³ - CANABRAVA, *A Grande Lavoura*, p.94.

⁸⁴ - Which implies that the claim that all the big farmers of the region went completely bankrupt must be received with strong reservations. See DEAN, W. 'Latifundia and Land Policy in Nineteenth Century Brazil' in *Hispanic American Historical Review*, #51:4 (Nov-1971); CANO, W. *Raizes da Concentração Industrial em S.Paulo*, op.cit..

⁸⁵ - The 'terra roxa' could have a depth from two metres to twenty, as was the case of Ribeirão Preto. In those lands the coffee tree life was longer than in Rio de Janeiro, keeping its productivity until twenty five years. See CANABRAVA, *A Grande Lavoura*, pp.92/95.

of the berries, was introduced in S.Paulo, increasing the productivity and the quality of the coffee.⁸⁶ Planters were also active in railway building, sharing with foreign banks investment in several railways to link Santos to the highlands of S.Paulo.⁸⁷

With the decline of the Paraíba Valley production there was also an acute crisis among the coffee commissarios in Rio de Janeiro. According to Ferreira, in her interesting study of the coffee commissarios of Rio de Janeiro, their origins seem to have been very diverse⁸⁸. They might be merchants who had a warehouse, who began to buy coffee from the planter and send him inputs, manufacturing goods, import products etc.. They might be the agents of a firm already established in a big city that had begun to develop their coffee business or they could be a member of a big planter's family sent to rent a warehouse, supervise and sell products in the market.

The commissarios became an important means of financing the coffee plantation. They themselves could easily be financed by banks in the city and the burden of

⁸⁶- This machine was powered by steam, although there were smaller manual operated versions. According to Spindel the gain of the mechanical process was more in quality than in productivity. She also argues that those farmers that did not have the skinner machine could rent it from a larger farmer or eventually from a 'comissario'. SPINDEL, *Homens e Maquinas na Transicao de Uma Economia Cafeeira*, p.52.

⁸⁷- For a study on Railways in Brazil see LEWIS, C., 'Railways and Industrialization: Argentina and Brazil, 1870-1929' in ABEL & LEWIS, ed., *Latin America, Economic Imperialism and the State*, London, 1984.

⁸⁸) FERREIRA, Marieta de Moraes, *A Crise dos Commissários de Café do Rio de Janeiro*, unpublished Msc. Dissertation, Universidade Federal Fluminense, Niteroi, 1977, pp.10/11.

financing the planters in the coffee areas became their responsibility. There is an extensive bibliography showing the close relationship of the comissarios with the planters⁸⁹.

The Comissarios at first only worked strictly as the representatives of farms, but after a time they began to do business on their own account, thereby acquiring progressive autonomy. They received the coffee from the farms; they made a preliminary classification of the product and then sold it, for the best price, to the intermediary (called ensacador) who made a blend of coffee with different characteristics and qualities to produce the standard required by the foreign markets or sometimes directly to the exporters. Finally, the coffee was bought from the comissarios or ensacador by a broker who acted as the representative of the export merchant⁹⁰. By the 1880's the structure of the coffee trade could be summarized as follows: (i) planter; (ii) comissario; (iii) ensacador; (iv) broker; (v) exporter⁹¹.

The comissario had a very extensive role in the coffee business since he was not only an agent and a

⁸⁹) See TAUNAY, *Pequena História do Café no Brasil, 1727-1937'*, Rio de Janeiro, 1939; STEIN, *Vassouras...*, op.cit.;; MOTTA, *A Civilização do Café*, S.Paulo, 1968 . In particular the studies of Stein and Motta show the structure of these operations, referring specifically to the activities of the Joaquim Teixeira Leite and Moreira Lima families as planters and comissarios in the Vassouras and Lorena regions respectively.

⁹⁰) CENTRO INDUSTRIAL DO BRASIL, *O Brasil, Suas Riquezas Naturais, Suas Industrias*, op. cit; , p.85, vol 2.

⁹¹) CANO *Raizes da Concentração Industrial em S.Paulo*, S.Paulo, 1977, p.81.

financier of the farmers but also gave them advice on investment and generally had a very close personal relationship with the planter and also sometimes had family links as well⁹². The operations involved in the commercialization of coffee were realized in the short term, that is the ensacadores bought from the comissarios with payment in 31 days, while the exporters paid the ensacadores in 20 days⁹³. But the operations between the comissarios and the farmers were of a completely different kind. The farmers received cash from the comissarios to buy new slaves and the comissarios also financed the new plantations and goods needed to face the yearly demands of production.

Therefore, the comissario needed a very large amount of capital to operate his business and in consequence appropriated a very large share of the coffee trade surplus, realizing very high profits on each operation. This contributed to a transfer of income from the planters of the Paraíba Valley region to the comissarios, which, in turn, reduced the capacity of the farmers to finance their own investments⁹⁴.

For their part, the comissarios were highly dependent upon a certain degree of liquidity among the

⁹²) The kinship could be through blood such as cousins, nephew, uncle; through marriage such as brother-in-law, or by more ritual ties, such as 'compadre', that is being the godfather of one's son.

⁹³) CANO, W. *Raizes da Concentração Industrial em S.Paulo*, op.cit., p.71.

⁹⁴) FERREIRA, Marieta de Moraes, *A Crise dos Commissários de Café do Rio de Janeiro*, op.cit, pp.54/55; CANO, W. 'Raizes da Concentração Industrial em S.Paulo', op.cit., p.30.

farmers, because they had large amounts of capital in their hands with very few formal guarantees. A crisis in the coffee plantation also implied a reduction of profits for the comissario business. This can be confirmed by a tendency towards a reduction in the withdrawal of profits from the comissario firms. Thus, from a sample taken by Ferreira, the profits withdrawn from the comissario firms fell from 18:901\$236 in 1870 to 15:643\$173 in 1880 and to 11:473\$308 in 1890. The same tendency may be verified in the average capital which was 286:191\$600 in 1870, 209:423\$769 in 1880 and 122:889\$646 in 1890⁹⁵.

The crisis of coffee plantations in the Paraíba Valley facilitated the exporters' penetration of the market, bypassing the ensacadores and the comissarios to buy the products direct from the planters. This competition for the intermediary activities in the trade was to be transferred to the new areas in the west of S.Paulo. However, there the role of the export merchants proved to be much more important than that of the comissarios⁹⁶. In those regions

⁹⁵) These figures must not be considered in absolute terms, but they show a clear tendency. The sample collected by Ferreira was 52 firms in 1870; 60 firms in 1880 and 44 firms in 1890. The primary data was obtained from the files of the Commercial Register in Rio de Janeiro. FERREIRA, Marieta de Moraes, *A Crise dos Comissários de Café do Rio de Janeiro*, op.cit., p.114.

⁹⁶- There is plenty of evidence of the penetration of Export Houses in the former comissarios activity, buying directly from the plantation, in the LABA ARCHIVES particularly in the correspondence between Greene, manager of Edward Johnson & Co, and London. An example is a letter from Greene to Reginald Johnston explaining the advantage of that strategy, where he argues that "the great advantage of buying coffee in the Interior is that you can generally obtain fine coffees for the price of superiors added to which we always

competition increased between the old British merchant houses that had controlled export activity since the beginning of coffee production and the recently arrived U.S. roasters, as well as the merchant houses of other nationalities. Thus Edward Johnston, a British merchant who arrived in Brazil in 1820, became an important shipper by the mid century and the largest exporter in the 1870's. Another British firm, Nauman Gepp, formed in the 1860's and incorporated in 1879, led the shipments from Santos⁹⁷. Among the bigger U.S. importers who established their houses in Brazil to win a better control of the trade and obtain better prices, may be found Arbuckle & Cia, which began to operate in Brazil in the 1880's and Hard, Rand & Cia, established in Brazil in 1880⁹⁸.

Until the 1880's these firms bought exclusively from the ensacadores or from the comissarios. During the decade of the 1890's the export houses, who saw the poor economic position of the comissarios who operated with the Paraíba Valley plantations and the reduced flow of finance from them to the farmers, began to send representatives to

have the profit of the rebagging in Santos. If Brooke can go up early next year I think we ought to dominate the two above mentioned markets [S. Jose do Rio Preto and Mococa] at any rate until the arrival of Naumann Gepp, L. Bulow & Co who will certainly try to follow us. In fact I heard in Sao Paulo that our interior business has already a good deal of attention in Santos." Letter from Greene to Reginal E. Johnston, 1/11/1899- LABA ARCHIVES.

⁹⁷) Greenhill, *The Brazilian Coffee Trade* in PLATT, D.C.M., *Business Imperialism*, Oxford, 1979, p.200.

⁹⁸) See *Impressões do Brasil no Século Vinte* (1913); pp.586 and 719.

the plantations to buy directly from them⁹⁹. Another factor in stimulating this movement was the competition for the export market between the older British houses and the late coming German houses and the firms representing U.S. importers. This competition for the control of the trade pushed the comissarios, who were Portuguese and Brazilian merchants, with few exceptions, out of this market¹⁰⁰. Even so the comissarios would continue to play a role up to the start of the First World War, but they entered into a rapid decline in the 1890's, which continued with the development of the banking system and the participation of the state in regulating trade¹⁰¹.

⁹⁹) See LABA ARCHIVES, particularly the correspondence between Greene and Edward Johnston's headquarters in London.

¹⁰⁰) See table VI.4. A remarkable exception was the Companhia Prado Chaves Exportadora. This firm had its origin in the Companhia Central Paulista, founded by Martinho, Antonio and Martinico Prado in the 1890's, possibly because they were dissatisfied with the available exporters. In November 1887, the Central Paulista changed its name to Prado Chaves & Cia with a capital of 500 contos de reis. Elias Antônio Pacheco e Chaves and Elias Fausto Pacheco Jordão entered as partners in the company. During the 1890's, the company's capital rose to 4,000 contos de reis and other relatives entered the administration. In the beginning, Prado Chaves exported coffee solely for the families Prado Chaves, Monteiro de Barros, Conceição and Portelle. Gradually the firm became the biggest Brazilian exporter in Santos. In 1912/13 the company's share in export from Santos was 16.8%. Between 1908 and 1923 the company founded branches in London, Hamburg and Stockholm. [See Levi *Historia da Bolsa de Valores do Rio de Janeiro*, op.cit., pp.254/255]

¹⁰¹) CANO, W. *Raizes da Concentração Industrial em S.Paulo*, op.cit., pp.71/72; FERREIRA, Marieta de Moraes, *A Crise dos Comissários de Café do Rio de Janeiro*, op.cit. p.94.

TABLE VI.4
PARTICIPATION IN THE CAPITAL OF COMISSARIOS' FIRMS BY ORIGIN

DECADE	BRAZILIAN	PORTUGUESE	OTHERS
1870	59%	40%	1%
1880	68%	30%	2%
1890	59%	34%	7%

Source: FERREIRA, Marieta de Moraes, A Crise dos Comissários de Café do Rio de Janeiro, unpublished Msc. Dissertation, Universidade Federal Fluminense, Niteroi, 1977; pg.101.

TABLE VI.5
TEN LEADING COFFEE EXPORTERS FROM RIO AND SANTOS.

RIO DE JANEIRO ^a	SANTOS ^b
1- Phipps Brothers	1- Theodor Wille & Co
2- Hard, Rand & Co.	2- Naumann, Gepp & Co
3- Edward Johnston & Co	3- Edward Johnston & Co
4- Mackinell & Co	4- Arbucle & Co
5- John Bradshaw & Co	5- Hand Rand & Co
6- Arbucle Brothers	6- Carl Hellwig & Co
7- Kern, Hayn & Co	7- Prado Chaves & Co
8- Wille, Schmilinsky & Co	8- Goetz, Hadyn & Co
9- F.Sauwen & Co.	9- Goetz, Hayn & Co
10- Norton, Megaw & Co	10- Zerrenner, Bulow & Co

Source: SWEIGART, J.E., Factorage and the Emergence of A Brazilian Capital Market; FAUSTO, B., Expansao do Cafe e Politica Cafeeira in FAUSTO, ed., Historia Geral da Civilizacao Brasileira- Republica.

NOTES: a- Leading exporters from the Rio de Janeiro port in volume for the period 1857-88.

b- Leading exporters from Santos port in volume for the period 1895-1907.

Another consequence of these changes was an increasing confrontation between the export houses and the planters. As the comissario generally received a commission

on the price of the coffee, they tended to share the interest of the planters in selling the coffee for the highest price possible in contrast to the interest of the exporters which was to buy at the lowest possible price.

Foreign exporters controlled completely the export market and, except for Prado Chaves & Co, there was not a single Brazilian firm among the ten largest exporters in Rio or in S.Paulo.¹⁰² However, there was a unique characteristic of the coffee market that, depending on the behaviour of supply, prevented prices from falling: the demand for coffee was price inelastic. Thus, the demand for coffee grew continuously independent of price oscillations. However, in the short-term the supply of coffee was also inelastic, which led to large price movements in the short-term, although there was stability in the long-term.¹⁰³

To show the relation between the coffee market and prices I prepared tables comparing the imports of coffee in value and volume from the U.S. and U.K. in the second half of the XIXth century with prices in Brazil and in the U.S.A. The U.S.A. was at the time the largest world consumer of coffee, while the U.K. was not a large importer for self-consumption, although it had a large re-export market in coffee¹⁰⁴. For example, as late as 1890, 79% of German

¹⁰²- See Tables VI.5.

¹⁰³- DELFIM NETO in *O Problema do Café no Brasil* studied the oscillatory movement of coffee prices. This author as well shows the correlation between coffee prices and exchange rate in Brazil. He is among the authors that sustain that demand for coffee is inelastic. See pp.30/31.

¹⁰⁴- In the years from 1880 to 1882, for example, home consumption was never more than a quarter of U.K.'s coffee

imports of coffee were bought in European markets, and it is very likely that the U.K would have been a large supplier due to the long tradition of her coffee merchants.¹⁰⁵ U.S. and U.K. imports represented in this period more than half the world market; as we have reliable information about those countries it can be used as a proxy to analyse the behaviour of the world's coffee market¹⁰⁶.

Tables VI.6 and VI.7 show that the imports of those countries grew steadily in volume from the 1850's to the 1880's. U.S. imports grew steadily, except during the 1860's period of the U.S. Civil War. Due to the oscillation of prices, imports in value grew until the 1870's and declined in the 1880's, increasing again in the next decade (See Tables VI.8, and VI.9).

The analysis of these tables shows that (i) prices have little influence on the volume of coffee demanded; (ii) changes in prices can affect the value of exports significantly; due to the inelasticity of demand, declining prices generally mean smaller exports in value

imports. Data from P.P., *Accounts Relation to Trade and Navigation of the U.K.*

¹⁰⁵- The information was obtained from WOODRUFF's statistical appendix in *The Impact of Western Man*. It also must be noted that in 1900 more than half German imports of coffee came from Latin America, and 47% of its imports came from Brazil. At this date Germany bought only 15% of its coffee imports in Europe. The tendency of European countries to buy coffee direct from the suppliers overseas must be a reason for the reduction of U.K coffee imports after the 1880's.

¹⁰⁶- Between 1891 and 1900 U.K and the U.S.A. represented about 57% of the world's import of coffee. Total world imports for this decade were obtained in HOLLOWAY, T., *The Brazilian Coffee Valorization of 1906*, The State Historical Society of Wisconsin, Madison, 1975.

although demand continues to increase, and the opposite is true in relation to increasing prices.¹⁰⁷

TABLE VI.6
COFFEE MARKET- AVERAGE ANNUAL DATA
(IN 1000 SACKS)

IMPORTS			EXPORT	PRICE £/sack		
PERIOD	U.S.A.	U.K.	TOTAL ^a	BRAZIL ^b	BRAZIL ^c	U.S.A. ^d
1851-1860	1 539	774	2 313	2 625	1.89	2.21
1861-1870	1 311	1 896	3 207	2 885	2.36	3.36
1871-1880	2 515	1 734	4 249	3 634	3.11	3.94
1881-1890	3 879	1 454	5 333	5 332	2.54	2.96
1891-1900	4 340	1 114	5 454	7 449	2.52	3.89

Source: IBGE-Serie Estatísticas Retrospectivas, Rio de Janeiro 1986; MITCHELL, B.R., British Historical Statistics, Cambridge University Press, 1988; U.S. DEPARTMENT OF COMMERCE, Historical Statistics of The u.S., Washington, 1975.

NOTE: a- Average annual U.S.' and U.K.'s coffee import in sacks of 60kg (132 pounds). Total U.K. imports in sacks was computed by the division of total U.K. imports in sterling by the average annual implicit price of coffee of the U.S. imports.

b- Average annual Brazilian exports in sacks of 60kg.

c- Average annual implicit price per sack of Brazil coffee exports; that is, total Brazilian exports in pounds sterlings divided by total exports in sacks.

d- Average annual implicit price per sack of U.S. coffee imports; That is, total U.S. imports in value divided by total U.S. import in sacks. Prices were converted to sterling by the exchange rate quotation of New York financial market.

¹⁰⁷- For example demand in sacks grew 13% from the 1871-80 decade to 1881-90; demand in value, however, fell from £16.6 million to £15.6 million due to the fall of prices in the U.S. by 25%. In the next decade the opposite happened, the quantity demanded remained stable and the market value of the imports grew 30 % due to the return of prices to the previous decade price. See Tables VI.6, VI.7, VI.8 and VI.9.

TABLE VI.7
COFFEE MARKET- SELECT DATA
(IN VOLUME: 1851-60=100)

IMPORTS			EXPORT	PRICE £/sack		
PERIOD	U.S.A.	U.K.	TOTAL	BRAZIL	BRAZIL	U.S.A.
1851-1860	100	100	100	100	100	100
1861-1870	85	245	139	110	125	107
1871-1880	163	224	184	138	165	178
1881-1890	252	188	231	203	134	134
1891-1900	282	144	236	284	133	176

Source: Table VI.7

TABLE VI.8
COFFEE MARKET- SELECT DATA
(IN £ 1,000,000)

IMPORTS			EXPORT	PRICE £/sack		
PERIOD	U.S.A.	U.K.	TOTAL ^a	BRAZIL ^b	BRAZIL ^c	U.S.A. ^d
1851-1860	3.4	1.8	5.2	5.0	1.89	2.21
1861-1870	3.1	4.2	7.3	6.8	2.36	2.36
1871-1880	9.9	6.7	16.6	11.3	3.11	3.94
1881-1890	11.5	4.1	15.6	13.6	2.54	2.96
1891-1900	16.9	3.5	20.4	18.8	2.54	3.89

Source: IBGE-Serie Estatísticas Retrospectivas, Rio de Janeiro 1986; MITCHELL, B.R., British Historical Statistics, Cambridge University Press, 1988; U.S. DEPARTMENT OF COMMERCE, Historical Statistics of The U.S., Washington, 1975.

NOTE: a- Average annual U.S.' and U.K.'s coffee import in value. Prices were converted to sterling by the exchange rate quotation of New York financial market.

b- Average annual Brazilian exports in value.

c- Average annual implicit price per sack of Brazil coffee exports; that is, total Brazilian exports in pounds sterlings divided by total exports in sacks.

d- Average annual implicit price per sack of U.S. coffee import; That is, total U.S. imports in value divided by total U.S. import in sacks.

TABLE VI.9
COFFEE MARKET- SELECT DATA
(IN VALUE:1851-60=100)

IMPORTS			EXPORT	PRICE £/sack		
PERIOD	U.S.A.	U.K.	TOTAL	BRAZIL	BRAZIL	U.S.A.
1851-1860	100	100	100	100	100	100
1861-1870	91	233	140	131	125	107
1871-1880	291	372	319	226	165	178
1881-1890	338	228	300	272	134	134
1891-1900	497	194	392	376	133	176

Source: Table VI.9

Due to this market characteristic and also due to the absence of alternative sources of supply, Brazilian planters were able to transfer to importer countries any increase in their costs, and to increase the profit rate in case of any increase in productivity. The main problems of coffee found a solution in the lands of West S.Paulo province. Railways and the high quality of land in west S.Paulo were an efficient response to the increasing costs caused by distance or scarcity of land in the Paraiba Valley. The supply of labour was solved with state financial support of immigration and with the adoption of wage payments to colonos.¹⁰⁸ Oscillation in the short-term of

¹⁰⁸- In this system the planter allotted a worker a plot of land already cleared had planted with coffee. For the next four years the worker tended the growing coffee and at the same time was allowed to raise such food crops as corn and beans in the space between the seedlings. At the end of the period the planter, who had paid little or no wages to the immigrant in the interim, received the original plot of land with coffee trees in full production. After the coffee trees were in full production workers called colonos were hired under annual contracts to carry out the various plantation

coffee prices affected the mil-reis exchange rate, leading to smaller domestic effect from international price changes¹⁰⁹. Therefore, coffee prices would only systematically fall if production increased above the level of world market demand; in the short-term, however, coffee prices depended on the buffer stocks dominated by foreign firms.¹¹⁰ From the late 1880's to mid-1890s prices were maintained at high levels due the final bankruptcy of Asian production caused by the 'coffee bug'. At the end of the 1890's the prices began again to fall. The export merchants' and planters' struggle in the first decades of the republic is out of the scope of this work. However, I shall remark that it was the very special characteristic of the coffee market that allowed the planters to use their political power and their control of the State under the old republic to impose their own conditions on the domestic and international market by a government-sponsored policy of interference that became known as coffee valorization.

Coffee's success was due to Brazil's very particular position in the coffee world trade, when there was no other country that could respond to higher prices by quickly increasing production and capturing the Brazilian

operations. The planter paid wages per task performed. In this way the plantation operating expenses dropped during periods of little activity, and the workers were given incentive to complete as much of a given task as possible in the shortest time. See HOLLOWAY, *The Brazilian Coffee Valorization of 1906*, p.18.

¹⁰⁹- DELFIM NETO, *O Problema do Café no Brasil*.

¹¹⁰- See HOLLOWAY, *The Brazilian Coffee Valorization of 1906*, p.13..

share of the market. The same process was not possible in the rubber market. Although some parallels can be drawn between the two markets, the differences show how unique the coffee case was; Brazil completely surpassed Asian production, securing an overwhelmingly large share of the world coffee market. In the case of rubber, exactly the opposite happened. A better opportunity for investment in Asia by the firms linked to the large manufacturing groups that had rubber as their raw material left the Brazilian and Portuguese merchants, who exercised domestic control over the rubber business as 'aviador houses', no other option but to change their business or go bankrupt.

Rubber was a great and ephemeral source of wealth in Brazil. In 1880 it comprised 5.5% of Brazilian exports. Twenty years later in 1900 it reached 19.6% and ten years later it totaled 39% of exports. It grew from £ 1,091,000 in value in 1880/81 to £ 6,499,000 in 1900, up to a maximum of £ 16,099,000 in 1913. By 1920 its share in exports had fallen to 3.3% and ten years later to 1.2%. The value of rubber exports fell to £ 2,742,000 in 1920 and to £ 764,000 in 1930¹¹¹.

The structure of rubber production was characterized by a chain that began with the tappers on the rubber estates and finished with the big export houses in the port of Manaus and Belém. The extraction of rubber first required the opening of trails to be used by the tappers to

¹¹¹) These data are from SERIES ESTATISTICAS RETROSPECTIVAS, IBGE, reprint da separata do AEB 1939-40.

collect the latex, which was obtained by incisions in the bark of the rubber trees. This was then transported from the streams (igarapés) in the jungle to the side of the rivers to wait for collection by small steam ships (gaiolas) and then transported to the cities and delivered to the aviador houses¹¹². Sometimes the small aviador houses bought the rubber from tappers who were themselves small seringalistas, i.e., owners of rubber estates, and sold the latex to bigger merchants.

Some export houses either tried to buy rubber estates or organized systematic planting at different times in the Amazonas region. Generally they were unsuccessful and very few companies would risk undertaking such activities. Difficulties in establishing such projects in Amazonia and problems with the labour force made the attempts non-viable¹¹³. Thus, by the 1880's the structure of the rubber

¹¹²) PRADO & CAPELATTO, 'A Borracha na Economia Brasileira da Primeira República' in FAUSTO, B., ed..*História Geral da Civilização Brasileira*, S.Paulo, 1975, p.292.

¹¹³) One of a very few cases where a U.S. conglomerate acquired a very large area in Amazonia with the intention of investing a large amount of capital was in 1902 when the Bolivian Government announced its plans to lease out thousands of square miles in the Acre region to a group that would assume economic and civil authority. But, as most of the population in Acre were Brazilians, this was seen by the Brazilian authorities as a challenge to Brazilian sovereignty in the Amazon, and this fact created the political conditions for an uprising by the Brazilian population in the area which, supported by the Brazilian government, led to the Brazilian acquisition of Acre from Bolivia. WEINSTEIN, *The Amazon Rubber Boom*, Stanford, 1983, pp.176/177] On labor problems in Amazonas Weistein argued that "*Henry Ford, with financial resources that far surpassed any seringalista, saw his Fordlandia planting venture go down to defeat owing to labor problems; it is difficult to imagine how even the wealthiest planter could have succeeded*". [Ibid., p.32]

trade could be summarized in the following way: (i) tapper; (ii) seringalista; (iii) local aviador house; (iv) regional aviador house; (v) export house.

The main position in the rubber business was taken by the aviador house which filled the function of middleman between the tappers, the small local merchants and the owners of the rubber estates on one side, and the export house on the other¹¹⁴. The aviador sold to the exporter or sometimes gave him the rubber under consignment. This was the first transaction to consistently take place on a cash basis¹¹⁵. Below the level of the aviador house, cash deals were not the rule. The economic system of extraction promoted a patron-client relationship. This relationship was based on credit indebtedness that formed a chain from the tappers to the big aviador houses. A trader expected his client to collect rubber for his patron, to shop in his store and to refuse to trade with roving traders (regatões)¹¹⁶.

The export houses generally acted as agents for rubber-buying firms in New York or Liverpool, but there were also some independent companies (e.g. J. Marques) which were contracted by foreign firms or individuals interested in importing rubber or other amazonian products. There were also several export houses, branches of international

¹¹⁴) WEINSTEIN, *The Amazon Rubber Boom*, op.cit, pp. 176/177 in WANGLEY, C. *Man in Amzaonia*, University of Florida, 1974

¹¹⁵) PRADO & CAPELATTO, 'A Borracha na Economia Brasileira da Primeira República', op.cit., (1975), p.298

¹¹⁶) MORAN, E. *The Adaptative System of the Amazonia Caboclo*, 1974..

merchant houses, such as R.T.Sears or Adalbert H. Alden, of W.R.Grace and A.H.Alden respectively¹¹⁷.

The relationship of the aviador house with the export house followed paths that have some similarities with the coffee trade, but before discussing the similarities, the differences must be emphasized. The rubber middleman (casa aviadora) had a power in the trade that the comissario never had. He dealt with the owners of small rubber estates that tapped their own trails or he might be the owner of a large rubber estate, who dealt with the tappers that worked for a share of production. In either case there was very little cash money and very little influence on the part of the tappers.

In the coffee business, despite the importance of the comissario, the landowners were rich and politically influential and, particularly in the S. Paulo region, were successful entrepreneurs and plantation owners. They controlled not only the regional state apparatus but also national politics; they were strong not only in relation to the comissarios but also in relation to the exporters¹¹⁸.

In the rubber trade the casa aviadora was very strong in relation to the productive sector, but very weak

¹¹⁷) A source of data on foreign firms that invested in rubber is CASTRO, A.C. *Empresas Estrangeiras no Brasil*, Tabela Matrix, Rio de Janeiro, 1979. See also *Impressões do Brasil no Século Vinte*(1913), p.913; WEINSTEIN, *The Amazon Rubber Boom*, op.cit., p.308, n.28.

¹¹⁸- The successful valorization plan is a proof of the strength of the Paulista farmers in dealing with exporters, who in some cases, e.g. the branches of big U.S. roasters, had an interest in buying the product for the lowest possible price.

in relation to the export houses. The conflict between the casa aviadora and exporters was to increase with time, in a similar way to the conflict of the comissarios with the exporters. The bankrupting of the aviador house would not put a class of landowner entrepreneurs in direct contact with the exporters, but would lead the export houses to control directly the whole productive structure. Another similarity with the coffee trade was that most of the aviador houses belonged to Brazilians or Portuguese and most of the export houses were owned by foreigners.

The number of foreign companies that invested in the rubber trade was large. Most of the export houses had a direct or indirect link with the big importers in the U.S. and Europe. The common practice was that the agent could change the name, but the house remained the representative of the same overseas firm. Their other business as importers and bank agents was always a secondary business to their export trade¹¹⁹. On the other hand, the Portuguese and Brazilian merchants that acted as aviador houses seldom handled the export business directly.

The expansion in the export of rubber began to accelerate once the vulcanization process was developed during the 1840's; from the 1870's there was a rapid increase in Brazilian exports, that became a boom in the

¹¹⁹) *Impressões do Brasil no Séc.XX* (1913), p.986. Weinstein (1983), p.139, remarks that sometimes Portuguese and Brazilians operated branches or partnerships with a number of European and U.S. export houses. As an example, she quoted the case of Henrique de La Roque and José Armando Mendes.

next decades. This process was accompanied by an increasing number of foreign commercial firms opening export houses in the Amazonia region¹²⁰. The development of the aviamento system facilitated the import of a workforce from the northeast regions and set up the pattern of a very scarcely monetized economy which is the main characteristic of this kind of organization. The system provided big profits for the large aviador houses which lay at the end of a long line of middlemen. These merchants were usually established in the cities of Belém and Manaus, and they shared a close relationship with the exporters in the local commercial association. But, as in the case of coffee, the interests of the export houses and the aviador houses were divergent, as the latter would gain by increasing the price, and the former, being generally agents of foreign buyers, struggled to buy at the lowest price they could get.

From the 1880's there was a continuous process of concentration in the rubber export-trade. Merchants such as Ernesto Schram (later Zarges, Ohlinger & Cia), Sears & Co (a subsidiary of W.R.Grace & Co) and La-Roque da Costa & Co together handled approximately half Brazil's exports in the last decades of the XIXth century. The conflicts between the aviador houses and the foreign merchants who operated as export houses are well illustrated in the history of the

¹²⁰) Data available in IBGE, Anuário Estatístico do Brasil, 1939/40 and Castro, 'Tabela Matrix', op.cit..

Barão de Gondoriz and his struggle for the control of the export market¹²¹.

João Caetano Gonçalves Vianna was a Portuguese merchant who arrived in Brazil during the 1860's and became first Barão and later Visconde de Gondoriz¹²². During the 1870's he committed himself to finding allies in an attempt to reverse the downward price of rubber and to endeavor to control the world supply of this product. This was possible since Amazonia was practically the only producer of raw rubber. The world supply from all sources in 1875 was less than 10,000 tons; control of the world market could be obtained with half of this quantity. By the end of the decade he began to borrow money from banks and to buy large amounts of rubber, pushing its price up. After 1881 the Baron, who until then operated through his firms of Barros & Vianna and J.C. Gonçalves Vianna & Co, began to organize a shareholding corporation of aviadores to operate in the export market. Therefore they established the Companhia União Comercial. This firm accumulated five million dollars worth of rubber and tried to imposed the price of US\$1.25

¹²¹) The history of Baron of Gondoriz will be largely based on WEINSTEIN, *The Amazon Rubber Boom*, and SANTOS, *História Econômica da Amazônia*, S.Paulo, 1980

¹²²) Weinstein stated that the Baron arrived in Brazil in 1863 to work as a clerk in the house of Vincente Ruiz d'Oliveira. According to this author, he was the son of a quite prosperous Portuguese merchant based in Rio de Janeiro. In fact it was very common among Portuguese, and other immigrants to contract people from their country of origin, to work with them. However the social origins of the Baron could be attested to by the fact that at 19 years old he became the partner of his employer. WEINSTEIN, *The Amazon Rubber Boom*, op.cit, pp.140 and 307, n.11.

per pound on British and U.S. manufacturers. The former agreed to the Baron's demands, but the latter declined to do so. They resisted the Baron's terms and refused to buy rubber at such a price¹²³. This strategy finally defeated the Baron's attempt and his company had to sell the rubber stocks with heavy losses. Although the Companhia União Comercial survived the blow, it operated on a much smaller scale until 1884, when it closed.

On the other hand, after 1880, the U.S. rubber manufacturing companies began to organize their own cartel, which was called the New York Trading Company. According to Santos, the members of this company operated in the market as independent firms for five years, but actually acted in collusion¹²⁴. In Brazil the cartel representative was the subsidiary of the commercial house W.R. Grace. Thus the 1880's saw an increased growth in the power of the big export houses, and a decay in that of the aviador houses. Although some of the latter firms might have still had a share of the exports, their participation declined each year. By the end of this decade, Ernesto Schram, who represented Heybut, Symons & Co of Liverpool, had become the biggest exporter. This firm was followed by Sears & Co, which was the leading supplier to the U.S.A. After that there was La-Roque da Costa & Co, founded By Frank da Costa and Henrique de La-Roque in 1885, which acted on behalf of a

¹²³) Ibid., p.142, suggested that the U.S. manufacturers had been passing through a period of over-production and could reduce output temporarily

¹²⁴) SANTOS, *História Econômica da Amazônia*, op.cit., p.219.

U.S. company although one partner was born in Brazil. Their behaviour was similar to that of the other exporters. These houses represented most of the market except during the active years of the Barão de Gondoriz' company, the other exporters being smaller foreign merchant houses and some local aviador houses¹²⁵.

Although strictly beyond the scope of this thesis it is very useful to present certain aspects of the evolution of the rubber market in the first decades of the republic. In 1892 the United States Rubber Co was founded through the merger of several companies, such as the American Rubber Co., the Boston Rubber Co., L. Gandel & Co., Goodyear's Metallic Rubber Shoe Co., Lycoming Rubber Co., Meyer Rubber Co., National India Rubber Co., New Brunswick Rubber Co., New Jersey Rubber Shoe Co. and Pará Rubber Co.. This company intended to obtain a guaranteed supply of the product and therefore decided to invest in shipping lines; it operated by buying direct from the seringalista and bypassing the aviador houses¹²⁶. This was not an isolated movement as a French company was also founded in 1899 to exploit rubber in the Congo and Amazonas. The firm, called Comptoir Colonial Français, bought a very big rubber estate from the house of F.M. Marques & Co. with about 300 square miles, 2,500 open trails, 200,000 heveas, several trading ports, huts, boats and three steam boats. This trend also

¹²⁵) WEINSTEIN, *The Amazon Rubber Boom*, op.cit.,, p.145.

¹²⁶) SANTOS, *História Econômica da Amazônia*, p.221.

encompassed the question of Acre and the Bolivian Syndicate¹²⁷.

In 1904 agencies of U.S. Rubber were established in Belém and Manaus by their lawyer William Ivins. In the following year their subsidiary General Rubber Co. was authorized to operate in Brazil with a capital of US\$1,000,000¹²⁸. Around this period it took over the Rubber Goods Manufacturing Co. and consolidated its position as the largest consumer of india Rubber. In Brazil the General Rubber Co took over the firm of William Symington & Co in 1906 and began to extend its European market¹²⁹.

If in the coffee market the tendency towards increasing control by foreign merchants was limited by the political power of the planters which allowed them to retain a substantial share of the surplus, the limiting factor in the rubber market was of a different kind. The foreign companies that tried to invest directly in production could never operate successfully through the system of *aviamento*, as the system depended on a deep knowledge of the region, the contradictory relationship of favours and the use of violence and, finally, on the establishment of a complex and traditional patron-client relationship¹³⁰.

¹²⁷) See WEINSTEIN, *The Amazon Rubber Boom*, op.cit., p.172. On the Bolivian Syndicate see note 33.

¹²⁸) Castro, *Empresas Estrangeiras no Brasil, Tabela Matrix*, op.cit..

¹²⁹) SANTOS, *História Econômica da Amazônia* p.221.

¹³⁰) "The French and English businessmen who undertook to manage properties bought up by the foreign companies were generally ill-equipped, politically and socially, to form relationships of this type" WEINSTEIN, *The Amazon Rubber Boom*, p.181].

On the other hand, investment in the Asian states began to be seen as the best option available after Brazilian production had reached its zenith in 1910 and decline became unavoidable. Any attempt at a valorization policy such as that operated in the coffee market was out of the question. In that case Brazil had the biggest share of world production with a well-organized and highly productive plantation system that surpassed Asian production in Java and in Ceylon. In the case of rubber, the Asian production was more efficient, not only being more productive per hectare but also having smaller salaries to pay and an abundant labour supply. Companies that had subsidiaries in Brazil, such as U.S. Rubber, began to invest heavily in Asia. In 1912 this company had 13,153 hectares in Asia which quickly increased to 32,376. It hired 10,000 coolies in Sumatra and planted 2,500,000 Heveas Brasiliense saplings to set up the biggest Hevea Plantation in the world. Finally, the Amazonia rubber debacle represented a heavy reduction in the regional income and bankruptcy for the aviador houses that, restricted to the national market, saw their assets devalued¹³¹.

Thus in both the coffee and rubber market there was the same movement by the foreign firms from a solely export operation to increasing control of the market, taking over the functions performed by the Brazilian and Portuguese middlemen. In the coffee market this movement was limited

¹³¹) SANTOS, *História Econômica da Amazônia*, pp.235/243, made a very detailed description of this debacle.

due to the particular characteristics of the coffee market and due to the political strength of the planter class that dominated the governmental apparatus in Brazil. In the rubber market the limitation on this control was the difficulties involved in direct operations given the geographic and social conditions of Amazonia on the one hand and the interruption of this process by a more profitable investment alternative in Asian plantations on the other. However, in both cases, the Brazilian and Portuguese merchants that operated as middlemen had to change their capital from export activities. In coffee, some of the comissarios were able to invest in financial activities or other entrepreneurships derived from the coffee trade ¹³²; in rubber they had a more dramatic end - ironically resembling the collapse of coffee production in Ceylon. With the collapse of the rubber boom, Brazilian and Portuguese merchants had to close their operations or they would have been inevitably bankrupt.

VI.4- CONCLUSION

The dynamics of the coffee and rubber market extended into a more modern period than is the object of this thesis, but they reveal the effects of a very important aspect of the Brazilian economy which was deeply rooted in the previous decades: the incapacity of Brazilian producers

¹³²- See SWEIGERT, J.E., *Coffee Factorage and The Emergence of Brazilian Capital Market, 1850-1888*, N.York and London, 1987.

to deal with falling prices by increasing the productivity of their business. In fact, under Brazilian conditions it was very hard to be successful even in the export trade, which was the business most favoured by the government. The barriers that curbed industrial development also curbed capital accumulation in agriculture. It was not possible to create a completely adequate environment for the development of capitalist agriculture, whilst blocking the development of manufacturing. Economic development is, within certain limits, indivisible. It was not possible to develop a financial structure that only met the needs of export agriculture and it was not possible to set up a successful capitalist sector in a mercantile-slavocrat society without undermining its foundations. The unstable balance between the forces of change and the forces of the **status quo** in Brazil led to a particular partial development of the Brazilian economy in the last decades of the century, where there was the solitary success of coffee export and the moderate success in the establishment of a domestic manufacturing sector for light consumer goods.

It is interesting to note that, following the aftermath of the Paraguayan war, coffee was used as an important source of finance for Brazil and a tax on foreign consumers of 13% could be imposed with impunity. In 1870 a U.S. envoy to Brazil complained about this and the trade imbalance between two nations as follows:

"I did not assume that we had any right to complain of the course of Brazil in dealing with

her great staple, or that her policy was chargeable with the present condition of trade by which we were obliged to pay in gold almost entirely for the enormous quantities of coffee we imported and consumed, which gold went to enrich the manufacturers and producers of other nations; but I have urged the fact of this actual condition of trade between the two countries being unfavorable to us (their largest importers) as demanding, in my opinion, a most earnest and thorough consideration from the statesmen of both".¹³³

However this same envoy, H. Blow, saw clearly that it was a huge mistake for Brazil to try to repeat what it did with coffee with other crops¹³⁴. Brazil was able to get the best from the coffee market; she had good prices and weak competitors when she increased her exports without technical change in the Paraiba Valley, and, due to the collapse of Asian competition (strongly helped by the 'coffee bug' plague in those islands), she was able to increase profits when productivity grew in the Western S.Paulo region. When growing production - due to higher productivity and higher profits- threatened to reduce prices drastically, Brazilian planters were able to impose conditions and to control coffee supply successfully using a German export house as agent and British capital to finance their operation¹³⁵. So, the near monopoly that Brazil had in coffee in the world market - and the regional economy that was developed around this staple in S.Paulo - allowed the spillover of coffee profits to set up the basis of the

¹³³) Mr. H.T. Blow, U.S. Commercial Reports, June 18, 1870.

¹³⁴- Ibid.

¹³⁵- See Holloway, *The Brazilian Coffee Valorization of 1906*.

modern Brazilian, and particularly, modern Paulista capitalist economy. Therefore this chapter gives me grounds to sustain the following conclusion: **despite coffee, Brazil was an economic failure in the XIXth century, but due to coffee Brazil was able in the last years of the XIXth century to create the basis for her dynamic economic growth in the XXth century.**

CONCLUSIONS

Economic Development is too complex a phenomenon to be explained by a small number of causes. Actually, this is a subject the scope of which goes beyond economics and - as Hicks said of economic history - *"is to be a forum where economists and political scientists, lawyers, sociologists, and historians - history of events and of ideas and of technologies- can meet and talk to one another"*.¹ Therefore, without intending to have proposed a definitive explanation for the causes of Brazil's failure of economic development - since there is no such thing as a definitive explanation in economic history- I hope to have presented and shown the relevance of some alternative arguments to the traditional approaches to Brazilian economic history in the XIXth century.

Although relatively simple, the points of these arguments give rise to a wide number of questions which are not yet answered. They should, therefore, create more interest for and demand more research on those aspects of Brazilian economic history which are still little understood. This thesis proposed that: (i) Brazil's economic performance in the XIXth century was mediocre. This failure was due not only to Brazil's inability to develop a growing manufacturing sector but also to her inefficiency in improving agricultural productivity using its huge land resources to increase its share of world trade;

¹- HICKS, J. *A Theory of Economic History*, p.2

(ii) Brazil's failure of Economic development was not determined a priori. I rejected those explanations which give structural traits as the sole reason for Brazil's economic performance. Although I do not deny that there were barriers to Brazil's economic development, I suggested that there are other, equal or more important reasons, which have been traditionally overlooked in the literature on Brazil's economic development. The point here is that internal reasons, expressed in the decisions made by economic and political agents, should be the key for an understanding of Brazil's economic performance in so far as these decisions could have contributed either to overcome or to reinforce the barriers to economic change;

(iii)- In this sense the Brazilian failure- which, I repeat, is a failure not only as a manufacturer, but also as an exporter - should be related to her inability to change the internal economic structure. That is, since there was no opportunity for development through the slow process of internal reinvestment of profits, by private firms, as happened in the British case, for Brazil the alternative would have been the paths followed by the XIXth century European latecomers, that is, the use of financial capital as a source of investment, or, in the more backward countries, the energetic action of the State. In Brazil, several constraints were imposed on those who wished to develop entrepreneurial urban activities, and opportunities to develop a larger domestic market - which in its turn

would create further opportunities for investments - were lost. The government, that might have been the most important agent in overcoming the missing prerequisites to economic development, influenced by an inadequate evaluation of Brazilian economy, implemented economic policies - particularly monetary ones - which not only did not help in overcoming those barriers but also strongly contributed to making them harder to overcome.

(iv)- The success of coffee, which - at least in the first phase in the Paraíba Valley - was due more to the weakness of Brazilian competitors than to the dynamism of Brazil's coffee industry, was an exception. Brazil, however, was able to benefit enormously from the success of coffee. When modernization and increased productivity were achieved in coffee expansion toward Western S.Paulo, international market conditions provided higher profits rather than lower prices. Nevertheless, despite coffee, Brazil was an economic failure in the XIXth century, but due to coffee Brazil was able in the last years of the XIXth century to create the basis for her dynamic economic growth in the XXth century.

STATISTICAL APPENDIX A:
MISCELLANEOUS DATA ON TRADE AND PRODUCTION
OF MANUFACTURED PRODUCTS

TABLE A.1
BRAZIL: MANUFACTURES WHICH OBTAINED BENEFIT
OF DUTY FREE RAW MATERIALS IMPORTS-(1856)

PROV	Nº	Manufacture	Production Value(1:000\$000)	SL	FG	FB	WM	M	Total Workers
C.M	1	Brewery	60.0	-	10	-	2	8	10
	16	Hat Manufactures	1190.0	116	211	111	44	438	482 ¹
	1	Rope Factory	20.0	2	2	-	-	4	4
	1	Varnished Hides	136.2	29	11	18	-	58	58
	1	Foundry	n.a	n.a	n.a	n.a	n.a	n.a	n.a
	1	Metallurgy	n.a	5	-	-	-	5	5
	6	Snuff	358.4	107	13	2	-	122	122
	12	Soap and Candles	2162.0	172	86	18	7	269	276
	1	Silk textiles and Lace	n.a	17	2	3	-	22	22
	1	Glass	n.a	7	-	1	-	8	8
	1	Vinegar	100.0	28	24	-	-	52	52
	43	Total	4026.6	533	359	153	53	986	1039
R.J	1	Brewery	n.a	n.a	n.a	n.a	n.a	n.a	n.a
	2	Foundry	1000.0	121	206	96	-	423	423
	1	Paper	n.a	4	1	4	-	9	9
	1	Chemistry Products	n.a	n.a	n.a	n.a	n.a	n.a	n.a
	1	Soap and Candles	n.a	n.a	n.a	n.a	n.a	n.a	n.a
	10	Total	1000.0	125	207	100	-	432	432
B.A	1	Hats	60.0	14	11	12	6	31	37
	3	Foundry	109.0	5	16	158	-	179	179
	4	Snuff	n.a	30	8	9	-	47	47
	2	Soap and Candles	70.1	-	23	6	7	22	29
	10	Total	239.1	49	58	185	13	279	292
P.E	3	Foundry	800.0	45	42	141	-	228	228
	1	Soap and Candles	n.a	-	6	56	-	62	62
	4	Total	800.0	45	48	197	-	290	290
M.A	1	Gas Manufactures	n.a	n.a	n.a	n.a	n.a	n.a	n.a
	1	Soap and Candles	n.a	n.a	n.a	n.a	n.a	n.a	n.a
	2	Total	n.a	n.a	n.a	n.a	n.a	n.a	n.a
P.A	1	Soap	n.a	11	2	-	-	13	13
	1	Total	n.a	11	2	-	-	13	13
M.G	1	Hats	39.0	20	2	5	4	23	27
	1	Total	39.0	20	2	5	4	23	27
S.P	6	Hats ²	138.2	29	25	13	19	62	81
	1	Gas Manufactures	n.a	n.a	n.a	n.a	n.a	n.a	n.a
	12	Total	138.2	29	25	13	19	62	81

(continues overleaf)

TABLE A.1
BRAZIL: MANUFACTURES WHICH OBTAINED BENEFIT
OF DUTY FREE RAW MATERIALS- (1856)
(continuation from the last page)

PROV	Nº	Manufacture	Production Value (1)	SL	FG	FB	WM	M	Total Workers
R.S	8	Hats	152.5	40	10	12	5	57	62
	1	Gas	28.0	-	3	-	-	3	3
	3	Soap and Candles	n.a	n.a	n.a	n.a	n.a	23	23
	12	Total	180.5	40	13	12	15	83	98
General		Total							
	2	Brewery	60.0	-	10	-	2	8	10
	32	Hat Manufactures	1579.7	219	259	153	78	611	689
	1	Rope Factory	20.0	2	2	-	-	4	4
	1	Varnished Hides	136.2	29	11	18	-	58	58
	9	Foundry	1909.0	171	264	395	-	830	830
	1	Paper	n.a	4	1	4	-	9	9
	1	Metallurgy	n.a	5	-	-	-	5	5
	10	Snuff	358.4	137	21	11	-	169	169
	22	Soap and Candles	2401.1	183	117	80	14	389	403 ³
	1	Chemistry Products							
	1	Silk textiles and Lace	n.a	17	2	3	-	22	22
	1	Cotton Textiles	n.a	n.a	n.a	n.a	n.a	n.a	n.a
	2	Glass	n.a	7	-	1	-	8	8
	1	Vinegar	100.0	28	24	-	-	52	52
	3	Gas	28.0	-	3	-	-	3	3
Total			6592.4	802	714	665	94	21682262 ⁴	

Source: Computed from RMF-1856

(1)- There is a mistake in the original source. The hat factory of Thiago Commige was registered as having 30 workers, 3 Brazilians, 8 foreigners and 14 slaves, which makes an unexplained difference of five workers. It is also inconsistent the total number of men and women workers with the data of workers per nationality.

(2)- There is a mistake in the original source. The hat factory of João Bierrenbach is registered as having 34 workers, being 6 free Brazilians, 6 foreigners and 8 slaves. It was declared that there was 22 men and 6 women. These numbers are completely inconsistent.

(3)- The sum of free Brazilian, foreign and slave workers is not equal to the total of workers because the data on soap and candles manufacture for the province of Rio Grande do Sul stated only that they employed 23 men, without dividing them by categories.

(4)- The difference in the Sum of free Brazilian, foreign and slave workers and the total workers is due to mistakes in the original source

OBS: Abbreviations:

SL- slaves; FG- foreigners; FB- free brazilians; WM- women; M- men; CM- Court Municipality, city of Rio de Janeiro; R.J-Province of Rio de Janeiro; B.A- Province of Bahia; P.E- Province of Pernambuco; M.A- Province of Maranhão; P.A- Province of Pará; M.G- Province of Minas Gerais; S.P- Province of São Paulo; R.S- Province of Rio Grande do Sul; n.a- non available.

TABLE A.2

BRAZIL: EXPORT OF CRAFT AND MANUFACTURING PRODUCTS- 1839/49
(in 1\$000)

PRODUCT	1839/40	1840/41	1841/42	1842/43	1843/44
Crackers, biscuits and loaves	41,330	22,870	21,583	20491	21678
Lime	2,307	1,868	6,333	4,487	1,060
Hide and Cloth shoes	13,674	12,420	9,512	6,103	4,021
Cheese	1,040	1,221	1,142	1,250	2,932
Mat and other straw work	8	3,393	6,122	8,069	8,501
Artificial flowers	915	230	104	342	485
Suits	105,737	58,443	82,086	49,050	24,808
Liqueurs	360	44	6	255	213
Oars, boats and other maritime objects	-	-	-	-	-
China and earthenware	835	143	305	56	568
Cottonwares	30	32	56	4	144
Saddlery and similar	-	-	4,520	8,603	529
Powder	-	-	2,600	-	550
Gold and Silver work	24,967	6,541	451	7,574	6,740
Joiner and carpenter works	557	3,611	7,033	3,147	883
Blacksmith and metal works	-	-	3	-	24
Tinner and Boilermakers work	-	48	5	148	57
Ready made cloth	-	-	-	-	-
Cotton textiles	2,432	2,603	1,076	1,133	-
(a)-TOTAL	244,192	113,467	39,084	41,040	73,404
(b)- Brazilian Exports:					
Total(1:000\$000)	43,192	41,672	39,084	41,040	43,800
%(a)/(b)	0.6	0.3	0.4	0.3	0.2

Source: RTV-1853 (continued overleaf)

TABLE A.2

BRAZIL: EXPORT OF CRAFT AND MANUFACTURING PRODUCTS- 1839/49
 (continuation)
 (in 1\$000)

PRODUCT	1844/45	1845/46	1846/47	1847/48	1848/49
Crackers, biscuits and loaves	8,262	24,953	11,889	11,973	23,801
Lime	3,211	294	694	1,496	349
Hide and Cloth shoes	4,539	5,500	3,707	4,132	5,273
Cheese	1,001	1,224	615	1,426	919
Mat and other straw work	5,522	3,981	3,300	5,280	5,064
Artificial flowers	284	509	291	783	180
Suits	28,615	19,857	21,870	22,257	58,485
Liqueurs	255	533	180	223	591
Oars, boats and other maritime objects	-	-	-	36	1,291
China and earthenware	2,374	481	736	582	486
Cottonwares	100	52	-	248	36
Saddlery and similar	1,353	3,377	2,704	1,113	262
Powder	12,272	11,426	849	241	-
Gold and Silver work	21,617	27,057	20,652	44,416	32,918
Joiner and carpentry works	1,042	693	1,291	2,590	2,280
Blacksmith and metal works	-	1,850	103	54	-
Tinner and Boilermakers work	198	64	126	-	826
Ready made cloth	-	143	348	47	36
Cotton textiles	810	-	-	-	-
(a)-TOTAL	91,954	101,994	69,355	96,897	132,797
(b)- Brazilian Exports: Total(1:000\$000)	47,054	53,630	52,449	57,926	56,290
%(a)/(b)	0.2	0.2	0.1	0.2	0.2

Source: Relatório da Comissão Encarregada da Revisão da Tarifa em Vigor - 1853.

NOTE: We could not discover if the blank spaces in the original documents meant no data available or means zero. However, by comparison with tables of quantity, we suppose that the blank spaces mean both, i.e., no data available and zero value, without indication of which was the first or which was the second case.

TABLE A.3

BRAZIL: COASTWISE TRADE OF CRAFT AND MANUFACTURING PRODUCTS- 1844/49
(in 1\$000)

PRODUCT	1844/45	1845/46	1846/47	1847/48	1848/49
Crackers, biscuits and loaves	76	1 881	1 910	831	326
Lime	456	6 557	-	-	-
Hide and Cloth shoes	3 382	9 068	2 518	2 351	2 068
Cheese	10 274	12 138	-	-	-
Mat and other straw work	2	2	16	14	9
Artificial flowers	50	444	391	244	187
Suits	17 238	29 659	19 310	24 543	14 310
Liqueurs	590	9 786	6 012	1 716	2 254
Oars, boats and other maritime objects	216	144	89	74	110
China and earthenware	6 607	4 026	5 553	6 001	4 392
Cottonwares	900	318	51	472	93
Saddlery and similar	66	1 228	761	345	736
Gun Powder	-	2 176	819	1 169	550
Gold and Silver work	1 800	29 879	13 401	8 736	6 649
Joiner and carpentry works	5 025	12 193	4 610	1 703	1 406
Blacksmith and metal works	1 462	749	1 005	846	3 332
Tinner and Boilermakers work	5 595	884	736	445	168
Ready made cloth	-	10 572	4 940	6 316	5 920
Cotton textiles	-	14 698	-	-	-
(a)-TOTAL	53 739	146 401	62 122	55 806	42 510
(b)- Domestic Coastwise Trade of Brazilian Products: Total(1:000\$000)	n.a.	5 843.5	5 968.6	4 216.6	4 963.0
%(a)/(b)	n.a.	2.5	1.0	1.3	0.9

Source: Relatório da Comissão Encarregada da Revisão da Tarifa em Vigor - 1853.

NOTE: We could not discover if the blank spaces in the original documents meant no data available or means zero. However, by comparison with tables of quantity, we suppose that the blank spaces mean both, i.e., no data available and zero value, without indication of which was the first or which was the second case.

TABLE A.4

BRAZIL: COTTON TEXTILES INDUSTRIES - SELECT INDICATORS

YEARS	(a)-1866	(b)-1882	(c)-1900	(d)-1907
Numbers of Manufactures	9	40	n.a	161
Number of Spindles	14,875	72,258	750,000	n.a
Number of Looms	385	2,022	n.a	n.a
Number of Workers	768	3,000	n.a	45,942
Production (1,000 metres)	3,944.6	22,465.8	n.a	301,666.0
GVP (1,000\$000) (Current Price)	2,116.2	n.a	n.a	135,025.7
GVP (1,000\$000) (Price of 1907) (*)	1,765.6	10,055.7	n.a	135,025.7

Source: (a) derived from comissão de Inquérito Industrial (1822) (b) estimated by the author based in original data from Comissão de Inquérito Industrial (1882) (**); (c) Stein (1957); (d) Centro Industrial do Brasil (1907).

(*)- Estimated by multiplying the average price by metre of 1913 by the current production in metres.

(**)- The estimate was based on the description of the factories in operation by 1882; in the case of those that had only partial data, the number of spindles was estimated based on the average number of spindles per loom, the number of workers by the average worker per spindle, and the production by the average production per spindle. Those factories for which there was no data at all were not considered. Although these estimates are rough, as there was data for the most important factories of the period, final differences should not be very large.

Note: GVP= Gross value of the domestic production
1,000\$000= 1 conto de réis= 1,000,000 réis

TABLE A.5

BRAZIL: MANUFACTURING INDUSTRY APPARENT CONSUMPTION (1907)
(in 1,000\$000)

PRODUCT	(a)-DOMESTIC PRODUCTION	(b)-IMPORTS	(c)-APPARENT CONSUMPTION	(a)/(c) (in %)
1-Textile products	169,832.9	84,228.1	254,061.0	66.8
1.1- Cotton Text.	135,025.7	67,499.9	202,525.6	66.7
1.2- Wool Text.	11,375.2	12,069.8	23,445.0	48.5
1.3- Silk	1,042.3	4,593.6	5,635.9	18.5
1.4- Sackcloth	22,389.7	64.8	22,454.5	99.7
2-Food and Beverage	167,390.6	32,314.2	199,704.8	83.8
2.1- Beer	22,686.3	333.2	23,019.5	98.6
2.2- Sugar	67,257.4	43.5	67,300.9	99.9
2.3- Jerked Beef	38,769.3	17,345.2	56,114.5	69.1
2.4- Lard	13,485.0	4,650.3	18,135.3	74.4
2.5- Biscuits	3,282.0	222.3	3,948.6	83.1
2.6- Sweets and Choc.	7,888.0	219.7	8,107.7	97.3
2.7- Pasta	3,897.5	51.1	3,948.6	98.7
2.8- Salt	3,126.4	1,697.2	4,823.6	64.8
2.9- Butter and Cheese	6,998.7	7,751.7	14,750.4	47.4
3-Furniture	11,760.0	1,352.8	13,112.8	89.7
4-Cigar and Cigs.	20,318.8	129.3	20,448.1	99.4
5-Hats	15,384.2	1,948.5	17,332.7	88.8
6-Tiles and Ceramic Products	13,672.0	3,951.2	17,623.2	77.6
6.1- Ceramics Prod.	10,363.0	2,774.6	13,137.6	78.9
6.2- Tiles (Ladrilhos)	3,309.0	1,176.6	4,485.6	73.8
7-Matches	21,275.0	4.4	21,279.4	99.9
8-Partial Total	419,663.5	123,928.5	543,562.0	77.2
9- Other Products	321,902.6	521,009.2	842,991.8	38.2
10- General Total	741,563.1	644,937.7	1,386,473.8	53.5

Source: Derived from CIB(1907), pp.260/261.

Note: 1,000\$000= 1 conto de réis= 1,000,000 réis

STATISTICAL APPENDIX B:
MISCELLANEOUS DATA ON RETAIL AND WHOLESALE TRADE AND FIRM'S
ONWERSHIP
TABLE B-1
BRAZIL: FIRMS IN THE MUNICIPALITY OF THE COURT AND OTHER
PROVINCES (1856)

SECTORS	NATIONALITY OF THE OWNER						TAX PAID	TAX / FIRM	
	BRAZIL.	%	PORTUG	%	OTHER	%	TOTAL	IN 1\$000	
Textiles wholesale	44	21	35	17	129	62	208	37,858	182.0
Textile retail	2,428	66	1,071	29	185	5	3,684	99,675	27.1
Ironmonger wholesale	2	29	5	71	-	-	7	1,860	265.7
Ironmonger retail	98	43	122	53	10	4	230	17,008	74.0
Liquid Prod wholesale	13	20	52	80	-	-	65	10,780	165.8
Liquid Prod retail	146	42	137	39	67	19	350	14,494	41.4
Dry foods and liquids	312	49	260	41	65	10	637	12,900	20.3
Haberdasher	137	44	155	50	19	6	311	14,000	45.0
Butcher	560	64	237	27	77	9	874	18,685	21.4
Commercial Office	204	50	108	26	100	24	412	23,534	57.1
Solicitors offices	315	98	8	2	-	-	323	6,737	20.9
Comission Houses	25	47	23	43	5	9	53	6,596	124.5
Slave Dealers	4	31	8	62	1	8	13	1,030	79.2
Greengrocers	303	48	227	36	98	16	628	900	1.4
Taverns*	4,347	58	2,695	36	379	5	7,421	138,906	18.6
Hat Manufacturers	30	22	63	47	41	31	134	5,847	43.6
Cigar Manufacturers	61	25	149	61	34	14	244	7,727	31.7

(continues in the next page)

NATIONALITY OF THE OWNER							TAX PAID	TAX / FIRM	
SECTORS	BRAZIL.	%	PORTUG	%	OTHER	%	TOTAL	IN 1\$000	
Brewers	-	-	2	12	14	88	16	416	29.7
Textile Manufacturers	7	88	-	-	1	13	8	-	-
Tallow Candles Manufacturers	6	12	37	71	9	17	52	1,852	35.6
SUB-TOTAL	9,042	58	5,394	34	1,234	8	15,670	420,805	26.9
Others	4,513	46	3,622	37	1,663	17	9,824	264,881	27.0
Total	13,555	53	9,016	35	2,897	12	25,494*	685,686	26.9

Source: Computed from RMF-1857, Estatística das Casas de Comércio e Outras que Trata o Regimento de 15/6/1844 do Município da Corte e Outras Províncias.

(*)- The data was adapted to correct a mistake in the original source.

NOTE: The two last columns refers to the amount of tax paid and the average tax paid per firm in milreis. The amount of tax to be paid depended on the capital of the firm or on the value of the estimated rent on their premises.

TABLE B.2
BRAZIL: FIRMS IN THE MUNICIPALITY OF THE COURT
AND OTHER PROVINCES (1869)

	NATIONALITY OF THE OWNER						TAX PAID	
	BRAZIL	%	PORTUG	%	OTHER	%	TOTAL	in 1,000
RJ- Court	1,482	19	5,230	66	1,178	15	7,789	460,119
RJ- Province	2,755	52	2,296	43	226	4	5,297	72,471
Bahia	2,912	67	1,119	26	328	8	4,359	137,403
Pernambuco	2,293	63	1,160	32	204	6	3,657	136,863
R.G. do Sul	1,467	39	1,046	28	1,271	34	3,784	79,566
Maranhão	1,104	65	530	31	54	3	1,688	28,631
São Paulo	2,990	68	963	22	448	10	4,401	67,640
Minas Gerais	4,255	75	1,207	21	187	3	5,649	83,315
Pará	328	34	595	61	56	6	979	23,808
Alagoas	952	79	228	19	25	2	1,205	18,026
Ceará	1,905	92	126	6	36	2	2,067	25,179
Paraíba	494	86	60	11	10	2	564	9,513
Sergipe	651	88	76	10	12	2	739	13,099
Mato Grosso	378	94	9	2	15	4	402	6,597
Espírito Santo	317	76	79	19	23	5	419	4,145
R.G.do Norte	215	90	13	5	10	4	238	3,574
Piauí	430	95	22	5	3	1	455	6,084
Paraná*	448	68	144	22	69	10	661	10,772
Santa Catarina	452	68	76	12	132	20	660	8,603
Amazonas	52	42	62	50	11	9	125	2,336
Total	25,900	57	15,041	33	4,298	10	45,279	1,197,723

Source: Computed from RMF-1869, Estatística das Casas de Comércio e Outras que Trata o Cap. 1 do Regimento de 15/06/1844 do Município da Corte e Outras Províncias.

(*)- The data were adapted to correct a mistake in the original source.

NOTE: The amount of tax to be paid depended on the capital of the firm or on the value of the estimated rent on their premises.

**STATISTICAL APPENDIX C:
DATA ON EXCHANGE RATES, PRICE INDICES AND INTEREST RATES**

TABLE C.1
EXCHANGE RATE IN BRAZIL (1822-1890)
(fixed base 1850-59=100)

YEAR	(a) - MR/P	(b) - MR/P*	(c) -MR*/P*	(d) - MR*/P**
1822	55.8	57.8	494.6	-
1823	53.9	57.8	467.7	-
1824	56.6	61.8	472.5	-
1825	52.2	62.6	491.4	-
1826	56.8	59.4	437.8	-
1827	77.6	81.1	460.4	-
1828	88.1	88.2	406.7	-
1829	111.1	109.2	562.2	-
1830	119.9	116.8	677.6	-
1831	109.4	109.5	630.4	-
1832	71.7	69.8	548.5	-
1833	73.2	70.0	333.7	-
1834	71.5	71.6	305.4	-
1835	69.7	69.8	413.8	-
1836	71.2	78.3	426.4	-
1837	92.5	97.5	317.6	-
1838	97.5	103.7	242.4	-
1839	86.5	100.5	300.5	-
1840	88.2	100.9	284.6	-
1841	90.2	97.5	275.0	-
1842	102.0	101.2	220.3	-
1843	106.0	99.5	192.4	-
1844	108.6	104.8	202.6	-
1845	107.5	105.7	197.1	-
1846	101.6	99.0	150.0	-
1847	97.7	100.4	157.2	-
1848	109.4	97.8	137.7	-
1849	105.7	89.7	159.1	-
1850	95.1	80.7	177.2	120.6
1851	93.9	76.4	183.3	116.1
1852	99.7	99.8	207.1	136.3
1853	96.0	107.2	127.9	113.7
1854	97.9	109.4	100.3	100.2
1855	99.2	110.8	102.6	103.2
1856	99.2	109.9	82.1	94.8
1857	102.7	101.9	74.4	83.6
1858	107.0	110.0	82.1	94.3
1859	109.1	112.1	70.5	88.8

(Continues overleaf)

TABLE C.1
EXCHANGE RATE IN BRAZIL (1822-1890)
(fixed base 1850-59=100)
(continuation)

YEAR	(a)- MR/P	(b)- MR/P*	(c)-MR*/P*	(d)-MR/P**
1860	106.0	113.7	71.0	96.0
1861	107.0	110.0	84.4	95.2
1862	104.0	111.5	106.1	99.3
1863	100.4	108.6	110.4	94.8
1864	102.3	108.6	98.2	87.7
1865	109.4	114.4	87.8	89.0
1866	112.8	121.0	70.7	85.5
1867	121.9	128.5	79.2	92.1
1868	160.9	165.4	94.1	97.2
1869	145.4	139.0	62.5	81.1
1870	124.0	121.9	59.5	80.6
1871	113.8	117.0	66.3	86.7
1872	109.4	125.1	65.7	88.9
1873	104.8	118.9	64.2	84.5
1874	106.1	114.7	46.4	76.1
1875	100.5	105.1	50.2	75.4
1876	107.9	110.9	46.7	77.3
1877	111.4	109.5	36.7	68.0
1878	119.3	107.7	31.6	62.8
1879	128.0	112.1	35.0	67.5
1880	123.8	112.8	40.2	70.8
1881	124.9	110.5	38.5	69.9
1882	129.3	116.7	38.3	70.4
1883	126.9	114.5	37.9	70.9
1884	132.2	112.2	38.5	71.6
1885	147.1	115.7	37.1	69.2
1886	146.4	108.6	38.7	70.3
1887	121.9	88.2	31.2	61.5
1888	108.3	81.3	29.3	59.4
1889	103.5	77.7	20.3	-

Source: (a)- Annual average exchange rate in the city of Rio de Janeiro, Anuario Estatístico do Brasil, Quadros Retrospectivos, 1939-40; (b)- Annual average exchange rate in the city of Rio de Janeiro adjusted by the Rousseaux price index of British prices, see MITCHELL & DEANE, British Historical Statistics, 1962; (c)- Annual Average exchange rate in the city of Rio de Janeiro, adjusted by the Rousseaux price index and by the Levi price index for Brazilian prices; (d)- Annual Average exchange rate in the

city of Rio de Janeiro, adjusted by the Rosseaux price index and by the author's price index.

symbols- MR= milreis; P= pounds sterlings; MR*= Milreis in constant prices, base average price level of 1850-59=100; MR**= Milreis in constant prices, deflated according to the author's price index, base average price level of 1850-59=100. P*= pounds sterlings in constant prices, base average price level 1850-59=100.

Note: This table shows that there was a revaluation of the milreis during the Imperial period particularly if we take 1830 as a starting point for this analysis. From 1830 to 1889, despite annual oscillations, there is remarkable stability in the long-run exchange rate in current prices. It is enough to consider U.K. prices, which fell after 1870's to show the revaluation of milreis during this period. If we consider the Levy price index, based on cost of food in Rio de Janeiro, the revaluation of milreis is very big. It can also be shown that even considering that 70% of domestic consumption came from foreign sources, and considering that the other 30% had their prices increasing according to the Levi index - as was made in the author's price index - there is still a revaluation of milreis in the period. Leff attempts to correct Lobo's estimations adding export-import activities to her index and taking account of regional disaggregation of the domestic sector of the economy. He arrived at a rough estimate of the annual rate of long-term price inflation in Brazil between 1822-1913 of 2.5%. This is again enough to show revaluation of mil-reis in the period. All these indices, although they must be used cautiously, give us grounds to state that there was a trend of revaluation of mil-reis since 1830 in real purchasing-power. It must be noticed also that the mil reis was over-valued in 1889, in relation to 1830, even if we consider that the inflation in Brazil was zero during this period. If we compare the exchange rate of 1822 and 1889, with constant prices in pounds (that is $b=MR/p^*$), it would be enough that the inflation in Brazil during this period was higher than 0.4% p.a. for an over-valuation of the milreis in real

purchasing power in this latter period. See LOBO, E. et al.,
Evolucao dos Precos e do Padrao de Vida no Rio de Janeiro,
RBE, vol 25, n4, october 1971. See also LEFF, N.,
Underdevelopment and Development in Brazil, vol 1, p.124.

TABLE C-2.
 PRICE INDICES AND AVERAGE DISCOUNT RATE (1850-1888)
 (fixed base 1850-59=100)

YEAR	(a)-LEVI'S PRICE INDEX	(b)-SWEIGART'S PRICE INDEX	(c)-AUTHOR'S PRICE INDEX	(d)DISCOUNT RATE
1850	45.7	79.2	66.9	7.5
1851	41.8	76.1	65.8	6.1
1852	44.9	85.4	73.2	5.5
1853	84.1	98.7	94.3	7.3
1854	109.5	109.0	109.2	7.3
1855	108.3	107.0	107.4	7.7
1856	134.3	108.0	115.9	8.1
1857	137.4	115.2	121.9	8.4
1858	134.5	109.0	116.7	9.5
1859	159.5	112.1	126.3	8.6
1860	160.7	111.1	118.4	9.0
1861	130.6	109.0	115.5	9.0
1862	105.5	115.2	112.3	10.0
1863	98.7	121.3	114.5	9.5
1864	111.2	129.5	124.0	8.6
1865	130.8	127.5	128.5	9.6
1866	171.7	128.5	141.5	8.6
1867	162.7	129.5	139.5	9.0
1868	176.3	167.6	170.2	9.0
1869	223.3	176.8	171.4	9.0
1870	205.3	128.5	151.2	7.7
1871	177.1	118.3	135.9	7.2
1872	191.1	128.5	147.3	7.4
1873	186.0	121.3	140.7	7.4
1874	248.2	109.0	150.8	7.6
1875	210.2	109.0	139.4	8.9
1876	238.3	102.9	143.5	7.3
1877	299.4	101.9	161.2	7.9
1878	341.6	102.9	166.1	6.2
1879	313.7	102.9	166.1	6.4
1880	281.4	107.0	159.3	7.5
1881	287.0	102.9	158.1	6.1
1882	305.6	106.0	165.9	7.7
1883	301.8	100.8	161.1	8.3
1884	291.4	98.8	156.6	8.3
1885	311.7	104.9	166.9	7.2
1886	280.9	99.8	154.1	7.6
1887	283.1	83.3	143.2	9.7
1888	277.9	76.1	136.6	8.7

Source: (a)- LOBO, E. et al., Evolucao dos Precos e do Padrao de Vida no Rio de Janeiro, RBE, vol 25, n4, october

1971; 1857 weights; (b) SWEIGART, J.E., *Coffee Factorage and The Emergence of a Brazilian Capital Market, 1850-1888*; (c)-author's computation, see note below; (d) SWEIGART, J.E., *op.cit.*

Note: (a)-Eulalia Lobo price index is based on annual price quotation of eight products in the city of Rio de Janeiro--their respective weights are in parentheses: manioc flour (37.6%); beans (20.9%), jerked beef (16.8%); rice (11.8%), wheat flour (5.7%), coffee (3.4%), cod-fish (2.3%), sugar (2.0%). It reflects the food consumption pattern of Rio de Janeiro for mass consumption in 1856. It implied a high level of inflation, most likely showing the failure of food supply in Rio de Janeiro city more than an average level of inflation in the whole economy. (b)- Joseph Sweigart index reflects price variations in milreis of imported products from Britain, U.S., France and Germany. (c)- this index is derived from a weighted average of Levy's index (weight 0.3) and Sweigart index (weight 0.7). This weighted average reflects the relation between imports value and domestic trade value in the mid-XIXth century - relation based on Ferreira Soares estimates for 1854-55 and 1864-65 coastal and inland trade. This price index has the assumption that most of monetary domestic consumption is based on import products. (d)-annual daily average of the prime rate charge by the Banco do Brasil from 1850 to 1869. For the remaining years it refers to the annual average of monthly averages of highs and lows of all types of discounting conducted in the Rio Money Market.

**STATISTICAL APPENDIX D:
REGRESSION ANALYSIS OF IMPERIAL MONETARY POLICY¹
1-METHODOLOGY**

The econometric comput was doneations were based on the yearly series, from 1856-57 to 1870-71:

DATA	DESCRIPTION	SOURCE
PS	Public Surplus= Total Receipts - Total Expenses	Balanço Geral da União
PSt-1	Public Surplus with a year lap	Balanço Geral da União
IT	Tax Receipts /Imports	Balanço Geral da União
IDI	Internal Debt interest Payments	Balanço Geral da União
ME	Army and Navy Ministeries Expenses	Balanço Geral da União
IMP	Total Imports in Value	IBGE/Est.Históricas/1990
PMI	Balance of Paper Money Issued	IBGE/Est.Históricas/1990

The unit used is 'Contos de Reis'. By balance of paper money issued must be understood the paper money issued by the Treasury or by the issuing banks held by the public plus the cash money held by the commercial banks.

2- Regression Analysis

REGRES.. DEP.VAR	CONST.	PMI	PSt-1	IDI	ME	IMP	R ²	DW	YEARS
(a) IT	12299,1 (5,4)	0,21 (11,6)	-	-	-	-	0,93	2,70	60/70
(b) IMP	82081,3 (6,66)	0,48 (4,71)	-	-	-	-	0,68	1,53	60/70
(c) PMI	90724,0 (130,6)	-	0,88 (5,33)	-	-	-	0,95	1,93	57/64
(d) PMI	52018,2 (8,46)	-	-	8,15 (11,77)	-	-	0,93	2,46	60/70
(e) PS	-15525,9 (1,33)	-	-	-	-1,41 (-8,82)	0,35 (3,39)	0,90	1,75	56/64

1- These Regressions were originally prepared for an article published as a Working Paper in the Department of Economics of the Universidade Federal Fluminense. See PRADO, L.C. & TEIXEIRA, A.C., Guerra do Paraguai e Política Econômica do Governo Imperial, Niteroi, 1990.

(f) PS	32112,5 (3,13)	-	-	1,17 (2,09)	-1,18 (8,35)	-	0,95	2,33	64/70
(g) PS	-	-	0,20 (1,60)	2,40 (4,52)	-0,89 (10,08)	-	0,95	2,11	60/70

NOTE: The values in parenthesis refer to the T statistics..

**STATISTICAL APPENDIX E:
DATA ON BRAZILIAN FOREIGN TRADE**

**TABLE E.1
BRAZIL: FOREIGN TRADE
(IN £ 1,000,000)**

YEAR	EXPORTS	IMPORTS	TRADE BALANCE ^a	EXCHANGE RATE ^b
1821	4.3	4.5	(0.2)	4\$651
1822	4.0	4.6	(0.6)	4\$902
1823	4.4	4.1	0.3	4\$739
1824	3.9	4.8	(1.0)	4\$975
1825	4.6	4.9	(0.3)	4\$630
1826	3.3	3.7	(0.4)	5\$000
1827	3.7	4.0	(0.3)	6\$803
1828	4.1	4.1	0.0	7\$752
1829	3.4	3.7	(0.2)	9\$709
1830	3.3	4.0	(0.7)	10\$494
1831	3.4	3.5	(0.1)	9\$615
1832	4.7	4.7	(0.0)	6\$803
1833 ^c	3.3	2.8	0.4	6\$410
1833-34	5.6	5.7	(0.0)	6\$423
1834-35	5.3	5.9	0.6	6\$192
1835-36	6.8	6.7	0.0	6\$116
1836-37	5.5	7.3	(1.8)	6\$243
1837-38	4.1	5.0	(0.9)	8\$117
1838-39	4.9	5.8	(0.9)	8\$555
1839-40	5.7	6.9	(1.2)	7\$593
1840-41	5.4	7.5	(2.1)	7\$740
1841-42	4.9	7.1	(2.1)	7\$918
1842-43	4.6	5.7	(1.1)	8\$953
1843-44	4.7	5.9	(1.2)	9\$303

to continue overleaf

YEAR	EXPORTS	IMPORTS	TRADE BALANCE ^a	EXCHANGE RATE ^b
1844-45	4.9	5.8	(0.9)	9\$524
1845-46	5.7	5.5	0.2	9\$434
1846-47	5.9	6.3	(0.4)	8\$913
1847-48	6.8	5.5	(0.3)	8\$569
1848-49	5.9	5.4	(0.5)	9\$597
1849-50	5.9	6.4	(0.4)	9\$277
1850-51	8.1	9.2	(1.1)	8\$347
1851-52	8.1	11.3	(3.2)	8\$244
1852-53	8.4	10.0	(1.6)	8\$749
1853-54	9.1	10.2	(1.1)	8\$425
1854-55	10.4	9.8	0.6	8\$688
1855-56	10.8	10.7	0.2	8\$711
1856-57	13.2	14.4	(1.2)	8\$711
1857-58	10.7	14.5	(3.8)	9\$017
1858-59	11.4	13.6	(2.2)	9\$390
1859-60	11.8	11.8	(0.0)	9\$579
1860-61	13.2	13.3	(0.1)	9\$302
1861-62	12.9	11.8	1.1	9\$390
1862-63	13.4	10.9	2.6	9\$124
1863-64	14.9	14.3	0.6	8\$811
1864-65	15.7	14.7	1.0	8\$969
1865-66	16.4	14.4	2.0	9\$597
1866-67	15.8	14.5	1.3	9\$901
1867-68	17.3	13.1	4.2	10\$696
1868-69	14.4	11.8	2.5	14\$125
1869-70	15.5	13.2	2.3	12\$755
1870-71	15.4	14.9	0.5	10\$882
1871-72	19.1	15.1	4.0	9\$990
1872-73	22.4	16.5	5.9	9\$597

YEAR	EXPORTS	IMPORTS	TRADE BALANCE ^a	EXCHANGE RATE ^b
1873-74	20.6	16.6	4.0	9\$200
1874-75	22.4	18.0	4.4	9\$311
1875-76	20.8	19.5	1.3	8\$818
1876-77	20.6	16.5	4.1	9\$506
1877-78	19.1	16.7	2.3	9\$775
1878-79	19.5	15.6	3.9	10\$461
1879-80	19.8	15.5	4.3	11\$236
1880-81	21.2	16.5	4.7	10\$870
1881-82	19.1	16.6	2.5	10\$965
1882-83	17.4	16.8	0.6	11\$338
1883-84	19.5	18.2	1.3	11\$136
1884-85	19.5	15.4	4.1	11\$601
1885-86	15.1	15.3	(0.2)	12\$904
1886-87	20.5	16.1	4.4	12\$854
1887 ^d	11.7	9.7	2.0	10\$696
1888	21.7	19.7	2.0	9\$505
1889	28.5	24.0	4.6	9\$075
1890	26.4	24.0	2.4	10\$638

Source: Anuario Estatístico do Brasil - Quadros Retrospectivos, Ano V - 1939-40; Rio de Janeiro, 1941.

Note: a- Trade Balance = Exports - Imports, due to approximation, however, trade balance is not always the difference of the first two columns; negative numbers are in parenthesis; (0.0) is a negative number smaller than 0.05; 0.0 is a positive number smaller than 0.5.

b- This column refers to milreis per £; it shows the Implicit exchange rate of Brazilian foreign trade; that is, total Brazilian trade in milreis divided by total Brazilian foreign trade in pounds sterling.

c- Data for the first half year of 1833;

d- Data for the last half year of 1887.

TABLE E.2
BRAZIL: COFFEE EXPORTS
ANNUAL AVERAGE PRICE

YEAR	Sterling Pounds (by sack)		
	(a)-Current Value	(b)-Constant Value (1913)	Fixed Base 1851-60=100
1851	1.71	1.56	71
1852	1.59	1.46	66
1853	1.97	2.21	100
1854	1.76	2.10	95
1855	1.93	2.30	104
1856	1.94	2.31	105
1857	2.02	2.50	113
1858	1.95	2.09	95
1859	2.49	2.76	125
1860	2.39	2.77	125
1851/60	1.97	2.21	100
1861	2.58	2.97	134
1862	2.90	3.45	156
1863	3.06	3.70	167
1864	2.70	3.35	152
1865	2.61	3.11	141
1866	2.23	2.68	121
1867	2.19	2.58	117
1868	1.68	1.95	88
1869	1.93	2.22	100
1870	2.03	2.29	104
1861/70	2.39	2.83	128
1871	1.76	1.99	90
1872	3.43	4.29	194
1873	4.31	5.60	253
1874	3.50	4.41	200
1875	3.39	4.10	186
1876	3.90	4.60	208
1877	2.34	2.83	128
1878	2.61	2.95	133
1879	4.29	4.59	208
1880	3.17	3.52	159
1871/80	3.27	3.89	176

(continued overleaf)

YEAR	Sterling Pounds (by sack)		
	(a) - Current Value	(b) - Constant Value (1813)	Fixed Base X(1851-60)=100
1881	2.34	2.55	115
1882	1.61	1.77	80
1883	2.19	2.37	107
1884	2.10	2.06	93
1885	1.77	1.63	74
1886	2.39	2.08	94
1887	4.10	3.49	158
1888	3.15	2.74	124
1889	3.39	3.02	137
1890	3.49	3.11	141
1881/90	2.66	2.48	112
1891	3.26	3.00	136
1892	3.09	2.69	122
1893	4.09	3.48	157
1894	3.74	2.99	135
1895	3.33	2.60	118
1896	2.91	2.21	100
1897	1.74	1.34	61
1898	1.49	1.19	54
1899	1.48	1.17	53
1900	2.06	1.77	80
1891/1900	2.72	2.24	101

Source: (a) - AEB-IBGE (1939-40); (b) - Deflated by U.K. Wholesale Price Index, Mitchell(1978).

STATISTICAL APPENDIX F
COASTAL AND FOREIGN IMPORT TRADE INTO BRAZILIAN CUSTOMS PORTS:
NOTES ON SOURCES

With the purpose of determining the general trends in the Brazilian domestic and foreign trade from the Alves Branco Tariff to the end of the Paraguayan War I have prepared tables of imports from coastal and foreign ports into each province that had a custom port. Because there is no source from which a consistent series of data can be obtained, I was not able to prepare similar tables for the inland trade. But as the larger cities in Brazil at this time were, with few exceptions, on the coast, it is possible to make generalizations on the role of the domestic market in the economy within a fair margin of error, as well as estimating the growth of this sector at the same time.

The data were computed from several annual reports of the ministry of finance and although the original sources were not completely reliable at the time, the errors should not be large enough to invalidate the general trends and the relative position of each one of the segments studied. The question of the reliability of data collection in XIXth century Brazil is very important for the economic historian doing research on this period. It is always prudent to warn against the risks of taking data collected literally when the register of information or the methods of obtaining it were extremely dubious. The limitations of the statistical information available in Brazil during the XIXth century were well-known even to contemporaries. Among them, the most famous Brazilian statistician at that time, Sebastião Ferreira Soares, remarked in 1864:

*'The lack of regular statistics on the principal facts of our civil order has created a less than exact understanding, not only among the Brazilian legislature, but also in the very government of the country, since being based one way or the other on scarcely accurate information, the measures taken must have, on occasion, missed the point which they intended to make'*¹

For these reasons it would always be safer to consider the annual average over a quinquennial period as the main point of reference, thus minimizing mistakes in the information of particular years. In the tables the monetary values, originally in mil reis, were converted into current sterling using the average exchange rate in foreign trade, which was published in the Quadros Retrospectivos of Anuário Estatístico do Brasil, for the years 1939/40. The value of the direct import trade according to my estimate shows some slight differences when compared with those published by the Instituto Brasileiro de Geografia e Estatística (IBGE), and published in the first retrospective series realized in the first years after the founding of that institution. These differences are on average over the whole period about 1.5%, and are always very small in each quinquennial period. These differences may have arisen for several different reasons, such as for the years 1845/46 until 1849/50 the IBGE data did not apparently consider the import for reexport trade in the series released as value of imports. As the original source from which IBGE draw these data is not clear, and as the differences are not significant, I prefer to use my data when I make comparisons between the import trade and domestic trade, as the series of domestic trade and import trade were drawn in my tables from the same source. When I make comparisons between the export and import trade I will always use

¹- Ferreira Soares, 'Elementos de Estatística', op.cit., p.XII.

the official data of IBGE as the best information. The original data came from information supplied to the ministry of finance from the several custom houses throughout the country. However, there were several cases where this information did not arrive on time for publication in the ministry's annual report, or did not arrive at all. When the basic data did not arrive, it was established practice to estimate it by the value of the taxes collected by the custom house. I tried to correct mistakes in the original source by comparing the information for particular years in different reports. When there was an inconsistency in the data I always opted for the more recent information as the more reliable source. When there was no available information for a particular year, the quinquennial average was computed by the average of the other years for which data is available.

The main characteristic of the import trade from domestic ports (coastal commerce) from 1844/45 until 1869/70 was a continuous upward trend in the share of the coastal trade for domestic products. There was also a relative reduction of the coastal trade in foreign products, although the imports from foreign ports were able to maintain their share of the total import trade.

Thus, the whole import trade from domestic and foreign ports grew 4.3% p.a. from the yearly average for 1845/50 to 1865/70. However there were strong differences in the rate of growth during each quinquennial period. After a rapid growth rate from 1845/50 to 1850/55 of 12.9% p.a., each new quinquennial period saw a decreasing rate of change in this trade, that is, 6.5% a.a. from 1850/60, and only 1.8% and 1.1% a.a., respectively, between 55/60-60/65 and 60/65-65/70.

There were also marked differences in the sector of trade that was leading the growth. From 1845/50 to 1850/55 it was unequivocally the import trade for domestic consumption which pushed the rate of growth for the entire trade so high. its influence on the rate of change for the whole trade is very large because it always represented about $3/4$ of the entire import trade. From 1855/60 to 1860/65 the coastal import trade in domestic products grew by 14.4 % p.a., and no other segments had any growth at all. This led the overall trade to grow 1.8% based exclusively on this first segment. Thus, the two sectors of the trade that would sustain a steady growth (although with reduced rates) were the coastal imports trade of domestic products and imports from foreign ports for domestic consumption.

TABLE F.1
COASTAL AND FOREIGN IMPORTS INTO BRAZILIAN CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	550.3	1,392.4	1,942.7	5,605.1	7,547.8
1846/47	603.2	1,686.4	2,289.6	6,233.1	8,522.7
1847/48	413.3	1,471.0	1,884.3	6,235.6	8,120.2
1848/49	358.9	1,131.5	1,490.4	5,921.6	7,412.0
1849/50	368.0	1,279.1	1,647.1	6,525.1	8,172.2
1845/50	458.7	1,392.1	1,850.8	6,104.2	7,955.0
1850/51	554.2	2,965.2	3,519.4	9,103.8	12,623.2
1851/52	690.2	2,240.7	2,931.0	11,320.5	14,251.5
1852/53	597.1	1,909.3	2,506.4	9,985.7	12,485.5
1853/54	670.4	2,054.8	2,725.2	10,092.9	12,485.5
1854/55	800.4	2,013.1	2,813.5	9,671.9	12,485.5
1850/55	662.5	2,236.7	2,899.1	10,035.0	12,934.1
1855/56	880.1	2,090.4	2,970.5	10,613.5	13,584.0
1856/57	1,084.4	2,716.6	3,801.0	14,380.1	18,181.1
1857/58	1,328.0	3,156.7	4,484.7	14,400.4	18,885.1
1858/59	1,028.8	2,682.1	3,710.8	13,473.4	17,184.3
1859/60	1,198.5	2,531.6	3,730.2	11,701.6	15,431.7
1855/60	1,104.0	2,635.5	3,739.4	12,913.8	16,653.2
1860/61	1,814.6	2,488.9	4,303.5	13,170.7	17,474.3
1861/62	1,828.9	2,491.7	4,320.6	11,587.2	15,907.9
1862/63	1,661.9	2,099.3	3,761.2	10,643.5	14,404.7
1863/64	1,995.1	2,565.0	4,560.1	13,723.6	18,283.7
1864/65	2,165.7	2,372.3	4,538.0	14,200.3	18,738.3
1860/65	1,893.3	2,403.4	4,296.7	12,665.1	16,961.8
1865/66	2,238.3	2,486.9	4,725.2	14,182.9	18,908.1
1866/67	2,114.7	2,463.1	4,577.8	14,214.5	18,792.3
1867/68	2,198.5	2,352.4	4,550.9	12,977.5	17,528.5
1868/69	1,980.5	1,976.2	3,956.8	11,654.0	15,610.7
1869/70	n.a	n.a	n.a	12,856.9	n.a
1865/70	2,133.0	2,319.7	4,452.7	13,177.2	17,709.9

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1

c2= Total of Imports from Foreign Ports

c3 = c1 + c2

TABLE F.2
COASTAL AND FOREIGN IMPORTS INTO RIO DE JANEIRO CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	82.3	37.9	120.2	3,237.0	3,357.2
1846/47	104.9	69.9	174.8	3,435.2	3,610.0
1847/48	85.8	55.0	140.8	3,344.5	3,485.2
1848/49	119.0	61.6	180.6	3,671.4	3,852.1
1849/50	83.4	45.1	128.5	3,441.7	3,570.2
1845/50	95.1	53.9	149.0	3,426.0	3,574.9
1850/51	85.2	22.5	107.7	4,862.5	4,970.2
1851/52	138.9	51.5	190.4	7,095.0	7,285.5
1852/53	25.2	49.9	75.1	5,688.0	5,763.1
1853/54	115.3	74.2	189.4	5,634.8	5,824.2
1854/55	175.7	64.1	239.8	5,554.3	5,794.1
1850/55	108.0	52.4	160.5	5,766.9	5,927.4
1855/56	156.5	54.1	210.6	5,967.4	6,178.0
1856/57	157.8	40.2	198.0	8,014.5	8,212.6
1857/58	204.8	39.1	243.9	7,897.4	8,141.4
1858/59	132.6	70.6	203.2	7,500.8	7,704.0
1859/60	105.8	96.5	202.3	6,430.7	6,632.9
1855/60	151.5	60.1	211.6	7,162.2	7,373.8
1860/61	551.8	48.0	599.8	7,980.8	8,580.6
1861/62	663.8	55.4	719.1	6,311.4	7,030.5
1862/63	471.5	23.3	494.8	5,532.6	6,027.4
1863/64	559.8	81.6	641.4	8,121.3	8,762.6
1864/65	589.6	40.5	630.1	7,596.8	8,226.9
1860/65	567.3	49.7	617.0	7,108.5	7,725.6
1865/66	538.7	51.0	589.7	8,468.0	9,057.7
1866/67	552.9	46.9	599.9	8,239.3	8,839.1
1867/68	611.0	47.2	658.2	7,643.7	8,301.9
1868/69	525.1	19.8	544.9	6,341.6	6,886.5
1869/70	n.a	46.4	n.a	6,871.3	n.a
1865/70	556.9	42.3	598.2	7,512.8	8,271.3

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1

c2= Total of Imports from Foreign Ports

c3 = c1 + c2

TABLE F.3
COASTAL AND FOREIGN IMPORTS INTO BAHIA CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	27.7	169.0	196.7	1,156.7	1,353.4
1846/47	39.1	87.6	126.8	1,320.6	1,447.4
1847/48	42.5	93.0	135.4	1,235.4	1,370.9
1848/49	36.4	60.9	97.3	869.8	967.0
1849/50	28.8	63.4	92.2	1,113.1	1,205.3
1845/50	34.9	94.8	129.7	1,139.1	1,268.8
1850/51	47.8	73.6	121.4	1,605.3	1,726.7
1851/52	67.2	74.3	141.5	1,759.8	1,901.3
1852/53	67.9	96.5	164.5	1,605.9	1,770.4
1853/54	54.0	85.7	139.7	1,543.4	1,683.0
1854/55	60.0	81.4	141.4	1,482.5	1,623.8
1850/55	59.4	82.3	141.7	1,599.4	1,741.0
1855/56	73.4	73.6	147.1	1,586.9	1,723.9
1856/57	79.4	88.9	168.3	2,425.8	2,594.1
1857/58	80.3	122.1	202.4	2,218.7	2,124.1
1858/59	52.4	108.7	161.0	2,129.8	2,290.8
1859/60	80.7	97.2	177.9	1,723.9	1,901.8
1855/60	73.2	98.1	171.3	2,017.0	2,188.3
1860/61	51.4	57.8	109.2	1,529.3	1,638.5
1861/62	66.9	93.9	160.8	1,863.6	2,024.4
1862/63	80.4	87.8	168.3	1,904.6	2,072.8
1863/64	115.3	84.1	199.5	1,855.3	2,054.8
1864/65	75.7	68.2	143.9	1,911.9	2,055.8
1860/65	78.0	78.4	156.3	1,812.9	1,969.3
1865/66	99.4	82.4	181.8	1,863.2	2,045.0
1866/67	82.8	52.6	135.3	1,817.2	1,952.5
1867/68	67.7	60.0	127.7	1,714.7	1,842.4
1868/69	63.6	34.9	98.5	1,682.6	1,781.1
1869/70	n.a	30.9	n.a	1,595.8	n.a
1865/70	78.4	52.2	135.8	1,743.7	1,905.2

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1

c2= Total of Imports from Foreign Ports

c3 = c1 + c2

TABLE F.4
COASTAL AND FOREIGN IMPORTS INTO PERNAMBUCO CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	15.8	17.4	33.2	683.9	717.1
1846/47	11.5	17.1	28.6	880.6	909.2
1847/48	11.8	20.5	32.2	832.6	864.9
1848/49	17.4	24.5	41.9	808.3	850.2
1849/50	56.6	33.4	90.1	1,327.8	417.8
1845/50	22.6	22.6	45.2	906.6	951.8
1850/51	80.6	30.1	110.7	1,700.8	1,811.5
1851/52	101.7	30.9	132.7	1,438.3	1,570.9
1852/53	93.8	64.1	157.9	1,613.8	1,711.7
1853/54	111.3	43.3	154.7	1,538.0	1,692.7
1854/55	127.9	56.0	183.9	1,484.5	1,668.4
1850/55	103.1	44.9	148.0	1,555.1	1,703.0
1855/56	148.8	55.8	204.6	1,943.1	2,147.7
1856/57	136.7	66.8	203.5	2,504.1	2,707.6
1857/58	252.8	96.3	349.1	2,765.5	3,114.6
1858/59	196.6	70.1	266.7	2,488.8	2,755.5
1859/60	331.8	114.1	445.9	2,049.7	2,495.5
1855/60	213.3	80.6	294.0	2,350.2	2,644.2
1860/61	360.9	65.6	426.5	1,886.0	2,312.5
1861/62	344.0	59.5	403.5	1,918.5	2,322.0
1862/63	389.7	38.5	428.2	1,669.2	2,097.4
1863/64	625.4	86.2	711.6	2,260.2	2,971.8
1864/65	700.3	76.9	777.3	2,806.1	3,583.4
1860/65	484.1	65.3	549.4	2,108.0	2,657.4
1865/66	654.9	66.9	721.7	2,220.9	2,942.7
1866/67	608.9	63.4	672.3	2,273.6	2,945.9
1867/68	514.3	39.6	553.9	1,718.2	2,272.1
1868/69	488.6	24.0	512.5	1,854.3	2,366.8
1869/70	313.7	46.4	360.1	2,196.6	2,556.7
1865/70	516.1	48.1	564.1	2,052.7	2,616.8

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1

c2= Total of Imports from Foreign Ports

c3 = c1 + c2

TABLE F.5
COASTAL AND FOREIGN IMPORTS INTO MARANHÃO CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	73.6	16.6	90.2	184.4	274.6
1846/47	66.3	15.1	81.4	321.4	402.8
1847/48	60.8	21.3	82.2	230.0	312.2
1848/49	23.3	15.1	38.4	206.4	244.9
1849/50	22.8	16.3	39.1	259.7	298.8
1845/50	49.4	16.9	66.3	240.4	306.6
1850/51	14.8	9.9	24.7	378.0	402.7
1851/52	20.3	23.7	44.0	317.8	361.8
1852/53	25.7	15.6	41.3	277.9	319.1
1853/54	35.6	26.9	62.5	302.3	364.9
1854/55	38.3	21.0	59.3	302.2	361.5
1850/55	26.9	19.4	46.4	315.6	362.0
1855/56	32.4	14.5	46.9	342.7	389.6
1856/57	42.1	19.6	61.7	344.5	406.2
1857/58	43.7	34.6	78.2	414.2	492.4
1858/59	35.7	43.2	78.9	425.9	504.8
1859/60	77.4	38.1	115.5	332.0	447.5
1855/60	46.3	30.0	76.2	371.8	48.1
1860/61	66.3	28.9	95.2	314.4	409.6
1861/62	74.5	18.9	93.3	349.4	442.8
1862/63	87.3	19.0	106.3	399.6	505.9
1863/64	113.0	25.5	138.5	577.6	716.1
1864/65	137.9	32.4	170.3	605.8	776.1
1860/65	95.8	24.9	120.7	449.4	570.1
1865/66	115.5	22.1	137.6	307.7	445.3
1866/67	94.0	20.4	114.3	410.6	524.9
1867/68	39.7	17.1	56.8	282.2	338.9
1868/69	40.8	14.4	55.2	366.1	421.1
1869/70	49.4	14.8	64.1	422.9	487.0
1865/70	67.9	17.7	85.6	357.9	443.5

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1

c2= Total of Imports from Foreign Ports

c3 = c1 + c2

TABLE F.6
COASTAL AND FOREIGN IMPORTS INTO PARÁ CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	12.3	42.5	54.7	119.0	173.7
1846/47	18.5	42.5	54.7	159.5	221.4
1847/48	21.2	40.7	61.9	150.2	212.2
1848/49	14.8	38.6	53.4	108.7	162.1
1849/50	13.6	36.8	50.5	168.2	218.6
1845/50	16.1	40.4	56.5	141.1	197.6
1850/51	32.6	39.1	71.7	294.6	366.3
1851/52	24.2	35.1	59.4	280.9	340.2
1852/53	14.5	26.1	40.6	329.6	370.3
1853/54	25.5	40.4	65.9	586.3	652.3
1854/55	41.1	73.6	114.7	499.9	614.7
1850/55	27.6	42.9	70.5	398.3	468.7
1855/56	34.3	38.6	72.9	336.0	408.9
1856/57	42.5	42.2	84.7	416.0	500.7
1857/58	31.7	37.2	68.8	411.9	480.8
1858/59	30.7	30.1	60.8	421.7	482.5
1859/60	61.5	32.3	93.9	493.9	587.7
1855/60	40.1	36.1	76.2	415.9	492.1
1860/61	106.8	45.1	151.9	614.8	766.7
1861/62	93.1	21.1	114.2	390.1	504.2
1862/63	79.8	25.2	104.9	508.6	613.5
1863/64	93.6	28.8	122.4	486.2	608.7
1864/65	127.9	27.6	155.5	511.0	666.5
1860/65	100.2	29.6	129.8	502.1	631.9
1865/66	191.6	22.0	213.5	496.8	710.4
1866/67	221.7	34.2	255.9	558.9	814.8
1867/68	265.0	32.3	297.3	697.2	976.5
1868/69	228.4	20.7	249.1	590.1	839.2
1869/70	177.3	19.4	196.7	574.9	771.6
1865/70	216.8	25.7	242.5	580.0	822.5

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1

c2= Total of Imports from Foreign Ports

c3 = c1 + c2

TABLE F.7
COASTAL AND FOREIGN IMPORTS INTO PARAÍBA CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	124.0	384.5	508.5	0.3	508.8
1846/47	67.5	499.1	566.6	1.2	567.8
1847/48	78.2	533.5	611.7	11.1	622.8
1848/49	100.4	713.3	813.7	132.2	945.9
1849/50	84.6	646.3	730.9	67.5	798.4
1845/50	90.9	555.3	646.3	42.5	688.7
1850/51	105.1	803.3	908.4	28.2	936.6
1851/52	70.4	523.5	593.9	94.6	688.5
1852/53	76.4	679.5	755.9	75.5	831.4
1853/54	61.0	632.1	693.1	42.9	736.0
1854/55	59.9	600.1	660.0	47.3	707.3
1850/55	74.6	647.7	722.3	57.7	780.0
1855/56	81.4	833.5	.914.9	110.6	1,025.5
1856/57	127.8	1,310.9	1,438.7	137.5	1,576.2
1857/58	137.3	1,300.1	1,437.4	290.4	1,727.8
1858/59	179.1	1,434.8	1,613.9	247.5	1,861.4
1859/60	162.6	1,294.9	1,457.5	140.2	1,597.7
1855/60	137.6	1,234.8	1,372.5	185.2	1,557.7
1860/61	87.2	966.0	1,053.2	227.3	1,280.5
1861/62	91.5	1,260.5	1,352.0	37.0	1,389.0
1862/63	104.8	1,045.5	1,150.3	62.3	1,212.6
1863/64	88.9	1,296.5	1,385.4	54.3	1,439.7
1864/65	106.8	1,750.2	1,857.0	55.7	1,912.7
1860/65	95.8	1,263.7	1,359.6	87.3	1,446.9
1865/66	111.2	1,348.6	1,459.8	26.1	1,485.9
1866/67	99.6	889.2	988.8	9.0	993.8
1867/68	95.1	889.2	984.3	9.0	993.3
1868/69	114.4	1,112.9	1,227.3	59.0	1,286.3
1869/70	103.0	813.1	916.1	52.7	968.8
1865/70	104.7	1,010.6	1,115.3	31.2	1,146.4

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1
c2= Total of Imports from Foreign Ports
c3 = c1 + c2

TABLE F.8
COASTAL AND FOREIGN IMPORTS INTO RIO GRANDE DO SUL CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	251.8	591.1	842.9	337.9	1,180.8
1846/47	304.8	589.5	894.3	374.2	1,268.6
1847/48	140.8	390.0	530.8	523.1	1,053.9
1848/49	89.3	207.4	296.7	372.4	669.1
1849/50	72.4	304.4	376.8	367.4	744.3
1845/50	171.8	616.5	588.3	395.0	983.3
1850/51	186.3	1,840.2	2,026.5	536.8	2,563.3
1851/52	244.4	519.2	763.6	584.0	1,347.7
1852/53	275.7	515.1	790.9	567.6	1,358.5
1853/54	218.4	519.5	738.0	592.8	1,330.8
1854/55	247.3	443.6	690.8	439.4	1,130.2
1850/55	234.4	767.5	1,002.0	544.1	1,546.1
1855/56	277.5	354.0	631.5	488.3	1,119.8
1856/57	407.1	515.9	923.0	688.4	1,611.4
1857/58	445.2	610.4	1,055.7	732.9	1,788.6
1858/59	361.0	470.6	831.6	598.6	1,430.1
1859/60	311.9	350.9	662.8	687.6	1,350.4
1855/60	360.6	460.4	820.9	639.2	1,460.1
1860/61	442.2	460.6	902.8	771.6	1,674.4
1861/62	381.0	267.0	748.0	697.1	1,445.2
1862/63	348.4	212.1	560.6	515.2	1,075.8
1863/64	296.9	359.1	656.0	541.6	1,197.6
1864/65	337.2	216.7	553.9	771.4	1,325.3
1860/65	361.1	323.1	684.3	659.4	1,343.6
1865/66	383.1	272.9	656.1	681.3	1,337.3
1866/67	281.5	262.4	543.8	786.0	1,329.8
1867/68	298.3	139.4	437.7	709.2	1,146.8
1868/69	322.7	193.5	516.3	643.5	1,159.8
1869/70	533.3	n.a	n.a	950.1	n.a
1865/70	367.8	217.1	538.5	754.0	1,243.4

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1
c2= Total of Imports from Foreign Ports
c3 = c1 + c2

TABLE F.9
COASTAL AND FOREIGN IMPORTS INTO SÃO PAULO CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	24.1	286.6	310.7	29.3	339.9
1846/47	13.2	452.3	465.6	17.5	483.1
1847/48	13.0	353.9	366.9	27.6	394.5
1848/49	11.0	276.5	287.4	16.0	303.4
1849/50	10.0	281.2	291.2	31.5	322.7
1845/50	14.3	330.1	344.4	24.4	368.7
1850/51	20.1	368.6	388.7	27.7	416.4
1851/52	17.6	544.4	562.0	68.3	630.3
1852/53	22.2	604.7	627.0	57.3	684.3
1853/54	34.5	672.4	706.9	37.8	744.7
1854/55	29.0	639.5	668.5	43.1	711.6
1850/55	34.7	565.9	590.6	46.8	637.5
1855/56	35.9	796.3	832.2	55.5	887.7
1856/57	45.0	946.2	991.2	59.8	1,051.0
1857/58	47.7	1,095.6	1,143.6	46.0	1,189.6
1858/59	46.4	950.4	996.9	39.9	1,036.7
1859/60	77.9	858.7	936.7	59.8	996.4
1855/60	50.6	929.5	980.1	52.2	1,032.3
1860/61	103.0	909.5	1,022.5	147.8	1,170.3
1861/62	91.6	966.5	1,058.1	189.3	1,247.4
1862/63	90.6	845.6	936.1	221.3	1,157.4
1863/64	106.2	925.3	1,031.5	167.6	1,199.1
1864/65	133.5	832.6	966.1	283.6	1,249.7
1860/65	105.0	897.9	1,002.9	201.9	1,204.8
1865/66	153.7	871.4	1,025.1	135.0	1,160.1
1866/67	101.7	904.5	1,006.2	156.2	1,162.4
1867/68	110.6	1,029.5	1,140.1	128.9	1,269.0
1868/69	111.5	877.3	988.8	164.3	1,153.1
1869/70	n.a	805.0	n.a	206.3	n.a
1865/70	119.4	897.5	1,040.0	158.2	1,186.1

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1

c2= Total of Imports from Foreign Ports

c3 = c1 + c2

TABLE F.10
COASTAL AND FOREIGN IMPORTS INTO PARANÁ CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	17.5	44.3	61.8	3.0	64.7
1846/47	114.5	73.0	87.4	2.0	89.5
1847/48	15.0	99.3	114.3	2.7	116.9
1848/49	13.9	90.1	104.0	2.4	106.5
1849/50	12.5	93.3	105.8	21.7	127.5
1845/50	14.7	80.0	94.7	6.4	101.0
1850/51	13.5	77.7	91.3	2.1	93.4
1851/52	20.8	134.8	155.6	21.3	176.9
1852/53	11.2	121.3	132.6	18.0	150.6
1853/54	14.2	151.0	165.2	42.1	207.3
1854/55	22.8	167.0	189.8	41.9	231.7
1850/55	16.5	130.4	146.9	25.1	172.0
1855/56	41.6	198.4	239.9	60.4	300.3
1856/57	66.3	278.4	344.8	32.8	377.6
1857/58	85.6	293.1	378.1	17.3	396.0
1858/59	57.4	160.9	218.3	24.1	242.5
1859/60	57.0	135.7	192.7	15.0	207.7
1855/60	61.6	213.3	274.9	29.9	304.8
1860/61	49.7	191.3	240.9	6.2	247.1
1861/62	40.5	161.5	202.0	10.5	212.4
1862/63	40.7	133.7	174.4	33.5	207.9
1863/64	47.0	162.6	209.7	10.4	220.0
1864/65	38.0	172.8	210.9	13.0	223.9
1860/65	43.2	164.4	207.6	14.7	222.3
1865/66	43.6	194.6	238.2	16.1	254.3
1866/67	47.6	187.7	235.3	24.0	259.3
1867/68	80.0	267.1	347.1	11.9	358.9
1868/69	69.3	206.4	275.7	15.2	290.9
1869/70	106.4	260.7	367.1	6.2	373.3
1865/70	69.4	223.3	292.7	14.6	307.3

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1

c2= Total of Imports from Foreign Ports

c3 = c1 + c2

TABLE F.11
COASTAL AND FOREIGN IMPORTS INTO SANTA CATARINA CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	24.5	46.8	71.2	11.4	82.6
1846/47	23.5	39.6	63.1	4.9	68.1
1847/48	21.3	67.7	89.1	46.7	135.8
1848/49	6.2	46.8	53.0	31.6	84.6
1849/50	16.5	47.9	64.4	19.9	84.3
1845/50	18.4	49.8	68.2	22.9	91.1
1850/51	4.5	42.0	46.5	9.3	55.8
1851/52	9.4	72.0	81.4	6.8	88.2
1852/53	11.2	57.7	68.9	6.4	75.3
1853/54	13.6	71.6	85.2	11.3	96.5
1854/55	21.7	93.9	115.6	9.3	124.9
1850/55	12.1	67.4	79.5	8.6	88.1
1855/56	24.0	82.5	106.5	5.6	112.1
1856/57	32.3	63.7	96.0	52.1	148.1
1857/58	36.3	100.1	136.3	15.3	151.6
1858/59	26.3	122.7	149.0	22.7	171.7
1859/60	32.8	112.1	144.8	20.1	164.9
1855/60	30.3	96.2	126.5	23.2	149.7
1860/61	34.5	87.6	122.1	31.5	153.6
1861/62	23.1	66.9	89.9	27.6	117.5
1862/63	20.0	81.7	101.7	41.2	142.9
1863/64	22.2	70.7	92.9	57.2	150.1
1864/65	16.5	77.8	94.3	49.4	143.7
1860/65	23.2	76.9	100.2	41.4	141.5
1865/66	23.5	97.7	121.3	51.1	172.3
1866/67	15.7	98.6	114.2	67.8	182.1
1867/68	24.8	87.6	112.3	46.1	158.4
1868/69	18.3	74.7	92.9	47.1	140.0
1869/70	47.1	68.1	115.2	55.5	170.7
1865/70	25.9	85.3	111.2	53.5	164.7

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1

c2= Total of Imports from Foreign Ports

c3 = c1 + c2

TABLE F.12
COASTAL AND FOREIGN IMPORTS INTO CEARÁ CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	30.6	11.6	42.3	14.6	56.8
1846/47	3.7	37.8	41.5	22.6	64.1
1847/48	9.4	48.7	58.1	21.6	79.7
1848/49	3.5	45.7	49.2	19.9	69.1
1849/50	8.0	60.1	68.1	15.8	83.9
1845/50	11.0	40.8	51.8	18.9	70.7
1850/51	15.0	112.7	127.7	47.2	174.9
1851/52	3.5	75.8	79.3	44.6	123.9
1852/53	5.7	29.7	35.4	86.8	122.2
1853/54	6.3	32.1	38.4	61.3	99.6
1854/55	5.8	41.9	47.7	97.5	145.2
1850/55	7.3	58.4	65.7	67.5	133.2
1855/56	6.4	21.6	28.0	110.6	138.6
1856/57	8.0	42.2	50.3	105.4	155.7
1857/58	12.8	59.0	71.8	122.3	194.2
1858/59	12.7	67.2	80.0	97.9	177.9
1859/60	9.9	94.1	104.0	94.8	198.8
1855/60	10.0	56.8	66.8	106.2	173.0
1860/61	10.5	67.4	77.9	95.6	173.5
1861/62	13.2	74.2	87.4	108.3	195.7
1862/63	18.6	55.9	74.5	142.7	217.2
1863/64	21.1	69.3	90.4	170.7	261.1
1864/65	17.8	67.5	85.4	154.3	239.7
1860/65	16.2	66.9	83.1	134.3	217.4
1865/66	24.5	86.7	111.2	200.9	312.1
1866/67	28.7	72.9	101.6	227.4	328.9
1867/68	21.1	30.2	52.3	256.5	308.9
1868/69	20.6	31.7	52.3	230.5	262.8
1869/70	7.2	n.a	n.a	326.6	n.a
1865/70	20.6	55.4	79.4	248.4	308.2

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1

c2= Total of Imports from Foreign Ports

c3 = c1 + c2

TABLE F.13
COASTAL AND FOREIGN IMPORTS INTO ALAGOAS CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	13.3	46.5	59.8	6.1	66.0
1846/47	18.8	86.7	105.6	7.8	113.4
1847/48	10.8	90.5	101.2	25.0	126.3
1848/49	8.5	81.9	90.4	4.7	95.1
1849/50	10.7	116.4	127.1	5.0	132.0
1845/50	12.4	84.4	96.8	9.7	106.5
1850/51	11.5	123.4	134.9	0.6	135.5
1851/52	16.0	486.0	502.0	0.6	502.5
1852/53	15.5	124.8	140.3	0.8	141.0
1853/54	17.2	119.7	136.9	2.2	139.1
1854/55	15.8	113.5	129.3	4.8	134.1
1850/55	15.2	193.5	208.7	1.8	210.5
1855/56	17.7	141.5	159.2	2.6	161.8
1856/57	22.9	201.9	224.8	13.3	236.2
1857/58	31.3	227.4	258.7	41.8	300.5
1858/59	24.5	157.0	181.5	52.6	234.1
1859/60	23.6	139.4	163.0	18.6	181.6
1855/60	24.0	173.5	197.4	25.4	222.8
1860/61	22.5	145.4	167.9	8.3	176.2
1861/62	25.1	168.7	193.7	8.4	202.1
1862/63	31.0	166.4	197.5	11.4	208.8
1863/64	32.5	176.5	208.9	5.2	214.2
1864/65	31.6	216.0	247.6	7.9	255.5
1860/65	28.5	174.6	203.1	8.2	211.4
1865/66	27.1	188.6	215.7	6.5	222.2
1866/67	39.3	161.3	200.6	22.2	222.7
1867/68	38.4	113.0	151.5	14.5	166.0
1868/69	27.1	126.0	153.1	7.0	160.0
1869/70	45.0	143.7	188.7	20.0	208.7
1865/70	35.4	146.5	181.9	14.0	195.9

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1

c2= Total of Imports from Foreign Ports

c3 = c1 + c2

TABLE F.14
COASTAL AND FOREIGN IMPORTS INTO SERGIPE CUSTOM PORTS
(in £ 1,000)

Years	1-Coatal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	13.3	46.5	59.8	6.1	66.0
1846/47	18.8	86.7	105.6	7.8	113.4
1847/48	10.8	90.5	101.2	25.0	126.3
1848/49	8.5	81.9	90.4	2.4	92.8
1849/50	25.9	78.5	104.4	2.4	106.8
1845/50	15.4	76.8	92.3	8.7	101.0
1850/51	26.9	90.6	117.5	2.9	120.4
1851/52	20.2	88.0	108.1	2.2	110.3
1852/53	26.7	75.4	102.1	1.6	103.7
1853/54	28.7	102.1	130.8	2.4	133.2
1854/55	22.6	97.8	120.3	2.4	122.7
1850/55	25.0	90.8	115.8	2.3	118.1
1855/56	25.9	102.7	128.6	1.7	130.4
1856/57	34.7	169.1	203.8	2.0	205.8
1857/58	45.6	224.6	270.2	9.0	279.2
1858/59	33.5	197.9	231.4	5.9	237.3
1859/60	39.8	186.7	226.5	2.8	229.3
1855/60	35.9	176.2	202.1	4.3	216.4
1860/61	26.1	101.1	127.2	2.2	129.4
1861/62	29.7	137.8	167.5	5.1	172.6
1862/63	35.3	133.9	169.2	6.6	175.7
1863/64	26.2	165.3	191.5	3.3	194.8
1864/65	27.1	173.6	200.7	1.4	202.1
1860/65	28.9	142.3	171.2	3.7	174.9
1865/66	31.7	188.0	219.6	6.6	226.2
1866/67	37.3	224.4	261.6	1.8	263.4
1867/68	34.9	172.0	206.9	5.7	202.6
1868/69	28.1	195.5	223.5	8.4	232.0
1869/70	n.a	154.8	n.a	6.1	n.a
1865/70	33.0	186.9	227.9	5.7	233.5

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1

c2= Total of Imports from Foreign Ports

c3 = c1 + c2

TABLE F.15
COASTAL AND FOREIGN IMPORTS INTO OTHER PROVINCES CUSTOM PORTS
(in £ 1,000)

Years	1-Coastal Trade		2-Foreign Trade		3-Total
	a1	b1	c1	c2	c3
1845/46	24.1	11.4	35.5	0.1	35.6
1846/47	24.1	46.7	70.8	0.1	71.0
1847/48	21.8	59.1	80.9	0.1	81.0
1848/49	20.1	41.2	61.3	0.0	61.4
1849/50	20.5	48.9	69.3	3.3	72.6
1845/50	22.1	41.4	63.6	0.7	64.3
1850/51	17.4	48.5	65.9	10.7	76.6
1851/52	17.7	65.3	83.0	7.2	90.2
1852/53	18.7	66.2	84.9	1.3	86.1
1853/54	24.1	67.7	91.8	35.4	127.2
1854/55	24.0	71.8	95.8	7.0	102.8
1850/55	20.4	63.9	84.3	12.3	96.6
1855/56	28.8	75.6	104.4	42.8	147.1
1856/57	37.0	110.5	147.5	52.1	199.6
1857/58	38.8	107.2	145.9	90.1	236.0
1858/59	35.6	122.9	158.6	64.4	222.9
1859/60	48.8	178.8	227.5	90.1	317.7
1855/60	37.8	119.0	156.8	67.9	224.7
1860/61	45.9	195.8	241.6	72.4	314.0
1861/62	47.3	185.2	232.4	53.5	285.9
1862/63	44.5	180.6	225.1	49.9	275.0
1863/64	38.9	208.2	247.1	38.5	285.6
1864/65	58.5	206.8	265.3	87.3	352.6
1860/65	47.0	95.3	242.3	60.3	302.6
1865/66	55.1	224.1	279.1	33.9	313.0
1866/67	86.7	264.5	351.2	39.3	390.5
1867/68	122.5	251.4	374.0	48.2	422.2
1868/69	69.2	93.0	162.2	65.3	227.5
1869/70	n.a	n.a	n.a	43.4	n.a
1865/70	83.4	208.3	291.6	46.0	338.3

Source: Table prepared by the author, see notes for the source of the original data.

a1= Imports by Coastal Trade: Brazilian Products; b1= Imports by Coastal Trade: Foreign Products; c1 = a1 + b1
c2= Total of Imports from Foreign Ports
c3 = c1 + c2

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