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**Trade Effects of the Emerging Market Economies
on RMD Trade and Transport Potentials
for the Rhine-Main-Danube Waterway**

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1. Introduction

During the last few years, the economic landscape of Europe has changed dramatically, both in the East and in the West. In Eastern Europe, the peaceful revolutions - except Yugoslavia - are among the most dramatic events of the current epoch. A central element of the revolutions in most of these countries is a total reversal of economic policy and the transition from a central planning to a market-based economy. In Western Europe the process of economic integration within the EU has been and will be intensified by implementing the Economic and Monetary Union in 1993 and integrating the EFTA countries as most of them are likely to become EU-members in 1995. Certainly, both events will have far-reaching impacts on trade patterns and transport systems in Europe.

Today's liberalisation and opening up of the emerging market economies in the East - including the adoption of hard currency accounting, investment by and joint-ventures with Western firms, industrial restructuring and privatisation, the removal of trade barriers, the implementation of new technologies, and political deregulation - will affect East-West trade patterns in several aspects in Europe. First, the increase in openness and the expansion of output will positively affect the volume of East European countries' trade. Second, new demand structures, new production technologies, and new types of specialisation will lead to remarkable changes in the composition of their trade patterns. Finally, the dismantling of CMEA trading arrangements and the integration of Eastern European countries into the European Economic Area will result in a spatial re-orientation of trade patterns (see Collins and Rodrik 1991, Hamilton and Winters 1992, Rollo and Stern 1992).

There have been a number of recent studies on the implications for the world economy of developments in Eastern Europe (see, for example, Collins and Rodrik 1991, Debs et al. 1991, Siebert 1991) and ours is naturally related to these. The major focus in this chapter is on the likely trade effects of the emerging market economies on trade within the Rhine-Main-Danube (RMD) area and the potentials for the RMD waterway transport. The RMD area represents the geographical framework of the study and is defined as the wider catchment area of the RMD waterway including Austria, Belgium-Luxemburg, Bulgaria, the Czech and Slovak Republics, France, (West-)Germany, Greece, Hungary, the Netherlands, Romania, Switzerland, Turkey and the former Yugoslavia.

The chapter is organized as follows. In section 2 the process of economic transformation in Eastern Europe is briefly characterised by considering the major areas of reform and discussing the question of the future economic development of Eastern Europe. The focus of section 3 is

on the likely impacts of the opening up of Eastern Europe on East-West trade. The discussion is strongly based on a study exploring the potential volume, direction and composition of trade in the RMD area (see Fischer and Rammer 1993, Fischer and Johansson 1994). Section 4 provides a quantitative assessment of the likely effects of the emerging trade patterns on goods transportation on the RMD waterway. Finally, some policy recommendations are made to tackle major bottlenecks of the RMD waterway.

2. The Economic Transition Process in Eastern Europe

Since 1989 Eastern Europe is experiencing a period of transformation from centrally planned economies towards open market economies which is unprecedented in history. There is a broad agreement on the major steps which have to be undertaken to transform a socialist economy into a market economy (see Siebert 1991, Hinds 1991, Genberg 1992, Funke 1993). The major disagreements focus on the appropriate sequencing and speed with which these policy measures should be implemented. Figure 1 lists the key issues that have to be addressed in any transition. In this figure three types of measures are distinguished: institutional reforms, macroeconomic stabilisation and microeconomic reforms.

It is widely agreed that institutional reforms are central to creating a healthy market economy. Institutional changes focus on the contract and company law, property rights, two-tier banking system, the regulatory system etc. Extensive legal reforms are needed, including legislation to protect private property. A key issue is the development of a two-tier banking system with an autonomous and independent central bank and private commercial banks. The development of financial intermediaries which can channel domestic saving into needed investment projects is a further key issue.

There are a variety of microeconomic reforms that are essential to creating a healthy market economy. We mention here few reforms from a long list. First, enterprises have little incentive to respond to market signals when their outlays are simply financed by subsidies from the government. Thus, it is crucial to establish hard budget constraints for firms to weed out those that will be insolvent at realistic prices. Second, governments have to take steps to develop the private sector, including the privatisation of state-owned enterprises and the elimination of restrictions on the establishment of private firms. The creation of new firms is an important aspect of restructuring the economy (free market entry of new firms). Third, a crucial issue is dismantling the complex system of centrally controlled prices and allowing them to reflect relative scarcities and tastes in the most important goods markets. One effective means of

establishing a sensible set of relative prices, at least for tradable goods and services, is to import prices from the world economy through trade liberalisation. Fourth, also a key issue is to attract foreign direct investment that brings new technology and know how as well as access to foreign markets.

Figure 1: Elements of Transformation to a Market Economy: Three Major Areas of Measures (Source: Siebert 1991, Fischer and Gelb 1991, Dornbusch 1991)

Institutional Reforms		
Legal System	Reform of the Banking System	Regulatory System

Microeconomic Reforms		
Development of the Private Sector	Price and Market Reforms	Trade Liberalisation

Macroeconomic Stabilisation		
Currency Convertibility for Current Account Transactions	Fiscal and Tax Policies	Hard-Budget Constraints

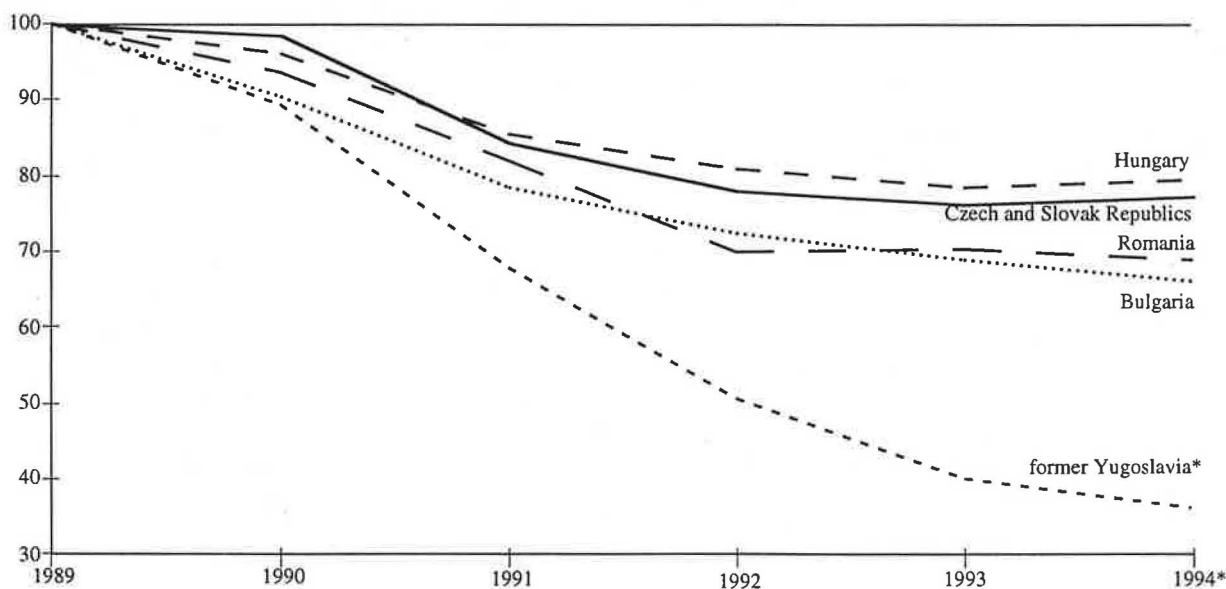
Macroeconomic stabilisation can not be too distant from the microeconomic reforms. Macroeconomic stability here means balancing total domestic demand with total domestic production in such a way that the price level is relatively constant and predictable, and that the country does not need to borrow from abroad beyond its future capacity to service its debt (Collins and Rodrik 1991). In the absence of such a stability, it is difficult for prices to act as effective market signals which is a crucial element of a market economy.

Achieving macroeconomic stability entails establishing and maintaining a fiscal policy - characteristically with the budget at or near balance - and control over the growth of the money supply. Budget control will require eliminations of many of the price subsidies and is, thus, tied to monetary adjustment over the medium run, a tax reforms will be essential because among other things government revenues are tied to a system of price controls in these economies. Opening up the economy can lead to large external imbalances if macroeconomic policies are unsustainable, or if the exchange rate is substantially overvaluated.

A central point in our study is to stress the heterogeneity of the Eastern European countries in the RMD area, i.e. Bulgaria, the Czech and Slovak Republics, Hungary, Romania and the former Yugoslavia. The countries differ in a number of important aspects. There are considerable differences in their sectoral composition, with agricultural production accounting for a large share of the total in countries such as Romania while others, such as the Czech and Slovak Republics, are considerably more industrial. In the beginning of this decade, the RMD countries were at very different starting points in terms of how much relative prices and the allocation of resources differed from the outcomes which might be expected from functioning markets. Hungary, for example, had been liberalising gradually for about two decades, whereas other countries such as Bulgaria or Romania had hardly started to initiate economic reforms. There are also differences in the prevailing political and social situations which can be a central force to push or hinder economic reforms. These conditions also contribute to the extreme uncertainty that is existing about the future course of events in some of the countries.

Although each of the countries concerned has unique features, it is useful to identify a few broad problems. First, Bulgaria and Romania adopted radical reforms in 1991, but the outcomes remain in doubt. Second, Hungary and the Czech and Slovak Republics are in the kind of more gradual liberalisation programs. Considerable progress has also been made in Hungary. The speed of change in the former Czechoslovakia (especially in the Czech Republic)

Figure 2: The Development of Output in Eastern European RMD Countries in the Time Period of 1989-1994 (measured in terms of real GDP, 1989=100; Source: WIIW 1994)



* estimations

accelerated in the early 1990s. Third, we know that the transition from a planned to a market economy is associated with a specific development in output - a J-curve in output with a dip and a valley, where output will fall first and then start to rise (see Siebert 1991). The shape of this curve is not exactly known, but is relevant for the political economy of transition. The shape of the J-curve depends on the inefficiency of the existing firms, the speed and methods of privatisation, the speed with which new firms come into existence, the condition of the process of restructuring etc. The statistical measurement of the J-curve is not without problems. For simplicity we use real GDP as measure of output in figure 2. So far we can observe the falling branch of the J-curve in all cases. The data suggest that the fall of output might come to a stop in Hungary and the Czech and Slovak Republics in 1994, while Bulgaria and Romania - and of course the former Yugoslavia - still face a considerable decline.

3. Consequences for International Trade

This section will focus on trade implications of the integration of the Eastern European RMD economies into the world economy and rely on the study of Fischer and Rammer (1993). The focus will be on international trade flows. Particular emphasis is laid on three questions:

- *First*, what will happen to the overall volume of trade of the RMD area under a realistic catch-up scenario with respect to income growth? (Volume of Trade Effect)
- *Second*, what will the direction of trade look like? (Direction of Trade Effect)
- *Third*, what will the product composition of trade look like? (Composition of Trade Effect)

The central focus of the study is the very long-run outcome in economy in which the Eastern European economies will have completed a successful transition, become thoroughly integrated into the world economy and become like developed market economies in several aspects, especially in income levels (catch-up scenario). It is important to stress that even if the transitions are successful, this scenario is relevant only in the longer run, say in 2015. In particular, even with very rapid growth rates, it would take many years for real incomes in these countries to reach the average level of EU countries.

In addition to long term effects we tried to predict shorter-run issues and the more likely outcomes (short-term horizon: 1995 and medium term horizon: 2000). Trade during the 1990s will be shaped by two major developments. The first of these developments is the progressive

liberalisation of these countries' trade regimes. A more gradual process of trade liberalisation has already made substantial progress in Hungary. The other countries - still behind - are likely to move in the same direction. The second major development is the dismantling of the Comecon trading arrangements which started in 1991. The official dismantling put an end to the complex system of bilateral trading arrangements as well as to the implicit pattern of subsidization of manufactured goods at the expense of natural resources and energy. These trade relations will become decentralised and market oriented, and show no difference from trade with Western countries.

The methodological approach for analysing the consequences for international trade in the RMD area is based on a simple, but robust model of bilateral trade flows (a gravity type trade model, see Fischer and Johansson 1994) and the above mentioned catch-up scenario (see Fischer and Rammer 1993). In the sequel, we present our estimates with respect to the impact on the RMD trade. Of course, there is a great range of uncertainty with respect to the likely developments in each of the countries of the RMD area.

Volume of Trade

What will happen to the overall volume of RMD trade as the Eastern European countries liberalise and integrate themselves into the world economy in general and to the European Economic Area in particular? We consider the catch-up scenario for real incomes in the Eastern European RMD countries as described in Fischer and Rammer (1993) and report estimated trade effects in table 1 (export figures) and table 2 (import figures) for the RMD area. Due to time and cost constraints, the RMD area had to be considered as a closed rather than an open system.

The (long term) estimates are naturally subject to a great range of uncertainty with respect to the likely developments in each of the countries of the RMD area. The numbers presented might end up wide of the mark in the long term. But we think they are useful nonetheless in helping to frame the issues and focus thinking on the potential impact.

The overall trade volumes will expand primarily as a result of rise in living standards and output levels, and increases in the openness of the Eastern European countries concerned. Because any increase in income will take time, the global trade impact will be spread over a number of years. The total trade volume is predicted to expand by an average annual growth rate of 2.5 % in the shorter term and 4.5 % in the longer term. The main message of tables 1

Table 1: Actual and Predicted Export Figures for the RMD Countries (in 1990 billions of US dollars, Source: Fischer and Rammer 1993)*

Countries	Actual Export Figures**	Model Predictions				Change 1990-2015 (in % per year)
		1990	Short Run 1995	Medium Run 2000	Long Run 2015	
Countries in the Catchment Area of the Danube						
West Germany	176.7	202.6	250.0	424.0	3.6	
Austria	25.9	29.1	37.9	90.9	5.2	
Czech and Slovak Republics	4.7	3.4	9.0	63.4	11.0	
Hungary	4.8	4.4	11.0	73.7	11.5	
(former) Yugoslavia	6.5	2.6	3.4	49.2	8.4	
Romania	1.9	1.1	1.4	22.1	10.3	
Bulgaria	1.1	0.4	0.6	7.6	8.0	
Countries in the Catchment Area of the Rhine						
Switzerland	27.6	30.8	37.9	62.9	3.3	
France	69.0	80.9	98.8	154.2	3.3	
Belgium-Luxembourg	67.9	80.0	96.6	141.7	3.0	
The Netherlands	69.3	81.0	98.2	146.0	3.0	
Southeast European Countries in the Wider Catchment Area of the Danube						
Greece	3.3	3.6	4.5	8.4	3.8	
Turkey	5.0	6.2	7.6	22.3	6.2	
Total	463.8	526.0	656.8	1,266.4	4.1	

* without trade relations Romania-Bulgaria and Bulgaria-Romania

** UN World Trade Data Bank

Table 2: Actual and Predicted Import Figures for the RMD Countries (in 1990 billions of US dollars, Source: Fischer and Rammer 1993)*

Countries	Actual Export Figures**	Model Predictions				Change 1990-2015 (in % per year)
		1990	Short Run 1995	Medium Run 2000	Long Run 2015	
Countries in the Catchment Area of the Danube						
West Germany	121.1	138.3	172.5	305.0	3.8	
Austria	31.5	36.3	45.8	91.7	4.4	
Czech and Slovak Republics	4.9	3.6	10.1	66.7	11.0	
Hungary	4.7	4.4	11.6	67.9	11.3	
(former) Yugoslavia	9.9	4.2	5.5	72.9	8.3	
Romania	1.8	1.0	1.3	20.1	10.1	
Bulgaria	1.4	0.7	0.9	10.0	8.2	
Countries in the Catchment Area of the Rhine						
Switzerland	39.4	44.6	54.0	80.3	2.9	
France	98.8	117.0	141.6	215.3	3.2	
Belgium-Luxembourg	69.3	81.5	98.7	143.7	3.0	
The Netherlands	64.9	75.9	92.1	136.8	3.0	
Southeast European Countries in the Wider Catchment Area of the Danube						
Greece	8.6	9.7	11.9	20.4	3.5	
Turkey	7.4	8.8	10.7	35.6	6.5	
Total	463.8	526.0	656.8	1,266.4	4.1	

* without trade relations Romania-Bulgaria and Bulgaria-Romania

** UN World Trade Data Bank

and 2 is that Eastern European RMD countries will make a major impact on global trade volumes only if the countries' income rises appreciably and this might be expected only in the long run. Moreover, the estimated figures imply that East-West trade in the RMD area will decrease in the short run, followed by a modest increase until the end of this decade and a dramatic increase in the long run. The bilateral trade volume is estimated to grow by a factor of 2.73 in the long run compared to 1990 under the assumption that EU has removed the quantitative restrictions on Eastern Europe's imports and all the Eastern European RMD countries have become members of the European Economic Area.

Direction of Trade

As already mentioned, the collapse of Comecon trading arrangements and the increasing influence of market forces in the Eastern European countries is likely to lead to a re-orientation of these countries' trade away from each other and towards Western European markets. Figure 3 illustrates the spatial configuration of bilateral trade flows in general and the spatial re-orientation of Eastern European trade patterns in particular for the short, medium and long run in relation to the initial state in 1990.

Product Composition of Trade

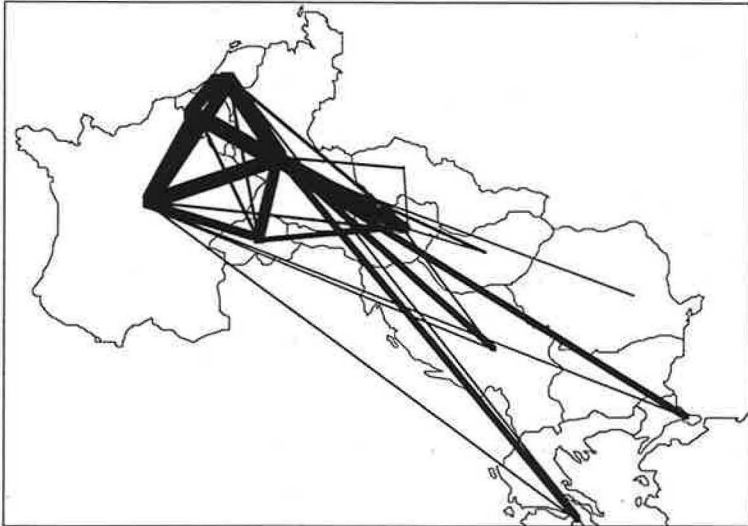
So far the discussion has focused on volume and direction of trade effects. We briefly turn to the trends likely to emerge in the product composition of these trade flows. Two notes of caution are important to make in this respect. First, any projection based on current trade patterns faces the problem that this trade has been greatly distorted by centralised planning and misguided by domestic pricing policies in the socialist economies. Second, the likely expansion in the overall volume of these countries' trade, as described above, is unlikely to be a simple radial blow-up of today's. Significant trade expansion might involve a great deal of product diversification in exports.

In Fischer and Rammer (1993) six product classes have been distinguished to analyse changes in product composition of trade:

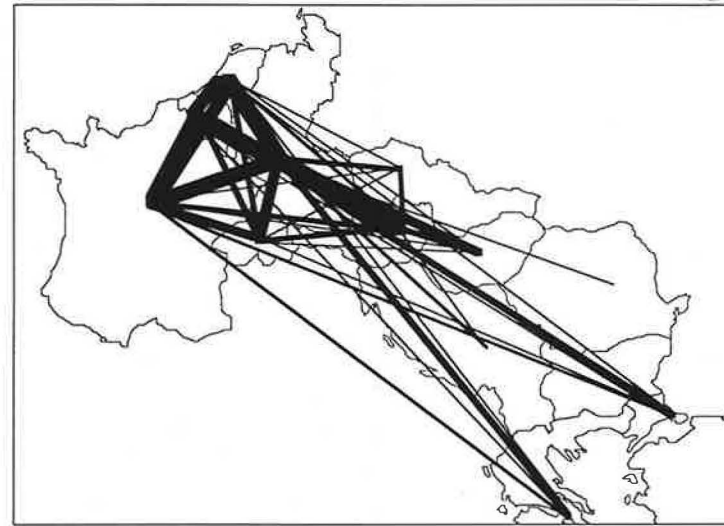
- Agricultural Products (SITC 00-09, 41-43)
- Raw Materials (SITC 21-25, 27-29, 32-33, 56)
- Labour Intensive Products (SITC 26, 61, 63-66, 69, 81-85, 89)
- Capital Intensive Products (SITC 11-12, 53, 55, 62, 67-68, 78)

Figure 3: Spatial Configuration of Bilateral Trade Flows in the Rhine-Main-Danube Trading Area 1990, 1995, 2000 and 2015
 (Source: Fischer and Rammer 1993)

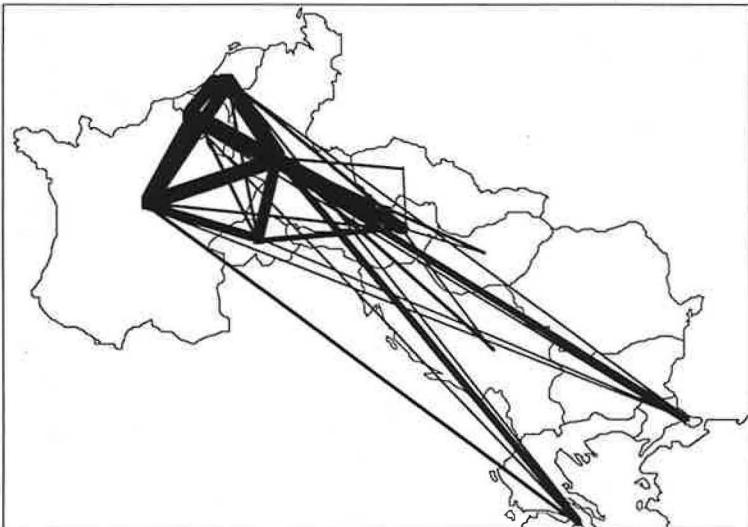
Initial State: 1990



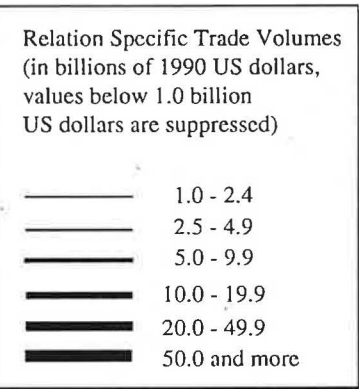
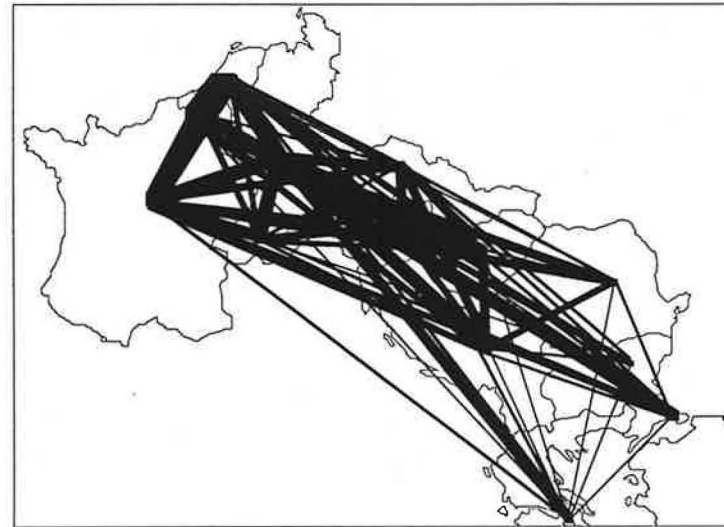
Medium Term Forecasting Horizon: 2000



Short Term Forecasting Horizon: 1995



Long Term Forecasting Horizon: 2015



- Low End R&D Intensive Products (SITC 51-52, 54, 58-59, 75-76)
- High End R&D Intensive Products (SITC 57, 71-74, 77, 79, 87-88)

Figure 4: Product Composition in the RMD Area: Actual and Predicted Shares of Product Categories in Total Exports for all RMD Countries and Eastern RMD Countries
(Source: Fischer and Rammer 1993)

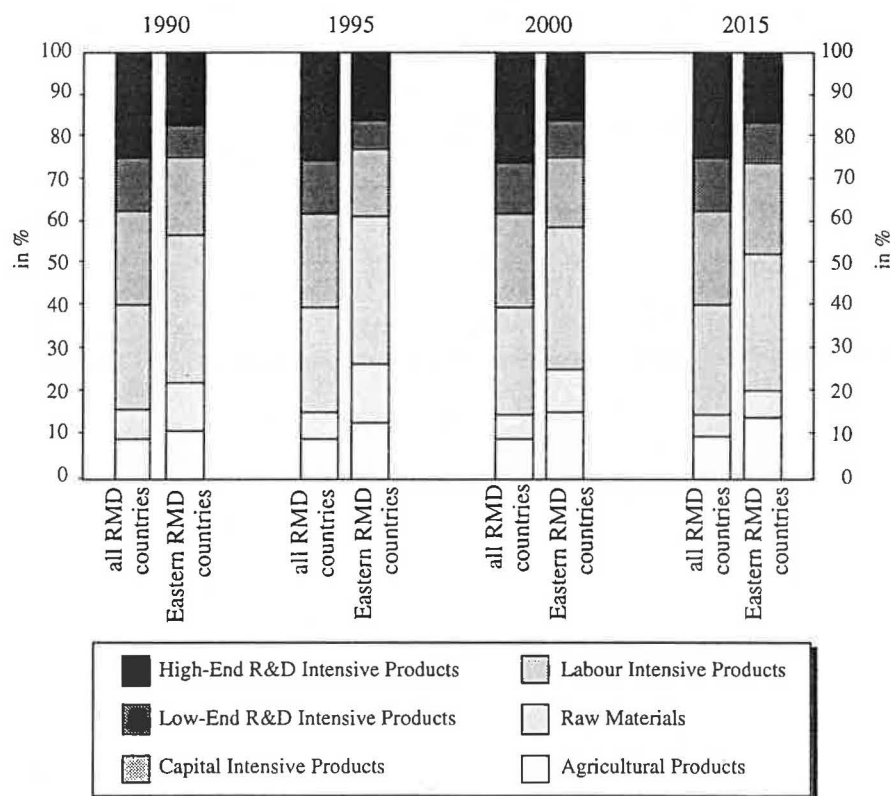


Figure 4 shows the product composition of trade for all the RMD countries on the one side and for the Eastern RMD countries on the other, in terms of the six above mentioned product categories (for country specific results see Fischer and Rammer 1993). The major aggregate results might be summarised as follows:

- *First*, the comparative advantage patterns reflected in current East-West trade flows are undergoing major changes in the long run. Raw materials, in particular, which may loom large in the exports of Eastern RMD countries initially as well as in the shorter run, will be replaced in the longer run by manufactured products of increasing sophistication as their industrial sectors are rehabilitated.

- *Second*, other product categories in which the Eastern RMD countries currently have strong revealed comparative advantages are agricultural and labour intensive products. The Eastern RMD countries are likely to develop a comparative advantage in goods that are intensive in human capital and skills, as the levels of educational attainment and scientific and technological mastery in these countries are high on average. The figures suggest that potentially disruptive export surpluses in agricultural products may well develop already in the medium term, if - as expected - the countries experience substantial productivity increases and if EU restrictions on trade (in agriculture) with Eastern European countries will be abolished.
- *Third*, the Eastern RMD countries are likely to remain net importers of R&D intensive and capital intensive products. A large expansion of export in these product categories is unlikely although slight increase might be expected in the long run.

4. Consequences for the RMD Waterway

We turn next to the implications and potentials for the RMD waterway. As section 3 clearly indicates, the volume of trade between East and West in the RMD area will increase dramatically in the long run. In view of the missing links and bottlenecks in East-West transport on road and rail (see Button 1993, Hall 1993), the RMD waterway link might play a major role in mastering the above mentioned challenge jointly with rail and road transport.

The estimations of transport potentials for the RMD waterway entail combining the predicted bilateral trade flows with levels of modal split to generate the freight potential for cross-country RMD waterway transport for 1995, 2000 and 2015. Therefore, bilateral trade flows - disaggregated by six product categories and measured in terms of US-\$ - had to be transformed into freight potentials (measured in tons) disaggregated by the ten chapters of the standard NSTR classification system used in transport statistics (for details see Fischer and Rammer 1993).

We consider two scenarios for the modal split of the bilateral trade flows. The first scenario takes current modal split levels as given. This conservative scenario can be interpreted as a lower limit to the likely magnitude of trade potentials for the RMD waterway. The other scenario takes for granted that the RMD waterway transport is able to increase its competitive position. Its likelihood depends critically to overcome bottlenecks in RMD waterway transport which mainly lie in

- the fact that different parts of the RMD waterway network are state regulated or monopolised with different sets of rules and norms for modes of transport, type of cargo or container, type of investment, etc.,
- the lack of an intermodal uniform approach giving responsibilities for organisational issues to individuals (shipper-forwarder-reciever) rather than to governments (need for multimodal solutions),
- the lack of technical standardisation including physical infrastructures in port facilities and terminals for containerised transport as well as information systems,
- serious nautical problems on specific parts of the RMD waterway not guaranteeing an all-season minimum waterway depth of 2.5 m as well as small locks impeding larger vessels,
- the lack of support by transport policies of most RMD countries which are largely focussed on road and rail transport rather than on inland waterways, both financially and organisationally.

What can we say about the likely transport potential for the RMD waterway? Two sets of predictions of the transport potentials are reported. The first is based on the conservative modal split scenario, whereas the second assumes that inland waterway will improve its position as described above. The results based on the conservative scenario suggest that the transportation potential of about 7 million tons in 1990 (for those traffic relations concerned) is likely to decrease rather dramatically to 4.9 million tons in the short run, increase modestly to a level of 7.9 million tons in the medium run and finally reach 32.7 million tons in the long run. At the other extreme, the optimistic scenario yields a transport potential of 13.0 million tons in the medium run and 72.4 million tons in the long run. While the optimistic scenario is a plausible scenario, we think its likelihood depends crucially on the implementation of the policy measures, improved nautical and logistic conditions etc. as mentioned above.

The expected transport potentials for the medium term are displayed in figure 5 and 6. The figures clearly show large disparities in the transport potentials between the Eastern and Western parts of the RMD waterway. In the medium run the potential for the Western part including the Hungarian harbours is expected to be much larger than that for the Eastern part. In the long run, however, the disparities tend to decrease if the economic transitions in the countries concerned become successful.

Figure 5: Expected Trade Potentials for the RMD Waterway: Time Horizon 2000, Conservative Scenario

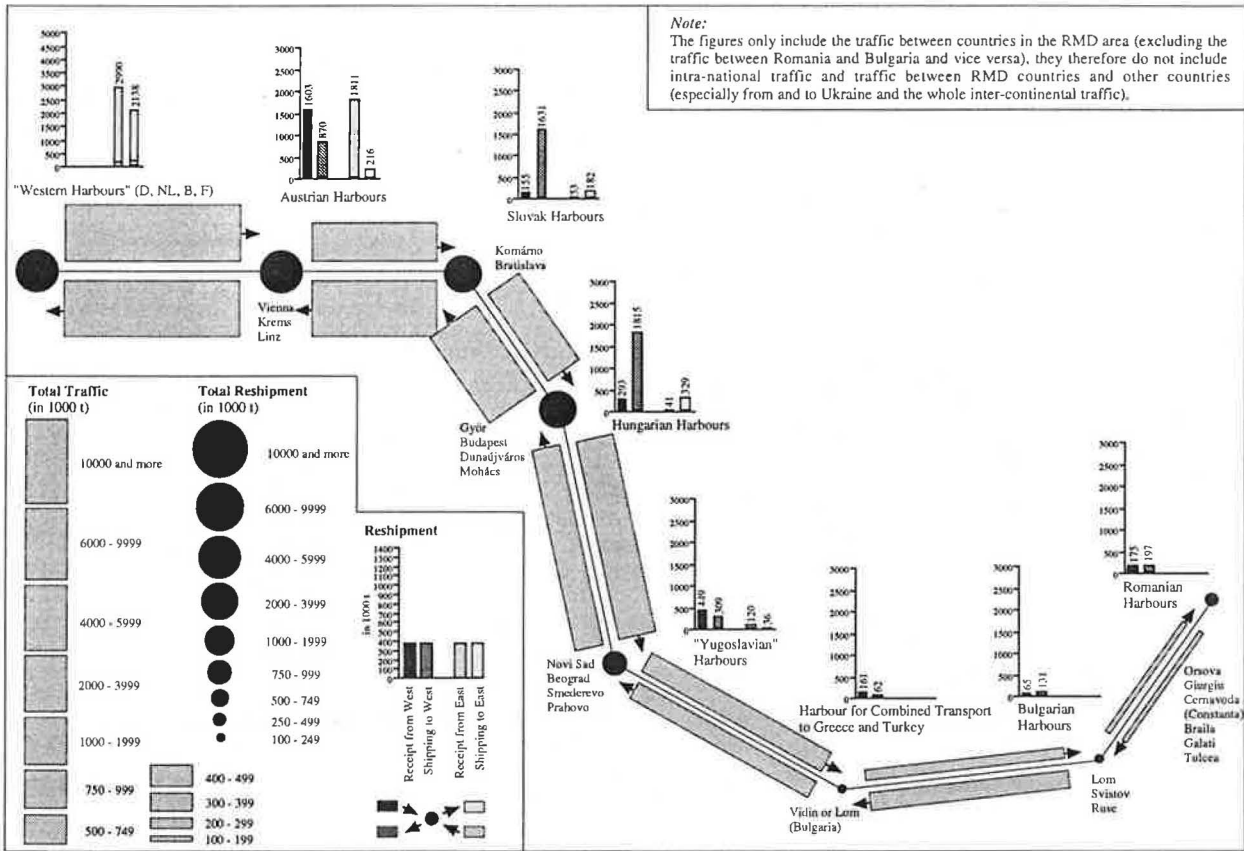
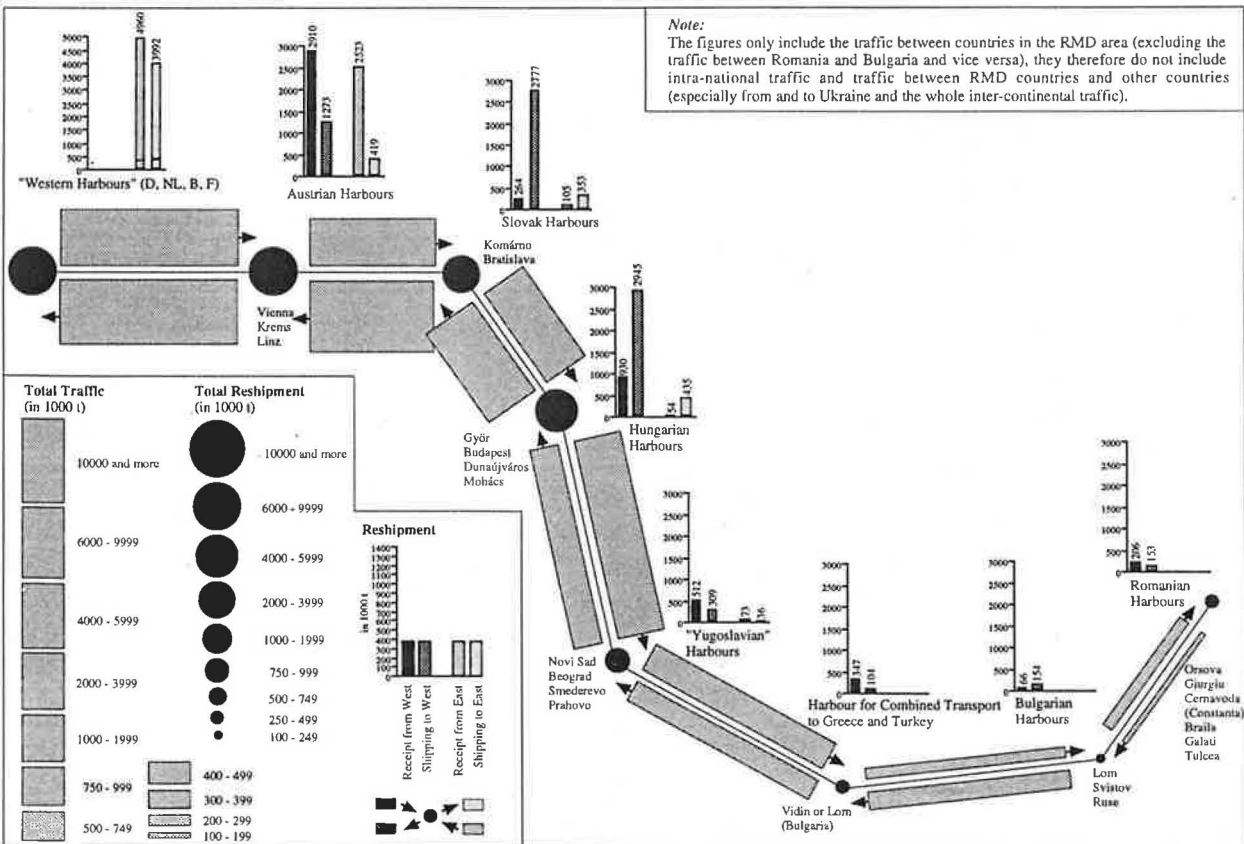


Figure 6: Expected Trade Potentials for the RMD Waterway: Time Horizon 2000, Optimistic Scenario



5. Conclusions and Some Policy Recommendations

The peaceful revolutions in Eastern Europe are among the most dramatic events of the current epoch. A central element of the revolution in most of the countries is a total reversal of economic orientation. The major focus in this study was on the likely trade effects of the emerging market economies on RDM trade and the potentials for the RMD waterway transport.

Our trade predictions, based on a catch-up scenario for real incomes in the RMD countries, imply a sharp fall in East-West RMD trade in the short run, a modest growth in the second half of this decade and a dramatic increase in the first two decades of the next century. The estimated transport potentials for the RMD waterway are based on two alternative modal split scenarios (a conservative and an optimistic scenario). The results indicate an increase in transport potentials for the RMD waterway in the medium and long run while in the short run a decrease has to be expected.

The results on trade potentials clearly indicate a challenge for the RMD waterway in East-West trade. The realisation of the potentials either based on the conservative or the optimistic modal split scenario crucially depends on five major dimensions (see Fischer and Nijkamp 1993, Giaoutzi and Nijkamp 1993, European Round Table of Industrialists 1991):

Hardware

Hardware refers to the tangible physical components of inland waterway transportation infrastructure (e.g., technical equipment, ports, terminals). Bottlenecks include the slow substitution of outdated small ships by modern, larger ones implying overcapacity and growing inefficiency, the lack of standardisation of dimensions of vessels and containers, and the lack of direct, multimodal lines between ports and hinterlands. Intermodal transfers are hampered by the lack of compatibility between barges, containers, port facilities and train terminals. Above all, the inland waterway network has to be based on standardised container technology. The quality of the existing equipment in most Eastern European ports is outdated. Ports and container terminals, heavy cargo and multiple bulk cargo terminals have to be equipped with advanced transshipment technologies which allow for a quick transmodal change of goods. Transshipment and cargo handling techniques have to be sought in both ship design, and loading and unloading, handling and storage operations.

Software

The term software is used here to include computerised management of transport and computerised services which improve access by users and facilitate intermodal operations (waterway/road, waterway/rail). Unsatisfactory statistical information on trade flows on the RMD waterway is a major issue. The second major bottleneck is the lack of informatics in general and EDI-systems in particular. Finally, the absence of logistic strategies as well as instruments of combined transport to control the wagon, truck and ship fleet on road, rail and waterway are another important shortcomings.

Institutional and Organisational Setting

The discussion encourages all regulatory, administrative, legal, management, and coordination activities and structures governing both the demand and supply side of transport. Market access limitations (licences), tariff setting procedures and ownership patterns are among the issues currently to be discussed in the move towards liberalisation, deregulation and privatisation. Transport is a multimodal, multiactor and multinational activity which needs both competition and flexible regulation. In addition to traditional containerised transport solutions, the network has to be based on what is called soft technologies in combined transport. There is a strong need for more sophisticated and standardised equipment to be used in the terminals, in order to meet demand oriented criteria, inter alia reduction of transshipment time and personnel. In particular there is a need for integration, coordination and harmonisation of regulations. Coordination will be achieved by making the different parts of the transport network as a whole compatible, including multi-modal solutions.

Financial Arrangements and Funding

Bottlenecks here include insufficient investment and planning of new infrastructure or upgrading of existing ones and for fleet modernization. Improvement of the RMD waterway network is hindered by a severe lack of coordinated European financing initiative/institutions in both the private and public spheres. A European approach to the integrated treatment of funding on the one hand and the equalisation of economic and environmental benefits and costs on the other is urgently needed. Certain resources required for coordination and organisation should be found via well regulated taxation systems.

Environmental Impacts

Certain rules similar to the MARPOL (the international treaty to prevent massive pollution) should also apply to environmentally dangerous transport behaviour in the inland waterway network and to harmonisation of regulations for environmental protection among the various parties involved in the network. They should also include a ban on unsafe ships.

The overall conclusion from the present chapter is that the RMD waterway offers a great potential to meet the challenge of large increase of East-West trade in the long run. Therefore, however, sophisticated hardware and software equipment is needed, sufficient financial resources have to be reserved for more strategic investments, strict eco-policies should be imposed and, finally, transnational coordination of policies on European network connections should be pursued.

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