

## **The state of the transport sector deregulation in Argentina and Germany**

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### **Abstract**

The German and Argentinean experiences with the deregulation and privatisation of the transport sector are outlined, giving attention to the supranational environment in which these countries are embedded.

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### **I. Introduction**

Transport systems are one of the key factors for the economic development of countries. Without an efficient transport network, which enables people and goods to be shipped from one point to another within a country as well as throughout the world, economies are seriously handicapped. The welfare losses caused by a near-collapse working transport network are not easy to quantify<sup>1</sup>, but everyone living near a large city knows how exacerbating traffic-jams and delayed trains can be. Transport networks inherently will come across situations in which bottlenecks can be detected, since they usually can absorb only part of the increase in traffic they are exposed to and are not boundlessly upgradeable<sup>2</sup>.

A comparison of the transport markets between the countries Argentina and Germany can lead to fruitful results. Being a “problem-oriented comparison”<sup>3</sup> through which different approaches regarding the design of transport networks as well as the interrelation of the means of transport can be illustrated, the present paper provides an overview of the experiences both countries made by deregulating their transport markets.

The change of paradigm regarding the states involvement in economic regulation initialized at the beginning of the eighties in Germany and the end of the eighties in Argentina has extended itself to most parts of the transport sector, whereas other parts are beginning the stage of transition only now. The reasons for the change of paradigm will be outlined within a general frame. Furthermore the

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<sup>1</sup> The welfare losses addressed are the so called congestions costs and are just one component of the external costs. A study claims that in 1995 the congestions costs in Germany ran up to approximately 10 billion Euro, which represented 0,6% of the GDP in that year (see: Banfi, S. et al. (2000), p. 9).

<sup>2</sup> Cf. Behrendt, J. (2000), p. 26.

<sup>3</sup> Cf. Ritter, U. P. (1996), p. 314.

attempt to internalize the external costs of the transport sector by using policy tools such as charges and taxes will be addressed in subsectors where this occurs. Furthermore the role of the respective union each of the countries is part of is presented, special attention being drawn upon the effort of establishing supranational transport networks.

### ***1.1. The supply structure of transport markets***

On the supply side transport markets are composed mainly of two parts: the first are transport services and the other is the network in which transportation services are ultimately fulfilled.

There are several characteristics peculiar to transport markets that give reasons for the state's intervention in these markets<sup>4</sup>:

- capacities have to be lined up to the demand at peak times,
- fix costs are responsible for a large share of total costs,
- the elasticity of transport supply is low,
- transport services are not storable.

Founded on these arguments and on the argument that if left on their own transport markets would not be able to provide an efficient allocation of the resources, governments defended their efforts within the sector until the eighties of the last century.<sup>5</sup> Especially the high fixed costs in combination with existing economies of scale often induce marginal usage costs below the fully allocated average costs. This situation can be exploited by large suppliers to initiate a short-run price-cutting behaviour by which smaller competitors can be displaced of the market. The gained monopoly is relatively secure from new entrants. This, national governments argued, had to be avoided via an intervention.<sup>6</sup>

Originally other aspects led to the states active role within this specific sector: in Germany the profitable railways of the beginning of the century and protectionist interests regarding the agricultural and industrial sector were main reasons<sup>7</sup>, whereas in Argentina the reasons for nationalising the railways in 1948 were the result of social pressures against the services, the opportunistic behaviour of the government and the will of England of selling the railways.

Nowadays the change of paradigm is omnipresent: governments are withdrawing their activities throughout the subsystems composing the transport sector. At the beginning the reasons for this conduct were of similar nature, namely fiscal. Privatizing has been an efficient method to reduce the fiscal deficit and simultaneously achieve a better supply of infrastructure and services.<sup>8</sup>

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<sup>4</sup> Cf. Deregulierungskommission (1991), p.39.

<sup>5</sup> Up to then Germany, along with France and Italy, has been one of the countries with the most regulated transport markets within the EU (See: Aberle, G. (2000), p.107).

<sup>6</sup> Cf. Oster, C.; Strong, J. (2000), p. 19.

<sup>7</sup> Cf. Deregulierungskommission (1991), p. 35.

<sup>8</sup> Cf. Estache, A. (2001), p.85.

However in the past few years the fiscal purposes gave way to a new view in relation to the political handling of transport systems. The new role governments hold by inducing private companies to provide the transport infrastructure or transport services bring several new tasks with it. First, there has to be decided how to hand over a formerly state run infrastructure or service to private enterprises. For this purpose a restructuring of the respective market has to be carried out, so that competition can be promoted. In Table 1 the contractual arrangements to be chosen from for this purpose are presented. The contractual agreements made with private enterprises in the course of a liberalisation have to be managed. Agreements upon prices and service levels have to be monitored and discernible shortcomings removed by renegotiations, as contracts will seldomly cover all the risks related with a privatization/deregulation event. Furthermore the competitiveness has to be ensured and access points and service supply in remote areas have to be guaranteed. In this context the state may has to take over or maintain the role of supplier, as it is possible that no private enterprise is willing to provide it. Last but not least severe safety and environmental conditions have to be established and enforced. This is to be seen as a step against the going concern that private enterprises could try to reduce their costs by cutting expenditures on maintenance or other safety related measures.<sup>9</sup>

**Table 1: Categories of contractual arrangements for private participation**

<b>Contractual Arrangement</b>	<b>Characteristic</b>
Divestiture	Sale of public assets through public offering of shares
Greenfield Project	New investment projects are appointed to private owners
Operations & Maintenance	Private operator manages and maintains the service without investment obligations. Term: 2-5 years
Concession Contract (or Franchise)	Private operator is responsible for operation and maintenance, investment and service obligations are also assumed. Term: 10-30 years.

Source: Estache, Antonio (2001), p.92.

To give the reader an overview of the dimension of the german and argentinean transport markets the evolution of the main sectors is presented in the figures 1 and 2.

## II. German Transport Markets

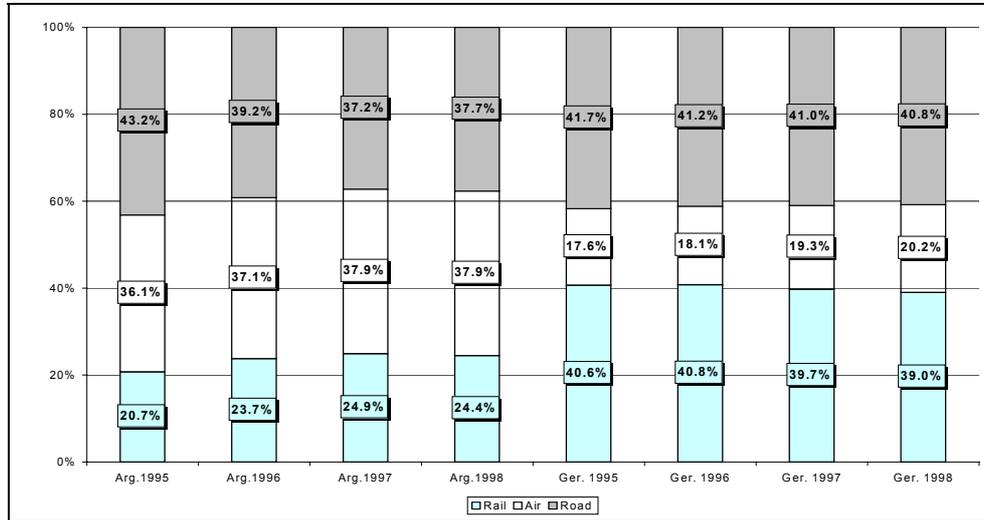
Germany's geographical localization is one explanation for why it has developed to the "transit country number one" within Europe, as it evolved into a turntable of north-south as well as of east-west traffic.<sup>10</sup> To provide the general

<sup>9</sup> Cf. Oster, C.; Strong, J. (2000), p. 26.

<sup>10</sup> Cf. Behrendt, J. (2000), p. 26.

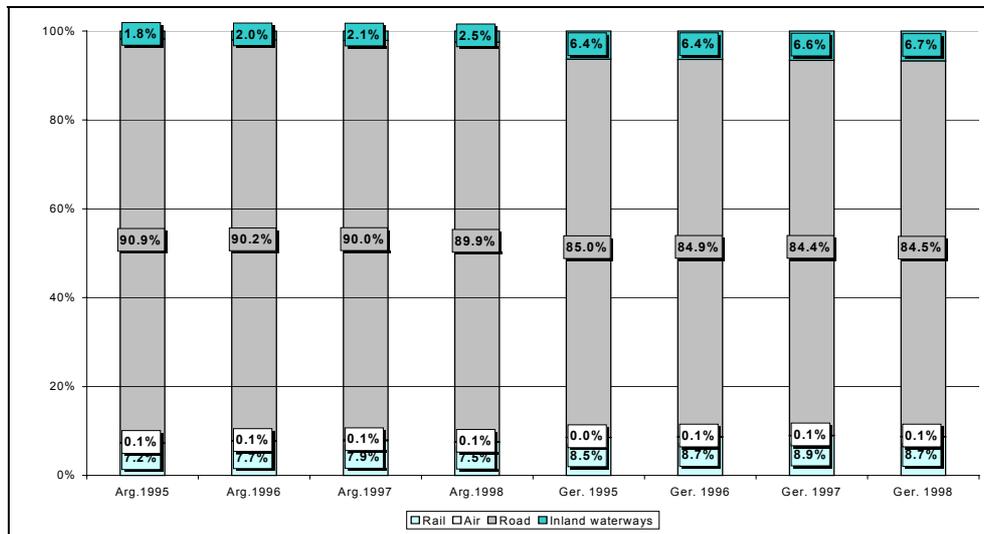
conditions for an efficient transport market, Germany's attention regarding the necessary resources are not limited to the ones of monetary nature: natural resources are, especially after the ruling coalition came to power in 1998, ever more in the focus of political decisions.

**Figure 1: Modal-split of passenger transport (passenger-km)**



Sources: Statistisches Bundesamt (2000), p. 296; INDEC (2002) and INDEC (1996-2002).

**Figure 2: Modal-split of cargo transport (tonnage)**



Source: Statistisches Bundesamt (2000), p. 296; INDEC (2002), INDEC (1996-2002) and Secretaría de Transporte – Ministerio de la Producción – Argentina (2002)

The policies adopted in German federal administrations can be subdivided into the ones of regulative and the ones with structural character.<sup>11</sup> The first are to be seen as the set of general conditions that supply and demand have to comply with when interacting on the transport market. The second include all governmental activities by which investments or investment incentives are carried out within the sector.

## ***II.1. Freight Transport***

### ***II.1.1. Air Transport***

In Germany this sector registered an average of 7,2% of growth p.a. in the last decade.<sup>12</sup> Besides maritime transportation air freight has been the sector which most felt the effects of globalization. High-end and certain perishable goods began being shipped by planes, since lead times are reduced considerably. Air freight is predominantly carried in the belly of passenger planes, which can accommodate several tons of freight. The remaining share is allocated on freighters. As a result of this structure the deregulation of the sector coincides in most parts with that of the air traffic in general, upon which the following considerations are based on.

Until the mid eighties the air traffic in Germany was strictly regulated, giving no room for competition. The whole system based on bilateral agreements between countries, by which capacities and rates were set. National governments, who usually owned the flag carriers, also arranged these agreements, ensuring that the flag carriers interests were not neglected. These agreements had its roots back in 1952, when Germany, to obtain back the sovereignty over its air space, signed the "Agreement of Chicago"<sup>13</sup> set by the International Civil Aviation Organization (ICAO).<sup>14</sup> The first discussions about a deregulation of the sector have been pressed ahead by the European Community (EC) in as early as 1979. The deregulation efforts of the USA and the positive results of the Airline Deregulation Act issued in 1978 led the EC to emphasize the development of a common policy.<sup>15</sup> In contrast to the American approach the Europeans decided to tackle the subject of deregulation in three stages (1988, 1990 and 1993), which gradually lifted restrictions on rates and capacities for the Common Market (CM). The approach culminated in 1997, when cabotage within the CM was allowed.<sup>16</sup>

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<sup>11</sup> On this subdivision see e.g. Aberle, G. (2000), p. 109-129

<sup>12</sup> The growth refers to the quantity shipped: from 1,1 million tons in 1990 to 2,2 million tons in 2000 (see: Statistisches Bundesamt (1992) and Statistisches Bundesamt (2001) for details.

<sup>13</sup> The Agreement signed in 1944 by the countries represented within the ICAO and regulates the commercial air-traffic.

<sup>14</sup> Cf. Grundmann, S. (1999), pp. 115-116.

<sup>15</sup> Cf. Wenglorz, G. W. (1992), p. 2.

<sup>16</sup> Cf. Aberle, G. (2000), p. 115.

Germany contributed to the liberalisation through the privatisation of Lufthansa between 1994-97. With a far-reaching deregulated transport services market the government still has to ensure an efficient infrastructure. Most of the airports in Germany are state-owned, only a few are on the way of being privatized. Usually the federal government shares the ownership with the state's and community's government, which can difficult the expansion of the capacity of existing airports in Germany, as many political interests have to be conciliated. Consequently the right to use airports has become a scarce good. The policy adopted to manage this bottleneck is the allocation of slots, i.e. the right to land and take off from an airport at a predetermined time. Until 1993 Germany allocated the slots by its own system: an employee of Lufthansa was appointed to take over the role of the airport-coordinator. This immanent conflict of interests and other weak points of the system like the establishment of grandfather rules within the slot-allocation led the EU to implement a harmonized system. The aim was to achieve an impartial, non-discriminative and transparent slot-allocation. Unfortunately the system left loopholes: the airport-coordinator can still be an employee of the "national" airline and the access of new airlines to available slots is still prevented by grandfather rules. To sum it up: the EU approach simply took over the weak points of the existing allocation systems and represents a real obstacle for competition.<sup>17</sup> New airlines try to evade this problematic situation by choosing airports that are not overcrowded and still have no allocation-system implemented.

Another aspect, which strengthens this evasive behaviour, is the attempt to internalize part of the external costs caused by air transport. In Germany this applies specifically to the external cost induced by noise. The recommendation of the EU<sup>18</sup> to adjust the fees charged from the airlines in accordance to the noise caused by the planes in operation have been implemented, as the aircrafts are classified in reference to the noise caused and charged accordingly.<sup>19</sup> The actual legal threshold values are unanimously seen to be obsolete, the discussion regarding the forthcoming *Fluglärmsgesetz*<sup>20</sup> revolve around how far they should be changed. Technically the vicinity of airports is divided in two areas: in the nearest to the airport a noise level of 75 dB(A) is allowed and in the second area 67 dB(A).<sup>21</sup> The enforcement of the new values also depends highly on agreements of international scale, so that the aircraft fleet can be gradually adjusted or replaced.

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<sup>17</sup> Cf. Grundmann, S. (1999).

<sup>18</sup> Cf. Europäische Kommission (1998), p. 34.

<sup>19</sup> Cf. Bundesministerium für Verkehr, Bau- und Wohnungswesen (2000c), p. 25.

<sup>20</sup> Law about the noise caused by air-traffic.

<sup>21</sup> The proposed change of the law implies threshold values of 65 and 60 dB(A) respectively (Cf. Bundesumweltministerium (2000)). It is important to notice that a decrease in 3 units dB(A) means the halffening of the noise level.

### *II.1.2. Road Transport*

The increase of transport performance within the road sector in the past years is partly to blame on the logistical preference to ship less more often. Another contributing factor is the German rail cargo transport system with its deficits regarding flexibility and reliability. The freight sector is experiencing the transition to a new charging system. Currently heavy lorries (>12t) pay a lump sum for a specific period of time, which varies accordingly to the number of axes and emissions caused. This system is to be replaced by a distance related charge to be enforced from 2003. The government is planning to charge around 15 € cents<sup>22</sup> per km. The charge is to be levied only on highways, a fact that brings up concerns of a shifting of traffic to minor roads and therefore a worsening of their already overloaded state. The charges will be levied by a private agency, which also will be responsible for the implementation of the technology to be employed for this end. As the bidding process had some delays it could prove to be difficult to run the system on time. A delay of a quarter of a year will cost the government a loss of at least 0.5 billion € in revenues.<sup>23</sup>

### *II.1.3. Railways*

The railway sector distinguishes itself from other transport sectors by having a strong interdependence between infrastructure and the means of transport employed. In Germany it also is the sector where deregulation has set in early, at least to the extent that the national railway company was granted autonomy by being transformed into a stock corporation in 1994, the Deutsche Bahn AG<sup>24</sup> (DB), the government being the only shareholder until today. Nevertheless the government missed the opportunity to separate the provider of the infrastructure from the transport service provider, what is slowing down the process of introducing competition into the former monopolistic supply side of the market. To complicate the situation further the states have succeeded in making the breakup of the holding company conditional on an approval from the Upper House.

DB Cargo is the sub-division that provides freight services and in the past years has been struggling to improve the services offered, as customers preferred the flexibility of road transport to the long and uncertain lead-times with railways.

Since 1994 a non-discriminatory access to the railway network is at least formally granted. In the first years the potential competitors could choose from two track charging systems offered by DB Netz: the first (Infracard) levied a fixed amount and reduced variable fees and the second levied only comparatively expensive variable fees. This system had to be given up in 2001, as legal actions from the anti-trust public authority forced DB Netz to turn to a simple track

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<sup>22</sup> This is an average value, that varies accordingly to the emissions and axes of the lorry.

<sup>23</sup> Kossak, A. (2001), p. 408-410.

<sup>24</sup> AG: Plc.

charging system.<sup>25</sup> Few private companies are venturing into the market, but in most of the cases they are affiliates of large combines and only fulfill services for their parent company.

#### *II.1.4. Ports and Maritime Transports*

Maritime ports are the main interface to the worldwide transport network. Regarding the intermodality they can be described as natural hubs, from where the commodities exchanged with other countries can be either delivered to or distributed from. The main ports in Germany are Bremen, Bremerhaven and Hamburg. These three ports can be described as universal ports, as they turn over a variety of shipments in large amounts. This enables them to achieve economies of scale and scope. The other German ports have followed a strategy of specialization, occupying niches where comparative advantages allow them to survive the strong competition in this market. Usually communities or provincial governments have been the terminal operators, but recently a privatisation effort has set in, as the ports face competition between themselves and the demand for value-added services is forcing high investments in the infrastructure. By privatising the terminals governments hope to achieve efficiency gains and to accelerate the financing.<sup>26</sup>

The worldwide service market is one in which traditional structures can still be found. The sector of commercial shipping is characterized by conferences which are referred to as maritime cartels. These conferences set freight shipping rates as well as the distribution of available capacities between the shipping companies. The EC decided to exempt the conferences from a prohibition imposed by the competition agency in 1979. Nevertheless it weakened the strength of the cartels by allowing complaints to be handed in if unfair competition within the market or the abuse of a dominant market position is suspected.<sup>27</sup>

#### *II.1.5. Inland Water Transport*

The sector of inland water transport is the one with the most capacity reserves in Germany. The country disposes of 7.300 km of inland waterways, of which 2.000 are canalized.<sup>28</sup> The service market, traditionally responsible for the shipment of bulk goods, is registering an increase in parcel goods too, a development that can be attributed to the government's effort to build up an infrastructure which enables multimodal supply chains. This effort is anchored in the Federal Transport Infrastructure Plan, a plan in which the government sets the long-term goals, usually for a period of five years, to be pursued. The ruling coalition is revising the last plan, which dates back to 1992. The first phase is completed: the *Verkehrsbericht 2000*, upon which goals will be precised. In the

<sup>25</sup> Cf. Riedle, H. (2001), pp. 466-467.

<sup>26</sup> Bundesministerium für Verkehr-, Bau- und Wohnungswesen (2000b), p. 5.

<sup>27</sup> Cf. Rathjen, H. H.; Ruffmann, J. (2000), pp. 549-551.

<sup>28</sup> Schwarz, A. (2001), p. 490.

*Verkehrsbericht* the government pronounced its willingness to emphasize on a better linkage between the means of transport, allowing efficient multimodal supply chains to be established.<sup>29</sup>

The network is owned by the federal government (waterways) and local communities (ports). The federal government is improving the linkage of the ports to the hinterland, pursuing a better performance by expanding the waterways. For this 2 billion € are reserved until 2015.<sup>30</sup>

Up to 1994 the fees charged for the transportation via inland waterways were set by freight-committees. The fees were valid for single connections, which were published in a gazette. Afterwards the states intervention in the market has been lifted and the prices were set by demand and supply. Problematic is the reduction of german suppliers of transport services within the sector, as within the Common Market, in particular compared to the Netherlands<sup>31</sup>, Germany is faced with unfair competition.<sup>32</sup>

For the use of the waterways the governments partially levies fees, canals and floodgates being the facilities where this occurs. International agreements are exempt most the traffic from paying mineral oil tax, which represents a competitive advantage towards the road sector. Ecological taxes or charges are not levied in this sector.<sup>33</sup>

## ***II.2. Passenger Transport***

### *II.2.1. Urban Transport*

Public urban transport in Germany is organized in accordance to the principle of subsidiarity. Therefore communities are responsible for the appointment of transport service providers. These are mainly community-owned companies; the share of privately run regular services in 2000 was about 14%<sup>34</sup> of the performance. There is no competition in the market, but for the market. The effort of the European Commission to introduce a single market and thus allowing companies from euroland to offer their services anywhere within the EU frontiers has led to mergers within the german market through which the already dominant position of the public-owned companies is consolidated.

### *II.2.2. Interurban Transport*

Within the scope of interurban transport the DB AG, especially its affiliate DB Reise&Touristik (R&T), plays an important role. One of the three brands, the

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<sup>29</sup> Cf. Bundesministerium für Verkehr, Bau- und Wohnungswesen (2000a), pp. 15-16.

<sup>30</sup> Cf. Dömeland, U.; Gewiese, A. (2001), p. 488.

<sup>31</sup> The Netherlands allows hidden reserves to be transferred to new investments and furthermore offers public guarantees for investments.

<sup>32</sup> Cf. Bundesministerium für Verkehr, Bau- und Wohnungswesen (2001), pp. 13-14.

<sup>33</sup> Cf. *Ibid.*, p. 13.

<sup>34</sup> Cf. Statistisches Bundesamt (2001), p. 318.

InterRegio (IR)<sup>35</sup>, offered by the company for long-haul transport has a strong regional importance and has been the subject of opportunistic behaviour on the part of DB AG lately. This situation aroused as a consequence of the task of the Länder to ensure the supply of regional transport services. The Länder invite tenders to supply the service and come up to almost half of the resulting costs. As the InterRegio, according to DB R&T calculations<sup>36</sup>, is a deficitary brand, its cessation is scheduled to take place until 2004. Faced with this deadline the Länder have two alternatives: appoint new service providers by the aforesaid tender-process or subsidize the IR. The first alternative has the advantage that in the regional sector new competitors are entering the market, reducing the dominant position of DB AG and sinking the costs of offered services. The disadvantage of this alternative is that the quality of the service offered to customers also will be reduced, as direct connections between cities within different regions will be canceled.

Within the frame of road transport the government enabled private sector's financial support for the federal trunk road and motorway in 1994<sup>37</sup>. Being restricted to the construction of bridges, tunnels, passes and two-laned federal roads the initiative resulted in few privately financed projects, which are to refinance their investments by levying tolls. This scarce engagement can be attributed to the fact that Germany has an extensive road network, leaving "loopholes" for users to avoid the toll roads.

### III. Harmonization policies: Trans-European Networks

European integration with respect to the transport sector has its peak with the development of the trans-European Transport Networks (TEN-T). Activities within TEN-T comprise mainly the financing of infrastructure and have its origin in 1994. Special attention is drawn to 14 "priority projects"<sup>38</sup>. The main aim is to create a value-added to the existing national networks by working out guidelines through which projects of common interest can be identified. These projects are subject to a centralized coordination by the EU and receive financial aid on part it<sup>39</sup>. In the end an efficient multimodal network with a transport infrastructure supported by intelligent transport systems<sup>40</sup> shall become operative. The TEN-T consist of

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<sup>35</sup> The IR links major and medium-sized towns in Germany. It is timetabled to connect with DB's long-distance network.

<sup>36</sup> These calculations do not consider positive network externalities that can be attributed to the IR.

<sup>37</sup> This occurred through the Fernstrassenbauprivatfinanzierungsgesetz (FstrPrivFinG).

<sup>38</sup> The priority projects account for approximately 36% of the total investments in TEN-T.

<sup>39</sup> Specifically: the European Investment Bank grants loans, the European Investment Fund guarantees and the EU's Regional Development Fund and the Cohesion Fund subsidies (Cf. Piodi, F. (1997), pp. 65-75).

<sup>40</sup> These systems are composed of traffic management, user information and satellite navigation/positioning systems.

75.158 km of roads, 79.440 km of conventional and high-speed railway lines, 381 airports, 273 international seaports and 210 inland ports.<sup>41</sup>

From the economical point of view the EU's integrative efforts have to be analysed regarding the net benefit they produce for the community as a whole as well as the effects within the regions influenced. The main question concerning is if the supranational intervention allocates public resources better than subordinated political levels. The principle of subsidiarity is therefore addressed. Positive network effects in the form of economies of scale, the interlocking of the costs and benefits across the borders are arguments for a centralized solution whereas regional preferences are taken more into consideration via a decentralized fulfillment. However, the gathering of empirical evidence is rather difficult<sup>42</sup>, as the improvement of the infrastructure triggers off complexly interlaced interregional effects.<sup>43</sup>

The fact that the EU should play an active role by coordinating infrastructural measures is undisputed, but the way it deals with the task leaves room for criticism. First of all the methodical approach for the choice of TEN-T projects is capable of improvement. The bottom-up approach the EU made use of relied on existent national evaluations of demand and bottlenecks, preventing a consistent planning of transeuropean infrastructure to take place. On the other hand a top-down approach would not have led to better results. With this approach the EU could determine specific projects and set general conditions on which the participating countries would have to line up if they want financial aid. To determine projects the EU again would have to rely on national data. Therefore national governments will have the bias towards providing data that reflects too little capacity and too much demand.<sup>44</sup> Thus the problem obviously lies within the asymmetric information faced by the central institution, in this case the EU.

Furthermore the guidelines established allow the inclusion of projects that could be financed by local governments. By doing this the regional preferences could be taken more into consideration and the financing costs reduced.

An approach that exploits the benefits from both aforesaid approaches is the mixed top-down, bottom-up planning. It is based on the combination of the top level coordination from a top-down approach and the advantages of information at the lower organisational level from a bottom-up approach. The top federal level publishes a list of detectable criteria to be met. Simultaneously it presents the amount of subsidy a public or private investor can expect to receive if he meets the criteria. To offer further incentives subsidies could be staggered.<sup>45</sup>

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<sup>41</sup> Cf. Commission of the European Communities (2001), p. 4.

<sup>42</sup> Cf. Kommission der Europäischen Gemeinschaften (1997), in which a projection of the total benefit induced by the TEN-T projects has been intended via the extrapolation of the results gained for one of the projects, namely the PBKAL.

<sup>43</sup> Cf. Junkernheinrich, M. (1997), p. 27.

<sup>44</sup> Cf. Steyer, R. M. (2001), p. 236.

<sup>45</sup> Cf. Ewers, H.-J.; Tegner, H. (1999), pp. 303-304.

#### **IV. Argentinean transport markets**

Argentinean transport markets have evolved from national firms or the government itself providing the major services (e.g. cargo and passenger railways, air transport, airports, the government managing the road infrastructure provision) to a system of concessions to private firms trying to ensure allocative and internal efficiency not reached by the government and its firms and agencies before. The process of privatisation and deregulation took place during the first years of the 1990s and it has been characterised by a velocity not practised in other countries. A clear purpose of it was the lessening of the fiscal deficit due to the inefficiency of national firms and agencies that hardly covered its operational costs.

##### ***IV.1. Freight Transport***

###### *IV.1.1. Air transport*

The air transport deregulation process in Argentina started in 1989 with the privatisation of Aerolíneas Argentinas (AA), the firm that offered international regular services and acted as the State's executing air policy agency. Before deregulation the air transport demand between Argentina and any other country was supplied by airlines of both flags and a quota system for foreign flag firms. Argentinean carriers and boundary flag firms supplied the regional traffic.<sup>46</sup> The privatisation of AA gave the concessioned firm the exclusivity in operation on international markets for five years for boundary countries and ten years for other countries. The winning consortium did not carry out most of the conditions established in the concession contracts.

In 1992 the deregulation process took effective place with deregulation measures for the air cargo transport sector, establishing general principles for stimulating competition and freedom for setting up tariffs. Furthermore, it was liberalised the air cargo combined transport, passengers and mail favouring the access for new firms.

The entry system to the air transport market until 1998 was based on concession contracts granted to firms asking for specific routes, with the only condition of including in the routes which were requested a mixed of commercial routes (normally those connecting the city of Buenos Aires and other major cities inside the country) and non-commercial ones trying to ensure the air link between cities with poor demand<sup>47</sup>. This was a way of favouring an interconnected country with a cross-subsidy system imposed on each operator. Later in 1994, it was permitted to accomplish earth aircraft maintenance to concessioned operators.

From 1995 to year 2000 the tonnes carried by air had experienced an increase of 56%, considering national and international services. Cabotage is supplied by national firms and has grown a 70% during these five years. The tonnes carried by

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<sup>46</sup>Cf. Fiel (1999).

<sup>47</sup> In 1994 it was abolished the need for splitting commercial and non-commercial routes based on the increment of regional transport (essentially passengers).

international firms for international traffic has been in the order of 75% while national firms have carried a 25% of total international cargo.

#### *IV.1.2. Road Transport*

The predominance of the road cargo transport sector in Argentina has been attached to the deterioration or inexistence of infrastructure of competing modes over the last century.

Since 1996 the sector operating all over the country was deregulated establishing a free market in terms of entry and tariff conditions.<sup>48</sup> The state has organised some aspects that have to be fulfilled by the operators in order to obtain the permit for operation, as technical vehicle revision, psychophysical examinations for drivers, mandatory insurance, among other things.

The sector is compounded by a number of 190,196 operators in year 2000<sup>49</sup> with the firms accounting for a 10.34% and 89.65% of independent operators. An indirect indicator of the increment in road transport operators could be the number of technical controls approved by cargo vehicles assuming a 43% increment between 1996 and 2000.

#### *IV.1.3. Railways*

Cargo railway privatisation in Argentina in the 90s could be interpreted as a consequence of factors related to a process of 30 years<sup>50</sup> of Ferrocarriles Argentinos' demand and service deterioration (with a continuous shortcut of capital, and the worsening of infrastructure and rolling stock), operating deficits linked to tariffs lower than road transport which were financed with Treasury funds and, of course, the government needs for reducing fiscal deficits.

The privatisation process gave in concession five lines with 21,107 km of a total of 34,200 km and a concession term of 30 years.

There was an absence of a regulatory framework explicitly defined so that, the concession contract was the actual framework adopted. The reasons for not designing an appropriate regulatory framework were: the speed of the privatisation process and the social climate in favour of privatisation, the integral nature of the procedure giving the right to operate to only one concessionaire in each freight network and the elimination of the public service concept leaving the commercial networks as the only likely to operate. The tariff regulatory regime only included high maximum fares with no genuine regulatory device<sup>51</sup>.

The concessions were awarded in national and international bids, with too little bidders and high-expected demand figures. The infrastructure continued as a State property and the concessionaires had the right to operate them paying a fee

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<sup>48</sup> Law N° 24653 and Decree 105/98.

<sup>49</sup> CNRT (2001).

<sup>50</sup> With the option for 10 additional years that would be approved by the government.

<sup>51</sup> In words of Carbajo and Estache (1996), "freight tariffs have been deregulated, but operators must file maximum rates with the regulator for approval".

for its use. Also they were committed to make investments, putting into practice adequate safety systems and to preserve the quality of the infrastructure until the final date of the concession.

As a general result of the implemented system, during the first years of the concessions, the firms did not pay the complete canon arranged (roughly a 66% of the canon was indebted by 1997) and also were the investments not actually done (by about a 38% of the total for the period 1992-97 was done).

The natural consequences of these results were the renegotiation of contracts establishing reductions of the canon and the authorization of using a 70% of that for investment in infrastructure, relating the amount to invest in line with the actual demand the concessionaires confronted (too much inferior to that forecasted in the biddings).

The results of this process showed an increase of the tonnes carried by train with a raise of about a 15% between 1995 and 1999.

#### *IV.1.4. Ports and maritime transport*

The Argentine experience has shown that deregulating ports can generate an increase in productivity and cost reduction. Before 1990 Argentinean ports were open, over-regulated by multiple agencies with overlapping responsibilities.

Buenos Aires port is the major one moving 70% of total volume of Argentinean imports.

The decentralization of national ports started in 1993, with the Law of Ports establishing the legal frame for privatisation and concession of ports and the dredging of inland waterways.

The concession system involved two steps: i) minor ports were transferred directly to provincial governments and ii) major ports as the ports of Buenos Aires, Bahía Blanca, Quequén and Santa Fe were transferred to provincial governments but subject to the creation of Management Port Societies (S.A.P.) with the aim of improving port operation and increasing competition between and within the port system.

Later on private firms received the port terminals of the City of Buenos Aires in concession. The ownership of terminals remains at state hands and concessionaires acquire only the right to maintain and use infrastructure for which they pay a usage fee to the government joined to taking the responsibility of employing 1,350 people from the public agencies previously operating at the port or presenting an equivalent number of redundancy agreements. All commercial operations are performed by the concessionaire (i.e. operation and maintenance).

The government set a price cap on cargo charges and the concessionaires had to specify tariffs in the contract subject to this cap. The port authority can authorize adjustments to the tariffs.

Each concessionaire had to undertake annual investments as specified in the terms of the concession. The port administration will contribute a fixed sum for the infrastructure rehabilitation works and will supervise these works. These firms

have since then made massive investments in these terminals, by far the most important in the country, to achieve an overall leap in efficiency. These investment projects have mostly been completed, but there remain clear prospects for additional growth.

The decentralization and privatisation process has led to declining port charges, diminishing shipping tariffs and an important increase in labour productivity as a product of falling total employment, the reduction of requirements for stevedores in the port of Buenos Aires, leading to higher labour productivity. Pilotage, stevedore and maritime tariffs have decreased. The decline in Argentine ports' market share was quickly halted.

Following Estache and Carbajo (1996), two lessons can be highlighted from the Argentinean process. The first is that competition can be effective<sup>52</sup> and that, it is necessary to apply, even after the ports have been privatised, clear and coherent rules of the game and Argentina has not reached this final goal lacking an independent port regulator.

#### *IV.1.5. Inland Waterways*

The complete River Plate basin is composed by more than 7 thousand kilometres of inland waterways. The rivers Paraguay, Paraná, Uruguay and the River Plate form it. The confluence of rivers Paraguay and Paraná are an important geopolitical centre for Mercosur.

There are two joined waterways: the Paraguay–Paraná waterway and the Paraná-Tietê one. There exist huge possibilities of utilization of the former waterway connecting Argentina with the Tietê River in Brasil and making possible the link by earth transport systems with Sao Paulo and the Port of Santos in the Atlantic Brazilian coast.

The Paraguay-Paraná waterway is extended from Puerto Cáceres (Brasil) –to the north- and Puerto Nueva Palmira (Uruguay) –to the south with an extension of 3,422 km. Some important objectives and consequences of the hidrovía system are: the diminution of transportation costs through the implementation of measures for making better the use of the waterways on a 24 hours basis on all days, as the dredging and marking with buoys of the Paraná Medium (from Rosario in Argentina to Asunción in Paraguay) or the subsequent works on the Mato Grosso and Mato Grosso do Sul in Brazil, an important soybean production zone; the minimisation of risks in the waterways; port modernisation<sup>53</sup>; the development of economic and commercial flows growth opportunities, mainly between the

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<sup>52</sup> Competition in the market (between ports) and competition for the market, by inviting operators to bid for a concession to operate a port and by dividing large ports into terminals and offering each as a separate concession.

<sup>53</sup> An advance of it is the drawing of the Rosario port to 32 feet in year 2000. Nowadays the bulk grain ships are charged with 44 thousand tonnes instead of the 28 thousand tonnes they used to in order to complete the cargo capacity in other Buenos Aires ports.

Mercosur countries<sup>54</sup>; the development of the first river north-south corridor complementing the non-river east-west bi-oceanic corridors joining the Atlantic and the Pacific Ocean in South America.

The major products transported by the Hidrovia are: soybean and derivatives, crude oil and sub-products and iron. The north-south traffic is four times the reverse traffic that major products shipped are oil derivatives.

The barge transport via the Paraguay-Paraná waterway is the cheapest Mercosur communication link. The increase in the use of the waterway is evident by the 64% of increase in tonnes moved between 1995 and 1999.<sup>55</sup> The foremost obstacle to complete the investments to complete the project is the amount of capital needed tied to the environmental impact that would result from the deepening the Paraguay River canal<sup>56</sup>.

Some of the inland waterways transport policies for restructuring the sector in Argentina since 1991-1993, when the government started a process of maritime and inland waterways decentralization and deregulation, involved: the reduction of requisites for authorizing the national flag cabotage inland navigation; the free entry to the complementary services for navigation, the private dredging and signalling of inland navigation routes given by concession by means of a toll system. Nevertheless, the deregulation process is not completed, with existing restrictions –operative restrictions, market reservation, law interpretation- limiting the possibilities of increasing the use of this mode.<sup>57</sup>

## ***IV.2. Passenger Transport***

### *IV.2.1. Urban Transport*

Railway passenger services are offered mainly in the Buenos Aires metropolitan region. Until 1991 the only operator was the state owned firm Ferrocarriles Argentinos<sup>58</sup>, viewed as an inefficient operator, with bad safety conditions for the passengers, and a raising state annual subsidy that covered operating deficits (for operation, rehabilitation and investment) instead of financing the needed investments. The municipally owned firm “Subterráneos de Buenos Aires Sociedad del Estado” operated the Buenos Aires city subway system (the only subway system in Argentina) until 1991.

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<sup>54</sup> A clear example is the generation of a possible flow of about 5 million soybean tonnes from Brazil to Argentina for being industrialized and then exported via the Rosario port (over the Paraná River) in Argentina.

<sup>55</sup> See for example, "Compendio Estadístico de Transporte" available at: <http://www.minproduccion.gov.ar/transporte/basehome/aguaypuertos.htm>

<sup>56</sup> IDB-INTAL (1998).

<sup>57</sup> Fiel (1999), p. 348.

<sup>58</sup> The privatisation process starts with the creation of Ferrocarriles Metropolitanos S.A. (FEMESA) in 1991 as the operating firm and owner of Ferrocarriles Argentinos infrastructure and rolling stock. Then continued the process of concession described ahead.

The privatisation process of the commuter railway passenger transport started in 1991 and it followed a concession process based on operating subsidies giving to the concessionaires related with service quality and tariff levels specified by the authorities<sup>59</sup>. The network was split into seven vertically integrated groups including the subway system and subject to concession. The government retained the property of the real state not affected to the operation and non-operation areas of the terminals of the city of Buenos Aires. Minimum service levels and the required investments were set up in the bidding process. The concession terms were set for ten years renewable for an equal period for all groups except for the metro system with a term of twenty years. The winning bidder was the one offering the lowest subsidy required to operate the line and undertake the specified investment and rehabilitation program. There were maximum basic tariffs for the common service and it was possible to increase the tariff due to quality improvements.<sup>60</sup>

In 1993, the awarded operators and the authorities discussed the contracts and several features involving some aspects of the concessioned infrastructure and rolling stock, the services to supply, the investment programs and other important contents that will set a bad precedent in the regulatory process.

The results of this privatisation program were the increase in passengers from 1994 to 1997 and the occupancy levels and better service quality levels (more reliable and regular services) joined with better client attention, also there was a clear improvement of the supply indicators (as the wagon-km figures). Since 1998 there was a stagnation of the service levels<sup>61</sup> with rounds of renegotiation of contracts since 1997 linked with the government not carrying out its obligations. Following Barbero (2000), it is presumably possible that some of the benefits of the privatisation process can still be maintained with better controls but an important improvement in the quality of services without real tariff increasing is uncertain given that these tariffs rising could only help to make the basic investments originally required.

The urban bus transport sector in Argentina is almost completely private<sup>62</sup>, composed by national firms with the right to operate given generally by concession contracts that last a period of 5 to 10 years with possibility of renewal. In general

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<sup>59</sup> Fiel (1999).

<sup>60</sup> As stated by Carbajo and Estache (1996): "the method for the commuter concessions was more transparent (than that for the freight concessions) and probably induced more rational bidding behaviour from potential concessionaires".

<sup>61</sup> The stagnation of service levels are due to not increasing passenger figures, more users complaints, an increment in bureaucracy at the regulatory agency (CNRT), a clear weakness of control, a lesser private operators motivation, high resource transferences to other businesses of equity groups of the concessionaires and the decrease in the needed investments for ensuring a good quality of service owing to the shortage of public funds. Barbero (2000).

<sup>62</sup> Only some trolleybuses services are owned by municipalities and its operation and management are concessioned to private firms.

the municipalities award the concession contracts to the firm offering the less tariff and the best level of service and capacity for the operation of specific routes designed by the authority.<sup>63</sup> Also, the tariff is regulated and established by the authority based on the costs of services and subject to negotiation with the firms with no clear actualisation mechanisms.

During the last three years the economic and financial crisis has halted some processes of urban bus system renewal in various cities, namely Córdoba, Rosario and Mendoza (the three major cities following Buenos Aires). Biddings were organized in national and international tendering process and the results have shown too few bidders (generally local firms formerly operating in the sector), with the consequent quality of service deterioration given the lack of competition for the market and moreover the need for public subsidies to ensure the provision of services or the helping of the firms with financial problems.

#### *IV.2.2. Interurban Transport*

Five major operators supplied the passenger cabotage air transport system during last years. Although the market concentration was the rule before the mid 1990s with AA as the principal supplier, the privatisation of AA and the deregulation process that followed have implied an important decrease in major operators market share. In 1993-1994 it has begun the incorporation of new services in trunk routes (with origin or destination in Buenos Aires), showing a continuous decrease in participation of Aerolíneas Argentinas. In the last years there was an important raise in regional airlines opening transversal routes not competing with major airlines with hub in Buenos Aires.

The results of the privatisation and deregulation process evidenced an increase in average tariffs<sup>64</sup> between 1991 and 1993 and an important decline following these years. It is important to note that this tariff evolution is present in all routes that have been open to competition and have experimented the entry of new operators.

The interurban bus services in Argentina are de-regulated since 1992<sup>65</sup> with a resulting process of increasing number of buses offering the service and turning down the occupancy levels joined to the fact that the number of firms could not be increased given the type of deregulation adopted (Thomson, 1998).

The deregulation adopted defined four types of services: public services, free traffic services, tourism services and executive services. Public services were designed and concessioned to private operators by the application authority, the Secretary of Transport (i.e. who was designed to establish the new services required, its routes, frequencies, timetables and maximum tariffs). From 1992 to 1995 the permits for running a bus line were given by the authority by discretion,

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<sup>63</sup> In other situations, as in the last Cordoba experience, the bidders have to present the routes for some corridors not predefined by the authority.

<sup>64</sup> Calculated as total revenue divided by the number of carried passengers.

<sup>65</sup> Decrees 958/92 and 808/95.

but since 1995 the public bidding process for giving a license to run a line was established as a requisite, with the possibility of awarding the bidding to all the operators fulfilling the established requisites at the minimum tariff required to cover the forecasted demand. Free traffic services (i.e. deregulated services)<sup>66</sup> could be run by public services operators that has at least an interurban public service with a route length longer than 50 kilometres and by their own design, introducing the possibility for competition in the market in all corridors. Executive services are supplied under the same conditions that the free traffic services but with better comfort conditions.<sup>67</sup>

As a summary, the entry process of a firm offering national bus services different to public inter-provincial concessioned services involves the purpose of a new bus corridor presentation by the private firm to the application authority<sup>68</sup>, which has the power to authorize it once the required operator conditions are met and there is an excess of demand on the purposed corridor. Tariff controls are not explicitly applied, but there are big ranges of tariffs (between a minimum and a maximum tariff level) that the operators have to accomplish for each interurban transport corridor<sup>69</sup>.

The restructuring of the road national transport network started in 1990 and included the unbundling of financially viable roads into build-operate-transfer (BOT) concessions awarded through competitive bidding. There were two sectors concessioned: the intercity highways and the Buenos Aires Access Roads.

The former concerned about 3000 km of the intercity highway system concessioned to private operators for road maintenance, rehabilitation and capacity improvements with the right to collect tolls subject to price cap regulation. The bidding processes were competitive and the concessions awarded the consortia offering to pay the larger canon and other criteria as technical qualification and timing of investment. The concessions entered a renegotiation course in early 1991, with the results of reducing tolls, eliminating the canon, granting the concessionaries an annual subsidy and changing the concession terms. In 1995 took place a renegotiation including new investments in the concession areas given the quick traffic expansion. In 1998 a new round of renegotiations was done due to the state subsidies in arrears preventing the concessionaries to make the basic investments. As a result, there was a term extension for all contracts; also the tariffs will be adjusted with cost increases having reached more than 5%. Other results of this national road transport network restructuring are: the improvement of the

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<sup>66</sup> This type of services must be run for a 9 months minimum period once licensed.

<sup>67</sup> The tourism and executive services won't be analyzed in deep here.

<sup>68</sup> Usually the CNRT (Comisión Nacional de Regulación del Transporte) National Commission for Transport Regulation.

<sup>69</sup> The minimum and maximum tariffs exist for each type of service and transport link. These upper and bottom limits are established considering the winner of a bidding public service on each line and cost calculations done by CNRT personnel. The minimum levels are considered as a limit to predatory pricing actions.

quality of roads, maintenance for the intercity highway system and a great increase in traffic volumes raising toll revenues but not preventing the state from having to pay annual subsidies much higher than initially thought and with an important share remaining unpaid.

## V. The Mercosur experience

Given the general consensus that Mercosur is in an actual state of weak integration, there have been some purposes in order to intensify the custom union and to make an advance in the coordination of macroeconomic policies to finally get a monetary union. As in IDB – INTAL (1998-99) was stated: “The Mercosur operates, in fact, as an integration program combining characteristics of an imperfect free trade zone with an external common tariff which not applied to all the universe of tariffs”.

In the last years an absence of macroeconomic policy coordination due to policy changes followed by the two major partners can be observed. Policy-coordination is acquiring more relevance given the Brasil-Argentina interdependency. Macroeconomic stability is also an essential condition for Mercosur’s economic and institutional development<sup>70</sup>.

Transport infrastructure in Mercosur is insufficient to cope with the fast growth of its economies and with the fast expansion of intra-zone commerce due to the dismantling of tariff barriers and the elimination of other obstacles to trade<sup>71</sup>. An insufficient (or in bad condition) transport infrastructure influence directly over operational transport costs being transferred to users in the form of high cargo transport costs and the increase of passenger transport rates, offsetting the competitive gains generated by commercial opening and affecting the factor productivity in the long run<sup>72</sup>.

Since at least 1996, some institutions (i.e. the SGT N° 5), have been proposing the need for an integrated program of physical integration comprising all country members and at Latin American levels (the IDB, the FONPLATA and the CAF)<sup>73</sup>. Former projects involved the establishment trans-oceanic connections between the Atlantic and the Pacific linking the Brazilian ports and the Paraguay-Paraná waterway zone to the Chilean capital of Santiago or the Chilean ports of Valparaíso and Talcahuano.<sup>74</sup>

Table 2 presents the most important inconveniences related with transport infrastructure not only in Mercosur but in all South American countries.

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<sup>70</sup> IDB – INTAL (1999-2000).

<sup>71</sup> IDB – INTAL (2000-2001). Nevertheless, commercial flows and investment are relatively small comparing with other south american countries.

<sup>72</sup> As stated in Delgado (1999).

<sup>73</sup> The SGT N° 5 is the Sub-Group of Work N° 5 of Mercosur. The FONPLATA is the Financial Fund for the Development of the River Plate Basin. The CAF is the Andean Finance Corporation.

<sup>74</sup> IDB-INTAL (1998).

Some advances in the road transport physical network include the Brazilian Privatisation of the road corridor Sao Paulo – Curitiba – Florianópolis – Osorio and the inauguration in 1997 of the bridge Santo Tomé – São Borja<sup>75</sup>, a bilateral (Argentina and Brazil) concession given to a private firm by the payment of a state subsidy during the construction period and the right for the concessionaire (Mercovia) to collect tolls for a period of 23 years.

**Table 2:** Infrastructure problems in Mercosur and South American Countries

Sector	Detected Problems
Road infrastructure and operation	<ul style="list-style-type: none"> <li>• Existence of natural barriers (e.g. the Andes mountain range)</li> <li>• insufficient capacity in the main hubs and</li> <li>• deterioration of roads and the lack of maintenance</li> <li>• existence of cargo reservation regimes</li> <li>• delays and extra costs due to controls at border crossings</li> <li>• tax asymmetries</li> <li>• lack of national regulations harmonization with different qualification requirements</li> </ul>
Railways infrastructure	<ul style="list-style-type: none"> <li>• financial and management troubles</li> <li>• poorly preservation restricting the operation of large trains</li> <li>• restrictions on train's cargo capacity</li> <li>• delays at frontiers and low speed limits and gauge differences between countries</li> <li>• the lack of multimodal links</li> </ul>
Air Infrastructure	<ul style="list-style-type: none"> <li>• insufficient capacity of air transport terminals</li> <li>• low quality of services and lack of equipment to guarantee operational safety</li> <li>• market reservation restricting the improvement of service supply, mainly in passenger transport</li> </ul>
River Network	<ul style="list-style-type: none"> <li>• lack of support to navigation resulting in under-utilised river transport networks</li> <li>• absence of multimodal connections with land transport modes</li> <li>• existence of cargo reservation systems</li> </ul>

Source: IDB – INTAL (2000-2001)

Some important projects of road and railway integration are shown in Table 3. The railway network in Mercosur is port oriented, that is to say the railroads join

<sup>75</sup> The project included the creation of the first integrated Border Center making the customs procedures quite fast.

major agricultural and industrial production geographic zones with maritime and waterway ports. In Argentina, Brazil, Chile and Bolivia the railways were privatised while in Paraguay and Uruguay they remain managed by the states.

The ports have increased its productivity from the privatization experiences and inland waterways infrastructure is at a stage of development with the Paraná-Paraguay waterway being its major project<sup>76</sup>. The improvement and expansion of transport infrastructure in Mercosur is clearly joined to the necessity for coordinated actions between member states.

**Table 3: Road and railway integration projects in Mercosur**

<b>Road Project</b>	<b>Estimated Investment</b>
The International Colonia – Buenos Aires bridge	US\$ 1,000 millions
The Rio de Janeiro – Buenos Aires roadway (crossing Uruguay)	US\$ 2.5 millions
Bridge Rosario – Victoria	US\$ 350 millions
Some bridges in Uruguay	n.a.
A second bridge at the border Ciudad del Este – Foz do Iguazú	US\$ 75 millions
Master Plan for frontier crossings between Argentina and Brazil	
Master Plan for frontier crossings between Argentina and Chile (12 border crossings)	US\$ 321 millions
<b>Railway Project</b>	<b>Estimated Investment</b>
The railroad Santos - Arica/Antofagasta, from Brazil to Chile	US\$ 1,000 millions
The railroad Sao Paulo – Buenos Aires	Brazil: US\$ 22,5 millions Argentina: n.a.
The railroad Antofagasta-Asunción-Paranaguá	Paraguay: US\$ 350 millions Brazil: US\$ 250 millions
The Libertadores Project involving the all member countries railway integration	US\$ 150 millions in 18 projects
The railroad General Luz – Pelotas in Brazil	US\$ 270 millions
The recuperation of the railroad Ipacaray to Concepción in Paraguay	n.a.
<i>continues</i>	

<sup>76</sup> The two waterways, the Paraná-Paraguay and the Tietê-Paraná account for the need of US\$ 1,223 millions including ports and fleet investments.

Road Project	Estimated Investment
The improvement of the railway Nuevo Central Argentino in Argentina	US\$ 65.3 millions
The recuperation of the railways Rivera - Montevideo and Rivera - Fray Bentos in Uruguay	Between US\$ 35 and US\$ 40 millions

Sources: IDB – INTAL (1997b) and Delgado (1999).

Following Delgado (1999), to improve the infrastructure conditions it is essential to create an integrated planning and interchange data system in order to evaluate the required infrastructure projects; encourage public-private partnership for making the investments; establish clear contractual frames in bidding procedures preventing from the regulatory capture situations and renegotiations; establish a regulatory framework harmonization; creating autonomous and highly technically integrated regulatory agencies for the Mercosur as a whole and promoting the support of international financial organizations.

Unlike the EU TEN projects, the Mercosur infrastructure projects lack a common methodology of economic analysis with the bidding process being done without regulatory frameworks considering the same political objectives, and there is also the absence of a unique financial institution guaranteeing the required funds.

## VI. Final comments

This paper has underlined the major experiences of Argentina and Germany for privatising and deregulating the transport sector, introducing the characteristics and some de-regulatory (and regulatory) aspects related with different transport markets in both countries alongside the international experiences at EU and Mercosur levels.

The experiences show that especially before, during and after the deregulation an appropriate regulatory framework design is a fundamental instrument. The particular examples of the Argentinean ports as well as the railway network underline this necessity. In contrast to this, the case of a DB Netz practically refusing new service providers a competitive access to the railway network shows that during the course of a deregulation corrections have to be made. As Crampes and Estache (1997) have stated: “Argentina’s experience demonstrates that while a tremendous transformation of the way in which infrastructure services are being delivered can be achieved quickly and fairly successfully through concessions, the long run sustainability of the short term achievements is not guaranteed”.

As it has been shown, in both countries supranational efforts are taking place. As Germany is situated in a union that has broader goals and a longer tradition than the Mercosur, in which Argentina is a member, the efforts consequently are more developed. The Mercosur members have to be aware that in order to promote its custom union and free-trade area a transport network capable of absorbing the

rising trade volume within the union has to be provided. If not, the transport sector will constitute a bottleneck.

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