

Further action at European Level
regarding Market Opening for
Domestic Passenger Transport by
Rail and ensuring Non-
Discriminatory Access to Rail
Infrastructure and Services

Final Report

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APPENDIX

K

COUNTRY FICHES

K1 COUNTRY FICHES

K1.1 Appendix Table K.1 lists the country fiches for Member States.

APPENDIX TABLE K.1 COUNTRY FICHES

Code	Member State or territory within a Member State
AT	Austria
BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
GB	Great Britain, part of the United Kingdom with a standard gauge rail network
HU	Hungary
IE	Ireland
IT	Italy
LT	Lithuania
LU	Luxembourg
LV	Latvia
NI	Northern Ireland, part of the United Kingdom with a standard gauge rail network
NL	The Netherlands
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia
UK	The United Kingdom - see GB and NI fiches

EUROPEAN RAIL MARKET OPENING

Austria

Country Profile

July 2012

1 Evolution of the national market

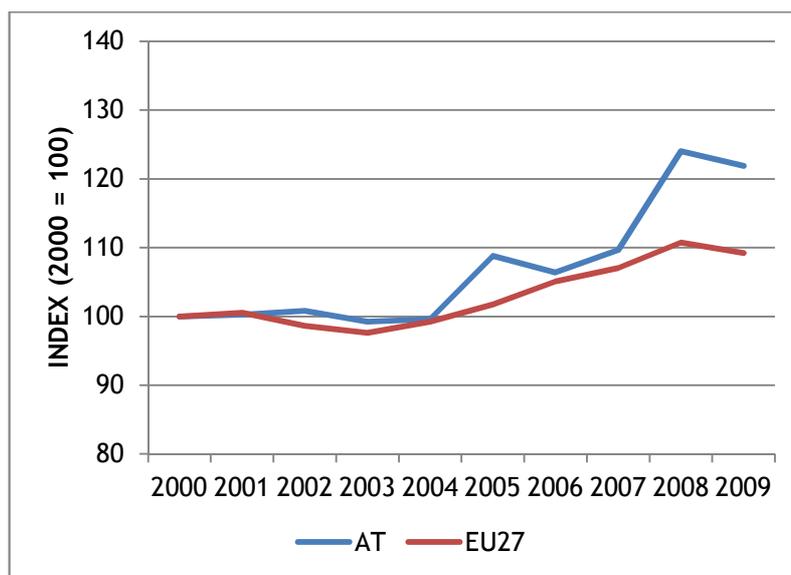
Structure of the network

- 1.1 Austria has approximately 8.4 mil. inhabitants and a population density of 100.3/km². The Austrian rail network comprises 5,818km of track of which 57% is electrified. The network has a density of 69.4km/1000km² well above the European average of 69. The freight and passenger intensities are both much higher than their respective European averages.

Passenger Volumes and Modal Share

- 1.2 In the period between 2000 and 2004, rail passenger volumes in Austria were stagnating, but this was in line with the EU27 average. The periods from 2004 to 2005 and from 2007 to 2008 were characterised by a strong growth notably above the average of the EU27 States. Passenger volumes experienced a slight decrease from 2008 to 2009 but this was in line with the EU27 average and can be explained by the financial crisis. Over the whole period from 2000 to 2009, Austrian passenger volumes increased by over 20% whereas EU27 increased by only 10%.

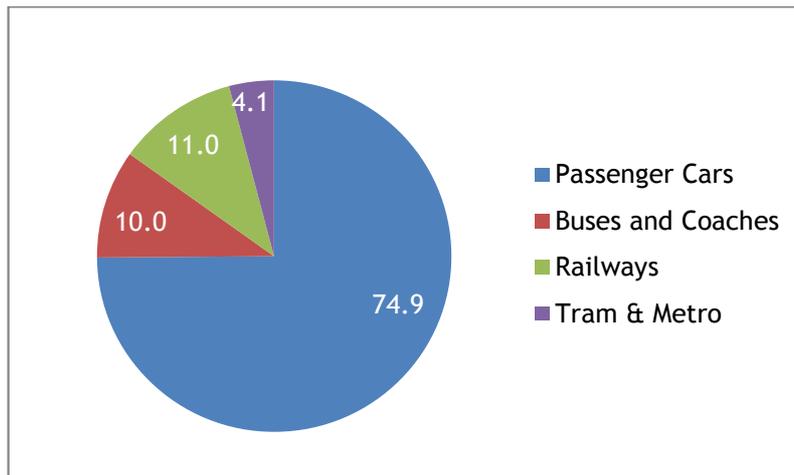
FIGURE 1 PASSENGER VOLUMES IN AUSTRIA AND THE EU 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

- 1.3 Modal share of rail in passenger transport amounted to 11% in 2009. That was notably higher than the EU27 average of 7%. Also buses had a relatively high share with 10% compared to 9% in EU27 average. As a result, passenger cars had a modal share of 75%, this is almost 8% points less than the EU27 average.
- 1.4 Compared to 2000, the modal split in Austria did not experience any significant changes. As an example, rail's share increased slightly from 10% in 2000 to 11% in 2009.

FIGURE 2 MODAL SPLIT IN PASSENGER TRANSPORT 2009

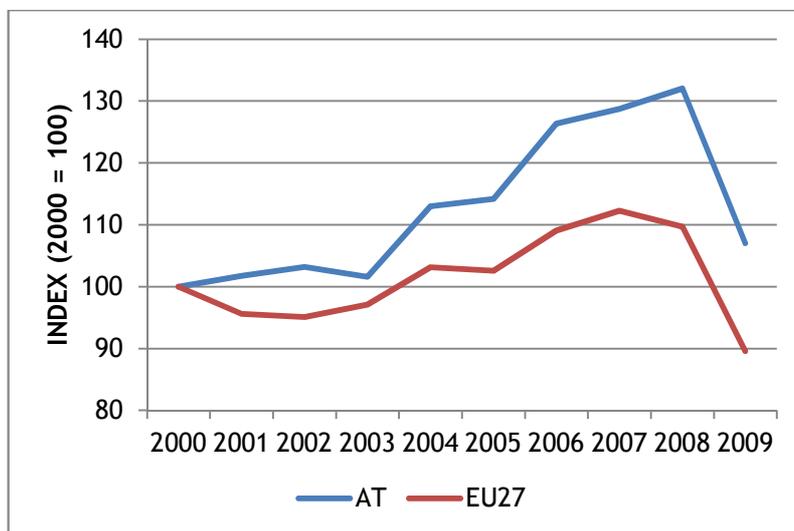


Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

Freight Volumes and Modal Share

- 1.5 In the last decade, rail freight volumes in Austria experienced strong growth reaching its peak in 2008. From 2000 to 2008, rail freight volumes increased by almost 30% compared to only 10% in the EU27 average. From 2008 to 2009 rail freight volumes fell sharply offsetting almost all of the growth in the previous years. Over the whole period, however, the evolution of the Austrian rail freight volumes showed a notably better performance than the EU27 average.

FIGURE 3 FREIGHT VOLUMES IN AUSTRIA AND THE EU 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

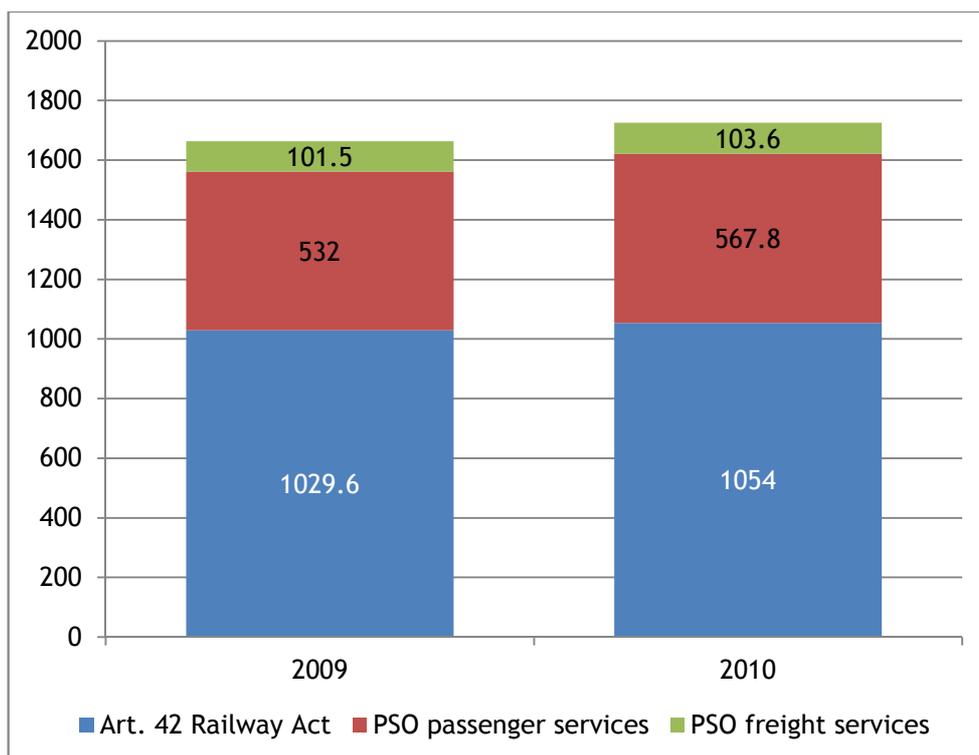
2 Competition and Market Access

Passenger operators

Incumbent: structure and activities

- 2.1 In 2005, the former integrated railway ÖBB was split up into several companies which are principally the infrastructure manager ÖBB-Infrastruktur AG, the freight operator Rail Cargo Austria AG and the passenger operator ÖBB-Personenverkehr AG. The single companies are, however, still integrated in the ÖBB holding company which is fully owned by the Austrian Government.
- 2.2 Figure 4 shows the subsidies received by ÖBB from the Government. In 2010, the majority of subsidies, slightly more than €1 billion, was granted in accordance with Article 42 of the Railway Act for maintenance of the railway network. About €570 mil. have been paid to compensate losses resulting from passenger services under public service obligation and about €100 mil. have been paid for subsidising combined freight transport mostly on transalpine routes.

FIGURE 4 STATE SUBSIDIES TO ÖBB (MILLIONS OF €)



Source: ÖBB Annual Report 2010

- 2.3 Table 1 gives an overview of the financial performance of ÖBB from 2007 to 2010.

TABLE 1 FINANCIAL RESULTS OF ÖBB 2007-2010

	2007	2008	2009	2010
Revenue (€m)	1,996	2,104	2,140	1,747
Expenses (€m)	1,961	2,436	2,037	1,793
Profit (EBT in €m)	-22	-661	167	-13
Staff numbers	14,072	14,102		

Source: ÖBB Annual Reports

Overview of new entrants

- 2.4 Besides ÖBB, several small railway undertakings operate on their own infrastructure at a local level. These railway undertakings however cannot be named as new entrants given that their market participation has historically grown and is limited to their own infrastructure and they do not compete with ÖBB for PSCs. According to the 2012 RMMS, these operators account for fewer than 6% of total passenger-kilometres.
- 2.5 In December 2011, the first ‘open access’ operator, WESTbahn, started its operations on the main corridor between Vienna and Salzburg which is the only Austrian line that is operated without state subsidies. WESTbahn offers long-distance services with almost one train every hour. The French incumbent SNCF holds 26% of the shares of WESTbahn.

Freight operators

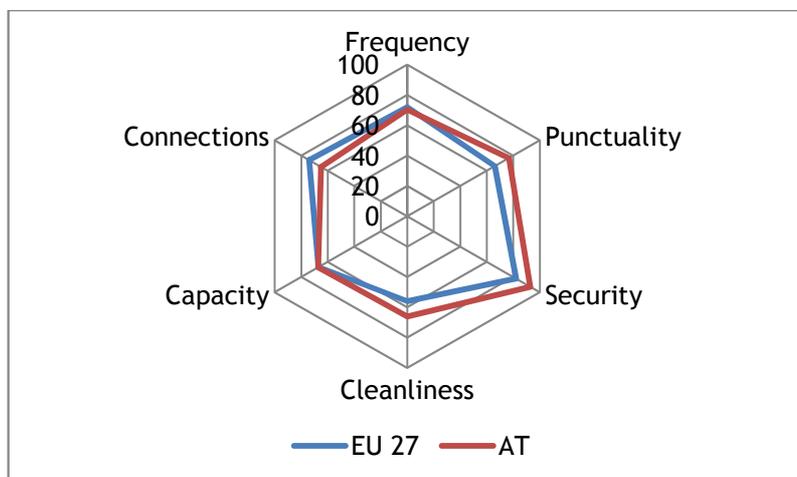
- 2.6 In 2009, rail’s market share of the Austrian freight market amounted to 33%. In international and transit transport, the market share was even higher with about 80%. The Austrian Ministry of Transport, Innovation and Technology subsidises rail freight transport with €170 mil. of which incumbent ÖBB receives €101 mil. and private operators about €18 mil. The subsidies are aimed primarily at enhancing alpine transit transport by rail and transport of hazardous goods (Schienen-Control 2011).
- 2.7 The incumbent operator Rail Cargo Austria (RCA) has maintained a strong position in the market with a market share of about 88% in 2008. Besides RCA there are currently about 10 other operators active in the Austrian rail freight market, principally on international flows. As an example, new entrants have a market share of about 33% in alpine transit traffic over the Brenner Pass (SCI 2010).
- 2.8 The largest “new entrant” in freight in Austria is Raaberbahn with a market share of about 4%. It principally operates block trains and combined transport in Eastern Austria and to Hungary. Until 2008, Raaberbahn was a subsidiary of Rail Cargo Austria, however, it had to be sold as a condition for RCA’s acquisition of Hungarian freight operator MAV Cargo.

Quality and Price indicators

- 2.9 The results from the Eurobarometer 2011 survey, summarised in Figure 5, show that customer satisfaction in Austria is slightly higher in all considered categories compared to the average of the EU27 states. Austrian passengers are particularly satisfied with cleanliness and security in trains and stations and perceive trains to be relatively punctual. There is a relatively poor satisfaction of rail passengers in Austria with regard to connections. This may refer to the frequency of connections between cities and the synchronization of intramodal and intermodal changes. This has been worsened following

the entry of WESTbahn as OBB has had to restructure its timetable to accommodate them having a knock-on effect on connections between services.

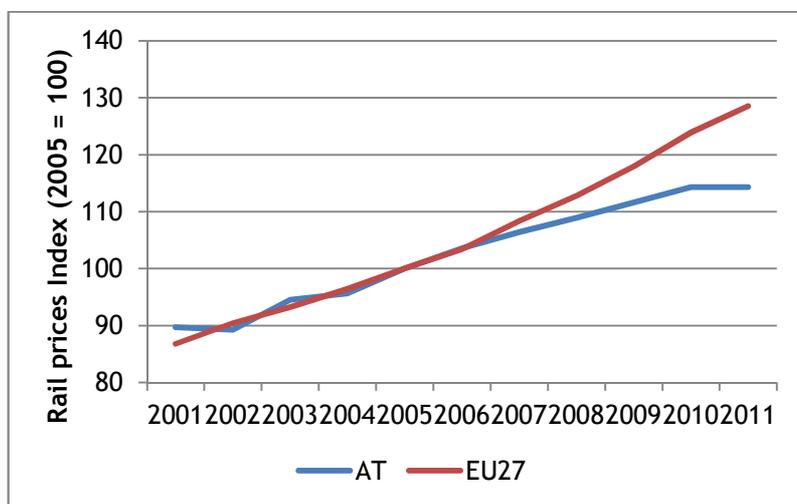
FIGURE 5 EUROBAROMETER SURVEY RESULTS 2011 - PASSENGER TRAINS



Source: Steer Davies Gleave analysis of Flash Eurobarometer (June 2011)

- 2.10 Figure 6 shows the evolution of the price for rail in Austria from 2001 to 2011. It can be seen that the price increased below the average of the EU27 states. From 2005 to 2011, average prices of EU27 increased by almost 30% whereas Austrian rail prices increased by only 15% in the same period.

FIGURE 6 PRICE INDEX FOR PASSENGER RAIL TRANSPORT 2001-2011



Source: Eurostat (2011)

Market openness and competition

Public Service Contracts in Austria

- 2.11 All local and short-distance rail services and several long-distance services in Austria are covered by public service contracts. In Austria, there is only one long-distance connection, the main corridor between Vienna, Linz and Salzburg, that can be operated at a profit. International services are provided completely without state-subsidies.
- 2.12 To date, all contracts under PSO have been awarded directly and thus there is no competition in this field in Austria. In February 2011 SCHIG, on behalf of the Ministry of

Transport, concluded a new contract with the incumbent ÖBB Personenverkehr AG that covers the basic provision of regional and long-distance rail services in Austria and will expire in 2019. For the first time, this new contract considers single train connections and defines requirements for rolling stock, passenger information and complaint handling and includes an incentive system for ensuring the defined quality levels. From 2010, this contract guarantees ÖBB €573 mil. with a yearly increase between 6% and 8%. The contracted volume amounts to 70 mil. train-km of which 59 mil. train-km cover regional and local services and 12 mil. train-km long-distance services. Additionally, ÖBB operates 4 mil. train-km without subsidies. In 2010, 17 private railway undertakings received €46.3 mil. from national funds for their operations under PSO.

- 2.13 In addition to the contract with the Ministry of Transport, the Federal States also have the possibility to conclude contracts with railway undertakings to operate trains under PSO. Within this context, the Federal States ordered services in 2010 amounting to about 8 mil. train-km with a value of €127 mil. from ÖBB. Also the private railway undertakings benefit from subsidies from the Federal States. The duration of the contracts with the Federal States depends generally on the investments made by the railway undertakings and amounts to between 5 and 30 years.
- 2.14 In terms of passenger-km, total volumes of train services operated under PSO sum up to 5.7 billion whereas volumes outside PSO amounted to 5.4 billion (CER 2011).
- 2.15 Public service contracts usually provide for yearly monitoring systems assessing the fulfilment of the quality targets to be met by the railway undertakings. Some contracts also pose a bonus/malus system which envisages obtaining premium or penalty payments depending whether the established quality targets have been met.
- 2.16 In October 2011, WESTbahn complained to the Ministry of Transport about the practice of directly awarding PSCs to ÖBB. As an example, WESTbahn wanted to submit a competitive offer to operate the Salzburg - Graz line which is currently operated under PSC. Representatives of WESTbahn stated that for the same amount of subsidies they would operate 7 daily trains between these cities compared to the 3 daily trains currently offered by ÖBB.
- 2.17 The Ministry of Transport defended the practice to directly award the contract to the incumbent ÖBB stating that competitive tendering cannot be realised while ÖBB's personal costs are 20% higher than those of its competitors and when they have no change to reduce their staff due to the old state-railway contracts.

Open-access

- 2.18 Foreign railway undertakings have open access to purely commercial cross-border passenger rail services. In accordance with Directive 2007/58/EC, access may be restricted where this service overlaps with services operated under PSC. Austrian railway undertakings have open access to purely commercial domestic passenger rail services, as defined by Article 57 of the Austrian Railway Act. To date, WESTbahn is the only new entrant in this market. WESTbahn operates 22 trains per day between Vienna and Salzburg with some additional stops, in competition with ÖBB's Railjet (32 per day) and ÖBB Intercity (33 per day). An interview with ÖBB CEO Christian Kern in the Salzburger Nachrichten on 24 March 2012 stated that ÖBB passenger numbers have only fallen 1.5%, suggesting that the total market has grown. WESTbahn undercut ÖBB's fare by 50% to equalise with the latter's fidelity fare.

Access Barriers

Time and Cost to Market

- 2.19 Railway licences are issued by the Ministry of Transport and are valid indefinitely. Every five years, these have to be reviewed. The legal period for issuing a licence is 3 months and this is generally met. Issuing fees amount to €490 which is relatively low compared to other Member States.
- 2.20 The Ministry of Transport is also responsible for issuing safety certificates. These are valid for 5 years on the whole Austrian railway network. The 3-month legal period for processing the applications is often not met.
- 2.21 According to Austrian law, rolling stock authorisation has to be issued within a period of 180 days. The responsible authority is also the Ministry of Transport. Experience showed that the authorisation process can be concluded in many cases within 60 days (IBM 2011). Additionally to the authorisation process at the Ministry, rolling stock has to be approved also by ÖBB (SCI 2010).

TABLE 2 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating licence	3 months	€490
Safety certificate	>6 months	€10,000
Authorisation of rolling stock	60 - 180 days	€50,000 - €150,000

Source: IBM (2011)

- 2.22 Several railway undertakings complained to Schienen-Control about ÖBB's strategic behaviour to scrap unnecessary rolling stock or to sell it exclusively to railway undertakings operating outside of Austria forbidding them to resell it to Austrian railway undertakings. Particularly shunting operations are economically not reasonable when using new locomotives. As a result, new entrants to the rail freight sector have decided to focus exclusively on block trains and are therefore criticised for 'cherry picking'.

Complaints of Discriminatory Practices

- 2.23 New entrant WESTbahn concluded a framework contract with ÖBB-Infrastruktur for access to the line between Vienna and Salzburg from December 2011. ÖBB-Infrastruktur however offered train paths that were different to those established in the contract. The incumbent railway undertaking ÖBB-Personenverkehr complained that the paths of WESTbahn would lead to a decrease in the quality of a regional service operated under the PSC in the Salzburg area that use the same infrastructure. Schienen-Control invited WESTbahn and ÖBB-Personenverkehr to jointly discuss alternative solutions. Subsequently all parties reached an amicable settlement. ÖBB released three daily train paths and WESTbahn abandoned the leeway established in their contract. In April 2012, Schienen-Control had to intervene again on a similar issue, the final decision is still outstanding.
- 2.24 WESTbahn also complained to Schienen-Control that their trains were not included in printed and electronic timetables published by ÖBB Personenverkehr. The case was taken to the Austrian Competition Court. Schienen-Control argued that an inclusion of WESTbahn trains is necessary to comply with Regulation 1371/2007 on Passenger Rights. As a result, ÖBB was obliged to include WESTbahn trains in their timetables.

- 2.25 WESTbahn entered into a contract with the Austrian infrastructure manager as they planned to carry out marketing activities in passenger stations. The contract stipulated a fee of €93,000 for 35 days and prescribed certain conditions for the activities. Ticket sales by WESTbahn staff in the station areas, however, was prohibited. WESTbahn claimed that other operators, in particular ÖBB PV AG, were allowed to carry out promotion at stations without written contract and at no cost. Following this, the infrastructure manager provided the regulatory with a contract with ÖBB PV for the use of station areas for promotional activities. This contract however was signed after the start of promotional activities by ÖBB PV. Schienen-Control considered the contract with WESTbahn to be discriminatory because, when it was entered into, the infrastructure manager allowed ÖBB-PV AG to carry out promotion activities without contract, and decided to declare the contracts on promotional activities invalid. The infrastructure manager was obliged to allow promotion activities of any operator without any preconditions unless these were published in the network statement.
- 2.26 Westbahn also complained about infrastructure access fees for passenger services, as they believe¹ that the increase in fees is being refunded to ÖBB PV AG through a separate contract and it is thus discriminating against them. A decision on this issue is still pending.
- 2.27 WESTbahn brought an appeal against the awarding of a PSO contract to ÖBB by the provincial government of Oberösterreich. The case was taken to the Administrative Court of Oberösterreich which decided to declare the contract invalid due to a lack of transparency (no details on routes, train services).
- 2.28 Schienen-Control received several complaints regarding line closures due to engineering works. In order to save on construction costs, ÖBB-Infrastruktur closes lines for several weeks. Railway undertakings claimed that this behaviour leads to increased costs for them since they have to bear extra costs and higher access fees for deviations or a temporary contracting of road transport services.
- 2.29 After an initial acceptance, a RU refused to offer traction services on a mountain line to another RU. Although the requesting RU withdraw the complaint, Schienen-Control started investigations ex-officio. The accused RU stated that they needed the rolling stock for their own use. The Schienen-Control Commission, however, found that these statements were neither reasonable nor satisfying. They considered the behaviour of the accused RU to be discriminatory. As a result, shortly thereafter the traction services were offered by the RU in question.

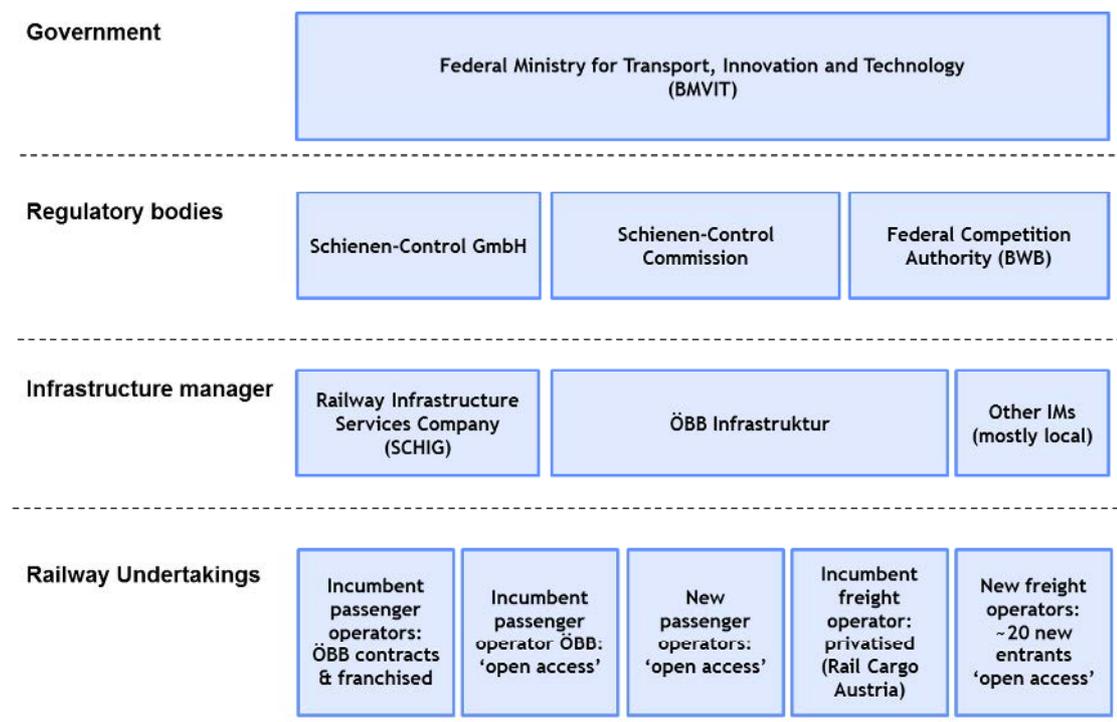
¹ "Liberalisation of the rail passenger market in Austria", Schienen-Control Presentation, June 2012

3 Regulatory framework

Main institutions and their role

3.1 Figure 7 summarises the main institutions regulating the rail market in Austria. Their specific functions are described below.

FIGURE 7 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN AUSTRIA



Ministry

3.2 The responsibilities of the Ministry of Transport, Innovation and Technology related to the rail sector include issuing licences and safety certificates to railway undertakings and infrastructure managers and authorising rolling stock. Furthermore, the Ministry is responsible for concluding the public service contracts with the railway undertakings. Despite this, the Ministry holds also 100% of the shares of the ÖBB holding.

Regional Transport Authorities

3.3 Also the regional transport authorities may order transport services under public service obligation if they perceive these as necessary.

Railway Infrastructure Services Company (SCHIG)

3.4 SCHIG is a service company fully owned by the Republic of Austria. The former infrastructure financing company was restructured in 2005. Its tasks now include mainly the audit and control of the application of funds in the railway sector. In addition, SCHIG offers services such as the allocation of train paths or the Register of Rolling Stock (RRS). SCHIG is also in charge of any commercial operations of a Notified Body. On behalf of the Ministry of Transport, Innovation and Technology, SCHIG concludes contracts for financing of infrastructure and for transport services under public service obligation.

Regulatory Body

3.5 Austria implemented two regulatory bodies, Schienen-Control GmbH (SCG) and the Schienen-Control Commission (SCK), whose tasks are described below. Schienen-Control GmbH is an independent private limited company owned by the Ministry of Transport, Innovation and Technology and is financed by the railway undertakings. It has a small structure with 12 staff, is entitled to issue orders and forms also the management of the Schienen-Control Commission. Its main tasks include:

- Supervision of negotiations between operators and infrastructure managers on level of infrastructure fees
- Statistics, market monitoring, reports
- Supervision of the obligations of railway undertakings and path allocation bodies
- Monitoring of path allocation process

3.6 The Schienen-Control Commission is an independent administrative court headed by a judge. It is composed of 3 members and 3 deputy members and issues official rulings and orders on appeals against decisions of Schienen-Control GmbH. Appeals against decisions of the Schienen-Control Commission have to be sent directly to the Administrative High Court. Its main responsibilities include:

- Complaints against railway undertakings and path allocation bodies
- Complaints concerning use and infrastructure connections of sidings and other railways
- Complaints regarding access to training facilities
- Appeals against Schienen-Control GmbH decisions
- Approval of framework agreements for more than 10 years
- Approval of infrastructure fee mark ups for bottlenecks
- Take decisions on the issue of compromising the economic equilibrium of public service contracts
- Reject terms and conditions regarding reimbursement of passengers

Analysis of unbundling and regulation

Vertical separation

3.7 In Austria, the infrastructure manager and the incumbent railway undertaking are both vertically integrated within one holding company. There is however an organisational, accounting, legal and functional separation between the infrastructure manager and the transport divisions. The ÖBB holding company is fully owned by the Republic of Austria.

Regulatory Capacity

3.8 As discussed above, the regulatory tasks are performed by Schienen-Control GmbH and the Schienen-Control Commission. Schienen-Control GmbH has 12 staff and the Schienen-Control Commission has 3 members.

3.9 The regulatory body Schienen-Control GmbH may start investigations ex-officio or following complaints. The responsibility for its decisions remains with the Schienen-Control GmbH. The powers of the Austrian regulatory bodies are limited since they cannot impose

finer or order coercive measures, however, they may take ex post decisions. Experience showed that legal appeal proceedings take usually between three and six months.

- 3.10 The general approach of the regulatory bodies to resolve disputes is collaborative. In only 4 out of the last 120 investigations, a formal decision had to be issued. In all the other cases, an amicable agreement between the parties to the disputes was reached (IBM).

4 Summary

Identification of key problems

- 4.1 Market opening in Austria is well advanced. The European Railway Packages have been implemented and new entrants are present in both the freight and the passenger markets. IBM (2011) pointed out that compared to 2007, conditions for new entrants have improved in terms of access to rolling stock and specialist personnel.
- 4.2 Stakeholders stated that the processes of granting licences, safety certificates and rolling stock authorisation at the Ministry of Transport are transparent and fair. However, there is still a lack of independence between the infrastructure manager and the incumbent operator. Subsequent to the rolling stock homologation process at the Ministry, rolling stock has to be approved by the infrastructure manager. One stakeholder stated that this might be an incentive for discriminatory behaviour since the infrastructure manager can obstacle the market entry of an competitor of OBB.
- 4.3 New entrants in the rail freight market focus principally on block trains in transalpine transports. This can be explained by the lack of used locomotives in the rolling stock market which shrinking operations economically unreasonable. The incumbent Rail Cargo Austrian, however, maintains a high market share of about 88%.
- 4.4 In December 2011, the first open access operator, WESTbahn, entered the Austrian passenger rail market and operates long-distance services on the main corridor between Vienna and Salzburg. The rest of domestic lines are covered by PSCs which are directly awarded to OBB. Except from OBB, there is a number of local railway undertakings that operate services under PSO on their own networks.
- 4.5 OBB's operations on the line Vienna-Salzburg in competition to WESTbahn appear to generate losses of about €20 million per year and the fact that the Ministry of Transport concluded one large PSC with OBB to operate the basic provision of domestic services PSO. One stakeholder suggested that OBB uses funds from PSO to cross-subsidise their commercial operations and to strengthen their market position against the new entrant WESTbahn.
- 4.6 The Austrian Regulatory Body assessed the impact of the market entry of WESTbahn on rail quality and financing. They pointed out that this had a positive impact on service frequency, on board services and ticket prices.
- 4.7 On-train service quality increased principally through WESTbahn's additional service personnel on trains and free wireless internet connection. As a response, OBB announced that by the end of 2012, all of OBB's Railjet trains will offer free wireless internet connection.
- 4.8 Several weeks before the entry of WESTbahn, OBB introduced a special offer called "Sparschiene" which allows some travel for only €9. WESTbahn matched the offer on the same routes on weekends. This reduction in ticket prices increased the attractiveness of the railways for passengers. WESTbahn stated that subsequent to the introduction of this offer, passenger volumes at weekends increased by more than 2 times. It is not sure, however, if the operators can offset their operational costs maintaining this low price level. The Regulator and Competition Authority have been informed and asked to investigate whether the prices offered by OBB are cross-subsidised by other public funds.

- 4.9 Further to this, the Regulatory Body found that the market entry had a negative impact on intramodal integration and information to passengers. This can be explained by the fact that WESTbahn tickets are not valid on OBB trains and vice versa and because OBB limits WESTbahn advertising in stations.
- 4.10 It should be noted that the Regulatory Body has been heavily involved in investigating potential cases of discrimination as discussed above. To date, most decisions have been in favour of the new entrant.
- 4.11 Despite the fact that to date there is largely no competition in the Austrian passenger rail market, the rail system appears to be quite attractive for passengers. The strong increase in passenger volumes might correlate with the relatively small increases in ticket prices.
- 4.12 The above described problems are summarised in Table 3.

TABLE 3 SUMMARY OF OUTSTANDING PROBLEMS

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	✓	• OBB owns majority of rolling stock
	Vague rules on access to rail-related services		
Industry consolidation	Incomplete unbundling	✓	• IM and incumbent RU integrated in the same holding company
Access barriers for new entrants	Ineffective unbundling	✓	• Ministry owner of IM, incumbent RU and RB
	Incomplete unbundling	✓	• IM and incumbent RU integrated in the same holding company
	Deficient funding and investment framework		
	Access barriers to infrastructure	✓	• Prior to access, rolling stock must be approved by infrastructure manager
	Lack of structures/mechanisms for coordination		
	Lack of financial transparency	✓	• Suspected use of state subsidies to compete on “open access” lines
Different market access rules in MSs	Absence of competition for PSOs	✓	• No competition for PSOs
	Distorted/Ineffective competition for PSOs		
	Absence of open access rights		
	Discriminative framework conditions	✓	• Insufficient powers of the regulatory body
Other causes	Country-specific problem drivers	✓	• High personnel costs of incumbent

Potential examples of best practice

- 4.13 In Austria, two open access operators entered the market. One of them, CAT, is an airport link connecting the centre of Vienna with the airport and the other, WESTbahn, is a long-distance operator.
- 4.14 Given that most OBB customers purchase their tickets at a 50% discount, WESTbahn set ticket prices at half the price of the standard OBB ticket prices. A reduction in ticket prices was initially not foreseen. WESTbahn, however sought to increase attractiveness for customers by an increased service level. Every coach is staffed with service personnel and WESTbahn offers a free wireless internet connection to their passengers. As a response, also OBB announced that by the end of 2012, all of OBB's Railjet trains will offer free wireless internet connection.

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EUROPEAN RAIL MARKET OPENING

Belgium

Country Fiche

July 2012

1 Evolution of the national market

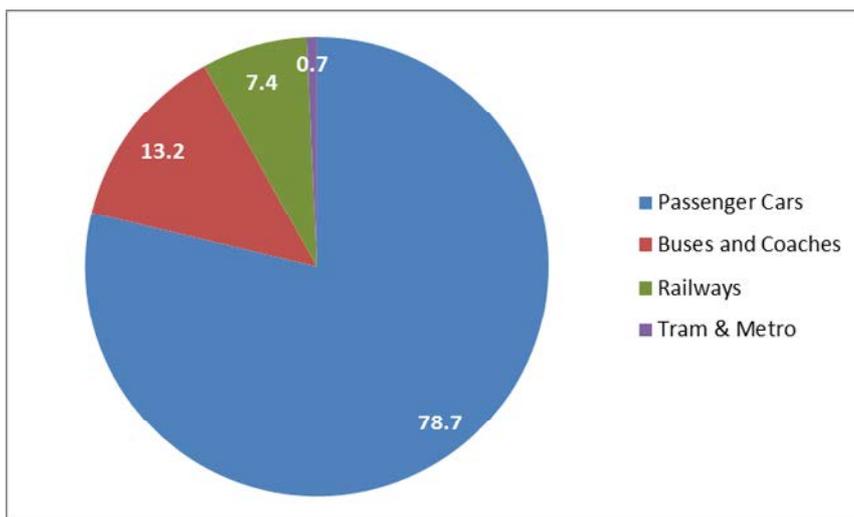
Structure of the network

- 1.1 Belgium's population is just over 11 million and has a very high population density at 354.7/km². With over 3,300km of rail in an area of just 10,500 km², its rail network is the second densest in Europe at 100.6km/1000km². Approximately 86% of the network is electrified with 120 km designated high speed lines. The intensity of passenger use of the network is almost three times the European average at 2.94 while freight intensity is also well above the European average.

Changes in volumes for passenger and freight services

- 1.2 The modal share of rail in 2009 was above the EU 27 average of 7% at 7.4% as seen in Figure 1. Freight rail held a modest modal share of 12.5% which was below the EU 27 average of 15.8%

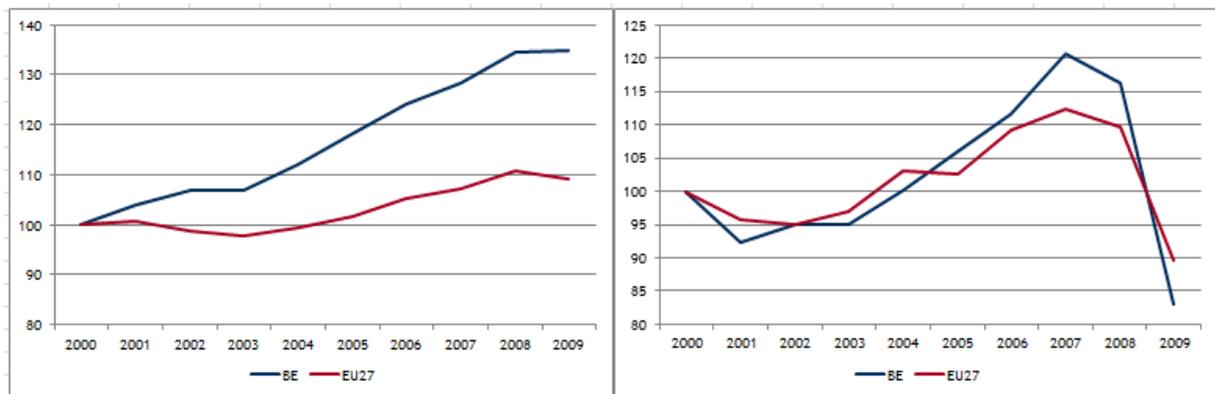
FIGURE 1 MODAL SPLIT IN BELGIUM 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

- 1.3 Rail passenger volumes increased fairly steadily between 2000 and 2008 at which point they levelled off. The increase was at a much higher rate than the average increase across the EU 27 during the same period as illustrated in Figure 2. However analysis presented by Everis (2010) shows that total passenger growth in passenger kilometres 1995-2008 in Belgium would have been more than 10% lower when the impact of HSR construction is removed. Heavy road congestion is also contributed to the increase in traffic.

FIGURE 2 BELGIUM AND THE EU 27, 2000-2009 - PASSENGER AND FREIGHT KM



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

- 1.4 Freight rail has largely followed the same trajectory as freight rail volumes in the rest of the EU with a sharp decline between 2007 and 2009 due to the impact of the economic crisis.

2 Competition and market access

Overview of the passenger and freight operators

- 2.1 Domestic passenger services are provided by the state owned Société Nationale des Chemins de Fer Belges (SNCB)/Nationale Maatschappij der Belgische Spoorwegen (NMBS) through a public service contract. Prior to 2005, SNCB-NMBS acted as both the infrastructure manager and the railway undertaking. In order to facilitate the liberalisation process, the company was divided into three entities, SNCB-NMBS as the national railway undertaking, Infrabel as the infrastructure manager and SNCB-NMBS Holding which owns both companies and is responsible for the cooperation between them. In April 2012, the CEO of SNCB-NMBS called for the abolition of SNCB-NMBS Holding and that SNCB-NMBS and Infrabel become completely separate companies.
- 2.2 The domestic passenger market is not open to competition unlike the international market where Thalys, Eurostar and DB ICE currently operate, none of whom run cabotage services but do stop at multiple stations in Belgium. Fyra, a new service between the Netherlands and Belgium is due to begin in 2012. However rail operators appear to prefer cross-border alliances to head-on competition, as witnessed by the agreements between SNCB-NMBS and its various foreign partners to operate Thalys and Eurostar trains (NBB 2012).
- 2.3 International freight was opened to competition in January 2006 and national freight the following year. There are currently twelve RUs licensed to operate with eight of these companies actively operating services. A new company, SNCB-NMBS Logistics was set up in February 2011 in order to separate freight from passenger operations within SNCB-NMBS and to make sure that they were legal, accounting and organisationally separate. External RUs currently account for approximately 10% of the freight rail market in Belgium (IBM, 2011), having doubled between 2006 and 2009.

Public service contracts

- 2.4 All domestic passenger services (long-distance, regional and suburban) in Belgium come under one PSC. This is partly justified by the size of the country and by the number of commuters crossing the country on a daily basis (CER 2011).
- 2.5 The contract is negotiated directly between the Ministry of Transport and SNCB-NMBS: the details of financing aspects of PSOs are not enshrined in law but rather negotiated between the parties and detailed in the contract. Levels of compensation are determined in advance as the difference between the foreseen costs and revenues as detailed by the passenger operator.
- 2.6 PSCs in Belgium are concluded for a duration of between three to five years. The current contract is due to expire at the end of 2012.

Access barriers

- 2.7 IBM (2011) states that the operational barriers for external RUs in Belgium are amongst the lowest in the European Union and reports that this is a dramatic change compared with 2007 when it was considered to be one of the countries with the highest operational barriers.

- 2.8 However, SNCB-NMBS Holding owns all rolling stock along with all stations. The majority of stations are also maintained by SNCB-NMBS and there are currently no open access passenger operators on domestic services in Belgium.
- 2.9 Crossrail Benelux lodged a complaint to the European Commission with regards to the independence of SNCB-NMBS Logistics in February 2011. They stated that the incumbent had a competitive advantage over other RUs as SNCB-NMBS Holding apparently provides SNCB-NMBS Logistics with rolling stock and office facilities. Employees of SNCB-NMBS Logistics are said to have the possibility to return to other SNCB-NMBS Holding subsidiaries if it is deemed more economically viable.
- 2.10 The time and cost to market in Belgium are illustrated in Table 1. The cost of acquiring a safety certificate is one of the highest in the EU but varies according to the transport service and sector which the RU wishes to operate.

TABLE 1 COST TO MARKET AND TIME TO MARKET

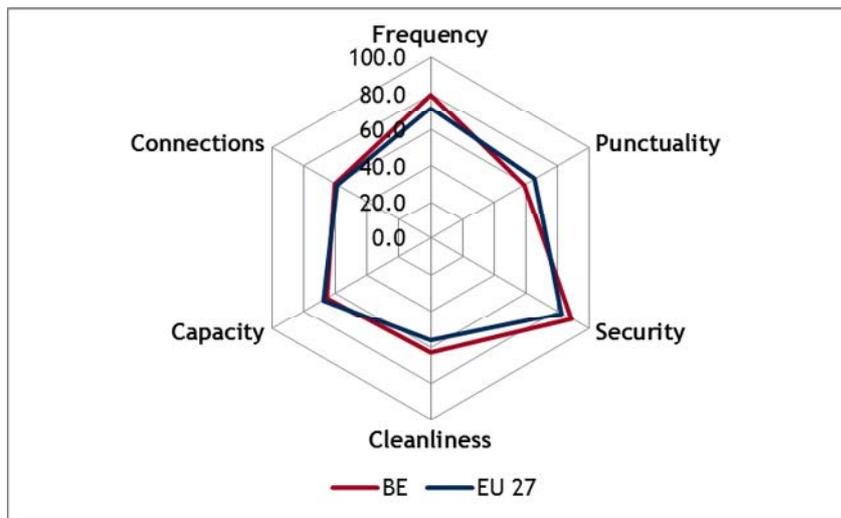
Application type	Time	Cost
Operating licence	3 months	€500
Safety certificate	3 months	€7,000 - €27,000
Authorisation of rolling stock	3 months	€12,000 (max)

Source: IBM (2011)

Public funds, investment and quality indicators

- 2.11 Both Infrabel and SNCB-NMBS receive state subsidies: the state funded 9% of Infrabel's revenues and 37% of SNCB-NMBS's revenues in 2009. NBB (2012) reports that assistance to SNCB-NMBS has increased by an average of 4.5% annually between 1992 and 1992. Despite the large amount of financial support, SNCB-NMBS still reports significant losses (€216 million in 2010) the majority of which was incurred by the freight sector.
- 2.12 The current restructuring of SNCB-NMBS holding is expected to increase the accountability of public funds, which in the past has been subject to investigation by the Court of Audit (2005-2007).
- 2.13 A significant proportion of the rolling stock is quite old, with 11% of rolling stock over twenty years old in 2011 (CER, 2011). Despite customer satisfaction rates declining over the last few years (Infrabel, 2011), Belgium's rates are still broadly in line with that of the EU 27 average. The only element lower than its European counterpart is punctuality.

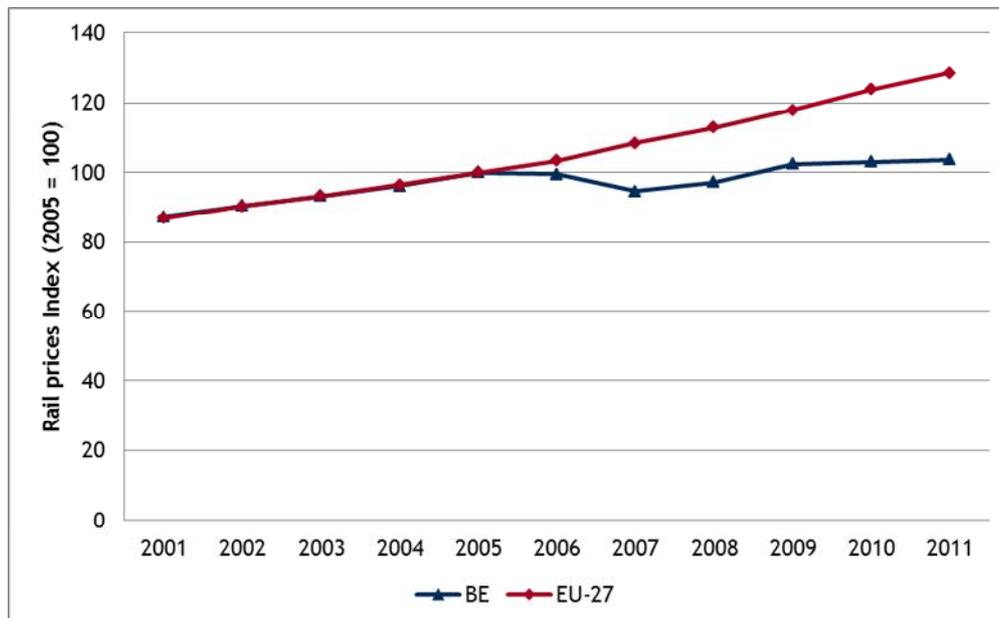
FIGURE 3 EUROBAROMETER 2011 - RESULTS FOR BELGIUM AND EU-27



Source: Eurobarometer 2011

- 2.14 It should be noted that fares have remained stable in Belgium: ticket prices in Belgium have had the lowest absolute increase since 2005 across the entire European Union (SDG analysis of Eurostat data). Although SNCB-NMBS is responsible for its own tariff system, they are restricted in what they can charge passengers due to the public service contract.

FIGURE 4 PRICE INDEX FOR PASSENGER RAIL TRANSPORT 2001-2011

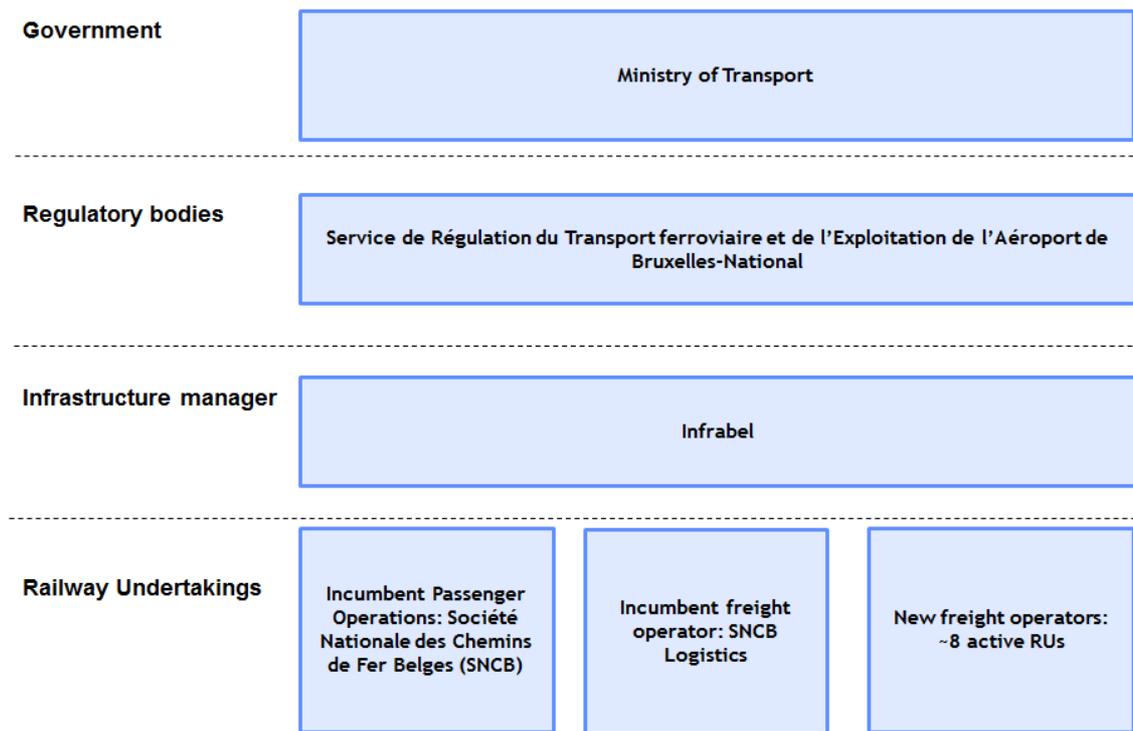


Source: Eurostat (2011)

3 Regulatory framework

3.1 Figure 5 summarises the entities involved in regulating the Belgian rail market. As Infrabel and SNCB-NMBS are both subsidiaries of SNCB-NMBS Holding, the framework does not allow for complete vertical separation.

FIGURE 5 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN BELGIUM



Source: Steer Davies Gleave

3.2 The regulatory body, Le Service de Régulation du Transport ferroviaire et de l'Exploitation de l'Aéroport de Bruxelles-National, is responsible for reviewing the network statement, monitoring competition and examining infrastructure allocation procedures and charges. It also manages complaints from railway undertakings. The regulator's independence has been questioned by the European Commission as it has been suggested that its employees along with those of the accident investigation body and the safety authority have the opportunity to return to work at the incumbent SNCB-NMBS if they wish.

4 Summary of findings

Identification of key problems

- 4.1 While competition exists amongst the international services to Germany and France, domestic passenger rail is not open to competition. There are clear barriers remaining for potential new RUs such as the direct award of PSCs to the incumbent SNCB-NMBS, ownership of rolling stock by SNCB-NMBS, government tariff agreements and the independence of the regulatory framework as noted by the EC.
- 4.2 Although these barriers are decreasing, the competitive pressure on SNCB-NMBS is low. In addition, market distortions arising from the partial integration of operations and infrastructure have been subject of complaints by new freight operators.
- 4.3 Despite the restructuring of the SNCB-NMBS Group taking place since 2005, the financial performance of SNCB-NMBS's operations remains poor, with significant losses in recent years and high levels of debt. Besides, restructuring has not resulted in lower operating costs.

Potential examples of best practice

- 4.4 The liberalisation of the Belgian freight market has raised competitive pressures with the market share of external freight RUs steadily increasing in recent years. This shows that Belgium's rail network has become considerably more attractive to new RUs in the freight sector. Rail freight volumes have recovered swiftly from the 2009 slump.
- 4.5 In addition, there is evidence of new entrants on international routes. IBM's findings that the operational barriers for new RUs in Belgium have decreased significantly over the last few years are encouraging, suggesting that the international operators may be ready to take advantage of market opening in the country, including domestic cabotage (Everis 2010).

TABLE 2 SUMMARY OF OUTSTANDING PROBLEMS

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	✓	<ul style="list-style-type: none"> • SNCB-NMBS owns all rolling stock
	Vague rules on access to rail-related services	✗	<ul style="list-style-type: none"> • No evidence
Industry consolidation	Incomplete unbundling	✓	<ul style="list-style-type: none"> • Partial integration infrastructure manager and railway undertaking
Access barriers for new entrants	Ineffective unbundling	✓	<ul style="list-style-type: none"> • Partial integration infrastructure manager and railway undertaking
	Incomplete unbundling	✓	<ul style="list-style-type: none"> • Partial integration infrastructure manager and railway undertaking
	Deficient funding and investment framework	✓	<ul style="list-style-type: none"> • SNCB-NMBS Holding is loss-making with SNCB-NMBS indebted
	Access barriers to infrastructure	✗	<ul style="list-style-type: none"> • No evidence
	Lack of structures/mechanisms for coordination	✓	<ul style="list-style-type: none"> • Lack of integrated ticketing
	Lack of financial transparency	✗	<ul style="list-style-type: none"> • No evidence
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> • No competition for PSOs at the any level
	Distorted/Ineffective competition for PSOs	✓	<ul style="list-style-type: none"> • No competition for PSOs at the any level
	Absence of open access rights	✓	<ul style="list-style-type: none"> • No open access
	Discriminative framework conditions	✓	<ul style="list-style-type: none"> • Insufficient independence of the regulatory body
Other causes	Country-specific problem drivers	✗	<ul style="list-style-type: none"> • No evidence

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EUROPEAN RAIL MARKET OPENING

Bulgaria

Country Fiche

July 2012

1 Evolution of the national market

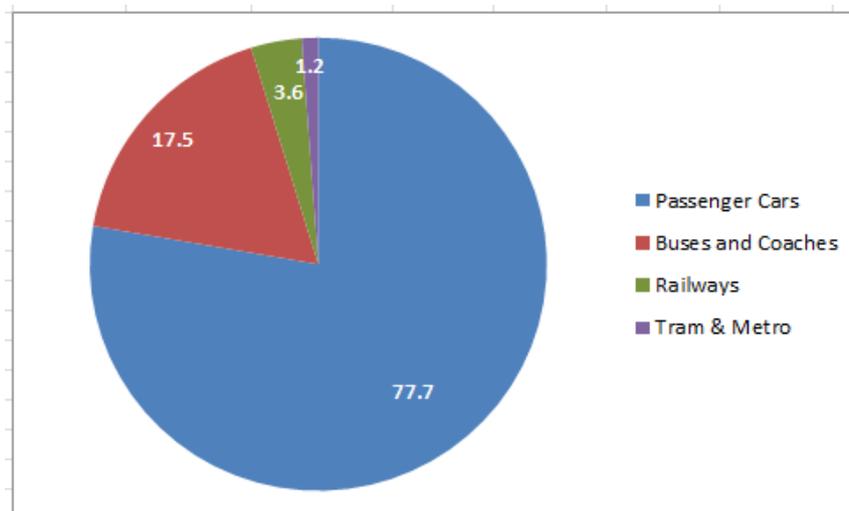
Structure of the network

- 1.1 Bulgaria's population has been declining for the past two decades and now stands at 7.3 million with a density of 66.2/km². The rail network in Bulgaria is over 4,100 km in length, has a density of 37.3km/1000km², well below the European average of 56km/1000km². The network contains two main routes running east from Sofia to Varna and Burgas respectively. Approximately 68% of the network is electrified. Both freight and passenger intensities are just over half of the EU average.

Changes in volumes for passenger and freight services

- 1.2 Figure 1 displays the modal split for passenger transport in 2009. Rail holds 3.6%, almost just half of the EU 27 average of 7%.

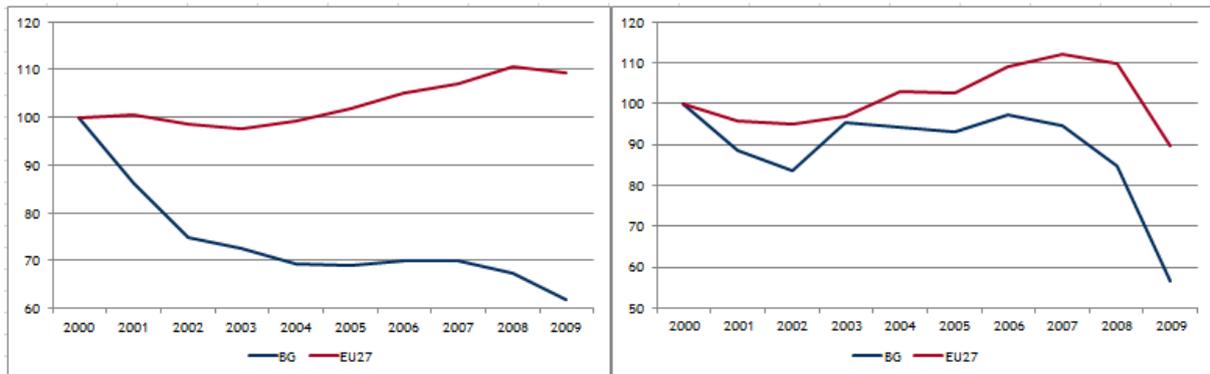
FIGURE 1 MODAL SPLIT IN BULGARIA 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.3 Figure 2 demonstrates the large decrease in rail passenger and freight km between 2000 and 2009. Passenger rail km has fallen rapidly, in contrast to the EU 27 average. While the decrease in freight broadly followed that of the EU average, it is clear that the economic crisis of 2008 and 2009 had a profound effect on freight traffic in Bulgaria.

FIGURE 2 BULGARIA AND THE EU 27, 2000-2009 - PASSENGER AND FREIGHT KM



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.4 In total, passenger rail km fell by 55% between 1995 and 2009 while car km have increased by 85%. This matches the increase in car ownership levels, which more than doubled between 1995 and 2009 (Eurostat).

2 Competition and market access

Overview of the passenger and freight operators

- 2.1 In 2002, the National Company Bulgarian State Railways was divided into two entities, an infrastructure manager and a rail undertaking.
- 2.2 Passenger rail services are now provided by BDZ Putnicheski Prevozi Ltd, a subsidiary of the holding company BDZ (Balgarski Darzhavni Zheleznitsi Ltd). BDZ has two other subsidiaries, one responsible for freight services and the other for traction. The holding company BDZ is owned by the Bulgarian state. A planned restructuring foresees the traction subsidiary merging with the parent company BDZ.
- 2.3 The state owned NRIC (National Railway Infrastructure Company) is responsible for managing the Bulgarian rail network infrastructure. It also manages all stations including platforms and buildings.
- 2.4 There are several external RUs now active in the rail freight market.

Open access

- 2.5 Although open to competition, there are currently no external RUs operating in the Bulgarian domestic passenger rail market. This is likely to be due to state regulated ticket prices which are too low to ensure operating costs are recovered (World Bank, 2011). There are currently no operators providing international passenger services.
- 2.6 Freight rail is open to competition and between 2006 and 2009, the market share of new entrants in terms of tonne km increased from 3% to 29% (IBM, 2011).

Access barriers

- 2.7 External RUs have stated that there is difficulty in retrieving information on market access and obtaining licences (IBM, 2011).
- 2.8 Table 1 displays the cost and time involved to enter the freight and passenger rail markets in Bulgaria.

TABLE 1 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating licence	3 months	€5000 - €15000
Safety certificate	4 months	€3270
Authorisation of rolling stock	2 month	€768

Source: IBM (2011)

Public service contracts

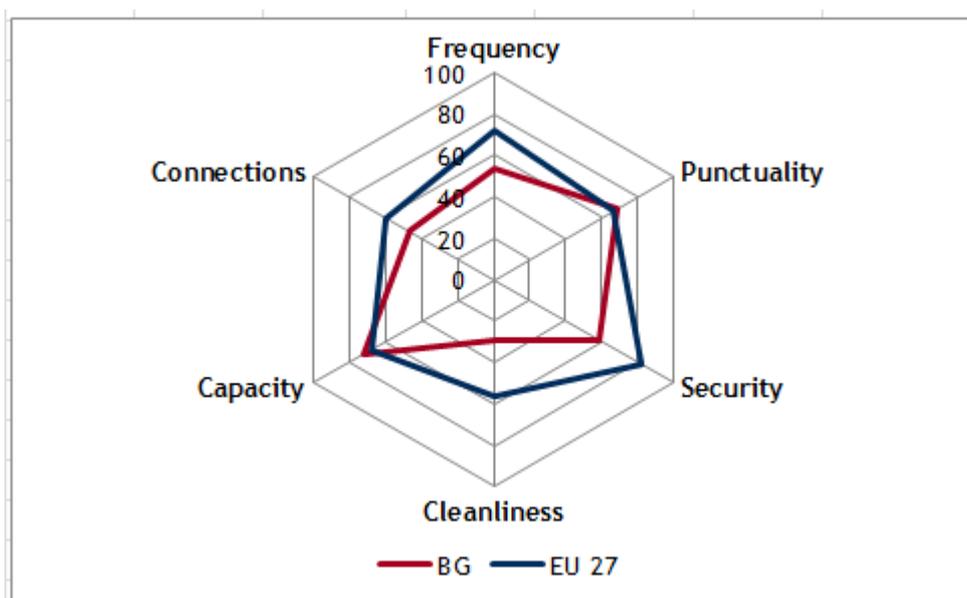
- 2.9 According to the RMMS, some 85% of domestic rail passenger transport is under a PSO contract. The current contract was signed in 2009 and has a duration of fifteen years. The contract is defined by the Ministry and includes both public service and tariff obligations but does not cover long-distance services.

- 2.10 While the first public service transport provision contract was directly awarded by the Ministry of Transport to BDZ in 2004, the second contract was put to tender in 2009. BDZ was the only company that took part in the tender process as it was one contract for the whole market. The PSC does not cover long distance train services which are run on a commercial basis. BDZ Ltd decides tariff levels and also organises ticket distribution.
- 2.11 Rolling stock is made available to the operator for the duration of their contract and must be returned at the end of the contract. The vast majority, 96%, of the rolling stock in Bulgaria is more than 30 years old. It is planned that EU funding will be used to renew the fleet.

Public funds, investment and quality indicators

- 2.12 Both BDZ and NRIC are loss making entities. This suggests that they have not adapted well to the changes in the rail market potentially due to their poor management (World Bank, 2011).
- 2.13 Security, frequency and connection criteria all fared below the EU average in the customer satisfaction surveys for 2011.

FIGURE 3 EUROBAROMETER 2011 - RESULTS FOR BULGARIA AND EU-27

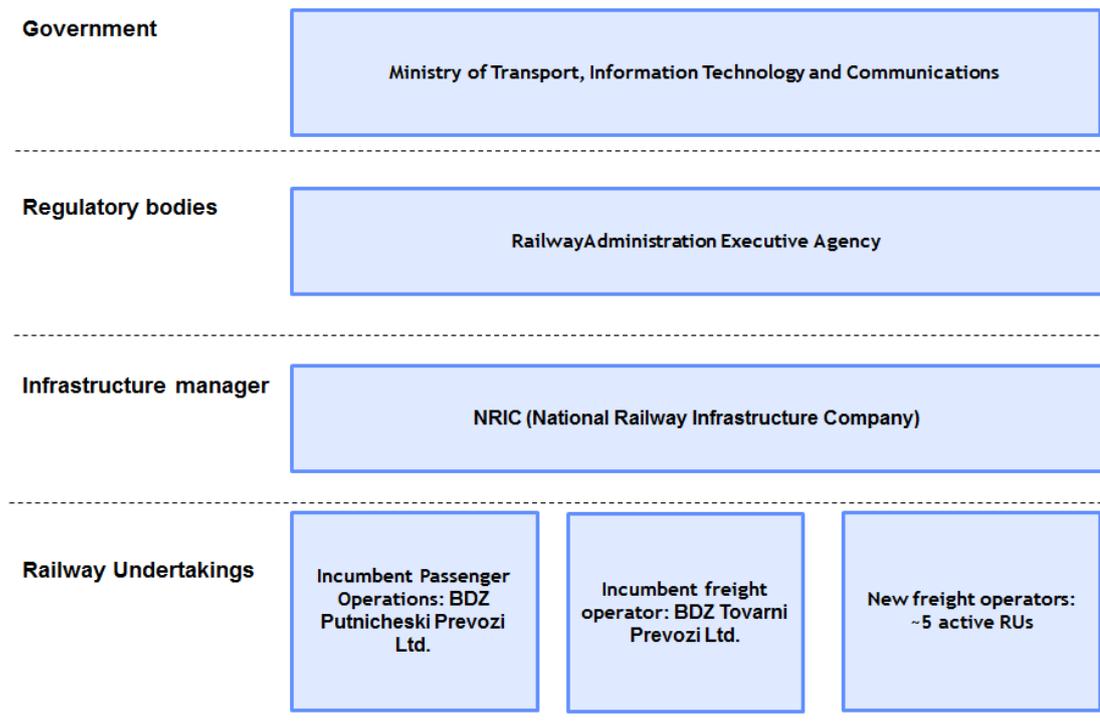


Source: Eurobarometer 2011

3 Regulatory framework

3.1 Figure 4 provides an overview of the institutions involved in the Bulgarian rail market. There has been full, vertical separation of the incumbent BDZ and the rail infrastructure manager NRIC since 2002. The Railway Administration Executive Agency acts as both the regulatory body and safety agency.

FIGURE 4 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN BULGARIA



Source: Steer Davies Gleave

4 Summary of findings

Identification of key problems

- 4.1 Bulgarian legislation now includes all conditions necessary for the liberalisation of its rail network. Although, there are external RUs active in the rail freight sector, this has not brought about an increase in tonne km.
- 4.2 Given the poor quality of infrastructure and tariff obligations, and as no other party showed interest the last time the contract came to tender, it is unlikely that there will be any new entrants in the passenger rail market. Currently, the Bulgarian railway network is in crisis with BDZ suffering from huge debts and the network infrastructure in urgent need of repair and renewal.

Table 2 Summary of outstanding problems

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	X	<ul style="list-style-type: none"> No evidence
	Vague rules on access to rail-related services	✓	<ul style="list-style-type: none"> Lack of specific regulations
Industry consolidation	Incomplete unbundling	X	<ul style="list-style-type: none"> No evidence
Access barriers for new entrants	Ineffective unbundling	X	<ul style="list-style-type: none"> No evidence
	Incomplete unbundling	X	<ul style="list-style-type: none"> No evidence
	Deficient funding and investment framework	✓	<ul style="list-style-type: none"> BDz and NRIC are loss-making and severely indebted Investment programmes deferred
	Access barriers to infrastructure	✓	<ul style="list-style-type: none"> Insufficient information available
	Lack of structures/mechanisms for coordination	X	<ul style="list-style-type: none"> No evidence
	Lack of financial transparency	X	<ul style="list-style-type: none"> No evidence
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> No competition for PSOs at the any level
	Distorted/Ineffective competition for PSOs	✓	<ul style="list-style-type: none"> No competition for PSOs at the any level - lack of bidders
	Absence of open access rights	X	<ul style="list-style-type: none"> No evidence
	Discriminative framework conditions	X	<ul style="list-style-type: none"> No evidence
Other causes	Country-specific problem drivers	X	<ul style="list-style-type: none"> Delayed application of restructuring plans and strikes

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EUROPEAN RAIL MARKET OPENING

Czech Republic

Country Fiche

July 2012

1 Evolution of the national market

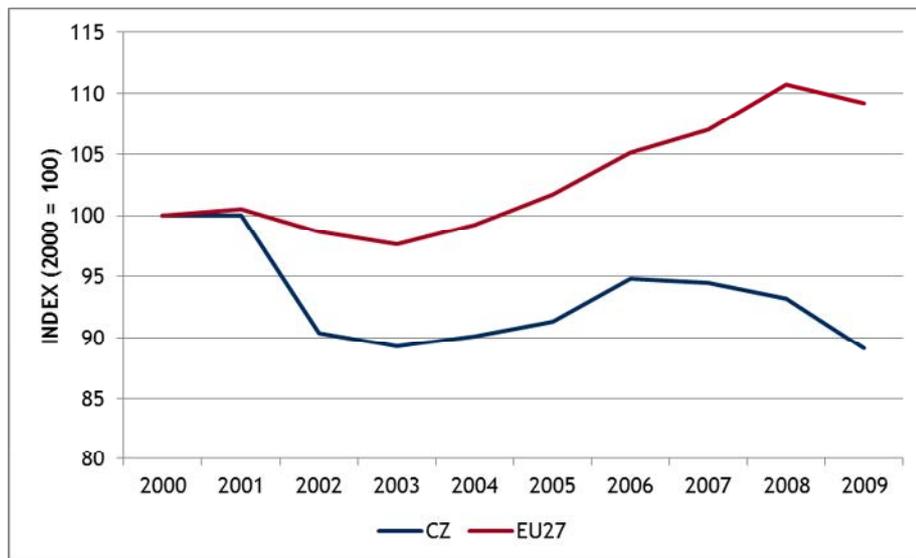
Structure of the network

- 1.1 The Czech Republic has a population of approximately 10.5 million people. The length of Czech railway lines is around 9,400km, of which only 3,210km are electrified and 7,563km are single-line tracks. The country has the highest rail density in Europe - 121.6 km/1000km² - however both passenger and freight rail intensities are below EU-27 averages.

Passenger volumes and modal share

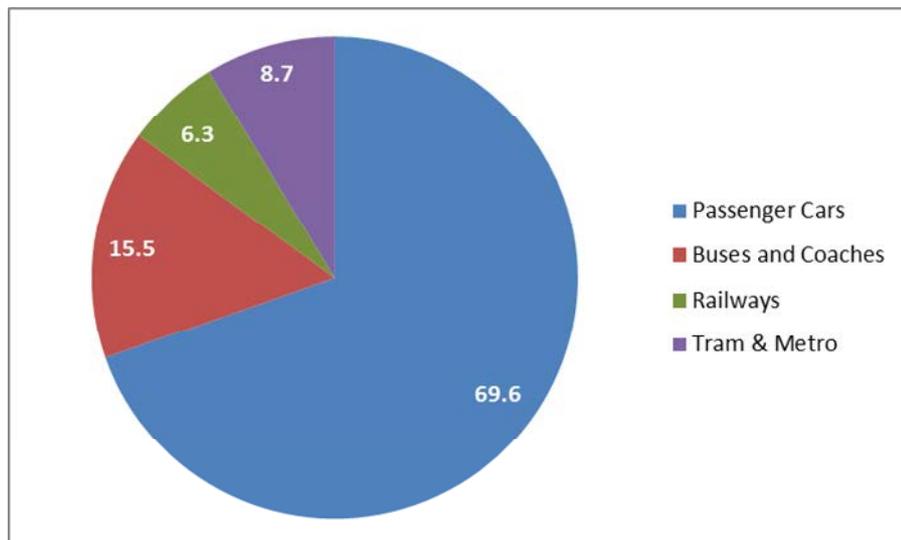
- 1.2 The turn of the century was marked by a sharp decline in passenger kilometres, followed by a moderate recovery in the period 2003-2006. However a second phase of decline began earlier in the Czech Republic than the rest of Europe (2006 compared to 2008). This has been exacerbated by the economic crisis (see Figure 1).

FIGURE 1 PASSENGER VOLUMES IN THE CZECH REPUBLIC AND THE EU 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

FIGURE 2 MODAL SPLIT IN PASSENGER TRANSPORT 2009



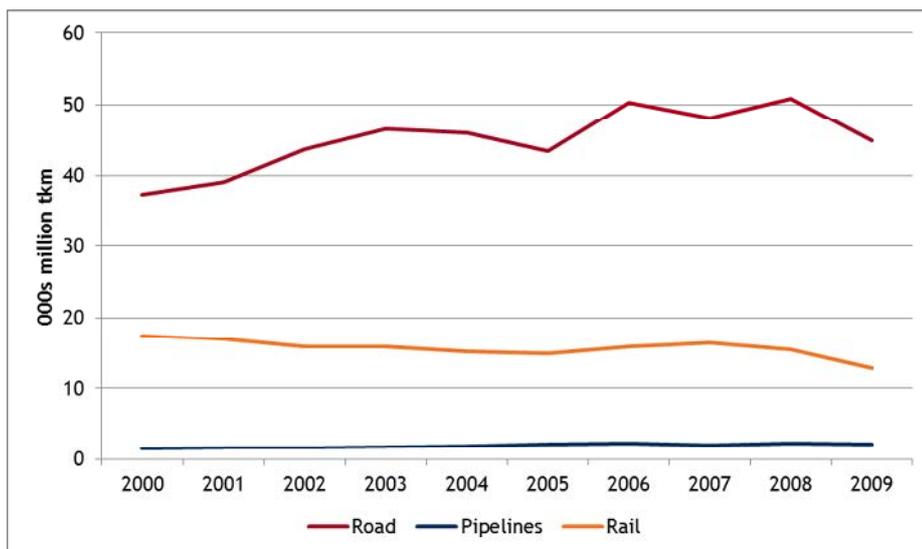
Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

- 1.3 The 2008-2009 decline in rail passenger volumes has been more pronounced than the slowdown in car traffic volumes in the Czech Republic. As a result, the modal share of rail in 2009 was lower than in previous years (6.3% of all passenger km as shown in Figure 2).

Freight volumes and modal share

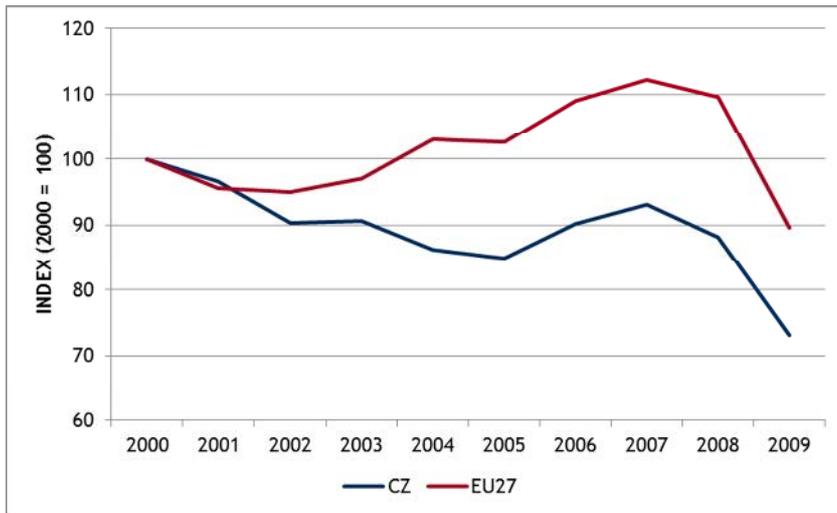
- 1.4 Freight volumes have been declining sharply since 2007 after a relatively stable period between 2002 and 2006, as shown in Figure 3. During this period, road traffic has also been declining, but to a lesser extent. As result, the modal share of rail in freight transport has been declining from 31% in 2000 to 21% in 2009. Rail freight patterns in the Czech Republic have mirrored European trends as Figure 4 shows.

FIGURE 3 FREIGHT TRANSPORT VOLUMES BY MODE 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

FIGURE 4 FREIGHT VOLUMES IN THE CZECH REPUBLIC AND THE EU 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

2 Competition and market access

Passenger operators

Incumbent: structure and activities

- 2.1 The incumbent state-owned operator, České dráhy (ČD), operates the vast majority of the Czech rail passenger market. This is because historically the government has directly awarded public service contracts for national passenger routes and ČD has also concluded contracts with regional authorities in regional passenger services.
- 2.2 Despite its market dominance, ČD has a record of operational losses which have led to the accumulation of historical debt. It managed to achieve a positive profit margin in 2007, although the decline in passenger volumes triggered by the economic crisis has led to severe losses thereafter. The fall in revenue has not been matched by significant reductions in cost, given the extensive rolling stock renewal plan to which the company has committed. However, labour costs have been cut with a decline in both staff numbers and average salaries in recent years. Table 1 summarises the financial results of the incumbent operator.

TABLE 1 FINANCIAL RESULTS OF CD 2007-2010

	2007	2009	2010
Revenue (€m)	1,740	1,038	1,495
Expenses (€m)	---	3,121	3,286
Profit (€m)	6	-44.2	-40.2
Staff numbers	---	38,947	35,780

Source: ČD Annual Reports, CER Annual Reports

- 2.3 The incumbent receives public subsidies from the central government and the regions as agreed in the relevant PSCs. ČD's Annual Report 2010 shows that it received from public funds double the amount that it raised from passenger revenue. However from 2011, the Minister of Transport has stopped payments for EuroCity and InterCity trains (which the state began to subsidise in 2008 following the loss of cross-subsidy from freight with the creation of ČD Cargo). These services are now operated at the RU's own financial risk and are not subject to PSCs. In addition, subsidies for non-commercial passenger services are not going to increase with inflation from 2012 (Railway Gazette, 12/10).

Overview of new entrants

- 2.4 Apart from ČD, four railway undertakings are active in public passenger transport services in the Czech Republic. Among those, three RUs operate niche services (RAILTRANS, Viamont and JMD), while Veolia operates short-distance urban and suburban services. However the market share of non-incumbents is still very low. According to the RMMS these operators account for 0.3% of all passenger-kilometres.
- 2.5 However, the prospects for the rail passenger market are evolving, with the entry of new RUs such as Regio Jet and Leo Express, which began services on 16 November 2012. International services have also seen entry in the Czech Republic. For example, Arriva runs

regular international services between Munich and Prague since December 2007, although in cooperation with ČD.

Freight operators

- 2.6 The freight market is fully liberalised in the Czech Republic. In 2007, the freight division of the incumbent ČD was separated with the creation of ČD Cargo. In 2009, ČD Cargo continued to dominate the market, however the share of new entrants has increased from 11% in 2006 to 18% in 2009. New entrants include the private companies Viamont and Unipetrol. Recently, ČD Cargo has sought to expand its activities by acquiring the Slovak incumbent ZSSK although this is still awaiting the Slovak government's approval¹.

Market openness and competition

Analysis of public service contracts

- 2.7 Public Service Contracts are organised by the government together with the Ministry of Transport for long-distance and interregional services - they cover 96% of all passenger km. Until recently, all contracts for national services have been directly awarded to ČD for 10 years: the current contract should run until 2019. CER (2011) reports that compensation levels have been historically low for ČD, leading to debt accumulation.
- 2.8 Fourteen administrative regions are in charge of regional and local public transport. Two tenders have been launched in the Liberec region. New entrants have been awarded PSCs in some other regions. Each competent authority defines the award procedures and the required public service obligations. The level of compensations varies from contract to contract.
- 2.9 PSCs include obligations relating to a number of areas but there is no performance regime at present, as reported by IBM (2011). However, the Czech government has recently withdrawn support for EuroCity and Intercity services and has confirmed its intention to open the remaining long-distance market gradually by putting around 75% of the services operated by ČD out to competitive tender by 2020. This decision points to a process of increased competition, moving away from direct negotiations with the incumbent operator. The timetable for market opening indicates that the Ostrava-Olomuc line will be the first to be put out to tender. Nine operators have expressed an interest to bid, including open access operator Leo Express and international companies such as Arriva, Veolia and Abellio (Railway Gazette 02/12, p.26).
- 2.10 Although the majority of operators own their own rolling stock, IBM (2011) reports that a domestic market for second-hand rolling stock has emerged in recent years. Traction stock is now available both for purchase and leasing, while passenger carriages and freight wagons are only available for purchase. While 43% of ČD's rolling stock was older than 30 years in 2010, there is evidence that major rolling stock renewal is taking place: in 2009, ČD invested €158 million in new passenger trains.

Analysis of open access

- 2.11 Around 40 Railway Undertakings currently operate rail freight services.
- 2.12 In the passenger sector, the new entrant RegioJet has been running purely commercial services along the Prague-Ostrava line, competing with the incumbent since 2011 and with

¹ PWC Transportation and Logistics News Deal, September 2011

Leo Express since November 2012. RegioJet was the first open access operator in the Czech passenger market, founded as a subsidiary of a Brno-based travel agency (Student Agency). RegioJet procured its rolling stock in the second-hand market using former FNM locomotives from Italy and ex-OBB coaches (Railway Gazette, 05/10), as well from Swiss operator SBB. In its first three months of operations, it carried 105,000 passengers with an average load factor exceeding 80%. It plans to carry 1.7 million passengers in the first year of operation (Railway Gazette, 03/12).

- 2.13 Leo Express is a company owned by the private equity fund Aakon Capital. It has adopted a different strategy to RegioJet by acquiring a new fleet of Swiss-manufactured STADLER trains which reduce operating costs in the long-term, with lower electric consumption and infrastructure charges (since these are based on weight, lighter rolling stock has to pay lower charges). As a result, the operator expects to be more competitive both in terms of quality and prices on the Czech market and plans to recover the sunk cost of rolling stock investment by lowering operational and maintenance costs. Leo Express is planning to enter the market both as an open access operator and in PSC tenders.
- 2.14 The recent changes in the Prague-Ostrava route show the effects of open access in the Czech market. RegioJet entered the market on 26 September 2011 offering prices that were 25% lower than ČD's Pendolinos for a service that is slightly slower (140km/hr against 160km/h). On 3 October CD responded by lowering prices by up to 30% as well as waiving reservation fees and offering special discounts. RegioJet has thereafter complained to the Competition Authority as detailed in paragraph 2.21.
- 2.15 Competition has also appeared in non-price features such as complimentary services upon departure and taxi services upon arrival². The entry of Leo Express promises to increase the offer to passengers by introducing on-board wireless internet and lower-floor trains to facilitate access for PRMs.
- 2.16 It should be noted that the new entrant operator RegioJet also runs several bus and coach services across the Czech Republic. These services compete directly with the incumbent operator on some routes.

Time and cost to market

- 2.17 The Rail Authority, Drazni Urad, is responsible for issuing operating licences, safety certificates and authorising rolling stock. The official legal periods and the fees necessary to carry out these functions are low when compared to European peers. A summary of the other costs to market and the application times as set by the law is provided in Table 2 below.

TABLE 2 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating license	2 months	€402
Safety certificate	2 months	€40
Authorisation of rolling stock	3 months	€1,200

Source: IBM (2011)

² The Prague Post, RegioJet starts on the right track, 05/10/11

Access barriers

- 2.18 In contrast to the official figures provided above, IBM (2011) reports that the bureaucratic process may still represent a burden to new entrants when applying for rolling stock authorisation, which can take up to six months and is not very transparent.
- 2.19 The network statement is available both in English and in Czech, giving a transparent description of the network and conditions for access. Recent experience in the freight and passenger sectors seems to suggest that the availability of rolling stock is not a significant access barrier and that private operators have been able to obtain both new and second-hand trains. Access to service facilities such as maintenance centres is guaranteed on a non-discriminatory basis.

Complaints of discriminatory practices

- 2.20 The degree of separation of the infrastructure manager and the incumbent operator is a source of concern. IBM (2011) reports that competitors indicate that the mechanism for resolving conflicts over train path allocation by SZDC shows preferential treatment to CD by giving priority to transport services operated by CD.
- 2.21 At the time of writing, the Competition Authority (UOHS) had launched administrative proceedings into claims brought by RegioJet that ČD has abused of its dominant position to undercut its new competitor by lowering prices on the Prague-Ostrava route while increasing prices on other routes³. If the company is found guilty of predatory pricing and monopoly power, it can be fined up to a maximum of 10% of its revenue⁴. ČD has argued that similar offers have been in place on other routes not subject to competition and that they are part of a marketing strategy to increase ridership by incentivising modal shift from car to rail.

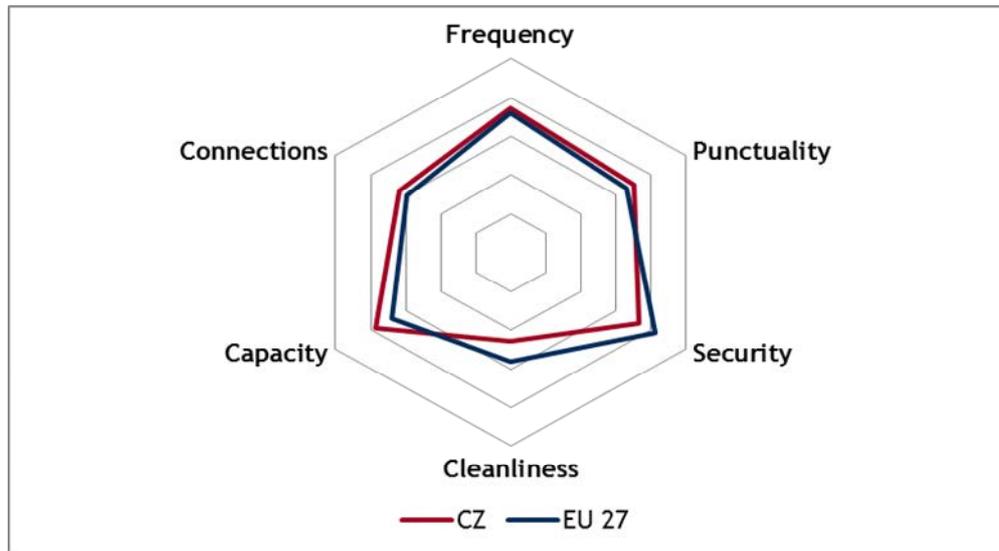
Quality and price indicators

- 2.22 Customer satisfaction for rail services in the Czech Republic is generally in line with EU average. However, customer satisfaction with the cleanliness of trains and with security on board is rather low. The results are summarised in Figure 5. The quality of the railroad infrastructure is rated quite highly in a survey conducted for the Global Competitiveness Report 2011-2012, where the Czech Republic ranks 22nd in the world.
- 2.23 There is a national tariff for rail transport in the Czech Republic. In some regions, intermodal transport for both bus and rail services is priced with common tariffs based on the principle “one network, one ticket”. (BAG-SPNV 2001, p.31). The overall increase in prices in the period 2001-2011 has been similar to that of the EU-27, but this has followed a different pattern, with prices declining in the early 2000s and shooting up in 2007/2009.

³ <http://www.ceskapozice.cz/en/business/companies/czech-rail-challenger-expects-competition-office-action>

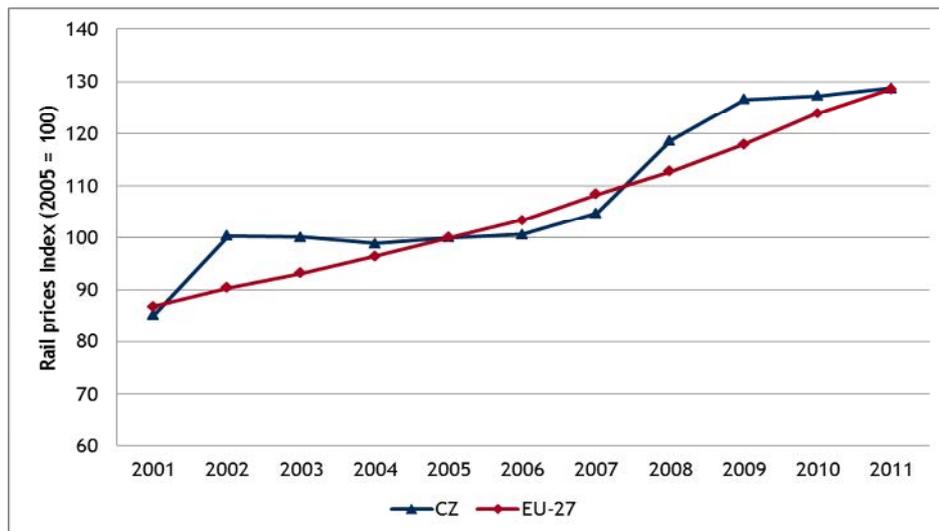
⁴ PWC News Deals, Transportation and Logistics, February 2012

FIGURE 5 EUROBAROMETER SURVEY RESULTS 2011 - PASSENGER TRAINS



Source: Steer Davies Gleave analysis of Flash Eurobarometer (June 2011)

FIGURE 6 PRICE INDEX FOR PASSENGER RAIL TRANSPORT 2001-2011



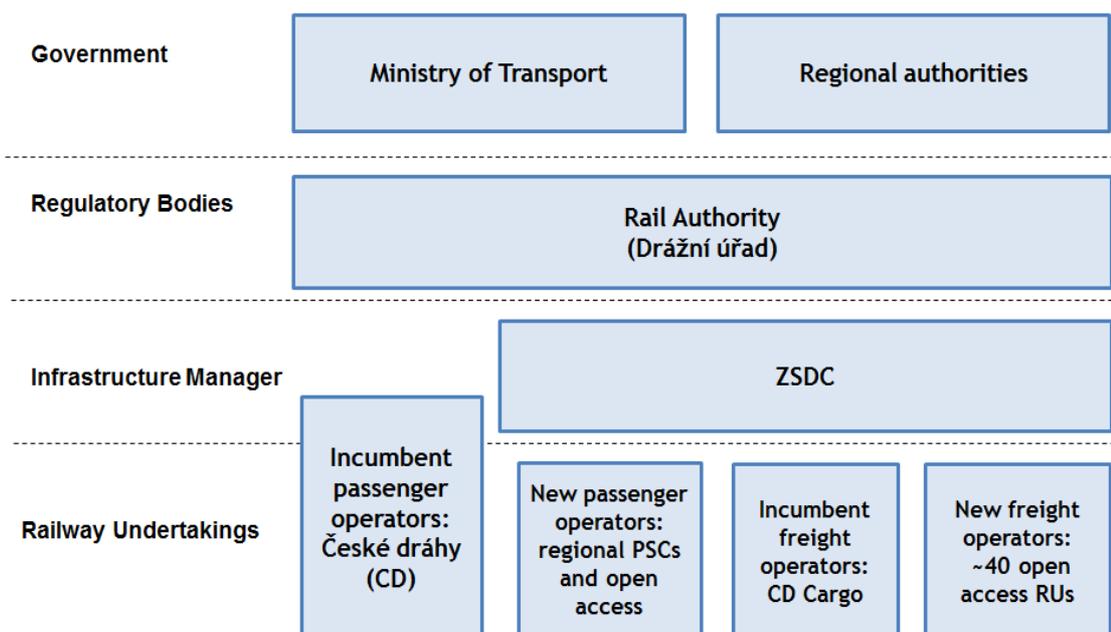
Source: Eurostat (2011)

3 Institutional background

Regulatory framework: institutions and their role

3.1 Figure 7 summarises the institutional arrangements regulating the rail market in the Czech Republic. Their specific functions are described below.

FIGURE 7 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN THE CZECH REPUBLIC



Source: Steer Davies Gleave

- National and Regional government:** the Ministry of Transport and the Regional authorities are responsible for national and regional public passenger services respectively. They subsidise the undertakings as per PSCs out of their budgets.
- Regulatory Body:** the Rail Authority, Drazni Urad, is responsible for issuing official permits for the operation of rail systems and for licensing railway undertakings, as well as authorising rolling stock. The Authority has the power to initiate investigations in response to complaints, to order coercive measures and to impose fines of up to an amount equal to €12,000 but complaints were received in 2009 (Annual Report 2010). It also acts as the National Safety Authority. In 2010, 120 people were employed at Drazni Urad, 50 of whom were responsible for safety. The Ministry of Transport is the board of appeal authority against a decision by the Authority.
- Infrastructure Manager:** the independent infrastructure manager SŽDC was legally separated from the incumbent in 2003 Act No.77/2002 Coll. on “Reform of Czech Railways”. SŽDC is fully funded by the government and it is responsible for developing and managing rail infrastructure on behalf on the Czech state, setting infrastructure charges and allocating rail paths. The revenue from infrastructure charges covers 60% of SŽDC’s operating costs (Everis 2010). Most of the railway stations including platform and buildings are owned by SŽDC, except for some of the major rail termini that are owned by ČD.

Analysis of unbundling and regulation

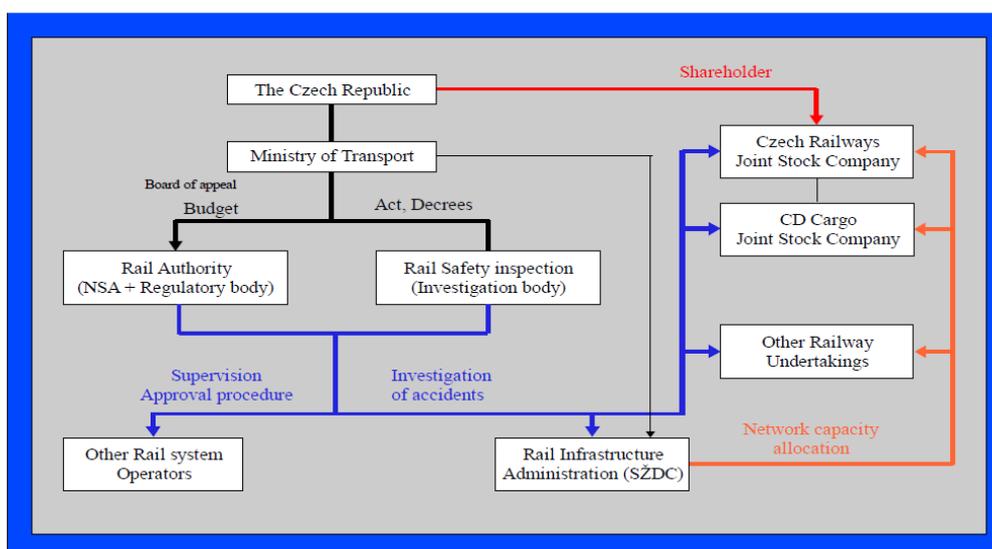
Degree of vertical separation

- 3.2 The Commission has raised the issue of incomplete separation of the infrastructure manager SŽDC and the incumbent operator ČD and the consequent failure to guarantee full independence of decision making with respect to capacity allocation and addressing complaints by operator as reported above. As the incumbent performs some management function, it is hard to establish the direct responsibilities and costs of different infrastructure projects, which in turn impairs financial transparency.
- 3.3 Following the infringement notice served by the Commission in 2009, the infrastructure manager has been separated more strictly from the incumbent ČD. For instance, dispatchers, signalmen etc. were transferred from ČD to SŽDC in September 2011 (BAG-SPNV 2011, p.31).

Regulatory capacity and effectiveness

- 3.4 The criticism raised in the EC's infringement notice also affects the Rail Authority which was not deemed to be sufficiently independent and to have the necessary powers to monitor competition and to enforce decisions. The information available on the Authority's website suggests that its activities are heavily skewed towards safety issues. This may be a result of more stringent requirements at the European level in the safety arena than in the competition arena.
- 3.5 The very low number of complaints filed by railway undertakings in recent years may be an indication of low levels of trust in the Authority rather than the absence of any problems. Once again, the fact this Authority comes under the Ministry of Transport (as well as the IM and the incumbent RU) suggests that potential conflicts of interest may arise.

FIGURE 8 FUNCTIONAL SCHEME OF THE RAIL SECTOR IN THE CZECH REPUBLIC



4 Summary of findings

Identification of key problem drivers and elements

- 4.1 The Czech rail market has witnessed a decline in both absolute traffic on the network and in relative share of railway traffic. Public service contracts are awarded in a two-tier system, national and regional.
- 4.2 The incumbent operator, České dráhy (CD) has been given all routes awarded at national level under a public service contract which runs until 2019. At the regional level, new entrants have been awarded some PSCs. Tenders have taken place in one region.
- 4.3 However, the Czech government has recently withdrawn support for EuroCity and Intercity services and has confirmed its intention to open the remaining long-distance market gradually by putting around 75% of the services operated by ČD out to competitive tender by 2020.
- 4.4 Partly due to under-compensation of PSOs and partly due to declining passenger revenues, ČD is loss-making and it owns an old rolling stock fleet. The Czech government has opted to withdraw support from intercity services, leaving them to be filled mainly by competition in the market, with the remaining services covered by public service contracts which will be tendered at either national or regional level.
- 4.5 The infrastructure manager, SŽDC, was created in 2003 and performs the majority of infrastructure-related functions, including capacity allocation. However, some functions such as the repair of tracks and rolling stock have remained under the responsibility of the incumbent operator. ČD also owns the main stations. As a result, unbundling is incomplete in the Czech Republic.
- 4.6 The independent regulator, Drazni Urad, reports to the Ministry of Transport and it is not very active in the competition arena. Its personnel and its activities are more heavily skewed towards issues of rail safety and security. According to the EC, it lacks the necessary powers as required by the First Railway Package.
- 4.7 These problems suggest that, despite the considerable reforms put forward in recent years, the regulatory framework in the Czech Republic does not fully comply with European requirements. The decline in market shares throughout the past decades may well be a result of incomplete reforms and, until recently, the lack of competitive pressures for the incumbent operator. The problems are summarised in Table 3.
- 4.8 However, 2011-2012 have represented a turning point for the Czech rail market. On the one hand, the government has expressed its intention to open up some of the contracts previously awarded to ČD to competition. The withdrawal of financial support for InterCity and EuroCity trains is a first step in this direction. On the other hand, new private operators have entered the market. RegioJet and, from late 2012, Leo Express, will operate on the Prague-Ostrava line in direct competition with ČD.

Potential examples of best practice

- 4.9 Market-driven competition has heated up with the entry in the market of two private operators, RegioJet and Leo Express. Their ability to obtain all the necessary licences and certificates is a first indication that market barriers may be rather low in practice. In addition, the following aspects emerge from recent developments:

- The Prague-Ostrava line, which runs across the country from east to west, is thought to be profitable for commercial operators.
- New entrants have been able to acquire rolling stock in the foreign market (Austria, Switzerland and Italy) and to raise finance privately - for example Leo Express is backed by a private equity funds and borrows from Swiss banks.
- Additional elements of quality are going to be introduced by new entrants, such as the availability of WiFi, internet bookings and a focus on comfort and cleanliness; the incumbent operator has responded by also upgrading its offer.

4.10 In the near future, government-led and market-led developments may both be important elements to promote more competition for public service contracts. New open access operators such as RegioJet and Leo Express, and existing regional operators such as Veolia and Abellio, are expected to compete in the developing market for PSCs both at the national and regional level.

TABLE 3 SUMMARY OF OUTSTANDING PROBLEMS

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	✓	<ul style="list-style-type: none"> • CD owns majority of rolling stock
	Vague rules on access to rail-related services	✗	
Access barriers for new entrants	Deficient funding and investment framework	✓	<ul style="list-style-type: none"> • CD is loss-making and indebted • 43% of CD's rolling stock older than 30 years
	Access barriers to infrastructure	✗	
	Lack of structures/mechanisms for coordination	✓	<ul style="list-style-type: none"> • Lack of performance regime and incentives to the IM • Lack of integrated ticketing facilities
	Lack of financial transparency	✓	<ul style="list-style-type: none"> • Accountability over infrastructure projects
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> • No competition for PSOs at the national level
	Distorted/Ineffective competition for PSOs	✓	<ul style="list-style-type: none"> • Regional competition distorted by CD's national monopoly
	Absence of open access rights	✗	
	Discriminative framework conditions	✓	<ul style="list-style-type: none"> • Insufficient powers of the regulatory body
Other causes	Country-specific problem drivers		

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- CD Annual Reports
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- UIC Database 2009

EUROPEAN RAIL MARKET OPENING

Germany

Country Fiche

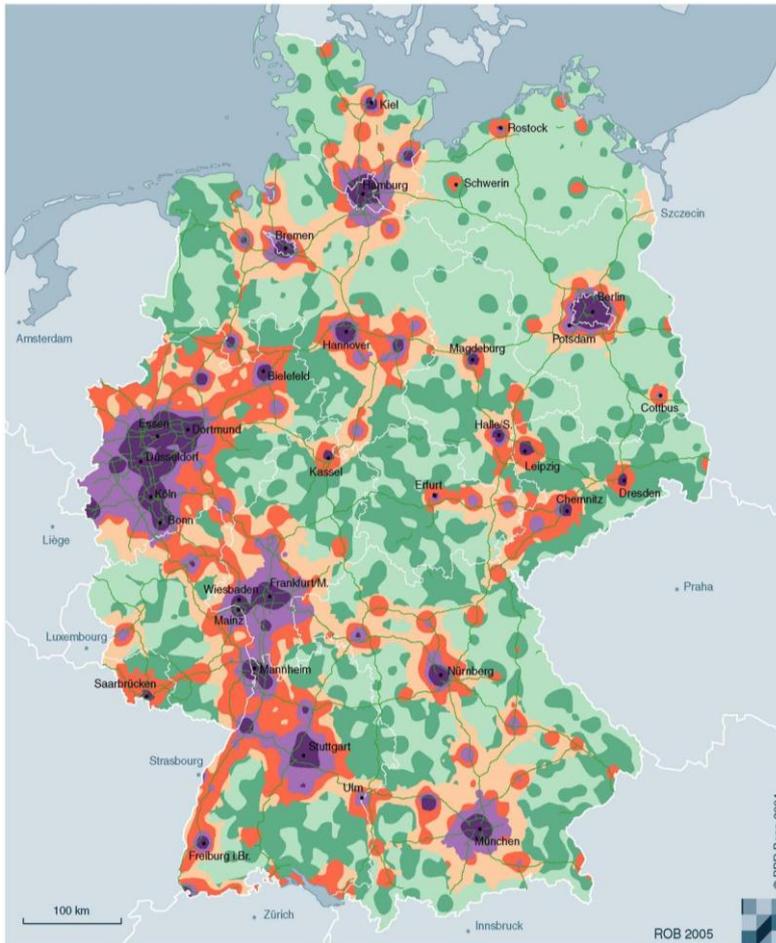
July 2012

1 Introduction

1.1 Germany has a population of approximately 81.9 mil. (2011) and a density of 229 inhabitants per km². It shares borders with nine countries (Denmark, Netherlands, Belgium, Luxembourg, France, Switzerland, Austria, Czech Republic and Poland).

1.2 Germany's spatial structure, shown in Figure 1, is usually described as polycentric.

FIGURE 1 GERMANY'S SPATIAL STRUCTURE



-  Inner metropolitan area
-  Outer metropolitan area
-  Urban area, higher population density
-  Urban area, lower population density
-  Rural area, higher population density
-  Rural area, lower population density

Source: BBR (2005), p. 58.

- 1.3 Figure 1 differentiates between metropolitan, urban and rural areas. Metropolitan areas are characterised by an average population density of 1,000 inhabitants per km², very good accessibility of labour markets and services. Almost 50% of the population lives in these metropolitan areas (11% of total area). In contrast, peripheral, rural areas are characterised by a much lower population density (on average approximately 100 inhabitants per km²) and a significant higher expenditure on access time to labour markets and services; these areas comprise 50% of the total area, but only about 25% of the population. Urban areas are defined as in-between: population density is significantly lower than in metropolitan areas, but accessibility of labour markets and services is significantly better than for rural areas. Population density averages approximately 200 inhabitants per km² and accounts for 25% of the total population and 30% of the total area.
- 1.4 The German national rail network¹ comprises approximately 37,679 route-kilometres (DB AG: 33,720 km) in service. Of these, approximately 20,497 route kilometres are electrified (DB AG: 19,700) and approx. 1,300 route kilometres are high-speed lines (>250 km/h)².
- 1.5 Table 1 shows that the majority of all line sections are only lightly used. (A line section is defined as a part of a route between access points of passenger and freight traffic and the junctions or intersections) More than 70% of all line sections are used by “just” 20% of all trains. (Note that the length of the sections is not indicated.)

TABLE 1 INTENSITY OF INFRASTRUCTURE USE

Intensity of use line sections (in 2010)	Number of line sections	Share of line sections (%)	Share of train runs (%)
less than 100 trains	457	17.2	0.1
101-10,000 trains	1,479	55.6	19.1
10,001-20,000 trains	364	13.7	23.4
20,001-35,000 trains	222	8.3	26.5
35,001-50,000 trains	95	3.6	17.9
50,001-75,000 trains	34	1.3	8.8
75,001-100,000 trains	8	0.3	3.1
more than 100,000 trains	2	0.1	1.2
Sum	2,661	100.0	100.0

Source: Destatis (2011), p. Annex.3.

¹ See DIW (2011), p. 53.

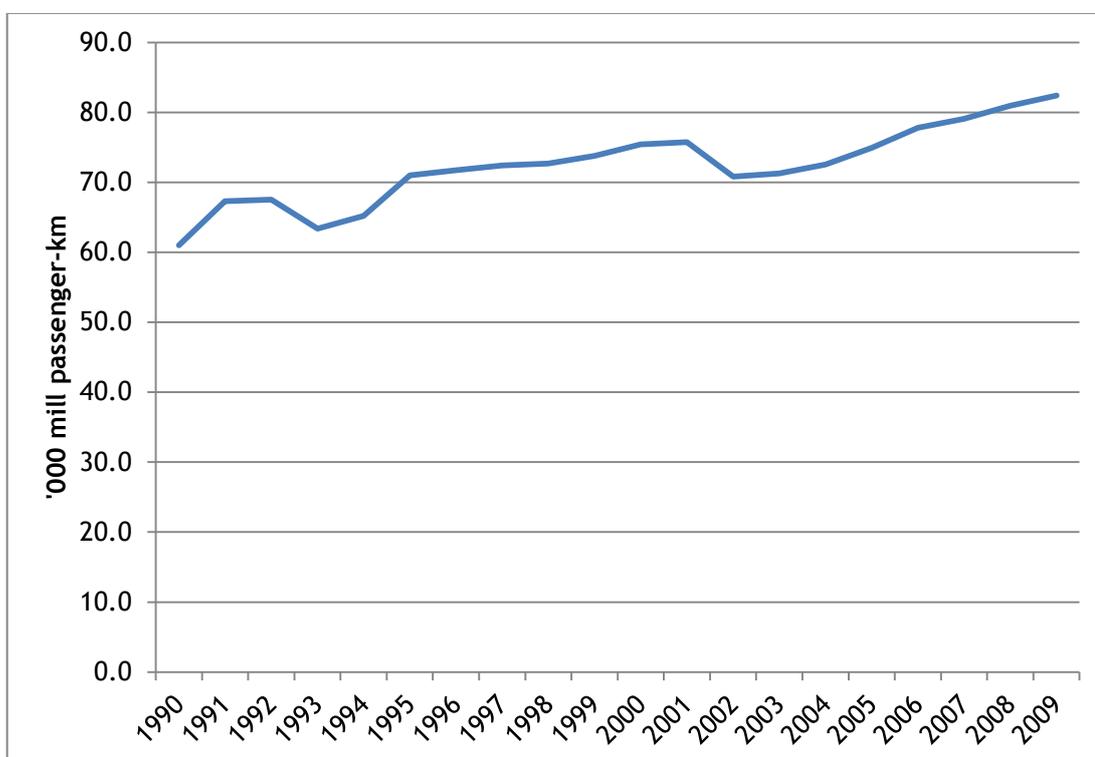
² See [Commission Staff Working Document SEC\(2009\)1687](#), p. 118.

2 Evolution of the national market

Changes in volumes

- 2.1 The evolution of the German passenger rail market between 1990 and 2009 is set out in Figure 2. It can be observed that volumes increased steadily from initially 61.0 billion passenger-kilometres in 1990 to 82.4 in 2009 which amounts to a cumulative growth over the period of 35.1%. The passenger market experienced two strong declines each of about 4 to 5 billion passenger-kilometres, the first between 1992 and 1993 and the second between 2001 and 2002. However in both cases market recovery was quick.

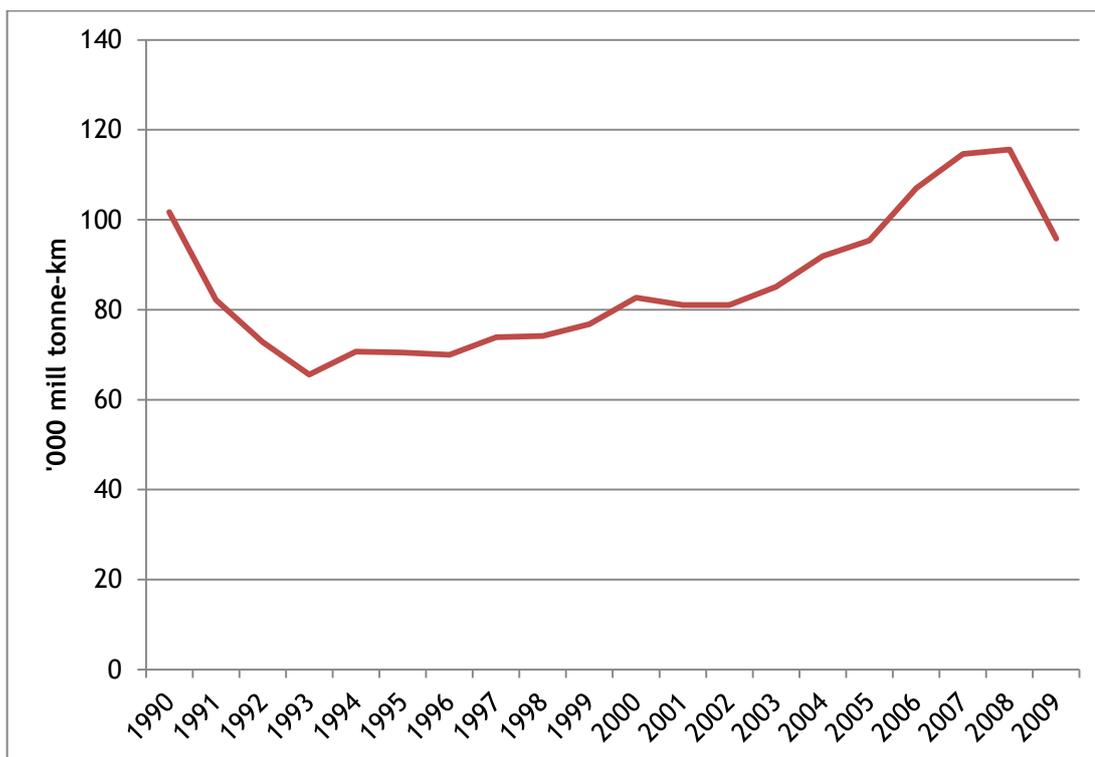
FIGURE 2 PASSENGER-KM IN GERMANY 1990-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

- 2.2 Figure 3 sets out the change in rail freight traffic over the same period. As can be seen, the freight sector experienced a strong decline from initially slightly over 100 billion tonne-kilometres in 1990 to 65.6 billion tonne-kilometres in 1993. Subsequently, the market grew until reaching 115.7 billion tonne-kilometres in 2008 and then fell back in 2009 as a result of a fall in economic activity. This trend is consistent with the overall trend in land transport freight flows over the period. In absolute terms, the German freight market declined by 5.9 billion tonne-kilometres, from 101.7 billion tonnes-kilometres in 1990 to 95.8 in 2009. The most recent figures for 2010 and 2011 are 107.3 and 113.2 respectively.

FIGURE 3 TONNE-KM IN GERMANY 1990-2009

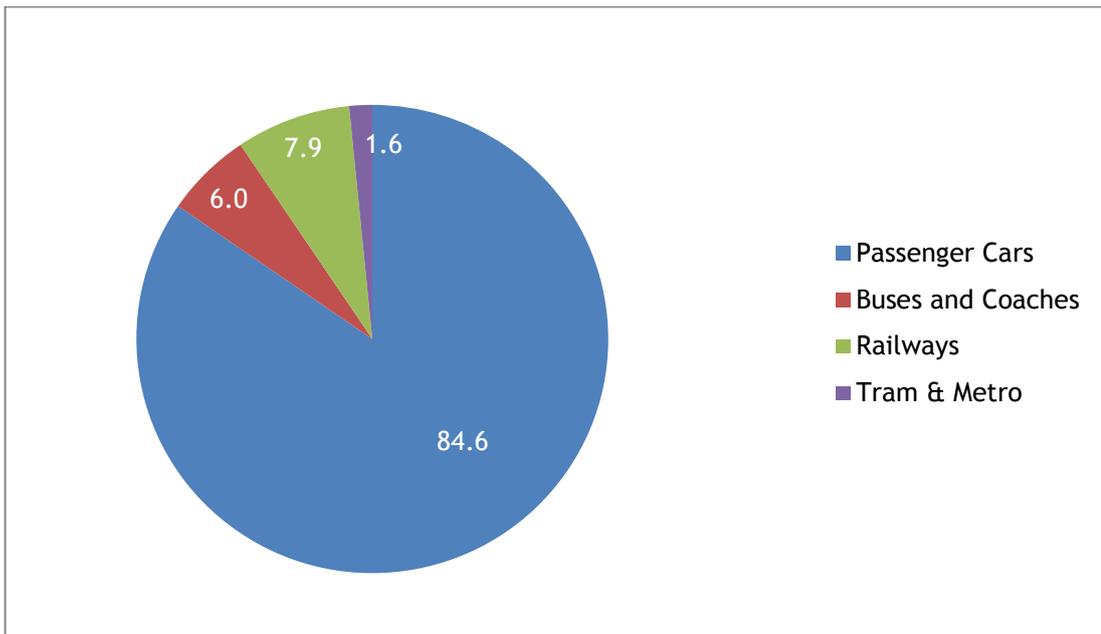


Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

Modal share

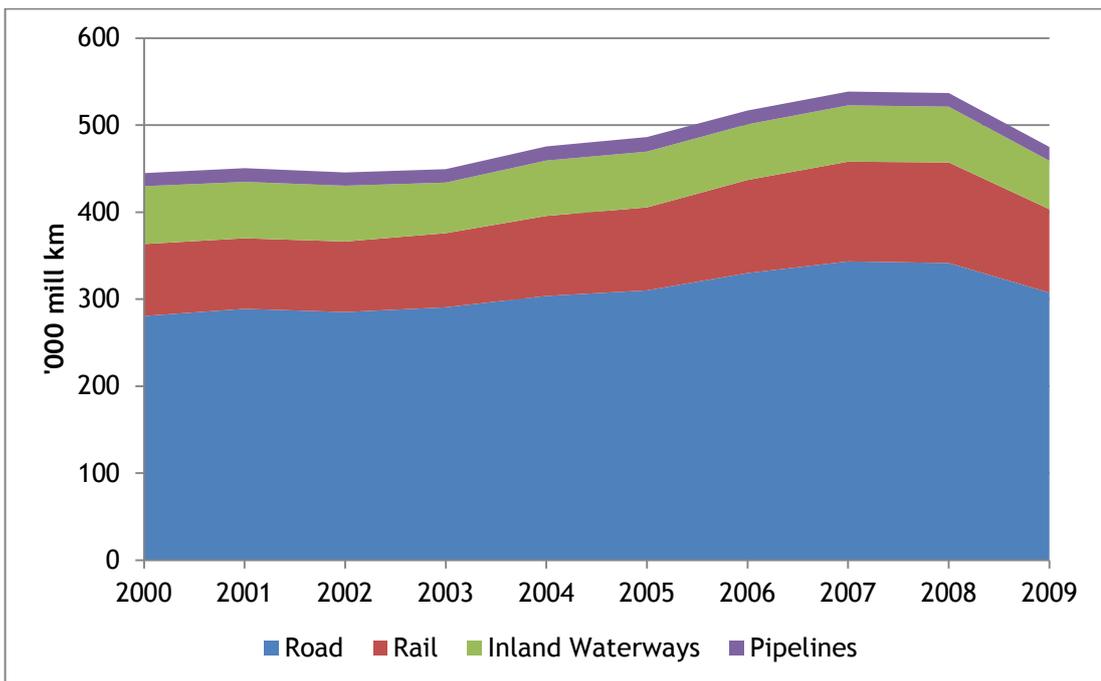
- 2.3 Figure 4 sets out the modal share in Germany in terms of passenger-kilometres. In Germany, the market share of private cars amounted to 84.6% in 2009 and was therefore notably higher than the European average which was 80.5% in the EU-27 states and 77.8% in the EU-12 states. The share of railways is slightly higher than average of both EU-27 and EU-12 states. In contrast, the bus share in Germany is relatively low and amounted to 6.0% compared with 8.6% in EU-27 states and 11.8% in the EU-12 states.
- 2.4 Figure 5 shows the evolution of the modal share in freight transport in terms of tonne-kilometres between 2000 and 2009. Compared to other modes of transport, the share of rail freight grew from 18.6% in 2000 to 20.2% in 2009. In the same period, also road freight increased its share, from 63.1% in 2000 to 64.7% in 2009. In contrast, freight transport on inland waterways lost more than 3% points in this period.

FIGURE 4 MODAL SHARE PASSENGER -2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

FIGURE 5 MODAL SHARE FREIGHT -2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

Operators and incumbents

- 2.5 The passenger - as well as the freight - market in Germany has been open since 1994. New entrants focused particularly on the regional passenger rail market. In 2010, market share of new entrants in this sector was 12.5% in terms of passenger-kilometres and 24.1% in terms of operated train-kilometres. Furthermore, new entrants generally won contracts with below-average passenger demand. Table 2 shows an overview of the main operators

in the regional passenger rail market according to their market share in train-kilometres. Many of the incumbent railway companies from other Member States are active in Germany, either directly or through subsidiaries. Examples are Trenitalia with its German subsidiary Netinera and SNCF with its subsidiary Keolis. DB estimates less than 4% of train-kilometres in Germany are operated by truly private companies.

- 2.6 In contrast, market opening has not been substantial in medium and long distance services. Although a number of operators have tried to enter the long distance market, the market share of new entrants is still lower than 1%. DB operates all domestic high-speed services and almost all long-distance services. In July 2012 the new entrant Hamburg-Köln Express started long-distance passenger services between Hamburg and Köln and is the first competitor of DB AG on an intercity route. The train operations of Hamburg-Köln Express have been subcontracted to Veolia Verkehr. SNCF, in cooperation with DB, operates high-speed trains on cross-border lines connecting France and Germany.

TABLE 2 MARKET SHARE OF MAIN RAIL OPERATORS IN REGIONAL PASSENGER RAIL MARKET (IN TRAIN-KILOMETERS)

Group	Companies	Market Share (2011)
DB AG	DB Regio	75.9%
Veolia Verkehr	NordWestBahn (NWB), Nord-Ostsee-Bahn (NOB), Veolia Verkehr Sachsen-Anhalt, Bayerische Regiobahn (BRB), trans region, Ostseeland-Verkehr (OLA), Veolia Verkehr Sachsen, Bayerische Oberlandbahn (BOB), Regiobahn, Württemberg. Eisenbahn-Gesellschaft. (WEG)	5.4%
Netinera (FS Trenitalia)	Vogtlandbahn (VBG), Ostdeutsche Eisenbahn (ODEG), metronome, Prignitzer Eisenbahngesellschaft (PEG), Berchtesgadener Land Bahn (BLB)	3.0%
BeNEX	Agilis, Ostdeutsche Eisenbahn (ODEG), metronome, cantus, nordbahn	2.1%
AVG	Albtal-Verkehrs-Gesellschaft (AVG)	2.1%
Keolis	Eurobahn, Niederbarnimer Eisenbahn (NEB)	1.9%
Others		9.6%

Source: Holzhey, M. et al. 2011

- 2.7 New entrants in the rail freight market focus almost exclusively on block trains. The market for single wagonload trains is predominantly served by the incumbent operator, DB Schenker Rail. The table below sets out the market shares for the main freight undertakings in Germany.

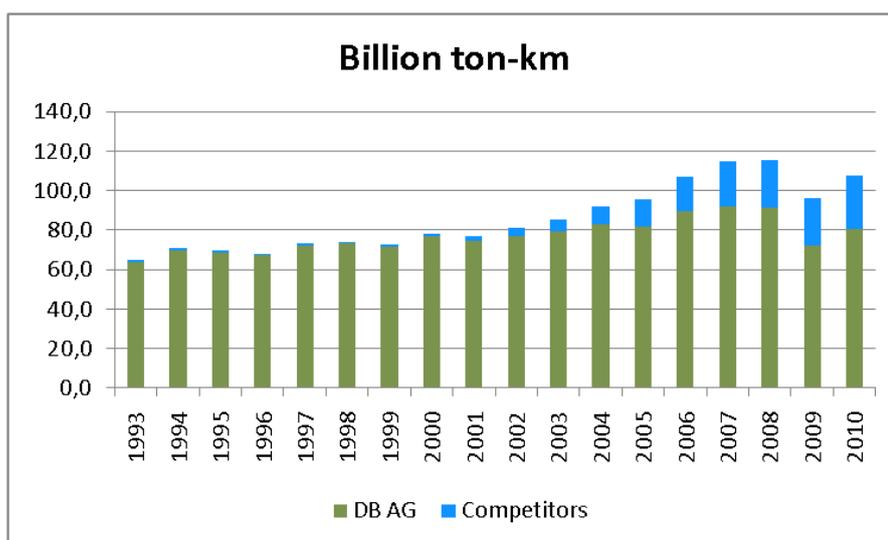
TABLE 3 MAIN RAIL OPERATORS IN RAIL FREIGHT MARKET (IN TONNE-KILOMETERS)

Group	Companies	Rail Freight carried (2009)
DB AG	DB Schenker Rail	72.3
SNCF Geodis	Captrain, ITL	5.5
SBB	SBB Cargo Deutschland	2.7
FS Trenitalia	TXL, OHE	2.6
Häfen und Güterverkehr Köln	Häfen und Güterverkehr Köln	2.0
Others		14.9

Source: Holzhey, M. et al. 2011

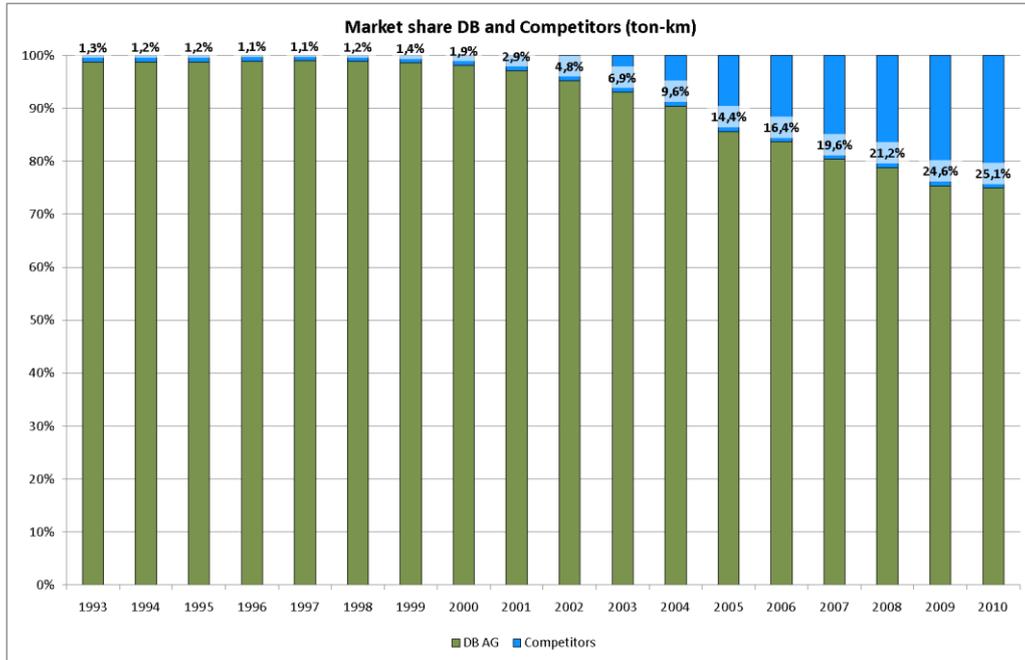
2.8 The evolution of the rail freight market from 1993 to 2010 and new entrants' respective share is set out in Figure 6 and Figure 7.

FIGURE 6 EVOLUTION OF THE RAIL FREIGHT MARKET AND PERFORMANCE OF DB AG AND ITS COMPETITORS FROM 1993 TO 2010



Source: DB AG 2004, 2011

FIGURE 7 EVOLUTION OF MARKET SHARES OF DB AG AND ITS COMPETITORS IN THE RAIL FREIGHT MARKET FROM 1993 TO 2010



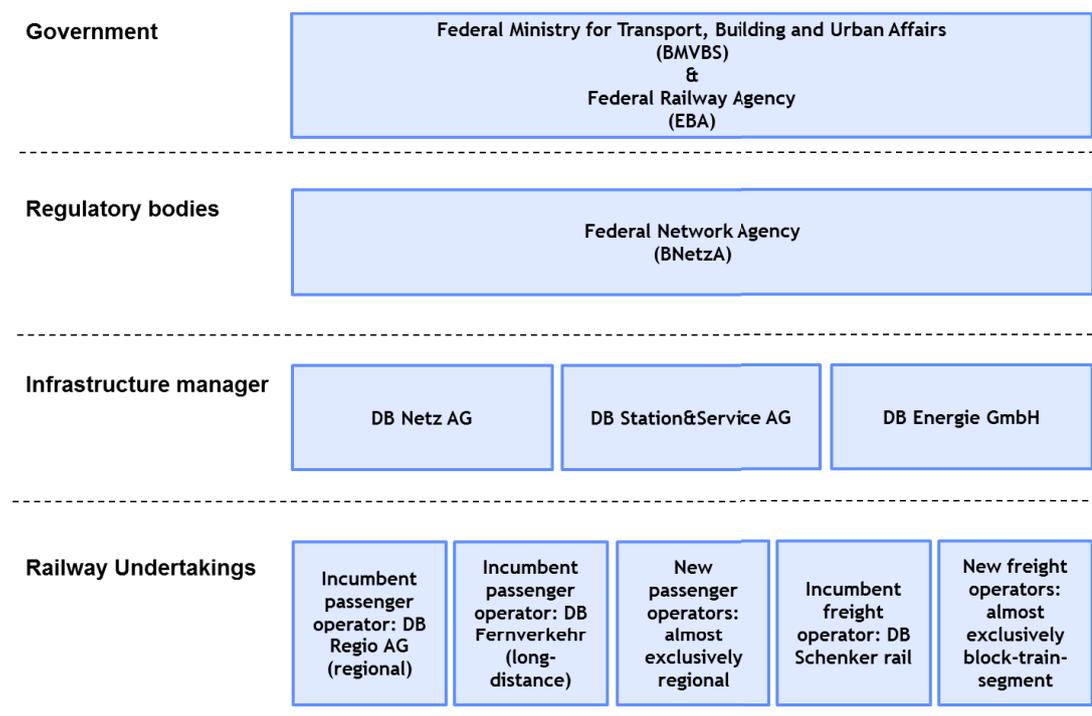
Source: DB AG 2004, 2011

3 Institutional background

Regulatory framework: national institutions and their role

- 3.1 Regulatory Body: The Federal Network Agency for Electricity, Gas, Telecommunication, Post and Railway (*Bundesnetzagentur* - BNetzA) is an independent, cross-sector authority and has been responsible for regulation of the railway sector since 2006. BNetzA is tasked with monitoring rail competition and is responsible for ensuring non-discriminatory access to railway infrastructure. The Agency monitors compliance with the rules governing access to the infrastructure, especially in relation to the preparation of the timetable, decisions on the allocation of railway paths, access to service facilities, usage conditions and charging.
- 3.2 The Federal Ministry of Transport, Building and Urban Affairs (*Bundesministerium für Verkehr, Bau und Stadtentwicklung* - BMVBS) delegates its rail related tasks to the Federal Railway Office (Eisenbahn-Bundesamt - EBA).
- 3.3 The role of NIB in Germany is assigned to the Investigation Office for Rail Accidents of the Ministry of Transport. According to Article 21 of Directive 2004/49/EC its tasks focus on the different elements of accident investigation.
- 3.4 The NSA in Germany is the Federal Railway Office (Eisenbahn-Bundesamt EBA), which is the supervisory and licensing authority. EBA's tasks include issuing licences and safety certificates (valid for both rail freight and passenger transport) and the authorisation of rolling stock, verification of subsystems, declarations of conformity of constituents, authorisations for placing in service, including the corresponding registration numbers, Safety Certificates, Safety Authorisations, notifying National Safety Rules, publication of the annual NSA reports, maintaining a register of infrastructure and a rolling stock register, safety reporting and monitoring interoperability.
- 3.5 In Germany, the tasks of the Notified Body (NoBo) according to 2008/57/EC are carried out by EISENBAHN-CERT (EBC). EBC is an autonomous organisation under public law and acts as a financially and legally independent department of the EBA. The main tasks of EBC are to assess the conformity or suitability for use of the interoperability constituents and to carry out the EC-verification of the subsystems.

FIGURE 8 INSTITUTIONAL ORGANISATION OF THE GERMAN RAIL MARKET



Source: Steer Davies Gleave

Overview of the incumbent operator

- 3.6 In Germany, DB group combines the incumbent passenger (regional and long-distance) and freight railway undertakings as well as the infrastructure manager DB Netz AG, the station manager DB Station&Service AG and the energy supplier DB Energie GmbH. Infrastructure management and operations of the incumbent are vertically integrated, but there is an organisational, accounting, legal and functional separation between these areas.
- 3.7 In June 2010, the European Commission referred Germany to the European Court of Justice due to insufficient independence of the incumbent railway undertaking and the infrastructure manager.³
- 3.8 With its subsidiary Arriva, DB operates regional bus and train services in 12 European countries.
- 3.9 Table 4 gives an overview of the key performance indicators of DB group, including transport operations and infrastructure management. It appears that both turnover and profit (EBIT) experienced a sustained growth between 2005 and 2010 with a sharp fall in 2009 due to the financial crisis.

³ IBM et al. 2011

TABLE 4 KEY FINANCIAL AND PERFORMANCE INDICATORS OF DB GROUP⁴

	2005	2006	2007	2008	2009	2010
Turnover	25.055	30.053	31.309	33.452	29.335	34.410
EBIT adjusted	1.350	2.143	2.370	2.483	1.685	1.866
Employees	220.343	228.990	231.356	240.008	239.888	251.810
mil. Pkm long-distance	33.641	34.458	34.137	35.457	34.708	36.026
mil. Pkm regional/local	38.913	40.331	40.654	42.355	42.064	42.556
mil. tkm	88.022	96.388	98.794	113.634	93.948	105.794

Turnover and EBIT in € million

⁴ 10-Jahres Übersicht Deutsche Bahn (2011)

4 Market access for new entrants and competition

Analysis of the effectiveness of the current regulatory framework

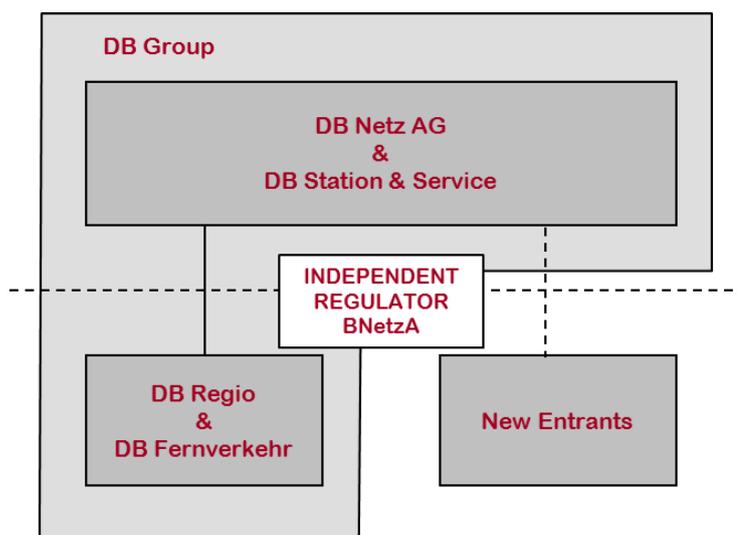
Market dominance of the incumbent operator

- 4.1 It is very difficult to obtain second hand rolling stock in Germany. Until now, DB's strategic behaviour has been more likely to scrap its rolling stock - particularly passenger trains - than to sell it to companies operating in Germany (or their owning groups). Rolling stock offered for sale is usually so old it is unattractive both to the operator and to passengers, and usually does not meet PRM requirements (which is a standard requirement for most tenders).
- 4.2 DB, on the other hand, has a large pool of locomotives manufactured in the 1970s and 1980s, which have little or no more residual value. DB is able to offer these together with modern double-deck carriages, which are much cheaper to manufacture than self-propelled rolling stock (EMUs, DMUs, locomotives). This is a legacy of DB that it is trying to use to its advantage.
- 4.3 An important risk factor for railway undertakings participating in public tenders is reliable information on current and future passenger demand. Normally, DB subsidiaries have a significant informational advantage (detailed information on passenger demand and ticket sales) simply due to their dominant market position. Several public transport authorities improve the process - or intend to do so - by providing information on current passenger use and demand estimations.
- 4.4 In contrast, DB's competitors are obliged to provide the station manager DB Station&Service with information on passenger demand once a year. DB Station&Service justifies this requirement in their General Conditions Concerning the Usage of the Station Infrastructure with the need to adapt station facilities to the current passenger demand and to comply with legal requirements regarding safety and security amongst others.

Degree of vertical separation

- 4.5 Figure 9 shows the partially integrated structure in Germany with BNetzA the responsible independent authority charged with ensuring that there is no discrimination in access to the network or in infrastructure charging.

FIGURE 9 PARTIAL SEPARATION IN THE GERMAN RAILWAY MARKET



Source: Steer Davies Gleave

Effectiveness and capability of the regulator

- 4.6 BNetzA has stated that they are sufficiently staffed to fulfil their tasks. Currently, their rail regulation department has about 50 staff members. BNetzA is primarily financed by the Federal Government, a smaller part of the budget derives from fees. The president of BNetzA is appointed by the Federal Ministry of Economics and Technology on a proposal from a board composed of the 16 state finance ministers and 16 members of the national parliament (German Bundestag).
- 4.7 BNetzA may start investigation following complaints or also *ex officio*. After submission of complaints to BNetzA, a response must be provided within 4 weeks, depending on the type of complaint, and is generally met. If BNetzA is informed of discrimination or potential discrimination, it may issue administrative acts which are binding and have immediate effect. It may declare contract clauses invalid, but can also suggest a non-discriminatory contract design.⁵
- 4.8 According to BNetzA there are several issues that impede them from effectively performing their tasks:
- ▮ DB and other regulated companies always have the possibility to appeal against a decision which may lead to a substantial increase in process times. Every decision can be appealed three times:

 - In the first instance, to the Administration Court of Köln
 - In the second instance, to the Administrative Appeals Tribunal in Münster
 - Finally, to the Bundesverwaltungsgericht, the Federal Administrative Court

If both first and second instances are involved, the process usually takes more than a year.
 - ▮ To date, BNetzA is not allowed to check the efficiency of infrastructure companies. Cost data from the infrastructure companies generally have to be taken as given.

⁵ Steer Davies Gleave interview with BNetzA, February 2012

Formally, BNetzA can only check whether costs are appropriately allocated to services and whether tariff systems reflect these costs.

- Descriptive law regularly results in uncertainty (competencies, informational rights), leading to numerous court cases.

- 4.9 Currently a new law is being drafted that envisages a shortened process. A Ruling Chamber will be set-up at BNetzA (e.g. a court-like decision process will be introduced) that replaces the first instance of appeal (Administration Court). It will still be possible to appeal to the Administrative Appeals Tribunal. The recent draft law furthermore envisages the introduction of an incentive-oriented regulation and more far reaching information rights of BNetzA. However the draft does not allow BNetzA to supervise maintenance costs and replacement investments. So, the major part of expenditures will be out of reach for the regulator.
- 4.10 There is currently a discussion on-going in Germany whether BNetzA should be responsible for the supervision of ticket distribution and its respective distribution channels, including cooperative agreements between DB Vertrieb and regional passenger service providers, revenue sharing, sales margin, access to ticket offices in stations, costs for placing ticket machines, etc.

Complaints of discriminatory practices

- 4.11 According to the General Railway Act (AEG), infrastructure managers have to guarantee non-discriminatory access to the rail network to all railway undertakings. Therefore, the infrastructure manager has to establish a network statement which becomes part of the contract with the railway undertakings. Before its publication, the network statement has to be approved by the regulatory body BNetzA. BNetzA can reject clauses which are not compliant with German law. With regard to the DB Netz AG network statement of 2008, BNetzA rejected 99 clauses and 1 annex and requested their change. As a result, DB Netz AG took legal action against this decision and prevailed with regard to a large part of the rejected clauses. The case was transferred to the Federal Administrative Court, which examined 13 of the 99 clauses and concluded that all 13 were discriminatory. In one of these clauses, DB Netz AG excluded reductions in infrastructure fees in the case of construction works or other cases in which the contractually established availability of the infrastructure was not possible. Furthermore, DB Netz AG included clauses which allowed them to request a guarantee for infrastructure fees from the railway undertakings and the requirement that all employees of a railway undertaking needed to have good spoken and written knowledge of German.⁶ Detailed information on all 13 discriminatory clauses can be found in the Annex.
- 4.12 Since its implementation in 2005, the station fee system was subject to various legal challenges. BNetzA received numerous complaints from RUs and PTAs as, according to them, the fees were non-transparent, did not reflect the real costs and were not calculated based on use. The different fee components did not have any clear criteria for differentiation. Several RUs were told by PTAs not to pay the fee increase. In December 2009, BNetzA declared the station fee system to be invalid. Even though the DB Station&Service appeal reversed the decision, DB Station&Service changed the fee system.
- 4.13 In 2003, DB Netz introduced an additional fee on regional networks and justified it with the need to cover costs and ensure the continued existence of these loss-making networks.

⁶ Federal Administrative Court ruling BVerwG 6 C 17.10, September 2011

This fee was only applied to regional services. In March 2010, BNetzA prohibited these regional factors and shortly afterwards agreed with DB Netz to remove these until 11 December 2011.

- 4.14 DB Energie is the energy supplier for all RUs and is also the infrastructure manager of the electric network. In October 2010, BNetzA asked DB Energie to open their energy network to third parties, against which DB Energie brought a complaint. The Higher Regional Court of Düsseldorf agreed with the opinion of the regulator and the energy network will need to be opened to other energy suppliers from 2012, this has now occurred. In February 2012, BNetzA required that DB Energie reduce the fee by 23% compared to their proposed amount which DB Energie agreed to do.⁷

Analysis of public service contracts

Introduction

- 4.15 The Railway Reform process in 1994 was the first step towards liberalisation and saw, amongst others, a shift of responsibility for the provision of regional rail passenger services from the Federal Government to the Federal States (the Länder). The implementation of this act, known as "regionalisation", took place in 1996. The 16 States have established Regional Authorities (PTAs - Aufgabenträger), a total of 27, which are responsible for planning, managing and procuring short-distance rail transport within their area ("SPNV").
- 4.16 Public service obligations only exist for regional services within the Länder.
- 4.17 Government owned DB with its subsidiary DB Regio competes with private sector transport operators for franchises awarded by the Länder to operate regional passenger train services. In the past, a significant amount of contracts were awarded directly to DB Regio. Despite this, new entrants have strengthened their position, and operate around 24% of regional passenger train-kilometres, but carry only around 8% of total passenger-kilometres.
- 4.18 Table 5 gives an overview of the applicable legislation with respect to public service contracts in regional passenger rail transport in Germany.

TABLE 5 APPLICABLE LEGISLATION

Regulation

Regulation 1370/2007

Allgemeines Eisenbahngesetz (AEG)

Regionalisierungsgesetz

Gesetz gegen Wettbewerbsbeschränkungen (GWB)

Vergabeverordnung (VgV)

Vergabe- und Vertragsordnung für Leistungen - Teil A (VOL/A)

- 4.19 In early 2011, the Federal Court of Justice (Bundesgerichtshof) ruled that pursuant to German law regional railway franchises have to be awarded by competitive tendering. This

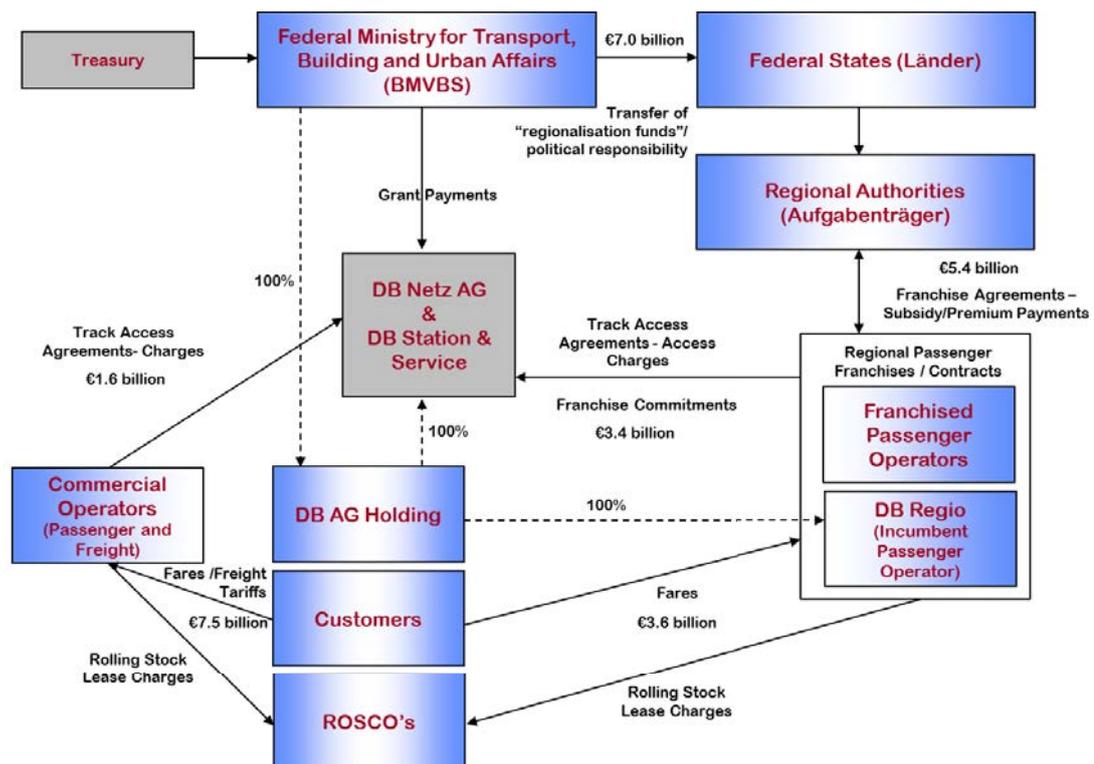
⁷ Press release BNetzA, 29 February 2012

rule prohibits the previous practice of directly awarding franchises (with some exceptions).

Regional Passenger Rail Financing

- 4.20 Funding for the regional services is predominantly financed by the Federal Government. At present, the Länder receive approximately €7 billion to finance the deficit of regional rail transport. These public funds sum up to approximately 60% (BNetzA, 2011, p. 16) of the total revenues of the railway undertakings. The government supports the infrastructure managers, owned by the government, additionally with a yearly amount of €2.5 billion as part of its “multi-annual contract for rail infrastructure quality” (replacement investments and maintenance of the railway network); additional funds are provided for new investments (Federal Government), station and track rehabilitation (States).
- 4.21 Funding for rail is considered to be secure and relatively stable, with an agreed settlement and incremental increases to 2014. A new settlement post 2015 may see some reduction in available funds and will limit the potential expansion of the network.
- 4.22 The railway undertaking operating the franchise is normally expected to provide its own staff, rolling stock and maintenance facilities. Although in some occasions PTAs provides the rolling stock (e.g. VRR and LNVG).

FIGURE 10 ORGANISATION AND FINANCING OF PSO IN GERMANY



Sources: BNetzA (2010): Marktuntersuchung Eisenbahnen; Holzhey et al. 2011

Types of contracts

- 4.23 The typical approach of the PTAs is to request tenders for a service specification including a defined timetable and volume (train-kilometres), vehicle capacity and performance standards. The contracts usually allow PTAs to reduce or increase service levels to adjust timetable to the available budget. An incentive regime normally applies which allows additional remuneration (bonus) or reduced remuneration (penalty) in relation to the

fulfilment of previously defined performance indicators such as punctuality or passenger satisfaction. The most commonly used contracts are gross contracts and net contracts.

- 4.24 Usually, all infrastructure costs (tracks, stations) are passed through to the PTAs. Additionally, several contracts provide rules for the adjustment of some cost elements, which are not covered by cost-pass-through rules (e.g. in case of increasing personnel or energy costs).

Statistical Information on PSOs

- 4.25 At present, around 50% of the regional lines have been competitively tendered, which is equal to 37% of the volume of the public service contracts in train-kilometres. In 2009, 64% of all public service contracts were awarded by public tender, 18% of contracts were subject to direct award and the remaining 18% were awarded through negotiations with bidders. It is foreseen that in the years between 2011 and 2015, around 50% of the volume of the regional passenger rail market will be put out to tender.
- 4.26 Nevertheless, the majority of train-km operated today are still directly awarded. The following graphs display the train-km (in mil. train-km and as percentage of all train-km respectively) operated in a year by mode of awarding the contract. Displayed are the total train-km until 2012; subsequently, train-km already contracted are shown (the straight line for total train-km from 2012 on indicates the assumption that total market growth will be approximately zero, the difference between the straight line and the bar indicates train-km not already contracted).
- 4.27 As can be seen, the huge amount of direct awarding has massively reduced the potential market for new entrants and it will not be before 2013 that more than 50% of all train-km operated will have been tendered.⁸
- 4.28 Table 6 gives some examples for the so called “grand contracts” that have been exclusively awarded to the incumbent in the years 2002-2005 (six additional contracts with less than 10 mil. train-km each have been omitted).

⁸ Due to the time-gap between contract awarding and start of operations, usually between one and three years, so, the statements “at present, around 50% of the regional lines have been competitively tendered” and “it will not be before 2013 that more than 50% of all train-km operated will have been tendered” are compatible.

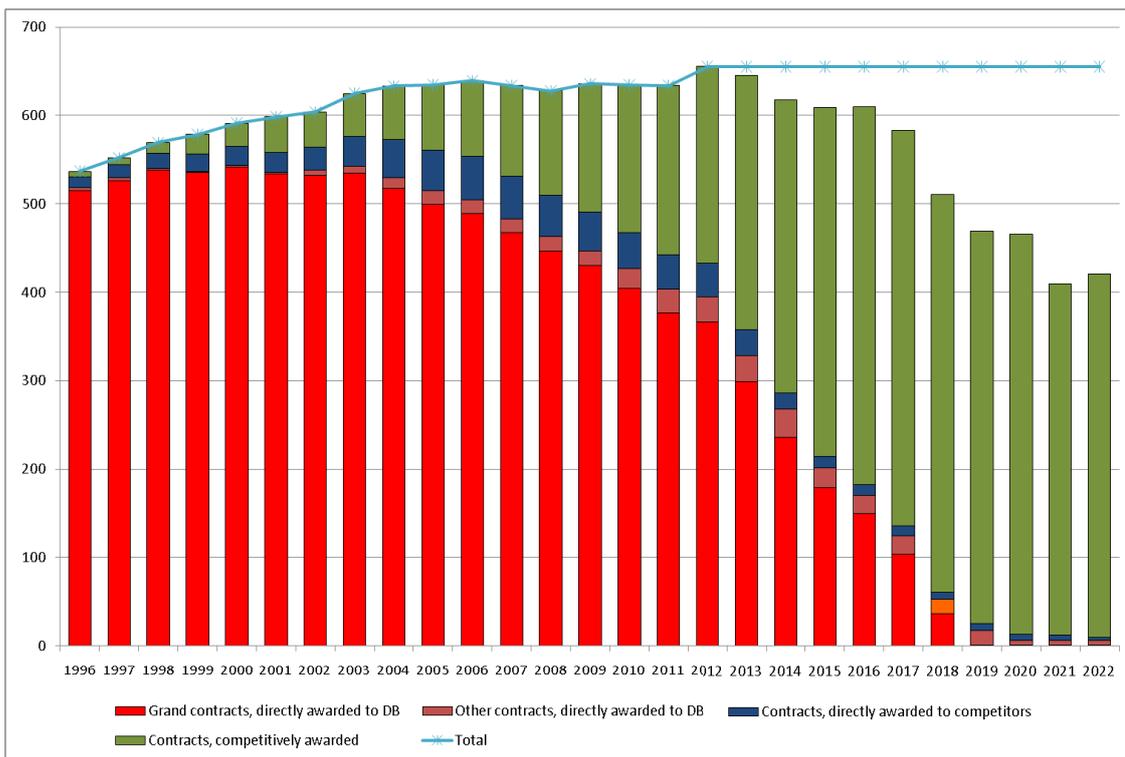
TABLE 6 CONTRACTS DIRECTLY AWARDED TO DB (2002-2005)

State	Conclusion of contract	Train-km (million, first year)	Value (€ billion)	Duration of contract
Berlin / Brandenburg	December 2002	35.0	1.9	10 years
Lower Saxony	January 2003	27.8	2.5	10 years
Saxony-Anhalt	March 2003	16.2	2.5	12 years
Hesse (Rhine-Main-Area) ^{a)}	April 2003	33.0	4.4	11 years
Baden-Wuerttemberg ^{b)}	July 2003	49.0	4.6	13 years
Hamburg (S-Bahn)	July 2003	12.5	0.7	6 years
Rhineland-Palatinate	January 2003	29.5	2.4	11 years
Northrhine-Westfalia	July 2004	44.0	6.0	15 years
Berlin (S-Bahn)	August 2004	32.4	3.0	15 years
Bavaria	November 2004	98.1	ca. 8.0	10 years
Northrhine-Westfalia ^{c)}	June 2005	12.7	1.1	11 years

a) Rhein-Main-Verkehrsverbund; b) without region Stuttgart; c) five contracts with different authorities

Source: Brenck/Peter (2007).

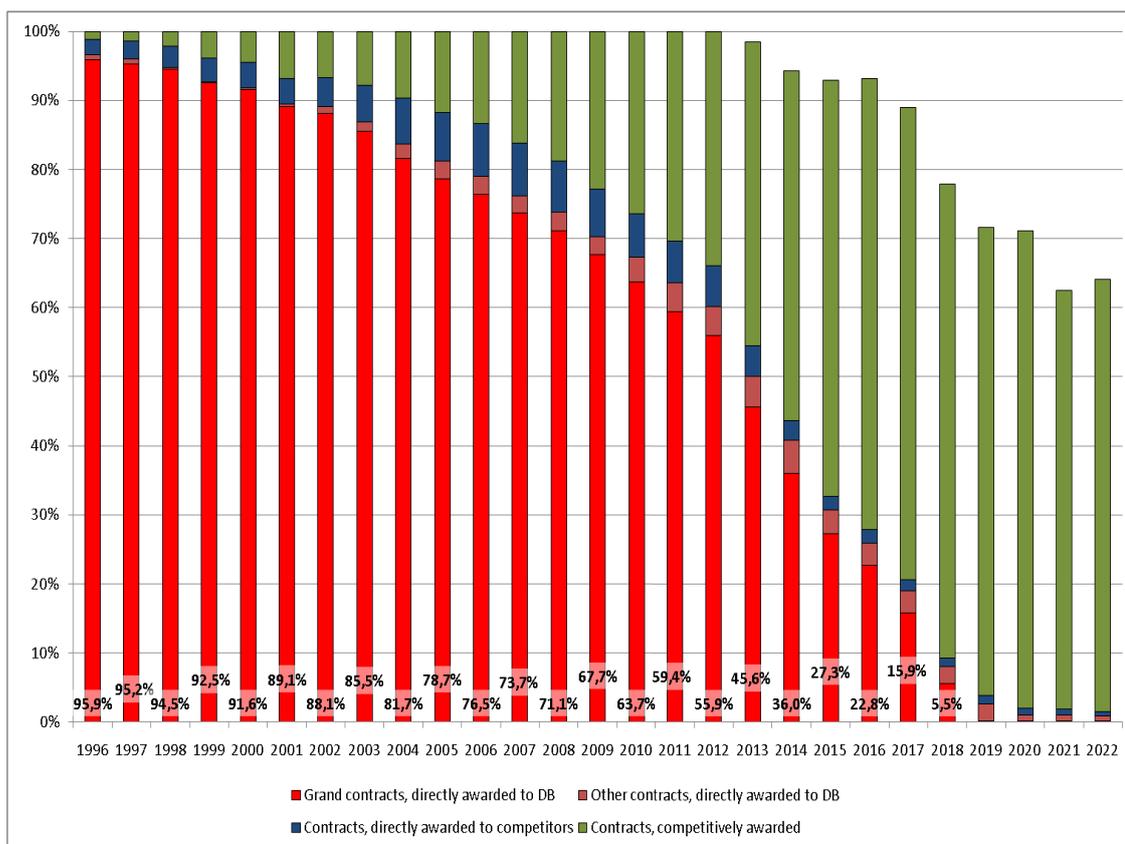
FIGURE 11 TRAIN-KM (MIL.) BY TYPE OF AWARD



Source: Steer Davies Gleave analysis of data from BAG-SPNV 2011

Note: Grand contracts relates to historical contracts that covered more than one franchise area. The gap between the total amount and the contracted amounts relates to the contracts that are still to be awarded.

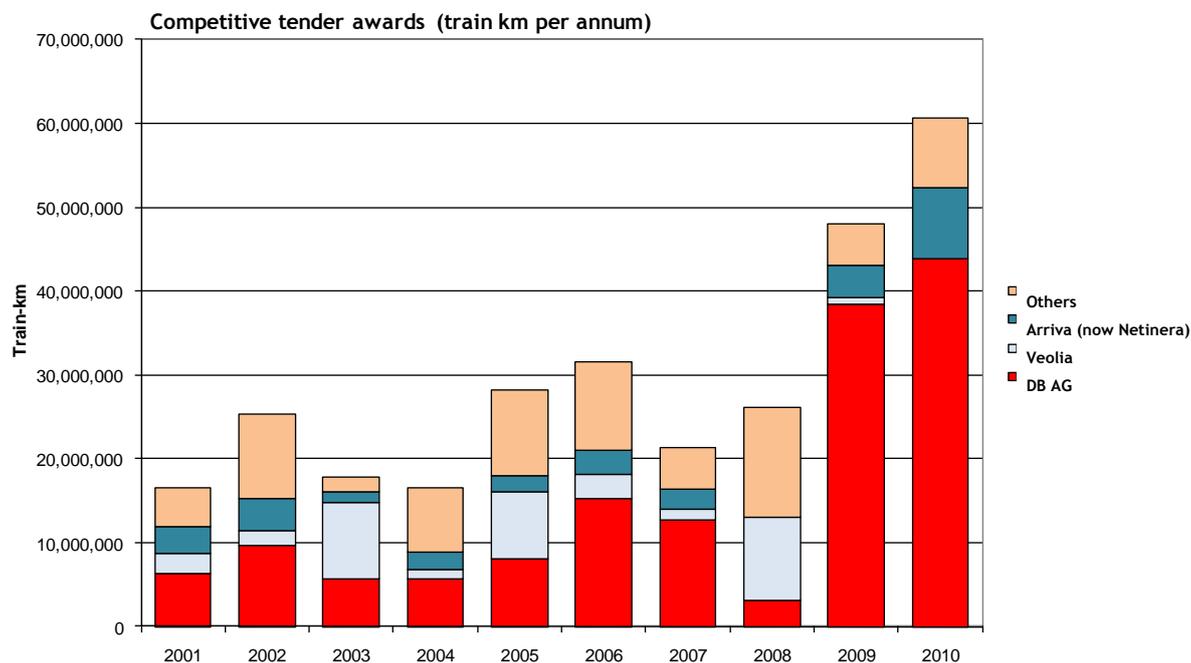
FIGURE 12 MODE OF AWARDING (IN % OF ALL TRAIN-KM)



Source: Steer Davies Gleave analysis of data from BAG-SPNV 2011

- 4.29 In the first ten years of market opening between 1995 and 2005, DB Regio on average won around 31% of all competitive tendered contracts. In recent years, however, DB Regio has strengthened its market position and augment this share to up to 58% in the years between 2006 and 2010. The chart in Figure 13 points out which railway undertakings won tenders in the last ten years.
- 4.30 An alarming evolution in Germany is the steadily decreasing number of participants in the bidding processes. Whilst in the first years of market opening between 1997 and 2000, the average number of participants was between 5 and 7, the number of bidders fell to 2.9 in 2009 and to 2.4 in 2010.
- 4.31 Barriers for participation in tenders are especially the high costs for the preparation of an offer and the purchase of rolling stock. There is no second-hand market for rolling stock in Germany, specifications for rolling stock are still quite heterogeneous between PTAs and the costs for financing new rolling stock are very high. At the same time, budgets of PTAs and thus also subsidies are decreasing. In the last few years, problems with rolling stock approval increased the risk of participating in the tender.
- 4.32 The number of bidders is also likely to depend on the contract volumes. It could be observed that the number of bidders decreased when the contract volume was beyond 3 mil. train-kilometres. In eleven recently tendered contracts with contract volumes of more than 3 mil. train-kilometres, the maximal number of bidders per tender was two with one of those in all eleven tenders being DB Regio.

FIGURE 13 COMPETITIVE TENDER AWARDS PER YEAR (MARKET SHARE OF TRAIN KM)



Source: BAG-SPNV 2011

Rolling stock purchases

- 4.33 The cost of new rolling stock has increased significantly over the last few years. The main reasons for this development were a consolidation of the manufacturing market combined with a reduction in construction capacities, an increase in requirements with respect to safety, EU requirements under technical standards for interoperability (TSIs) including TSI-PRM and problems in homologation (approval for operation) due to uncertainty about the requirements of the federal railway safety regulator (EBA).
- 4.34 A variety of approaches are employed to provide RUs with suitable vehicles, including direct supply and support for purchase or leasing (some with re-use guarantees). Grants may be provided towards the costs of rolling stock, but these must be repaid if the stock subsequently moves outside of the designated region. There is typically no indexation for capital costs (or lease charges) in PSO contracts.⁹

Treatment of staff in transition periods

- 4.35 The German train driver labour union GDL (Gewerkschaft der Lokführer) elaborated framework conditions for the case of a change of the operator (Betreiberwechsellarif) which, however, is not compulsory for the new operator of a franchise. According to GDL, railway undertakings join the agreement on a voluntary basis. In the case of application of the agreement, the new operator has to take over the staff from the previous operator. However, it only takes over the number of staff needed according to its presented offer. The staff have to be selected according to predetermined social criteria (positive Sozialauswahl).

⁹ Steer Davies Gleave, Germany 2010

Evidence of open access operators

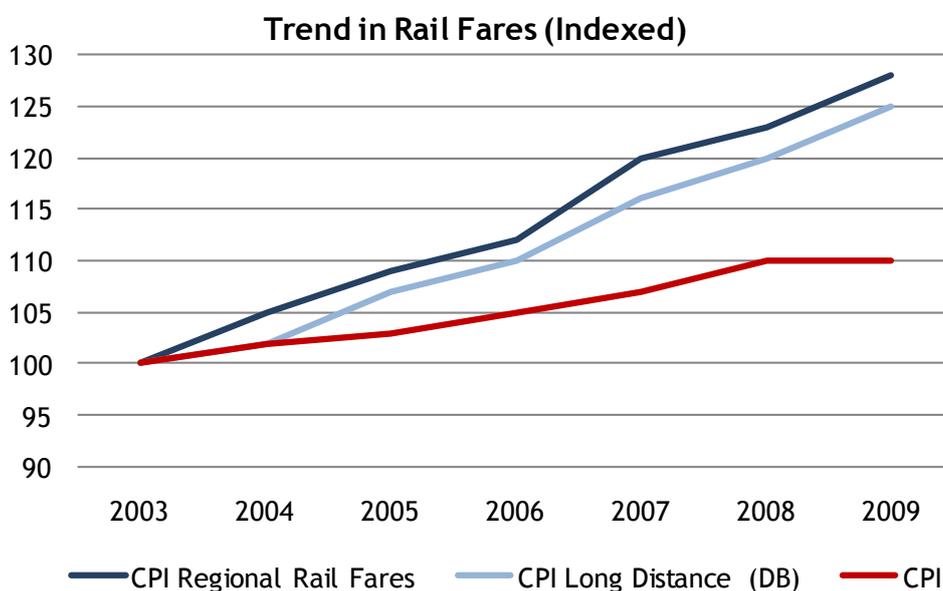
- 4.36 In theory the German rail market is fully liberalised with potential for open access for all commercial passenger services. In particular, all long-distance services are operated as commercial services with no public service obligations.
- 4.37 However, the domestic market share of new entrants in the commercial rail market - principally long distance flows - is below 1% (currently Veolia's InterConnex, due to be joined by new entrants, Hamburg-Köln-Express/locomore and MSM, in 2012).
- 4.38 Germany, like Italy, is polycentric with a backbone rail axis (Munich-Frankfurt-Köln-Hannover-Hamburg in Germany, Naples-Rome-Florence-Bologna-Milan/Venice/Turin in Italy). However, unlike Italy, German high speed services operate extensively on the conventional speed lines.
- 4.39 A new entrant in the regional passenger market expressed the opinion that full open access services do not work in passenger markets. They therefore suggest the introduction of a nation-wide planning of all passenger operations, including regional and long-distance rail services, but also local non rail-based transport. This would include an integrated planning of infrastructure and train services, an Integrated Synchronised Timetable (including bus services), a single tariff system and a tendering of all train-services. This would also overcome the currently focus of infrastructure planning on high-speed lines.

Trends in price and quality indicators

- 4.40 Farebox revenue is driven by passenger volumes and the revenue yield per passenger kilometre. Between the time the Regionalisation Act was implemented in 1996, and 2006, train-km rose by 28%, while passenger trips rose at a faster rate, by 33%. Socio economic trends, population growth and income, are quite variable across Germany so the prime drivers of organic growth will similarly differ from area to area. The competitiveness of regional rail versus car is also changing in some areas. Whilst car ownership levels seem to be approaching saturation within the last decade, road infrastructure is being developed, easing congestion and increasing connectivity of more remote areas.
- 4.41 The quality of rolling stock also influences demand. The process of fleet renewal following the introduction of competitive tendering often led to a step change in patronage and associated revenue. However, with the second wave of tendering this pattern is unlikely to be repeated as they will tend to use existing rolling stock. Tendering has increased pressure on all operators to deliver better quality, with enhanced performance in terms of service punctuality and customer satisfaction.
- 4.42 Income from ticket sales is also impacted by revenue allocation channels. There are two types of revenue allocation:
- Contract based clearing, mainly between DB and private competitors (partly based on standardized contracts developed by the tariff cooperation TBNE). DB Vertrieb usually demands a commission of 14%
 - Clearing bodies of Public Transport Associations (Verkehrsverbände) with a commission/transaction fees of 8%.
- 4.43 There can be a long delay in payment from the clearing body to the RU. Revenue allocation can be contentious. Private operators object to the lack of transparency in determining revenue allocation factors. TOCs have to rely on DB's passenger counts and negotiations over revisions may result in final settlement only being reached after 3 years.

- 4.44 The evolution of rail fares in the last six years is pointed out in Figure 14 and shows a growth that is notably stronger than the evolution of the consumer price index between these years.
- 4.45 The increase in regional rail fares can be partially explained by decreasing subsidies from the public transport authorities and the increasing competition. Outside tariff agreements, DB Regio sets the prices for rail fares independently and hence can absorb income reductions due to decreasing subsidies or increasing competition.
- 4.46 The strong increase in fares of long-distance rail services which are operated without any public subsidies suggests that either DB has not made any progress in efficiency or that DB takes advantage of its monopolistic position in this segment.

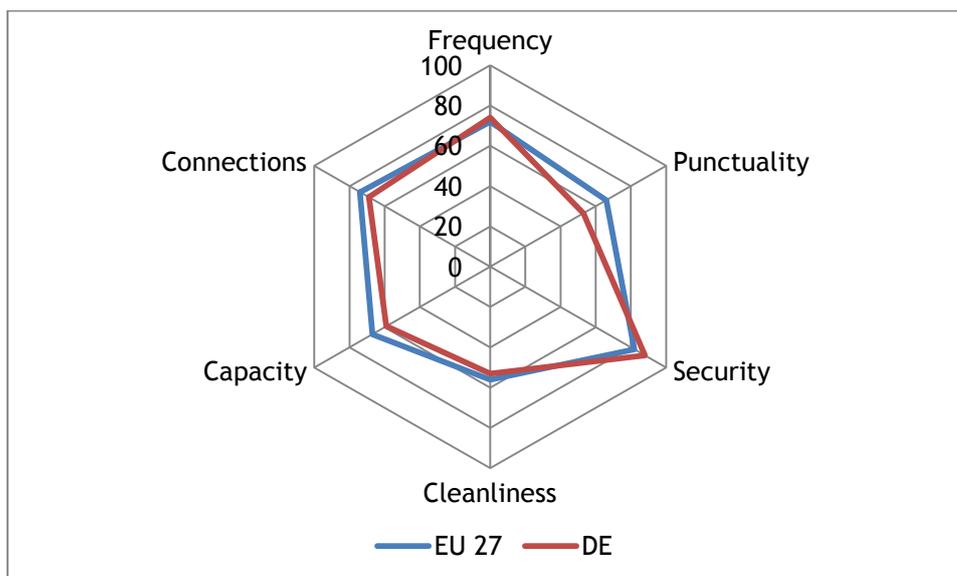
FIGURE 14 EVOLUTION OF RAIL FARES



Source: Deutsche Bahn 2010

- 4.47 Recently, the European Commission requested a survey on passengers' satisfaction with rail services in Europe. The opinion of railway users in Germany compared to the rest of the European Union is shown in Figure 15. The survey results show that passengers' satisfaction in Germany is very similar to the European average results. However, users rated the indicators connections, capacity and cleanliness slightly lower than European average. An exception was the punctuality, which survey respondents rated notably lower compared to the European average.

FIGURE 15 QUALITY INDICATORS OF THE GERMAN RAILWAY SYSTEM



Source: Steer Davies Gleave analysis of Flash Eurobarometer (June 2011)

- 4.48 Evidence from Germany suggests there exists a correlation between the change in operator at the end of a franchise and a fall in quality for rail services. The German PTA VRR observed significant quality decreases in the services operated by a private operator under PSO in the last year of the franchise contract, subsequent to the PTA publishing the winner of the new contract. They suggest a correlation of this worsening with the awarding of the services on this franchise to another operator.

Analysis of open access operators

- 4.49 Open access operators have to address high market barriers due to the problem of rolling stock availability (see also the section on ‘Access barriers for new entrants’) and the allocation of network capacity (see also the section on ‘Discriminatory framework conditions’).

Analysis of competitive incentives for rail operators

Current cost to market and time to market

- 4.50 Representatives of RUs reported that the authorisation and certification costs created a high market entry barrier in particular for small RUs.
- 4.51 According to the Rail Liberalisation Index study from 2011, approval fees for train authorisation can add up to €120,000. It should be noted, that these costs are only fees for issuing authorisation and do not include costs for surveys, trials, tests and personal. After the submission of all necessary documents, EBA issues authorisation for placing in service within a period of 120 days. We were not provided with statistical information on average approval times within this period.
- 4.52 The procurement of, for example, new electric railcars takes usually between 3 and 4 years depending on the complexity of the model. This is followed by the time required for production of the ordered vehicle fleet although there is some overlap between the two.

Access barriers for new entrants

- 4.53 The KCW report states that the worst issue in terms of rolling stock is the access to capital. In Germany, most franchise bids require the bidder to provide their own rolling stock, usually with the requirement that it is new. Private operators are disadvantaged in three ways, compared to Deutsche Bahn (DB):
- access to capital;
 - economies of scale; and (to a lesser degree - due to the requirement of new rolling stock
 - access to older rolling stock.
- 4.54 In terms of access to capital, DB is rated Aa1 by Moody's (2nd best on their scale) and AA by S&P and Fitch. The financial markets consider this, and other state owned operators, as underwritten by the state. As such, they enjoy lower costs of capital procurement for the purchase of new rolling stock. This issue has been exacerbated by the current crisis, where capital is harder to obtain, and investors place more value on lower-risk investments.
- 4.55 In terms of access to older rolling stock, smaller private companies have a small number of trains that they can bring to a franchise which puts them at a disadvantage. DB has by and large refused to sell its rolling stock - particularly passenger trains - to companies operating in Germany (or their owning groups). Rolling stock offered for sale is usually so old it is unattractive both to the operator and to passengers, and usually cannot be made accessible to Persons with Reduced Mobility (which is a standard requirement for most tenders).
- 4.56 DB, on the other hand, has a large pool of older locomotives as discussed above.
- 4.57 In terms of economies of scale, DB has two advantages over new entrants and smaller companies when it comes to rolling stock procurement. The report does mention, that while economies of scale are not a feature unique to incumbent operators, the economies of scale enjoyed by DB can stifle market competition. The two advantages are:
- As it is a large company, which is active in the regional passenger, long-distance passenger, and freight markets, it can assign locomotives from other market segments to regional passenger operations if required - and has done so on several occasions. DB's competitors are unable to do this.
 - DB has also signed a large-scale framework contract for the procurement of different types of rolling stock, with a series of options depending on the outcome of the tenders. Owing to its size, DB is capable of bidding for virtually every single tender - this then drives the volume of the framework contract, and lowers the unit price of the vehicles procured. This is something smaller operators cannot do - they usually procure vehicles only after winning the tender, as they are only able to secure capital once they win the tender. This leaves them more vulnerable to problems with vehicle acceptance and placing into service.
- 4.58 Furthermore, the KCW report highlights issues with rolling stock procurement brought about by tighter EU crashworthiness, emissions and noise regulations, leading to fewer manufacturers being able to offer suitable rolling stock for new entrants.
- 4.59 A related issue is the access to maintenance facilities. The tender winner is responsible for both procuring and maintaining the rolling stock for their franchise. As such, companies must bear some sunk costs when starting new franchises, as they usually end up having to

build new maintenance facilities. As franchises tend to last around 10-12 years, this creates significant sunk expenditure. While maintenance facilities can be sold on to the new franchisee at the end of the franchise, this is not necessarily the case if the new franchisee is DB - as they can, naturally, use existing depots built before tendering.

- 4.60 According to the German regulatory body, IMs (in some cases also EBA) require specific technical requirements for use of their infrastructure which leads to increased costs for railway undertakings. The regulatory body explained that in some cases it is not clear if these requirements are requested to prevent railway undertakings from network access or if these requirements are needed to ensure safety.
- 4.61 With regards to capacity allocation, the Monopolkommission mentions the lack of flexibility when agreeing framework capacity contracts with DB Netz. The deadlines for agreeing framework contracts does not allow enough time for new market entrants to procure adequate rolling stock. This usually has to be done after securing capacity, as financiers often refuse to provide funding for new rolling stock without guaranteed train paths. Furthermore, if a framework capacity contract is first agreed and then cancelled, DB does not automatically release the capacity to others. This has apparently delayed the market entry of at least one RU by a year.
- 4.62 Further to this, DB Netz does not provide sufficient information about available infrastructure capacity (both with regard to train paths and with regard to facilities). The Monopolkommission also complains that DB Netz does not provide enough information about the physical characteristics of the rail network (e.g. curve radii or gradients), which would enable RUs to make better decisions regarding rolling stock to be utilised on the routes.
- 4.63 The regulatory body BNetzA conducted a study of access to rail related facilities (shunting yards, depots, sidings, etc.), and found that DB Netz (the owner of most facilities) does discriminate against non-DB companies. The law permits long-term agreements for the usage of these facilities and DB Netz has rented a significant portion of their capacity to DB Schenker Rail. The regulations specify, that other companies may use the facilities only if DB Schenker does not need them anymore - they are thus forced to co-operate with DB Schenker.
- 4.64 There is also a problem with regard to long-term capacity planning and short-term demand. BNetzA proposes that 25% of the capacities are taken out of the scope of long-term contracts in order to enable short-term operations to take place.
- 4.65 A further barrier to use of shunting yards is that the owner of shunting locomotives in most of these yards is DB Schenker, and not DB Netz. As a result, competitors must provide their own shunting locomotives. This - according to the Monopolkommission - is one of the reasons why DB Schenker is the only provider of single-wagonload traffic in Germany.
- 4.66 RUs have also complained to BNetzA regarding the access terms to depots owned by DB. These are mainly owned by DB Regio rather than DB Netz, and as a result are usually impossible to access by competitors. Potential users of these facilities have also complained that they are not provided with a transparent service pricing offer by most depots, and as a result cannot make informed decisions, whether to use these. BNetzA created a working group in 2010 to develop new access rules for depots.

Discriminatory framework conditions

- 4.67 **Network capacity allocation** The example of locomore rail shows that RUs that want to compete with incumbent DB AG in the long-distance passenger rail market have to address many challenges which often prevents them from starting operations.
- 4.68 According to Directive 2001/14/EC, the Infrastructure Manager may conclude a framework agreement, that ensures RUs access to railway infrastructure capacity for a longer period than one working timetable period. Such agreement defines the infrastructure needs of the RU and allows them long-term planning.
- 4.69 Locomore rail planned to set up long-distance services on two core intercity lines in Germany. The planned lines were Hamburg-Frankfurt/Main-Stuttgart and Berlin-Frankfurt/Main. Pre-contracts for the purchase of new Intercity-trains based on ÖBB Railjet stock were already concluded, however delivery could start only after a two-year production period.
- 4.70 Due to the high investments and risks, locomore aimed at concluding a long-term framework agreement for 15 years, which should be signed before the order of the rolling stock to have a security for these long-term investments. Locomore rail tried four times to obtain a long-term framework agreement with DB Netz, also involving where necessary the regulatory body BNetzA.
- 4.71 The first approach in the end of 2007 for starting operations in spring 2010 was refused by DB Netz providing the reason that they could not accept pre-reservations before the official assignment of framework agreements to RUs. In January 2008, locomore asked DB Netz to bring forward the signature of the framework agreement from the planned date in April 2010 to summer 2008. DBNetz refused this request justifying it with the need for equal treatment of all operators. In a third approach, locomore applied for a delay to the start of operations, allowing them to start 2 or 3 years after signing contracts. BNetzA obligated DB Netz to accept the framework application, however DB AG took legal actions against this decision. As a result the higher administrative court in Münster decided in a second instance in favour of DB which prevented locomore from starting operations. Finally locomore applied for a framework agreement following the standard process of DB Netz. Although they got assigned the requested capacity, they had to refuse due to problems with investors.
- 4.72 After four approaches and strong resistance from IM and RB, locomore had to change their plans and changes their service to focus only on one line. Due to the short time period from application for network capacity until start of operations it was not possible to order new trains and thus they will initially use refurbished rolling stock from Austrian incumbent ÖBB and the brand name Hamburg-Köln Express.
- 4.73 It is worth noting that the head of DB AG's passenger operations announced the market entry of locomore rail at a time when only DB Netz should have been able to see the plans. This suggests that incumbent DB AG and IM DB Netz, both integrated in the same corporate group, are not completely independent.¹⁰
- 4.74 Track access and station fees hold further potential for discriminatory behaviour as their amount and structure can be influenced by the infrastructure managers of the DB group (DB Station&Service and DB Netz). This issue is of high importance as these cost factors

¹⁰ Holzhey, M. et al. 2011

usually cover 30% of total operating costs of long-distance services. In the spring of 2010 locomore negotiated its timetable and station fees with DB Station&Service, and thereby revealed its planned service to them. This service envisaged the use of trains composed of 6 carriages with a total train length of 178 meters. At this time, the General Conditions Concerning the Usage of the Station Infrastructure provided that trains with a length beyond 180 meters had to pay fees that were two times higher than those for shorter trains. Subsequently to the contract conclusion in September 2010, DB Station&Service lowered this threshold in its network statement to 170 meters. This change led to a substantial increase in operational costs for locomore (approx. €500,000 per year)¹¹ and worsened its competitive position compared to DB. Further to this, locomore had no possibility to adjust its operational concept as they had to comply with the contracts agreed with DB Station&Service and DB Netz.

Ineffective regulation

- 4.75 The current legislative framework leaves infrastructure managers with a high grade of freedom with respect to the setting of infrastructure access fees. Since infrastructure and station fees and energy costs sum up to almost 50% of the operational costs of a railway undertaking, the infrastructure manager has a strong influence on the competitive situation in the railway market. The regulatory body BNetzA, therefore, regularly inspects the access fee system of DB Netz AG with respect to potential distortion of competition.
- 4.76 The Monopolkommission, however, on behalf of the German federal government, claimed in its 2011 report that a review of the currently implemented fee system of DB Netz with respect to price discrimination is very extensive. In contrast, resources and powers of BNetzA are limited. Currently, prices can only be rejected due to a lack of traceability. Due to information asymmetry BNetzA has less knowledge about the costs which underlie the single fee components and their respective impact on competition. These information advantages can be used to strongly influence the competitive situation. The Monopolkommission concluded that the current regulatory framework gives DB Netz incentives and possibilities to discriminate competitors.
- 4.77 Up to now, the BNetzA can mainly deal with discrimination but not with the level of infrastructure charges. The current legal regimes gives the regulator only the power to check, whether cost categories can be incorporated, but he is not allowed to check whether the cost levels is appropriate (no efficiency test).

Lack of competitive incentives on railway undertakings

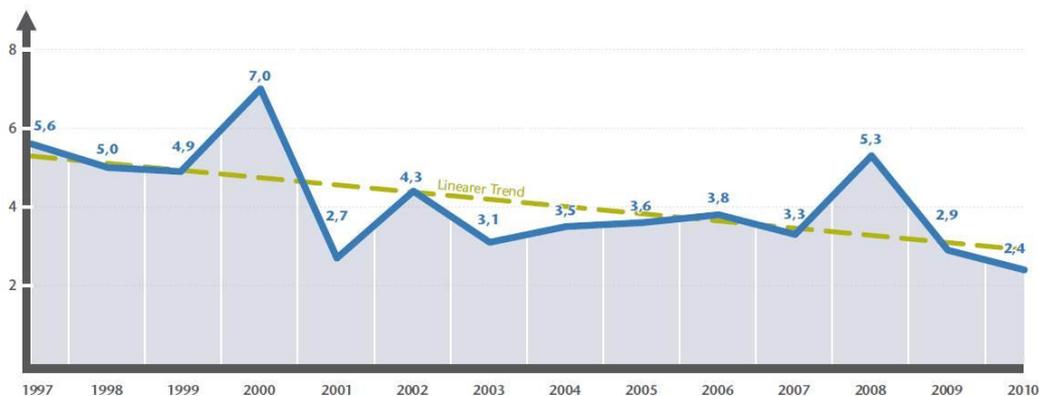
- 4.78 A lack of competitive tendering also strengthens the position of the incumbent operator. As shown above, directly awarded Public Service Contracts played and play an important role in the German market. Between 2002 and 2004, DB was awarded a number of local rail contracts directly.
- 4.79 Nevertheless, competition problems still exist. In recent years, DB Regio has increased its success rate in competitive tenders from about 30% between 1995 and 2005 to 60% between 2006 and 2011.¹² The 2011 report of the Monopolkommission, prepared on behalf of the German Federal Government, explains this evolution by a decreasing level of

¹¹ <http://www.ftd.de/unternehmen/handel-dienstleister/:drastische-preiserhoehung-fernzugbetreiber-wirft-bahn-schikane-vor/60033037.html>

¹² Holzhey et al. 2011

competition. A reason for this are the limited possibilities for competitors of DB Regio to submit competitive offers, and, as a result, a decreasing number of bidders in the tenders (see Figure 16).

FIGURE 16 NUMBER OF BIDDERS IN COMPETITIVE TENDERS



Source: Holzhey et al. 2011

- 4.80 The number of bidders is a critical issue with respect to the efficiency of awarding procedures. The example of a competitive tender organised by the public transport authority of the Rhineland (NVR) in 2009 underlines this assumption. The only bidder besides DB Regio, trans regio, did not obtain appropriate financing and hence handed in an offer without any chances. Being aware of the difficulties of the competitor, DB Regio offered to operate the network for €125 mil. As a result, the NVR cancelled the tender due to the uneconomical offer and recalled the network for tender under new conditions. Given that trans region was able to hand in a substantial offer under the new conditions, DB Regio reduced its offer to €80 mil. which was a reduction of 36%.¹³
- 4.81 According to a recent survey on behalf of BAG-SPNV (KCW, 2012), TOCs see especially five possibilities to improve the attractiveness of the regional passenger market and thus the likelihood of participating in a tender. These possibilities are - in order of importance:
- Harmonisation of tendering procedures and requirements by PTAs;
 - Improvements in financing rolling stock;
 - Improvements in rolling stock approval;
 - Reduction of commercial risk (cost increases, demand uncertainty); and
 - Improvement in the availability of qualified personnel.

Potential examples best practice

- 4.82 An example for best practice in Germany is the realisation of open tenders for regional passenger franchises which have had positive results and have not created barriers for entrants. The federal state Brandenburg reports in its actual transport development plan that their overall experience with competitive tendering was positive. Until 2007, they put 24.7% of their regional passenger rail services out to tender and as a result they could on the one hand reduce the subsidies between 10 and 30% and on the other hand increase the service levels.

¹³ Monopolkommission 2011

- 4.83 Many PTAs try to reinvest the obtained benefits from the competitive tenders and increase the service quality. As an example, the Bavarian PTA Bayerische Eisenbahngesellschaft (BEG) uses the saved subsidies to order additional volumes from the winning RU. Holzhey et al. identified that within 11 analysed tenders, the BEG could reinvest the savings ordering additional volumes of 9.2 mil. train-kilometres. Several Federal States have introduced integral fixed-interval timetables, reducing journey times considerably; the requirement to use new rolling stock has resulted in a massive modernization of rolling stock, the introduction of cars accessible by handicapped persons, ... Additionally, the contract management of PTAs has resulted in a higher transparency of the market (e.g. regular quality reports), a stronger focus on punctuality and so on.
- 4.84 In contrast, PTAs in some federal states, for example Niedersachsen, Schleswig-Holstein, Brandenburg and partly also Saxony, set the focus on investing the savings in infrastructure, mainly stations, which also leads to quality improvements of the services in the medium and long term (e.g. introduction of real-time information systems, improvement of accessibility for handicapped).

Conclusion

- 4.85 The railway market in Germany is characterised by a high number of new entrants in both the regional passenger rail and the rail freight sector and its share increased steadily in the last years. In contrast, market share of open access long distance services is still almost nil, despite opening that formally dates back to the 1990s. Although Public Transport Authorities until now have publicly tendered almost 50% of all regional passenger rail franchises, incumbent DB has still a high potential for discrimination through its partially integrated corporate structure. This is reflected by the large number of complaints from private railway undertakings received by the regulatory body BNetzA.
- 4.86 The main market access barrier in Germany is the access to rolling stock. In Germany, there is de facto no second hand market for rolling stock and manufacturers are struggling to satisfy the market demand for new rolling stock. Additionally, financing costs for the purchase of rolling stock increased notably since the beginning of the financial crisis.
- 4.87 Compared to most other European countries, market opening in Germany is at an advanced stage. The German example in regional passenger rail services showed that market opening can lead to a decrease in state subsidies and an increase in service quality. In the last years, however, high market barriers and the dominant market position of the partially integrated DB group have led to a decreased level of competition.

5 Summary of findings

Identification of key problem drivers and elements

- 5.1 Since 1994, the date of the German rail reform, the railway sector has undergone a massive restructuring. The German approach can be summarised by the following elements:
- vertically integrated incumbent, but
 - separation of accounts, organisational separation and limited additional safeguards
 - independent regulatory oversight, especially concerning discrimination of third parties
 - open access as a general rule for all market segments (freight, long-distance passenger and regional passenger services)
 - additional provisions for regional passenger services, i.e. a long-term provision of financial resources, a set-up of a decentralised institutional framework for definition, purchase and financing of public services
- 5.2 The German rail reform has resulted in several major improvements, especially in terms of commercialisation and modernisation of the incumbent, high growth rates of freight and passenger ridership - resulting in an above average modal share of rail. Active competition in the freight sector and partly in the regional passenger services sector has emerged.
- 5.3 Several institutional improvements also have to be mentioned, e.g. the stabilisation and higher transparency of railway funding (especially the multi-annual infrastructure quality contract and the federal financing of regional passenger services), the set-up of a decentralised system of public authorities, responsible for regional passenger services planning.
- 5.4 Despite these major achievements, several “problems” and developments have been and are discussed, e.g.
- the lack of access in the long-distance passenger service (questioning the optimality of an open access regime);
 - the market dominance of the incumbent in all segments (questioning the appropriateness of the regulatory and legal framework);
 - the development of the modal share.
- 5.5 The following sections deal with the question, whether these “problems” and developments can be traced back to legal or institutional barriers or additional factors. A distinction is drawn between regional passenger services and long-distance passenger services.
- “Problems” and developments in the regional passenger market***
- 5.6 The main aspects of this market segment are:
- relatively high market share of the incumbent
 - effectiveness of competition for PSCs

- small number of competitors in tendering processes

5.7 Of course, these aspects are highly interrelated.

Effectiveness of tendering

5.8 A major reason of the development of the market segment is the central role direct awarding played - and thus the absence of competition for PSCs.

5.9 Until 2011 legal uncertainty existed since the General Rail Law explicitly gives public authorities the right to choose between direct awarding and tendering while the Act Against Restraints of Competition generally requires tendering. Until 2011 courts have granted preference to the General Rail Law (with several qualifications) and Federal States have used this partly extensively (especially 2002-2004). As a result, almost 50% of all train-km in Germany have up to now never been tendered.

5.10 A general position of German stakeholders is that tendering has resulted in significant cost reductions and/or quality improvements. Consequently, the lack of tendering implies an inefficient use of public funds.

5.11 Looking at the effectiveness of tendering, one can argue that

- discriminatory framework conditions have always been discussed in Germany, i.e. advantages of the incumbent due to vertical integration and public ownership.

Discrimination has become less a theme due to the implementation of an independent regulator - although there is still some discussion on the appropriate scope of regulation (i.e. whether distribution of tickets and revenue sharing arrangements should also be regulated) and on the time needed to enforce regulation;

- several current problems of competing TOCs result from *changing market conditions* (access to financial markets, access to rolling stock), the *policy of regional public authorities*, and the *improved performance of the incumbent*.

Currently, financing of rolling stock is regarded as the most important problem in regional rail passenger services, followed by getting the necessary approval for the rolling stock. Access to financial markets favours the incumbent reduces the incentives of competitors to participate in tendering. The fact, that the majority of the train-km will be tendered in the next years, makes the problems even worse. Currently, several measures of the PTAs are discussed to eliminate or at least to reduce the problems (e.g. establishment of rolling stock pools, use of guarantees to reuse the rolling stock, sale-and-lease-back-arrangements).

Role of PTAs.

5.12 TOCs criticise the lack of harmonisation between PTAs, especially concerning eligibility requirements - resulting in high transaction costs - and rolling stock specifications - resulting in low interchangeability and a higher financial risk. Since there are currently about 230 contracts in force in Germany, transaction costs of the tendering system are a real point of concern.

5.13 But, this is a result of the decentralised German system and transaction costs may be outweighed by a advantages of decentralisation (e.g. higher concern for regional optimised solutions).

5.14 Concerning the strategy of PTAs two further developments must also be mentioned: Several TOCs criticise that contracts are too tightly specified, leaving almost no room for

entrepreneurial initiatives. Therefore, it is argued, companies are more and more forced into a pure price competition. At the same time, competitors of the incumbent have come under severe cost pressure: due to a lack of trained personnel, unions have started to align salaries and working conditions between TOCs and several PTAs require TOCs to use standard salaries and working conditions in their calculation for tendered contracts.

- 5.15 A combination of high costs of participating in tendering procedures, an intensified price competition for contracts and the reduction of cost advantages (salaries) has to result in a lower market attractiveness for competitors.
- 5.16 Additionally, the incumbent has reduced several of its up to now existing disadvantages (compared to newly established competitors). With a more intense price competition, its advantages (access to financial markets, economies of scale, vertical integration and information advantages) gain in importance and its disadvantages (inflexible organisation, personnel costs) have been successfully reduced.

“Problems” and developments in the long-distance passenger market

- 5.17 In the long-distance passenger and freight-market segments, open access was expected to significantly reduce the market dominance of the incumbent. After 19 years of market opening, the results are discouraging for the long-distance passenger market - while some freight-market segments (block trains) are now subject to intense competition.

Drivers for the current development

- 5.18 Looking at the long-distance passenger market, four main causes for the above described development can be identified:

- Strong market position of the incumbent. DB offers generally a dense network of connections between medium- and large-sized towns. Additionally, a network of international cooperation with other domestic operators (SNCF, SBB, ...) has been established. Nationally, measures as two-part pricing (Bahncard) have resulted in customer loyalty.

Therefore, some potential entrants (domestic operators) may hesitate to enter the German market; entrants have only a limited number of market segments they could enter without finding themselves in a situation of head-to-head-competition that reduces their strategic options (e.g. they have to counter DB's pricing system).

- Infrastructure capacity has an additional impact on the possibility to enter. Capacity bottlenecks impede entry on commercially attractive routes.
- The institutional and regulatory framework was an entry barrier and the situation has only improved quite recently: The first years after market opening were characterised by severe problems, e.g. track allocation, and a lack of rulings important for long-distance operators, e.g. the possibility to get multi-annual framework contracts for track access.

It must be said, that open access only played a minor role in lawmaking and regulation due to its minor importance. Today, most stakeholders argue that these problems are of no or only minor importance.

- Duality of markets: Market entry was - and may be still is - more attractive in the regional market-segment with its clear institutional and legal structure, the availability of public funds, the competition-favouring policy of some PTAs and so on.

5.19 As a consequence, Germany is still in a situation of experimentation. The development of the currently planned entry of two companies will be important for the future of the system.

Future options

5.20 Several stakeholders, entrants and the PTAs, generally propose a systematic change - with a strong orientation towards the Suisse system. Main aspects of this proposal are: vertical separation and an integrated, public planning of regional and long-distance passenger services and infrastructure development.

5.21 Possible advantages are

- improved coordination between regional and long-distance rail services as well as local/regional bus services to realise seamless transport
- improved efficiency of infrastructure investments due to a concentration on bottlenecks, coordinated development of services and infrastructure
- tendering of long-distance services

5.22 Other stakeholders, e.g. DB and the Ministry of Transport, claim on the other hand that

- there is no need for a public intervention, mainly due to the strong intermodal competition
- public planning can be inferior to private entrepreneurship
- coordination of services can be left to private, market-driven initiatives.

Efficient use of public funding

5.23 Concerning efficient use of public funding two areas of discussion exist:

- the extensive use of direct awarding by Federal States - already discussed in the previous remarks on regional passenger services;
- the appropriateness of the regulatory oversight over infrastructure companies.

On the one hand, a multi-annual contract for rail infrastructure quality between the Federal Government and DB exists defining some output parameters for infrastructure quality - but also input parameters - and determining yearly payments to the infrastructure companies (2.5 billion Euro).

On the other hand the rail regulator exerts some control over infrastructure costs: BNetzA can check whether costs are chargeable and can determine reasonable costs of capital. But, BNetzA is not allowed to investigate the level of chargeable costs, i.e. cannot determine efficient costs, cost reducing measures and so on.

The Ministry of Transport and DB have argued that the multi-annual contract for rail infrastructure quality already exerts significant efficiency incentives while BNetzA, Monopolkommission and their consultants have strongly opposed this view since inefficiency can be passed-through to TOCs.

Summary of key problem drivers and elements

5.24 Summarising, several factors have to be taken into account to explain the development of the German rail market. Legislation and regulation are one part of the story, but external effects (financial crisis) and the policy of PTAs also have to be taken into account.

Additionally, the competitiveness of the railway system is heavily influenced by

- public investment in infrastructure (track access charges, bottlenecks) and rail services (level of PSCs)
- internalisation of external costs, creating a level playing field between transport modes

TABLE 7 SUMMARY OF OUTSTANDING PROBLEMS

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock (RS)	✓	<ul style="list-style-type: none"> • Passenger services: DB owns majority of rolling stock; up to now no selling of used material to competitors • Regional passenger services: Low engagement of train leasing companies (diverse technical requirements reduce interchangeability of RS; relatively short contract duration) • Regional passenger services: Reluctance of banks (relatively short contract duration)
	Vague rules on access to rail-related services	✓	<ul style="list-style-type: none"> • Not generally • Access to tariff cooperation (regional passenger services) problematic
Industry consolidation	Incomplete unbundling		<ul style="list-style-type: none"> • Legal requirements fulfilled • Discussion of access to incumbent's distribution channels, organisation of tariff cooperation
Access barriers for new entrants	Ineffective unbundling		<ul style="list-style-type: none"> • No
	Incomplete unbundling	✓	<ul style="list-style-type: none"> • See industry consolidation
	Deficient funding and investment framework		<ul style="list-style-type: none"> • Infrastructure makes positive profits, below allowable cost of capital • General investment framework for infrastructure; high stake of PTAs in investment in rolling stock
	Access barriers to infrastructure		<ul style="list-style-type: none"> • Not seen as a major problem, but discussions on cost allocation

	Lack of structures/mechanisms for coordination	✓	<ul style="list-style-type: none"> • Lack of incentive-oriented regulation of IM (controversial) • Insufficient performance regime in case of disturbances caused by infrastructure • Imbalance between incumbent and entrants concerning integrated ticketing cooperation
	Lack of financial transparency		<ul style="list-style-type: none"> • Legal requirements fulfilled • Infrastructure charging lacks transparency
Different market access rules in MSs	Absence of competition for PSCs		<ul style="list-style-type: none"> • Competitive tendering possible, nowadays the dominating awarding mechanism • Contracts, directly awarded in the past, still limit market volume
	Distorted/Ineffective competition for PSCs	✓	<ul style="list-style-type: none"> • Access to rolling stock • High costs of participation in competitive tendering (e.g. lack of harmonisation of requirements) • Overly-prescriptive PSCs
	Absence of open access rights		<ul style="list-style-type: none"> • No
	Discriminative framework conditions		<ul style="list-style-type: none"> • Scope of regulatory oversight discussed (see industry consolidation) • Time requirement for final regulatory decisions quite long
Other causes	Country-specific problem drivers		
	Decentralisation of PTAs	✓	<ul style="list-style-type: none"> • High transaction costs • Low level of harmonisation
	Harmonisation of salaries and working conditions (Regional rail passenger)	✓	<ul style="list-style-type: none"> • Cost advantage of entrants reduced • But, of course, also improvement of the situation of staff
	Capacity limitations (bottlenecks)	✓	<ul style="list-style-type: none"> • Impedes open access (long-distance passenger services)
	Market dominance of incumbent, international alliances	✓	<ul style="list-style-type: none"> • Incentives to enter long-distance passenger market reduced

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7 Annex

TABLE 8 LIST OF DISCRIMINATORY CLAUSES IN THE DB NETZ NETWORK STATEMENT 2008

N°	Clause	Contents	Justification	Against German law
(1)	3.4	Temporary disruptions of the network due to maintenance or construction works that are noticed at least 3 month in advance do not lead to reductions in infrastructure fees.	DB Netz is responsible for the condition of the network and has to provide additional network capacity for the case of maintenance	§ 21 Abs. 6 Satz 2 EIBV
(2)	7.4.7.4	The user of the infrastructure does not have any claims against DB Netz due to disruptions by maintenance or amplification works.		§ 21 Abs. 6 Satz 2 EIBV
(3)	7.1.8.1 sentence 4 in combination with 7.1.8.2 sentence 3	Infrastructure conditions that are not conform with the contract do not lead to a reduction in infrastructure fees.	ambiguous description	§ 21 Abs. 6 Satz 2 EIBV
(4)	7.1.8.1 sentence 1 to 3	Allows DB Netz to change the characteristics of the infrastructure during the contract term, taking into account the needs of the railway undertakings.		§ 21 Abs. 6 Satz 2 EIBV
(5)	7.1.8.3	Excludes the possibility of fee reductions in the following case: condition of infrastructure not according to contractual agreements due to force majeure.		§ 21 Abs. 6 Satz 2 EIBV
(6)	7.1.8.5	A fee reduction according to clause 6.2 can be credited against a fee reduction due to non-contractually agreed infrastructure condition		§ 21 Abs. 6 Satz 2 EIBV, § 21 Abs. 1 EIBV

N°	Clause	Contents	Justification	Against German law
(7)	7.5.2	Timetable deviations due to operational disruptions, accidents, environmental or weather conditions, inevitable events and industrial action are part of the general operational risk and have to be beard by the affected party.		§ 21 Abs. 1 EIBV
(8)	7.7.5.1	DB Netz may request appropriate securities for the provided services if there are reasons to doubt the solvency of the RU.		§ 5 Abs. 1 EIBV
(9)	7.7.5.2	Determines the amount of the securities which are 3 monthly fees calculated from average fee in the next 6 month.	In particular does not establish the amount of the security in the case of occasional services.	§ 5 Abs. 1 Satz 2 EIBV
(10)	7.2.7.2 paragraph 3	This clause excludes justified appeals against the timetable for issues already taken into account through coordination procedures or statements.		§ 8 Abs. 1 Satz 2 Nr. 6 EIBV
(11)	7.4.2	The railway undertakings have to purchase the operational and technical guidelines necessary for network access from a body notified by DB Netz AG.	According to EIBV, the IM has to provide the requesting railway undertaking with the network statement against reimbursement of the caused expenses.	§ 4 Abs. 1 Satz 2 EIBV
(12)	3.2	This clause classifies the opening hours of some single lines as 'restricted' or 'unrestricted'.	In the case of restricted opening hours, the network statement does neither clarify the exact opening hours nor gives explanations for the restriction.	§ 4 Abs. 2 Satz 1 EIBV
(13)	7.4.3.1	All staff members of a railway undertaking must have good spoken and written knowledge of German.		§§ 14 Abs. 1 Satz 1 AEG, 3 Abs. 1 Satz 1 EIBV

EUROPEAN RAIL MARKET OPENING

Denmark

Country Fiche

July 2012

1 Evolution of the national market

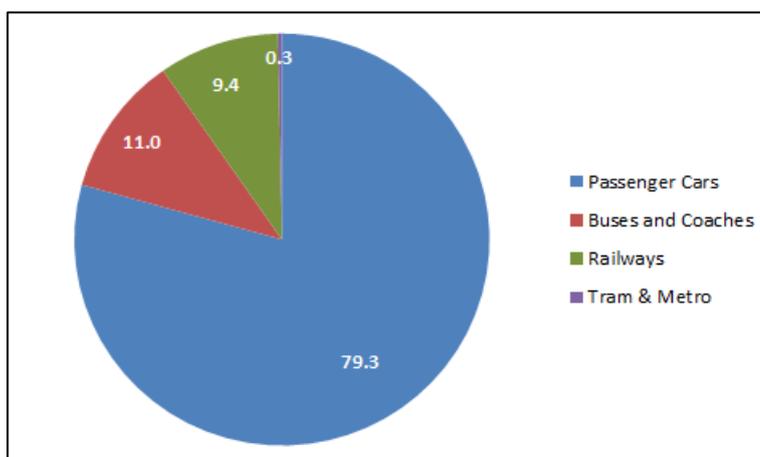
Structure of the network

- 1.1 Denmark has approximately 5.5 million inhabitants and a population density of 129km/km². Denmark's rail network comprises over 2,600km of track and a density of 61.4km/1000km². There are both regional and intercity passenger services along with cross border services with Germany and Sweden. Significant infrastructure development has taken place in Denmark, reducing travel times for rail operators both internally and internationally (e.g. Oresund Bridge connecting Copenhagen to Malmo and Great Belt Bridge linking Eastern to Western Denmark).
- 1.2 Less than a quarter of the rail network is electrified and there are currently no high speed lines although a 60km stretch is due to be completed in 2018. The freight intensity of the network is low at 0.67 while on the other hand passenger density is very high at 2.34, well above the European average of 1.

Changes in volumes for passenger and freight services:

- 1.3 The passenger rail modal share in 2009 was 9.4% (2% higher than EU average) as depicted in Figure 1. The freight rail modal share was 7.6%, having increased from 6.6% in 2000.

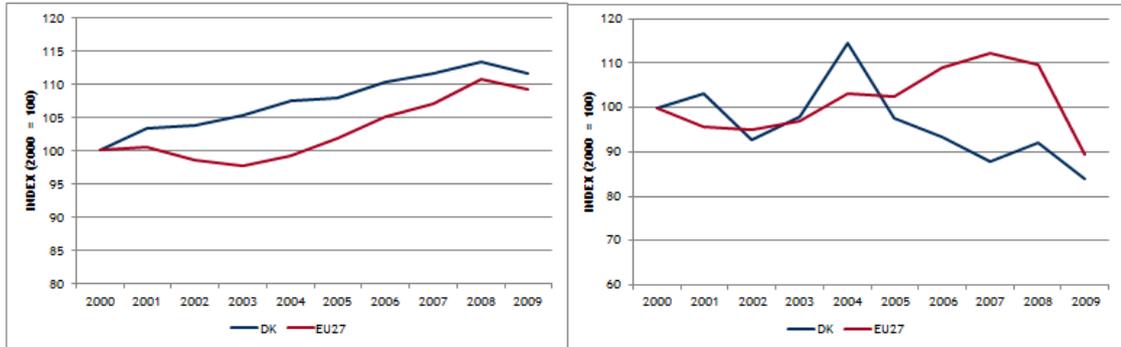
FIGURE 1 MODAL SPLIT IN DENMARK 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.4 Passenger rail km rose slightly more than the EU average between 2000 and 2009 but broadly followed the same trajectory as is illustrated in Figure 2. Freight tonne km decreased between 2004 and 2009. This also matches a decline in road freight tonne km for the same period.

FIGURE 2 DENMARK AND THE EU 27, PASSENGER AND FREIGHT KM, 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

2 Competition and market access

Overview of the passenger and freight operators

- 2.1 DSB (Danske Statsbaner), the state-owned incumbent dominates the Danish passenger rail market. The only new PSC entrant is Arriva which has a small market share with 4% of passenger km. There are a number of other small regional railways that are not operated by DSB and account for less than 10% of traffic outside the main national network.
- 2.2 In 2009, DSB formed a joint venture with the First Group named DSB First to run PSC services across the Oresund crossing, regional services around Gothenburg and services in southern Sweden. In April 2011, the CEO of DSB was dismissed over allegations that Danish state subsidies were being supplied to the loss making DSB First venture via DSB. In June 2011, it was announced that Veolia would take over DSB First's Swedish services. The First Group has declared its intention to also opt out of the other two contracts (Railway Gazette, April and June 2011).
- 2.3 Banedanmark, a state-owned company, is responsible for managing the Danish rail network infrastructure. It is fully separated from DSB.
- 2.4 The freight division of DSB was sold to Railion, a subsidiary of Deutsche Bahn in 2001. It is now part of DB Schenker Rail. Transit freight volumes between Germany and Sweden have risen in recent years. There are two new entrants in the Danish freight market, the Swedish operator Hector Rail and CFL Cargo from Luxembourg, accounting for 26% of freight market shares in 2009.

Open access

- 2.5 The Danish Government began the process of liberalising the freight rail market in 1999 and passenger rail in 2000. Arriva, mentioned above, is contracted to operate some regional services in western Denmark, but currently there are no open access operators. The Swedish operator SJ began services between Copenhagen and Odense in 2010 but withdrew these services in 2011.
- 2.6 SJ continues to offer cross-border open access services between Copenhagen and several Swedish cities.

Access barriers

- 2.7 Table 1 displays the time and costs required to enter the Danish rail market.

TABLE 1 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating licence	3 months	€1,500
Safety certificate	2-3 months	€3,700
Authorisation of rolling stock	2 months	€30,000

Source: IBM 2011

- 2.8 Additional infrastructure charges are imposed on railway undertakings if they cross either the Öresund or Storebælt Bridge, if they travel during peak times or on particular sub networks. RUs are also charged for each station they stop at.

- 2.9 Bannedanmark is responsible for track allocation and gives first priority to public service services rather than open access services in cases of capacity shortages (CER, 2011).
- 2.10 All stations belong to DSB. In cases where DSB do not serve the station, the operator leases the station from DSB. The nationwide ticketing system also belongs to DSB. Other contracted operators are required to lease the ticketing equipment and to sell and accept tickets sold by other RUs. Open access operators do not have the same obligation and can choose whether they wish to sell tickets at the station or not (BAG SPNV, 2011).

Public service contracts

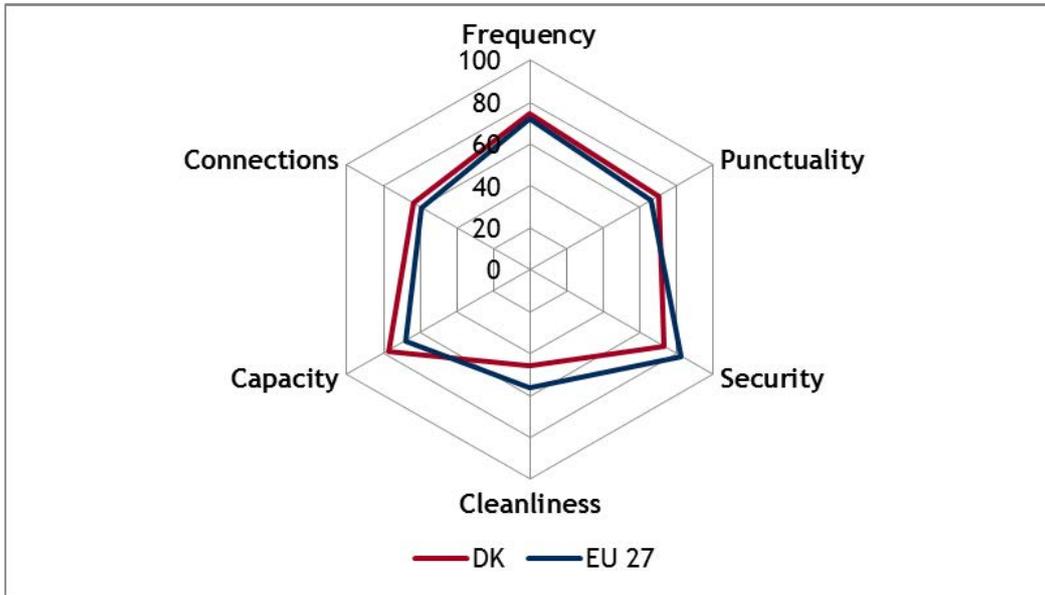
- 2.11 Danish law differentiates three types of passenger rail transport; ‘negotiated’, ‘tendered’ and ‘free’ traffic. As of early 2012, three contracts were procured for the Danish passenger rail network.
- A negotiated contract between the Ministry of Transport and DSB for domestic long distance traffic, cross border traffic with Germany regional services and commuter trains around Copenhagen. It expires at the end of 2014.
 - A tendered contract between the Danish Transport Authority and DSBFirst Danmark A/S (a joint venture between DSB and FirstGroup PLC) for services in eastern Denmark and southern Sweden. This gross cost contract was originally won in 2008 and was due to run until 2015. This contract has recently been taken over by Veolia in Sweden and DSB in Denmark after FirstGroup decided to sell its 30% stake in the company DSBFirst.
 - A tendered contract between the Danish Transport Authority and Arriva Tog A/S for regional services in Western Denmark. It is a net contract which was initially tendered in 2002 and Arriva also won the second tender in 2009 running until 2018.
- 2.12 Approximately 22% of public transport services were tendered out in 2009 with several new tenders being prepared by the Transport Authority. The Government hopes to have one third of all domestic passenger rail transport tendered by 2014 (CER, 2011).
- 2.13 Contracts for some small regional railways are negotiated by regional passenger rail authorities.
- 2.14 Danish rail PSCs specify very detailed obligations in particular with regard to ticketing and seating availability. The majority of rolling stock is owned by DSB. Arriva leases its rolling stock from a leasing company.
- 2.15 DSB reported a loss of DKK 858 million for 2011 and plans to let go over 1000 staff during the next three years (DSB, 2012). Approximately 35% of its total income comes from PSO contract payments.¹

Public funds, investment and quality indicators

- 2.16 Rail customer satisfaction levels are generally higher in Denmark than the EU 27 average, as shown by the results of the Flash Eurobarometer June 2011. Capacity and connections parameters were lower than the others but still slightly higher than their European counterparts.

¹ Stakeholder contribution from the survey

FIGURE 3 EUROBAROMETER 2011 - RESULTS FOR DENMARK AND EU-27

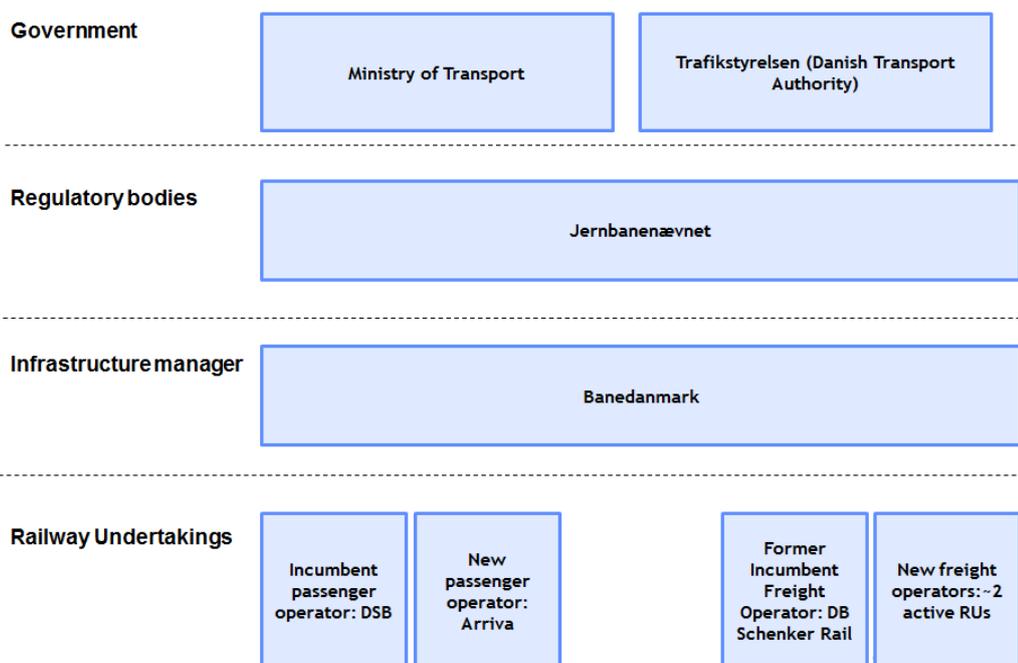


Source: Eurobarometer 2011

3 Regulatory framework

3.1 The Danish Ministry of Transport and the Danish Transport Authority Trafikstyrelsen manage rail services in Denmark. The Ministry organises and manages negotiated contracts while the Transport Authority acts as the competent authority for tendered contracts.

FIGURE 4 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN DENMARK



3.2 The regulatory authority, Jernbanenaevnet was established in 2010 and took over from the former authority Jernbaneklagenævn. It is responsible for monitoring competition and allocating infrastructure. It is an independent institution unlike its predecessor which was associated with the Ministry.

4 Key Findings

Identification of key problems

- 4.1 There is complete vertical separation of infrastructure management and rail operations in Denmark. The incumbent DSB has a market share of over 80%, but is a loss making entity. The decline in freight volumes and the early termination of contracts occurring in 2009-2010 have added to volatility in the market.
- 4.2 There has only been one experience of an open access operator since the market was opened. SJ decided to withdraw their services after less than a year of operations. Occupancy rates were said to be extremely low on the service. SJ services were also not covered by the DSB ticketing distribution services. This led to a volatile and uncertain situation for customers.
- 4.3 The joint venture of DSB and FirstGroup came to an end after DSB were suspected of engaging in illegal cross subsidies.

TABLE 2 SUMMARY OF OUTSTANDING PROBLEMS

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	✗	• No evidence
	Vague rules on access to rail-related services	✗	• No evidence
Industry consolidation	Incomplete unbundling	✗	• No evidence
Access barriers for new entrants	Ineffective unbundling	✗	• No evidence
	Incomplete unbundling	✗	• No evidence
	Deficient funding and investment framework	✓	• DSB is loss-making and indebted
	Access barriers to infrastructure	✓	• Priority given to DSB in when capacity shortages exist
	Lack of structures/mechanisms for coordination	✗	• No evidence
	Lack of financial transparency	✗	• Suggestions of cross subsidising in the case of DSBFirst
Different market access rules in MSs	Absence of competition for PSOs	✓	• No competition for PSOs at the national level
	Distorted/Ineffective competition for PSOs	✓	• Few contracts put to tender
	Absence of open access rights	✗	• No evidence
	Discriminative framework conditions	✗	• No evidence

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EUROPEAN RAIL MARKET OPENING

Estonia

Country Fiche

July 2012

1 Evolution of the national market

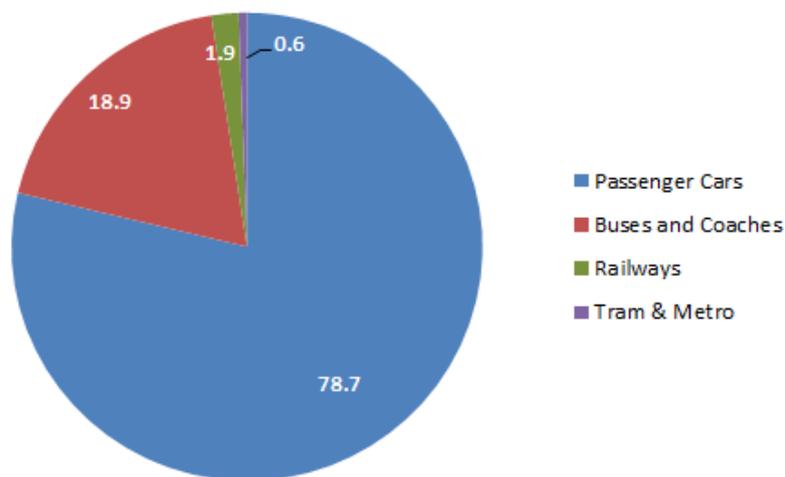
Structure of the network

- 1.1 The population of Estonia is approximately 1.4 million with a density of 31/km². Estonia's rail network is 816km in length and has the lowest density in Europe at just 18.7km/1000km². The vast majority of passenger services are domestic with just one service to Moscow and two crossings of the Latvian border daily. Freight intensity of the network is the highest in the European Union at over five times the average. Passenger intensity is well below the European average. Approximately 100km of the network is electrified.

Changes in volumes for passenger and freight services

- 1.2 Figure 1 displays the modal share of passenger rail in 2009 which was very modest at just 1.9%. On the other hand, the modal share of freight rail was very high at 52%.

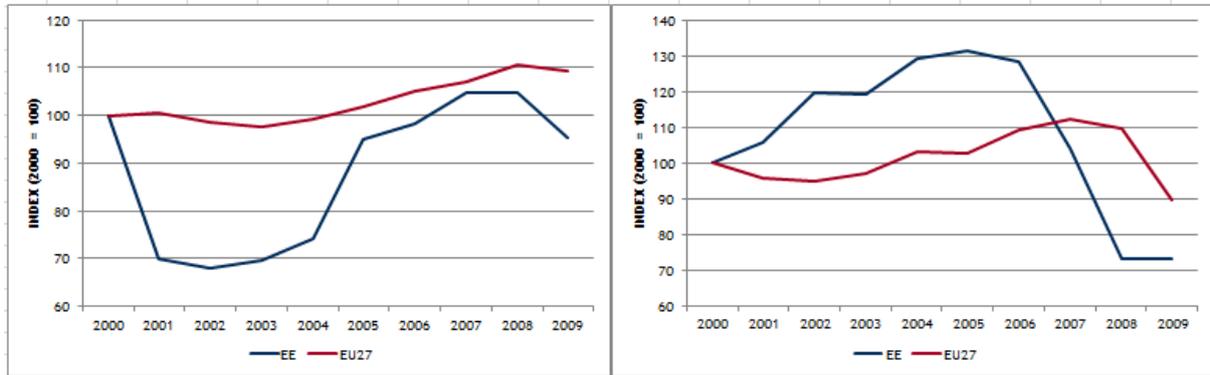
FIGURE 1 MODAL SPLIT IN ESTONIA 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.3 Figure 2 displays the trends in Estonian rail between 2000 and 2009. Passenger rail declined considerably in the early 2000s but had recovered before the economic crisis of 2008-2009.

FIGURE 2 ESTONIA AND THE EU 27, 2000-2009 - PASSENGER AND FREIGHT KM



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.4 Conversely, tonne kms increased between 2000 and 2006 but have declined dramatically since.

2 Competition and market access

Overview of the passenger and freight operators

- 2.1 The incumbent operator is the state-owned EVR (AS Eesti Raudtee). This holding company is divided into two entities, AS EVR Infra who is responsible for the network's infrastructure (approximately 800km in length) and AS EVR Cargo who operates the freight operations sector of the company. A state-owned undertaking Elektriraudtee AS, operates electric commuter trains around Tallinn.
- 2.2 A separate network (approximately 300km in length) in the south west of the country is managed and operated by a private RU, Edelaraudtee AS. This RU also operates some intercity services on EVR's infrastructure. No external RUs operate on Edelaraudtee's infrastructure.
- 2.3 Both infrastructure managers own all stations on their respective networks. In 2009, 44.7% of passenger rail services were provided by Elektriraudtee AS and 55.3% by Edelaraudtee AS.
- 2.4 GoRail, a private undertaking, took over the running of daily services between Tallinn and Moscow and Tallinn and St Petersburg from a partially state-owned company in 2006. The route to Saint Petersburg was closed in 2008.
- 2.5 There are several external freight RUs operating in Estonia. The country lies on an important trade route from east to west and has substantial transit traffic.

Open access

- 2.6 The Estonian rail market has been liberalised since 2004. Currently, the only commercially run passenger service is that of GoRail between Estonia and Russia. All other passenger services are run on a public service contract. There are several external RUs operating in the freight sector, accounting for 56.6% of freight services in 2009 (IBM, 2011).

Access barriers

- 2.7 Table 1 displays the costs and times associated with entering the Estonian rail market.

TABLE 1 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating licence	1 month	€1917 - 3835
Safety certificate	1 month	€639
Authorisation of rolling stock	2 months	Free of charge

- 2.8 Estonian railways run on a broad gauge which is a significant obstacle to operators from other Member States wishing to enter the market.

Public service contracts

- 2.9 Three contracts are procured by the Ministry of Transport and Communications for passenger rail services in Estonia; one with AS Elektriraudtee and two with AS Edelaraudtee, one for services on its own network and the other for services on AS EVR

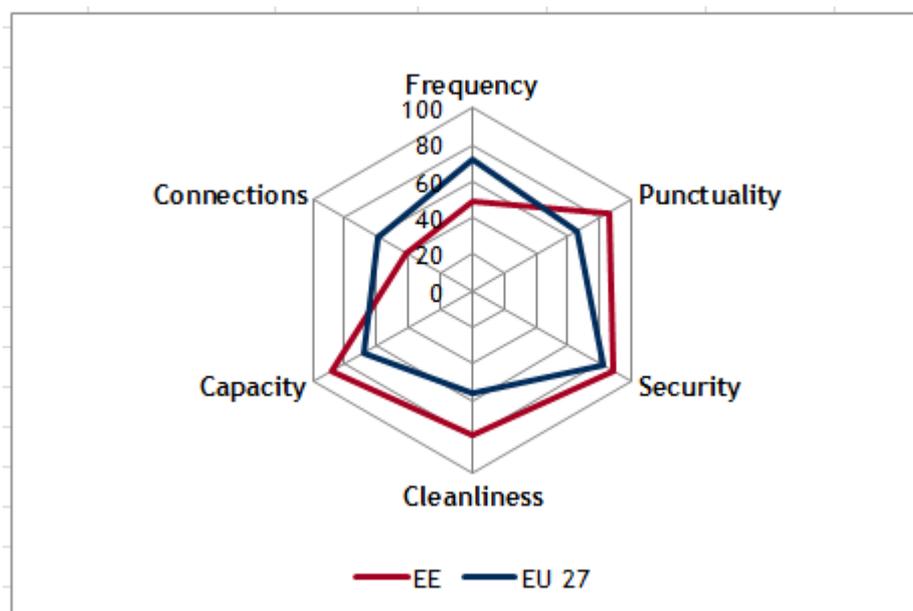
Infra’s network. Estonian legislation states that the contracts must follow a public tendering procedure. In reality, however, they are negotiated directly.

- 2.10 EVR (AS Eesti Raudtee) was privatised in 2001 but the company was renationalised in 2007. The decision to renationalise the company came after the private majority owner, BRS, objected to new government obligations which required them to open the entire network to private RUs (TERA, 2006). Previously, private RUs had paid track access charges for the train paths. BRS felt that this compromised its own train operations.
- 2.11 Before privatisation in 2001, EVR employed 4255 staff. By 2004, this number had fallen to approximately 2670 staff following the sale of the company. In 2010, 1737 employees were employed by EVR.
- 2.12 Rolling stock is owned by the respective operators. Almost all rolling stock is over thirty years old. Orders have been placed for some new stock which is due to come into service over the next couple of years.

Public funds, investment and quality indicators

- 2.13 Customer satisfaction with Estonian rail services is above the EU 27 average for most indicators but falls below for connection and frequency indicators.

FIGURE 3 EUROBAROMETER 2011 - RESULTS FOR ESTONIA AND EU-27

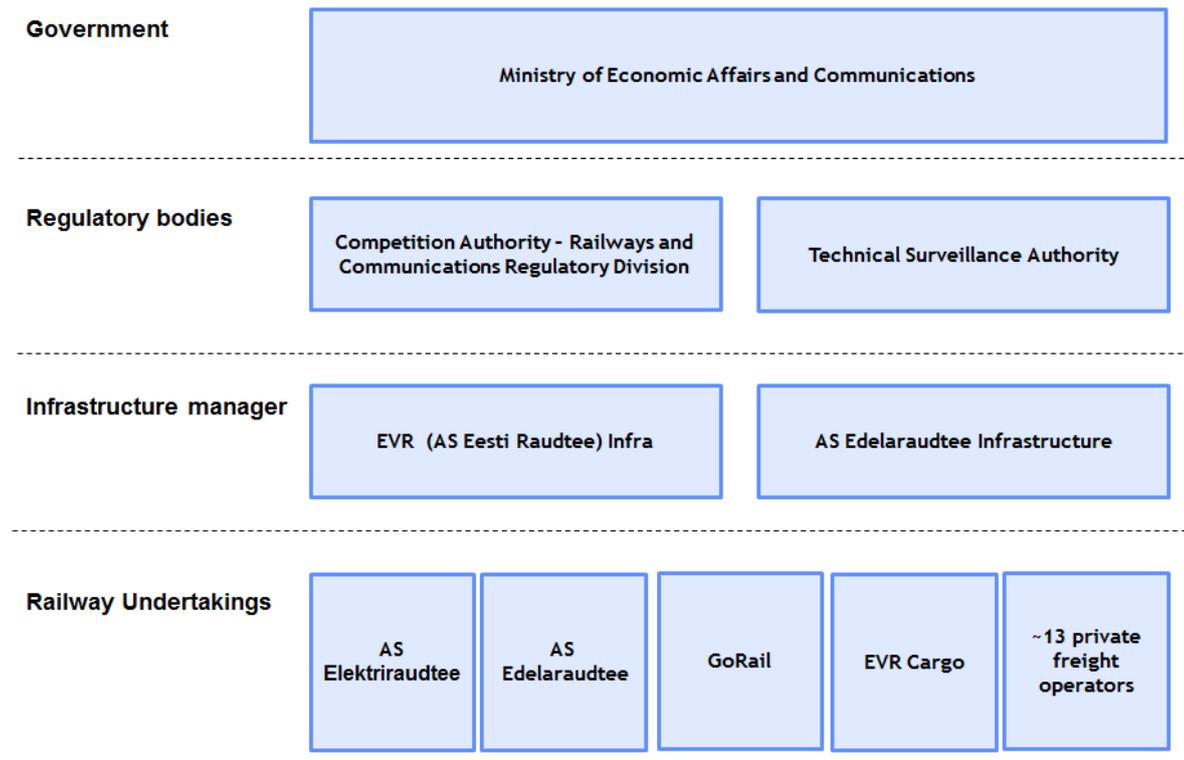


Source: Eurobarometer 2011

3 Regulatory framework

3.1 Figure 4 displays the various entities involved in the Estonian rail network. The Railways and Communications Regulatory Division of the Competition Authority is responsible for monitoring competition and examining the network statement. They also handle complaints but RUs are also able to take their complaints directly to the Ministry if they wish to do so.

FIGURE 4 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN ESTONIA



Source: Steer Davies Gleave

3.2 The Ministry works in conjunction with the local governments in deciding which routes should be served and their frequency.

3.3 The Railway Act contains the transposition of the First, Second and Third Railway Packages.

4 Summary of findings

Identification of key problems

- 4.1 Estonia's rail market is quite different to the EU 27 norm due to its high freight volumes. It is also one of the only countries where an operator has been renationalised after being privatised for a certain period of time. Passenger rail km have fallen to the lowest level of the European Union as car journeys become more and more popular.
- 4.2 It is evident that Estonia is located on a strategic corridor between Europe and Russia, not only for freight but passenger rail too. Although Estonia's broad gauge railway network and therefore lack of integration with the most other Member States acts as a major barrier to new entrants, particularly in relation to rolling stock.

Table 1 Summary of outstanding problems

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	X	
	Vague rules on access to rail-related services	X	
Industry consolidation	Incomplete unbundling	X	
Access barriers for new entrants	Ineffective unbundling	X	
	Incomplete unbundling	X	
	Deficient funding and investment framework	✓	<ul style="list-style-type: none"> Majority of rolling stock over 30 years old
	Access barriers to infrastructure	X	
	Lack of structures/mechanisms for coordination	X	
	Lack of financial transparency	✓	<ul style="list-style-type: none"> Lack of availability for annual reports online
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> PSOs negotiated directly with both operators
	Distorted/Ineffective competition for PSOs	X	
	Absence of open access rights	X	
	Discriminative framework conditions	X	
Other causes	Country-specific problem drivers	✓	<ul style="list-style-type: none"> Broad gauge

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EUROPEAN RAIL MARKET OPENING

Greece

Country Fiche

July 2012

1 Evolution of the national market

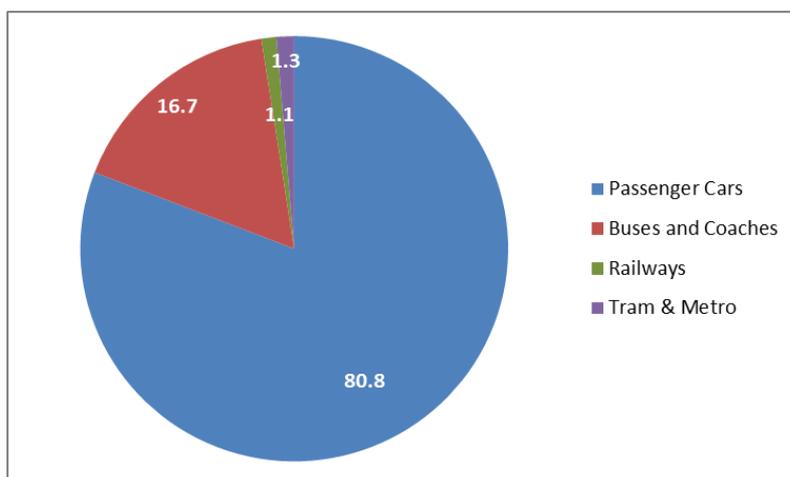
Structure of the network

- 1.1 Greece has a population of approximately 11 million and a population density of 85.3/km². The Greek rail network is 2,550 km long, with the main line connecting Thessaloniki in the north with Patras in the south running through Athens. The network is sparse with a density of 19.4km/1000km² and almost all is serviced by diesel trains. The freight and passenger intensities of the network are below the European averages with the freight intensity less than one sixth of the EU average.

Changes in volumes for passenger and freight services

- 1.2 The overall modal share of rail services is one of the smallest in Europe with around 1% of all passenger-kilometres travelled by train in 2009 (Figure 1).

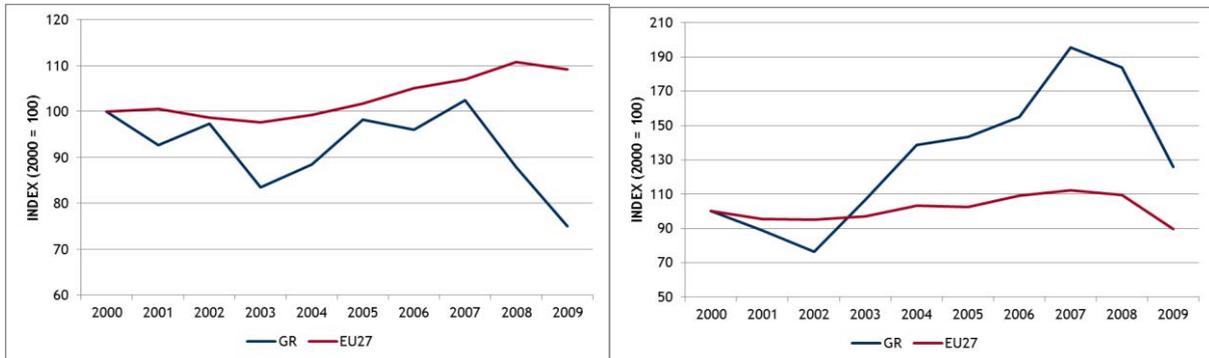
FIGURE 1 MODAL SPLIT IN GREECE - 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.3 Prior to the recession, passenger volumes were volatile while freight volumes had been growing steadily, reaching a modal share of 3% in 2008. Both passenger and freight traffic collapsed in 2009, and provisional estimates for the following months show a record fall in volumes linked to the prolonged recession in Greece. This is in contrast with higher ticket sales (CER 2011) which may indicate more frequent, but shorter journeys by Greek users.

FIGURE 2 GREECE AND THE EU-27, 2000-2009 - PASSENGER AND FREIGHT KM



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

2 Competition and market access

Overview of the passenger and freight operators

- 2.1 The restructuring of the Greek railways began in 2005. Until then, OSE was the infrastructure manager and sole provider of rail services in the country. OSE is currently the infrastructure manager and TrainOSE is the only railway undertaking in the country, providing both passenger and freight services. Both entities are state-owned.
- 2.2 TrainOSE's finances have worsened since 2007 when traffic volumes began to decline. The operator has since accumulated further losses - for instance in 2010 it had a turnover of €102.7 million, with losses of €187.3 million¹.

Open access

- 2.3 Foreign railway undertakings have open access to both passenger and freight international transport. Domestic undertakings have open access to freight but not to passenger transport. However, the only company currently operating in Greece is the incumbent TrainOSE.

Public service contracts

- 2.4 At the time of the preparation of this report, there was no formal public service contract in Greece, but this is being addressed. Nonetheless, TrainOSE runs all public services and receives some compensation from the state. CER (2011) reports that the level of compensation has been largely insufficient and that TrainOSE has been forced to run passenger services based on ticket revenues and to compensate the losses by borrowing.
- 2.5 The new Greek Railway Law 3891/2010 was approved in 2010, stipulating that where there are no requests to operate a route or where such requests do not correspond to the regional transportation need, a PSO contract can be awarded in accordance with the provisions of Regulation 1370/2007. The same Greek law stipulates that the amount of PSO compensation is restricted for a number of lines to a maximum of €50m per year.

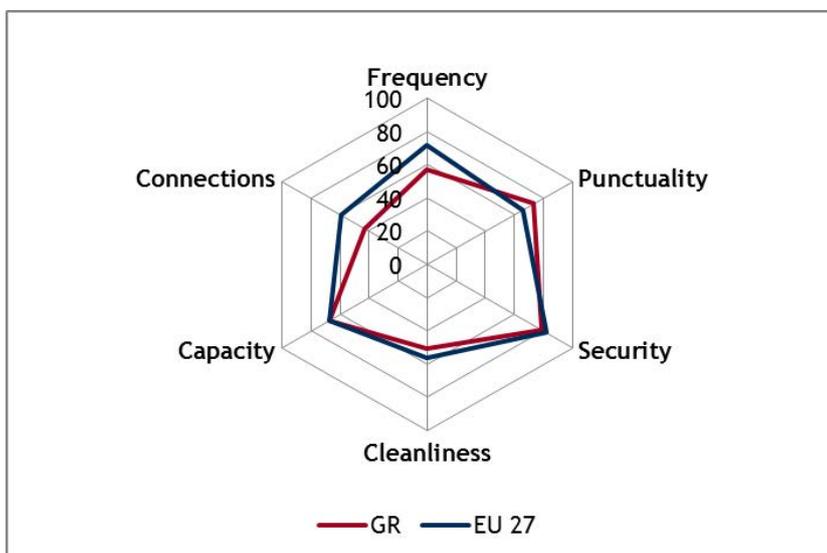
Public funds, investment and quality indicators

- 2.6 The implementation of the aforementioned law on the restructuring of Greek railways is accompanied by wider provisions including the suspension of operation of a number of passenger and freight lines; price increases for passenger and freight transport to increase sales revenues; a significant decrease in staff numbers and the reallocation of workers to other public sector jobs.
- 2.7 The measures contained in the "restructuring plan", to be implemented between 2011 and 2013, will have a wide-ranging impact on the Greek railway market. However, their main objective is to reduce the burden on public finances rather than increase competition.
- 2.8 According to the Eurobarometer Survey 2011, rail services in Greece are rated poorly by users, especially with respect to train frequency and the availability of connections. However, Greek customers are satisfied with punctuality as shown in Figure 3. Investment

¹ EC Communication C (2011) 4943, July 2011

plans for the next decade are likely to be slashed and network improvements will be further delayed.

FIGURE 3 EUROBAROMETER 2011 - RESULTS FOR GREECE AND EU-27



Source: Eurobarometer 2011

Access barriers

2.9 In the context of profound operational restructuring and precarious economic conditions, it is unlikely that new RUs would wish to enter the Greek market in the near future. Nonetheless, the current cost and time to market are presented below. Responsibility for operating licences was recently transferred from the Ministry to the regulatory body (RAS).

TABLE 1 COST TO MARKET AND TIME TO MARKET

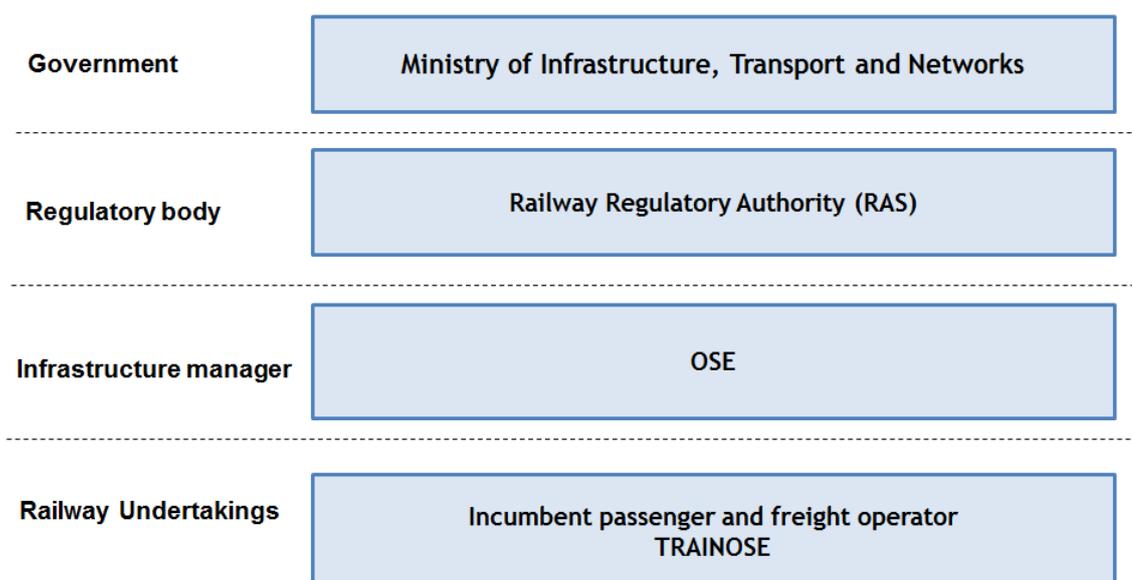
Application type	Time	Cost
Operating licence	3 months	€50,000 deposit
Safety certificate	4 months	€30,000 deposit
Authorisation of rolling stock	n/a	n/a

Source: IBM (2011)

3 Regulatory framework

3.1 A summary of the institutional arrangements of the rail sector in Greece is provided in Figure 4 below. While vertical separation of the IM and the incumbent RU was partially completed in 2002, horizontal separation has not occurred. An independent body, RAS, was created in 2010, taking up the monitoring and regulatory functions previously performed by the Ministry. It currently employs 14 people.

FIGURE 4 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN GREECE



Source: Steer Davies Gleave

4 Summary of findings

Identification of key problems

- 4.1 The developments of the Greek railway market are heavily linked to the economic events unfolding in the country since 2008. On the one hand, these have led to a general reduction in both passenger and freight volumes, worsening the already low market share of rail.
- 4.2 On the other hand, the economic crisis has clearly led to an acceleration of the liberalisation process in Greece. Until recently, this was slow and cumbersome. In this respect, the main problems identified are: the incomplete unbundling of the infrastructure and operations sides given piecemeal reform of the OSE group; the lack of independence and ineffectiveness of the regulator. The results of these actions will need to be evaluated in the light of the creation of the new Regulatory Body and a formal public service contract, as well as the lack of open access to the domestic passenger market, all constituting significant barriers to entry.
- 4.3 A summary of the main problems is presented in Table 2. Looking ahead, the restructuring plans emerging from the negotiations between the Troika (ECB, EC and IMF) and the Greek government on fiscal consolidation will have a profound impact on the Greek railways. It is reasonable to expect downsizing both in terms of staff levels and operations to reduce costs. Fares are also expected to go up in order to increase revenues and reduce TrainOSE's losses.

TABLE 2 SUMMARY OF OUTSTANDING PROBLEMS

Root causes	Problem drivers		Country evidence
Long and costly procedures	Limited access to rolling stock	✘	<ul style="list-style-type: none"> Rolling-stock ownership by TrainOSE
	Vague rules on access to rail-related services	✘	No evidence
Industry consolidation	Incomplete unbundling	✓	<ul style="list-style-type: none"> Unclear role of IM and RU regarding infrastructure
Access barriers to new entrants	Ineffective unbundling	✓	<ul style="list-style-type: none"> Common board members and offices
	Incomplete unbundling	✘	<ul style="list-style-type: none"> Unclear role of IM and RU regarding infrastructure
	Deficient funding and investment framework	✓	<ul style="list-style-type: none"> Budgetary crisis
	Access barriers to infrastructure	✓	<ul style="list-style-type: none"> Unstable route opening/closing
	Lack of structures/mechanisms for coordination	✘	No evidence
	Lack of financial transparency	✘	No evidence
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> No formal PSCs
	Distorted/ineffective competition for PSOs	✓	<ul style="list-style-type: none"> No formal PSCs
	Absence of open access rights	✓	<ul style="list-style-type: none"> No open access to domestic market
	Discriminative framework conditions	✓	<ul style="list-style-type: none"> TrainOSE runs services without defined contract

Potential examples of best practice

- 4.4 The recent reforms of the institutional arrangements in Greece represent a considerable effort to accelerate the liberalisation process. This should lead to the opening up of the domestic market in a relatively short period of time.
- 4.5 As the major overhaul of the railway sector will take place under the direct supervision of European and international institutions, Greece is likely to become a special case study to assess the potential for liberalisation to regenerate an indebted state-owned operator while improving the competitiveness of railways.

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EUROPEAN RAIL MARKET OPENING

Spain

Country Fiche

July 2012

1 Evolution of the national market

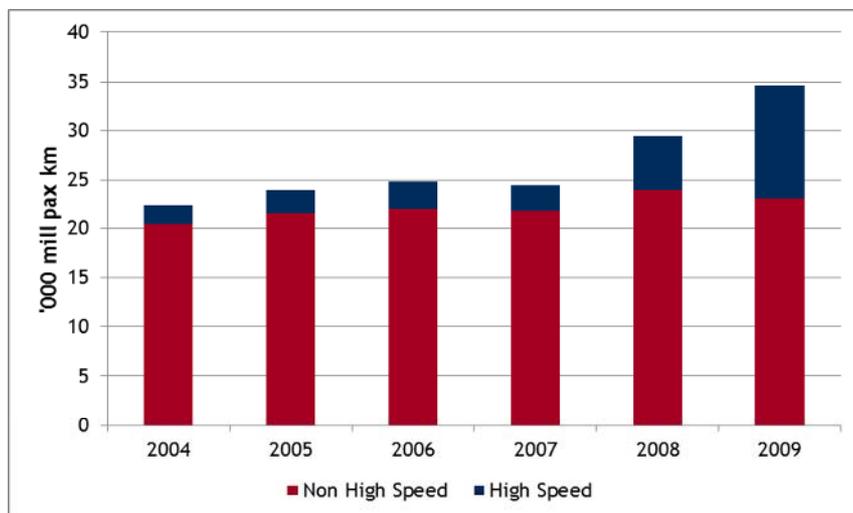
Structure of the network

- 1.1 Spain is the second largest country in the European Union. It has approximately 46 million inhabitants and a population density of 93/km².
- 1.2 The rail network in Spain is 15,290km long with a density of 29.7km/1000km². It has been recently expanded with the construction of high-speed lines connecting the main cities. Over 10% of the network is now high speed while approximately 10,000km are electrified. The freight intensity of the network is below the European average while the passenger intensity is higher than its European counterparts.
- 1.3 The design of the rail network is heavily influenced by geography. High-speed lines connect Madrid with the cities of Barcelona, Valencia and Sevilla and a new line is being built to connect Madrid with Galicia. There are also extensive commuter networks in Madrid and Barcelona.

Changes in volumes for passenger and freight services

- 1.4 The modal share for passenger transport has been fairly stable throughout the 2000s, and was slightly over 5% in 2009. However, passenger volumes have increased overall, particularly as a result of the expansion of high-speed lines as shown in Figure 1.

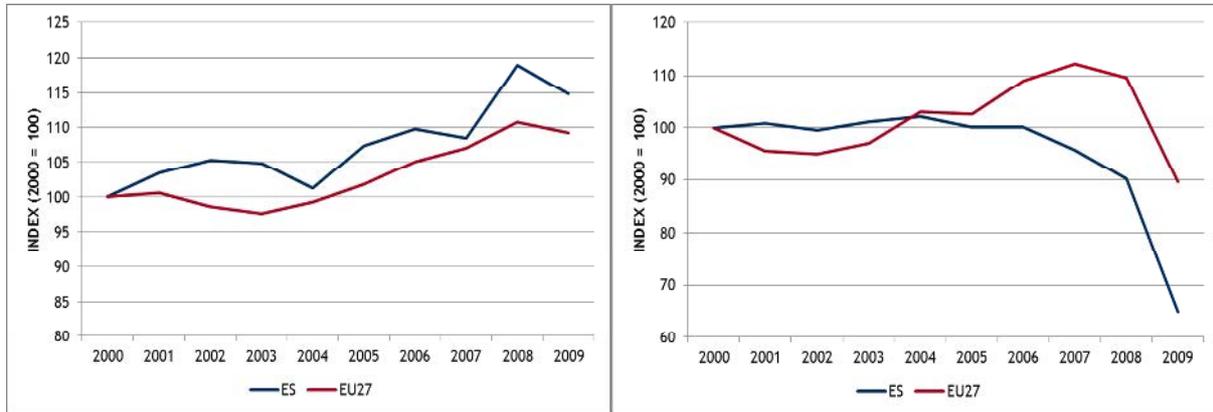
FIGURE 1 TOTAL AND HIGH SPEED RAIL TRAFFIC IN SPAIN 2004-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011) and RMMS (2009)

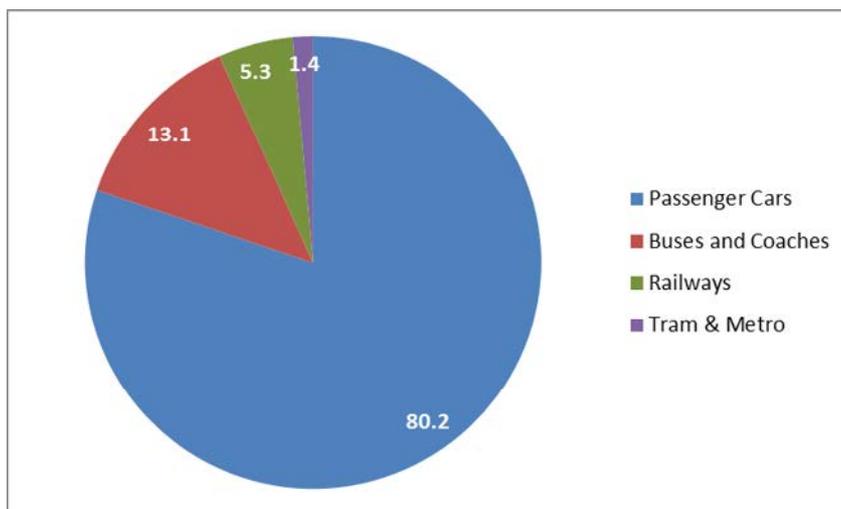
1.5 Rail freight volumes were flat until 2004. Since then, there has been a steep decline of freight transport, much more severe than in the EU as a whole. The economic crisis has certainly exacerbated this situation, in particular the severe slowdown of the construction sector has had a negative effect on transport. In 2009, rail freight made up 4.1% of total freight volumes in Spain.

FIGURE 2 SPAIN AND THE EU-27, 2000-2009 - PASSENGER AND FREIGHT KM



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

FIGURE 3 MODAL SPLIT IN SPAIN - 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

2 Competition and market access

Overview of the passenger and freight operators

- 2.1 The state-owned railway company, RENFE Operadora, operates services for the totality of the network managed by the infrastructure manager, ADIF. However, several regions organise their own services (e.g. Catalonia) and it should also be noted that a different state-owned company, FEVE, operates on the narrow-gauge network along the Atlantic coast. The passenger rail market is closed to competition in Spain and there are no new entrants.
- 2.2 In the freight sector, the incumbent RENFE has been recently restructured into four trading companies, which are set to be partly privatised (up to 45%; Rail.co 2011). Foreign and domestic RUs have open access to the Spanish freight market since 2006. They held 5% of market shares in 2008 and these are estimated to have grown to 10% in 2011. Comsa Rail (which operates in a strategic partnership with the Portuguese private operator Takargo), Continental Rail and Transfesa are the main market players.
- 2.3 RENFE operates high speed train services between Madrid and Barcelona, Valencia and Sevilla and commuter services: Cercanías in Madrid and Rodalies in Barcelona.
- 2.4 Madrid-Barcelona is the busiest air service in the EU.

Public service contracts

- 2.5 The incumbent RENFE is directly awarded public service contracts by the Ministry of Development with the approval of the Ministry of Economic and Finance for mid-distance and commuter services. Long distance services are not covered and are not subject to PSOs.
- 2.6 According to the RMMS, public service contracts cover 52% of total passenger-kilometres. Contracts have a duration of three years and can be renewed for a further three.

Open access

- 2.7 Open access is allowed in the freight sector since 2006, but not in the passenger sector. Since 1st January 2010, purely commercial cross-border rail passenger transport is possible in Spain, but no international service is being operated by third parties. RENFE has, however, signed agreements with both CP (Portugal) and SNCF (France).

Access barriers

- 2.8 Licences, safety certificates and the authorisation of rolling stock are issued by the Ministry. IBM (2011) reports that insurance requirements constitute an access barrier to obtaining a licence. The time and costs to market in Spain are summarised in Table 1. In 2011 infrastructure charges ranged from €0.20/0.40 per path km for all services except high-speed (which varied between €7.50 and €9.50).

TABLE 1 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating licence	3 months	Variable insurance costs
Safety certificate	4 months	€10,000
Authorisation of rolling stock	3 months	<ul style="list-style-type: none"> • From €2,000 (freight) • - €3,000 (passenger)

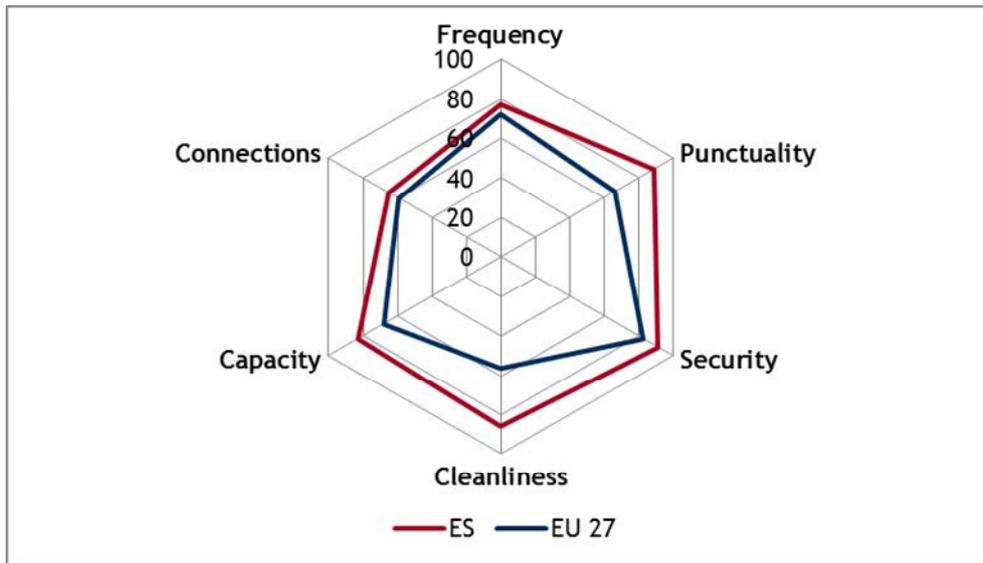
Source: IBM (2011)

- 2.9 The broad-gauge network in Spain constitutes a physical access barriers. New entrants are required to obtain a specific type of rolling stock, different from most other European systems. RENFE operates public services with its own rolling stock. CER (2011) reports that the fleet is currently being renewed.

Public funds, investment and quality indicators

- 2.10 RENFE receives public funding from the state to finance and provide mid-distance and regional rail. This amounted to €450m in 2009 (UIC) and €660m in 2011 (Railway Gazette 03/12, p.32). Nevertheless, RENFE has accumulated losses of around €120m a year both in 2009 and 2010, following a decrease in passenger and freight volumes as well as an increase in costs. Total accumulated debt reached €5.2bn in 2011 (Railway Gazette 03/12, p.32). In recent years, RENFE has been investing heavily in rolling stock renewal (around €1,000 mil. in 2010) and IT; meanwhile, there has been a 30% reduction in the workforce between 2001 and 2009 (Eurostat).
- 2.11 Long-distance and high-speed services do not receive any PSO compensation. However, the major public investment in recent years has been in the new high-speed infrastructure (AVE). The AVE network grew from 550km in 2005 to 2,900km in 2009, linking Spanish cities and reducing journey times. A further 4,300km are under construction with the objective of reaching peripheral regions such as Galicia and Andalucía. AVE investment, which is co-financed by European funds, has been confirmed by the new government despite the overall budget cuts in other transport sectors.
- 2.12 The Eurobarometer (2011) survey puts Spain ahead of most European countries with respect to service quality. The country outperforms EU averages in all aspects. Data from 2010 shows that 96% of all regional and mid-distance services arrived within 15mins of their scheduled arrival time but only 80% of those arrived within 5mins of their scheduled time. Furthermore, only 86% of high-speed trains were on time in 2010.

FIGURE 4 EUROBAROMETER 2011 - RESULTS FOR SPAIN AND EU-27

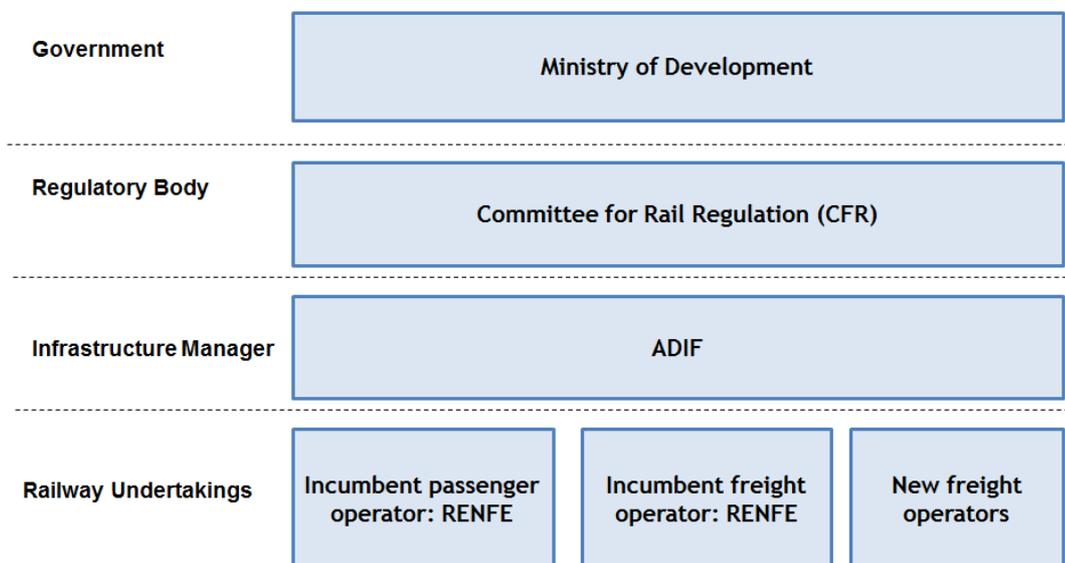


Source: Eurobarometer 2011

3 Regulatory framework

- 3.1 The institutional framework (Figure 5) provides for full vertical separation of the infrastructure manager (ADIF) and the incumbent operator (RENFE). ADIF began its operations in 2005 and it is responsible for capacity allocation, network maintenance, the publication of the network statement and collecting infrastructure charges. In addition, it is constructing some new section of the high-speed network on behalf of the State.
- 3.2 The regulatory body, CFR, has been recently reformed in response to the Commission’s notices listed below. In March 2011, new legislation transformed the CFR into an appeal and supervisory body against ADIF’s decisions. The relationship between the CFR and the Spanish Competition Authority is also strengthened to provide it with additional tasks such as the monitoring competitive and anti-discriminatory practices in the rail market.

FIGURE 5 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN SPAIN



Source: Steer Davies Gleave

4 Summary of findings

Identification of key problems

- 4.1 The situation of the passenger and freight sectors in Spain are radically different and a comparison of the two is useful to highlight some key issues of the Spanish rail market.
- 4.2 The passenger market is closed to competition. The incumbent RENFE is the only operator and it has accumulated losses in recent years. In addition, there is no performance regime and, until recent legislative changes, the regulator did not have sufficient powers. Nevertheless, passenger volumes have been rising steadily and investment in both rolling stock and infrastructure is sustained. The gauge constitutes a main barrier to entry for rolling stock.
- 4.3 The freight market has been liberalised since 2006. While the relative market share of new entrants is on the rise, there has been a dramatic fall in freight volumes as a result of the recession and the collapse of the construction industry in particular. Partial privatisation and internationalisation is the approach that RENFE has chosen for the coming years.
- 4.4 The outstanding problems for Spain thus fall mainly within the legislative and regulatory arenas. Potential examples of best practice
- 4.5 Despite the problems highlighted above, the rail sector has developed significantly in recent years. Quality indicators are higher than most of its European counterparts, journey times have reduced and technology has led to higher labour productivity. This can be attributed to strong government support throughout the 2000s, especially through investment in high-speed lines and rolling stock renewal.
- 4.6 Table 2 provides a summary of the main problems identified.

Potential examples of best practice

- 4.7 Despite the problems highlighted above, the rail sector has developed significantly in recent years. Quality indicators are higher than most of its European counterparts, journey times have reduced and technology has led to higher labour productivity. This can be attributed to strong government support throughout the 2000s, especially through investment in high-speed lines and rolling stock renewal.

TABLE 2 SUMMARY OF OUTSTANDING PROBLEMS

Root causes	Problem drivers		Country evidence
Long and costly procedures	Limited access to rolling stock	✓	<ul style="list-style-type: none"> Rolling stock ownership by RENFE
	Vague rules on access to rail-related services	✗	No evidence
Industry consolidation	Incomplete unbundling	✗	No evidence
Access barriers to new entrants	Ineffective unbundling	✗	No evidence
	Incomplete unbundling	✗	No evidence
	Deficient funding and investment framework	✗	No evidence
	Access barriers to infrastructure	✗	<ul style="list-style-type: none"> Specific technical requirements
	Lack of structures/mechanisms for coordination	✓	<ul style="list-style-type: none"> Weak regional coordination
	Lack of financial transparency	✗	No evidence
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> No competitive tenders for PSOs
	Distorted/ineffective competition for PSOs	✗	No evidence
	Absence of open access rights	✓	<ul style="list-style-type: none"> Passenger market closed to competition
	Discriminative framework conditions	✓	<ul style="list-style-type: none"> Direct award of PSC to RENFE
Other causes	Specific insurance requirements for RUs	✓	<ul style="list-style-type: none"> Higher entry costs

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EUROPEAN RAIL MARKET OPENING

Finland

Country Fiche

July 2012

1 Evolution of the national market

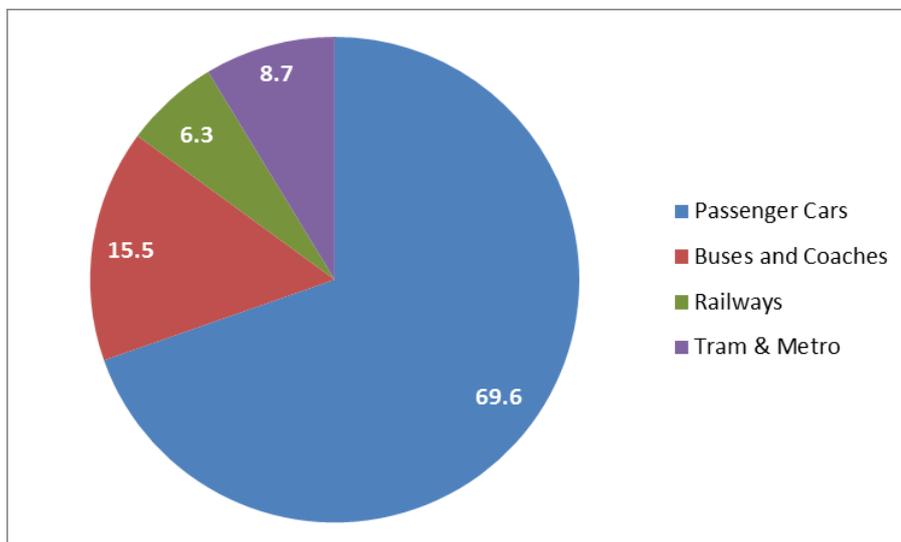
Structure of the network

- 1.1 The Finnish rail network comprises 5,919km of tracks, 90% of which is single track and just over half is electrified. Finland has approximately 5.4 million inhabitants and a density of just 16/km², the lowest in the European Union. The density of its rail network is also the lowest in the European Union at 17.4km/1000km² which contributes to both the freight and passenger intensities standing lower than the European averages.

Changes in volumes for passenger and freight services

- 1.2 The low population density of Finland is a clear obstacle to rail development. Nevertheless, the modal share for rail passenger transport was approximately 6.3% in 2009 as shown in Figure 1.

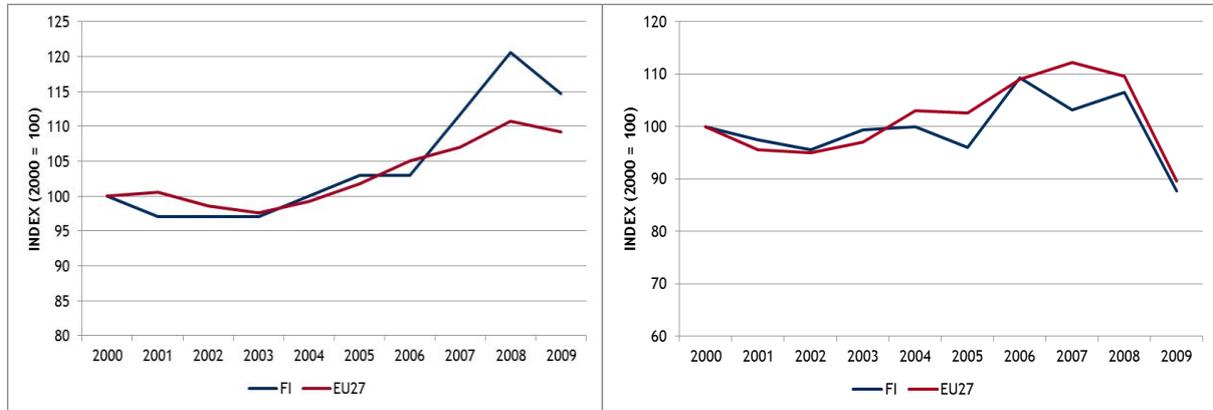
FIGURE 1 PASSENGER SERVICES MODAL SPLIT IN FINLAND - 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.3 Rail passenger volumes have increased steadily from 2001 to 2008, above the EU average, but declined sharply in 2009 as a result of the economic crisis. The fall in economic activity, and especially in wood manufacturing, has also negatively impacted the freight sector where volumes fell by almost a third. The modal share of freight is still higher than the EU average, at around 25%.

FIGURE 2 FINLAND AND THE EU-27, 2000-2009 - PASSENGER AND FREIGHT KM



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

2 Competition and Market Access

Overview of the passenger and freight operators

- 2.1 The state-owned railway company, VR Group, serves the totality of the Finnish network in both the passenger and the freight sectors. Horizontal separation took place in 1995, when the freight business unit was created. Vertical separation was implemented much later with the independent infrastructure manager, the Finnish Transport Agency (Liikennevirasto), taking over the activities of the former IM since 2010.
- 2.2 The passenger sector is closed to competition and VR has a legal monopoly with exclusive rights. The most developed part of the Finnish network is around the metropolitan region of Helsinki (HSL) which hosts the main commuter lines. The contract on the HSL has also been awarded to VR without competitive tenders.
- 2.3 In the freight sector, the incumbent VR has a market share of 100%. However, the freight market has been liberalised in Finland and new entrants enter the market if they wish to do so. While no operators have entered the market yet, two private companies (Proxion Train Oy and Ratarahiti Oy) have been issued safety certificates and may begin operations in the near future.
- 2.4 VR Group has recorded positive financial results in recent years, although profits have begun to decline since 2009. In 2011, the Group recorded moderate growth again with a strong increase in the passenger traffic to Russia (cross-border volumes increased by 28% in 2011) and a huge decline in freight revenue. Overall, profitability remains low but the Group is financially stable.

Public service contracts

- 2.5 According to the 2007 RMMS, 36% of Finnish passenger-kilometres are covered by public service obligations. These have been directly awarded to VR by the Ministry of Transport and Communications until 2019 and by the Helsinki Metropolitan Council until 2017.
- 2.6 Public service obligations relate to specific quality criteria and also prescribe the quality and volumes of rolling stock that is to be used for the duration of the contract. The average duration of PSCs is 10 years.
- 2.7 The opening of the rail passenger services has been debated nationally in recent years. The Ministry has in November 2011 set up a new working group to clarify the impacts of the opening of rail passenger services to determine the award of the next round of contracts. The working group is preparing a report with inputs from civil servants and stakeholders to be submitted in the first half of 2012.

Open access

- 2.8 No open access operators are active in the freight market in Finland. Purely commercial cross-border rail passenger transport is possible in Finland; the most popular route is the Helsinki-St Petersburg connection operated by new Allegro trains (VR-RZD joint venture).

Access barriers

- 2.9 Infrastructure capacity in Finland is limited particularly because a large part of the rail network outside the Helsinki metropolitan area consists of single-track lines (BAG-SPNV).

Finland also has a different rail gauge (1,524 mm) from other EU countries. These factors constitute physical access barriers.

2.10 Licences are issued by the Finnish Transport Agency (FTA). The time and cost to market in Finland are summarised in

2.11 Table 1.

TABLE 1 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating licence	3 months	€1,000
Safety certificate	4 months	€140/hr
Authorisation of rolling stock	n/a	€140/hr

Source: IBM (2011)

2.12 The majority of rolling stock is owned by the incumbent operator VR. However, CER (2011) reports that a joint-stock company with VR and the municipalities is taking over trains and locomotives as they are renewed. In addition, the Ilmala depot in Helsinki, critical for passenger services throughout the country, is entirely used by VR. VR is also responsible for the allocation of infrastructure capacity in railway marshalling yards and for traffic control at the yards.

2.13 In addition, VR owns the main termini, while the Rail Transport Authority owns the minor termini. Ticket sales are currently organised and operated by VR, which owns ticket machines even in stations owned by the RTA.

Public funds, investment and quality indicators

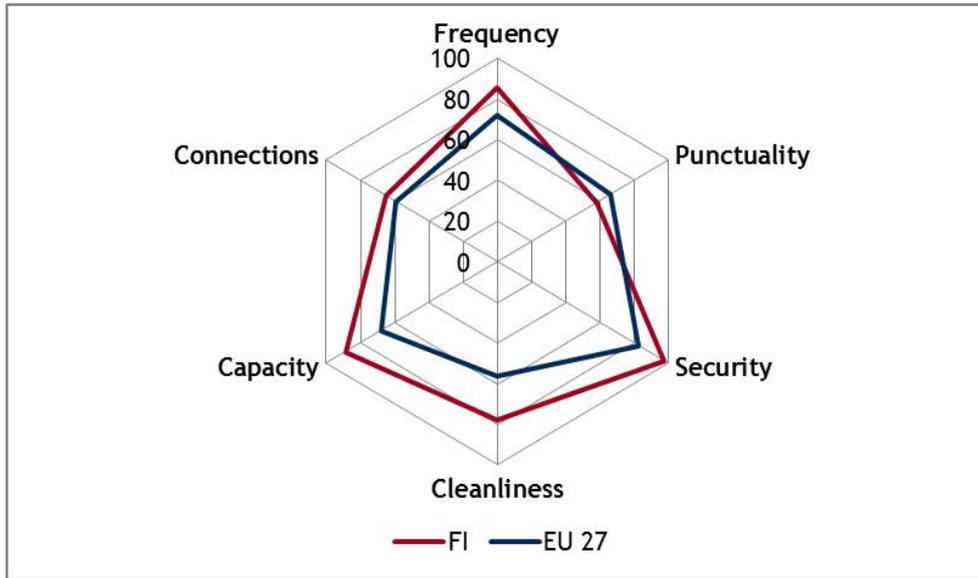
2.14 The compensation of PSOs by the state is based on an estimation of the expected loss incurred by VR. If the actual loss is greater than expected, compensation will not increase. However if the loss is smaller than expected, VR is obliged to return the surplus. The current level of compensation to VR amounts to around €30m per year.

2.15 The level of investment by the incumbent operator is high. VR Group's investments totalled €92m in 2009 and increased to €151m in 2010. The largest share of investment was in rolling stock (€91m) as fleet renewal is one of the company's key objectives¹. Infrastructure is also being upgraded by the IM, subject to public funding and revenue from track charges. Investment amounted to €536m in 2009 (UIC).

2.16 The quality of Finnish railways is rated highly by its users, except for punctuality and connections, according to the results from Eurobarometer 2011 - displayed in Figure 3. Official statistics on punctuality however show a positive record, with 90% of long-distance trains and 96% of commuter trains arriving on time in 2009 (UIC).

¹ VR Group website - http://www.vrgroup.fi/en/vakiolinkit/VRinforms/news_20120305155816.html

FIGURE 3 EUROBAROMETER 2011 - RESULTS FOR FINLAND AND EU-27

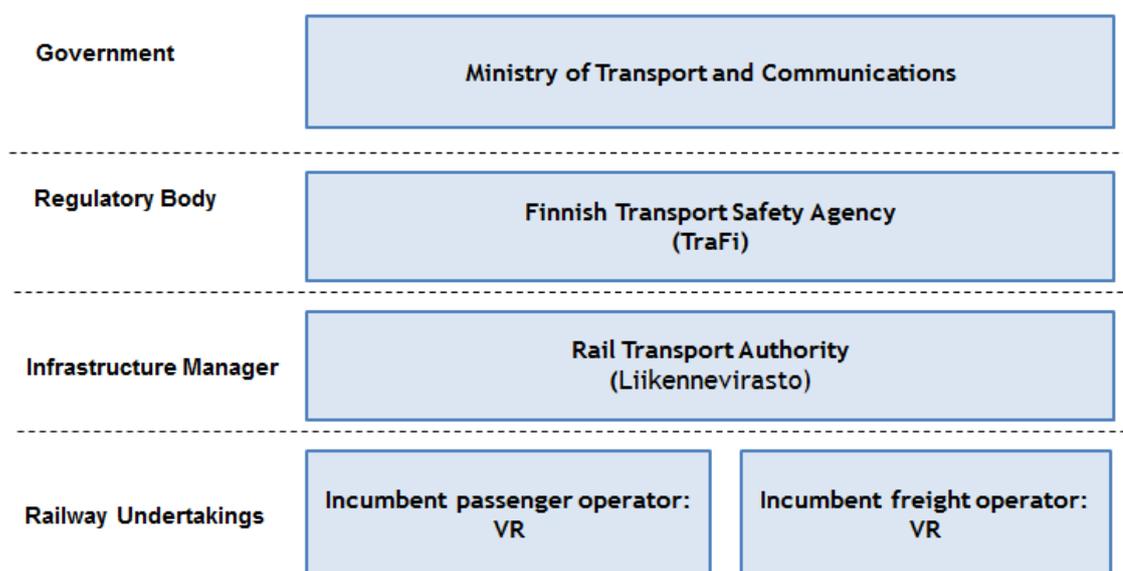


Source: Eurobarometer 2011

3 Regulatory framework

- 3.1 The institutional framework in Finland (Figure 4) provides for full vertical separation of the infrastructure manager (Rail Transport Authority) and the incumbent operator (VR). The RTA is responsible for the management, development and maintenance of the Finnish railway network. The innovative LIIKE electronic system supports operations in the retrieving, allocation and schedule planning of regular traffic rail capacity, favouring transparency of information and simplifying management functions.
- 3.2 The regulatory body is the Transport Safety Agency (TraFi) since 2010. TraFi’s tasks are to monitor and develop railway safety and the interoperability of the railway system, and to prepare new standards. The body examines the Network statement and can initiate investigations. IBM (2011) reports that the reformed TraFi is a more effective and transparent solution for the Finnish market.

FIGURE 4 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN FINLAND



Source: Steer Davies Gleave

- 3.3 The Railway Act 20/1995 on the incorporation of Finnish State Railways contains the provisions for the unbundling of infrastructure and operations. This was recently amended in the Railway act 2011/304 which paves the way for some fundamental changes to be introduced in Finland. A working group established by the Ministry is currently working on drafting new legislation. Railway Act 555/2006 regulates market access for new entrants.
- 3.4 As a result, all the relevant European legislation included in the Railway Packages has been transposed in Finland.

4 Summary of findings

Identification of key problems

- 4.1 The Finnish market is dominated by the incumbent operator, VR. Although the freight sector has been opened up to competition, no operators have taken up the available opportunities to enter the market. The passenger market is formally closed to competition and PSCs are awarded directly to VR.
- 4.2 The market power exercised by VR is a potential barrier for new entrants (Makitalo 2011). VR the main stations, ticket machines, rolling stock and the is in charge of the centralised management of depots and marshalling yards may be deterring freight operators from entering the market. This could also discourage new entrants should the passenger sector be opened to competition. Other technical barriers for new entrants are the gauge and the lack of double-track lines.
- 4.3 The outstanding problems for Finland are thus not related to the legislative and regulatory framework, which has effectively transposed European law. The main problems relate to physical barriers and market dominance by VR, as summarised in Table 2.

TABLE 2 SUMMARY OF OUTSTANDING PROBLEMS

Root causes	Problem drivers		Country evidence
Long and costly procedures	Limited access to rolling stock	✓	<ul style="list-style-type: none"> Rolling stock ownership by VR
	Vague rules on access to rail-related services	✓	<ul style="list-style-type: none"> Ticket sales organised by VR
Industry consolidation	Incomplete unbundling	×	No evidence
Access barriers to new entrants	Ineffective unbundling	×	No evidence
	Incomplete unbundling	×	No evidence
	Deficient funding and investment framework	×	No evidence
	Access barriers to infrastructure	✓	<ul style="list-style-type: none"> Main stations and depots owned by VR
	Lack of structures/mechanisms for coordination	×	No evidence
	Lack of financial transparency	×	No evidence
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> Direct award of PSC to VR
	Distorted/ineffective competition for PSOs	×	No evidence
	Absence of open access rights	×	No evidence
	Discriminative framework conditions	✓	<ul style="list-style-type: none"> Direct award of PSC to VR
Other causes	Specific gauge width	✓	<ul style="list-style-type: none"> Technical barriers

Potential examples of best practice

- 4.4 Despite the absence of competition, the VR Group is a financially viable company which does not constitute a burden for the state budget of Finland. Considerable investment in both rolling stock and infrastructure is taking place. The government is considering reforms to introduce greater competition; legislative changes are expected in Spring 2012.
- 4.5 The introduction of an electronic system for capacity allocation and network management (LIIKE) by the IM is an example of best practice which increases transparency for operators and reduces the risk of discriminatory practices in track allocation.
- 4.6 The opening of international connections with Russia has been successful and the new Allegro trains are effectively competing with air travel.

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EUROPEAN RAIL MARKET OPENING

France

Country Fiche

July 2012

1 Evolution of the national market

Introduction

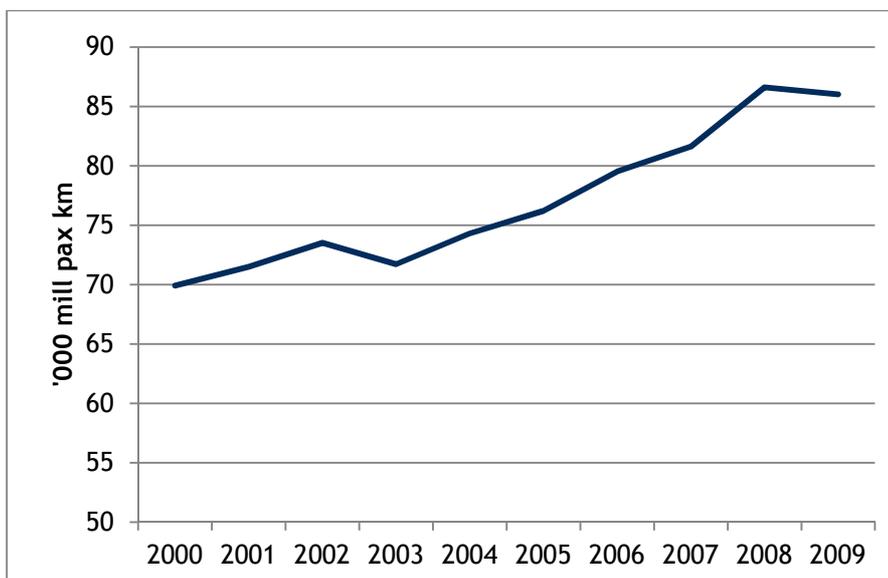
- 1.1 France has a population of approximately 65 million and a density of 116 inhabitants per square kilometre. It shares borders with six countries (Spain, Belgium, Luxembourg, Germany, Switzerland and Italy), as well as having an under-sea rail link to Britain.
- 1.2 The French national rail network comprises approximately 29,000 route-kilometres in service. Of these, approximately 16,000 route kilometres are electrified and nearly 2,000 route kilometres are high-speed lines.
- 1.3 Activity is concentrated around the principal urban areas, and approximately 46% of the network, accounting only for 6% of traffic, is classed as very lightly-trafficked, mainly by regional passenger traffic¹.

Changes in volumes for passenger and freight services

Trends in passenger volumes

- 1.4 The trend in passenger volumes can be observed in Figure 1. This shows fairly consistent growth, though this reduced in 2008 due to the economic downturn. This pattern is similar to, but faster than, the EU trend shown in Figure 2.

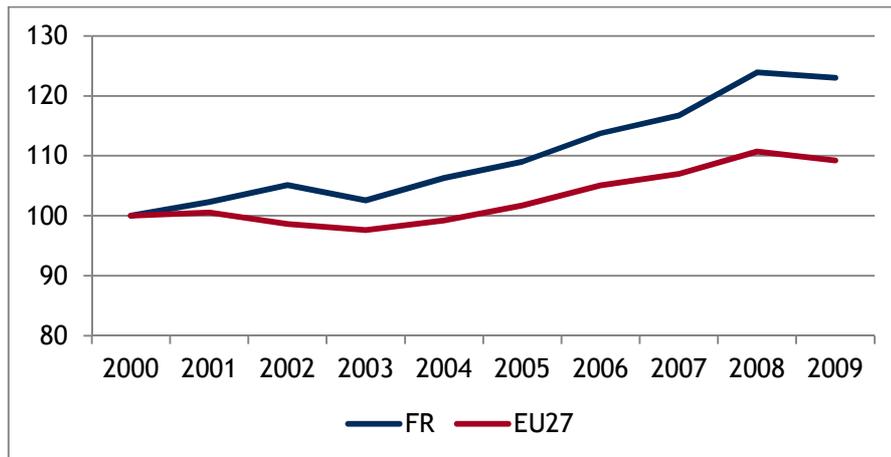
FIGURE 1 PASSENGER-KM IN FRANCE 1990-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

¹ *Le réseau ferroviaire une réforme inachevée, une stratégie incertaine: Synthèse du Rapport public thématique*, Cours des Comptes, April 2008 p19

FIGURE 2 PASSENGER VOLUMES IN FRANCE AND THE EU 2000-2009



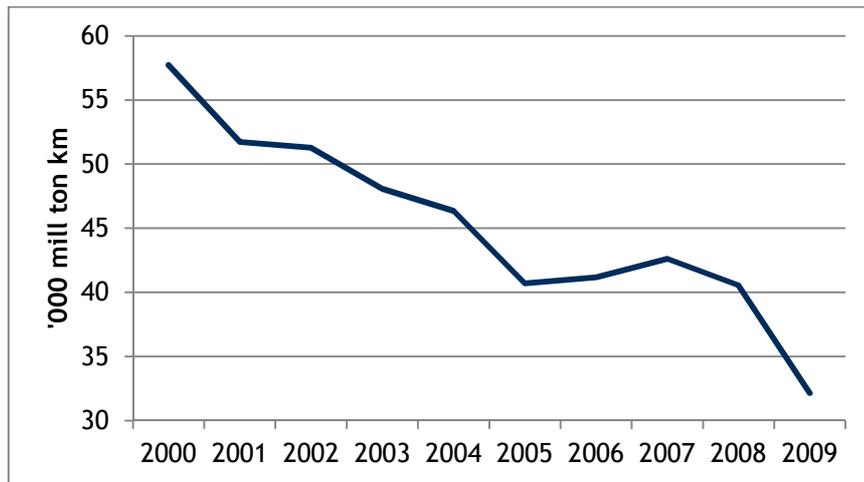
Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

- 1.5 Part of the growth has been due to the popularity of high speed services and growth in the high-speed network itself. Analysis presented by Everis (2010) shows that total passenger growth in passenger km 1995-2008 in France has been 20% when the impact of HSR construction is removed, as opposed to 55% when this is included. Another significant component of growth has been regional suburban services to principal cities such as Lyon and Marseille.
- 1.6 As with most other European networks some of the principal nodes are reaching a point of saturation because of the complex patterns of long-distance, TGV, local and freight services. There are up to 17 TGVs per hour on the Paris-Lyon LGV Sud-Est. Moreover, it is recognised that the quality of the infrastructure, above all but not exclusively on less important lines, is not good. On some lines, temporary speed restrictions have been imposed as a result of past under-investment in renewals. One example is the Nimes - Clermont Ferrand line, whose journey times have been lengthened significantly over the past years as a result of the poor condition of the infrastructure.

Trends in freight volumes

- 1.7 Rail freight volumes have witnessed a steep and almost constant decline, as shown in Figure 3. For the first half of the decade 2000-2009, almost all freight traffic was carried by the incumbent operator, SNCF and the decline reflects its inability to retain historic traffic, combined with an active withdrawal from the single wagonload market sector.
- 1.8 From 2005 onwards, new entrants began to play a more active part, not only capturing some flows from SNCF but also attracting new traffic from the road sector. The overall recovery in volumes was short-lived, as the economy stalled in 2007.
- 1.9 The entry to the market of new freight operators from 2005, given the low levels in the years up to 2005, has had a positive effect on the amount of freight conveyed on rail in France. Nevertheless, it is true to say that SNCF Fret has seen a significant shrinkage in activity.

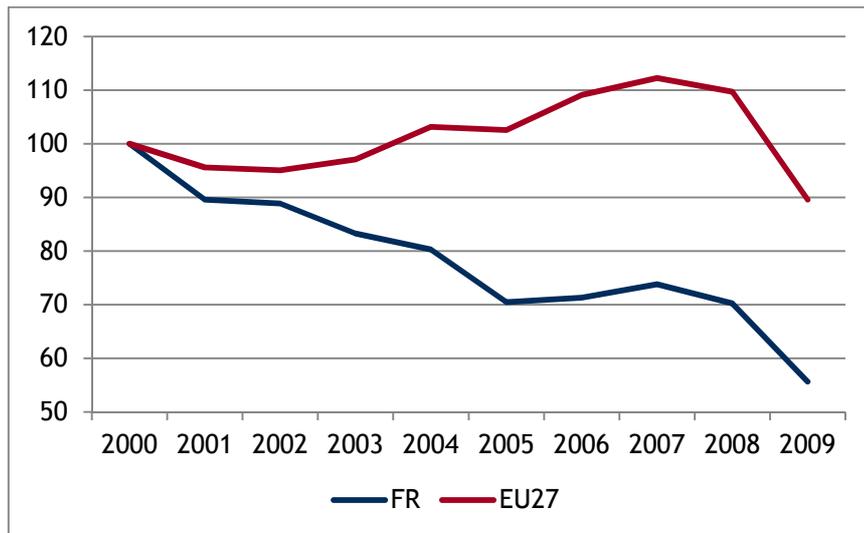
FIGURE 3 FREIGHT TONNE KM IN FRANCE 1990-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.10 Whilst the downturn was consistent with the European trends since 2007 shown in Figure 4, France’s previous decline was in sharp contrast with the wider growth in traffic.

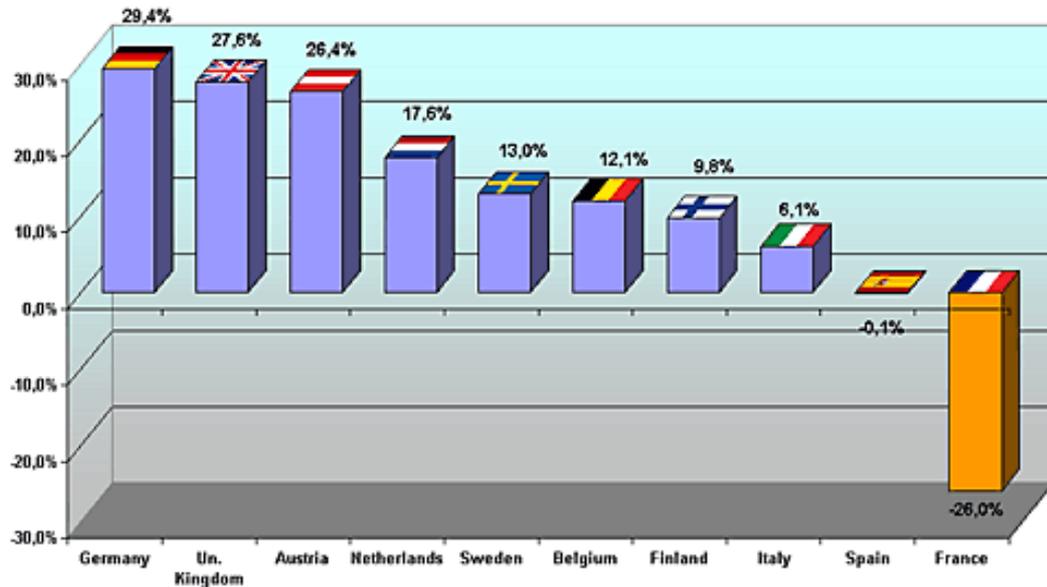
FIGURE 4 FREIGHT VOLUMES IN FRANCE AND THE EU 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.11 The relative performance of France prior to the impact of new entrants is illustrated particularly clearly by Figure 5, which shows the rail freight growth of key networks to 2006.

FIGURE 5 DEVELOPMENT IN RAIL FREIGHT TRANSPORT PERFORMANCE 2006 COMPARED WITH 2000 (ALL EU16 COUNTRIES > 5 BN TKM)

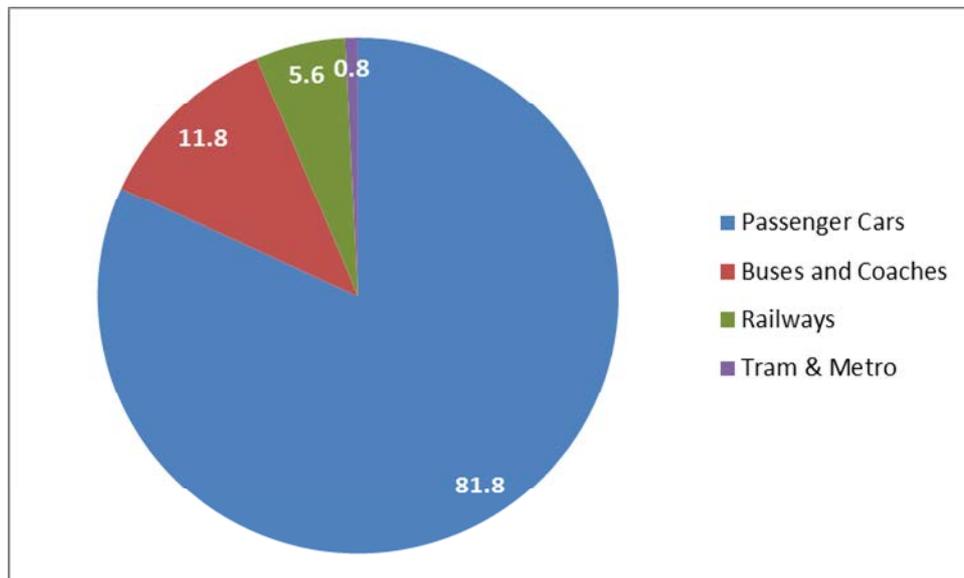


Source: EU Energy and Transport in Figures (2007/2008)

Modal split - passenger and freight

1.12 The modal split for land passenger transport in France in 2009 is shown in Figure 6 below. Rail accounted for around 6% of all passenger kilometres, a similar share to that in previous years, with volumes growing at a similar rate to the all-modes passenger volume.

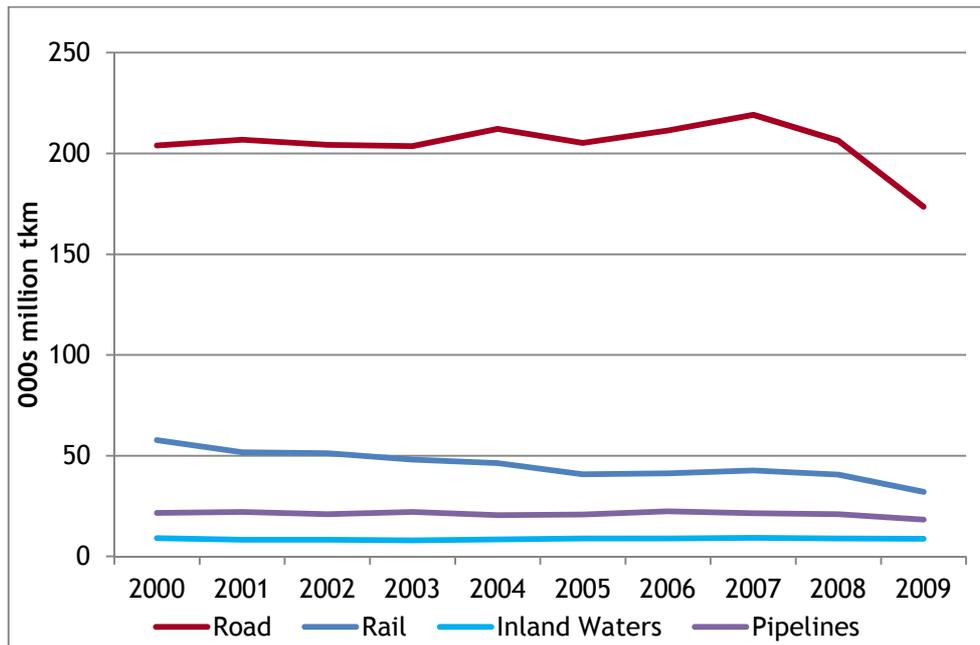
FIGURE 6 MODAL SPLIT IN LAND PASSENGER TRANSPORT 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.13 In the freight sector, the share of rail transport was 14% in 2009 in terms of tonne kilometres - this was 6% lower than its share in 2000. Between 2000 and 2009, the modal share captured by road haulage increased from 70% to 75% (see Figure 7).

FIGURE 7 LAND FREIGHT TRANSPORT VOLUMES BY MODE 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

Railway undertakings

Passenger services

- 1.14 The Société Nationale des Chemins de Fer (SNCF) was established in 1938 to act as the national railway company, through the merger of 5 publicly owned and private main line railway companies, each organised on a territorial basis. Like other national railways, SNCF was constituted as a unitary, vertically integrated organisation combining the functions of a public operator of main line and local passenger and freight services with those of a rail infrastructure manager. SNCF now has the status of EPIC, a public-sector agency that operates with a similar structure to a private company, a status established by a law passed in 1982², which also formalised the monopoly role of SNCF as a provider of domestic rail passenger services.
- 1.15 TGV (high-speed) services are operated by SNCF on a commercial basis, although there are a small number of services which are supported by the regions. TGVs provide the main link between many French cities and Paris, and there is an increasing number of cross-country, inter-regional TGVs. Other long distance daytime and night services, known as TET services, which are considered to be necessary for the regional economies, are operated by SNCF on behalf of the ministry, sometimes with regional support, on the basis of being socially and economically necessary. A contract was defined in 2011 which will run until 2013.
- 1.16 Regional services (TER) are operated by SNCF on the basis of multi-year agreements reached with regional councils, which specify the train services and facilities to be provided to passengers. The councils have also in recent years played a significant role in rolling stock procurement and funding. There are a limited number of high-speed services provided as part of the TER offer, such as between the north coast and Lille.

² Loi d'orientation des transports intérieurs (LOTI) of 30th December 1982

Freight services

1.17 Historically rail freight services in France were provided by SNCF, including the French component of international services. Limited inter-penetration existed for specific flows. To fully comply with the provisions of the First and Second Rail Infrastructure Packages, open access arrangements for international freight services were introduced across the whole French rail network from January 1st 2006³ and was extended to include cabotage and domestic freight traffic services with effect from April 1st 2006⁴, once again in advance of the EU's stipulated deadline of January 1st 2007. This accelerated timescale honoured a commitment made by the French Government, in return for EU approval in March 2005 for the provision of State Aid to fund the financial and operational restructuring and re-equipment of SNCF's rail freight activities.

1.18 Current freight operators holding French licences are:

- SNCB Logistics
- Euro Cargo Rail (part of the DB group)
- Crossrail
- SNCF Fret
- VFLI (part of SNCF Group - short lines)
- CFL Cargo
- Colas Rail (travaux)
- On Site Rail (travaux)
- RDT 13
- Trenitalia
- CFR (short lines)
- Europorte Channel / France (part of Eurotunnel Group)

Market shares of new entrants in passenger and freight services

1.19 New entrants have made significant inroads since that time and now have well over 20% of the market. The largest, Euro Cargo Rail, claims to have a 20% market share on its own. The other major French player is Europorte 2, a subsidiary of Eurotunnel, which purchased the French operations of Veolia Cargo. In addition to France's own new entrants, neighbouring incumbent operators operate into France.

³ Decree 2005-1633 of 20th December 2005 (' Décret modifiant le décret n° 2003-194 du 7 mars 2003 relatif à l'utilisation du réseau ferré national')

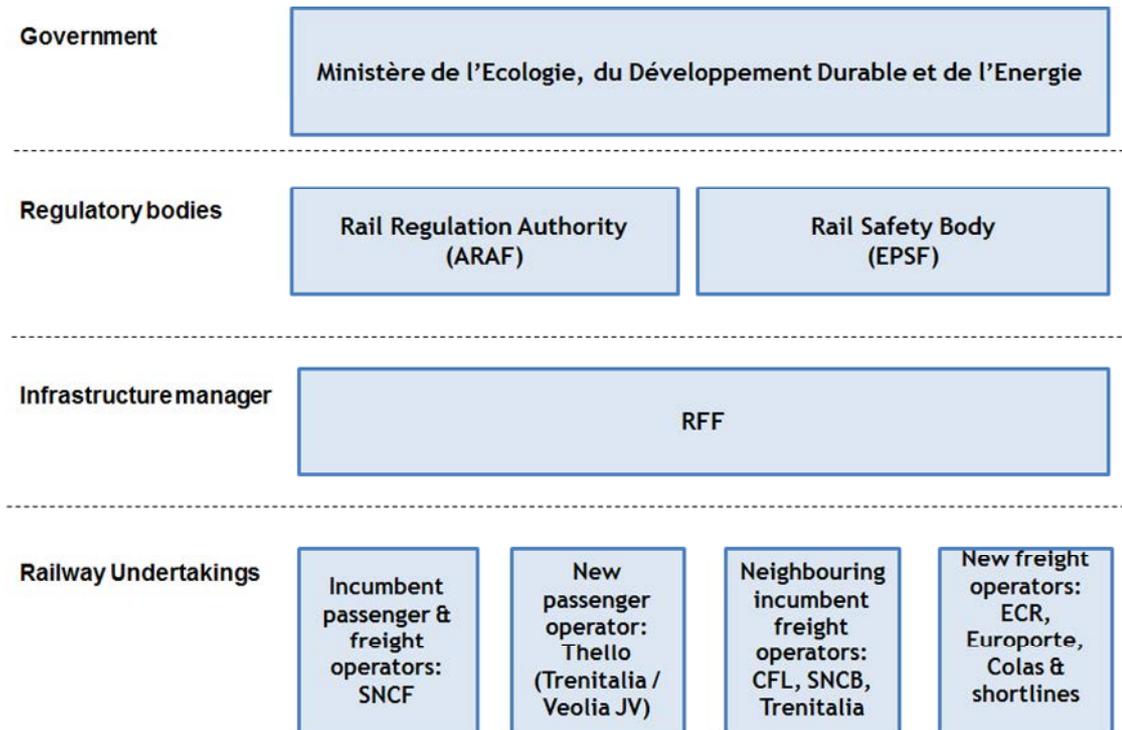
⁴ Act 2006-10 of January 5th 2006

2 Institutional background

Regulatory framework: Institutions and their role

2.1 Figure 8 summarises the institutional arrangements regulating the rail market on the national network in France. Their history and specific functions are described below.

FIGURE 8 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN FRANCE



Transport Ministry

2.2 The Ministère de l'Écologie, du Développement Durable et de l'Énergie (Ministry of ecology, sustainable development and energy) is charged with transforming society so that it can respond to dwindling natural resources and climate change. With specific reference to transport, it is charged with achieving effective integration of different transport modes, whilst ensuring effective regional and urban services.

2.3 According to Annex 6 of EC's Communication SEC(2009)1687/2, the Ministry is in charge, amongst others, of the following tasks:

- provision of licences for RUs
- notification of the National Safety Rules received from the EC
- monitoring interoperability

2.4 In addition to these wider responsibilities, the ministry is the 'Organising Authority' for the publicly-supported, long-distance services, the TET network. This can be considered to be the equivalent role to that performed by regional authorities for regional service described below.

Regional authorities

- 2.5 The regional authorities of mainland France have significantly devolved responsibility for the specification of TER services, for which they are ‘Organising Authorities’. Each region negotiates an operating agreement with SNCF to cover a period of between 5 and 10 years. This arrangement was established in 2000 as part of measures to decentralise the provision of transport⁵. These agreements cover train services, service quality, passenger information and other details. Bonus / malus payments are identified for key indicators. Some regions have been sufficiently dissatisfied to threaten to withhold payments.
- 2.6 At present, the regions are only responsible for the operating costs of services and for a marginal contribution to infrastructure costs. In the absence of competitive procurement, regions have been dependent upon SNCF to provide information about the costs of operation (in particular the apportionment of any costs shared between types of train service). There is a natural suspicion that SNCF will tend to attribute as many costs as possible to the operation of TER services. With the current constraints upon public spending, regions are increasingly demanding more transparency of costing.
- 2.7 Costs of TER services have been rising for a number of reasons:
- an increase in number of services specified
 - investment in new rolling stock fleets
 - increasing track access costs
 - an indexation of payments to SNCF in excess of inflation and of state contributions to regions
 - various legislative and regulatory changes (such as new accounting norms, tax reform, creation of EPSF and contributions to staff retirements)

Rail regulation authority

- 2.8 The main objectives of ARAF, which was created in 2010, are to contribute to the proper functioning of public service and competitive activities for the benefit of users and customers of rail services and to prevent non-discriminatory access to railway companies in the rail network.
- 2.9 Prior to its existence, there was a shadow regulator as part of the Mission de Contrôle des Activités Ferroviaires (MCAF) but this was a branch of the transport ministry and was not considered by impartial observers to be independent.
- 2.10 ARAF was set up by a national law⁶ with a mission to regulate the rail market in compliance with Directive 2001/14/EC. Notably, ARAF has to undertake investigations if and when a complaint is submitted to it. It has the power to take final conditions and to order coercive measures and impose fines up to 5% of revenue or up to €375,000 in case of recurrence. ARAF can take both ex-ante and ex-post decisions and the legal certainty of ex-ante decisions is warranted.

⁵ Law 200-1208 of 13th December 2000

⁶ Law n° 2009-1503 with powers stipulated in powers are stipulated in Article L. 2133-6 of the Code des transports

- 2.11 ARAF's head is appointed by Parliament in order to ensure independence from the ministry. It has three divisions:
- legal affairs
 - track access
 - financial audit
- 2.12 The decisions are either made by ARAF's board (collège) or by its President. Since the beginning of its activities, the collège has formulated 35 decisions (10 in 2010 and the first half of 2012 and 15 in 2011) and the President 4 decisions (all on internal matters). In the first year, most decisions on internal and organisational matters.
- 2.13 Since December 2010, ARAF's has been making decisions on market issues influencing operators and other actors. Examination of the rulings from the first years of ARAF's existence suggests that its main focus is on disputes about capacity allocation; in fact, until June 2012, ARAF made 8 decisions relating to train path allocation. These disputes usually saw freight operators (Novatrans, Euro Cargo Rail, FROIDCOMBI) challenging RFF decisions on capacity allocation and on the use of freight facilities.
- 2.14 Complaints have been made about other subjects but have not always been deemed to be within ARAF's sphere of activity. In October 2011, ARAF ruled on changing SNCF's accounting rules, separating the accounting relating to SNCF's Stations from other SNCF's activities.

National safety authority

- 2.15 EPSF is the National Safety Authority in France. It was created in April 2006 but not until 2010 were its activities grouped into the current site at Amiens. As with ARAF, the head of EPSF is appointed by parliament, which is intended to demonstrate complete independence from the ministry. EPSF has two main divisions:
- authorisations and monitoring
 - standards / Europe
- 2.16 Prior to its creation, its roles were undertaken nominally by a branch of the transport ministry, though in reality it was dependent upon the engineering departments of the incumbent RU, SNCF, to undertake technical studies.
- 2.17 The organisation receives no state funding. It receives its funding from:
- A safety levy, set by law, on railway undertakings of 0.05% of their track access fees that are paid to RFF
 - Fees for processing requests for authorisations
 - Fees for undertaking services for third parties where necessitated by agreements
- 2.18 In 2010, EPSF's total income was roughly €13M. There were 101 staff at the end of 2010. Staffing costs (including taxes) account for 79% of expenditure. Of these, 40 staff were on secondment from SNCF and 2 from RATP.

Infrastructure manager

- 2.19 The Infrastructure Manager, RFF, was established in 1997⁷ in order to separate the balance sheets for infrastructure management and train operations in response to Directive 91/440/EEC. Its intentions were stated to be:
- create the conditions for a renewal of rail transport and to reverse the declining trend to date
 - find lasting solutions to the sector's financial problems, especially the size of its debt
 - prepare for the decentralisation of regional passenger services
- 2.20 Like SNCF, RFF has the status of 'EPIC', a publicly-owned but commercially driven agency. At its creation it became the owner of the national rail network infrastructure. In return it inherited SNCF's historic debt of €20.46 billion.
- 2.21 In 1998, a report by France's audit commission⁸ noted that the 1997 legislation had been a compromise arrangement and that a key objective of its promoters was to unburden SNCF of its debt without this debt being passed to the state, which would have disqualified France from entry to the Euro. However, the absence of adequate income streams for RFF to service this inherited debt has forced the state to organise a series of competitions for its re-financing. By 2007, RFF's debt had risen to €27.9 billion. A significant proportion of this debt is not capable of being paid off and hence it can be judged to be effectively underwritten by the state, given that RFF could not cease to exist without, in effect, the suspension of all train services. RFF has struggled with a gap of more than €1 billion between the €7 billion annual cost of maintaining its infrastructure and the €3.3 billion raised from track access costs plus €2.2 billion in contribution from the public sector.

TABLE 1 FINANCIAL RESULTS OF RFF⁹

Millions €	2011	2010
Turnover	5.0	4.6
State operating subsidy	0.8	1.0
Operating Profit/Loss	1.5	1.5

- 2.22 For the first time, in 2008, the state signed a performance contract with RFF¹⁰ for a 4-year period. This had four key components:
- adapt to market opening and develop commercial offers
 - modernise infrastructure and improve network performance

⁷ Law of 13th February 1977

⁸ *Le réseau ferroviaire une réforme inachevée, une stratégie incertaine: Synthèse du Rapport public thématique*, Cours des Comptes, April 2008

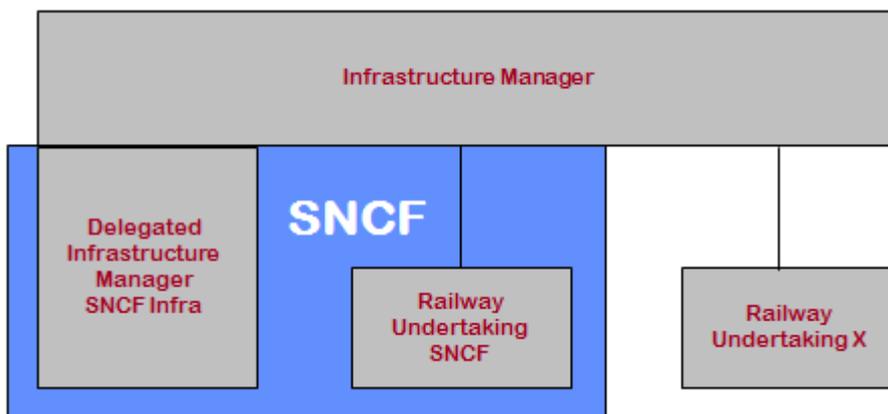
⁹ RFF press release 16th March 2012

¹⁰ *Ouvrir, rénover, équilibrer : Contrat de performance* entre l'Etat et RFF

- progress towards financial equilibrium and establish sustainable funding
- dynamic direction and responsible governance

2.23 In order to ensure minimal impact upon the sector at the time of RFF's creation, an arrangement was introduced by which the tasks of operating and maintaining the infrastructure were required to be 'delegated' back to SNCF, which became at the same time 'delegated infrastructure manager' and the incumbent railway undertaking. Although the resourcing and competences of RFF have developed, this relationship, which is illustrated in Figure 9, still exists.

FIGURE 9 ILLUSTRATION OF ROLE OF DELEGATED INFRASTRUCTURE MANAGER

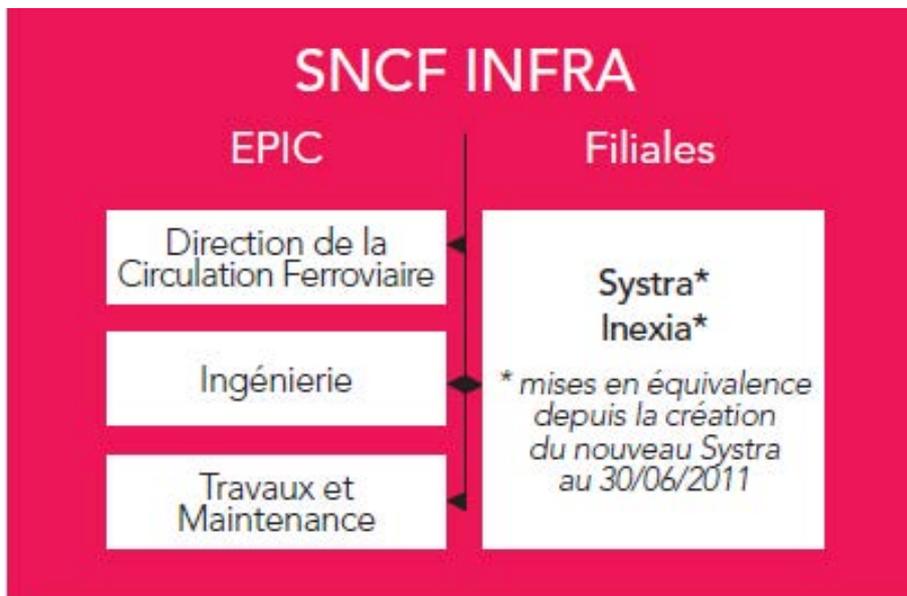


- 2.24 SNCF activities in the role of delegated infrastructure manager are funded euro-for-euro by RFF, which gives RFF little control over cost-effectiveness. As RFF has sought to make more decisions itself, notably related to capacity allocation, it has developed parallel processes to those being undertaken by SNCF Infra (the Delegated Infrastructure Manager).
- 2.25 For most of the time since the role of delegated infrastructure was given to SNCF, this role and that of railway undertaking were undertaken within the same hierarchy. The SERVRAIL study identified concerns amongst other players that SNCF's Regional Managers had conflicting interests and that, as a result, capacity-allocation and railway control staff were acting systematically to the advantage of SNCF against other railway undertakings. Similarly, many front-line staff were identified as having unclear lines of reporting, perpetuating this conflict of interest, for example in facilitating access to essential services.
- 2.26 From 2011 SNCF has had a functionally-independent division, DCF, to undertake its timetabling and network management roles. The Commission has yet to express its view of DCF but ARAF has raised concerns about the transparency of its structure.¹¹ A management contract has recently been signed to govern the relationship between RFF and DCF for the 3 years starting January 2012 with the objective of making DCF operate functionally as an agent of RFF.

¹¹ Avis n° 2011-006 du 23 mars 2011 sur le projet de décret relatif au service gestionnaire du trafic et des circulations et portant diverses dispositions en matière ferroviaire

- 2.27 However DCF has no independent legal status, leading to some limitations. In the field of human resources, DCF employees are under SNCF contracts, which are all managed by the SNCF Group. Likewise, DCF employees have no specific labour representation, making it more difficult to manage strikes and labour matters effectively. In the field of crisis management, SNCF has the last word in deciding the strategy to be adopted to enable traffic to resume, as stipulated in the DCF governance charter.
- 2.28 With respect to network maintenance, SNCF Infra manages and delivers the work broadly to RFF's guidance. But RFF does not manage the possessions and SNCF Infra may be considered to lack the necessary incentives to make best use of engineering possessions (or indeed use them at all on occasion). Discussions have indicated that the management of possessions is not appropriately geared to permit their most effective use. It is also suggested that the continued management of possessions by SNCF Infra makes the charge of discriminatory behaviour in relation to other operators more likely, even if such a consequence is not intended.
- 2.29 Re-planning of services to enable possessions is closely linked to the planning of possessions themselves. There have been arguments that separating off DCF reduces the opportunities for integration of these activities. However, others suggest that a lack of transparency in the past has enabled possessions to be planned to the advantage of SNCF at the expense of other railway undertakings.
- 2.30 The structure of SNCF Infra is shown in Figure 10.

FIGURE 10 STRUCTURE OF SNCF'S INFRASTRUCTURE DIVISION

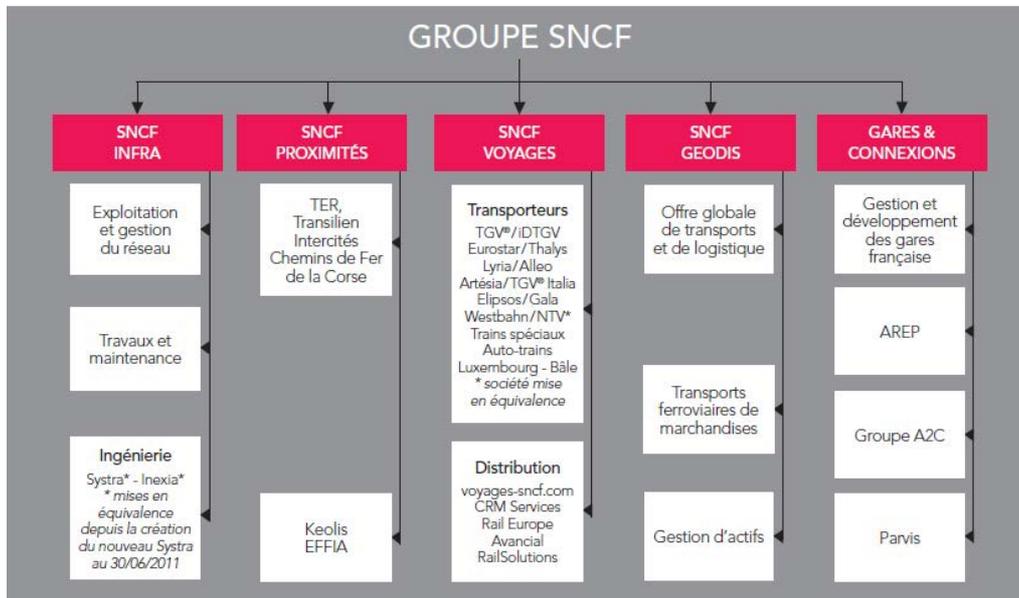


- 2.31 The division itself comprises the following activities:
- Direction de la Circulation Ferroviaire
 - Engineering
 - Works and Maintenance
- 2.32 Approximately 14,000 staff are employed in DCF and 40,000 in the rest of SNCF Infra.

Overview of the incumbent operator

- 2.33 The incumbent operator for both freight and passenger services is SNCF. As described above, SNCF has a monopoly role in the provision of domestic passenger services. The current organisational structure of SNCF Group is shown in Figure 11.

FIGURE 11 STRUCTURE OF SNCF GROUP



- 2.34 A summary of SNCF Group's financial position for 2011 and 2010 is presented in Table 2 below.

TABLE 2 FINANCIAL RESULTS OF SNCF GROUP¹²

Millions €	2011	2010
Turnover	32.6	30.5
Track access charges	3.8	3.7
Purchases & external costs	12.1	11.5
Taxes	1.1	1.1
Staff costs	12.6	12.2
Other income or charges	0	0.1
Operating Profit/Loss	3.0	2.2

SNCF Railway Undertaking

- 2.35 SNCF's passenger operations fall within the following divisions:

- SNCF Proximities: publicly-supported domestic operations (including night services)

¹² Rapport Financier 2011 (Groupe SNCF)

- SNCF Voyages: High speed domestic services and all international services

2.36 SNCF's freight services are provided by SNCF Geodis.

SNCF Proximités

2.37 SNCF Proximités had a turnover of €12.3 billion and an operating profit of €811 million. The activities of the division itself are:

- TER: provision of regional passenger services outside Paris area
- Transilien: provision of passenger services in the Paris area
- Intercités: SNCF's current branding of TET services
- Chemins de Fer de la Corse: provision of train services in Corsica

2.38 There is some cross-subsidy of Intercités services by the SNCF Voyages division. Keolis (passenger train services outside of France and non-rail activities in France) and EFFIA are subsidiaries of SNCF Proximités.

SNCF Voyages

2.39 SNCF Voyages had a turnover in 2011 of €7.3 billion, with an operating profit of €1 billion. As can be seen this is relatively complex, with the division itself comprising only:

- TGV France: provision of high-speed services within France (other than iDTGV)
- TGV Europe: holding company for participation in a variety of international train service offers
- Motorail services and special traffic

SNCF Geodis

2.40 SNCF Geodis had a turnover in 2011 of €9.4 billion and an operating profit of €237 million.

2.41 The incumbent freight railway undertaking, SNCF Fret, is part of the core organisation, all of the division's other activities are undertaken by subsidiaries. This includes two new railway undertakings:

- Captrain: the former SNCF Fret International, operating services on rail networks outside France
- VFLI: operating short-lines services within France

SNCF Gares et Connexions

2.42 SNCF Gares et Connexions, responsible for the management and development of all railway stations in France, was created as a response to criticisms that SNCF's role of stations manager caused conflicts for new entrants proposing (international) open access services.

2.43 In 2011 the division had a turnover of €1.2 billion and made an operating profit of €175 million. Its subsidiaries are:

- AREP: architecture and urban renewal
- Group 12C: commercial development of stations
- Parvis: project management of investment schemes

Staffing

2.44 SNCF Group's staffing levels (totalling 245,349) in 2011 were as follows:

- Infrastructure: 52,053
- Proximités: 63,171 (including 46,899 in Keolis)
- Voyages: 26,551
- Geodis: 47,309 (including 30,594 in Groupe Geodis)
- Gares et Connexions: 1,658
- Common functions and participations: 54,349

Costs incurred during unbundling

2.45 The approach taken to unbundling in France, namely through the creation of the Delegated Infrastructure Manager can be considered to have minimised the direct costs of unbundling. However, it is generally agreed that the division of responsibilities between SNCF Infra and RFF is not cost-effective firstly because of duplication of management and secondly because of the structure of the contractual arrangements.

Regulatory costs

2.46 The costs of both the economic regulator and the safety regulator are recouped through a levy on the track access charges paid to RFF by railway undertakings. These levies are subject to ceilings that are laid down by parliament, as part of an initiative to limit public spending. For ARAF, this is currently €11M which acts as a restraint upon the amount of active market investigation that it can undertake. For EPSF, this is limited to €17.5M.

Costs of PSC award

- 2.47 The creation of regional Organising Authorities and their associated operating contracts with SNCF were brought about as part of a decentralisation agenda, under the Loi d'orientation des transports intérieurs (1982), which is not directly related to the unbundling of the network and the creation of RFF. Regions are well aware that as they enter single-tender negotiations with SNCF, they are unable to challenge the costs offered by SNCF - above all in relation to the costs of infrastructure access. Indeed, there have been accusations that the cost allocation process in SNCF for TER or TGV services, in relation to the fixed and variable components of maintaining all the component parts of the railway infrastructure, is nebulous. Some organising authorities believe that this results in them paying for services other than those which they specify.
- 2.48 The Assises du ferroviaire, which concluded in December 2011, suggested that regions should be permitted to conduct an experiment in the competitive tendering if they wish. It remains to be seen, given the change in the Presidency, on co-operation rather than competition, whether the necessary legal steps will be taken to allow regions to adopt this approach, and indeed, whether any wishes to do so.

3 Market access and competition

Analysis of the effectiveness of the current regulatory framework

- 3.1 In 2009, the EC sent reasoned opinions to France (and other MSs) as set out above, relating to shortcomings in the implementation of the First Railway Package. In the 2011 IBM Rail Liberalisation Index, however, France moved up into the middle group 'On Schedule' for the first time since it was created.

Market dominance of the incumbent operator

- 3.2 SNCF has a monopoly in the domestic passenger market on the national rail network, a situation established by law.
- 3.3 Since December 2010, cross-border open access passenger services are permitted¹³ but France makes full use of the restrictions on cabotage permitted by Directive 2007/58/EC. The first open-access passenger services began in December 2011 - the Thello night service between France and Italy. This is a Joint Venture between Trenitalia and Veolia.
- 3.4 SNCF is also the manager of all stations on the network. The creation of the Gares & Connexions division of SNCF was a response to calls for this role to be distanced from that of railway undertaking. SNCF is the owner of station buildings, whereas RFF is the owner of the platforms. There have been long disputes over the boundaries of land ownership between the organisations and the current arrangements are seen widely as sub-optimal.
- 3.5 Questions have been asked about SNCF's station access charging structure, and ARAF has become involved in the debate, withholding its views on the charges. ARAF has subsequently stated that the station management organisation should be entirely independent from SNCF. The focus from ARAF has been very clearly on a fully delineated set of accounts for the station management organisation, regardless of where it sits within the Railway industry. ARAF does not consider that the assurances about the independence of Gares & Connexions are satisfactory, as has been shown in its decree on stations.¹⁴
- 3.6 SNCF's dominance of the domestic passenger market is in contrast to the freight sector. Access to the network for rail freight has been completely open since April 2006, thanks to the law article 2 décret n° 2003-194. SNCF has lost considerable traffic to new entrants as discussed above, and discussions have demonstrated the view that restrictive social conditions for SNCF staff have played their part in this reduction in traffic.

Degree of vertical separation

- 3.7 In principle there is vertical separation between RFF as Infrastructure Manager and the Railway Undertakings, including the incumbent, SNCF. In reality the situation is more complex, due to the role of SNCF as Delegated Infrastructure Manager, which has already been described.
- 3.8 Whilst RFF has responsibility for capacity allocation, the train planning offices historically remained with SNCF. Over time, RFF has internalised the development of the long-term timetable but short term planning has remained with SNCF. As freight relies very heavily upon the ability to request paths at very short notice, the locus of planning has been very

¹³ Article L 2121-12 of the Code des transports.

¹⁴ Avis no 2011 - 014 of 15 June 2011

important and has been the source of complaints about conflict of interest. The audit commission reports that RFF has requested over a long period that the train planning staff transfer to RFF but this has been refused by SNCF¹⁵.

Effectiveness and capability of the regulator

- 3.9 The establishment of ARAF means that France has, for the first time, an independent regulator. It is mandated to investigate any complaints and, within a constrained budget, will initiate unsolicited investigations. However, it is not within the remit of ARAF to actively seek to promote competition, this being the role of the competition authority.
- 3.10 ARAF has the potential to bring significant change to the industry through its forensic analysis of structural shortcomings of the industry but, for these, it is dependent upon other parties to deliver change. ARAF's role is focused initially on the arbitration of disputes within the industry, which it uses as a means to explore the issues in greater detail. It is not however resourced in the same way as some other Regulators to take a more proactive stance in economic railway regulation.
- 3.11 The role of ARAF seems well defined at this stage, but as decisions are taken on the extent and manner in which France wishes to open its railway network to competition, its role will inevitably evolve.

Complaints of discriminatory practices

- 3.12 The 2005 Railimplement study identified a large number of complaints about discriminatory practices related to the twin role of SNCF as railway undertaking and delegated infrastructure manager.
- 3.13 The creation of DCF was intended to be a response to this. In particular, it removed the conflict of interest for SNCF's Regional Directors, who managed staff in both categories. However, there remain a number of individuals who have dual reporting lines. This has, to take an example, been the subject of a complaint by ECR to ARAF in relation to the marshalling yard at Cerbère.

Analysis of public service contracts

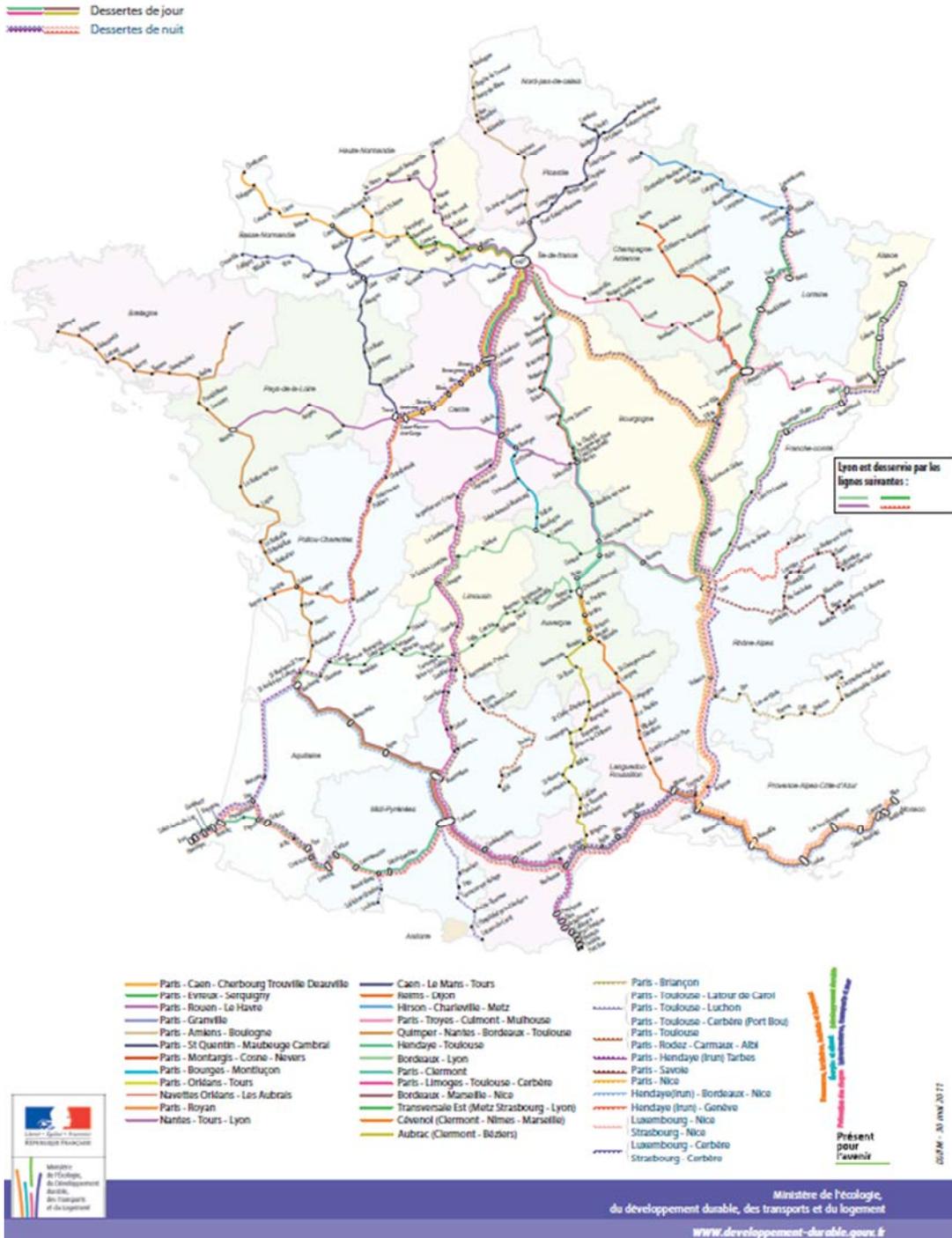
Type and volumes of contracts awarded

- 3.14 According to RMMS, 31% of all passenger-kilometres are covered by public service obligations.
- 3.15 As has been noted previously, public service contracts fall into two categories:
- Regional services, other than Corsica (TER)
 - Long distance non-commercial services (Intercités - formerly the TET or Corail services)
- In each case services are provided (exclusively) by SNCF based upon a contract negotiated with the appropriate organising authority - the regional council for TER and the transport ministry for TET. TER contracts are normally signed for between 5 and 10 years.
- 3.16 The contract for TET services is of an experimental nature and is only for 2 years; however the intention was that following this period, a different means of management would be defined for these services, with competitive tendering of some or all of the lines The TET

¹⁵ *Le réseau ferroviaire une réforme inachevée, une stratégie incertaine: Synthèse du Rapport public thématique*, Cours des Comptes, April 2008 p.10

network is shown in Figure 12. The intention expressed at the Assises du ferroviaire was for some or all of the routes to be competitively tendered from 2013. A particular issue to be resolved in advance of that date was the replacement of the rolling stock: the locomotives used for operating some of the services are approaching the end of their useful working life and a replacement will be needed.

FIGURE 12 NETWORK OF TRAINS D'ÉQUILIBRE DU TERRITOIRE (FORMERLY CORAIL)



3.17 Regions report that they have very little control over the costs of SNCF's operations and have no means of challenging them, as the data is unclear and SNCF is not given an incentive to share the disaggregation of costs. The sectorisation of drivers to specific SNCF

businesses is reported to have been used as an explanation by SNCF for increases in driver costs.

- 3.18 In theory, one option for the future would be for a region to establish a ‘Société publique locale’ to operate services. This would mean in effect that the regions would operate the services themselves, without recourse to a tender. Whilst regions have contemplated this mode of operation, none has experimented with it.

Financing and rolling stock purchases

- 3.19 French regions have invested heavily in new passenger rolling stock in recent years. However, all rolling stock is procured by SNCF and it would appear that, in general, the stock has become SNCF’s property. This represents a significant barrier to future competitive tendering of TER services. It is feared that regions which do not award contracts to SNCF under a competitive tender may see the new rolling stock in which they have invested transfer elsewhere, and for the new operator to be forced to use old, unsuitable rolling stock.
- 3.20 Much support was expressed by those other than SNCF for the adoption of franchising on the British model as rolling stock planning could be carried out effectively. In the UK virtually all rolling stock is owned by ROSCOs, which enter into agreements with franchise holders to lease the rolling stock necessary to operate the services which the operators run.
- 3.21 Whilst the structure of regional services is in theory the same in each region of France, rolling stock arrangements are treated differently from one region to another. The two examples below, taken from the Rhône Alpes and Picardy SNCF/Region Conventions respectively, indicate different ways in which the same issue may be addressed:

- The rolling stock, funded by the Region as part of agreements for the acquisition of rail equipment for train services in the Rhône-Alpes region, is owned by SNCF, except where there are specific exclusions.
- However, the Region may choose to become the owner of the rolling stock for which it finances the acquisition, under the conditions defined in the investment agreements relating to rolling stock.
- Depending on the rolling stock funding arrangements, the stock can become the property of financial institutions including lessors¹⁶.

Or:

- For the renewal of TER fleet, the Region receives an allocation from the state. However, the amount received per year is less than a quarter of the funds actually needed by the region to upgrade its rolling stock. Hence a considerable financial effort is needed by the region. Although the TER fleet is renewed and even purchased by the Region, it remains under the property of SNCF, which is also responsible for the procurement process from the manufacturers¹⁷.

¹⁶ *Convention Région Rhône-Alpes / SNCF pour l’exploitation du service public de transport régional de voyageurs*, Article 68

¹⁷ <http://train.picardie.fr/Donnees-sur-le-materiel-roulant>

3.22 Such examples indicate that the ownership and potential transfer of rolling stock in the scenario of competitive tendering of rolling stock must be examined on a region by region basis, to ensure that the contractual provisions are fully appreciated.

Evidence of public subsidies

3.23 SNCF can be considered to have benefited significantly from the transfer of its historic debt to RFF in 1998. The audit commission notes that a part of this debt related to the funding of a staff savings plan that guaranteed a return of 7%¹⁸. It has also benefited from the transfer of other debts to a body that has no legal status, placing the debt neither on the books of SNCF or the state.

3.24 The details of public support to SNCF as set out in the 2011 annual accounts are:

- From the Regions and STIF, €4.21 billion:
 - Passenger fare revenue support: €429 million
 - Provision of train services: €3.8 billion
- From the state, €817 million:
 - Press: €5 million
 - Concessionary travel: €65 million
 - Defence: €166 million
 - TET services: €208 million
 - Operating subsidies related to employment support policies: €49 million
 - Support for asset purchases (especially rolling stock): €232 million
 - Support for write-down of certain assets: €93 million

3.25 Historically, TET services benefited from cross-subsidy from SNCF's operations and it was in part a threat by SNCF to withdraw services that relied upon this that led to the establishment of the current funding mechanism. They are not supported by the Taxe sur le Résultat des Entreprises Ferroviaires (TREF) which is special tax that is levied on the activities of all train operators.

Investment levels

3.26 To facilitate the maintenance and development of the French transport infrastructure, a public agency, with access to financial resources of over €5 billion was established under Decree 2004-1317 issued on November 24th 2004. Public sector contributions to infrastructure maintenance costs are of the order of €2.2 billion per annum.

3.27 RFF currently budgets €1.7 billion for routine maintenance of the network and €1.3 billion are budgeted for renewals and heavy maintenance, including:

- Track renewals at a rate of about 2 track km per day and points and crossings
- Replacement of structures

¹⁸ *Le réseau ferroviaire une réforme inachevée, une stratégie incertaine: Synthèse Rapport public thématique, Cours des Comptes, April 2008, p9*

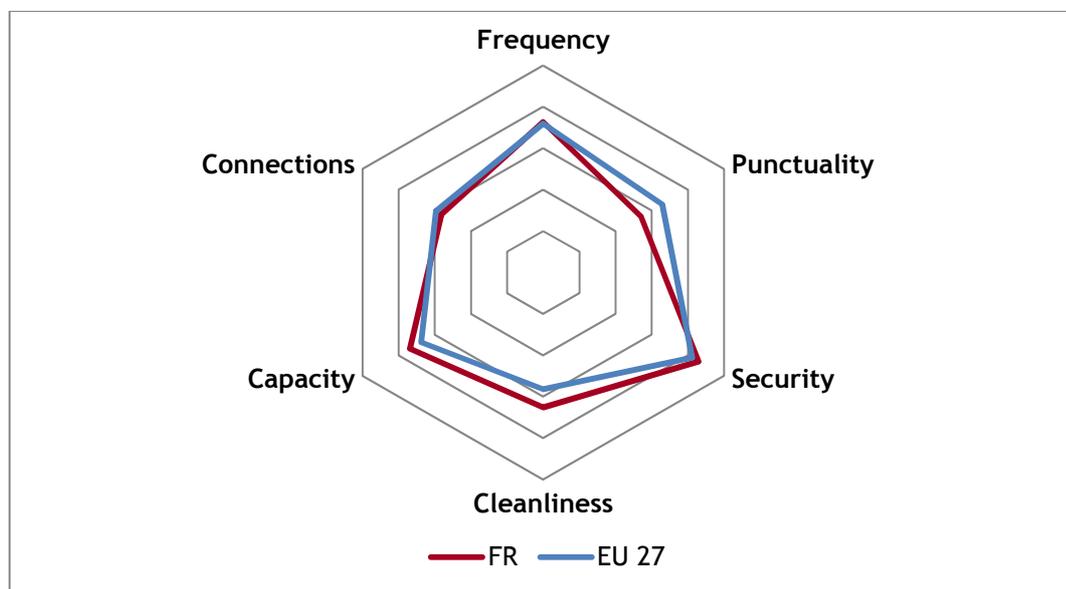
- Replacement of signalling and telecommunications equipment and installations as well as traction power supply equipment¹⁹
- 3.28 A further €2 million per annum is invested in network modernisation, largely covered by public contributions at national and local level.
- 3.29 One advantage of the complex relationship between RFF and SNCF for investment in the network is that RFF is able to offer a ‘second opinion’ on the approach being taken to investment projects by SNCF and it has developed a significant programme management capability.
- 3.30 Indeed, RFF has the role of developing the business case for investment projects. However the French audit commission notes that RFF has great difficulty in obtaining the necessary information to undertake the necessary analysis²⁰.
- 3.31 For recent new lines, RFF has favoured the adoption of PPP financing. This was made possible by the Act 2006-10 which extended the previous legal basis of such funding vehicles in order to enable their accelerated deployment. However, the Act stipulates that SNCF retains its monopoly rights to undertake rail traffic control and regulation, and to maintain safety-critical equipment on rail infrastructure provided by means of a PPP.

Evidence on service quality

Eurobarometer

- 3.32 The quality of rail services in France has been recently evaluated in a Eurobarometer publication - the result of a comparative survey conducted across Member States in 2011. Figure 13 summarises the results for France in comparison to the EU-27 average scores.

FIGURE 13 EUROBAROMETER SURVEY RESULTS 2011 - PASSENGER TRAINS



Source: Steer Davies Gleave analysis of Flash Eurobarometer (June 2011)

¹⁹ From <http://www.rff.fr/fr/le-reseau/le-reseau-aujourd-hui/la-maintenance-de-notre-reseau>

²⁰ *Le réseau ferroviaire une réforme inachevée, une stratégie incertaine: Synthèse du Rapport public thématique*, Cours des Comptes, April 2008 p8

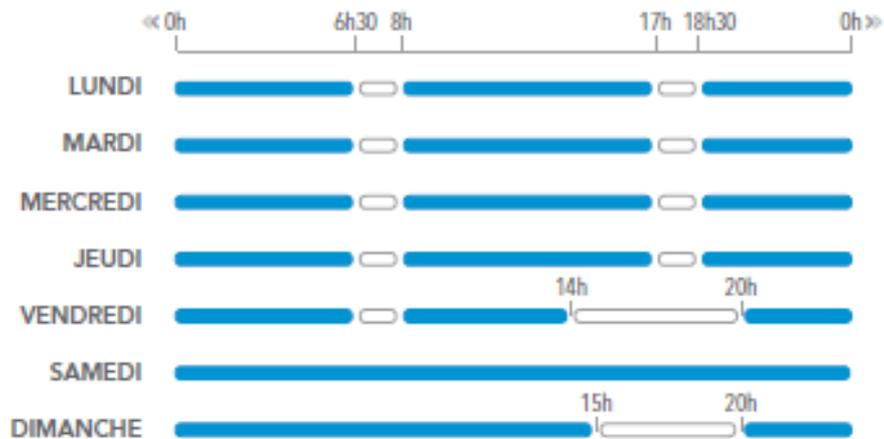
- 3.33 The ratings for France are generally in line with EU-27 averages, with punctuality being rated comparatively poorly (at 54% satisfied) and cleanliness (at 65% satisfied) above average.
- 3.34 One of the principal reasons for poor levels of punctuality is network congestion. There are proposals for congested infrastructure to be charged at a higher rate, and also to the view that any revenue collected through a performance regime should be reinvested in the railway on measures to improve the reliability of the network, decrease congestion and / or improve the rolling stock fleets. Over recent years RFF has progressively introduced relatively-standardised hourly train graphs, with the aspiration of improving capacity utilisation and performance. In December 2011 this principle was extended across the network. The change was not welcomed universally and, undoubtedly, it removed some flexibility from regions to respond to specific local flows during peak periods. Moreover, there is no performance incentive regime in France which could give a clear understanding of the contributory factors to poor punctuality. It is understood that a dummy performance regime is to be introduced in 2013, focusing on primary causes of delay, and limited to the trains directly involved in the incident. This will however, give greater transparency to the interaction of trains on the network. It may lead subsequently to the establishment of a financial performance regime.

Fares

- 3.35 Yield management techniques (with compulsory reservations) have been employed for over 20 years for TGV services in France. These are in a highly-competitive market, particularly where there are air alternatives. Until now, competition from domestic long-distance coaches has not been allowed but this is changing.
- 3.36 SNCF is well known for its effective yield management system: a fare structure including discounted advance purchase PREMs tickets has been developed, and this has been supplemented in recent years by a concept known as idTGV: this seeks to extend some of the principles of non-exchangeable airline tickets to the railway network. Indeed, recent reports suggest that SNCF is giving active consideration to a low-cost TGV running between Marne la Vallée Chessy (for Paris), Lyon St Exupéry, Marseille and Montpellier. Such a service is designed to make use of less-busy stations - at a significantly lower cost than the traditional TGVs - but also to provide a differentiated quality of service from standard TGVs.
- 3.37 For standard fare tickets, there is a national calendar indicating the cost for journeys starting at different times of day for different weekdays and for specific dates, as shown in the figure below. Discounts are available for journeys commencing during off-peak periods.

FIGURE 14 CALENDAR OF PEAK AND OFF PEAK PERIODS

LA SEMAINE-TYPE



LES JOURS PARTICULIERS



- 3.38 Given the pressure on capacity being experienced in urban conurbations, this may be considered to be a fairly crude approach to the management of crowding. There is certainly little evidence of active promotion of off-peak travel to exploit available off-peak capacity.
- 3.39 However, things are beginning to change and Languedoc Roussillon region, for example, have introduced a promotional TER fare of 1 Euro on a steadily-increasing number of routes, including during the peaks. This is specifically targeting the development of modal share.
- 3.40 Fares for TER services are one of the items covered by the contracts between the regions and SNCF. Some contracts between regions and SNCF allow for SNCF to take part of the commercial risk. TER service fare structures are based upon open tickets with no discounting of returns. Season tickets are subsidised by up to 50% by the commuter's employer.

- 3.41 There is experience in urban transit in France of operators taking revenue risk and suitable experience exists to be transferred to future rail concessions. One lesson from this mentioned is the importance of ensuring that the concession procurement process ensures that historic fares data is made available to bidders. Where a cross-network ticket sales system is in operation then all operators should have equal access to this and to the underlying fares-setting process.
- 3.42 ARAF is examining potential measures to compensate for abstraction of revenue by open-access operators.

Analysis of open access operators

Passenger

- 3.43 SCNF has exclusive rights to operate domestic passenger services and there are no open access operators in the domestic passenger sector, even where there are no public service obligations. To date, only one open-access international operator, Thello, has entered the market.
- 3.44 One potential operator told us that it believes that, even if open access passenger operations are permitted in the future, operators would be unlikely to take the risk of investing in resources unless paths could be assured for a number of years. One particular issue cited by a number of respondents is the process of bidding for paths: short-term annual decisions on path allocation do not necessarily give the incentive to operators to expend considerable sums in investing in staff and rolling stock.

Freight

- 3.45 In the freight sector, there are now about a dozen RUs, broadly categorised as:
- Long-distance new entrants, notably Euro Cargo Rail, Europorte and Colas Rail;
 - Incumbents, including SNCF but also incumbents from neighbouring networks; and
 - Short-lines operators and engineering train suppliers.
- 3.46 Penetration of the rail freight market by new entrants has exceeded 20%. When we undertook a review of the French market as part of the SERVRAIL study for the European Commission in 2006, we received numerous complaints about discriminatory practices by SNCF, namely:
- Abuse of position by SNCF's timetabling offices;
 - Unreasonable conditions placed upon access to essential services;
 - Giving of priority to SNCF services during disruption; and
 - Difficulties in getting type approvals for locomotives.
- 3.47 The IBM 2011 report suggests that RUs are still reporting some of these problems.

Evidence of incumbent reaction

- 3.48 It is recognised universally in France that SNCF failed to anticipate the impact of freight liberalisation. In addition, a series of re-organisations of SNCF Fret have failed to turn its situation around. The creation of VFLI, an SNCF-owned freight railway undertaking operating as a private sector company has been one response. It is currently focused upon short-line operations but this might change in the future.

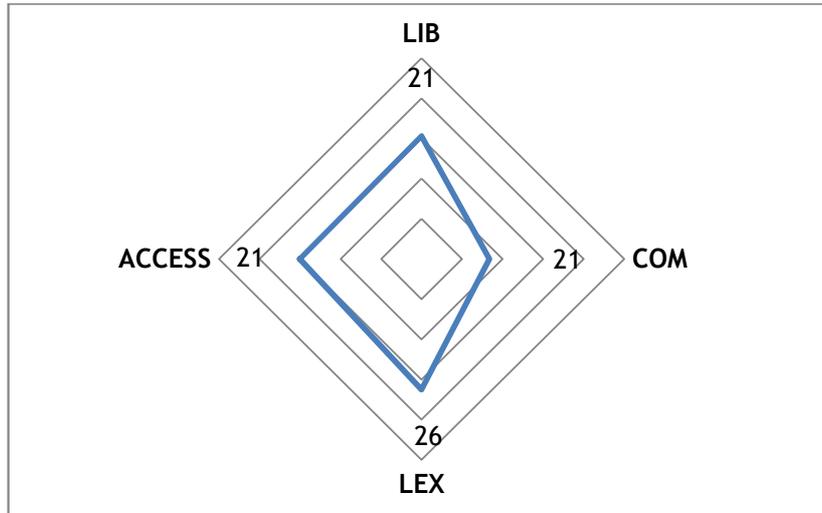
- 3.49 SNCF has a public position of welcoming passenger competition but would clearly wish this to be delayed as long as possible. In the meantime, it is learning from its involvement in overseas activities through Captrain, Keolis and NTV.

Analysis of competitive environment for rail operators

Current cost to market and time to market

- 3.50 The legal capital contribution demanded from rail passenger operators amounts to €1.5 million, which is a very large amount in an international comparison. The minimum capital contribution for freight transport has been reduced to €50,000 to reduce the market entry barriers for small rail freight operators.
- 3.51 The time between bidding for paths on RFF's network and the start of service is at least a year. If the request is for more than four paths, a feasibility study is normally necessary, and on congested or new infrastructure, it is obligatory. Whilst RFF may on occasions be able to respond more quickly, and meet the December timetable change, this is subject to the modified or new path being able to be accommodated easily and without consequence on other services.
- 3.52 Applications for safety certificates and authorisation of rolling stock are processed by the EPSF. Safety certificates and authorisation of rolling stock are issued by the EPSF. The legal period for issuing both documents is four months:
- 1 month to evaluate documentation submitted and to advise applicant if any further information is required; then
 - 3 month to study the application and to give its response.
- 3.53 EPSF does not publish evidence to confirm compliance with these targets but it is understood that, where they are not met, the excess time is not substantial.
- 3.54 However, for rolling stock authorisation, the certification by EPSF is not sufficient in itself. It has to be supplemented by line-specific homologation issued by RFF on the basis of a series of tests. The tests in turn are conducted by SNCF. Railway undertakings complain that these tests can take many months.
- 3.55 By contrast, EPSF do publish data about the time taken to deliver Safety Certificates. These were in the range of:
- 100 days for new Part A certificates;
 - 28 to 117 days for renewed or modified Part A certificates;
 - 28 to 100 days for new Part B certificates where Part A issued in France;
 - 3 to 114 days for new Part B certificates where Part A issued in another member state; and
 - 35 to 122 days for renewed or modified Part B certificates.
- Degree of liberalisation***
- 3.56 Figure 15 shows the evaluation of the French rail sector by four indices.

FIGURE 15 LIBERALISATION INDEX 2011 - FRANCE

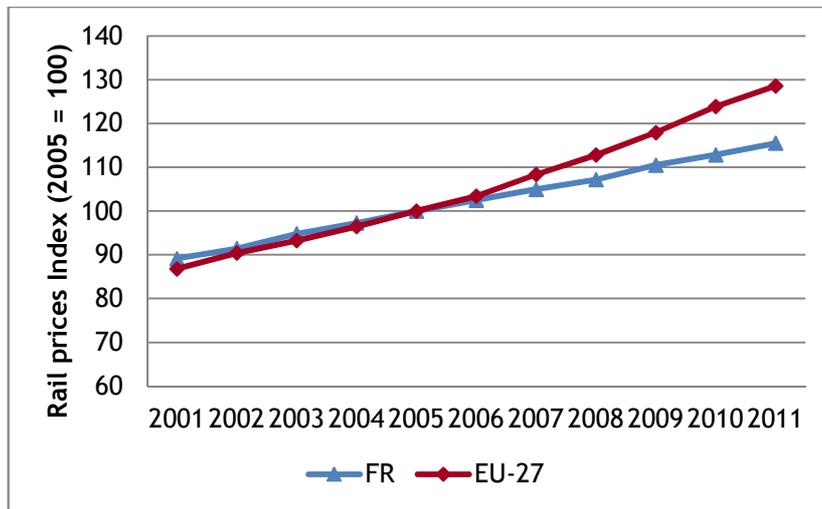


Source: Steer Davies Gleave analysis of IBM LIB INDEX (2011)

Trends in price and quality indicators

- 3.57 The perception of quality by rail users and the assessment of rail competitiveness are analysed in the “Evidence on service quality” section above. The poor levels of punctuality delivered are a particular area for improvement. Certain regions, for example PACA, have signed specific agreements with SNCF targeted at improving performance²¹.
- 3.58 The trend in rail prices is illustrated in Figure 16. It can be seen that the increase in French prices has risen at a lower rate than the European average since 2006, having matched that average up to that date.

FIGURE 16 PRICE INDEX FOR PASSENGER RAIL TRANSPORT 2001-2011



Source: Eurostat (2011)

²¹ The subject of an article in *Le Figaro*: <http://www.lefigaro.fr/flash-eco/2011/01/14/97002-20110114FILWWW00535-paca-la-sncf-va-ameliorer-le-service.php>

4 Summary of findings

Summary of previous chapters

- 4.1 To date, the prevailing political view in France has been against vertical separation and against opening the passenger market and the transpositions have been the minimum required to conform to the letter of directives.
- 4.2 France has to date maintained the monopoly of its incumbent, SNCF, in the provision of passenger services in France on the national rail network. Other operators are now free to operate international services but there are the tightest of restrictions on cabotage by such operators.
- 4.3 Not only has SNCF retained its position as a railway undertaking, it has also retained most of the functions that it undertook as an integrated national railway company due to the unusual approach taken to the separation of infrastructure management and train operations. As ‘delegated infrastructure manager’ it undertakes network maintenance and operations on behalf of RFF, the infrastructure manager.
- 4.4 Faced with complaints about conflicts of interests, some organisational changes have been undertaken to separate out the activities of scheduling and network operations (in DCF) and station management (in Gares & Connexions).
- 4.5 France now has a statutorily-independent economic regulator. This is obliged to investigate complaints but its role is to respond to complaints rather than be pro-active in unbundling the sector. It is too early to reach conclusions about the regulator’s effectiveness.
- 4.6 There is also now a statutorily-independent National Safety Authority. Some market players voice concerns about its dependence upon staff seconded from the incumbent railway undertaking but it is not possible to substantiate these concerns.
- 4.7 The freight market has been opened-up but the time taken for homologation of rolling stock for operation on specific routes is a cause of much complaint. This is the responsibility of the infrastructure manager, which is in turn dependent upon the incumbent for the necessary data and for the organisation of test runs.

Identification of key problem drivers and elements

- 4.8 The key problem drivers and specific problem elements are set out in the table below.

TABLE 3 KEY PROBLEM DRIVERS AND ELEMENTS

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	✓	Will be an issue if domestic services are opened up to new entrants as, with very few exceptions, all passenger rolling stock owned by SNCF. Approval processes for new rolling stock for specific lines have long timescales.
	Vague rules on access to rail-related services	✓	Site visits prior to using services generally require involvement of SNCF, which may not be incentivised to expedite.

Industry consolidation	Incomplete unbundling	✓	RFF is obliged to 'delegate' maintenance of infrastructure and operation of network to SNCF.
Access barriers for new entrants	Ineffective unbundling	✓	RFF in charge of track access but dependent upon SNCF train planning offices - particularly ineffective for short term planning.
	Incomplete unbundling	✓	SNCF still has key role in many processes associated with gaining access.
	Deficient funding and investment framework	✓	RFF is unable to set track access charges at level necessary to support network maintenance and debt funding. Parts of network saturated.
	Access barriers to infrastructure	✓	No operation of domestic passenger services is permitted for new entrants.
	Lack of structures/mechanisms for coordination	✓	SNCF is not incentivised to make best use of engineering possessions. Rescheduling of services for engineering works benefits from SNCF being able to balance position of maintainer and railway undertaking but other operators do not necessarily gain from this coordination.
	Lack of financial transparency	✓	Regular has criticised lack of full transparency of arrangements for 'Gares et Connexions' and 'Direction des Circulations'. SNCF charges for cost of undertaking role of delegated infrastructure manager rather than for services provided.
Different market access rules in MSs	Absence of competition for PSOs	✓	No competition for PSOs at any level
	Distorted/Ineffective competition for PSOs		
	Absence of open access rights	✓	No open access permitted for domestic services. International open access has very restrictive limitations of cabotage.
	Discriminative framework conditions		
Other causes	Country-specific problem drivers	✓	Budget of regulator has been capped as part of public expenditure squeeze - limits ability to be pro-active

Anticipated developments

Opening of market

- 4.9 It is currently anticipated (following the Assises du Ferroviaire 2011) that there will be an experiment in competitive tendering for provision of some or all services for the TET network, the contract for which expires in 2013. There is then expected to be an extension of such experiments for TER services as contracts expire. However, both of these developments would require changes to legislation, and the anticipated framework may change following the change of government.

- 4.10 There will be many additional barriers to resolve, most notably with respect to staff and to rolling stock. Concerns have also been expressed about ensuring that information provision and ticket retailing are not worsened - and that they are consistently and nationally of high quality.
- 4.11 The challenge provided by staffing relates to the 'statutory' status and the associated benefits.
- 4.12 Interviewees have raised the issue of rolling stock maintenance. Currently passenger rolling stock maintenance facilities are operated by SNCF. If SNCF is to operate facilities in the future that are to be used by other operators then measures would need to be put in place to ensure that the charges for this service were fair and that SNCF behaved in a non-discriminatory way. Clearly, for regional services, facilities within the region concerned are essential and there is less choice of potential locations than there are for long-distance services.
- 4.13 On the assumption that one or more regions decides, following changes to legislation, to experiment with competitive tendering, it is to be expected that implementation would be progressive, as and when agreements with SNCF become due for renewal. A number of respondents highlighted the need for there to be a lengthy transition period, for it will not be possible for bidders to respond effectively to a large number of tenders at the same time.
- 4.14 Opening of commercial domestic services to competition is less likely in the short term, and in any case can only really be expected in certain niche markets, probably using the high-speed network, and whose demand has not been able to be met by SNCF for diverse reasons. If there is to be open access then there is a concern on the part of RFF that there might not be funding for future investment if new entrants are only required to pay marginal costs.
- 4.15 In parallel, SNCF is operating in other national markets through its shareholdings in Eurostar, Keolis, WESTbahn and NTV.

Unbundling

- 4.16 The current arrangements for RFF and SNCF for infrastructure management are not expected to continue, not least due to duplication of activity between the organisations, such as for train planning. It has been determined recently by the government that such activities will only be undertaken within one organisation in the future but the decision on the structure to be adopted has yet to be made. The two competing solutions are:
- The activities of the delegated infrastructure manager within SNCF are transferred to RFF, together with the 55,000 staff concerned. (Gares & Connexions might also be transferred.); or
 - A holding company, similar to that in Germany, will be established within SNCF, with infrastructure management and train operations subsidiaries. RFF could be transformed into a network capacity allocation and charging body.
- 4.17 The former approach is favoured by the regulator and by RFF. The latter view is preferred by SNCF, which is arguing that it must have a driving role in the sector.

EUROPEAN RAIL MARKET OPENING

Great Britain

Country Fiche

July 2012

1 Evolution of the national market

Introduction

- 1.1 Great Britain is atypical of European railways, because the entire industry has long been restructured on economic principles designed to facilitate competition for and, to a lesser extent, in the market, in advance of the similar objectives of the Railway Packages.
- 1.2 The process of restructuring began in parallel with the development of Directive 91/440/EEC. A policy emerged in which freight operations would be privatised and subject to competition and the incumbent passenger operator would be replaced by “franchises”, operating PSC services (competing for the market) plus open access operators (competing in the market) and an extensive redesign of the industry was begun to enable this change. The 1992 document “New opportunities for the railways” set out the government’s policy objectives and proposals, and this was followed by the Railways Act 1993 which made the necessary legislative changes, including compliance (from April 1993) with Directive 91/440/EEC.
- 1.3 The former incumbent operator was subdivided into an infrastructure manager, railway undertakings, rolling stock leasing companies (ROSCOs) to provide rolling stock to any operator, and a number of ancillary businesses. An independent regulator, the Office of the Rail Regulator (ORR), was established and the Office of Passenger Rail Franchising (OPRAF) was created to manage the transfer of operations to the private sector. Its Passenger Rail Industry Overview (PRIO) explained the industry structure to interested parties and potential bidders.
- 1.4 Passenger franchises were conceived as transferring existing staff and rolling stock to new management with incentives to improve efficiency and quality. They were designed to be large enough to be attractive to major business, but to require limited access to capital, enabling initial bids from management teams as well as transport operators from around the world. Given that franchises were expected to be thinly capitalised and to make only small margins on turnover, a policy of Moderation of Competition was introduced to limit competition which could undermine their economic viability. (This has since been modified to a test that open access services substantially generate new revenue rather than abstracting revenue from existing services.)
- 1.5 The option of leaving some service provision to the market was considered but it was found that, even on apparently profitable routes, large numbers of individual station calls were non-commercial and served a social function. Almost all existing services were therefore included in PSCs to ensure that these socially necessary station calls continued to be provided.
- 1.6 All PSC operators were required to provide through ticketing between any two destinations on the network, accept interavailable tickets, and offer impartial retailing, selling passengers the ticket most appropriate to their requirements irrespective of which operator(s) provided the service.
- 1.7 Allocation of revenue from through and interavailable tickets to operators was carried out using established industry systems including the ORCATS model which estimates, from patterns of passenger demand and the published timetable, the proportion of through or interavailable tickets which will be used on each operator’s services. Key Standard

(Second Class) fares were regulated and interavailable but operators were free to set First Class fares and to offer discounted Standard fares.

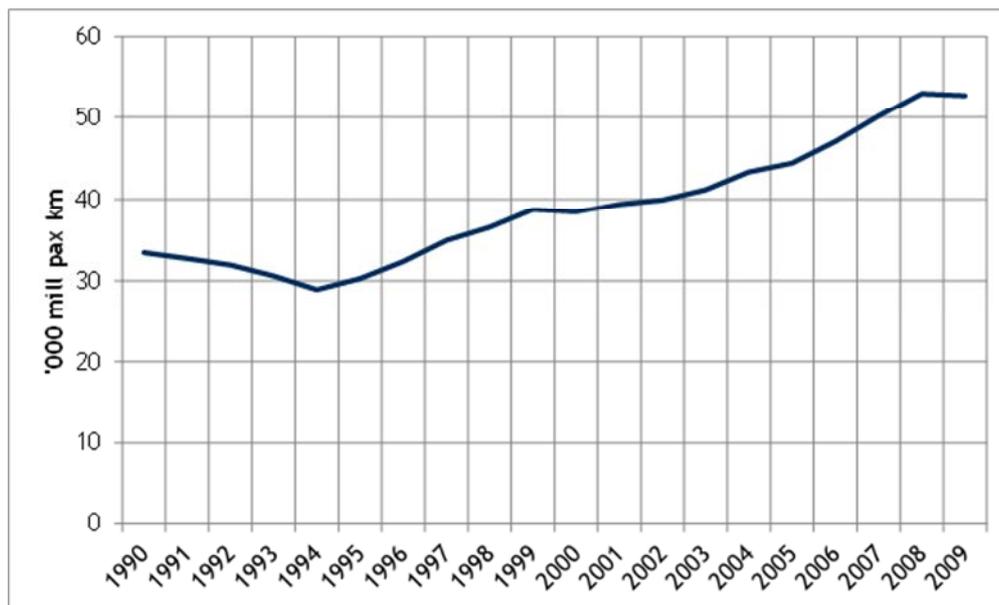
- 1.8 With no incumbent operator, the government created a publicly-owned “operator of last resort”, a “shell” operating company which would use temporary or seconded staff to manage failed PSC services until they were retendered.
- 1.9 From initiation in 1991, through legislation in 1993, to completion of implementation in 1997, when the last of the incumbent’s services was transferred to the private sector, required around six years. The structure introduced in Great Britain has required no significant further change to comply with the subsequent introduction of the First, Second and Third Railway Packages, and anticipated the objectives of the Fourth Railway Package.

Changes in volumes for passenger and freight services

Trends in passenger volumes

- 1.10 Figure 1.1 shows the trend in passenger-kilometres in Great Britain since 1990, before the restructuring of the railways which began with the Railways Act 1993 and was completed by 1997.

FIGURE 1.1 PASSENGER-KM IN GREAT BRITAIN 1990-2009

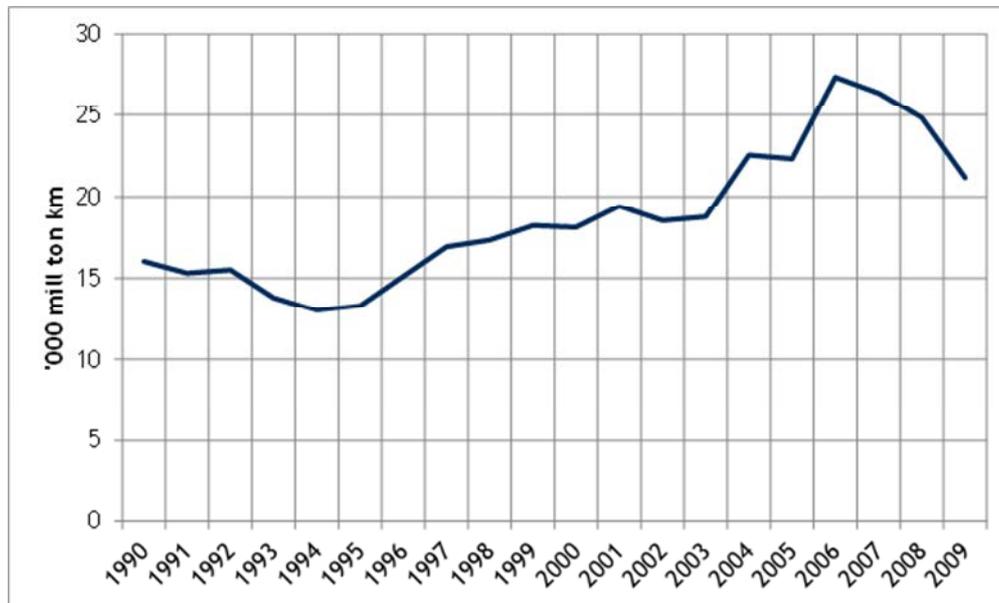


- 1.11 Historically, rail demand had been in decline, but it began to increase again after 1994. However, this may not be due to the effects of rail restructuring, for at least two reasons:
 - The growth began before any material introduction of private sector operation.
 - Private sector operation was rapidly expanded to the whole network, so there is no period over which growth in the incumbent’s demand and new entrants’ demand can be compared.
- 1.12 Extensive econometric analysis of rail passenger demand in Great Britain has consistently shown that the main explanatory factors of historic demand are Gross Domestic Product (GDP) and Central London Employment (CLE).

Trends in freight volumes

1.13 Figure 1.2 shows the trend in passenger-kilometres in Great Britain since 1990.

FIGURE 1.2 TONNE-KM IN GREAT BRITAIN 1990-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

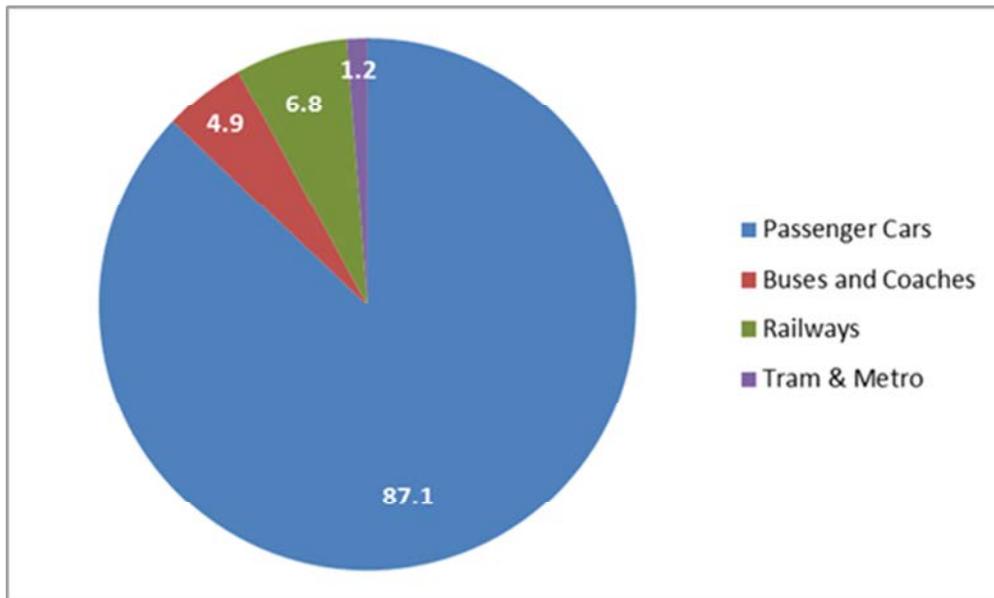
1.14 At first sight there has been growth in the volume of rail freight since the introduction of private sector operations in the early 1990s. However, and as the Railimplement Country Report for Great Britain reported, tonnage lifted continue to decline until at least 2003-4, and the increase in tonne-kilometres was due to an increase of almost 59% in the average length of haul. This occurred primarily because the dominant bulk commodity, coal, was increasingly imported rather than transported from the domestic mines around which the power stations were built. The result was an apparent 45% growth in traffic, as measured in tonne-kilometres, while the actual tonnage lifted continued to decline.

Modal split for passenger and freight services

1.15 As Figure 1.3 shows, in 2009 rail had 6.8% mode share of passenger travel. As in other Member States, this average conceals a wide range of variations in the share of rail for individual point-to-point journeys:

- Rail does not serve a large proportion of potential journeys, for which it has zero mode share.
- Rail is the dominant mode in some markets, such as on daily long-distance commuting to central London or between Gatwick and Stansted airports and the City of London.

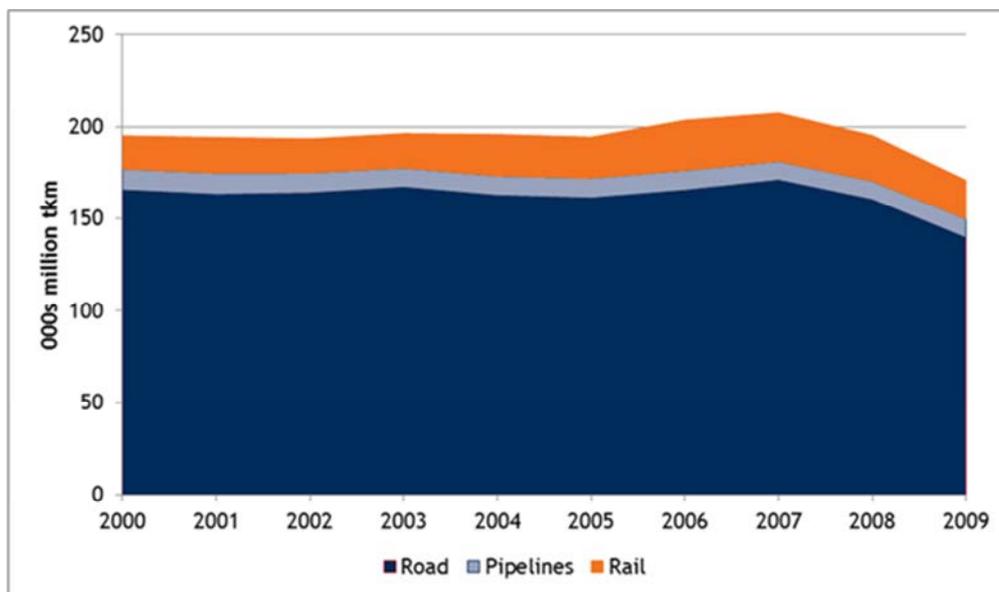
FIGURE 1.3 PASSENGER MODAL SHARE 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.16 Figure 1.4 shows rail's share of the freight market, as measured in tonne-kilometres, since 2000.

FIGURE 1.4 FREIGHT MODAL SHARE 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.17 Even if extended back to around 1990, this measure would combine the distinct effects of tonnage and haul length. There is no consensus on whether and to what extent liberalisation and unbundling has affected the total volume of rail freight carried.

New entrants in the rail market

1.18 Great Britain has had no incumbent operator since 1997 and all services operated since that date have been by either:

- Open access operator
- PSC operator, sometimes operating additional open access services contiguous in space or time with those specified in the PSC
- Directly Operated Railways, the publicly-owned “operator of last resort”

Number and type of new entrants in passenger and freight services

Passenger services

1.19 The dominant factors determining the number of new entrants in passenger markets are:

- The process of award and re-award of passenger franchises
- The identity of the successful franchises and their “owning groups”
- The number of open access operators, and the rate at which they either withdraw or are acquired by an owning group

1.20 Therefore the proportion of “new” (post-1997) entrants remains 100% at all times, but the mix of entrants changes from year to year under the influence of refranchising, market entry and exit and acquisition activity.

1.21 The Office of Rail Regulation’s “GB rail industry financial information 2010-11” lists operators providing franchised services. The current mix and ownership of these operators, and of the current open access operators, is summarised in Table 1.1, which also distinguishes PSC and Open Access (OA) operators.

TABLE 1.1 OWNERSHIP OF PASSENGER OPERATORS, 2010-11

Owning group	Origin	Share	Train-kilometres (million)	Type	Operator
FirstGroup	UK	25.6%	41	PSC	First Great Western
			40	PSC	First ScotRail
			23	PSC	First Capital Connect
			16	PSC	First TransPennine Express
			1.4	OA	First Hull Trains
Govia	UK/ France	17.7%	33	PSC	Southern
			29	PSC	Southeastern
			22	PSC	London Midland
Deutsche Bahn	Germany	13.3%	31	PSC	Cross Country
			22	PSC	Arriva Trains Wales
			8	PSC	Chiltern Railway Company
			1.8	OA	Grand Central
Stagecoach	UK	12.5%	38	PSC	Stagecoach South Western
			21	PSC	East Midlands
Serco Abellio	UK/ Netherlands	10.4%	43	PSC	Northern Rail
			6	PSC	Merseyrail
National Express	UK	7.8%	31	PSC	National Express East Anglia
			6	PSC	c2c
Virgin	UK	7.4%	35	PSC	Virgin Trains
Directly operated	N/A	4.0%	19	PSC	East Coast
Deutsche Bahn/ MTR	Germany/ Hong Kong	0.8%	4	PSC	London Overground
BAA	UK	0.2%	1.1	OA	Heathrow Express
Eurostar International	UK/ Belgium/ France	0.2%	1.0	OA	Eurostar

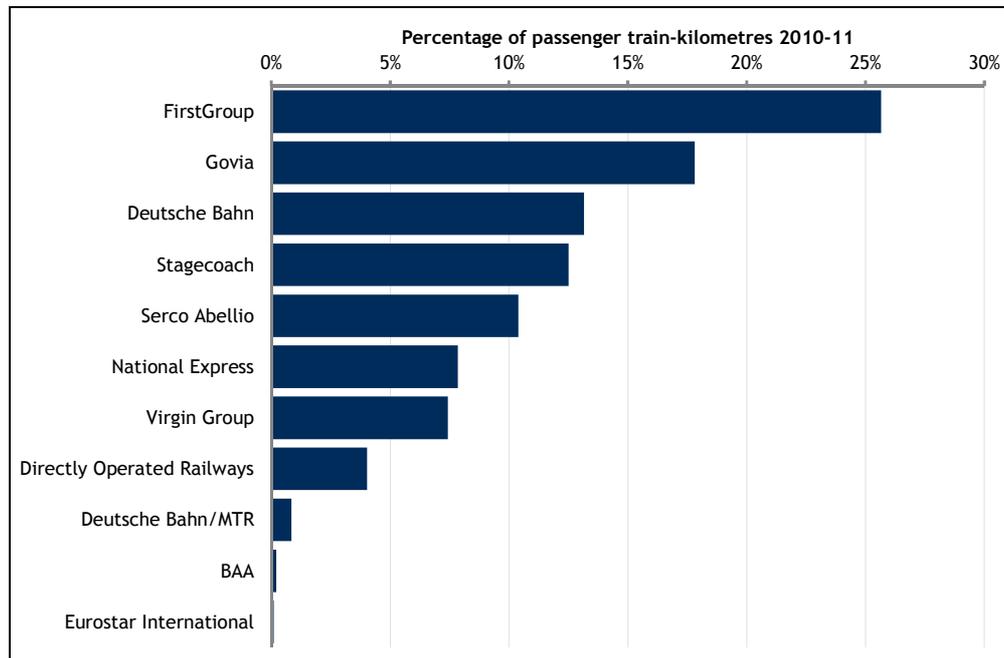
Source: Office of Rail Regulation, Network Rail, Steer Davies Gleave estimates

Note: PSC services include “open access” train-kilometres not specified in the PSC

Note: First Great Western includes Heathrow Connect services operated with BAA

1.22 The contents of Table 1.1 are also summarised in Figure 1.5.

FIGURE 1.5 OWNERSHIP OF PASSENGER OPERATORS



Source: Office of Rail Regulation, Network Rail, Steer Davies Gleave estimates

1.23 Current open access operators First Hull Trains and Grand Central, originally established as independent businesses, have been bought by owning groups. The only services not controlled by a transport owning group are:

- East Coast, currently managed by Directly Operated Railways following the failure of National Express East Coast and pending refranchising due in 2013
- Heathrow Express, owned by Heathrow Airport owner BAA and operating partly on infrastructure owned by BAA

Freight services

1.24 The number of operators of freight services is volatile but the Office of Rail Regulation currently refers to a list of six operators shown in Table 1.2. With no standardised measure of current market share available, they are listed in descending order of locomotive fleet size.

Main operators by market segment

1.25 It is not readily possible to classify operators by market segment, because many franchises include services covering a range of market segments. Table 1.3 shows which owning groups provide services in which markets.

1.26 The only group currently involved in both passenger and freight activities is Deutsche Bahn of Germany.

1.27 Excluding services between London and Heathrow Airport, domestic open access operations, other than as an extension of a PSC contract, amount to only around 0.7% of total train-kilometres.

TABLE 1.2 OWNERSHIP OF FREIGHT OPERATORS, 2012

Owning group	Origin	Locomotives	Operator
Deutsche Bahn	Germany	Not identified	DB Schenker Rail UK
Arcapita	Bahrain	180	Freightliner
Nuclear Decommissioning Authority	UK	100	Direct Rail Services
Eurotunnel	France/UK	67	GB Railfreight
Hanson ARC/ Foster Yeoman	UK	Not identified	Mendip Rail
SECO	France	8	Colas Rail

Source: Office of Rail Regulation, operator and rail websites

TABLE 1.3 PASSENGER OWNING GROUPS BY MARKET SEGMENT

	Train-kilometres	PSC			Open access		
		Long distance	Regional	Urban	International	Long distance	Airport
FirstGroup	25.6%	✓	✓	✓		✓	
Govia	17.7%	✓	✓	✓			
Deutsche Bahn	13.3%	✓	✓	✓		✓	
Stagecoach	12.5%	✓	✓	✓			
Serco Abellio	10.4%		✓	✓			
National Express	7.8%		✓	✓			
Virgin	7.4%	✓					
Directly Operated Railways	4.0%	✓					
Deutsche Bahn/MTR	0.8%			✓			
BAA	0.2%						✓
Eurostar International	0.2%				✓		

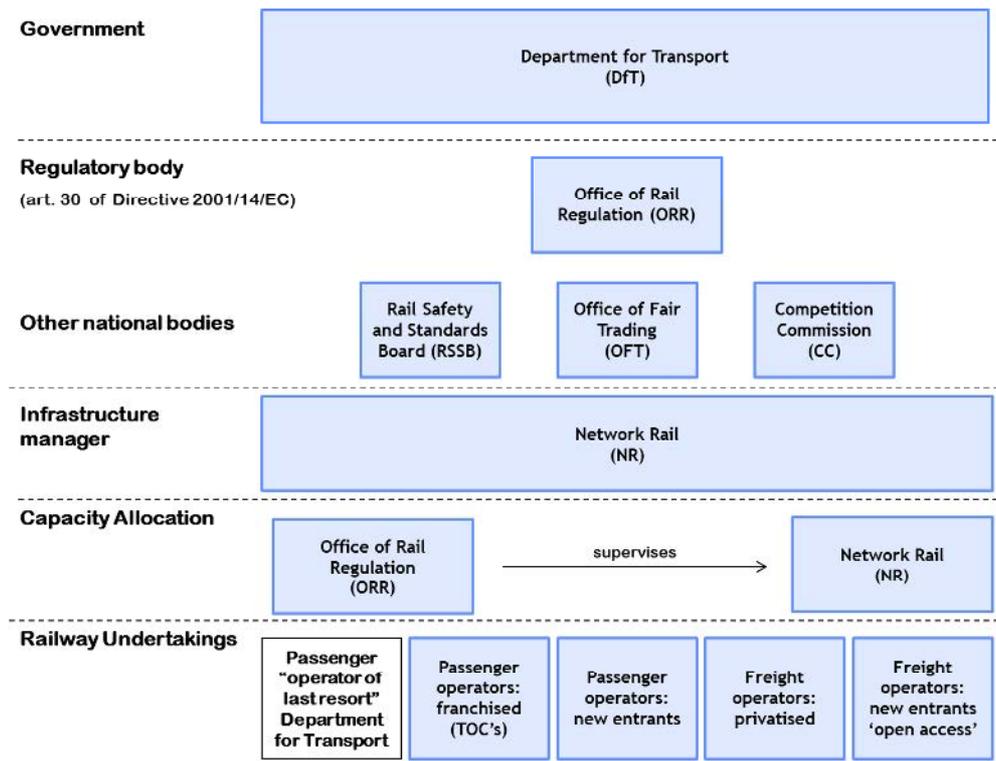
Source: Office of Rail Regulation, Network Rail, Steer Davies Gleave estimates

2 Institutional background

Regulatory framework: national institutions and their role

2.1 The institutional framework of the railways in Great Britain are set out in Figure 2.1 below.

FIGURE 2.1 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN UK



2.2 **Regulatory Body:** the Office of Rail Regulation (ORR) is the independent safety and economic rail regulator. The Railways Act 1993 set out ORR's main economic regulatory functions, which include regulating the activities of the IM on the national rail network, issuing licences to railway undertakings and to the IM, and overseeing allocation of access to the infrastructure. In addition, ORR enforces domestic competition law.

2.3 **National Safety Authority:** ORR is the NSA for Great Britain pursuant to the Railways Act 2005. ORR's activities as an NSA include issuing licences, safety certificates and homologation of rolling stock.

2.4 **Ministry:** The Department for Transport (DfT) is the Ministry responsible for transport matters in the UK. Its role is to provide strategic direction and to procure rail services and projects that only it can specify. The DfT delegates operational rail related tasks such as licencing and certifications to the ORR.

2.5 **National Investigation Body:** the Rail Accident Investigation Branch (RAIB) is the independent railway accident investigation organisation for the UK. Its role is to investigate railway accidents and incidents on the UK's railways by identifying the causes of accidents and other aspects that contribute to worsening the consequences. The underlying objective of RAIB is to improve safety.

- 2.6 Infrastructure Manager: since October 2002 Network Rail (NR) is the manager of Britain's rail infrastructure; as such, it operates, maintains and renews the infrastructure. In 2004 maintenance, previously outsourced, was brought in-house, which led to doubling the number of employees. NR is regulated by the ORR for its stewardship of the railway, from an economic and health and safety point of view. NR is also the allocation body and publishes the Network Statement.
- 2.7 Rail authorities: currently the rail authorities in Great Britain include the Department for Transport (DfT), Transport Scotland, Transport for London (TfL), and the Integrated Transport Authorities (ITAs). However changes are expected as result of a consultation on change following the Localism Act 2011.
- 2.8 Other National Bodies: other technical and competition regulators are the Rail Safety and Standards Board (RSSB), the Office of Fair Trading (OFT) and the Competition Commission (CC).

Rail authorities

- 2.9 The structure of rail authorities in Great Britain has gradually become more complex under successive policies of devolution and more recently "Localism".
- 2.10 In the first round of franchising from 1996-1997 all franchises were let by the specially-created Office of Passenger Rail Franchising (OPRAF) although in some cases local Passenger Transport Executives for the major conurbations also specified parts of the franchises.
- 2.11 OPRAF was subsequently replaced by the Strategic Rail Authority, which in turn was absorbed into the Department of Transport.
- 2.12 Devolution has resulting in services in Scotland being specified by Transport Scotland, an agency of the Scottish Government, being responsible for the specification and funding of rail services within Scotland and cross-border sleeper services between Scotland and London.
- 2.13 More recently, Transport for London (TfL) has specified and funded the London Overground service, operating almost entirely within Greater London partly on the national network and partly on tracks formally used by the London Underground network.
- 2.14 In 2012, following the Localism Act, the Department for Transport began consultations on "Rail Decentralisation - Devolving decision-making on passenger rail services in England". The aim is to enable local authorities to have greater involvement in decisions regarding rail services in their area, but it is recognised that this is likely to be difficult because the historic pattern of rail passenger demand and PSC service provision bears little relationship to current political boundaries. The likelihood is that a number of rail services will be jointly specified by a number of transport authorities.
- 2.15 Mapping PSCs to regional boundaries was possible for Scotland, which has only two external links carrying few local and regional passenger services, but not generally possible elsewhere. With the exception of Merseyrail and London Overground services, the current franchises extend across several administrative boundaries and it may prove difficult to devolve service specification in England and Wales to regional or local government. A particular problem is that one of the core passenger markets is for rail commuters, especially around London and the conurbations of the North West and North East.

- 2.16 “Suburban” services from London, which has the largest commuter network in Europe, extend over long distances and across many boundaries. “Commuter” services from London Waterloo extend over 300 kilometres to Exeter, calling in London and six administrative counties (Surrey, Hampshire, Wiltshire, Dorset, Somerset and Devon).
- 2.17 “Regional” services linking northern conurbations cross the boundaries of many transport authorities. Services from Liverpool to Newcastle, for example, pass through the areas of four Integrated Transport Authorities (ITAs) and a number of other authorities. These transport authorities, acting as “The Northern Way”, have jointly advocated studies for services which would link their regions.
- 2.18 Consultation on rail decentralisation ends on 28 June 2012 but it is likely to be some time thereafter before firm conclusions are reached. It remains to be seen whether, with the current structure of passenger journeys across administrative boundaries, it proves possible or sensible to transfer significant responsibility for funding, specifying and procuring services to local authorities.

Costs of unbundling

Costs incurred during unbundling

- 2.19 Restructuring of the rail industry was controversial, but its rapid implementation meant that a number of changes took place simultaneously, and it was not possible to identify which costs were due to compliance with Directive 91/440/EEC, unbundling, freight privatisation, passenger franchising and passenger open access. Fifteen years after its completion there is no consensus on its net costs and benefits.

Ongoing administrative costs associated with unbundling e.g. regulator costs and typical costs of PSC award

Regulators costs

- 2.20 ORR’s Annual Report and Accounts 2010-11 report that it had around 290 staff and an annual budget of around £32 million. Around 58% of its cost relates to its safety role and 42% to economic regulation, including access and competition.
- 2.21 Other bodies such as the Association of Train Operating Companies (ATOC) also provide a range of services and functions to the industry, but without detailed process mapping it is not possible to estimate which of their costs, if any, are additional to those that would be incurred under a different industry structure.

Typical costs of PSC award

- 2.22 Analysis and experience suggests that the costs of completing a compliant tender for a single franchise can in some instances exceed £5 million. In April 2012, Rail Business Intelligence estimated that the total costs to the 17 bidders for franchises in the next year would be around £90 million. In June 2012, the Financial Times reported that Go-Ahead expected to spend £6 million bidding for the enlarged Thameslink franchise.
- 2.23 In the past, with up to 24 franchises of average duration six years, it would on average be necessary to retender four franchises a year. If four tenderers prequalified, this suggests that the bidders’ costs could reach £80 million and that the total costs, including those of the tendering authority, could exceed £100 million per annum. In the context of the total passenger rail industry, this is around 1% of turnover or around 1.5% of fares revenue.

2.24 The number of franchises has now fallen to 19, and may fall further, and the Rail Value for Money Study (see below) recommended in 2011 that future franchises are for at least 15 years. If only three bidders were shortlisted for each franchise, this might reduce total bidders' costs to £15-20 million per annum. As yet, however, it is not clear whether such savings will be practicable.

2.25 However, tender costs on this scale are not disproportionate to a PSC contract which may have a turnover of over £10 billion over a 15-year franchise.

Cost impact of fragmentation

2.26 As we noted above, restructuring of the rail industry was controversial, but its rapid implementation meant that a number of changes took place simultaneously, and it was not possible to identify which costs were due to which changes. Fifteen years after its completion there is no consensus on its net costs and benefits.

2.27 An unexpected complication is that rapid growth in passenger demand resulted in a major programme of investment, primarily in capacity expansion but also in new suburban and high speed lines, not envisaged at the time of restructuring. Planning, funding and coordinating investment in track, signalling, electrification and trains across a number of industry bodies has proved complex. In particular, few franchises are completed without the need for renegotiation to deal with changes not anticipated in the original franchise agreement.

2.28 One view is that European and domestic policy since 1991 has been fundamentally misguided and that, on an almost isolated national network, where most train services serve at least some non-commercial function, and capacity is highly constrained, the railway should be operated as an integrated business and is planned, operated, marketed and priced according to social cost-benefit principles.

2.29 Another view is that the growth in demand in Great Britain is largely due to the decision to liberalise services and that, while this has proved complex, the alternative would be a continuation of the pre-1994 decline in use (see Figure 1.1 and Figure 1.2) and quality, with the large fixed costs of the existing infrastructure shared between fewer and fewer users.

2.30 The most recent detailed analysis of the industry is the Rail Value for Money Study, commissioned by the government and led by Sir Roy McNulty, which reported in May 2011. The Study concluded that the industry has become inefficient and that overall costs could be reduced by around 30%. Among nearly 60 pages of recommendations it suggested that:

- Franchise should be extended to at least 15 years
- The infrastructure manager should be broken up into smaller units (consistent with the current “localism” policy, and Network Rail has now reorganised itself into ten “operating routes” with extensive managerial autonomy)
- These routes should form cost- and risk-sharing “alliances”, or even vertically-integrated businesses, with the dominant local passenger operator
- This should be achieved while remaining compliant with existing and future Railway Packages

2.31 While the government has now issued a Command Paper largely accepting these proposals (but providing little further detail on how they will be implemented), reaction to the Rail Value for Money Study has been mixed.

- 2.32 Some commentators have focused on the proposed cost saving as evidence of inefficiency or on alliancing and local vertical integration as an admission that vertical integration is the optimum structure for a railway. Others consider either that the cost savings are unachievable or that the additional complexity of localised infrastructure management and alliancing with a dominant operator will add to cost. Others note that longer franchises will fail to anticipate future events and requirements, will still offer little incentive to invest in their later years, and will require repeated renegotiation.
- 2.33 The rail freight industry is concerned that it may be necessary to deal with several infrastructure managers, each allianced with a passenger operator, to obtain a single freight train path. The Chairman of the Association of Train Operating Companies (ATOC), has said that elements of the study comparisons of Great Britain with other European railways lacked “credible and comparable data”.
- 2.34 The Office of Rail Regulation confirmed to us that, as of late April 2012, none of the proposed “alliances” between Network Rail and operators has yet been approved. In the event, on 30 April South West Trains and Network Rail announced the launch of an alliance with a single senior joint management team, planned to run from 29 April 2012 to 4 February 2017, the end of the South West Trains franchise. As yet, no information has emerged on the effectiveness of the alliance.
- 2.35 ORR is currently carrying out a Periodic Review during which it will determine the efficient costs of the industry from the period April 2014 to March 2019. In June 2013 it will produce its draft determinations of the efficient costs of the industry for this period, disaggregated for the first time to the ten operating routes. It remains to be seen what cost savings are considered possible in 2013 or achieved in practice by 2019.

3 Market access for new entrants and competition

Analysis of the effectiveness of the current regulatory framework

- 3.1 The Railways Act 1993 established an independent regulator, now the Office of Rail Regulation (ORR) responsible for economic and market regulation. ORR has since also been given the role of National Safety Authority.

Market dominance of the incumbent operator

- 3.2 While there is no incumbent operator, ORR has in the past initiated competition cases in relation to the abuse of a dominant position in relation to the main freight operator EWS (now DB Schenker Rail UK).

Degree of vertical separation

- 3.3 Great Britain has had complete vertical separation since 1994. The infrastructure manager has no connection with any railway undertaking and is forbidden to act as a railway undertaking.

Effectiveness and capability of the regulator

- 3.4 The Office of Rail Regulation was established in 1994 and now has nearly 20 years' experience of regulating the industry.
- 3.5 We have not identified any material criticism of the Office of Rail Regulation's independence or competence.

Complaints of discriminatory practices

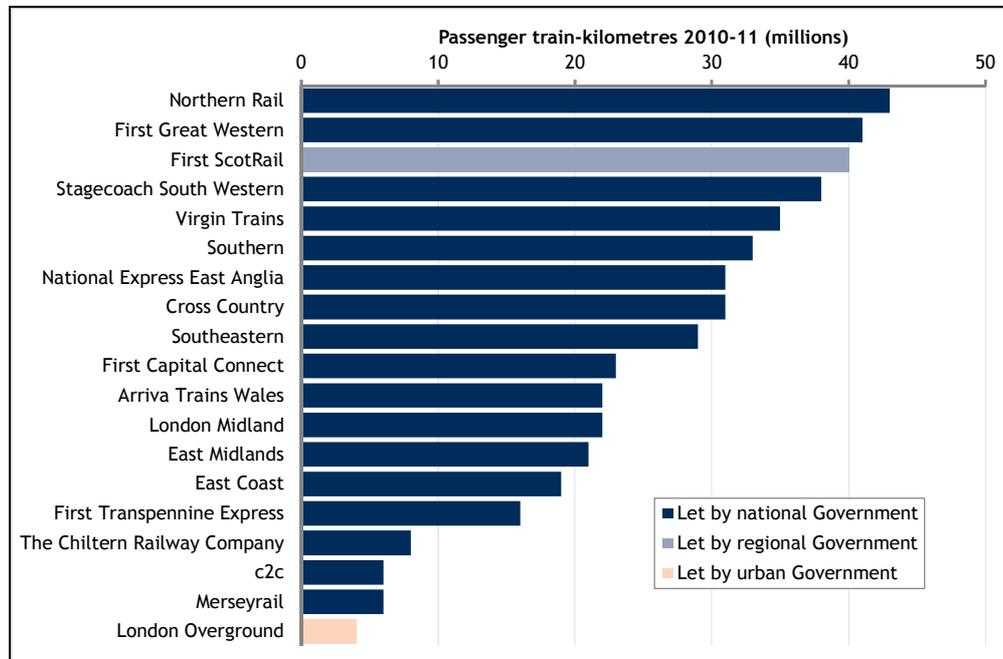
- 3.6 The 2005 Railimplement study included a detailed examination of cases referred to ORR or other competition authorities. The dominant referral issue related to the technical concern that award of a PSC franchise to an owning group might result in increased concentration either in the national rail industry or the local passenger transport industry, for example if a dominant local bus operator were also awarded the rail franchise. None of the cases related to a situation in which it was suggested that a cartel was operating.
- 3.7 Railimplement also detailed complaints to ORR under the Competition Act 1998. Since then, there have been further developments, we mentioned above a case relating to market dominance. A total of 11 cases have been investigated by ORR under the Competition Act.

Analysis of Public Service Contracts

Type and volume of contracts awarded

3.8 Table 1.1 above provided details of the current passenger train operators including those covering PSCs. These are summarised below in Figure 3.1.

FIGURE 3.1 PUBLIC SERVICE CONTRACTS



3.9 The volume of services run under PSC contracts in 2010-11 varied from 4 to 40 million passenger-kilometres, although over time the volume of services may grow, as additional franchise commitments are triggered or operators expand services on a commercial basis.

Share of publicly tendered contracts and average number of bidders

3.10 As noted above, all PSC services have been publicly tendered since 1997 and remain operated in the private sector or temporarily by the “operator of last resort”.

3.11 The Department for Transport (DfT), Transport Scotland and Transport for London (TfL) publish details of bidders who succeed in prequalifying to bid for franchises. Given the size of the businesses involved, and the openness of the process to bids from anywhere in the world, the tendering authorities have no difficulty in obtaining at least three, and normally four, tenderers who pre-qualify to continue to submit detailed tenders.

3.12 There is no evidence of declining interest in market entry, because the scale of the franchise “bundles” on Great Britain, along with business certainty, rail’s modal share and market conditions in general still attract bidders from around the world.

Financing and rolling stock purchases

3.13 Rolling stock for PSC franchises may be provided by a number of means:

- The tendering authority specifies which existing stock must be used
- The tendering authority requests tenderers to set out their proposals for rolling stock, which may include a mixture of existing and new stock

- The tendering authority requires tenderers to procure, and introduce into service, new stock of a certain specification by a specific date
 - The tenderer leases or buys additional stock to offer enhancements to the PSC specification either at the time of its tender or during the period of its contract
- 3.14 In practice, a single franchise will often involve rolling stock acquired by more than one of these means.
- 3.15 A key feature of the arrangements is that tenderers are not required to own or provide stock. Even if they are required to procure new stock, they will normally do so through a rolling stock leasing company (ROSCO) from whom they will lease it, and the ROSCO will receive guarantees from the transport authority that the stock will be used. This removes the need for tenderers to commit significant capital to the process.
- 3.16 Almost all rolling stock ordered since 1993 has been either leased through a rolling stock company or provided by a manufacturer as a “train service provider” (TSP) under a long-term contract to provide trains at defined times and locations to current and future franchisees.

Evidence of public subsidies and early termination

- 3.17 As discussed above, differences in subsidy between incumbent and franchise operators cannot be compared, for a number of reasons:
- The former national incumbent was funded centrally, and its accounts did not identify past or projected public subsidy to each of the future franchises.
 - Franchise specifications typically included requirements for investment which would not have been affordable by the former national incumbent.
 - Subsidy profiles change over the life of a franchise, with subsidy typically declining as the franchise progresses.
 - While data on subsidy profiles is published, these do not include any projections of the costs of providing the level of service provided by the previous operator.
- 3.18 Direct comparison would need to be between the total subsidy paid to a completed franchise, over up to 15 years (during which passenger demand might double), and the subsidy which would have been required with the incumbent over the same period, to provide the same services, and assuming that it had been able to afford the same investment. There is no means to make such comparisons.
- 3.19 Franchises have been terminated early, for a number of reasons, as set out in Table 3.1.

TABLE 3.1 FRANCHISE TERMINATIONS

Franchise	Reason	Action by franchising authority
Merseyrail Electrics	Parent failing financially and bought out	None beyond suitability checks on the new owner
Northern Spirit		
GNER	Parent failing financially	Franchisee remained in place until franchise could be retendered
Connex South Central	Poor service	
Connex South Eastern	Poor management	Franchisee replaced with DOR until franchise could be retendered
NXEC	Franchisee surrendered	

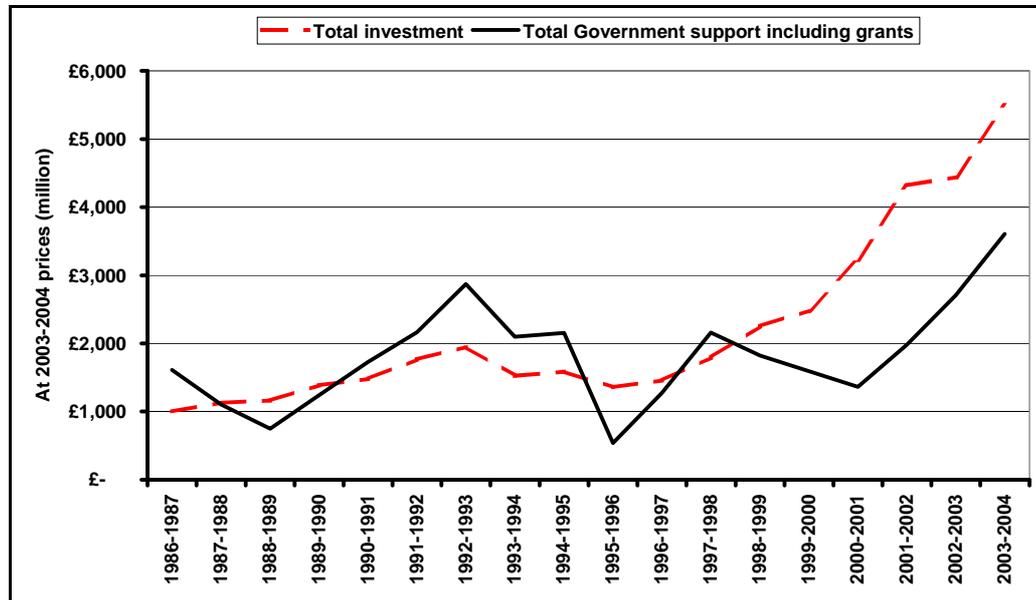
Source: Steer Davies Gleave analysis

Note: DOR is Directly Operated Railways

- 3.20 In the case of Merseyrail Electrics and Northern Spirit, shares of the failing parent MTL were bought by Arriva which satisfied the tendering authority that it was capable of continuing the service. In the case of GNER, whose failing parent was no longer able to support the service, and Connex South Central, terminated for poor service levels, a transition was arranged in which the franchise was retained for long enough to allow it to be retendered and transferred direct to a new private sector operator. In the case of Connex South Eastern, terminated for poor management, and NXEC, which surrendered the franchise as commercially unviable, Directly Operated Railways was brought in to manage the franchise until it could be retendered. As of April 2012 the former NXEC services on the East Coast Main Line continue to be operated directly pending refranchising.
- 3.21 Under any system of competitive tendering, processes are likely to be needed to replace contractors who are bankrupt, provide poor service, underestimate costs or, in particular, overestimate demand. The franchising model, with its transfer of demand and revenue risk to the franchisee, creates the risk that over-ambitious assumptions about economic growth, and hence demand and revenue, lead to a situation with negative cash flow, in which the franchise may be surrendered. Theoretical remedies are available:
- To require a high financial bond. However, this could deter tenderers.
 - To profile subsidy payments so that cash flows later in the franchise remain positive even in the result of an economic downturn. However, this would require the tendering authority to pay more subsidy in the early years and less in the later ones, which worsens the net present value of the subsidy payments.
- Investment level before and after the PSC award***
- 3.22 Among the objectives of the restructuring, and the Railways Act 1993, was the introduction of private capital into the railway. This means that the tendering authorities specify investments which they require, leaving it to the tenderer to recover the cost from them, over the life of the franchise, through a mix of increased revenues and additional subsidy payments. However, there is no means of identifying either:
- The investment the tenderer would have made if none had been specified
 - The investment that a hypothetical incumbent would have made

3.23 As part of the 2005 Railimplement study we analysed data on investment levels in the industry and public subsidy, and the results are repeated below as Figure 3.2.

FIGURE 3.2 INVESTMENT LEVELS 1986-2004



Source: Strategic Rail Authority (2005): National Rail Trends 2004-2005

3.24 Until 1993-1994 investment, shown by the red line, was paid for by central government, and was generally comparable with net levels of subsidy, shown by the black line. After restructuring, investment was paid for by the then-privatised infrastructure manager Railtrack, the PSC franchise operators and the ROSCOs. From 1999-2000 to 2003-2004 average investment in the industry exceeded government subsidy by around £2 billion per annum. Over time, however, any elements of this investment not financed by higher revenues from railway customers will be paid back by tendering authorities through higher subsidy payments.

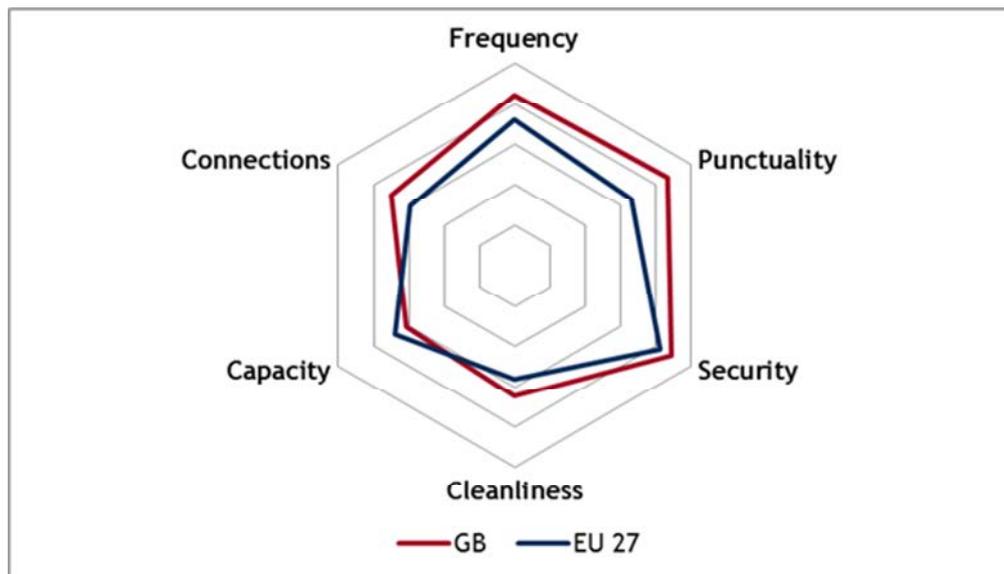
3.25 It is not now possible to update Figure 3.2 without analysis of the accounts of a large number of industry organisations. However, by April 2011, infrastructure manager Network Rail alone had debts of £23 billion, principally to fund infrastructure investment, which will implicitly be repaid through future government support, and annual finance costs of £1.5 billion, which are implicitly paid for out of current income from access charges and government grant.

Evidence of service quality

Eurobarometer

3.26 Eurobarometer ratings in 2011 shown in Figure 3.3 show that, relative to the average for the EU 27, Great Britain has higher than average customer satisfaction in all areas except capacity. The exception of capacity is perhaps unsurprising because, as shown in Figure 1.1, rapidly rising demand means that the industry is continually working to relieve crowding, particularly on commuter services but also increasingly on long-distance and regional services.

FIGURE 3.3 EUROBAROMETER RATINGS, 2011



Source: Eurobarometer

Fares

3.27 The key types of fare available in Great Britain are summarised in Table 3.2 below.

TABLE 3.2 KEY TYPES OF FARE IN GREAT BRITAIN

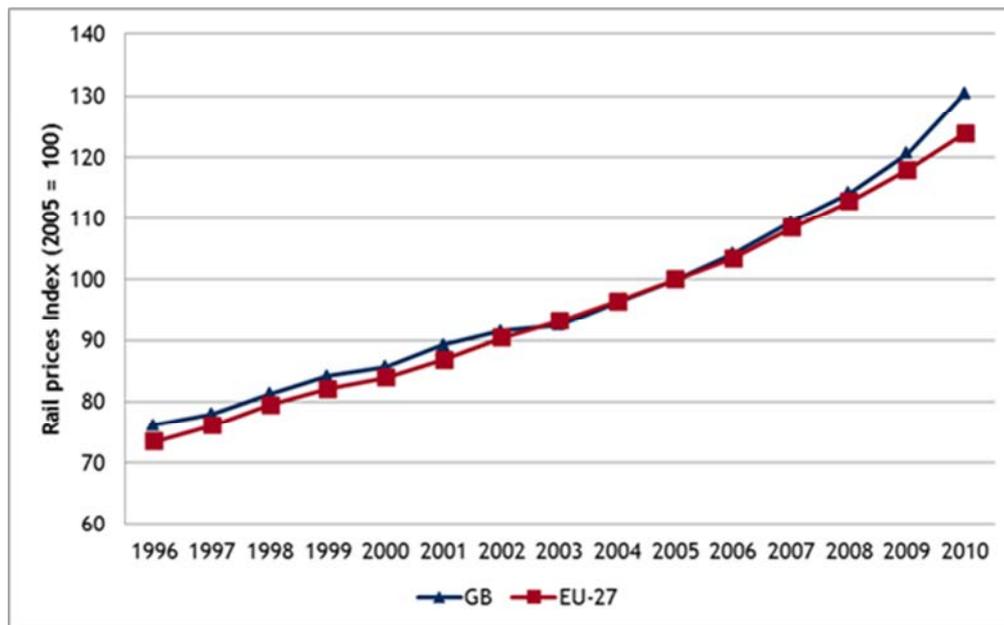
Fare	Regulated	Interavailable	Price competition
Open First	No	Yes	No
Restricted First	No	No	Some
Unregulated Standard	No	Yes	No
	No	No	Some
Regulated Standard	Yes	Yes	No

3.28 Note that there is only competition on price in limited circumstances:

- For First Class travel, where two or more operators serve the same journey and the passenger chooses a fare restricted to one operator and not interavailable.
- For Standard travel, where two or more operators serve the same journey and the passenger chooses an unregulated fare which is not interavailable, which may also require Advance purchase and limit the passenger to a specific train.

3.29 Figure 3.4, based on Eurostat data, compares the trend in average rail fares in GB with those of the EU-27 and shows that these are broadly similar.

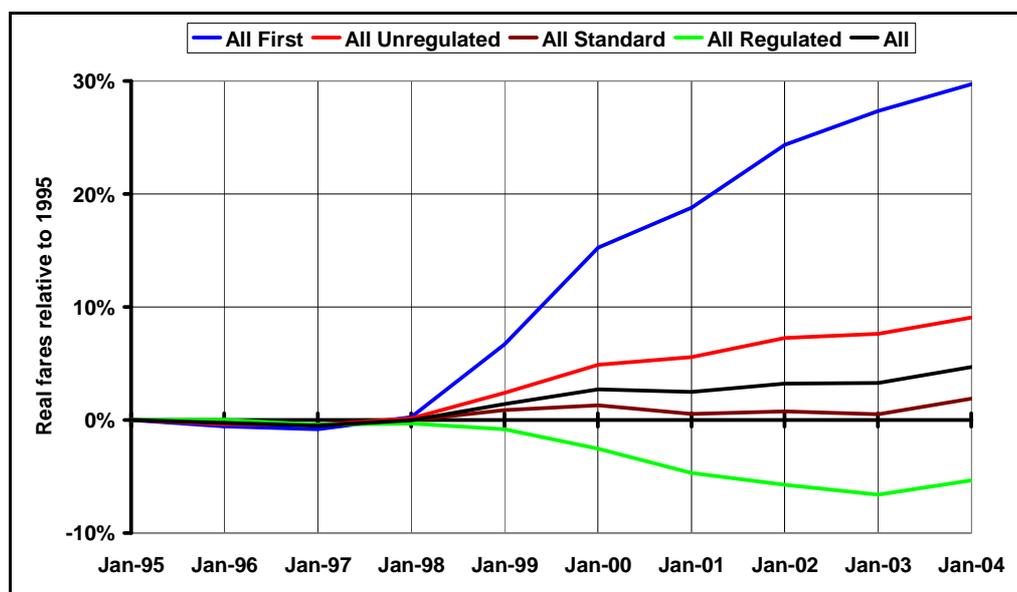
FIGURE 3.4 RAIL PRICES INDEX: NOMINAL GB AND EU-27 FARES 1996-2010



Source: Eurostat

- 3.30 However, standardised European data takes no account of the relative rates of inflation in different countries and does not identify the specific effects of rail policy in Great Britain, which required that real regulated fares were first reduced by 1% annually and then, following a policy reversal, increased by 1% annually.
- 3.31 Figure 3.5, reproduced from the 2005 Railimplement study, shows the trend in real rail fares following the introduction of rail franchising in 1996-1997.

FIGURE 3.5 RAIL PRICES INDEX: REAL GB FARES BY TYPE 1995-2004



Source: Strategic Rail Authority, National Rail Trends

Note: chart cannot be updated as fares data are no longer published in this form

- 3.32 In summary, over the period 1998 to 2004:

- Regulated Standard fares fell by 5%.

- Average Standard fares rose by 2%, or 7% more than regulated Standard fares.
 - Average Standard fares rose most on long-distance routes, where rail operators have greatest market power, even though at least some of these routes also have direct competition between operators.
- 3.33 However, the fundamental drivers of fares levels in Great Britain are that:
- Fares in price-inelastic markets are limited by regulation, to avoid excessive increases
 - Fares in price-elastic markets are left to the operator, with the effect that most of these fares have a price elasticity close to -1
 - No fares are determined by, or even related to, any measure of costs, and there is no reason why lower costs should result in lower fares
- 3.34 Theoretical work by a consultancy has suggested that open access could result in lower fares, but their report does not take into account the current process of regulating fares in a “basket” rather than individually. If a PSC operator reduces regulated fares where it faces competition, it will be entitled to raise other regulated fares elsewhere by the same amount to retain the same total revenue. Open access competition may reduce fares between some stations but result in increases elsewhere, with no overall gain to passengers.
- 3.35 We conclude that the limited amount of direct competition between operators on the network in Great Britain had no discernible effect on overall fares. In Great Britain, bundles of profitable lines (generally but not exclusively, long-distance services) and unprofitable lines (generally but not exclusively regional services) have been tendered together. Another policy choice, as in Germany, could have been to seek to separate long-distance from regional services, the former having open access and no public service obligations and the latter being competitively tendered public service contracts. Policy makers and the regulator have been concerned that, if franchised services were subject to extensive competition from open access services, their economic viability would be undermined.
- 3.36 Fares would almost certainly have risen further without active regulation, especially for passengers commuting into London where neither car nor bus offers effective competition to rail.
- Treatment of staff in transition period***
- 3.37 When franchising was introduced it was neither practicable to require tenderers to provide their own qualified and experienced employees nor acceptable to leave the former employees of British Rail, or an outgoing concession, unemployed.
- 3.38 This was dealt with through the existing Transfer of Undertakings (Protection of Employment) Regulations (TUPE) which enabled the transfer of the control of companies between parties while safeguarding the rights of staff including salary and pension entitlement. (We understand that TUPE is now compliant with the minimum requirements of Directive 2001/23/EC.)
- 3.39 TUPE has been used widely in other industries and its application in the rail industry raised no particular issues.

Evidence of cost changes and staffing levels with introductions of PSCs

- 3.40 Given that franchising authorities do not publish either the estimated cost of the proposed services or the detailed proposals offered by other tenderers. It is not possible to identify cost savings on a like-for-like basis.
- 3.41 Introduction of PSCs may have reduced staffing levels in some areas under the impact of commercial pressures, but a wide range of effects have been seen in practice, such as:
 - Scarcity in train drivers, resulting in rapid increases in pay as operators compete to recruit drivers
 - Increased on-board staff on some long-distance operators to provide higher levels of at-seat service to First Class passengers
 - Increased station staff on the London Overground network, specified by the franchising authority with the objective of improving passenger security

Analysis of open access operators

- 3.42 We noted above the PSC operators may provide “open access” services beyond the minimum set out in the PSC, either as a franchise commitment or as a voluntary extension of services during the franchise. Operations in excess of the minimum required cannot be identified within the PSC train-kilometres set out in Table 1.1.
- 3.43 Table 1.1 also shows the total volume of wholly open access operations in 2010-11 is small.

TABLE 3.3 OPEN ACCESS OPERATORS

Operator	Route	Start date	End date	2010-11 Train-km (million)
Eurostar	High Speed 1	November 1994		1.0
Heathrow Express	Great Western	January 1998		1.1
Hull Trains	East Coast	September 2000		1.4
Grand Central	East Coast	December 2007		1.8
Wrexham Shropshire & Marylebone	Indirect	April 2008	January 2011	0.6

Financing and rolling stock purchases

- 3.44 Eurostar owns a fleet of trains, based on the Alstom TGV design, constructed specially to operate through the Channel Tunnel. Heathrow Express owns a fleet of trains constructed specially for services to Heathrow Airport, operating partly on infrastructure also owned by BAA.
- 3.45 In contrast, Hull Trains, Grand Central and Wrexham Shropshire & Marylebone Railway all relied on locating existing stock not being leased by other operators. The need to locate and refurbish suitable rolling stock can mean delays in service introduction, short initial leases, and changes in fleet as leases expire and new stock must be found. This limited access to rolling stock results in part from the continued growth in passenger demand: PSC operators often require new stock to expand their services to meet franchise commitments or to reduce crowding, there is little spare stock in the system, and open access operators

are reluctant to buy stock suitable for a route without long term confidence that access rights will be available on that route.

Key features of open access offer

- 3.46 Eurostar and Heathrow Express, while technically open access operators, both operate services serving new infrastructure: Eurostar was conceived as a tri-national service for the Channel Tunnel, and Heathrow Express to serve Heathrow Airport via purpose-built (and privately-owned) infrastructure.
- 3.47 Theoretical analysis of open access in advance of the Railways Act 1993 suggested that the most attractive proposals would be services between London and major centres on main lines capable of 200 kph operation. To attract the most passengers, and to receive the largest share of revenue from interavailable tickets, the preferred service patterns were expected to be as shown in Table 3.4:

TABLE 3.4 THEORETICAL PREFERENCES FOR OPEN ACCESS

Preference		Constraint
1	Depart after the existing operator and overtake them en route	Rarely permitted by infrastructure
2	Depart immediately before existing operator and make only commercial station calls	Rarely possible without catching an earlier train
3	As 2, but accept extended journey time and make additional station calls	Rules to limit abstraction may mean that station calls are not permitted to pick up or set down

- 3.48 In practice the regulatory framework together with the limited infrastructure capacity, particularly at peak times, and restrictions on stopping patterns to protect the commercial viability of PSC services, mean that relatively few open access services have emerged.
- 3.49 The only sustained services, both on the 200kph East Coast Main Line, have focused on cities with no direct off-peak services to London, providing direct services at times when it would otherwise be necessary to interchange.
- 3.50 We understand that most passengers on open access services use interavailable tickets, giving them unrestricted access to the direct trains of any operator, and that there is therefore little direct price competition between open access operators and PSC operators. We estimate that less than 0.1% of all passengers pay an open access operator fare undercutting an interavailable fare. As noted above, the system of fares regulation enshrined within franchise agreements means that open access competition may reduce fares between some stations but result in increases elsewhere, with no overall gain to passengers.

Evidence of incumbent reaction

- 3.51 When open access services began on the East Coast Main Line, the main PSC operator reacted by reducing some unregulated fares and ceased to offer an interavailable First Class fare, forcing First Class passengers to decide which service they would use at the time that they bought their tickets.
- 3.52 Wrexham, Shropshire and Marylebone Railway Company (WSMR) company acquired rights to operate open access passenger train services from Wrexham via Shropshire to London

from 28 April 2008. However WSMR was not able to use the West Coast Main Line (WCML, see 3.72 below), to offer comparable journey times, or to call at some major sources of potential demand. The main PSC operator responded by extending, on a trial basis, existing services to WSMR's destination, Wrexham, on a different route and with a faster journey time. WSMR subsequently withdrew services.

3.53 These examples shows the potential complexity of maintaining effective competition between operators serving the same market:

- For the existing PSC operator, limited scope to reduce services, and little incentive to reduce interavailable fares, but under the regulatory system in Great Britain some scope to reduce unregulated fares and to offset regulated fare reductions with increases elsewhere
- For the open access operator, constrained access rights, no prospect of forcing the PSC operator to withdraw, and the risk that the PSC operator will expand

Key cost differences between incumbents and new entrants

3.54 No analysis is possible of cost differences between incumbents and new entrants because Great Britain has had no incumbent operator since 1997 and, even at that time, no estimates of the costs of the incumbent providing the services subsequently specified to, and provided by, franchise operators were available. In 2012 the Office of Rail Regulation initiated work to examine the relative cost-efficiency of PSC operators, but this will not extend to open access operators.

3.55 There may be some cost differences between PSC franchise operators and open access operators. However, as both pay the same incremental access charges and obtain rolling stock from the same sources, the key driver of costs is that:

- PSC operators must continue to provide a service, largely through incremental change to existing timetable, rolling stock, fares and staffing, specified under the PSC including station stops to meet a number of social objectives.
- Open access operators have the opportunity to adopt “zero based” timetable, rolling stock, fares and staffing, subject to certain constraints, to meet wholly commercial objectives.

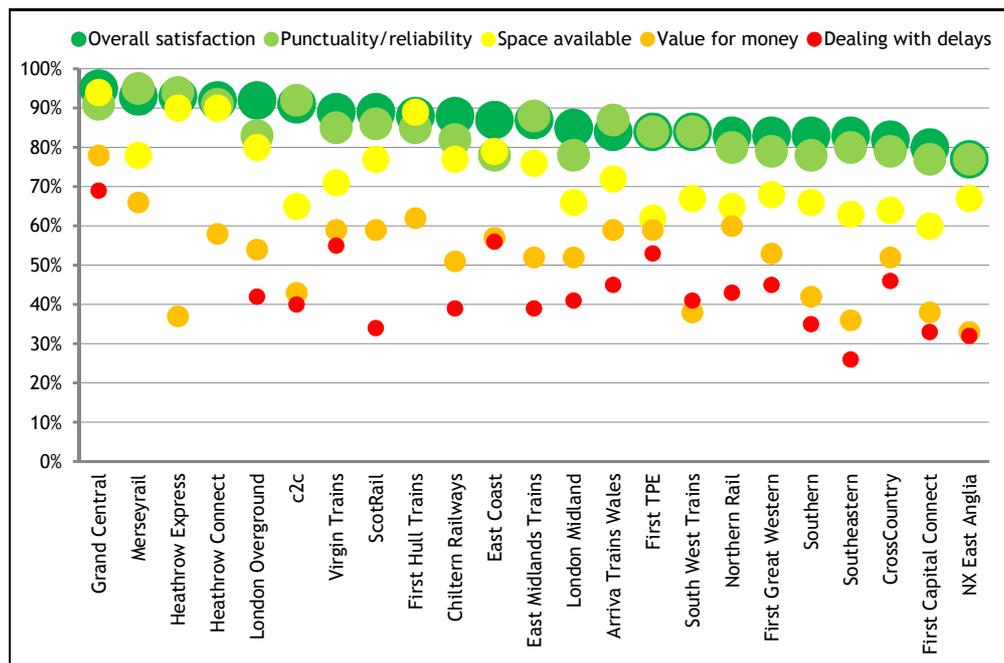
3.56 This implicitly means that open access operators may “cherry pick” opportunities such as those set out in Table 3.4 with low costs and/or high revenues, which are not directly comparable with the services offered under a PSC. They will not enter the market unless they identify a profitable opportunity which may, in part, depend on specific opportunities to reduce costs.

3.57 In any event, because of the heavy utilisation of the British rail network, opportunities for open access operators are extremely constrained. Open access operators in the UK are fringe operators compared to their peers in Italy or Austria. NTV operates a fleet of 25 HST trains between Naples and Venice/Milan/Turin on a separate infrastructure. Unless the proposed new HS2 high speed line is implemented, it will not be possible to operate services equivalent to those operated by NTV in Italy in the UK (for instance between London and Birmingham, Manchester and Liverpool).

Evidence on service quality

3.58 Figure 3.6 shows passenger satisfaction with different operators as measured by Passenger Focus in Autumn 2011.

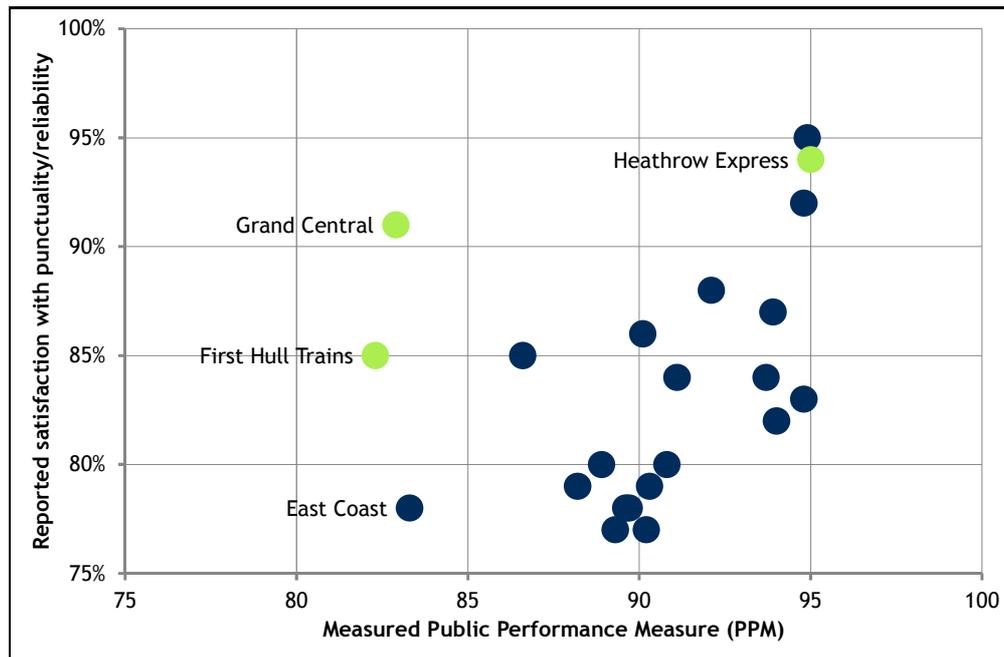
FIGURE 3.6 OPEN ACCESS: PASSENGER SATISFACTION



Source: Passenger Focus

- 3.59 Open access operator Grand Central achieved the highest overall satisfaction (95%) and relatively high satisfaction on all the other measures. Heathrow Express also scored highly although it was seen as poor value for money and was not rated for dealing with delays, which may be critical to passengers connecting to a flight. First Hull Trains also scored well on overall passenger satisfaction (88%). Both Grand Central and First Hull Trains appear to out-perform East Coast (87%), the dominant operator on the route from London Kings Cross.
- 3.60 However, satisfaction with franchises may be driven down by structurally lower satisfaction of commuters. Satisfaction levels tend to be low among commuters, who typically pay a large season ticket fare to travel to work, and high among leisure travellers, who pay a single or return fare to travel to a leisure activity.
- 3.61 Figure 3.7 compares the most recent measured Public Performance Measure (PPM) of operators with Passenger Focus’s measure of reported satisfaction with punctuality and reliability. The three operators on the East Coast Main Line had the worst measured PPM, but while East Coast achieved a satisfaction rating of 78%, First Hull Trains achieved a satisfaction rating of 85% and Grand Central achieved a satisfaction rating of 91%.

FIGURE 3.7 OPEN ACCESS: ACTUAL AND PERCEIVED PERFORMANCE



Source: Passenger Focus, Office of Rail Regulation, Steer Davies Gleave analysis

3.62 Where open access operators achieve higher customer satisfaction than PSC operators, this may be partly due to objectively higher quality, or more careful focus on their target markets. However, it may in part be an inevitable consequence of the fact that choice is available to all open access passengers but to only a minority of PSC service passengers.

Sources of passenger demand

3.63 The Office of Rail Regulation’s current test of proposed open access operations is that not more than 77% of revenue is abstracted from existing operations. This implies that modelling of the proposed open access service, using industry standard demand models, must show that at least 23% of the revenue must be generated by the new service. Our analysis of the business propositions of open access operators, and discussions with them, suggest that the principal sources of additional revenue are:

- Direct off-peak services between regional centres and London.
- As a by-product, increasing the overall frequency of services between these regional centres and London.
- Aspects of service quality, such as catering, focused on the specific requirements of the relatively small market served.

3.64 In practice, once open access operators have met the Office of Rail Regulation’s test and begun operations, they will inevitably refine their pricing and service to attract as much demand as possible from competing services.

3.65 These tests are meant to protect the economic equilibrium of the franchises and have resulted in few open access operations. Overall, the UK is a country of public service contracts for rail, whose open access commercial services operate at the fringe. Competitive pressure in the UK is mostly found through competition for the market (i.e. through tenders). It is therefore difficult to extrapolate the conditions of operation of commercial services in open access in the UK to the rest of Europe.

3.66 Given that the national network is largely operated through franchises and that there is relatively little free infrastructure capacity available, the application of these tests restricts the scope for open access in practice. Different outcomes may be observed elsewhere in Europe, particularly where capacity is less constrained.

Summary of open access

3.67 In summary, excluding Eurostar international services and Heathrow Express services provided to meet a planning commitment:

- Domestic open access in Great Britain is limited to around 0.7% of total train-kilometres, constrained in part by capacity constraints and in part by policies to protect franchised services
- The majority of open access operator revenue comes from interavailable tickets, the price of which is set by the PSC operator with which they compete
- Even if fares fell on flows with open access competition, the current system of fares regulations permits PSC operators to raise them elsewhere to compensate, so there would be little or no net benefit to passengers
- Capacity constraints may mean that opportunities for open access decline, at least until around 2026 when significant additional capacity may be available on one route

3.68 Great Britain does not have unrestricted open access and it is not yet possible to tell what effect this would have on the subsidy required from PSC services. One interviewee suggested that unrestricted open access would result in such high uncertainty that it would no longer be possible for transfer revenue risk to PSC operators on routes where commercially viable open access might be possible.

Analysis of competitive environment for rail operators

Current costs to market and time to market

3.69 IBM’s recent findings on the cost and time to market in Great Britain are as set out in Table 3.5.

TABLE 3.5 COST TO MARKET AND TIME TO MARKET (FROM IBM)

Application type	Time	Cost
Operating licence	3 months	€300
Safety certificate	5 months	None
Authorisation of rolling stock	4 weeks	Variable

Source: IBM “Rail Liberalisation Index 2011”

Barriers to entry

3.70 Recent discussions with an established open access operator suggest that the principal barriers to entry on the pattern set out in Table 3.4 are:

- **Finding markets**, and ways of serving them, which are potentially profitable, given policies to preserve the economic viability of PSC services, competition from other services and other modes, and the existence of regulated and interavailable fares. Even with the relatively high fares in Great Britain, entry have been limited to main lines capable of 200kph operation, and may not be commercially viable.

- **Obtaining access rights** to serve these markets with the optimum mix of timing, speed and stopping patterns.
 - **Obtaining rolling stock** with the performance needed to meet the timings of these paths.
- 3.71 Open access will not occur unless all three of these requirements are met, but with passenger demand almost doubling since 1994 (see Figure 1.1), any spare capacity in potentially attractive markets may require rolling stock with specific speed and acceleration characteristics, which may not be available. IBM’s “Rail Liberalisation Index 2011” noted that many operators mentioned “bottlenecks” in the infrastructure which constrain capacity on key routes.
- 3.72 On the West Coast Main Line (WCML), for example, long distance services are operated with Pendolino tilting stock which can maintain higher speed on curving track. To provide open access services in any free paths, an operator would probably also need to use stock built to the British loading gauge and with similar or better tilt, acceleration and maximum speed, but no such stock exists.
- 3.73 On the Great Western Main Line (GWML), open access operator Heathrow Express uses 160 kph electric trains which fit among 200 kph long-distance diesel services because they have higher acceleration. Conversion of other services to electric operation may mean that this is no longer possible at peak periods. Network Rail’s current Route Utilisation Strategy proposes that peak Heathrow Express services will in future need to operate on the slow lines and make additional station calls.
- 3.74 Directive 2001/14/EC of the First Railway Package requires that “When infrastructure has been declared to be congested, the infrastructure manager shall carry out a capacity analysis as described in Article 25, unless a capacity enhancement plan as described in Article 26 is already being implemented”. However, no infrastructure has formally been declared to be congested, and hence no capacity analysis or capacity enhancement plans have been required. Capacity planning in Great Britain has been through a detailed cost-benefit analysis, which can plan and value existing or proposed PSC services but cannot predict future applications for open access services.
- 3.75 The infrastructure manager’s capacity enhancement plans on lines where open access might be commercially viable increasingly dedicate all available capacity to PSC services, and it remains to be seen whether the Office of Rail Regulation will overturn these plans to provide capacity for potential open access. This means that, even if the restrictions on competition are relaxed, there will be little or no future opportunity for open access unless either:
- There is a massive expansion in available capacity, as may occur on the West Coast Main Line (WCML) with the completion of a high speed line between London and Birmingham, due in 2026.
 - The Office of Rail Regulation concludes that existing or proposed PSC services make poorer use of capacity than proposed or potential open access services.

4 Summary of findings

Summary of previous chapters

- 4.1 Great Britain's rail industry was redesigned in the period 1991-1995, with objectives of competition for and in the market, anticipating the objectives of the Railway Packages.
- 4.2 The separation process showed that it was not possible to distinguish "social" and "commercial" services, because even profitable services include a number of unprofitable but socially necessary station calls, and so almost all existing services were made subject to a PSC.
- 4.3 "Competition for the market" is possible. Replacement of the incumbent operator by franchises has proved workable but debate continues as to the costs and benefits of doing so. Longer franchises may reduce the refranchising workload but increase the need to renegotiate franchises as requirements, infrastructure and other services change.
- 4.4 "Competition in the market" is limited by factors including capacity, policies to protect franchises, and the availability of rolling stock, to around 0.7% of train-kilometres. Even if protection of franchised services was reduced (almost certainly increasing subsidy requirements, whether competition emerged or not), the lack of spare infrastructure capacity and rolling stock would remain. Except where there is a massive expansion in available capacity, open access is likely to be limited to providing through off-peak services to secondary destinations, with most passengers using interavailable fares, and with competition based largely on the elimination of interchange.

Identification of key problem drivers and elements

- 4.5 Few of the problem drivers apply in Great Britain, primarily because the industry was systematically redesigned in the period 1991-1995. Nonetheless, Great Britain demonstrates the limits of what can be achieved with the removal of technical, administrative, institutional and legal barriers before other constraints apply, in particular the constraints of:
- Commercially viable markets in a largely loss-making industry
 - Available infrastructure capacity
 - Maintaining the economic viability of PSC operations
- 4.6 There is therefore continuing debate about the costs of the arrangements relative to their benefits and hence whether attempts to open the railways are irrelevant, misguided or counterproductive.

Access barriers for new entrants

- 4.7 The principal barrier to access for new entrants to PSC services is the costs of tendering, which we note in paragraph 2.22 may be of the order of £5 million. However, tender costs on this nature are not disproportionate to a PSC contract which may have a turnover of over £10 billion over a 15-year franchise.
- 4.8 The principal barriers to open access, as discussed in paragraph 3.70, are:
- **Finding markets**, and ways of serving them, which are potentially profitable, given ORR's restrictions on abstraction to preserve the economic viability of PSC services.

- **Obtaining access rights** which optimise the mix of speed and stopping patterns.
- **Obtaining rolling stock** capable of meeting the timings of paths available.

4.9 Even if the policy of limiting abstraction were abandoned, two fundamental constraints on open access would remain:

- Access to infrastructure is non-discriminatory, but spare capacity is scarce.
- Access to rolling stock is non-discriminatory, but spare rolling stock is scarce.

Inefficient use of public funds

4.10 The Rail Value for Money study claimed that the industry's costs are 30% too high but did not recommend a reversal of unbundling or liberalisation, implicitly suggesting that these policies are not a barrier to efficient use of public funds. Other commentators disagree. As we set out in paragraph 2.34, the Office of Rail Regulation is currently carrying out a Periodic Review during which it will determine the efficient costs of the industry assuming its current structure. No further studies are proposed to identify how public funds could be used more efficiently.

4.11 The cost, discussed above, of operating the franchising process is identifiably a consequence of market liberalisation, but no credible estimates exist of whether it is offset by savings which would not otherwise have been achieved.

Potential examples of best practice

4.12 Table 4.1 summarises examples of best practice from Great Britain.

TABLE 4.1 POSSIBLE EXAMPLES OF BEST PRACTICE

Example	Benefits
“New opportunities for the railways”	Single national document setting out policy for the industry including market opening and competition for and in the market.
Railways Act 1993	Rail industry redesigned on economic principles, developed from other restructured network industries, to open them to competition for and in the market.
Office of Passenger Rail Franchising	Specialist national authority established with expertise in the process of concessioning railway services.
“Passenger Rail Industry Overview”	Single national document created to explain the structure of the industry and the roles of each body for the benefit of potential participants from anywhere in the world.
Template contracts	Development of standard industry contracts to allow participants to become familiar with standard arrangements.
Network Code	Development of standard and published industry procedures, managed by the infrastructure manager but developed by the industry as a whole.
Impartial retailing	Obligation for all operators to sell all tickets and to give impartial advice on the cheapest ticket consistent with the passenger’s requirements.
Interavailable ticketing and ORCATS	Long-established system for apportioning revenue from interavailable tickets, used as a default allocation but subject to appeal on the basis of objective evidence.
Through ticketing	Policy requirements that tickets would remain available between any two points, with no need to buy more than one ticket.
Fares regulation	Regulate key interavailable Standard (Second Class) fares but allow operators to discount from regulated fares.
New entrants do not need new stock	Rolling stock is in independent ownership and available for lease, minimising capital requirements and hence barriers to entry.
Flexible franchise specifications	Ensure that franchisees have scope to optimise stopping patterns, connections and other details to meet passenger requirements.

4.13 We discuss each of these in turn below.

“New opportunities for the railways”

4.14 Rather than present rail reform as a technical matter driven by the European Commission, the government adopted it as an explicit national policy, and published statements setting out the policy and how it would work.

Railways Act 1993

4.15 Great Britain’s government conceived railway liberalisation as a specific and carefully-designed package of legislation, which in one Act achieved all the major objectives of Directive 91/440/EEC, the First, Second and Third Railway Packages and the stated objectives of the Fourth Railway Package.

Office of Passenger Rail Franchising (OPRAF)

- 4.16 Rather than require or permit a large number of local transport authorities to develop franchising on different models, the government created a specialist body to develop and implement the transition to a contracted industry structure.

“Passenger Rail Industry Overview”

- 4.17 Aware that the new industry structure was complex, OPRAF created and published a single comprehensive guide available to interested parties and prospective market entrants.

Template contracts

- 4.18 To simplify the legal workload in the industry, a range of template contracts and processes were developed, supported by schedules in a standard format.

Network Code

- 4.19 As in other network industries, the industry developed a common set of rules and industry procedures that apply to all parties using the rail network. The code is managed by Network Rail, as infrastructure manager, but developed by the industry as a whole.

Impartial retailing

- 4.20 Impartial retailing was considered essential to eliminate the need for each operator to establish a network of ticket offices. Each retail channel must offer the cheapest ticket consistent with a passenger’s requirements, irrespective of the operator(s) on whose services it is valid.

Interavailable ticketing and ORCATS

- 4.21 Retention of interavailable and through ticketing required an accepted means of apportioning revenue between operators. Great Britain has needed to apportion revenue between operators since the middle of the nineteenth century, and has long established a principle that each should receive the revenue appropriate to the use of its services. However, ORCATS, developed to allocate revenue between the former incumbent’s business, provided an established process for calculating an initial apportionment, which can be made subject to appeal on the basis of factual evidence.

Through ticketing

- 4.22 Through ticketing was essential to preserve the convenience passengers had already enjoyed and to avoid additional complexity to buy tickets for multi-stage journeys. This is particularly an issue close to the boundaries between operators. Without through ticketing, for example, a passenger travelling around 40 kilometres between Merstham and Farncombe would need to buy three separate tickets. Without impartial retailing, he or she would need to buy them at three separate stations.

Fares regulation

- 4.23 Fares regulation was designed to prevent sudden major changes in fares but to allow fares to vary over time to reflect market conditions. Regulation was limited to key commuter and leisure fares, with operators free to offer targeted discounts.

New entrants do not need new stock

- 4.24 The government identified from the outset the potential problem of access to rolling stock, which remains a major constraint to liberalisation: potential operators would not commit to buying or owning stock for short franchises. All rolling stock was transferred to leasing companies and is broadly available on a non-discriminatory basis. The main rolling

stock constraint in Great Britain is the combination of the unique gauge of the network and rapid expansion of demand, leaving little spare rolling stock suitable for potential open access.

Flexible franchise specifications

4.25 The franchising authorities realised that the private sector needed scope to innovate and in particular to change exact stopping patterns, connections and service timings as demand changed, and should be incentivised to add “open access” services contiguous with a franchise where this provided benefits. Innovations introduced by one franchise can, if successful, be included in the base specification when services are retendered.

4.26 In Great Britain:

- The proportion of PSC services operated by new entrants is already 100%, and has been since 1997.
- The scope for open access services is small and increasingly constrained by the availability of infrastructure capacity and suitable rolling stock.

Summary of outstanding problems

4.27 Table 4.2 summarises the outstanding problems in Great Britain.

4.28 As noted in paragraph 4.9, the two principal constraints on opening in Great Britain are that, even if the restrictions on abstraction were abandoned, two fundamental constraints on open access would remain:

- Access to infrastructure is non-discriminatory, but spare capacity is scarce.
- Access to rolling stock is non-discriminatory, but spare rolling stock is scarce.

TABLE 4.2 SUMMARY OF OUTSTANDING PROBLEMS

Root causes	Problem drivers		Country evidence
Long and costly procedures	Limited access to rolling stock	×	No evidence
	Vague rules on access to rail-related services	×	No evidence
Industry consolidation	Incomplete unbundling	×	No evidence
Access barriers to new entrants	Ineffective unbundling	×	No evidence
	Incomplete unbundling	×	No evidence
	Deficient funding and investment framework	×	No evidence
	Access barriers to infrastructure	×	No evidence
	Lack of structures/mechanisms for coordination	×	No evidence
	Lack of financial transparency	×	No evidence
Different market access rules in MSs	Absence of competition for PSOs	×	No evidence
	Distorted/ineffective competition for PSOs	×	No evidence
	Absence of open access rights	×	No evidence
	Discriminative framework conditions	×	No evidence
Other causes	Lack of infrastructure capacity	✓	Capacity is scarce
	Lack of rolling stock	✓	Rolling stock is scarce

EUROPEAN RAIL MARKET OPENING

Hungary

Country Fiche

July 2012

1 Evolution of the national market

Structure of the network

- 1.1 Hungary has a population of approximately 10million people and a density of 107 inhabitants per km². It shares borders with seven countries in Central and Eastern Europe. The length of Hungarian railway lines is around 7,600 km. Network density is 85.4km / 1000km², one of the highest in Europe. The TEN-T network currently includes covers around 30% of Hungary's lines and further investment is planned to upgrade it to ETCS2 by 2016.
- 1.2 Rail intensity is below EU-27 average for freight, but above average for passenger transport. The main traffic flows are on the TEN-T network, especially on the route to Austria where the capacity utilisation is 80%. As a result there are capacity bottlenecks in the Budapest area. Elsewhere capacity utilisation is lower (around 40% on average), especially in the south of the country¹.

Changes in volumes for passenger and freight services

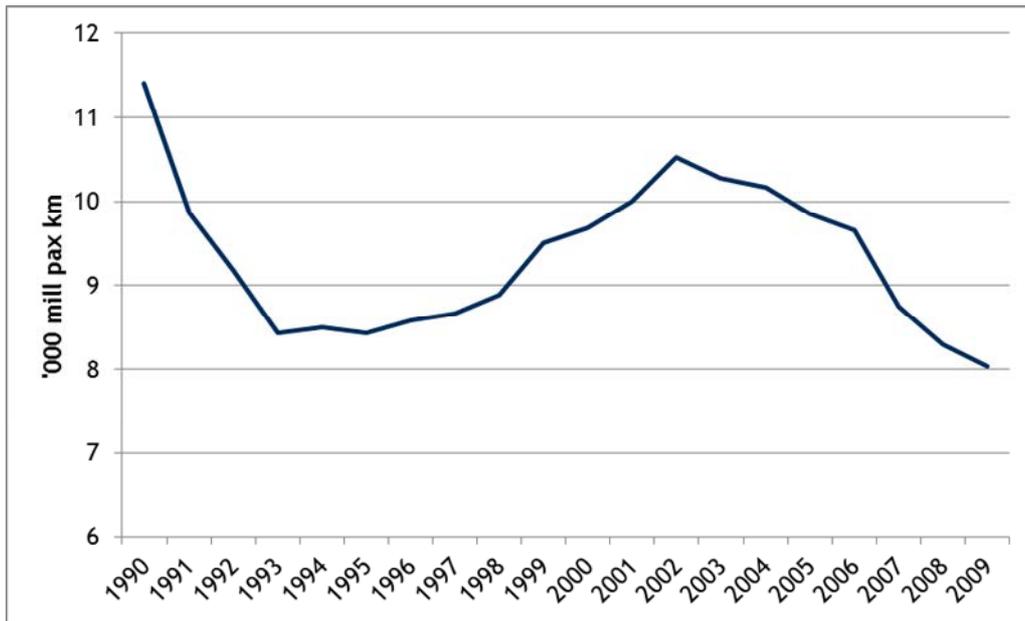
Passenger Volumes

- 1.3 The trend in passenger volumes is shown in Figure 1. Hungary had been an exception among the EU10 Member States that have joined the EU in 2004 and 2007. Following a sharp decline at the beginning of the 1990s, passenger levels have been rising steadily until the early 2000s. Since then, passenger volumes have declined again. This trend is not in line with the growing trend of passenger traffic in the European Union as shown in Figure 2 below.
- 1.4 Decline in patronage was partly due to the closure of several lines in 2007 and 2009. Further decline in passengers, together with public budget cuts, is leading to the closure of some lines in the next few years². Other significant factors have been: increases in ticket prices, new sections of motorways M3, M5, M6 opened in the 2000s, and steadily growing car ownership rates up to the mid-2000s, all of which increased the competitiveness of road transport. For example, the number of cars per 1,000 inhabitants has increased from 160 in 1995 to 294 in 2009.

¹VPE Annual Reports

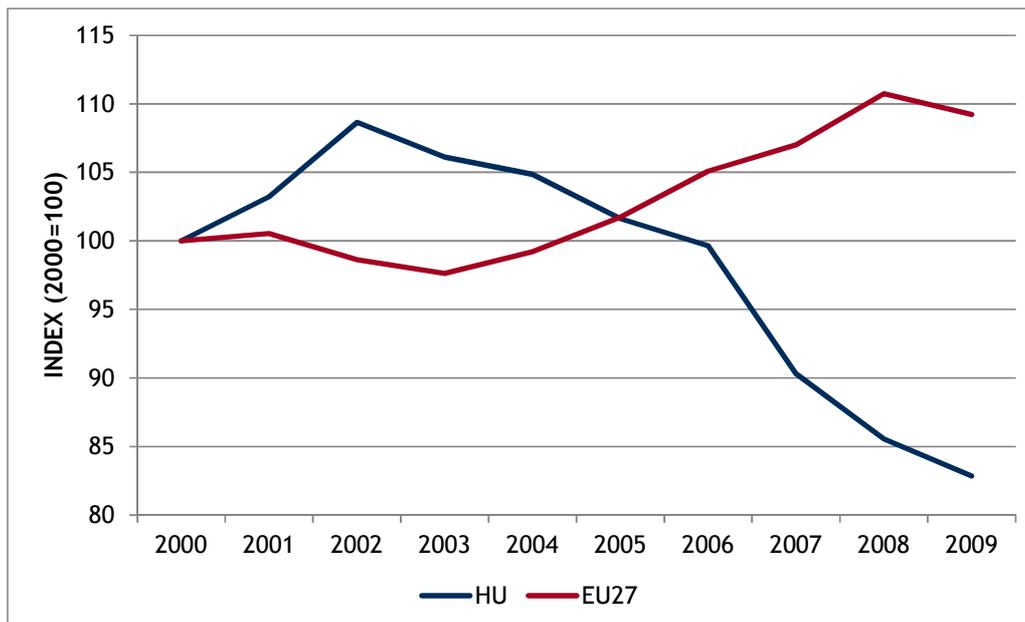
²Stakeholder interview

FIGURE 1 PASSENGER-KM IN HUNGARY 1990-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

FIGURE 2 PASSENGER VOLUMES IN HUNGARY AND THE EU 2000-2009

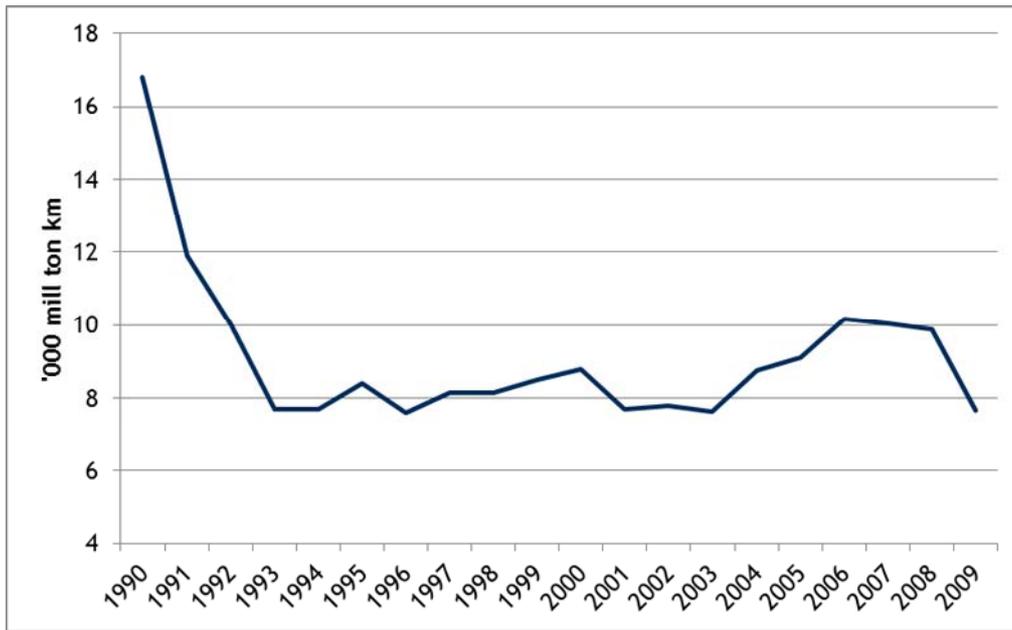


Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

Freight volumes

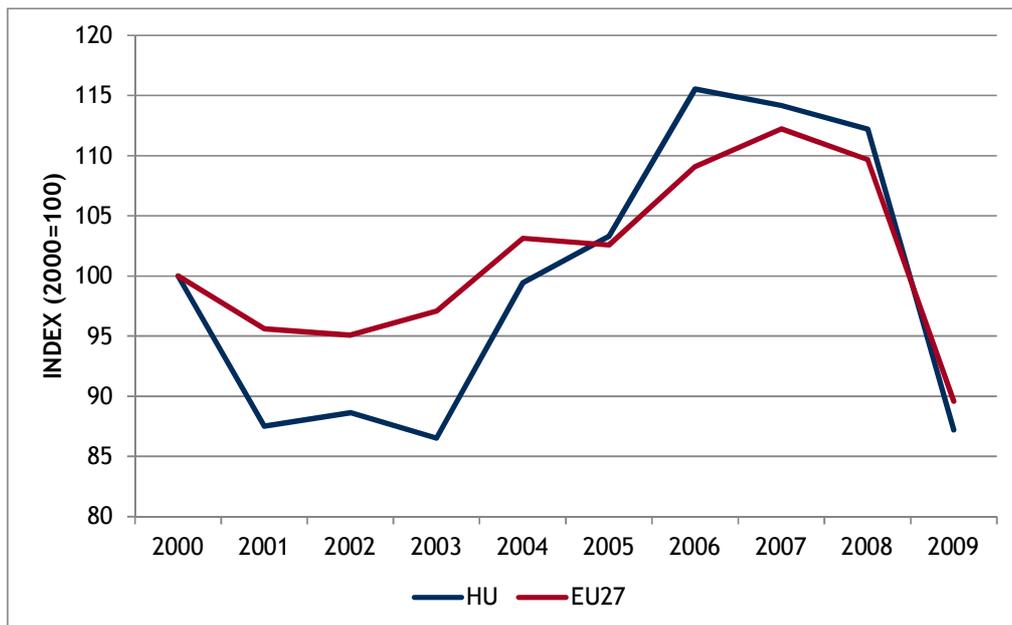
1.5 Freight volumes also witnessed a steep decline at the beginning of the 90s but have since then seen a fairly stable level of freight traffic. Figure 3 shows that since 2003, freight volumes increased until 2006 when they plateaued and then started declining in 2008 with the onset of the economic crisis. As opposed to passenger services, trends in freight volumes in Hungary have mirrored European trends since 2000 (see Figure 4).

FIGURE 3 FREIGHT TONNE KM IN HUNGARY 1990-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

FIGURE 4 FREIGHT VOLUMES IN HUNGARY AND THE EU2000-2009

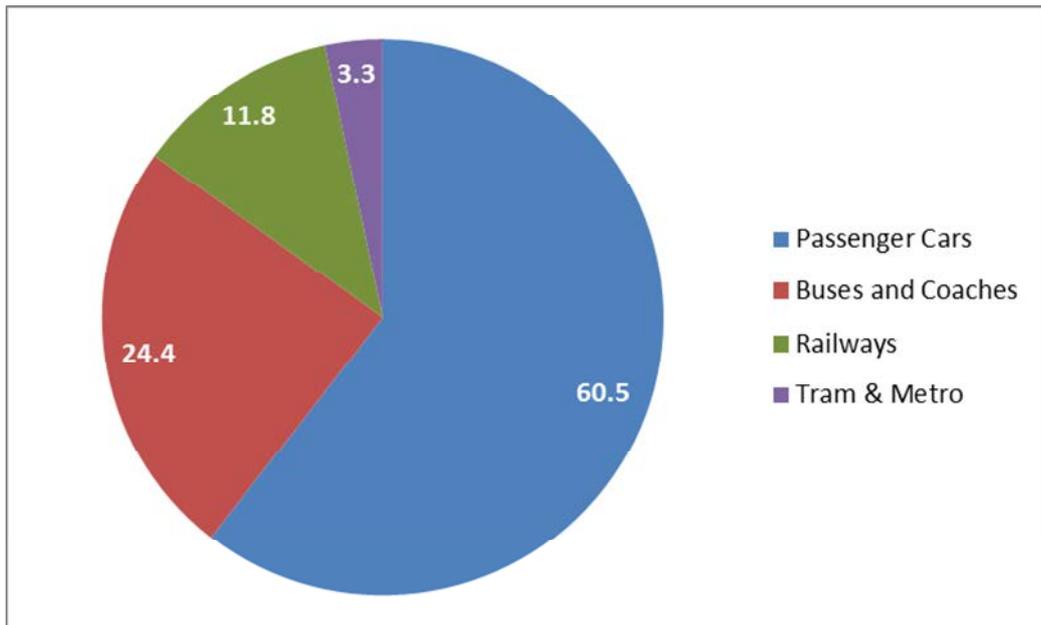


Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

Modal split - passenger and freight

1.6 The modal split for passenger transport in Hungary in 2009 is shown in Figure 5 below. Rail accounted for around 12% of all passenger kilometres, a similar share than in previous years. Despite the continuous decline of rail since 2002, car journeys have also been falling leaving the relative shares of car and rail unchanged. In this respect, Hungary is an exception among the EU10 Member States that have joined the EU since 2004.

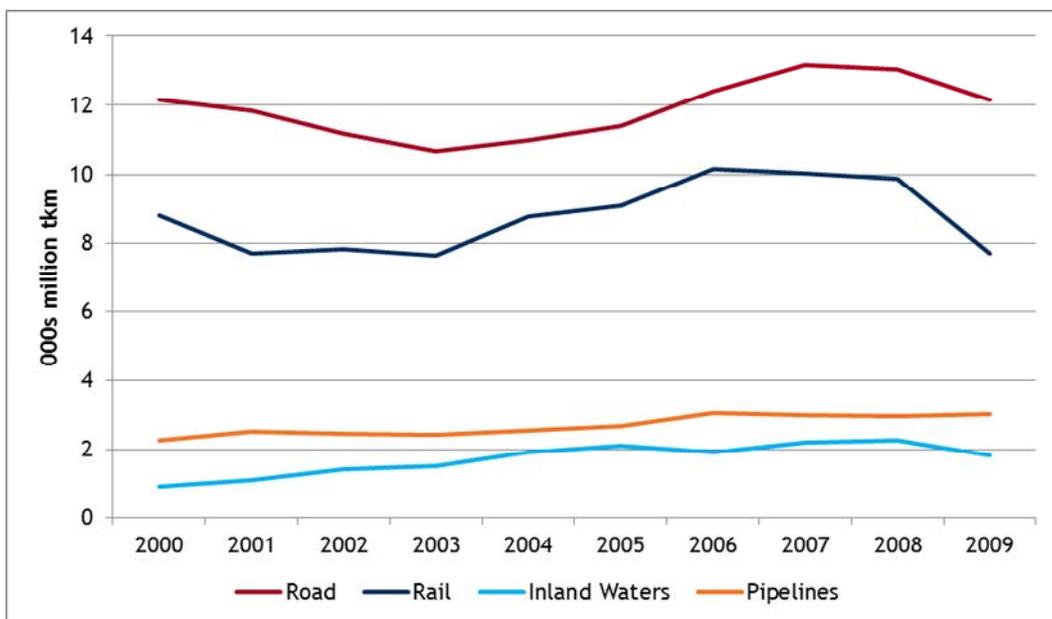
FIGURE 5 MODAL SPLIT IN PASSENGER TRANSPORT 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

- 1.7 In the freight sector, the share of rail transport was 31% in 2009 in terms of tonne kilometres - this was more than 5% lower than in 2000. Between 2000 and 2009, the modal share captured by road haulage fluctuated between 55% and 60%, but rose over 60% in 2009 as freight traffic reduced more on rail than on roads (see Figure 6).

FIGURE 6 FREIGHT TRANSPORT VOLUMES BY MODE 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

Railway undertakings

Passenger services

- 1.8 The two main railway undertakings are the incumbents MÁV Start and GySEV, operating both passenger and freight services. MÁV is a joint stock company arising from the corporatisation of Hungarian State Railway in 1993. GySEV, instead, operates in the west of Hungary and the east of Austria. It is owned by the Republic of Hungary (66.5%), the Republic of Austria (28.3%) and the Strabag SE company (6.2%)³. The cross-border services with Austria are operated by Raaberbahn, the Austrian subsidiary of GySEV. There are no new entrants in the domestic passenger market in Hungary, except for a niche operator offering trips with historical trains on a market basis⁴.
- 1.9 On international routes, foreign railway undertakings offer long-distance passenger transport services through Hungary. They have open access to international transport on a reciprocity basis. Cabotage in international rail transport is possible as per the EU Directives, but currently no new entrant undertakings operate on this market segment, with the exception of ÖBB, offering premium service between Vienna and Budapest.
- 1.10 The central government in Hungary has not devolved the competencies of regional transport to regional authorities as has been done in some Member States. The exception to this is the Budapest public transport company BKV HEV, as the Budapest Municipal Authority contracts regional rail passenger services in the form of long-term PSCs.

Freight services

- 1.11 The first private rail freight undertaking started its operations in 2004. Since then, several operators have been entering and exiting the Hungarian market, there are currently 15-20 RUs active in the market. The country's strategic location as an international transport corridor favours market entry by foreign RUs.
- 1.12 In December 2008 the freight transport division of the incumbent - MÁV Cargo Zrt - was sold to the ÖBB subsidiary Rail Cargo Austria (RCA) for €344m. Since 2011, the merger has completed under the name Rail Cargo Hungaria. The new company currently remains the dominant operator while other operators have very small market shares. A summary of the main operators in the Hungarian rail market is provided in Table 1.

TABLE 1 PASSENGER (2009) AND FREIGHT (2008) OPERATORS MARKETSHARES⁵

Passenger Services		Freight Services	
MÁV Start	98%	Rail Cargo Hungaria	86%
GySEV	2%	GySEV CARGO	5.3%
		CER	4.9%
		MMV	2.9%

³ Rail Liberalisation Index (2011), IBM, p.139

⁴Rail Regional Passenger Services in Europe, BAG-SNPV, p.68

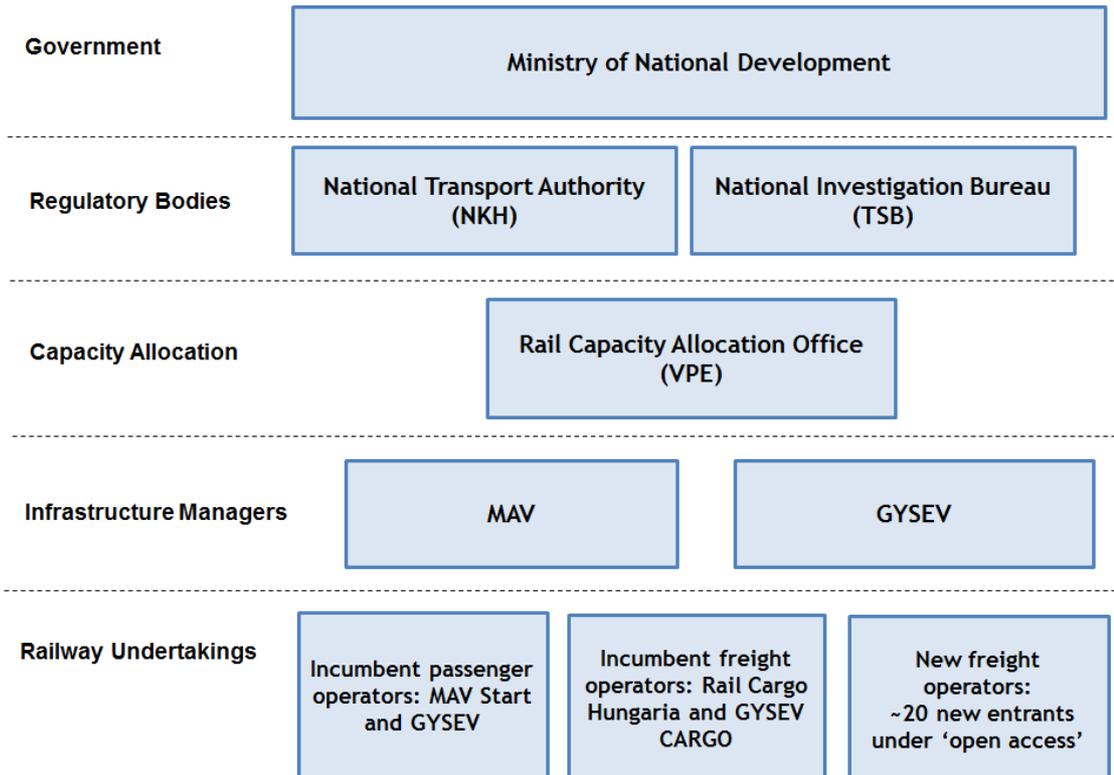
⁵Source: European Commission (2009)

2 Institutional background

Regulatory framework: Institutions and their role

- 2.1 Figure 7 summarises the institutional arrangements regulating the rail market in Hungary. Their specific functions are described below.

FIGURE 7 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN HUNGARY



Source: Steer Davies Gleave

Ministry of National Development

- 2.2 The Ministry sets out the national legislative framework and provides the technical-political address to national railway policy. Public service contracts are directly negotiated between the Ministry of National Development and railway undertakings. The Ministry of National Development also supervises the activities of the NIB (Transportation Safety Bureau Annual Report, 2010); the Minister reports to the government annually on the activities of TSB, the lessons learned from the independent investigations, the processes and trends concerning transportation safety.

Regulatory body

- 2.3 The National Transport Authority Nemzeti Közlekedési Hatóság (NKH) is the regulatory body set up to regulate the rail market in compliance with Directive 2001/14/EC. It replaced the Hungarian Rail Office in July 2008 and it currently has 11 employees. In addition to rail transport, NKH also regulates road transport, shipping and aviation.

- 2.4 NKH monitors the activities of the capacity allocation authority VPE, including the assessment of network statement. It also conducts investigations over allocation procedures and charging and passenger rights issues, and monitors competition in general.
- 2.5 However NKH is not involved in monitoring or assessing the performance regime. It may initiate investigations whether RUs comply with PRR, such as passenger information, complaint handling etc. Otherwise has no powers to investigate service quality. This aspect was investigated since 2010, and measures were taken to improve the situation. The fines imposed were paid via the NEB into the national budget.
- 2.6 NKH is completely independent of government departments or Ministries and key market players. The authority funded by the industry through three sources of funding:
- Administrative fees paid by RUs and IMs for licensing procedures (approx. 10% of total)
 - Supervisory fees paid by the RUs running on the national infrastructure (approx. 80%; (fees are calculated as 0.4% of the track access charge paid by the RU in the previous year)
 - Fines that may be imposed on RUs (amounting to 2% of the annual revenues of the RU concerned), IMs or on the capacity allocation body (VPE) in case of misconducts; these account for approximately 10% of total funding
- 2.7 Upon receiving complaints or requests by an RU, NKH is obliged to initiate an investigation, but it can also initiate an investigation by itself. Appeals to NKH's decisions do not result in suspension. However no complaints have been received by NKH from potential new entrants to the passenger market about barriers to entry.
- 2.8 The role of the National Safety Authority (NSA) is covered by a department of NKH and the president of the NSA is appointed by the president of NKH.

National safety bureau

- 2.9 The Transportation Safety Bureau of Hungary (TSB) is a multimodal organisation for the investigation of accidents that was established on 1st January 2006. It is in charge of implementing the Railway Safety Directive into the Hungarian law, investigating rail accidents, carrying out independent technical investigations and issuing recommendations and reports to the European Railway Agency. No serious accidents involving collision and derailment were reported in 2010.

Capacity allocation body

- 2.10 Rail Capacity Allocation Office (*Vasúti Pályakapacitás-Elosztó Kft -VPE*) was established in 2004 by virtue of the Railways Act XCV of 1993. It is independent of RUs and has nationwide competence in allocating rail network capacity and in determining network access charges. VPE is owned by the Republic of Hungary. VPE's main responsibilities are:
- allocating railway capacity for open access network - passenger requests are made collectively on annual basis while freight tends to operate on a short term basis
 - developing and publishing the Network Statement
 - determining network access charges - based on direct costs adjusted for depreciation
 - elaborating the performance regime, monitoring compliance with the regime, and reporting to NKH every three months on about capacity allocation, network statement, access charges and the performance regime

- 2.11 VPE is involved with optimising capacity and investment in the TEN-T routes, working with the IM and others. But it isn't involved in this way with the rest of the network.
- 2.12 The revenue of VPE deriving from network access charges (fixed at 1.25% of the charge) is used solely to cover its operational costs. As detailed below, this corresponds to lower than EU average access charges.

Infrastructure managers

- 2.13 The tracks and other necessary assets (telecommunications, guards etc.) are owned by the Hungarian state and are held in trusteeship by the infrastructure management companies.
- 2.14 As a result the incumbent railway undertakings, MÁV and GySEV, manage the respective infrastructure for their own railway networks. However the independent body VPE is in charge of capacity allocation. Hence the Commission's COM (2009) 1687 describes the current corporate structure of the Hungarian IM as follows:

- Independent infrastructure manager [allocating capacity] having delegated certain infrastructure management functions (e.g. traffic management, maintenance) to one of the train operating companies/ Integrated infrastructure manager working alongside an independent body in charge of capacity allocation.
- The business unit of MÁV that manages the infrastructure runs separate accounts from the business unit that operates passenger services (MÁV Start). The two units are not completely independent though, since they still fall under the direct control of MÁV Group and have some common board members.

- 2.15 For 2011-2012, infrastructure charges per passenger train km range from 0.43 to 1.35 (MÁV) and from 0.90 to 1.35 (GySEV) Euros based on February 2012 exchange rates. These are slightly lower than EU averages. However, passenger operators believe this charges are not competitive with other transport modes.

Incumbent operators

- 2.16 As described in paragraph 1.8, MÁV Start and GySEV are the two incumbent undertaking operating in Hungary's rail market. A summary of their financial position for 2010 and 2009 is presented in Table 2 below.

TABLE 2 FINANCIAL RESULTS OF NATIONAL RAILWAY COMPANIES

Millions €	2010		2009	
	MÁV	GySEV	MÁV	GySEV
Turnover*	460.8	72.0	641.5	96.2
State contributions**	-	-	654	30
Investments in the Passenger sector**	-	-	824	42
Profit/Loss (EBIT)*	-67.6	0.2	-120.9	-0.8

Sources: UIC Database 2009**, CER Annual Reports 2009-2010* and 2010-2011*

- 2.17 The financial figures obtained from the CER Annual Reports and the UIC Database suggest a downward trend in turnover for both undertakings. This decline follows a negative result (-19% for both MÁV and GySEV) in 09/08 and mirrors the traffic figures presented in Chapter 1. It is also reflected in negative EBIT figures for both 2009 and 2010.

2.18 From the analysis of 2009 accounts, it appears that both MÁV and GySEV have received substantial amounts of funding from the State. These total €654m for MÁV and €30m for GySEV; such sums correspond to around 80% and 70% of total operating expenses on passenger services respectively.

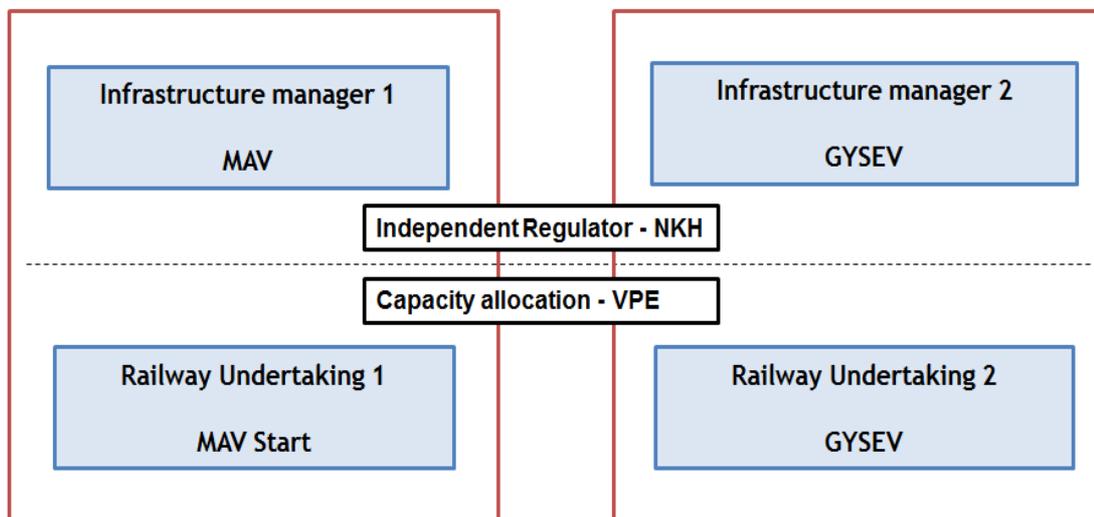
3 Market access and competition

Analysis of the effectiveness of the current regulatory framework

Degree of vertical separation

- 3.1 As highlighted in previous chapters, the rail undertakings MÁV and GySEV are also the respective infrastructure managers in Hungary. This results in a model with two vertically integrated firms. However, an independent body in charge of capacity allocation (VPE) works alongside the integrated infrastructure managers and has to report to the Regulatory Body (NKH). This structure is shown in Figure 8.

FIGURE 8 PARTIAL SEPARATION IN HUNGARIAN RAILWAYS



- 3.2 While the introduction of VPE as a body in charge of path allocation and infrastructure charges in 2004 paved the way to further liberalisation, the infrastructure divisions of the two incumbents are still in charge of operation, maintenance and facilities management. Table 3 provides an example of the infrastructure services offered by MÁV. The integration of the operations and the infrastructure divisions at both MÁV and GySEV is further strengthened by the fact that they share offices in the same building and have common board members⁶.
- 3.3 The Ministry is responsible for railway infrastructure development. Project delivery is the responsibility of the National Infrastructure Developer Zrt (NIF). However, projects may also be initiated and developed by the infrastructure managers, if they finance the project or provide the local contribution to the project costs in case of EU funding.
- 3.4 Therefore, the operations of the Hungarian rail market are best described as only partially separated. The infringement proceedings brought forward by the Commission in 2010 revealed the persistence of critical issues such as the lack of full independence of infrastructure managers and the lack of incentives to improve operational efficiency.

⁶Network Statement M1 for 2011/2012, p.19, available from VPE website

3.5 However, there is horizontal separation. The former MÁV Cargo was acquired by Rail Cargo Austria in 2008 and it operates as Rail Cargo Hungaria since 2011. GySEV Cargo is a separate subsidiary from GySEV in terms of accounting and organisation. New-entrants are present in the freight market, unlike in the passenger market.

TABLE 3 INFRASTRUCTURE SERVICES AT MÁV GROUP

Service type	RUs	Main elements of services
1. Basic Services	Obligatory	- Granting of train paths - Running of trains
2. Supplementary Services	Optional	- Use of catenary - Station usage - Storage of vehicles
3. Additional services	Optional	- Shunting locomotives/staff - Weighting, axels interchange
4. Ancillary and other services	Optional	- Training, examination - Brake test

Effectiveness and capability of the regulator

3.6 The decisions taken by the Regulatory Body since 2010⁷ are set below; these may also include the responses to appeals issued from rail operators (freight and urban level) in relation to:

- the Network Statement and the criteria contained within it: 40 decisions concerning the Network Statement of feeder-lines in 2010;
- the capacity allocation process: no decisions concerning allocation process in 2010;
- the charging scheme for the use of the rail infrastructure: 1 decision issued upon a complaint of a railway undertaking in 2010⁸.

3.7 The NKH monitors the rail market in Hungary effectively according to IBM (2011). However the regulatory body’s effectiveness is hard to evaluate given the lack of new entrants and, as a result, the lack of complains from them. In the absence of complains, the NKH does not initiate investigations about service quality and efficiency. The body also appears to be understaffed to deal with any potential issues resulting from market opening.

Analysis of Public Service Contracts

Type and volumes of contracts awarded

3.8 Railway companies have unrestricted access to the Hungarian rail network and can provide domestic passenger transport services as long as they bear the financial risk, in a regime of open access. However, all public service contracts to date have been directly awarded to

⁷Steer Davies Gleave interview with NKH, January 2012

⁸Alstom’s complaint against BKV (Budapest Public Transport Company) for the cancellation of its underground contract - The Budapest Times, 23/11/10

the incumbents MÁV and GySEV on all lines of the network on a long-term basis and they are not publicly tendered.

- 3.9 The timetable for public service contract passenger transport is elaborated first and then the alternative timetables are elaborated by MÁV-START and GySEV. The timetable is then approved by the Ministry for National Development. Before the publication of the timetable for PSC passenger transport, its content should be agreed with local public authorities and road based passenger transport operators⁹.
- 3.10 As reported by CER, the framework public service contract contains the rights and obligations of the parties, as well as the content of the contractual conditions to be determined in special annexes on a yearly basis. The main obligations are as follows:
- tariff obligations and compulsory discounts for certain categories of users
 - service frequencies
 - the content of public service activities and timetable
 - seat-kilometre performance to be reached by the service provider (only applicable to contracts with MÁV START)
 - planned revenues from fares of the service provider
 - compulsory quality indicators to be reached such as punctuality, cleanliness of rolling stock and passenger areas in stations, provision of information for passengers, elimination of physical obstacles for persons with reduced mobility, etc. (only applicable to contracts with MÁV START)
- 3.11 The Performance Regime, published in accordance with Directive 2001/14/EC encourages railway undertakings and the infrastructure manager to minimise disruption and improve performance.
- 3.12 The public service contracts currently operating in Hungary cover approximately 95% of the whole passenger rail market. Both MÁV and GySEV negotiated a contract with the Ministry of National Development in January 2010 for the duration of three years. Contracts include rights and obligations for undertakings as well as the levels of financial compensation and the provision of exclusive rights by the Ministry.
- 3.13 Foreign rail undertakings have open access to the rail network for cross-border traffic. Domestic and regional inland passenger transport is also open to EU operators from 2012. However, on routes and during the periods covered by public services specified in a PSC, the competent authority is allowed to restrict market-oriented services and it is entitled to establish charges that compensate the abstraction of revenue from existing undertakings operating under PSCs¹⁰.

Financing and rolling stock purchases

- 3.14 RUs have three main sources of financing to support their operations:
- Ticket revenues: the ticket price is set by the RUs but cannot exceed a maximum price set by the Ministry together with types and validity of tickets, the level of penalties and other tariff terms

⁹ Public Service Rail Transport in the EU: An Overview, CER, November 2011

¹⁰ Rail Regional Passenger Services in Europe, BAG-SNPV, p.68

- State compensation: undertakings receive a consumer price complement to cover the difference between full-price tickets and discount tickets which are provided to specific groups of passengers (e.g. students, elderly)
 - Compensation for loss-making public services: the planned justified costs not covered by revenues are calculated by MÁV START and GySEV and are then approved by the government (see paragraph 3.17)
- 3.15 The two railway undertakings in the passenger sector own and operate some of their own rolling stock. For example, 27% of MÁV Start's rolling stock is its own - the remaining 73% is owned by MÁV Co and Deutsche Leasing¹¹. MÁV Traction owns and leases locomotives and train crew. However, a market for rolling stock operating companies (ROSCOs) has not developed in Hungary. This may act as a barrier for new companies trying to enter the Hungarian market. In addition, renewal of rolling stock is slow: over 57% of the total fleet is over 30 years old, while only 5% is less than 10 years old.

Evidence of public subsidies and investment levels

- 3.16 State contributions for 2009 amount to €654m for MÁV and €30m for GySEV, a sum that corresponds to around 80% and 70% of total operating costs on passenger services respectively¹². This percentage appears to be higher than the European average of public funding covering 30-50% of total operating costs. A larger share of these funds have been allocated to passenger services rather than the development of infrastructure.
- 3.17 State contributions are provided as part of the public service contracts compensation agreements. According to the PSC, the recoverable costs not covered by revenues are calculated by MÁV START and GySEV and then approved by the government.
- 3.18 The International Monetary Fund¹³ reports that State subsidies to the two main loss-makers, the railway group MÁV and the Budapest public transport company BKV, have fluctuated between 0.75 and 1% of GDP over the last 5 years. This reflects "inefficient operation, steady losses, growing indebtedness, and government policy on ticket pricing" according to the IMF. The Fund adds that Transport State Owned Enterprises (SOEs) have frequently received additional state financial support through capital injections, asset sales, or debt assumptions and recommends rationalising this sector as part of the fiscal consolidation strategy to curb Hungary's deficit.
- 3.19 The government is considering consolidating, within the general government budget, the €1.2 billion debt that MÁV owes relating to operating expenses and purchases, although this process has been delayed. The government is also seeking efficiencies through a substantial investment programme using a number of funding sources.
- 3.20 In February 2012, the EU proposed to suspend €495 million of Cohesion fund for Hungary for 2013 as a result of the country's failure to address its excessive government deficit. This move may have a direct impact on transport infrastructure investment. For the period 2007-2013, European contributions to transport in Hungary are set to be more than €7.2 billion, aimed at developing and renewing 500km of railway lines, increasing speed, comfort and reliability.

¹¹Public Service Rail Transport in the EU: An Overview, CER, November 2011, p.113

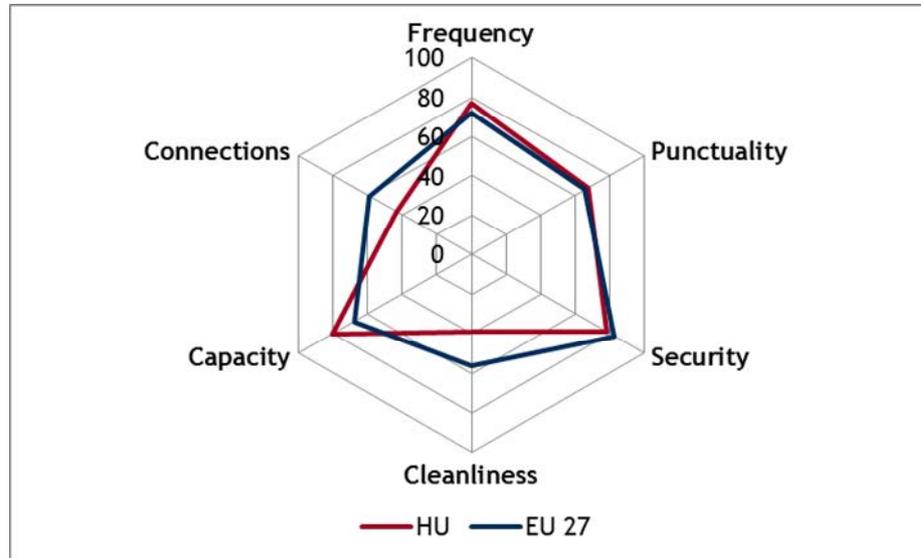
¹²UIC Database 2009

¹³IMF Country Report No. 11/35, February 2011

Evidence on service quality

- 3.21 The quality of rail services in Hungary has been recently evaluated in a Eurobarometer publication - the result of a comparative survey conducted across Member States in 2011. Figure 9 summarises the results for Hungary in comparison to the EU-27 average scores.

FIGURE 9 EUROBAROMETER RESULTS 2011- % PASSENGER SATISFACTION



Source: Steer Davies Gleave analysis of Flash Eurobarometer (June 2011)

- 3.22 Hungarian customers have rated their rail services quite highly. In particular:
- they believe that enough capacity is offered (80% satisfaction rate) and that the frequency of the trains is satisfactory (77%). Both indicators received a higher score than the EU-27 average.
 - two-thirds of the respondents are happy about the punctuality of services. UIC Data for 2009, however, shows that only 74.4% of long-distance trains operated by MÁV were on time, while this percentage rises to 85% for GySEV. Commuter trains were more punctual, with only 6 trains out of 100 arriving late on the whole network;
 - however more than half of the interviewees are not satisfied with the quality of station facilities and station services, well below European averages;
 - the cleanliness and maintenance of carriages is the indicator with the lowest score (only 39% satisfaction rate).

Staff levels

- 3.23 The process of privatisation and reform started in the 1990s and continued after joining the EU in 2004, bringing about a fundamental change in the productive structure of the Hungarian economy. One of the elements of this change is the progressive shift from labour-intensive to capital intensive industries, which is also affecting the rail sector.
- 3.24 The number of employees in railway enterprises has decreased by 35% between 2001 and 2009, falling from 56,647 to 36,794¹⁴. Staff numbers are decreasing in both railway undertakings - for example, MÁV Group employed around 26,000 employees in 2009 and

¹⁴ Eurostat, Employment in principal railway enterprises, accessed in February 2012

25,000 in 2010, 60% of which were involved in infrastructure operations and 40% in passenger transport. GySEV employed around 1,700 workers in 2009, 500 of which were employed by the infrastructure division¹⁵.

- 3.25 The decrease in staff levels follows a similar trend across the EU and in new Member States in particular. However the number of employees in the sector is still above the EU average. Both the World Bank and the IMF recommend further labour cuts as measures to improve productivity in the railway sector in the documents analysed.

Analysis of open access operators

- 3.26 There are no open access operators in the passenger sector. In the freight sector, instead, there are around 15-20 new entrants with a market share of almost 10%. This sector has been open to competition since 2003, leading to the entry/exit of several undertakings and the privatisation of MÁV Cargo. Examples of new entrants include Floyd, Hungary's first independent open access freight operator, and MMV which operates block trains for bulk goods and dangerous products.
- 3.27 However, several obstacles to market access are reported by new entrants in the freight market¹⁶. These include the bureaucracy involved in the market entry process - for instance, the Network Statement is not supportive to new entrants and the process for acquiring the necessary licences is considered cumbersome. In addition, interregional differences in interoperability matters, such as the inter-organisational information systems and the technical specifications of the railway traffic control system, reduce the efficiency of long-distance services.
- 3.28 Market consolidation (both by vertical integration and mergers and acquisitions) by incumbent undertakings appears to be the preferred strategic choices by freight undertakings who wish to enter the Hungarian market, given the high fixed costs. Group of alliances form between the largest market players to profit more out of their contracts, forcing smaller players to merge with bigger operators (especially backed by German and Austrian investors) in order to survive. The takeover of MÁV Cargo by Rail Cargo Austria AG in 2011 has, for instance, created one of the largest rail cargo operators in Europe.
- 3.29 Investigations into cartel and price agreements have been opened by the Hungarian Competition Authority (HCA). In the case Vj-5/2008 the HCA suspects that the undertakings concerned pursued, by abusing their dominant position and exclusive rights in relation to cross border railway traffic services, an activity that could have detrimental effects horizontally on the rail freight transport market and vertically on the market of logistic services¹⁷.

Analysis of competitive environment for rail operators

Current cost to market and time to market

- 3.30 Applications for operating licences, safety certificates and homologation of rolling stock are also processed by the NKH. As a Licensing authority, NKH issues operational licences attesting the suitability of rolling stock and subsystems operated by authorised applicants (manufacturers, RUs, IMs, etc.).

¹⁵ Sources: UIC Database 2009 and MÁV Annual Report 2010

¹⁶ Simola M., Szekely B., The liberalization process in Europe, Finnish Rail Administration (2009)

¹⁷ http://www.gvh.hu/gvh/alpha?do=2&st=2&pg=96&m126_doc=5037

- 3.31 IBM reports the following information about the time to market in Hungary:
- Operating licences: The legally prescribed period for processing an application for an operating licence is two months. Operating licences must be reviewed every five years. They become invalid after six months if no transport operations have been provided.
 - The legal period for granting safety certificates in Hungary is three months. Safety certificates are valid for a period of five years.
 - Rolling stock authorisation requests need to be processed within 30 days.

3.32 The costs of issuing each of the documents is detailed in Table 4. Overall, the process is described as transparent for the operating licences and the authorisation of rolling stock; however some RUs complained that the allocation of safety certificates is not transparent.

TABLE 4 COST TO MARKET AND TIME TO MARKET

Document type	Time	Cost
Operating licence	2 months	€9,000
Safety certificate	3 months	€7,200
Authorisation of rolling stock	30 days	€678

Source: IBM 2011

Barriers to entry and complaints

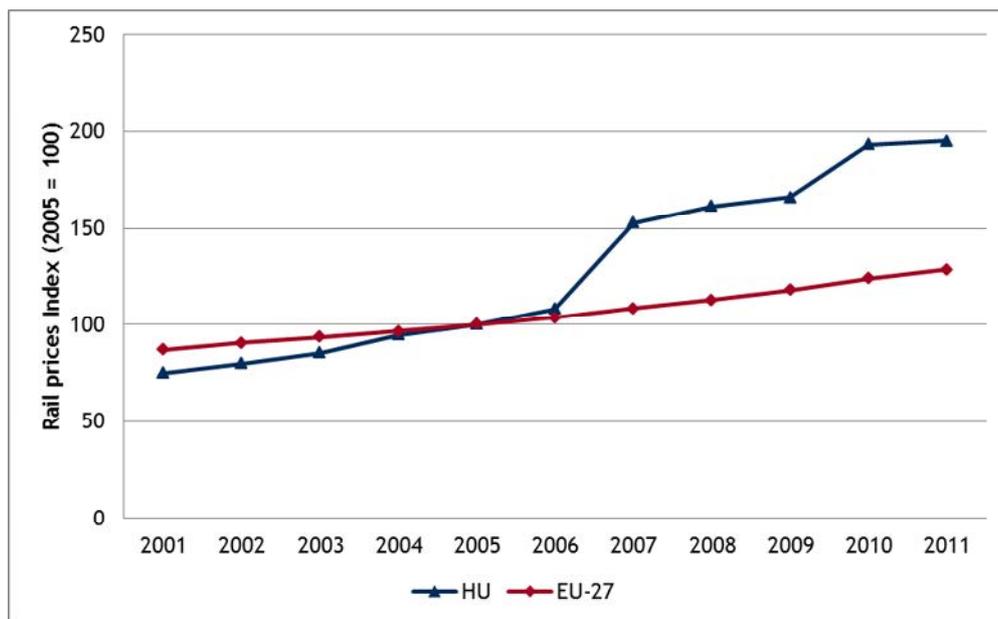
- 3.33 Operating barriers have been lowered with the creation of the independent capacity allocation VPE, allowing for non-discriminatory access to the network. Overall, the allocation process is described as transparent in IBM 2011.
- 3.34 Although the passenger market is, by law, open to competition, the most important barrier to entry at present is represented by the market dominance of the two incumbent operators, MÁV and GySEV. It seems unrealistic that any operator would wish to compete with these firms given the effective duopoly they have established, the large amount of State contributions they receive and the persisting integration of some infrastructure functions within them.
- 3.35 An additional issue is represented by the low level of double or multiple track lines in Hungary, causing barriers to traffic flow and the accumulation of delays.
- 3.36 In the freight sector, despite the larger share of new entrants, some market entry barriers remain. The Finnish Rail Administration (2009) identifies them as bureaucracy, investments and acquisitions of rolling stocks. According to the study, the Network Statement is not helpful to new entrants, and the process for acquiring the necessary licences and permits requires a great deal of effort. IBM 2011 also reports complaints from some RUs about discrimination in the access to freight terminals and maintenance facilities.
- 3.37 The European Commission has examined a competition case in the Hungarian rail market about the merger of RCA and MÁV Cargo. The Commission concluded that the merger raised serious competition concerns. Ultimately, the merger was cleared after RCA submitted a structural remedy package removing any links between the merging parties

and GySEV, thus ensuring that GySEV has a competitive incentive in the cross-border section of the market¹⁸.

Trends in price and quality indicators

- 3.38 The perception of quality by rail users and the assessment of rail competitiveness are analysed in the discussion above of evidence on service quality. While they offer satisfactory results, there is still room for infrastructure and service improvement in Hungary.
- 3.39 A specific concern is that quality has not been improving as much as prices have been rising. The annual average indices for passenger transport prices in the railway sector by Eurostat show that fares have almost doubled in the past five years - well above the EU-27 average (see Figure 10).
- 3.40 One of the underlying reasons for increasing prices is that the railway company and several municipal transport companies remain heavily loss-making. As public finances are strained under the pressure of fiscal consolidation through deficit reduction, it is unlikely that public funds will increase in the coming years. As a result, price hikes could be expected to continue.

FIGURE 10 PRICE INDEX FOR PASSENGER RAIL TRANSPORT 2001-2011



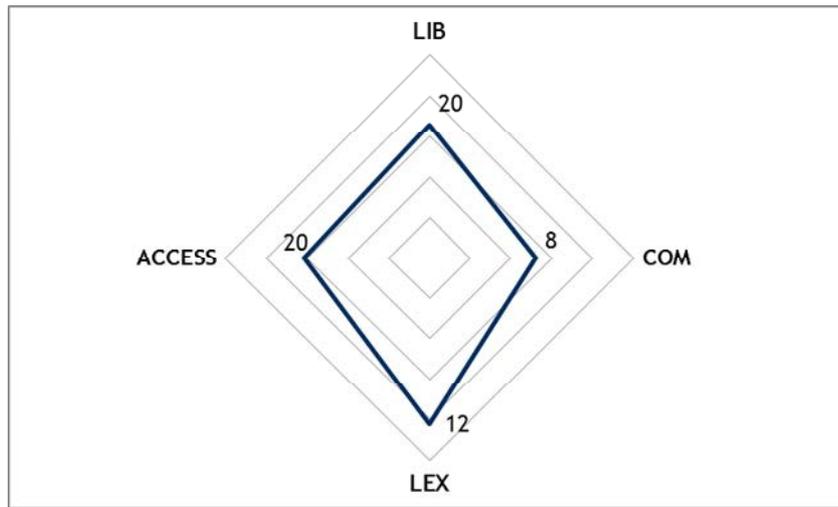
Source: Eurostat (2011)

Market opening

- 3.41 Overall, the environment for train operators in Hungary is competitive in some aspects and not competitive in others. The IBM Rail Liberalisation Index 2011 highlights these differences by placing Hungary in 8th place in Europe in terms of modal split and market shares (COM Index) and in 12th place in terms of legislative implementation and regulation (LEX Index). However, Hungary does worse in the ACCESS Index which takes into account market barriers and, overall, it is ranked 20th in the LIB Index (see Figure 11).

¹⁸Stehmann and Zenger 2010

FIGURE 11 LIBERALISATION INDEX 2011 - HUNGARY



Source: Steer Davies Gleave analysis of IBM LIB INDEX (2011)

- 3.42 In a specific study of liberalisation in the Visegrad States, Erdos Kelemen (2011) identifies the Hungarian market as one with a high potential for new entrants, given the need for modernisation and price competition. However, the actual market attractiveness is lower given the persisting market barriers such as the dominance of incumbent operators and the lack of available rolling stock.
- 3.43 Hungary is thus considered one the countries on schedule in the overall liberalisation process, but with delays in the passenger sector. Our analysis presented above reaches similar conclusions, showing that some market barriers are high for operators wishing to enter the freight market and that no new operators have successfully entered the market for commercial passenger services. Given the absence of competitors and the lack of incentives to improve performance, it is not surprising that the rail sector is struggling to compete with road transport.

4 Summary of findings

Identification of key problem drivers and elements

- 4.1 The Hungarian rail market has a specific set up which allows the co-existence of two passenger rail undertakings (MÁV Start and GySEV) that have separate operations on different sections of the network. Effectively, this means that there is no competition in the passenger market and that the two companies operate independent timetables and have separate public service contracts.
- 4.2 However both companies are vertically integrated, as both some infrastructure management functions and rail operations functions take place within the same group. For example, the respective infrastructure divisions are in charge of operation, maintenance, facilities and crisis management.
- 4.3 On the other hand, the “essential functions” of capacity allocation have been allocated to an independent body (VPE) since 2004. The European Commission has raised several questions over the body’s effectiveness and independence, highlighting the lack of a performance regime and the method used by VPE to set infrastructure charges.
- 4.4 Additionally, potential new entrants to both the passenger and freight market have complained about the following: the Network Statement is not helpful; the process for acquiring the necessary licences and permits requires a great deal of effort due to the cumbersome bureaucracy; discriminatory practices exist in the access to freight terminals and maintenance facilities.
- 4.5 Overall, the above problems have limited the entry of new operators in the passenger market. The principal undertaking, MÁV Start, has recorded declining passenger volumes since 2002. The rail sector is suffering both due to the competitive pressures from other modes (i.e. extensive road building programmes and increasing car ownership rates) and due to the deteriorating financial support from the central government. Due to the financial crisis which has hit Hungary in recent years, budget cuts have hit the rail sector in the form of under-compensation of PSOs, staff reductions to improve productivity and declining investment for the lines which are not part of the TEN-T network.
- 4.6 MÁV is heavily reliant on public funds both to finance its operations under PSCs and to improve its deteriorating infrastructure network. The prospect of further cuts in subsidies will force the operator to shut down some inefficient lines, raise prices and find alternative solutions to reduce the large amount of debt accumulated.
- 4.7 Liberalisation and privatisation are some of the policy measures implemented in the rail freight sector in recent years. On the one hand, this has allowed the entry of more efficient new undertakings. On the other hand, the acquisition of the MÁV Cargo by RCA has raised issues of market concentration by foreign companies and rail is still struggling to compete with the expanding road haulage sector.
- 4.8 Domestic and regional inland passenger transport is also open to EU operators from 2012. However, on routes and during the periods covered by public services specified in a PSC, the competent authority is allowed to restrict market-oriented services and it is entitled to establish charges that compensate the abstraction of revenue from existing undertakings operating under PSCs. These restrictions, together with declining financial support, are likely to limit the entry of open-access operators in Hungary.

TABLE 5 SUMMARY OF OUTSTANDING PROBLEMS

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	✓	<ul style="list-style-type: none"> MÁV Start and MÁV Traction own majority of rolling stock
	Vague rules on access to rail-related services	✗	
Industry consolidation	Incomplete unbundling	✓	<ul style="list-style-type: none"> Partial separation of functions between VPE and integrated operators
Access barriers for new entrants	Ineffective unbundling	✓	<ul style="list-style-type: none"> VPE only charged with some functions
	Incomplete unbundling	✓	<ul style="list-style-type: none"> Partial separation of functions between VPE and integrated operators
	Deficient funding and investment framework	✓	<ul style="list-style-type: none"> MÁV is loss-making and indebted Non TEN-T lines investment is neglected
	Access barriers to infrastructure	✗	
	Lack of structures/mechanisms for coordination		<ul style="list-style-type: none"> Lack of incentives to the IMs and RUs despite performance regime
	Lack of financial transparency	✓	<ul style="list-style-type: none"> Access charges set based on invoicing by RUs
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> No competition for PSOs at the national level
	Distorted/Ineffective competition for PSOs		<ul style="list-style-type: none"> Regional competition distorted by CD's national monopoly
	Absence of open access rights	✗	
	Discriminative framework conditions	✓	<ul style="list-style-type: none"> Insufficient powers of the regulatory body
Other causes	Country-specific problem drivers	✓	<ul style="list-style-type: none"> Financial crisis ongoing threatens investment and long-term planning

Summary of previous chapters

I Duopoly w

Potential examples of best practice

- 4.9 The set-up of the Hungarian market may provide an example of how different networks can be operated separately, but with the necessary degree of coordination, in the same country - if this corresponds to a more rational identification of network bundles. GySEV's operations in the cross-border sections appear to be more economically resilient than the rest of the country.
- 4.10 Finally, market reforms appear to be on their way in order to pave the way to the opening of PSCs to competition. Further unbundling of infrastructure management functions and the creation of new rolling stock companies as a subsidiary of MÁV Traction are some of the measures that the government is considering both to address MÁV's troubled finances and to revitalise the rail passenger market.

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EUROPEAN RAIL MARKET OPENING

Ireland

Country Fiche

July 2012

1 Evolution of the national market

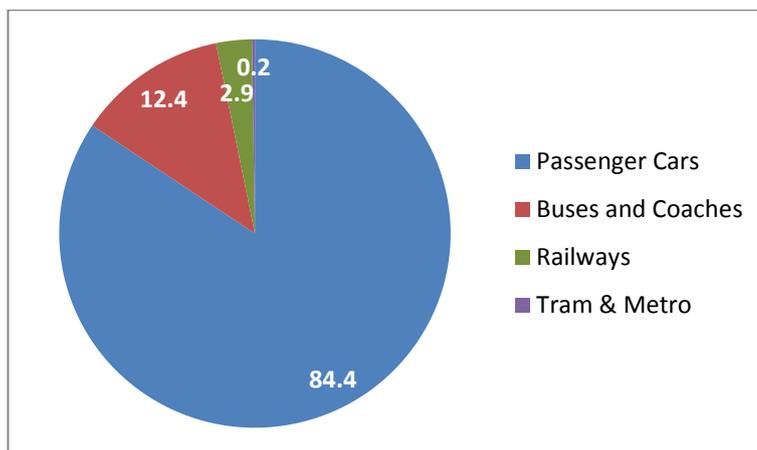
Structure of the network

- 1.1 The population of Ireland is approximately 4.2 million with a density of 60/km². The railway network comprises 1919km of track with the majority of routes radiating from the capital, Dublin. It has a density of 27.5km/1000km² and is serviced by diesel powered trains except for a small commuter rail service in Dublin. The passenger intensity of the network is close to the European average of 1. On the other hand, the freight intensity of the network is extremely small at just 0.1 compared to the EU average of 2.

Changes in volumes for passenger and freight services

- 1.2 Passenger rail in Ireland holds a small proportion of modal share, 2.9% in 2009 (Figure 1). Freight rail, which had a modal share of 4% in 2001, is currently very limited, with just 0.6% of freight transported by rail in Ireland in 2009.

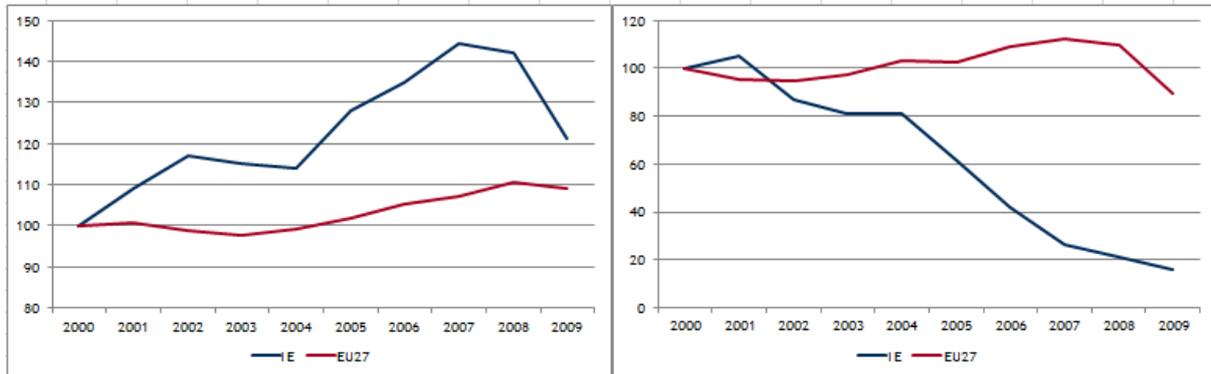
FIGURE 1 MODAL SPLIT IN IRELAND 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.3 Figure 2 demonstrates that passenger km in Ireland between 2000 and 2007 rose steadily excluding 2003 and 2004 when there was a slight decline. This increase was at a much higher rate than the EU-27 average and coincides with a period of rapid economic growth in Ireland. The effect of the economic crisis can be seen with a sharp decline between 2007 and 2009.

FIGURE 2 IRELAND AND THE EU 27, 2000-2009 - PASSENGER AND FREIGHT KM



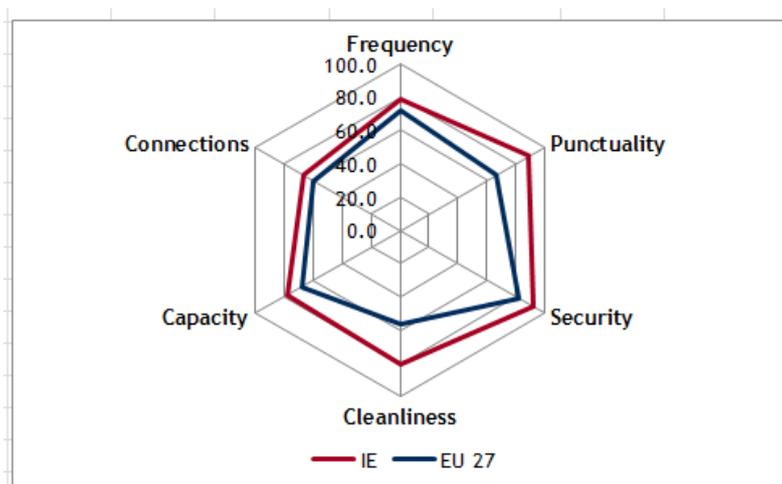
Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

2 Competition and market access

Overview of the passenger and freight operators:

- 2.1 Irish Rail, a subsidiary of Córas Iompair Éireann, the statutory body responsible for public transport services in Ireland, provides all rail transport services. This comprises both passenger and freight services and at the same time the management of all Irish rail infrastructure. The National Transport Authority (NTA), on behalf of the Department of Transport, procures a single contract directly with Irish Rail with all passenger rail transport in Ireland falling under a PSO.
- 2.2 There is one cross-border service between Dublin and Belfast jointly operated with NI Railways, the state owned train operator of Northern Ireland. Irish Rail is responsible for the infrastructure south of the border.
- 2.3 At present, freight rail is only run on two of the network's lines. These are either chartered services to freight forwarding companies or the transport of forestry and mineral raw materials. Irish Rail made the decision in 2005 to stop offering single container freight services as this corresponded to 10% of their business but 70% of their losses (AECOM, 2012). An extensive motorway building programme also took place in Ireland during the same period, with Dublin now connected to all other major cities by motorway.
- 2.4 Many planned improvements to the network such as restoration of old lines and increased commuter capacity projects in the Dublin area have been deferred given the economic crisis (Irish Rail, 2012).
- 2.5 The Eurobarometer results displayed in Figure 3 demonstrate that users of the Irish Rail network are quite satisfied with the level of service provided, with a higher than EU average performance in every indicator measured.

FIGURE 3 EUROBAROMETER 2011 - RESULTS FOR IRELAND AND EU-27



Source: Eurobarometer 2011

Public service contracts

- 2.6 A single public service contract is negotiated between the National Transport Authority and Irish Rail. The current contract was signed in 2009 and is valid for a ten year period.
- 2.7 Around 75% of Irish Rail's rolling stock has been renewed or refurbished over the last 10 years. Funding was provided by the Irish Government and the European Union Structural Funds.
- 2.8 The level of public subsidies that Irish Rail receives is clearly defined in its contract with the NTA which is gross in nature.
- 2.9 In 2010, 47% of Irish Rail's revenue came from State grants. Irish Rail still incurred a deficit of over €36 million for the same year. A voluntary severance and early retirement programme introduced in 2003 cost Irish Rail €22 million in 2010 alone.

Open access

- 2.10 Access to the Irish rail network is open for international passenger, international freight and national freight services. Domestic passenger services are not open to other operators. Currently, however, Irish Rail are the only RU to operate in Ireland in both the passenger and freight rail markets.

Access barriers

- 2.11 Irish Rail does not provide a network statement on its website and it is only available upon request. A document entitled 'Access Charging System and Performance Regime' provides limited information on network access.
- 2.12 Operating licences are issued by the Irish Department of Transport and the legal issuing period is three months. The charge incurred for issuing a license depends on the time factor involved. As there is no past experience with issuing licences, it is not possible to estimate this cost.
- 2.13 The Railway Safety Commission is responsible for issuing safety certificates and the authorisation of rolling stock. Some safety certificates from other member states are recognised but authorisation of rolling stock is only recognised from Northern Ireland and the examination phase of Northern Irish stock lasts approximately 120 days. Safety certificates are issued within three months.
- 2.14 Apart from administrative barriers, technical barriers also exist on the Irish rail network. A non-standard gauge otherwise only found in certain parts of Australia and Brazil is used and in addition, the majority of the network is non-electrified with only a commuter rail (53km in length) in Dublin providing electrified services.
- 2.15 An EU-wide study on the attractiveness of rail passenger markets by Kelemen-Erdős (2011) found that Ireland's rail market was the least attractive for new entrants out of all twenty seven member states.

3 Regulatory framework

3.1 Figure 4 illustrates the regulatory framework for rail transport in Ireland. It is evident that the framework is fully integrated with Irish Rail responsible for managing the infrastructure and providing the railway services. The National Transport Authority acts on behalf of the Department for Transport. The Railway Safety Commission functions as the National Safety Authority for the railway sector in Ireland.

FIGURE 4 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN IRELAND



Source: Steer Davies Gleave

3.2 IBM (2011) finds that Ireland fails to fulfil the requirements of an independent regulatory authority due to the absence of organisational separation and the lack of competence concerning specific powers.

3.3 The Statutory Instruments No. 55 and No. 399 introduced in 2010 provide transpositions of the First, Second and Third railways packages.

4 Summary of findings

Identification of key problem drivers and elements

- 4.1 Ireland can be considered a unique case for railway in the European Union. The country's geography leaves its railway network isolated except for the rail connection with Northern Ireland. As it is an island, it is unlikely to be connected to any part of the European network in the foreseeable future. Thus the Irish network can be regarded as a self-contained network with Northern Ireland's network included.
- 4.2 Irish Rail is a loss making entity and relies upon government contributions. No new undertakings have entered or are planning to enter the Irish rail passenger market, given the current regulatory framework and access barriers.
- 4.3 Although the freight market has been opened to competition, rail shares have declined dramatically to almost non-existent. Road freight is currently the dominant mode in Ireland, supported by heavy investment in motorways.
- 4.4 Table 1 summarises the main problems of the rail market in terms of competition and market access. The main access barrier for market entry is the cost associated with rolling stock.

Potential examples of best practice

- 4.5 The current restructuring plan for Irish Rail envisages an infrastructure manager and separate railway undertaking under the same CEO. There will be a separate independent body responsible for track allocation and charging. Whether this will encourage private undertakings to operate in the rail market remains to be seen given the barriers described above.¹

¹ Stakeholder contribution

TABLE 1 SUMMARY OF OUTSTANDING PROBLEMS

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	✓	<ul style="list-style-type: none"> Irish Rail owns all rolling stock Only rolling stock from Northern Ireland is permitted for authorisation
	Vague rules on access to rail-related services	✓	<ul style="list-style-type: none"> Lack of specific regulation.
Industry consolidation	Incomplete unbundling	✓	<ul style="list-style-type: none"> No separation of infrastructure manager and railway undertaking
Access barriers for new entrants	Ineffective unbundling	✓	<ul style="list-style-type: none"> No separation of infrastructure manager and railway undertaking
	Incomplete unbundling	✓	<ul style="list-style-type: none"> No separation of infrastructure manager and railway undertaking
	Deficient funding and investment framework	✓	<ul style="list-style-type: none"> Irish Rail is loss-making Planned investment programmes deferred
	Access barriers to infrastructure	✓	<ul style="list-style-type: none"> Insufficient incentives to reduce costs and level of access charges
	Lack of structures/mechanisms for coordination	✓	<ul style="list-style-type: none"> Lack of integrated ticketing facilities
	Lack of financial transparency	✗	<ul style="list-style-type: none"> No evidence
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> No competition for PSOs at the any level
	Distorted/Ineffective competition for PSOs	✓	<ul style="list-style-type: none"> No competition for PSOs at the any level
	Absence of open access rights	✓	<ul style="list-style-type: none"> No open access
	Discriminative framework conditions	✓	<ul style="list-style-type: none"> Insufficient powers of the regulatory body
Other causes	Country-specific problem drivers	✓	<ul style="list-style-type: none"> Broad gauge network

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EUROPEAN RAIL MARKET OPENING

Italy

Country Fiche

July 2012

1 Evolution of the national market

Structure of the network

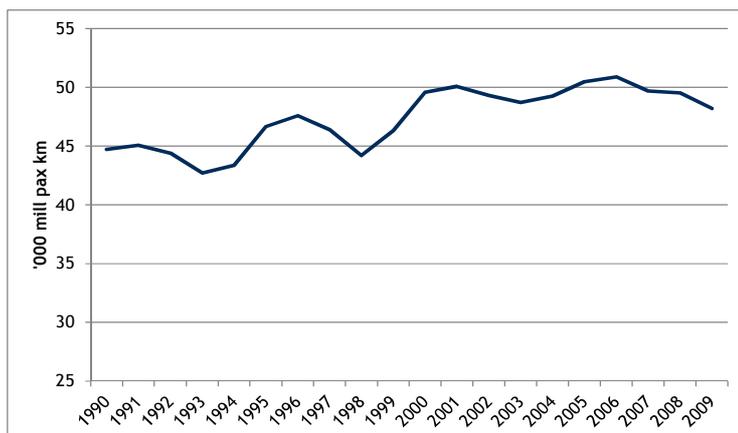
- 1.1 Italy has a population of approximately 60 million people and a density of around 200 inhabitants per km². Many of the main centres of population lie on the main Naples-Rome-Florence-Bologna-Milan-Turin line. The total length of Italian rail network is about 16,700 km, of which 7,505 km are double track and 11,921km are electrified. Network density is in line with EU average (55km/1000km²). The intensity of rail use is below EU-average in freight transport, but it is very high in the passenger sector.

Changes in volumes for passenger and freight services

Trends in passenger volumes

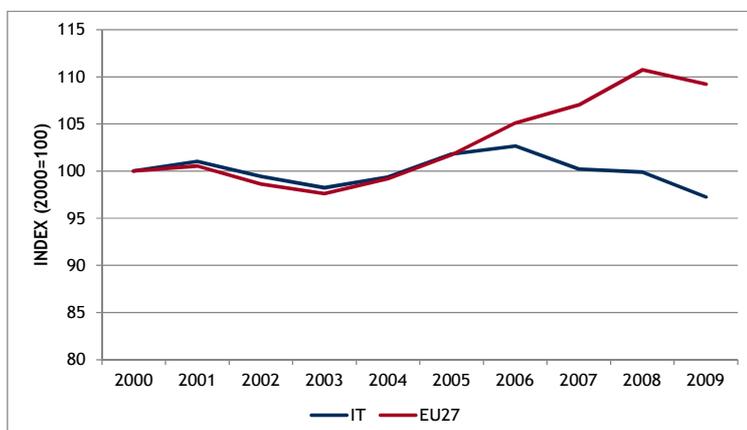
- 1.1 The trends in rail passenger transport in Italy over the past two decades can be observed in Figure 1 below. Despite some periodic sharp falls and rises, the overall trend in the period was positive, with passenger-km peaking around 2005-2007. After 2006 passenger traffic began to decline rather sharply, falling back to pre-2000 levels, in contrast with the trend of passenger traffic in the EU, which continued to grow as shown in Figure 2.

FIGURE 1 PASSENGER-KM IN ITALY 1990-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

FIGURE 2 PASSENGER VOLUMES IN ITALY AND THE EU 2000-2009

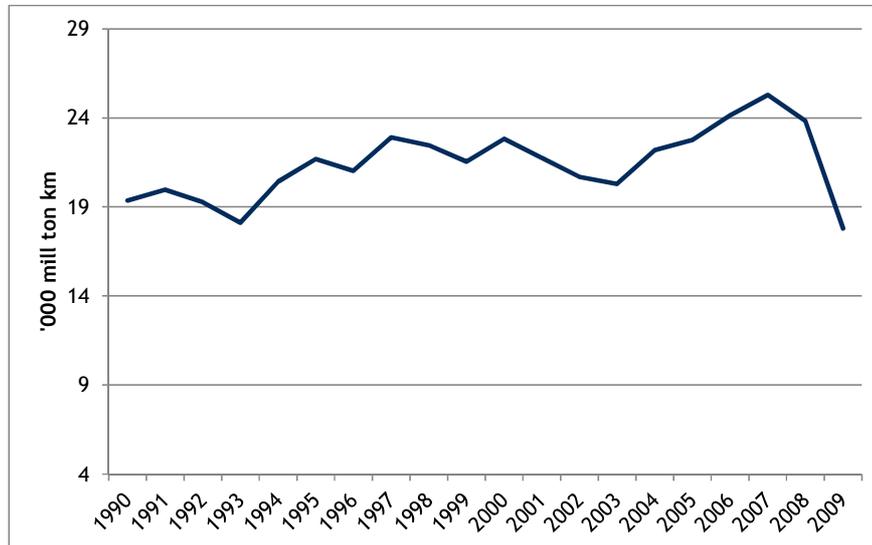


Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

Freight volumes

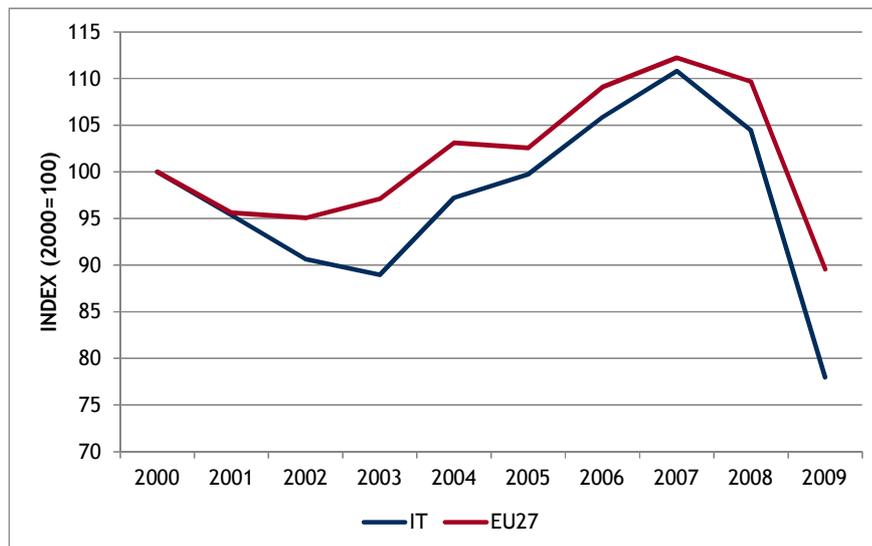
1.2 Figure 3 shows the evolution of rail freight traffic in Italy, which grew slowly until 2000, experiencing a significant surge in the mid-2000s and peaking in 2007. From 2008 figures plummeted dramatically, following the EU-27 trend as represented in Figure 4.

FIGURE 3 FREIGHT TONNE KM IN ITALY 1990-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

FIGURE 4 FREIGHT VOLUMES IN ITALY AND THE EU 2000-2009

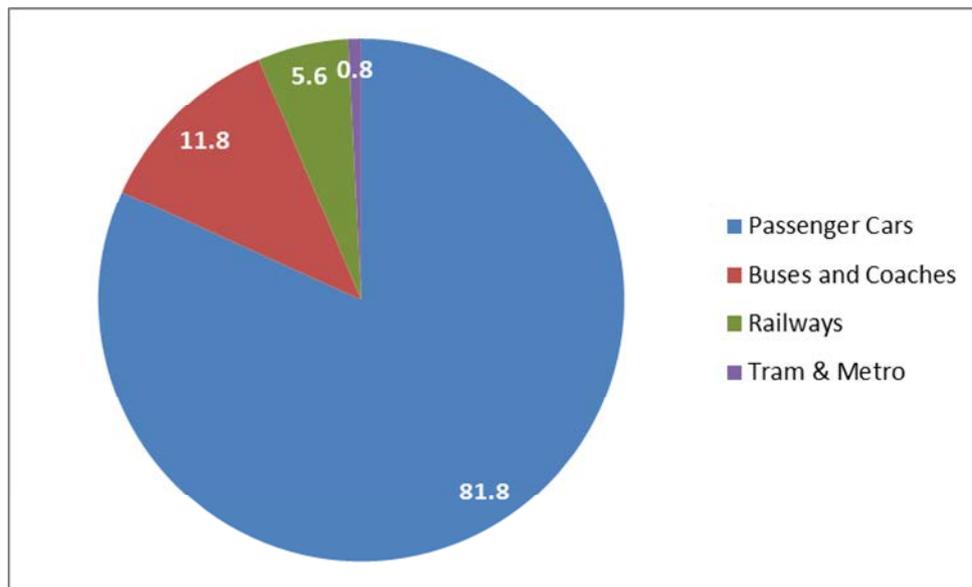


Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

Modal split - passenger and freight

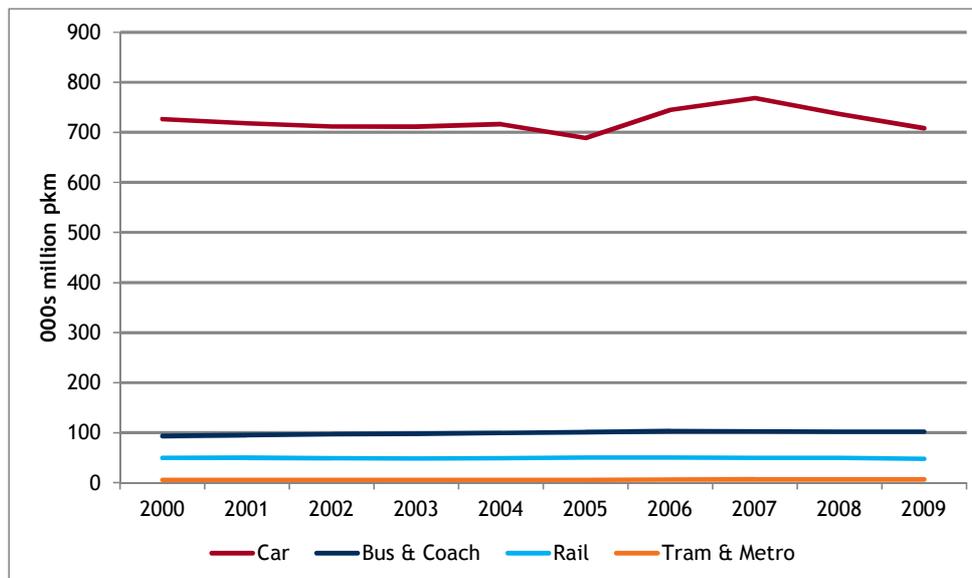
1.3 The modal split for passenger transport in Italy in 2009 is shown in Figure 5 below. Rail accounted for 5.6% of all passenger kilometres, a figure which remained fairly steady since 2000, when rail’s modal share was 5.5%. The modal share of the private car in passenger transport recorded a peak in 2007, before dropping back to early 2000s levels, as shown in Figure 6.

FIGURE 5 MODAL SPLIT IN PASSENGER TRANSPORT 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

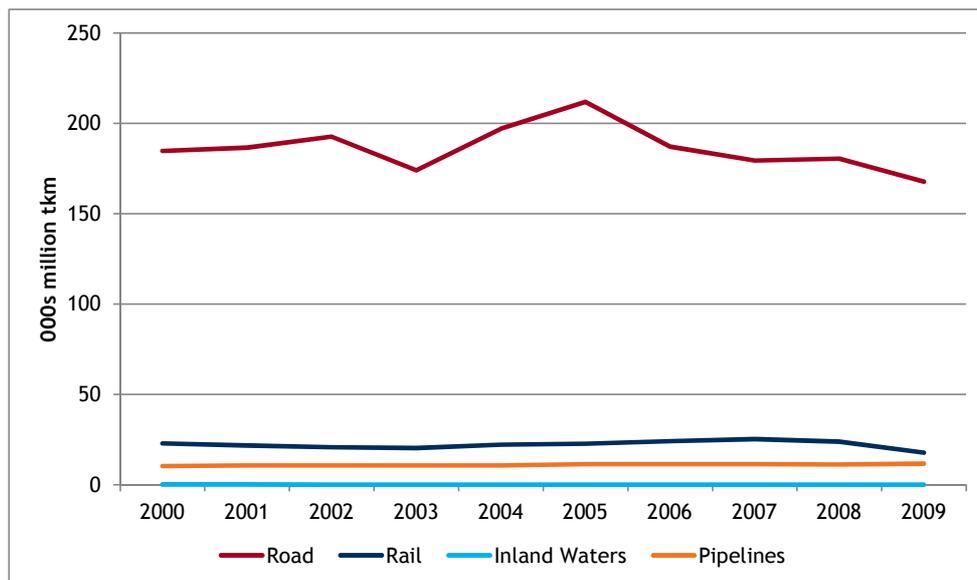
FIGURE 6 PASSENGER TRANSPORT VOLUMES BY MODE 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

- 1.4 In the freight sector, the share of rail transport in terms of tonne-kilometres was 9% in 2009, which was more than 1% lower than the 2000 level. The largest share belongs to road transport, which accounts for 85% of modal share. These trends are depicted in Figure 7.

FIGURE 7 FREIGHT TRANSPORT VOLUMES BY MODE 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

Railway undertakings

Passenger services

- 1.5 The passenger transport sector is largely dominated by the incumbent train operator Trenitalia, created from the partial separation of the infrastructure manager and train operation divisions of the former National Railway Company (Ferrovie dello Stato Italiane). Trenitalia is the dominant player in passenger transport, both on main national and international routes and on the regional network.
- 1.6 Open access operator NTV recently began high speed commercial passenger service, in competition with Trenitalia's high speed services, with a fleet of 25 trains on the Naples-Rome-Florence-Bologna-Milan-Turin high speed line. This is an extremely competitive route, if not the most competitive train line in Europe involving open access.
- 1.7 Open access on the Italian railway network for the purpose of domestic services is possible for Italian companies and for those RUs that come from outside of Italy as long as their respective Member States have also opened their market to domestic competition. There have been a number of private passenger services that have started up. One was a regional operator (Arenaways) that has subsequently gone into bankruptcy mainly as a result of a decision of the Italian Regulatory Body that ruled that Arenaways could not call at intermediate stations as it would affect the economic equilibrium of subsidised regional services operated by Trenitalia under a PSC). A further initiative regards the open access international operation set up by DB, OBB and Le Nord, which connect Italy with Austria and Germany. In addition, in 2010 a joint venture between Trenitalia and Ferrotramviaria was set up in the Puglia region, but this only lasted 1 year. A number of other rail operators have obtained a licence in Italy but for the moment there has been no additional entry other than on international services where SNCF has increased its Paris-Milan services in competition with the new Veolia Transdev-Trenitalia joint venture operating night trains between the two cities (and on to Venice) under the name Thello.
- 1.8 All regions now have a public service contract with an operator to run services on the networks that they are responsible for. The majority of these contracts have gone to

Trenitalia (or its partners, or consortia to which it is a party) either through direct award or through competitive tender. The latter has only occurred on 4 occasions and one of these was cancelled as a result of there not being any participants. A directly awarded public service contract also exists between the State and Trenitalia for the provision of universal service long-distance trains (which excludes the high speed line which is not subject to a public service contract).

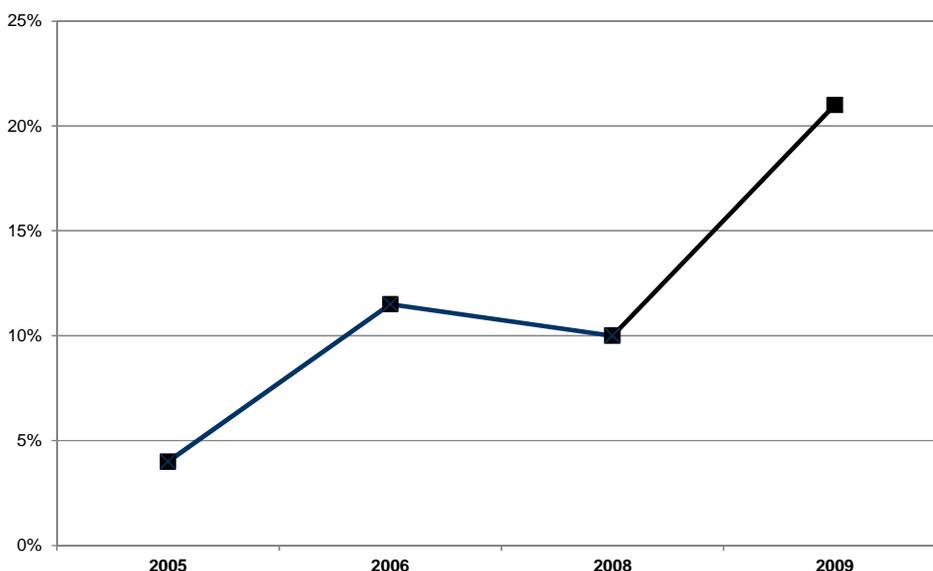
- 1.9 There has been a substantial shift in passengers to high speed services following the completion of new lines in 2006, 2009 and 2010. At the same time long-distance trains on traditional lines have been slow and uncomfortable, with travel times often exceeding 24 hours (e.g. the Freccia del Sud train connected Milan to Palermo: 1546 km covered in 23 hours and e 55 minutes before allowing for delays). With the development of the high speed network and contraction of subsidies, along with the rise of low-cost airlines, these have been progressively discontinued; in April 2012, there were no such services between northern and southern Italy and passengers were required to change in Rome and take an intercity or a high speed service to continue their journey.

Freight services

- 1.10 The incumbent in the freight sector is the cargo division of the national operator, Trenitalia Cargo. It, along with Rail Traction Company, Ferrovie Nord Cargo and SBB Cargo Italia are the main freight operators in Italy. The incumbent still holds the greatest share of traffic. There are other RUs active in freight transport, whose market share is minimal, but growing when compared with the incumbent. These include:

- Crossrail Italia Srl
- Ferrovie Emilia Romagna Srl
- InRail
- Ferrovie Adriatico Sangritana
- Captrain
- Linea
- Serfer

FIGURE 8 FREIGHT MARKET SHARE OF NON-INCUMBENT OPERATORS IN ITALY 2005-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

- 1.11 Whilst in Italy the process of market opening for passenger transport is just taking off, the situation in freight rail transport is much more developed; in recent years new operators have entered the market and captured an increasingly significant share of traffic on domestic routes. Between 2005 and 2009 the market share of new entrants (Italian and foreign companies) grew from less than 5% to over 20%, as represented in Figure 8.
- 1.12 Such growth of non-incumbent railway undertakings can be partially attributed to Trenitalia no longer serving some customers. In many instances the services discontinued by Trenitalia are taken over (or replaced with similar services) by new entrants.
- 1.13 In fact, for a series of reasons, mainly related to labour costs, Trenitalia faces production costs that are substantially higher than those of private and smaller companies on the same routes and services; according to Bozzi (2008¹), in 2007 the production costs of private operators ranged between 9 and 11 Euros per train-km, while those of Trenitalia Cargo were around 18 euros under the same conditions. According to Freight Leaders Council² (FLC) (2010³), this is driven by:
- continued use of two train drivers per locomotive;
 - difficulty to employ staff flexibly in both on-board and ground operations;
 - high cost of maintenance of rolling stock, due to an outdated organisational structure;
 - work contracts that are inadequate to compete successfully with private companies;
 - in balance between the number of corporate and operational staff, which increases production costs to unsustainable levels for private companies.
- 1.14 New, smaller private companies can achieve much lower production costs as a result of greater flexibility, more staff productivity and fewer fixed costs. Hence, they can be competitive even on those routes on which the incumbent is unable to make profits. Moreover, many of these small private companies are part owned by large foreign companies which are able to inject capital and to make synergies and economies of scale by including these undertakings as satellite companies of the holding groups.

¹ Bozzi, A. (2008), *Una realtà scomoda. La concorrenza sleale di Trenitalia Cargo*. Istituto Bruno Leoni, Focus n. 98 of 16th May 2008.

² Freight Leaders Council is a free private association bringing together the main users and representatives of the transport sector in Italy.

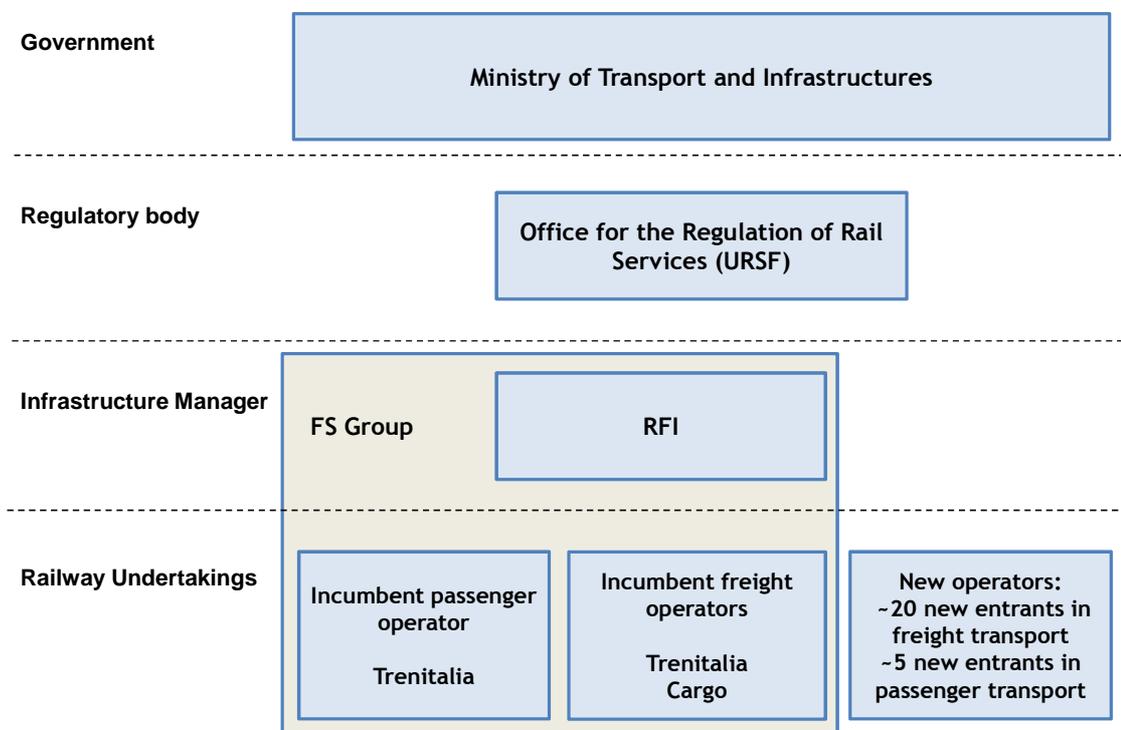
³ Freight Leaders Council (2010), *Le condizioni per il rilancio del trasporto merci su ferro. Liberalizzazione e innovazione*. Quaderno n. 20. Milan, Italy.

2 Institutional background

Regulatory framework: Institutions and their role

- 2.1 The reform of 2000⁴ led to the functional, organisational, accounting and legal separation of two newly created companies: the Infrastructure Manager Rete Ferroviaria Italiana S.p.A (RFI) and the transport operator Trenitalia S.p.A. Both companies remain under the ownership and control of the holding company Ferrovie dello Stato Italiane Holding S.p.A (FS).
- 2.2 Figure 9 summarises the institutional arrangements regulating the rail market in Italy. The specific functions are described below.

FIGURE 9 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN ITALY



Source: Steer Davies Gleave

- 2.3 **Regulatory Body:** the Office for the Regulation of Rail Services (Ufficio per la Regolazione dei Servizi Ferroviari - USRF) is the body set up in Italy to regulate the rail market in compliance with Directive 2001/14/EC. It has independent decision making powers albeit being an office set up under the Ministry of Transport. Its duties include:
- Supervision and monitoring of competition
 - International cooperation, information exchange and coordination on activities, decision-making practices and principles
 - Management of legal issues and institutional processes involving other public bodies responsible for competition in rail

⁴ Ministerial Decree. 31 October 2000, n. 138

- Decisions in relation to acts and activities of the industry, with particular reference to rail IMs and RUs
 - General activities in support of the Minister for the drawing up guidelines to regulate the sector and the development of competition in the markets for rail services
- 2.4 **Ministry of Transport:** is mainly responsible for issuing licences to RUs. Furthermore, it gives technical-political address to the national railway policy, and provides funding for rail infrastructure.
- 2.5 **NIB:** the Direzione Generale per le Investigazioni Ferroviarie (General Direction for Rail investigations) is the accident investigation body for Italy, which is a body within the Ministry of Transport.
- 2.6 **NSA:** the Agenzia Nazionale per la Sicurezza delle Ferrovie (ANSF) is an independent body set up in compliance with Directive 2004/49/CE and as such is the National Safety Authority for the sector.
- 2.7 **Competition authority:** in addition to these specifically rail related institutions, in the recent years a key role as been played by the Italian Competition Authority (Autorità Garante della Concorrenza e del Mercato - AGCM). It was established in 1990 as the competition regulator. It is tasked to enforce both Italian and European consumer protection laws.
- Expected changes in the institutional framework : the new Transport Authority***
- 2.8 `In January 2012 the Italian Government issued a “Liberalisations” Decree n. 1/2012, setting urgent provisions on competition, infrastructure development and competitiveness. The decree, inter alia, establishes a new Transport Authority responsible for all transport matters including access to infrastructure and related services, in accordance with European legislation. This authority will have multimodal competences, with the aim of ensuring competition, production efficiency and reduced costs for users, businesses and consumers. In particular, the authority will have to ensure fair and non-discriminatory access conditions to rail infrastructures, ports, airports and motorway networks.
- 2.9 The authority will specify the criteria for setting access charges, fees and tolls, as well as minimum quality standards for transport services. It will also set out minimum rights to compensation that users can claim from transport service operators and infrastructure managers.
- 2.10 With regard to PSCs, the authority will have the task of defining the approach to public tender for PSO transport services. An important provision is that the authority will have to ensure that there are no discriminatory conditions that exclude potential competitors from accessing the market. Specifically, the decree establishes that it will not be necessary for potential tender bidders to already have rolling stock at the time of making a bid. In fact, the decree gives the successful tenderer 18 month to procure the rolling stock needed to provide the service.
- 2.11 The authority will also carry out all functions of the existing regulatory body, in particular as regards the definition of criteria for the determination of access charges by the infrastructure manager and for path and capacity allocation. The authority will ensure the proper application of these by the infrastructure manager. The new authority is expected to have 80 full staff members, but some additional staff can be added in special circumstances almost doubling that number.

Overview of the incumbent operator

- 2.12 The FS Group is made up of the holding company that owns and controls both the Infrastructure Manager and incumbent Railway Undertaking.
- 2.13 **Infrastructure managers:** RFI is in charge of developing, maintaining and managing the main railway network in Italy. There are a number of other, smaller infrastructure managers in Italy that manage their local networks.
- 2.14 **Incumbent operator:** Trenitalia is the main passenger and freight operator in Italy, operating national, international, regional and high speed services. The Italian Ministry of Transport, as well as all regions, stipulate service contracts with Trenitalia for the provision of national and regional services. The latter are normally operated under PSCs.

TABLE 1 FINANCIAL RESULTS OF THE NATIONAL RAILWAY COMPANY (FS GROUP)

	2010 (€ mil)			2009 (€ mil)		
Operational revenues	8,064			7,982		
Operational costs	-6,404			-6,532		
State contributions (for investments and operating expenses)	3,313 of which			6,050 of which		
	RFI 3,270	Trenitalia 19	Others 24	RFI 5,102	Trenitalia 54	Others 893,665
Operating income (EBIT)	508			435		
Net result	129			54		

Source: FS, Annual Report 2010

- 2.15 In 2010, FS made a net profit of €129 million, which increased significantly from the €54 million obtained in the previous year. The profit has mainly been earned from the activities of Trenitalia, mostly thanks to the development of the offer on the high speed network and cuts to unprofitable services such as night trains.
- 2.16 Table 2 reports Trenitalia's financial results for 2010.

TABLE 2 FINANCIAL RESULTS OF THE NATIONAL TRAIN COMPANY (TRENITALIA)

	2010 (€ million)	2009 (€ million)
Operational revenues	5,874.2	5,780.1
Traffic revenues	3,258.4	3,119.3
Public service contract revenues	2,393.6	2,320.3
Revenues from other services connected to transport	43.8	80.0
Operational costs	-4,588.5	-4,642.2
EBIT	355.1	316.6
Net result for the period	74.8	16.6

Source: FS, Annual Report 2010

TABLE 3 TRENITALIA'S INVESTMENTS IN ROLLING STOCK

	2010 (€ million)	2009 (€ million)
Purchase	195	322
Revamping	78	103
Rolling stock direct investments	273	425
On board Technologies	114	139
Plants & Other	54	81
R&D	0.6	0.9
Informatics	0.41	41
Total investments	482	687
2nd level Maintenance	315	340

Source: FS, Annual Report 2010

- 2.17 The financial figures obtained from the FS and Trenitalia Annual Reports suggest an upward trend in turnover for both the group as a whole and the railway undertaking, with increases in the 2.18 EBIT which recorded an improvement of 12.2%, growing to €355.1 million from €316.6 million gained in 2009.
- 2.18 Table 4 reports the investments made by Trenitalia's in the passengers sector in 2010.

TABLE 4 TRENITALIA'S INVESTMENTS IN PASSENGER SERVICES

	2010 (€ million)	2009 (€ million)
National and international passenger division	128	229
Regional passenger division	192	231

Source: FS, Annual Report 2010

- 2.19 The revenues generated by Trenitalia's purely commercial services (i.e. high speed services and intercity services) increased by €200.9 million (+17.7%) thanks to the increased offer on north-south routes (Turin-Milan-Bologna-Florence-Rome-Napoli-Salerno) and to the increased fares following the entry into service of the High Speed (AV) network.
- 2.20 In the same period Trenitalia has sought to rationalise and cut the costs on the services operated under the public service contract stipulated with the Ministry of Transport. Investment in this sector contracted by €54.7 million (-12,1%), in particular through cuts to subsidised night services. According to Trenitalia, the discontinuation of night services is due to a significant decline of demand (-23%) and is in line with the trends recorded in the rest of Europe, where these services are largely being removed as a result of competition from air travel.
- 2.21 According to FS 2010 annual report, the performance in terms of passenger-kilometres in 2010 was about 43.3 billion in absolute terms (-2.1% compared to 44.3 of 2009), of which approximately 22.7 billion related to regional and local transport.

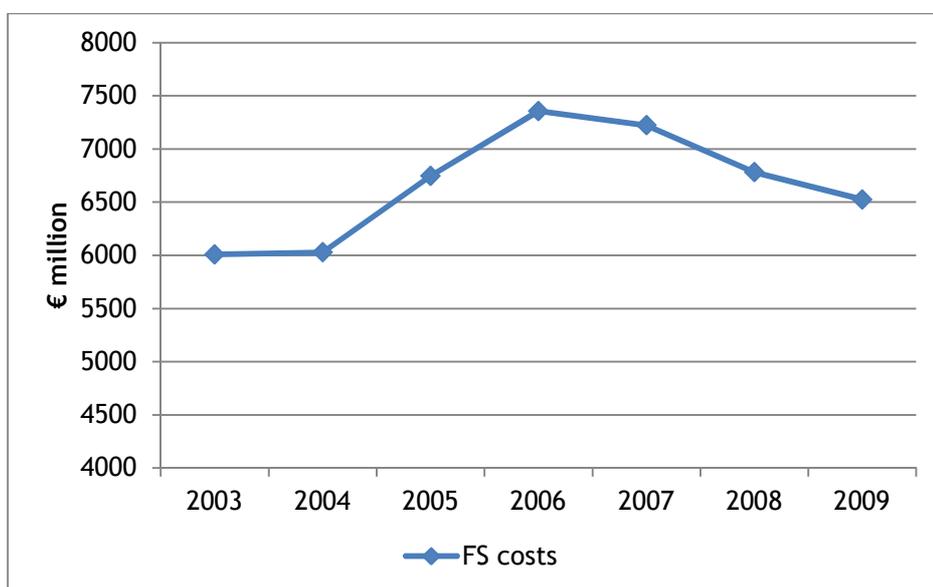
- 2.22 As seen above, there was a significant contraction (-6.7%) in the non-high speed long distance segment. Conversely, regional transport in the same period has recorded an increase of 2.5% in passengers demand with about 22.72 billion passengers-km in 2010 compared to about 22.16 billion passengers-km in 2009. Traffic revenues have increased as well, by 5% (+€40 million more than in 2009) due to increased traffic volume and fares (on average by 2.7% with regional differences). The average load factor on regional trains has grown too.
- 2.23 In 2010, revenues from regional and state PSO contracts increased by €73.3 million compared to 2009. For regional services, due to new service contracts signed with the regions, revenue increased to €61.2 million. For national services, revenues increased by €12.1 million as a result of a change in the requirements for the Ministry services, which also made available additional funds for long distance subsidised services (+€3.2 million), for services in special statute regions (+€3.1 million) and for subsidised cargo services (+€8.7 million).

Costs of unbundling

Costs incurred during partial unbundling

- 2.24 Looking at total system costs for FS from the annual reports published over the years, it can be seen that following an initial period in which costs rose, the trend reversed since 2006 and costs have started falling (although in 2009 they remained above the 2004 level). Figure 10 shows the change in operating costs for FS in real terms (i.e. indexed to 2003).

FIGURE 10: OPERATING COSTS OF FS (INDEXED TO 2003)



Source: FS, Annual Reports 2004-2010

- 2.25 This suggests that vertical separation alone did not lead to a significant increase in costs. Conversely, after an initial period in which costs increased for a number of reasons (e.g. increased personnel costs, merging and re-organisation of business units, etc.), in recent years cost control has led to a steady improvement in the financial performance of the rail sector in Italy.

- 2.26 Subsidies from the public sectors have reduced by 16% between 2000 and 2009, dropping from around €3 billion to approximately €2.6 billion (indexed to 2003 values)⁵.
- 2.27 A previous study from SDG⁶ revealed that the budget of the Italian Regulatory Body (URSF) is minimal, as it employs only a few units of staff and operates on a budget of €30k plus salaries. The staff of the RB was sourced internally by the Ministry of Transport in order not to increase costs for the Ministry; however, this led to infringement proceedings being initiated by the EC motivated by the lack of independence of the RB's staff from the Ministry, that has shareholder interests in the incumbent Railway Undertaking.

⁵ Ferrovie dello Stato Italiane

⁶ SDG (2011), *Typology and structure of Regulatory Bodies in the EU railway sector*. European Parliament, Brussels.

3 Market access for new entrants and competition

Analysis of the effectiveness of the current regulatory framework

Market dominance of the incumbent operator

- 3.1 The near totality of passenger services on national, international and regional routes are operated by Trenitalia, partly on a purely commercial basis and partly with subsidies by the Government or the Regions (for loss making but necessary services) under contracts services. There are a few exceptions to this, and where there are other operators, services are usually (but not always) run in some form of partnership/cooperation with Trenitalia.
- 3.2 This situation is going to change significantly with the arrival of NTV. In turn, Trenitalia, in joint venture with Veolia Transdev launched the Thello service connecting Venice with Paris, using French locomotives leased from SNCF subsidiary Akiem⁷.
- 3.3 In the freight sector, the presence of large foreign groups behind new entrants is rather common. For example DB Shenker has stakes and partnerships with a number of smaller Italian freight railway undertakings such as Rail Traction Company S.p.A. (RTC), Railion and Nord Cargo. Since 2010 former Veolia Cargo Italia and SNCF Fret Italia merged into Captrain Italia.
- 3.4 The Regulatory Body (URSF), when interviewed about the state of market liberalisation across the EU, pointed out the need to create a level playing field across the EU in order to allow for real market opening based on fair competition. At present, the degree of actual liberalisation across the main Member States is varied, and so are the approaches adopted by the respective rail institutions and the structure of the rail system.

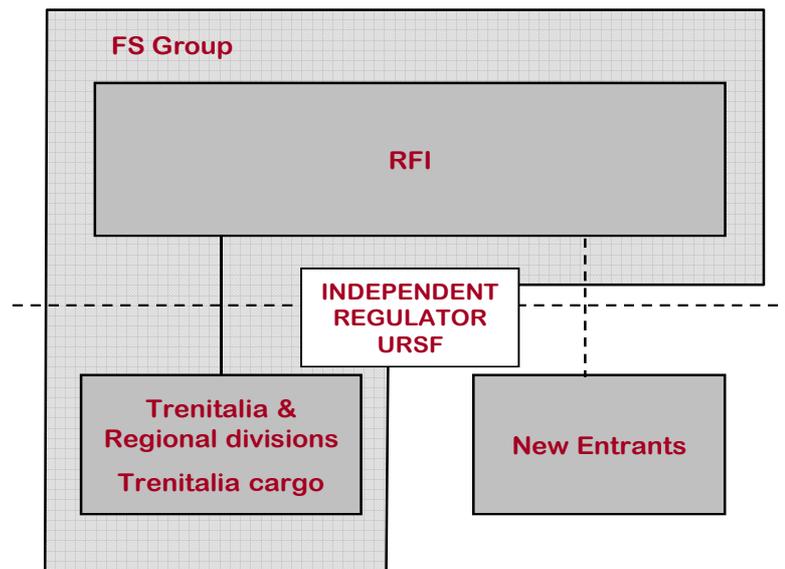
Degree of vertical separation

- 3.5 The degree of separation was discussed above, but can be seen as following the partially integrated model⁸ in which there is functional, organisational, accounting and legal separation between the Infrastructure Manager (RFI) and the incumbent Railway Undertaking (Trenitalia). The Holding company can appoint the CEOs of the IM and RU. There are also separate balance sheets for freight and passenger transport, as IBM (2011) highlights. The picture has remained substantially unchanged since 2000, apart from the transfer of management of some freight terminals from the IM to the incumbent RU which new entrant freight operators have complained about. Figure 11 represents the partially integrated model adopted in the Italian railways.

⁷ Railway Gazette International. Issue 07 October 2011. Available at: <http://www.railwaygazette.com/nc/news/single-view/view/thello-brings-open-access-to-france.html>

⁸ According to the categories identified in COM (2009) 1687 (which reflect the categories in COM (2006) 189).

FIGURE 11: PARTIAL INTEGRATION IN THE ITALIAN RAILWAY MARKET



Effectiveness and capability of the regulator

3.6 The majority of stakeholders have stated that a strong independent regulatory body is important and they welcome the proposals set out by the Italian government aimed at strengthening the current regulatory structure and creating a single independent transport authority. Despite the budget and staff restrictions, URSF states that it is able to satisfactorily fulfil its tasks although the policy of including it in a wider transport authority would be to ensure that it can have more resources to operate more effectively.

Complaints of discriminatory practices

3.7 Since the setting up of URSF there have been a number of complaints relating to discriminatory practices; these led to decisions from the Regulator, for example in the case of Arenaways (see below). Since 2010, URSF has issued 5 key rulings.

3.8 These rulings were all related to the evaluation of possible overlap of new passenger services with the regional services operated by the incumbent on the basis of public service contracts.

3.9 As regards Arenaways, the proposed services would connect the Tuscan town of Livorno, Turin (in Piedmont) and Sestri Levante (in Liguria), along lines already included in PSCs.

- services would have tourist and seasonal characteristics, as one couple of trains per day from June to September; moreover, there would be commercial agreements with tour operators and an exclusive contract with cruise company in the case of the Ligurian route
- both Tuscany and Liguria regions, found that the new services would not compromise the economic equilibrium of the existing PSC with Trenitalia
- Trenitalia stated that the new services would capture passengers from their PSC services jeopardising profitability
- However, the Arenaways services would adopt very different pricing and ticketing arrangements from Trenitalia’s ones, aimed at specific groups of passengers, such as tourists

- 3.10 In its decision, URSF stated that the services proposed by Arenaways would not be able to attract Trenitalia passengers, due to the characteristics in terms of limited number of train per day, seasonality and tourist vocation of the service, as well as pricing and ticketing. In conclusion, URSF authorised the new services to begin without limitations.
- 3.11 In the case of FUC - which has a PSC in force with the Friuli Venezia Giulia region as well as Trenitalia - the URSF took into account the following criteria:
- The planned service consists in a cross-border service with only a minority of passengers being domestic (i.e. using the service to go from a station to another within Italy)
 - The new FUC services will be have tourist characteristics (with cars equipped for the transport of sky and bicycles) and passengers holding Trenitalia tickets will be accepted on board
 - The initiative is awarded an EU contribution from an Interreg project named “Micotra”
 - The Friuli Venezia Giulia region did not find any critical issues in its assessment of the new services, which would be complimentary and not overlapping existing Trenitalia services operated under PSC
- 3.12 In conclusion of its assessment, URSF found that the new initiative would have no negative impact on the economic equilibrium of the existing Trenitalia PSC services. In particular, URSF considered that the new FUC service may capture only a marginal share of current Trenitalia passengers, due to the characteristics in terms of timetable and tourist vocation of the FUC service. Moreover URSF, observed that the number of daily services is very limited compared to Trenitalia’s offer.
- 3.13 While, in general, there are no problems with commercial services calling at stations in large cities (i.e. regional capitals), there may be undue interferences in the event an open access operator calling at stations which are already served by subsidised regional services. This was the case for Arenaways’ services on the Turin-Milan route, as the company sought to provide a regional service calling at all intermediate stations. A similar case was brought against the DB, OBB and LeNord service in relation to their international service, the final decision in this case was that no action would be taken as long as the operator stopped only in major cities.
- 3.14 We note that URSF is also currently investigating an NTV complaint in relation to access to a station in Rome; the matter relates to a gate installed in proximity to NTV’s passenger lounge, which impedes an direct access to NTV trains forcing passengers along a diversion.
- 3.15 In addition to URSF, operators have also appealed to the Italian Competition Authority in relation to decisions of the IM. In one case, NTV had applied for the use of a maintenance depot in the Naples area; after an initial draft agreement, RFI proposed an alternative area on the grounds that the originally identified site was to be allocated to Trenitalia for maintenance operation. NTV appealed to the competition authority claiming unfair practice, maintaining that the area offered in alternative did not satisfy the requisites previously agreed with the IM. However, the ACGM’s assessment of the dispute concluded that no unfair practice were imputable to RFI, as the area offered to NTV was equivalent in terms of characteristics to the one originally chosen by the operator.

Analysis of public service contracts

- 3.16 The RMMS indicates that 53% of passenger-kilometres (some 22,700 million passenger-kilometres) are covered by a public service obligation. There are two basic PSC regimes in Italy for rail passenger transport: one for national services and one for regional services. The first one is subject to a contract between Trenitalia and the Ministry of Transport; the contract grants public subsidies for services which are not financially viable on their own setting bonuses and penalties on the basis of quality parameters.
- 3.17 The national PSC with the Ministry typically covers non-high speed long distance services and to date has been awarded directly to Trenitalia under the name “Segmento Universale” (universal service sector). It also covers some freight services but overall receives €98.3 million in 2009.
- 3.18 Regional services are operated under PSO contracts stipulated between RUs and each Region and “Provincia autonoma”. Regional PSO arrangements may include provisions for some marginal segments provided through road transport, but only as substitute traffic for rail for services where it is more economically sound to have the routes serviced by buses (CER, 2011). According to CER, the volume of traffic of national and regional PSO services operated by the main operator in Italy in 2010 amounted to 29,724 million passenger-km split by:
- Regional services:
 - 8,000 trains per day
 - 22.7 billion passengers-kilometres per year
 - Long-distance services:
 - 135 trains (for those included in public service contracts)
 - 7 billion passengers-kilometres per year

Issues with PSCs

- 3.19 Everis (2010) argues that the way PSO arrangements are designed in Italy does not encourage competition. Little help with rolling stock provisions under PSOs, arrangements to share risk in PSOs appearing unbalanced, new entrants being unable to use normal sales channels and to provide information to customers in stations.
- 3.20 Indeed, almost all PSCs for regional transport are between the relevant authority and Trenitalia (or a consortium with Trenitalia in it). Where there have been competitive tenders, the main barriers to new entrants have been the availability of rolling stock, the availability of depots and the low subsidies paid for the contract. Some regions have tried to get around this by requiring that a large amount of rolling stock be replaced for the tender or by requiring that Trenitalia make its rolling stock available to the Region at the end of its concession, but so far this has been unsuccessful.
- 3.21 Rolling stock ownership in Italy is almost entirely concentrated in the hands of Trenitalia. Currently in Italy there are no ROSCOs (rolling stock companies) and the fact that Trenitalia owns the largest fleet is a significant advantage over other competitors when bidding for PSCs.
- 3.22 Everis (2010) maintains that the impact of market opening on the Italian rail passenger sector would be much greater if measures were taken to transfer at least one third of all rolling stock to leasing companies. A similar view was provided by another stakeholder who suggested that a way to overcome the asymmetric competitive advantage determined by

rolling stock ownership could be to put in place tenders specifying that the assets and even staff should be transferred to the winner of a tender, under tight control over quality, age and state of maintenance, to be transferred once again at the end of the PSC to the next successful bidder at costs and conditions guaranteed by a third party (a public body that would certify the state of stock, depreciation, etc.).

- 3.23 Similar arrangements were included in the tender for regional PSC issued by the Liguria region in 2004. Amongst the clauses for the award of the PSC, the tender provided for the transfer of the rolling stock to the regional government at the end of the franchise; only two railway undertakings - Trenitalia e Ferrovie Nord Milano Trasporti (FMN) - presented bids, but they were both excluded. In particular, while FMN's bid was deemed technically insufficient, Trenitalia stated that their offer was only valid if the requirements relating to rolling stock were invalidated, and presented an appeal to the Regional Administrative Court (TAR) requesting to suspend the tendering procedure. In September 2004, TAR rejected Trenitalia's request (HERMES, 2005)⁹. FMN also appealed to the TAR, on the ground of lack of information in the tender issued by the region and maintaining that the time allowed to the successful bidder to procure rolling stock was insufficient. Subsequently, the tender was declared null because of no valid bids were presented and a 2 year extension to the existing PSC with the incumbent Trenitalia was granted.
- 3.24 The Competition authority, ACGM, in its 2012 Bulletin¹⁰, recommended that the availability of rolling stock at the time of bidding should not be a factor of discrimination, and that adequate time should be conceded to bidders for PSCs in order to procure rolling stock.
- 3.25 ACGM also intervened on a draft regional law in Liguria, which provided for local transport PSCs being awarded on the basis of a single large contract covering the entire region, as well as for both road and rail transport. In May 2012, ACGM stated that there is no economic case for such arrangements, asking the regional government to reconsider the draft law.
- 3.26 A further issue regards the ownership of facilities such as ticket offices. Currently ticket offices in stations belong to Trenitalia and only sell their own tickets. This has an impact of market opening, as indicated by Everis (ibid.), especially as regards regional services which are not usually purchased in advance through the Internet (like high speed services for instance) but rather shortly before the journey (although we note that for the regional tenders that have occurred the tenders specified that regional ticket offices would be transferred to the new operator). Private operators (such as Arenaways) have sought to bypass the limitation by selling tickets on board, through their website or by means of ticket machines. NTV faces a similar problem although it has leased space in each station that it operates in and it sells tickets from those locations (as well as through alternative sources such as internet, travel agencies and ticket machines in stations).

Funding of PSCs

- 3.27 Before 2009, the total price of the regional service charged by Trenitalia was calculated by multiplying the unit price per kilometre by the number of kilometres run in a year by the regional trains. It did not consider the characteristics of individual trains in terms of age, number of carriages and seats offered, comfort. Since 2009, more advanced contracts have been stipulated, which take into account quality parameters and a different accounting of

⁹ HERMES (2005), *Le gare nelle ferrovie locali*. Turin

¹⁰ ACGM (2012) Bollettino Edizione special. Proposte di riforma concorrenziale ai fini della legge annuale per il mercato e la concorrenza. Published on ACGM's website on 9 January 2012.

costs of Trenitalia. This has de facto meant that regions have had to pay substantially higher subsidies for the same level of service or face a reduction in the services offered by Trenitalia at contract renewal.

- 3.28 Article 25 of Law n. 2/2009 provided additional funding from the State to regions for new PSCs to signed exclusively with Trenitalia. This lead to a distortion in the market, as it gave Trenitalia a competitive advantage over other potential bidders. The obligation to award regional services through public tender was cancelled by article 61 of Law n. 99/2009; as a consequence of this law, competitive tendering is no longer mandatory in Italy.

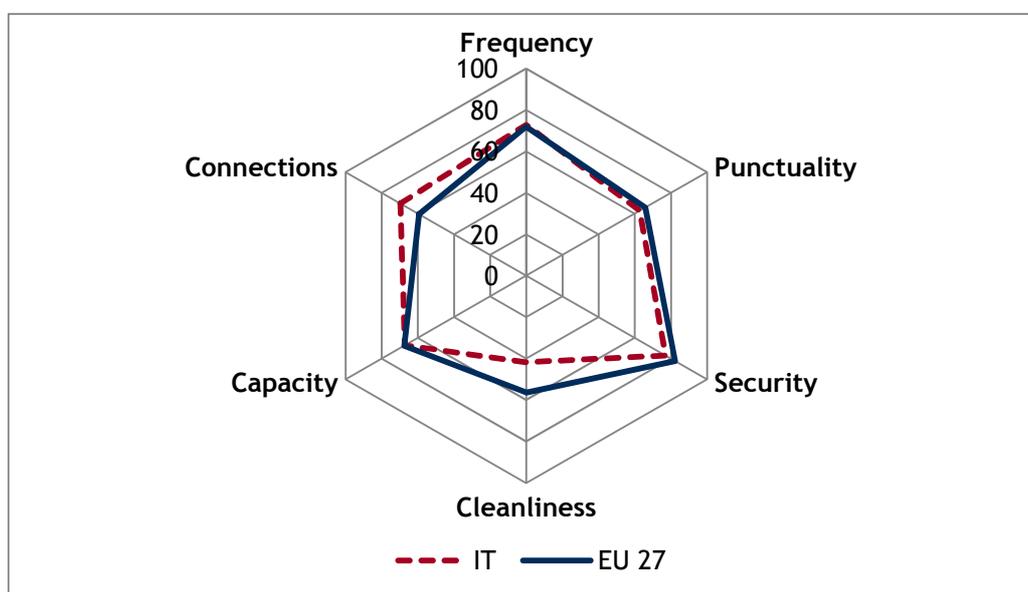
Type and volumes of contracts awarded

- 3.29 Before 2009 regional PSCs were concluded by regional government on a yearly basis. Law n.33/2009 assigned a minimum term of six years for PSCs, renewable for a further six years. In practice, this implies that contracts stipulated with Regions have a virtual duration of 12 years. On one hand long contracts are deemed to have created the optimal conditions to allow for fleet renewal programmes essential for service improvement; on the other hand, it can be argued that the wording of the Law n.33/2009 in fact allows the continuation of the current contracts awarded directly to the incumbent, de facto prolonging the status quo at least until 2021, with Trenitalia holding all regional PSO arrangements. National PSCs concluded by the Ministry services have a minimum duration of 5 years.

Evidence on service quality

- 3.30 The quality of rail services in Italy has been recently evaluated in a Eurobarometer publication as a result of a comparative survey conducted across Member States in 2011. Figure 12 summarises the results for Italy in comparison to the EU-27 average scores.

FIGURE 12 EUROBAROMETER RESULTS 2011 - % PASSENGER SATISFACTION



Source: Steer Davies Gleave analysis of Flash Eurobarometer (June 2011)

- 3.31 The study reveals that Italians rate quality of rail services in line with the European average. In particular in terms of capacity, frequency and, to a lesser extent, punctuality. Cleanliness appears to be an issue with Italian services scoring rather poorly compared with the EU 27 average. In fact, in the past years, serious shortcomings emerged in terms of cleanliness and hygiene on some Trenitalia trains. Security scores slightly below the EU 27 average. Security

concerns were mostly raised on night trains, the decline in the number of night services may help to improve client's perception of this aspect.

Treatment of staff in transition periods

- 3.32 Historically, rail workers in Italy have benefited from special treatment stipulated in an ad hoc contract for the rail sector. Special provisions in terms of pay, holidays and general conditions applied to workers of the FS group, which were rather generous if compared with other industries and with the private sector. With the advent of new, private train operators, new individual contracts have been signed which usually provide for lower pay and different (normally longer) working hours¹¹.
- 3.33 In September 2011 Law n. 148/2011 entered into force which required that all railway undertakings operating on the Italian rail network apply collective bargaining in the definition of standards related to staff's working conditions, with particular reference to the issues of rail safety. This would have limited the possibility for new entrants to put a downward pressure on salaries in order to cut costs. However, this provision was shortly after cancelled by the "Liberalisations Decree" n.1/2012. Specific collective bargaining agreements have been entered into by Arenaways, Nord Cargo - DB Schenker, and NTV.

¹¹ Source: Italian train drivers' Union ORSA (<http://www.sindacatoorsa.it>)

4 Summary of findings

Summary of previous chapters

- 4.1 In Italy market opening is progressing on schedule, with all the relevant Directives having been transposed in the national legislative framework (with some elements of the First Package remaining outstanding) and a growing number of new entrants observed in the rail freight market. The share of new entrants in the rail freight market summed up to over 20% in 2009, plus with the reduction of freight services by the cargo division of the incumbent RU, it is foreseen that new entrants achieve further growth in the upcoming years. In addition, the beginning of the new high speed services by NTV in late April 2012 will limit the domination of the incumbent in the passenger rail market.
- 4.2 However, rail traffic volumes overall are dropping in both the passenger and freight sectors. At the same time, the sector is being rationalised by the incumbent; for instance, night trains have been mostly discontinued, as well as unprofitable freight services.
- 4.3 The functioning of the railway institutions seem generally adequate to the dimension of the market, despite problems of understaffing in the RB. However, this is formally part of the Ministry of Transport, for which (inter alia) Italy was subject to an infringement procedure from the EC.
- 4.4 The dominance of Trenitalia has meant that there have been few tenders for regional services and where they have taken place Trenitalia has won all on its own or in joint ventures (as in Lombardy region). The incumbent has a significant competitive advantage as it owns the almost the entire national fleet of rolling stock. Plus, the Italian legislative framework in 2009 placed an incentive in terms of state funds for those regions which awarded PSCs to Trenitalia.

Identification of key problem drivers and elements

- 4.5 There are still some access barriers for new entrants, partly represented by the institutional framework of the rail sector and partly due to bureaucracy and rigidity of the system. In particular, homologation of rolling stock and certifications appear to be time consuming and rather expensive.
- 4.6 The partially integrated model of the national railway company is another source of concern. The infrastructure manager RFI is also the allocation body, and is part of the holding FS group. RFI's impartiality in allocating train paths should be guaranteed by the Regulator (URSF), which is an independent office but still formally part of the Ministry of Transport. This might raise doubts on the effective independence of the RB, given that the Ministry has shareholder interests in the Rail National company. This situation is going to change shortly through the establishment of a new independent Authority for transport which will take over, inter alia, the functions of the Regulatory Body.

- 4.7 Car ownership in Italy has risen to higher levels than the average in EU (over 600 cars per 1000 heads of population according to Eurostat¹²) and in the freight sector more than 80% of freight is carried by road.
- 4.8 A more recent development in the passenger sector has been the rise of competition from low cost carriers on longer routes, including domestic ones which has led some non-high speed long distance services to be withdrawn or reduced.
- 4.9 Direct award of PSC has been one barrier for new entrants, especially as regards regional transport. In the case of Arenaways (mentioned in this case study), the structure of the system, with subsidised regional services operated by the incumbent train company and protected from competition by law, prevented commercial regional services from running. Nowadays, contracts are not necessarily awarded directly to the incumbent RU, however, the duration of previously stipulated contracts has been prolonged by law to 6+6 years. This could extend the current contract awarded to the incumbent RU in case of renewal, preventing competition in the regional services for years to come. The provision of additional State funds for contracts awarded to Trenitalia provided for by article 25 of Law n. 2/2009 reinforces the competitive advantage of the incumbent.
- 4.10 Table 5 summarises the outstanding problems identified for the Italian case study.

TABLE 5 SUMMARY OF OUTSTANDING PROBLEMS

Root causes	Problem drivers		Country evidence
Long and costly procedures	Limited access to rolling stock	✓	the incumbent owns the rolling stock PSO tenders require that bidders have a suitable fleet available when bidding (this is due to change in the next future)
	Vague rules on access to rail-related services	✓	Terminals and refuelling stations are largely owned by the incumbent, with access rules and information not always exhaustive
Industry consolidation	Incomplete unbundling	✓	RFI and Trenitalia are part of the same holding RFI is also the allocation body The Ministry of Transport has control over RFI and shareholder interests on Trenitalia
Access barriers to new entrants	Ineffective unbundling	✓	the current rules on PSOs on regional transport favour award of PSCs to the incumbent Open access regional transport initiatives are subject to non-competition with PSO services, which are in nearly all cases operated by the incumbent

¹² Motorisation rate cars per 1 000 inhabitants (2008). Available at: http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=t_sdp340

Root causes	Problem drivers		Country evidence
	Incomplete unbundling	✓	<p>track access not determined directly by IM, but by Ministry of Transport by Decree</p> <p>charging regime for access has been declared “provisional” for a decade</p> <p>charges for basic services (including access to stations) are all included in the track access charge, therefore not possible to split cost of single services</p>
	Deficient funding and investment framework	✗	No evidence
	Access barriers to infrastructure	✓	problems occurred in getting paths for test runs for homologation
	Lack of structures/mechanisms for coordination	✗	No evidence
	Lack of financial transparency	✗	No evidence
Different market access rules in MSs	Absence of competition for PSOs	✓	<p>in principle PSOs may be awarded through competitive tenders, but the law allows for direct award to the incumbent</p> <p>On-going PSOs with the incumbent recently extended by law by up to 6 years</p>
	Distorted/ineffective competition for PSOs	✓	<p>the law provides for financial incentives to regions that award PSCs to the incumbent</p> <p>Current rules on PSCs require bidders to have a suitable fleet available, which favours the incumbent</p>
	Absence of open access rights	✓	problems on regional services due to competition with PSOs, which are mostly operated by the incumbent
	Discriminative framework conditions	✓	<p>information, ticketing and stations are held by the IM</p> <p>New entrants had some problems in selling tickets in stations</p> <p>Use of terminal and maintenance facilities is subject to the incumbent’s influence</p>
Other causes	Lack of infrastructure capacity	✓	Capacity is scarce
	Lack of rolling stock	✓	Rolling stock is scarce

Potential examples of best practice

- 4.11 One of the most evident best practice in Italy is the opening of the market for freight operators and now high speed passenger services. This is made possible by the institutions (despite the problems highlighted in the previous sections) and by the good state of most part of the infrastructure.
- 4.12 Italy has been successful in attracting a competitor to the incumbent that has critical mass. The shape of the Italian network may be of some help, as all the main important cities are found along the principal high speed line.
- 4.13 The new operator NTV will benefit from upgraded and state of the art high speed lines, equipped with ERTMS and bi-directional signalling that can minimise disruptions in case trains are required to proceed against the usual flow. The entry into service of the new operator is a milestone in the market opening process, possibly opening the way for new initiatives in the passenger sector in the future.

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EUROPEAN RAIL MARKET OPENING

Lithuania

Country Fiche

July 2012

1 Evolution of the national market

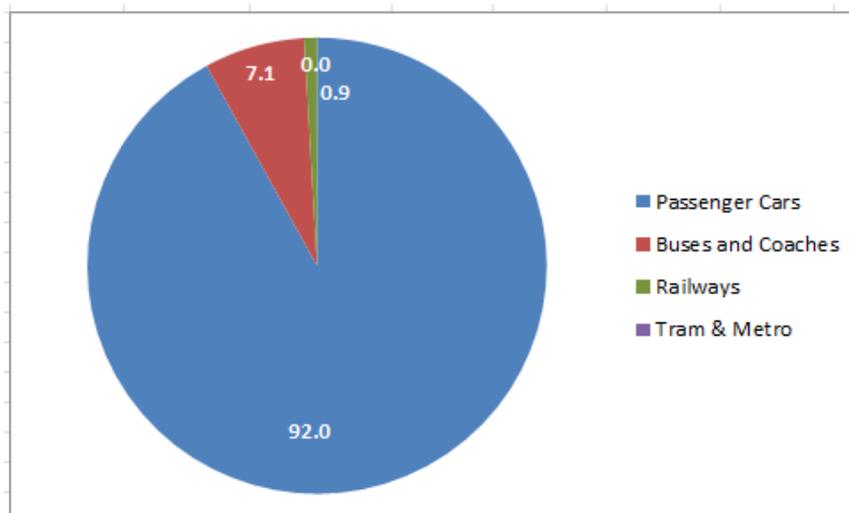
Structure of the network

1.1 The rail network in Lithuania is approximately 1,700km in length and has a density of 28.2km/1000km², well below the European average of 56. Less than 10% of the network is electrified. Freight traffic intensity of the network is very high at over four times the European average. In contrast, passenger traffic intensity is very low at one fifth of the EU average. The population of Lithuania is approximately 3.2 mil. and it has a population density of 50.3/km².

Changes in volumes for passenger and freight services

1.2 Rail modal share of passenger transport as seen in Figure 1 is extremely low with just 0.9%, representing the lowest passenger rail modal share in the European Union. Freight modal share is high at 39.5% but has been steadily declining in recent years while the road share has increased.

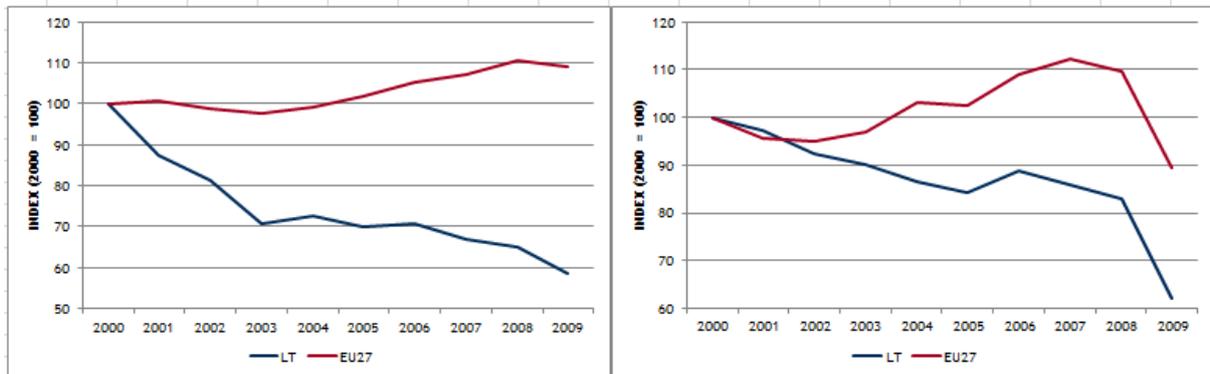
FIGURE 1 MODAL SPLIT IN LITHUANIA 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.3 Figure 2 shows the trends in passenger and freight km in Lithuania between 2000 and 2009. It is clear that passenger rail has been on a downward trajectory and contrasts with the trajectory of the EU 27 average. At the same time, there has been a large increase in passenger km by car, rising from 26 mil. km in 2000 to over 36 mil. in 2009. Journey times are generally shorter by car.

FIGURE 2 LITHUANIA AND THE EU 27, 2000-2009 - PASSENGER AND FREIGHT KM



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.4 As road freight becomes more and more popular, rail tonne km in Lithuania has decreased but still holds a significant share of total tonne km.

2 Competition and market access

Overview of the passenger and freight operators

- 2.1 The rail market liberalisation process started in Lithuania in 2004. The state owned Lietuvos Geležinkeliai (LG) became a holding company with three divisions; infrastructure, freight rail and passenger rail. LG is still fully owned by the state. Passenger rail services are provided by the passenger subsidiary of LG. There are currently four other private operators licensed to provide passenger services but none of them are active.
- 2.2 While there are twelve licensed operators, currently the sole company operating is LG. Oil and oil products accounted for over 45% of freight transported in 2011. A significant proportion of rail freight in Lithuania, at 29%, is transit as the country lies on an important trade route between the Baltic Sea and countries such as Russia, Belarus and the Ukraine.
- 2.3 The infrastructure sector of LG is responsible for maintaining Lithuania's railway network.

Open access

- 2.4 Both freight and passenger transport in a domestic and international context are fully open to competition in Lithuania. However, LG are currently the only RU active in the market. The Lithuanian Government has spoken of its intention to make the infrastructure division completely separate and independent but this has yet to happen (IBM, 2011). It has also spoken of separating the freight and passenger divisions.

Access barriers

- 2.5 Although the network statement is available online in both Lithuanian and English on LG's website, the regulatory authority's website is entirely in Lithuanian. As potential new RUs would have to apply to the authority for all licences, this is a possible barrier.
- 2.6 Lithuanian railways use a broad gauge limiting the potential for other operators from other Member States wishing to enter the market as their rolling stock would not be suitable.
- 2.7 Table 1 displays the time and cost to market for a private RU in Lithuania.

TABLE 1 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating licence	1 month	€300
Safety certificate	4 months	n/a
Authorisation of rolling stock	4 months	n/a

Public service contracts

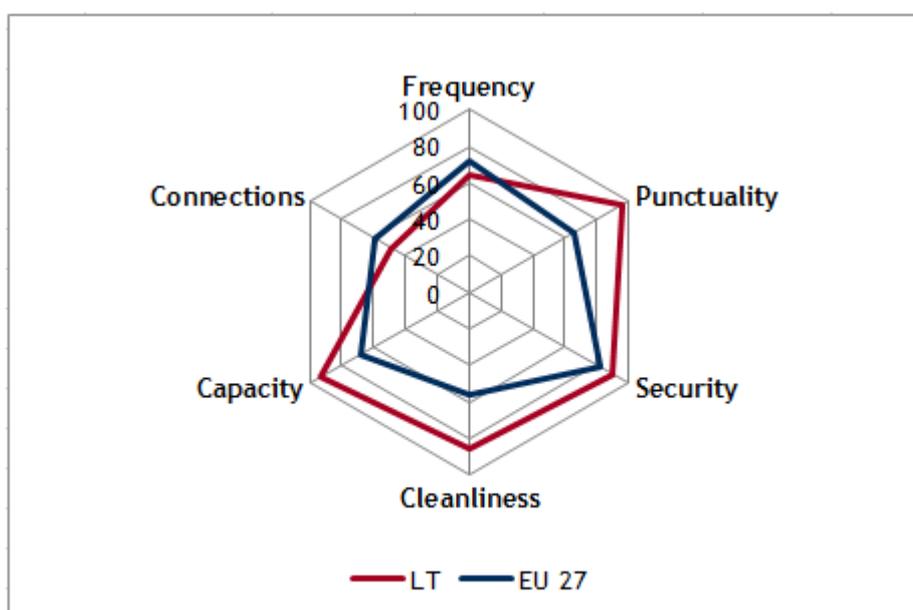
- 2.8 Lithuanian law states that a competitive tendering procedure shall take place but this has not occurred to date. A contract between the Ministry of Transport and LG is signed annually. This annual review process increases the system's flexibility, but leaves little scope for the operator LG to plan long term. As a result, certain lines have been recently closed due to the losses they incurred.

- 2.9 Rolling stock is owned by LG. The current stock is quite old with approximately 63% between twenty and thirty five years old. Stations and platforms are also owned by LG.
- 2.10 The passenger division of LG is a loss making entity, amounting to €47million in 2009. Its accounts are reviewed annually by the Lithuanian Government and subsidies are provided as appropriate. However, this loss is covered by the profits of the freight division. In 2009, LG Holding made a profit of €4.6mil.

Public funds, investment and quality indicators

- 2.11 As illustrated in Figure 3, customer satisfaction for Lithuania’s passenger rail services vary considerably compared to the EU 27 average. For certain aspects such as punctuality and capacity, Lithuania is much higher than the EU average. On the other hand, connections and frequency are not viewed as highly in Lithuania as in their European counterparts.

FIGURE 3 EUROBAROMETER 2011 - RESULTS FOR LITHUANIA AND EU-27

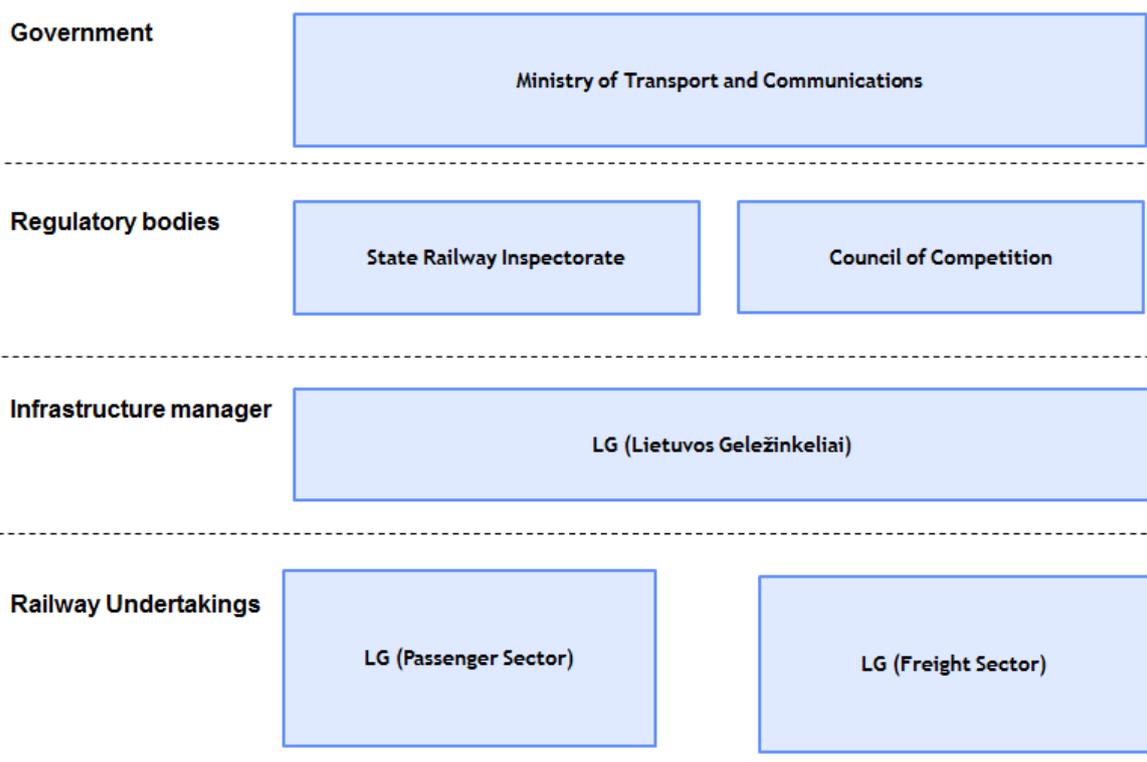


Source: Eurobarometer 2011

3 Regulatory framework

3.1 Figure 4 summarises the regulatory framework for Lithuania. It is clear that although LG has been divided into three separate entities, in reality the structure is still heavily integrated.

FIGURE 4 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN LITHUANIA



Source: Steer Davies Gleave

3.2 The Ministry of Transport and Communications negotiates the contract with LG annually and provides significant subsidies. The State Railway Inspectorate issues licences, verifies the network statement and authorises rolling stock. The Council of Competition is responsible for handling complaints and the charging regime in the rail sector.

4 Summary of findings

Identification of key problems

- 4.1 The passenger rail market in Lithuania is very small. While efforts have been taken to open the market to competition in recent years, it is not an attractive market for private undertakings. On the other hand, there is a significant amount of freight transported on the Lithuanian network. It is therefore noteworthy that despite open access, the incumbent LG is still the only RU in the freight sector.
- 4.2 In addition, there seems to be many licensed RUs who are not operating. The reason for this is unclear. The Lithuanian Government has been slow in fully separating LG and thus Lithuania fell in the IBM rankings from on schedule to delayed between 2007 and 2011.

TABLE 2 SUMMARY OF OUTSTANDING PROBLEMS

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	✓	• LG owns all rolling stock
	Vague rules on access to rail-related services	✗	
Industry consolidation	Incomplete unbundling	✓	• Partial integration infrastructure manager and railway undertaking
Access barriers for new entrants	Ineffective unbundling	✓	• Partial integration infrastructure manager and railway undertaking
	Incomplete unbundling	✓	• Partial integration infrastructure manager and railway undertaking
	Deficient funding and investment framework	✓	• LG Passenger is loss making
	Access barriers to infrastructure	✗	
	Lack of structures/mechanisms for coordination	✓	• Lack of performance regime
	Lack of financial transparency	✓	• Lack of available annual reports online
Different market access rules in MSs	Absence of competition for PSOs	✓	• No competition for PSOs
	Distorted/Ineffective competition for PSOs	✓	• PSOs agreed annually
	Absence of open access rights	✗	
	Discriminative framework conditions	✓	• Non independence of the regulatory body
Other causes	Country-specific problem drivers	✓	• Broad gauge

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EUROPEAN RAIL MARKET OPENING

Luxembourg

Country Fiche

July 2012

Overview of the national market

- 1.1 The rail network of Luxembourg is small, comprising around 275km of lines. The number of passengers transported on the network has been fairly stable in the 2000-2009 period, with a modal share of 4.3%. Rail freight volumes have declined drastically: in 2009, they were only 1/3 of total volumes recorded in 1990. However in 2010 freight traffic grew by 28%.

Competition and market access

- 1.2 The incumbent operator, Chemins de Fer Luxembourgeois (CFL), has a monopoly in Luxembourg. All public service contracts are awarded directly by the state to CFL for a duration of 15 years. These cover intra-modal transport by bus for those services operated by CFL.
- 1.3 The PSC contains obligations with respect to quality criteria and discounts. Compensation for public service obligations is granted in the form of advanced monthly payments. Compensation allows for a reasonable profit to be made by the operator; state subsidies cover around 50% of the costs of operations. CFL recorded a profit of €9m in 2010.
- 1.4 The freight division of the incumbent operator (CFL Cargo), was created in 2006 as a joint venture between CFL (67%) and the steel manufacturer ArcelorMittal (33%). CFL Cargo has operations in Germany and Denmark, operating through subsidiaries.
- 1.5 There are no new entrants operating in Luxembourg, although both freight operators and passenger services have open access to the network and there are a number of cross border services with Belgium and Germany operated by the respective incumbents.

Regulatory framework

- 1.6 The unbundling of infrastructure and operations has not been completed in Luxembourg. CFL is organised as a holding structure - the infrastructure and passenger divisions are only separated in accounting terms.
- 1.7 An independent regulatory body, ILR, was created in 2010 in response to the European Commission's proceedings for incomplete implementation of the First Railway Package. The ILR examines the network statement, monitors competition and oversees the allocation of train paths in Luxembourg.
- 1.8 A new rail agency, Administration des Chemins de Fer (ACF) has been responsible for issuing operating licences, safety certificates and the homologation of rolling stock since 2009.

Summary of findings

- 1.9 Despite its location at the heart of European rail network, the national market in Luxembourg is closed to competition and dominated by the incumbent operator CFL. The institutional framework proves discriminatory for potential new entrants, given the direct award of PSCs and the partial integration of IM and incumbent RU. However, the recently established ILR and ACF represent a positive development in adherence to European directives.

EUROPEAN RAIL MARKET OPENING

Latvia

Country Fiche

July 2012

1 Evolution of the national market

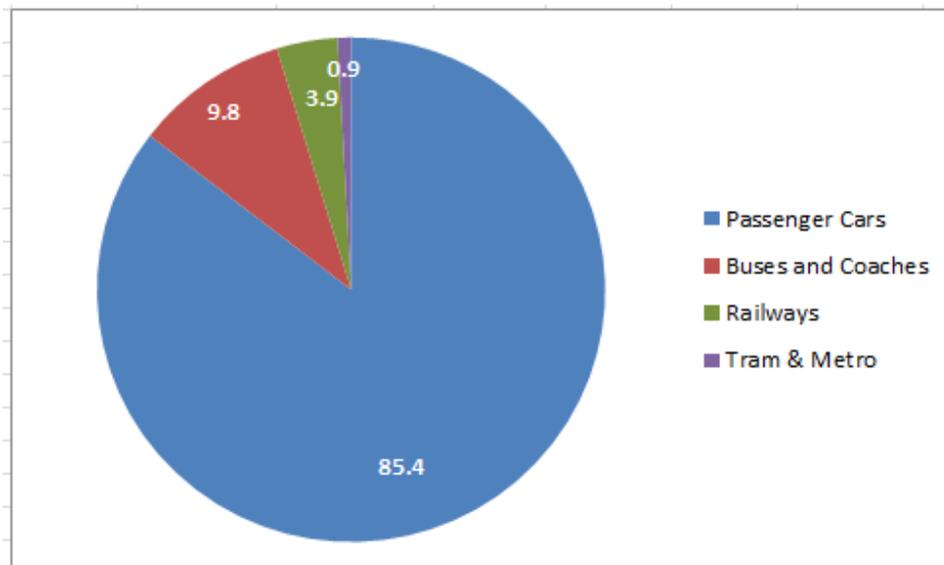
Structure of the network

- 1.1 The Latvian railway network comprises over 2,200 km of broad gauge railway and has a density of 35.1km/1000km². The freight intensity of the network is over four times the European average while on the other hand passenger intensity is less than half the European average. Just over 200km of the network is electrified.
- 1.2 Latvia has approximately 2 million inhabitants and a population density of 34.3/km².

Changes in volumes for passenger and freight services

- 1.3 Rail held a very modest modal share of passenger transport in 2009, 3.9% as seen in Figure 1 below. On the contrary, rail freight has a very large modal share of 65.9%, the highest in the whole of the EU and considerably higher than the EU 27 average of 10%.

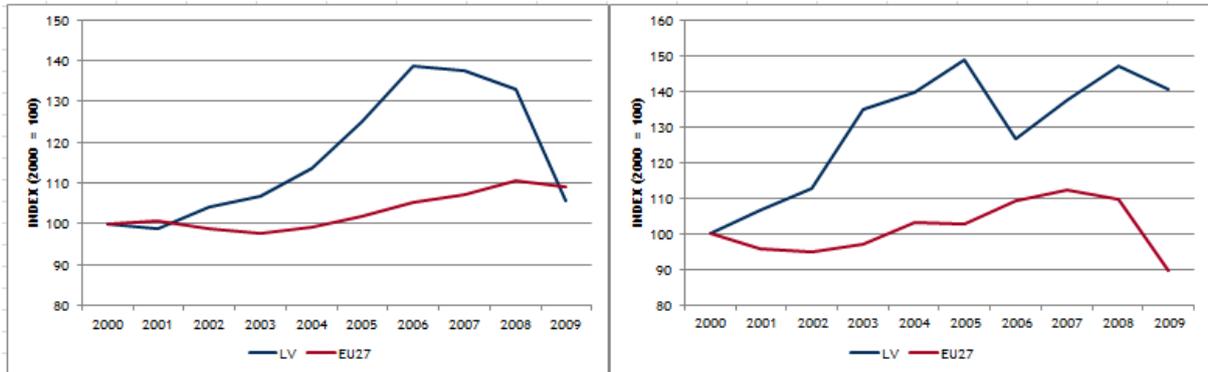
FIGURE 1 MODAL SPLIT IN LATVIA 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.4 Figure 2 displays recent trends in passenger and freight rail km in comparison with the EU 27. While, passenger rail was steadily increasing in the early 2000s, this had followed a large decrease of 87% in passenger rail km during the 1990s. It is evident that the financial crisis of 2008-2009 significantly impacted passenger rail km.

FIGURE 2 LATVIA AND THE EU 27, 2000-2009 - PASSENGER AND FREIGHT KM



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.5 Although road freight km grew between 2000 and 2009, freight rail still increased its tonne km as well as its modal share.

2 Competition and market Access

Overview of the passenger and freight operators

- 2.1 LDz Holding (Latvijas Dzelzceļš), which belongs fully to the state, is the largest railway company in Latvia. It has five subsidiaries responsible for safety, infrastructure, freight, rolling stock maintenance and infrastructure allocation.
- 2.2 LDz Infrastruktūra is responsible for the management of Latvia's rail network infrastructure. This involves both the maintenance and development of the network. They also own all stations but the management of some stations is given to local authorities.
- 2.3 Domestic passenger rail services are provided by PV (Pasažieru Vilciens), a state-owned company. PV split from LDz Holding in 2008. A small narrow gauge railway, 33km in length is run by an external RU Gulbene- Aluksne Railway.
- 2.4 LDz's subsidiary LDz Cargo provides rail freight and freight forwarding services in cooperation with Russian and Belarusian authorities amongst others. It is the fifth largest freight operator in the European Union (LDz, 2010). The majority of rail freight is the transport of coal, oil and oil products. LDz Cargo also run international passenger train services to Moscow and St Petersburg and a newly introduced service to Minsk in cooperation with Belarusian Railways.
- 2.5 Two external freight RUs, A/s Baltijas Ekspresis and A/s Balti-jas Tranzita are active in the freight sector and accounted for 22% of freight traffic in 2009.

Open access

- 2.6 Latvia's rail network is open to both freight and passenger rail competition. To date, no external passenger RU has tried to enter the domestic market. This is likely to be due to the fact that they would be attempting to compete commercially against services which have been awarded directly under a Public Service Obligation (PSO). National legislation also restricts access to RUs operating services between two stations in other EU Member States which is likely to be the reason why no RU has yet entered the international market including cabotage opportunities.

Access barriers

- 2.7 The main access barrier in Latvia remains the gauge which means that connections to other, non-Baltic, EU Member States is difficult.

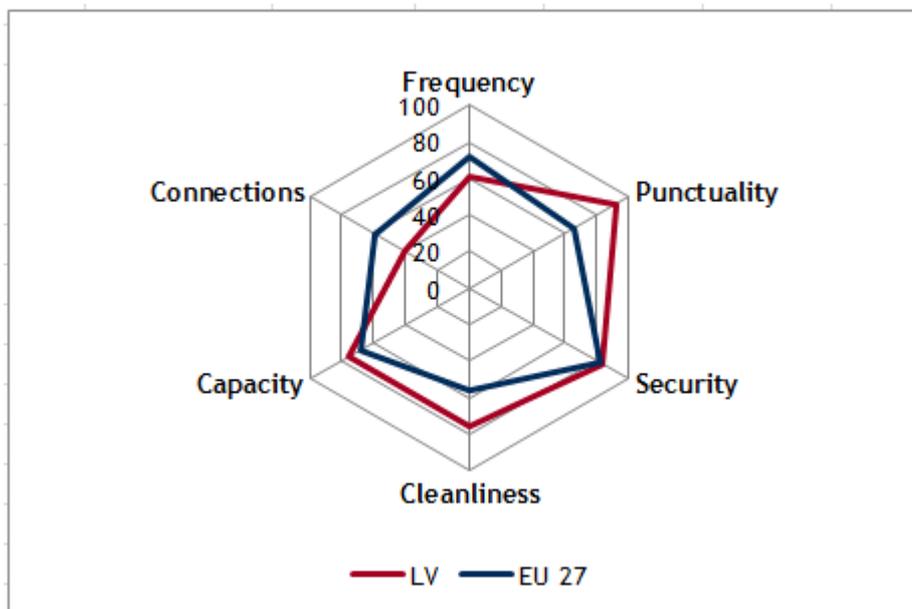
Public service contracts

- 2.8 A single contract for passenger rail services is negotiated directly between PV and the Ministry of Transport. The current contract was agreed in 2009 and will last for a period of fifteen years, with a possible extension of a further seven and half years.
- 2.9 The contract between the Ministry and PV is also entered into with the Road Transportation Directorate as it manages public service obligations and the award procedure.
- 2.10 Part of the rolling stock is owned by the RUs, while the rest is leased (BAG SPNV). In 2011, approximately 21% of trains were older than 20 years while the remainder of the fleet was older than sixteen years.

Public funds, investment and quality indicators

- 2.11 LDz recorded a net profit of just under one million lats in 2010.
- 2.12 Customer satisfaction was above the EU 27 average for the four factors; punctuality, capacity, cleanliness and security in 2009. Satisfaction regarding connections and frequency were below average however.

FIGURE 3 EUROBAROMETER 2011 - RESULTS FOR LATVIA AND EU-27

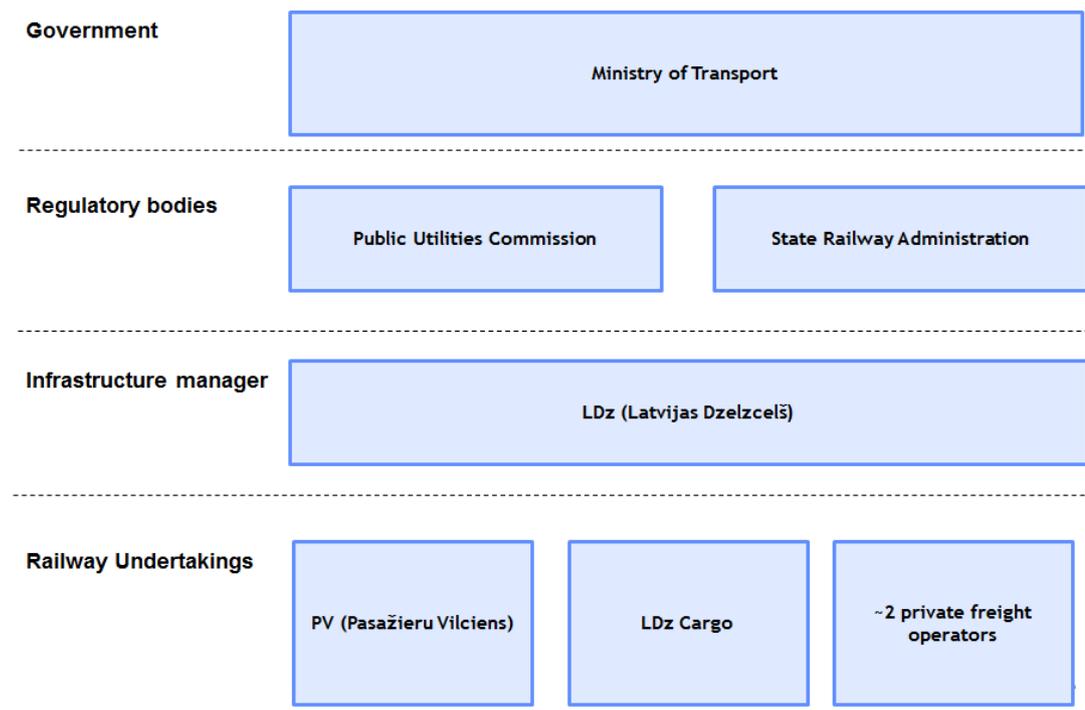


Source: Eurobarometer 2011

3 Regulatory framework

3.1 The Ministry of Transport is responsible for all policy making in the rail sector. The State Railway Administration manages the implementation of this policy. It is independent from the Government. It also issues licences for freight operators while the Public Utilities Commission issues those for passenger services.

FIGURE 4 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN LATVIA



Source: Steer Davies Gleave

3.2 The Public Utilities Commission is also responsible for the fixing of charges and inspecting technical, quality and environmental factors.

3.3 The First, Second and Third Rail Packages have all been transposed into Latvian legislation in the Railway Law (first adopted 1998 but with further amendments).

4 Key Findings

Identification of key problems

- 4.1 Latvia has partially completed the separation of infrastructure manager and railway undertakings with PV independent of LDz. Although they are both state owned, they are separate in terms of organisational, accounting, legal and functional terms.
- 4.2 Given that the passenger rail contract is negotiated directly as a PSO with PV, it is unlikely that external RUs will attempt to enter the market.
- 4.3 Latvia has the highest rail freight modal share for the whole of the European Union and lies on an important trade route with non-EU countries.

TABLE 1 SUMMARY OF OUTSTANDING PROBLEMS

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	X	
	Vague rules on access to rail-related services	X	
Industry consolidation	Incomplete unbundling	X	
Access barriers for new entrants	Ineffective unbundling	X	
	Incomplete unbundling	X	
	Deficient funding and investment framework	X	
	Access barriers to infrastructure	X	
	Lack of structures/mechanisms for coordination	X	
	Lack of financial transparency	✓	
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> PSOs negotiated directly with PV
	Distorted/Ineffective competition for PSOs	X	
	Absence of open access rights	X	
	Discriminative framework conditions	X	
Other causes	Country-specific problem drivers	✓	<ul style="list-style-type: none"> Broad gauge

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EUROPEAN RAIL MARKET OPENING

Northern Ireland

Country Fiche

July 2012

National market

- 1.1 Northern Ireland has three main national rail routes all originating in Belfast. There is one international link providing a service between Dublin and Belfast.
- 1.2 Passenger rail in Northern Ireland has seen significant growth in recent years with a 60% increase in volumes between 2002 and 2010.
- 1.3 There has been no rail freight on the Northern Irish network for many years.

Competition and market access

- 1.4 The UK Department for Transport plays no role in the provision of Northern Ireland's public transport services.
- 1.5 NI Railways is a subsidiary of the Northern Ireland Transport Holding Company, a state owned body responsible for public transport services in Northern Ireland. It is more commonly known as its brand name "Translink".
- 1.6 A public service contract is agreed directly between the Department for Regional Development and Translink.
- 1.7 As Translink produces an annual report for its entire undertakings (rail and bus), it is not possible to see the amount of subsidies provided from the Government for rail only. For the financial year 2010-2011, Translink recorded a profit of £2 million.
- 1.8 Track improvements and newly introduced rolling stock funded by the Department for Regional Development have been attributed as the main driving factor leading to the increase in passenger numbers. Customer satisfaction has risen from 65% in 2005 to just under 80% in 2011. (Translink, 2012)

Regulatory framework

- 1.9 The Department for Regional Development acts as the governmental representative and as the regulatory body for rail services in Northern Ireland. NI Railways is both the infrastructure manager and only railway undertaking in the country. Thus it can be classified as a completely integrated framework.
- 1.10 The First, Second and Third Railway package have been transposed into Northern Irish law in various sets of regulations.

Summary of findings

- 1.11 In contrast with the rest of the UK, Northern Ireland has a publicly owned rail network. There are no plans to open the market to other Railway Undertakings in the passenger sector.

EUROPEAN RAIL MARKET OPENING

The Netherlands

Country Fiche

July 2012

1 Evolution of the national market

Structure of the network

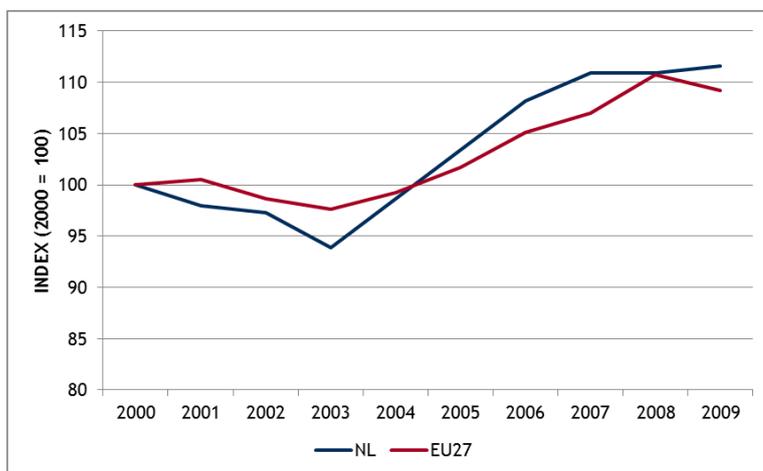
- 1.1 The Netherlands have a population of approximately 16.6 million people and a density of 492 inhabitants per km. The length of Dutch railway lines is 2,890 km (2010) and the network density is 66.8 km/1000km², above the EU average. Approximately 70% of the network is electrified and a 125km stretch of high speed line between Amsterdam and the Belgian border opened in 2009. The passenger rail intensity (a measure of train utilisation rates) is by far the highest in the European Union at almost six times the EU average. Freight intensity is slightly above the EU average.

Changes in volumes for passenger and freight services

Passenger volumes and modal share

- 1.2 The beginning of the decade was marked by a decline in passenger kilometres, however passenger levels have been rising steadily from 2003 to 2007 both on the national and regional network. This trend is in line with the European trend as shown in Figure 1 below; however, the Dutch rail sector appears to perform better than the EU-27 in the recession years of 2008-2009.

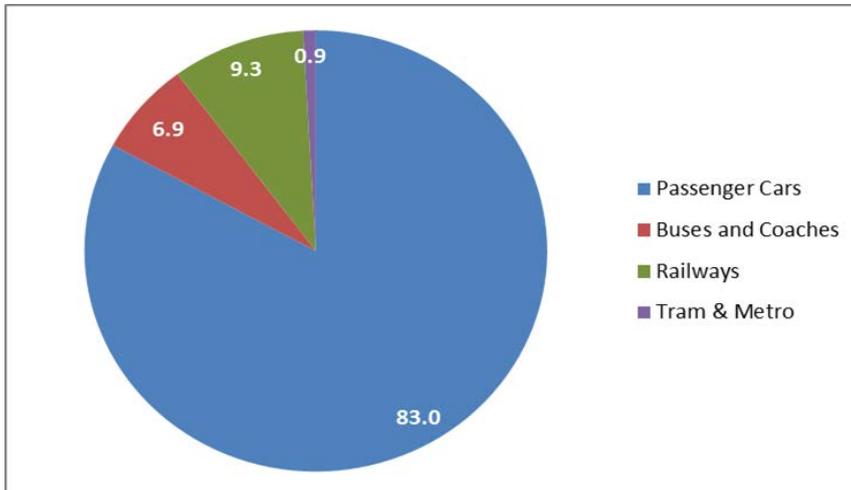
FIGURE 1 PASSENGER VOLUMES IN THE NETHERLANDS AND THE EU 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.3 As a result of modest growth in the past decade, the modal share of rail in the passenger sector was slightly higher in 2009 (9.3%) than in 2000 (8.7%). Nevertheless, car movements still have an 83% share of the passenger market as shown in Figure 2.

FIGURE 2 MODAL SPLIT IN PASSENGER TRANSPORT 2009

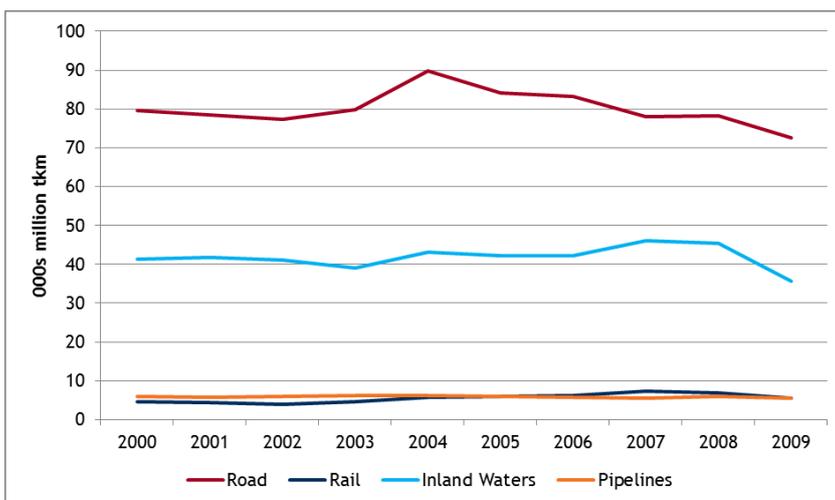


Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

Freight Volumes and Modal Share

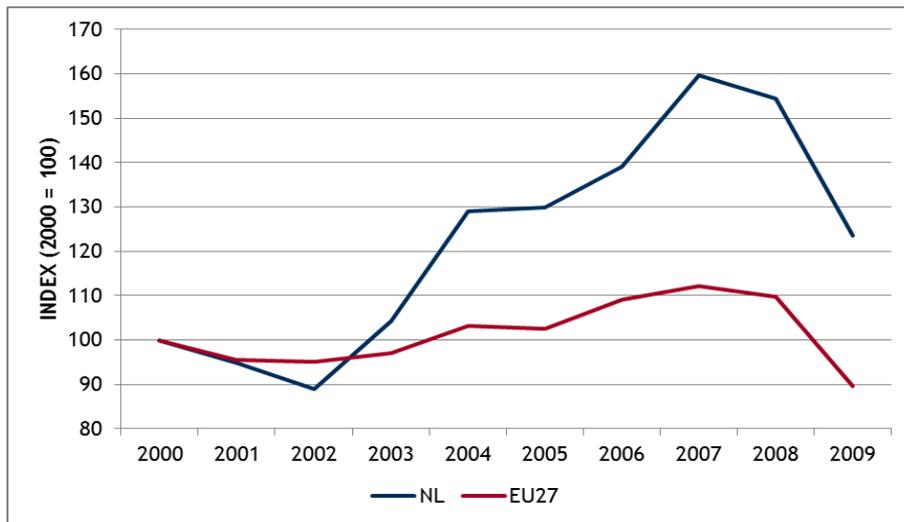
1.4 Rail freight volumes have also been rising from 2002 to 2007 as shown in Figure 3. During this period, railways have gained a larger share (around 5%) of the freight market against road and water transport (the latter being particularly developed in the Netherlands with 30% modal share). There are significant flows by water to/from Antwerp (Schelde) and the inland German ports (Rhine). During the economic crisis, rail freight transport has declined but the Dutch sector has proven more resilient in comparison to the EU as a whole (see Figure 4). During this period rail freight has benefited from the opening of the new Betuwelijn dedicated freight route linking Rotterdam with the German rail network.

FIGURE 3 FREIGHT TRANSPORT VOLUMES BY MODE 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

FIGURE 4 FREIGHT VOLUMES IN THE NETHERLANDS AND THE EU 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

2 Competition and Market Access

Passenger operators

Incumbent: structure and activities

- 2.1 For many decades, the national operator has been Nederlandse Spoorwegen (NS). At the beginning of the 90s, vertical separation was implemented and NS was transformed into a joint stock company. The Ministry of Finance is the sole shareholder. NS does not receive direct public subsidies on the longer-distance routes: intercity passenger transport is viewed as a commercial activity, while infrastructure remains a responsibility of the government (van de Velde et al, 2009).
- 2.2 NS has been awarded long-term contracts by the government for the exclusive use of the Mail Line Network (MLN) for passenger transport, covering all the long-distance, inter-city routes (more than 90% of total passenger km). The current concession has been renewed in 2005 and runs until 2025, effectively closing the market to competitors on the MLN.
- 2.3 NS has sustained the number of passengers carried in recent years. However, in the absence of direct income sources from the State, the revenue stream is highly linked to passenger volumes. The reduction in costs and revenue in 2010 is mostly explained by the sale of some NS' subsidiaries including the constructor Strukton. Table 1 summarises the financial results of NS.

TABLE 1 FINANCIAL RESULTS OF NS 2006-2010

	2006	2007	2008	2009	2010
Revenue (€m)	3,486	4,040	4,253	4,596	3,520
Expenses (€m)	3,536	3,685	3,925	4,480	3,286
Profit (€m)	358	416	399	116	149
Staff numbers	27,382	28,676	29,384	30,068	23,630

Source: NS Annual Reports

New entrants: regional passenger services

- 2.4 While NS is the only operator on the network of main lines (MLN), many regional passenger services have been liberalised and public services contracts for passenger transport have been awarded on the basis of formal tendering by the different regions. A total of 20 lines, corresponding to 73 regional connections and 12% of the network have been decentralised. These were all routes that NS had indicated as unprofitable in 1996 (IBM 2011, NBB 2012).
- 2.5 Regional bids have been won by NS, Arriva (part of DB Group), Syntus (recently bought by Keolis), Arriva, Veolia and Connexion. New entrants have been able to compete effectively with NS where they have been able to implement different labour contracts and driver-only operation on different framework conditions to those adopted by NS. Their market shares add up to around 5% of the Dutch market.
- 2.6 Since the regional network is less profitable than the MLN, the operators receive direct subsidies. The policy goal is to progressively increase the revenue coming from passenger fares while reducing the amount of government funds (BAG-SNPV 2011, p.94).

- 2.7 An additional line that was franchised on a competitive basis is the newly built High Speed Line South, connecting Schiphol Airport with Amsterdam, Rotterdam, and Breda/Antwerp-Brussels. This had been assigned via public tender to a consortium made up of NS (90%) and Air-France-KLM (10%) called the High Speed Alliance (HSA). HSA held a 15 year franchise until 2024. However, the passenger flows on the line have not met expectations and HSA has incurred in losses of over €100m both in 2009 and 2010 (NBB 2012). As a result, the concession has now been incorporated into the MLN concession operated by NS until 2025.
- 2.8 Given the country's central location in the European network, international operators are very active in the Netherlands, including Thalys, DB Regio, Fyra and Arriva. Some operate as contracted services (e.g. Enschede-Gronau), while others are joint operations with other RUs (e.g. Amsterdam-Berlin (DB), Maastricht-Luik).

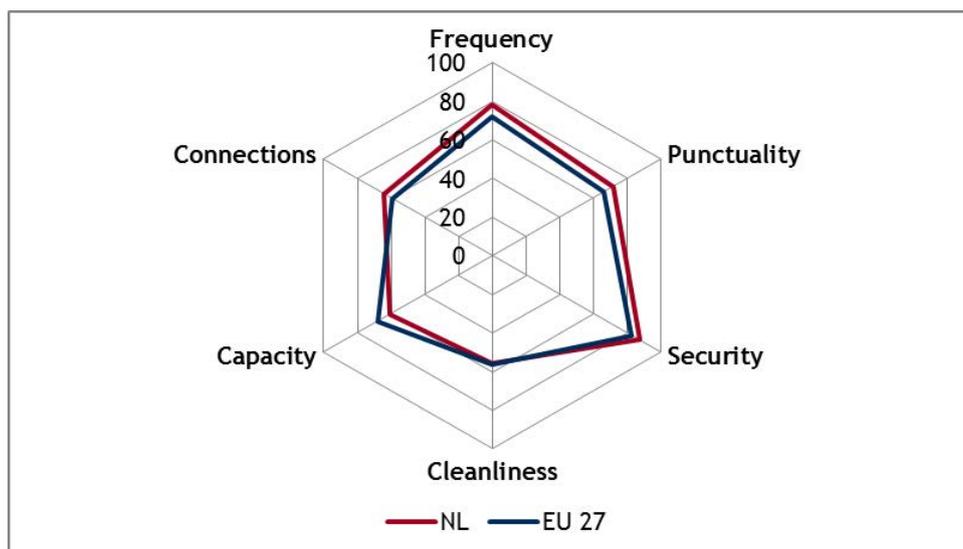
Freight operators

- 2.9 The freight sector has been largely liberalised. In 2000-2001, NS sold its freight division which was merged with the German incumbent DB to create Railion. Today, the company is known as DB Schenker Rail.
- 2.10 The open access regime has initially favoured the entry of new freight operators: as their number has increased, between 2005 and 2009, the market share of non-incumbents has also increased from 15% to 36% (IBM 2011). New entrants include Captrain, ACTS, managing waste and container transport, and ERS, active in intermodal transport from the port of Rotterdam.
- 2.11 However, market consolidation has been taking place throughout 2009 and 2010 as a reaction to the deteriorating market conditions. These have manifested themselves in terms of reduced revenues rather than falling traffic volumes. As a result, the two major operators (DB Schenker and Captrain) have taken over smaller companies. For the first time, the number of operators fell in 2009. The overarching trend is that of internationalisation, with the disappearance of exclusively Dutch rail freight operators (NBB 2012).

Quality and price indicators

- 2.12 Customer satisfaction for rail services in the Netherlands collapsed from 70% to 40% soon after restructuring in the early 2000s. NS experienced negative press following punctuality issues and rolling stock shortages. A "protest vote" by dissatisfied users also took place.
- 2.13 However, recent surveys both nationally and at the European level show an improvement in customer satisfaction. The results from Eurobarometer 2011 for the Netherlands mirror the EU-27 results closely. Dutch passengers are less satisfied about the capacity of their trains than the rest of the EU, but they are generally happy about the frequency and punctuality of services (90% of NS services were on time in 2009). Results are summarised in Figure 5.

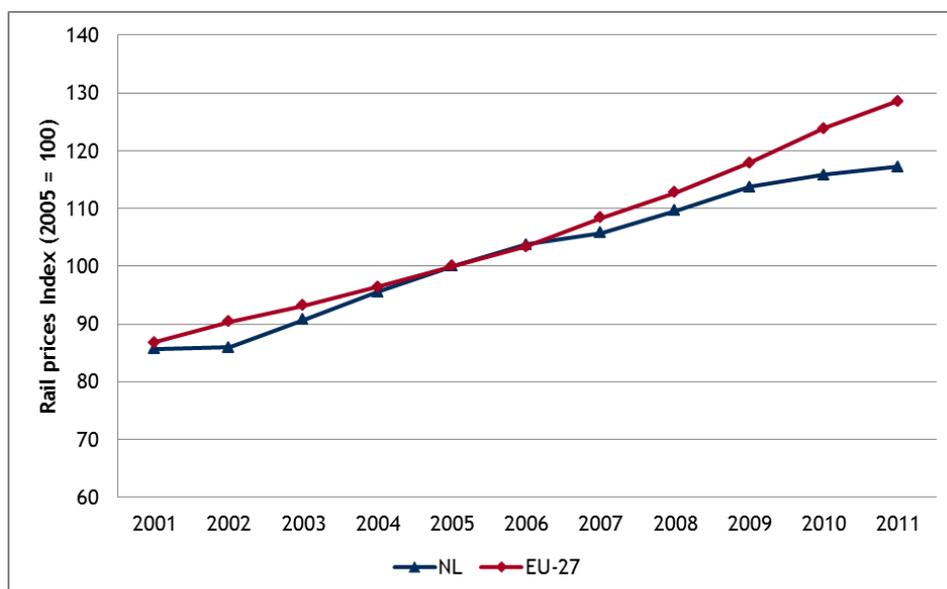
FIGURE 5 EUROBAROMETER SURVEY RESULTS 2011 - PASSENGER TRAINS



Source: Steer Davies Gleave analysis of Flash Eurobarometer (June 2011)

2.14 All railway undertakings operating on the Dutch network have a joint tariff system (BAG-SPNV 2001) which sets upward limits for ticket prices. However prices rose sharply after restructuring (2001-2005) except in 2002, when NS was prevented from increasing prices due to their poor punctuality record. Thereafter, prices rose by approximately 18% in the period 2003-2011, below EU average, as shown in Figure 6.

FIGURE 6 PRICE INDEX FOR PASSENGER RAIL TRANSPORT 2001-2011



Source: Eurostat (2011)

Market openness and competition

Public service contracts in the Netherlands

2.15 Public Service Contracts are organised in a two-tier system both centrally and regionally. On the MLN, NS is granted a PSC for the majority of the national network including the densely-populated Randstad conurbation. The concession holder has to pay a concession fee (€20 million in 2010 and in 2011, according to CER) to the national authority.

- 2.16 The concession contract for NS is monitored by performance indicators, and NS must propose improvements to a set of baseline values. One of the difficulties arising is that of identifying a reasonable benchmark of operators to compare performance with. It is common practice to resort to international comparisons (Bekkers 2009). Since 2008, fines have been imposed where NS has failed to achieve the predetermined standards (NBB 2012).
- 2.17 As part of the decentralisation of power promoted by the Dutch government, public service contracts in the regional passenger market are awarded by regional rail authorities, but these relate to only 5% of passenger-kilometres. Compensation is paid in the form of subsidies equal to the difference between the foreseen costs and revenues. For contracts awarded through competitive tendering, the NS subsidiary Syntus competes in the regional market. PSCs in the Netherlands can be 8 years long if multimodal, or 10-15 years long if for one mode. The recent merger of Transdev and Veolia in 2011 has created the largest multimodal public transport player in the bidding for PSCs in 2011.

Costs and benefits of competitive tendering for PSCs

- 2.18 Evidence shows¹ that competition at the regional level has resulted in a substantial increase in supply (number of companies bidding) and an improvement of the efficiency (cost/revenue ratio) of regional rail transport. In particular, efficiency gains in tendered services for the period 1997-2006 have ranged from 20-50%, compared to 0-10% in directly awarded services. NBB (2012) also provides evidence that passenger growth has been stronger on the regional lines than on the national lines between 2000 and 2010 (14.7% compared to 11.5%). The strong growth is likely to have been in response to the significant investment in new rolling stock and service enhancements that were delivered under these new contracts.
- 2.19 The subsidies negotiated as part of PSCs have, on average, been lower than the ones paid to prior to the contract. This has freed up potential funds for investment in service improvements. Compensation levels must be negotiated in advance and need to take into account the difference between the foreseen costs and revenues. These in turn are influenced by the public service obligations, which cover tariffs (see paragraph 0), minimum frequency, services to passengers with reduced mobility and quality criteria.
- 2.20 Efficiency savings have emerged through the incorporation of regional rail services in intermodal tendering procedures to the creation of a more integrated transport system. One of the effects has been, in some cases, the creation of a more integrated transport system, such as in Twente. Local public transport systems have been rearranged so that bus lines function as feeder lines and the railway lines function as the backbone. In addition, duplicate bus services were rationalised, further increasing modal shift.
- 2.21 The decentralisation of public services, on the other hand, has thus far imposed new costs as well. For instance, new entrants were obliged to take over all the personnel from existing operators. As a result, the number of employees in the rail sector as a whole did not decrease. From 2006, however, a limitation on the number of indirect personnel that has to be transfer to the winner has been set.
- 2.22 Overall, NBB (2012) reports that operating costs have not decreased and that administrative costs have increased. It is difficult to estimate the magnitude of these costs, although this would provide a better idea of the overall impact of decentralisation.

¹ Van Dijk, Tendering and decentralization of regional rail passenger services in the Netherlands, January 2006

Access Barriers

Time and cost to market

- 2.23 the Inspectie Leefomgeving en Transport (ILT) is responsible for issuing operating licences, safety certificates and authorisations of rolling stock. The Administrative and operating barriers for new entrants are regarded as low in the Netherlands (IBM 2011). A summary of the costs to market and the application times as set by the law is provided in Table 2 below.

TABLE 2 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating licence	3 months	---
Safety certificate	3 months	€30,000
Authorisation of rolling stock	8 weeks	€3,400

Source: IBM (2011)

- 2.24 Each railway company organises its own rolling stock either by buying or leasing, in most cases directly negotiating with vehicle manufacturers. The market for rolling stock has developed considerably in recent years (IBM 2011). However, the incumbent NS still owns the majority of the existing rolling stock that meets the Dutch licensing requirements - this acts as a barrier for new entrants. In PSCs, the requirement to invest in new rolling stock is usually in place for longer contracts only (10-15 years).
- 2.25 A marked reduction in access barriers has come through rail ticketing integration. In the past, operators had to rent ticket-vending machines from NS. The new OV-chip-kaart (a national, integrated chip card for public transport) was introduced in 2009 on NS services and it has been extended to all major public transport services in November 2011. Nevertheless, problems in the coordination of service schedules and with keeping sales outlets open are reported by NBB (2012).

Complaints of discriminatory practices

- 2.26 In its Fifth Railway Monitor, the NMa reports that a few freight transport operators suspect that major players are selling services below cost price and describe this as anti-competitive, given that they are government-backed companies. However, the NMa does not consider this information a substantiation of unfair competition, unless the Competition Act is contravened, for example in cases of predatory pricing.
- 2.27 In the passenger sector, operators have tried to recommend ways of improving the tendering process, such as by abolishing the compulsory takeover of staff and capital by the company that won the tender. Some operators also believe that the emphasis in concession allocation should lie more on quality than on price (IBM 2011).
- 2.28 Some conflict also emerges between the regional passenger operators and NS. This is because of the special position that Syntus, an NS subsidiary, holds when competing for regional concessions. The long-term PSC awarded to NS in long-distance services protects it and ensures long-term financial planning. Additionally, the regional passenger transport operators claim to be dependent on NS for the maintenance of rolling stock, which is monopolised by NS Nedtrain (NBB 2012).

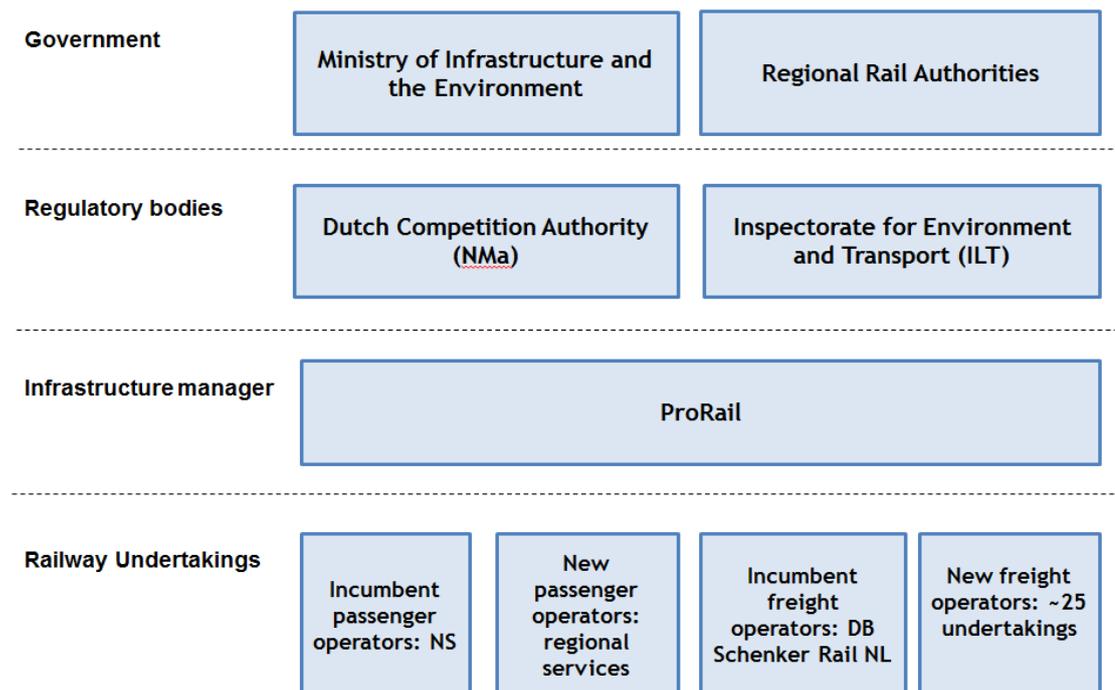
- 2.29 For example, the revenues from ticket sales are distributed by NS to all the operators through a revenue allocation scheme (“WROOV system”). However the shares for this distribution are allocated on the basis of surveys which NS itself commissions on the trains covered by the agreement. Another implication of the WROOV system is that the additional revenues earned by attracting more passengers do not automatically accrue to the operator concerned.

3 Regulatory framework

Main institutions and their role

3.1 Figure 7 summarises the main institutions regulating the rail market in the Netherlands. Their specific functions are described below.

FIGURE 7 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN THE NETHERLANDS



Ministry of Infrastructure and the Environment

3.2 The Ministry of Infrastructure and the Environment is in charge of the national transport policy and it is the concession holder for the NS franchise, looking for continuity in its investment and an appropriate return on investment. This Ministry is, instead, the shareholder of ProRail and it funds 90% of its activities (Bekkers 2009). The Finance Ministry is the sole shareholder of NS.

Regional Rail Authorities

3.3 Besides the Ministry, the local public transport authorities are responsible for the regional rail services, setting out public service contracts. The procurement of these services is financed by the Ministry.

Regulatory Body

3.4 Acting as the Dutch competition authority, the NMa is also the independent regulatory body. In particular, the Office of Transport Regulation within the NMa is in charge of monitoring and enforcing competition in the rail sector in line with the relevant Railway Act. It is responsible for examining the network statement, investigating infrastructure allocation processes and charges.

The powers of the regulatory body include coercive measures and imposing fines. Between 2007 and 2009, 28 investigations were initiated by the NMa leading to, for example, a

€826,000 fine imposed to ProRail in August 2008 for repeated violations of the Railway Act. The NMa has about 370 employees, with 7 in charge of rail market regulation exclusively.

National Safety Authority

- 3.5 The Inspectie Verkeer en Waterstaat (IVW), former safety authority, was replaced by the Inspectie Leefomgeving en Transport (ILT) from January 2012. The safety authority works as an independent body within the Ministry of Environment and Transport. It is in charge of issuing operating licences, safety certificates and deciding on the homologation of rolling stock.

Infrastructure Manager

- 3.6 ProRail is the infrastructure manager since 2003 and it is owned by the Dutch government. The Ministry is also the holder of a concession that vests ProRail with the responsibility of managing the national rail network under a performance agreement and subject to the receipt of government funds. ProRail also performs functions of capacity allocation and management, traffic control, infrastructure and track development, and ICT services.
- 3.7 With 76.6% of its revenue coming from the state, only 16% of ProRail's operating costs were financed by infrastructure charges in 2009-2010. According to NBB (2012), this poses two problems. First, the infrastructure charges are very low by European standards and are based on differential pricing not in line with Directive 2001/14. Second, it is hard to trace the destinations of public funds - a parliamentary committee was established in 2010 to improve the transparency of the system.

Analysis of unbundling and regulation

Vertical separation

- 3.8 Full vertical separation of the infrastructure manager (ProRail) and the incumbent (NS) took place in 2001 and it has remained since then. The two companies do not share any common members and have offices in separate buildings (Everis 2010).
- 3.9 The government is involved in both companies, but to a different extent. The Ministry of Finance is the sole shareholder of NS, but it does not subsidise rail services. However the Ministry of Infrastructure and the Environment is the concessionaire for NS. On the other hand, the Ministry is both the concession holder and a shareholder of ProRail; it also subsidises its activities. The relationship between regional companies and local governments is simply that of a concession agreement under PSCs.
- 3.10 Initially, the impacts of unbundling led to a period of worsening performance due to cost savings and other restructuring measures - for example, NS was first divided into different entities which were then reincorporated into a single company in 2003. During this early years, prices went up and quality decreased. However, there has been continuous improvement in these indicators after restructuring. (Steer Davies Gleave 2011).
- 3.11 Some complaints over ineffective unbundling are reported by the NMa in 2010. Transport operators voiced concerns about ProRail's neutrality with regard to capacity allocation. The reason for this concern is NS's involvement in the Day Plan and the OCCR (Operational Control Centre Rail), a potential threat to the creation of a level playing field. For this reason, among others, the NMa issued a Notice of Opinion concerning the development of the OCCR. The conclusion in this Notice of Opinion is that, as long as the OCCR meets the conditions set by the NMa, it will not form a threat to ProRail's neutrality. The NMa is closely following the development of the Day Plan.

- 3.12 Overall, the NMa survey 2010 reveals that 57% of the rail undertakings are satisfied with ProRail's performance scheme. The main criticism is that ProRail's performance schemes do not provide strong enough incentives for better performance on the network and are too focused on the imposition of fines.

Regulatory Capacity

- 3.13 The independent Regulatory Body sits within the competition authority (NMa) and is essentially in charge of regulating the activities of the infrastructure manager. This ensures that a 3rd party oversees the implementation of competition law and monitors discriminatory practices in capacity allocation. The remedy available to the Regulatory Body strengthen its capacity and effectiveness. Seven employees are directly involved in the regulation of the rail market at the NMa (IBM 2011).
- 3.14 Overall, such institutional framework makes the Netherlands one of the countries in which market reforms in rail are more advanced in the EU. Complete vertical and horizontal separation and an independent regulatory body provide the necessary conditions for market access and competition to be enhanced. As a result, market shares by non-incumbents in the freight and (regional) passenger sector are rising. Not surprisingly, the Netherlands score highly in the IBM Liberalisation Index 2011.

4 Summary of findings

Summary of previous chapters

- 4.1 The rail market in the Netherlands has grown in the 2000s and appears to more resilient to the economic downturn than most European counterparts. In recent years, passenger volumes have been growing across the national and regional networks, but they have been less so on the high-speed international network. In the freight sector, the fall in transported volumes reflects the deteriorating economic conditions; nevertheless, rail freight has increased its market shares.
- 4.2 The national rail passenger services are provided by the incumbent NS until 2025, subject to a PSC directly awarded by the government. The operator does not receive public funds for services on the MLN network and it pays a fee to the national authority. However, the state finances almost entirely the IM ProRail which is fully separated from NS. The regulatory body (Nma) lies within the competition authority, thus focusing on discriminatory practices and market access. The newly-established ILT is in charge of certificates and licences for the Dutch market in a transparent manner.
- 4.3 Besides the national routes operated by NS, around 12% of the network is overseen by regional authorities following decentralisation. Competitive tenders have been won, as of 2011, by five new entrants. In addition, international trains to and from the Netherlands are very active.

Identification of key problem drivers and elements

- 4.4 The evidence gathered suggests that the rail market in the Netherlands is at an advanced stage of liberalisation and the European Railway Packages have been widely applied. Nevertheless, the incumbent operator NS still carries around 95% of passenger-km on the network as a result of the direct award of a public service contract for the MLN network by the state. In January 2012, it was reported that the Ministry is minded to renew the MLN contract with NS for a further 10 years from 2015. In addition, the concession will be merged with that covering the HSL-South high-speed line. (Railway Gazette, 01/12)
- 4.5 The domestic market is and will be thus only partially open to competition, namely on the less profitable regional routes.
- 4.6 It is unproven whether NS's monopoly on the MLN network has inhibited quality and rail modal share. After a restructuring period leading to falling passenger volumes, lower quality and higher prices in the early 2000s, there is evidence that NS has been providing a better service and has attracted more users thereafter. However, the severe losses accumulated by the HSA, in which NS has a large stake, threatened the financial sustainability of the JV. Extending the concession and merging it with MLN should solve this problem.
- 4.7 The dominance of NS raises some issues with respect to access barriers for new entrants, even in the market segment that has been liberalised following decentralisation (regional services). There, new entrants face limited options for acquiring rolling stock, because most of the existing rolling stock is owned by NS. They are also disadvantaged when bidding on a cost basis as they cannot rely on planned revenue streams compared to NS; and they face minimal incentives to improve their service given the fare revenue distribution system influenced by NS.

4.8 The problems still remaining in the Dutch rail passenger sector are summarised in Table 3.

TABLE 3 SUMMARY OF OUTSTANDING PROBLEMS

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	✓	<ul style="list-style-type: none"> NS owns majority of rolling stock
	Vague rules on access to rail-related services	✓	<ul style="list-style-type: none"> Unclear rules on ticket sales facilities
Industry consolidation	Incomplete unbundling	X	
Access barriers for new entrants	Ineffective unbundling	X	
	Incomplete unbundling	X	
	Deficient funding and investment framework	X	
	Access barriers to infrastructure	X	
	Lack of structures/mechanisms for coordination	✓	<ul style="list-style-type: none"> Fare-revenue distribution system controlled by NS
	Lack of financial transparency	✓	<ul style="list-style-type: none"> Very low infrastructure charges could be regarded as indirect subsidy
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> No competition for PSOs at the national level
	Distorted/Ineffective competition for PSOs	✓	<ul style="list-style-type: none"> Regional competition adversely affected by NS's national monopoly
	Absence of open access rights	X	
	Discriminative framework conditions	X	
Other causes	Country-specific problem drivers	✓	<ul style="list-style-type: none"> High-speed is heavily loss-making

Potential examples of best practice

4.9 Several examples of best practice emerge from the study of the Dutch railway market. Full horizontal separation has taken place between passenger and freight operations, and complete vertical separation of the IM and RU has also occurred. The liberalisation of the freight market has resulted in the entry of new open access operators; new undertakings have won tenders on the regional passenger markets.

4.10 The two-tier system of PSCs, while causing some market distortions due to NS's dominance, represents a potential solution to the problem of loss-making, short-distance routes. These have been revitalised by the new entrants, especially thanks to the integration of transport modes at the local level and the design of specific PSCs at the regional level, as well as investment in new rolling stock. At the same time, such

arrangements allow NS to operate without state subsidies. The introduction of smart ticketing across the network is an example of how the access barriers created by this system can be successfully overcome with technology.

- 4.11 Finally, the overall institutional framework in the Netherlands is conducive to the process of market opening and competition in the rail sector. The independent regulator is very much focused on ensuring non-discriminatory market access and the infrastructure manager has a consolidated performance regime in place. The infrastructure side is heavily subsidised, which allows the IM to keep access charges relatively low. This helps to facilitate open access by new entrants, but in the Netherlands, this opportunity is not open for domestic passenger operators. However, the current funding arrangements of the IM poses issues of accountability of public funds and whether there are adequate incentives on the IM to deliver efficient, high quality services to the RUs.

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EUROPEAN RAIL MARKET OPENING

Poland

Country Fiche

July 2012

1 Evolution of the national market

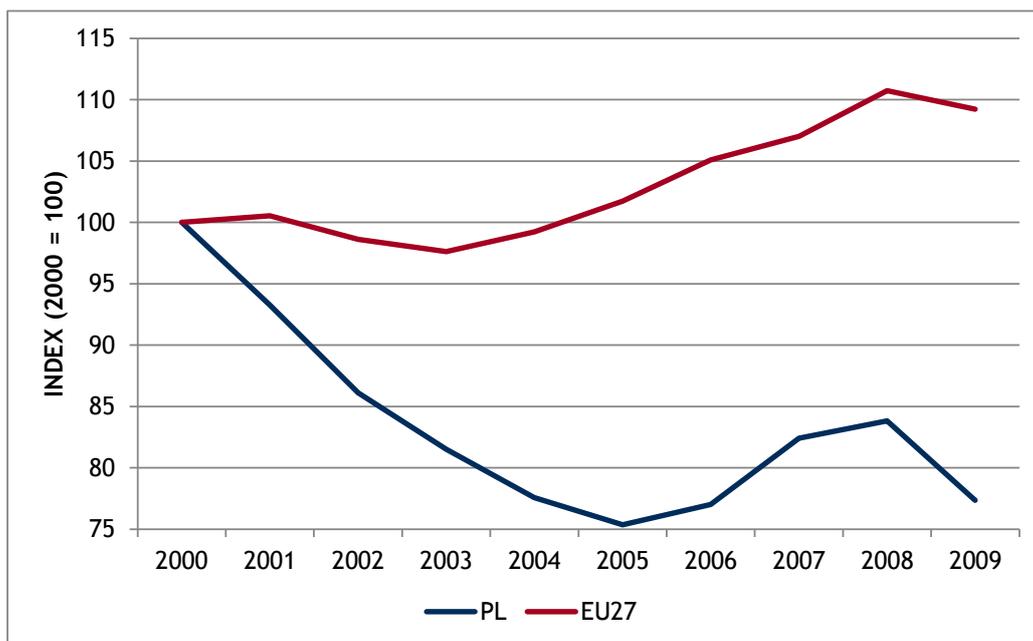
Network structure

1.1 The Republic of Poland has a population of approximately 38.2 million people, and a population density of 120/km². The current length of the mainline railway network in Poland is approximately 19,280 km, compared with 22,560 km in 2000 and 26,230 km in 1990. Thus, the Polish rail network has shrunk in length by over a quarter¹ between 1990 and today. The density of the rail network is 62km/1000km². Freight intensity, at 2.63, is above the EU average of 2, contrasting with the passenger intensity at 0.95 which has fallen below the European average of 1.

Passenger volumes and modal share

1.2 Partially as a result of this, the number of rail passengers in Poland had been declining steadily, albeit with a short-term reversal of this trend between 2005 and 2008. Passenger numbers have been in decline since 2009. Whilst this is in line with trends in other EU Member States, the decline in Poland is more marked.

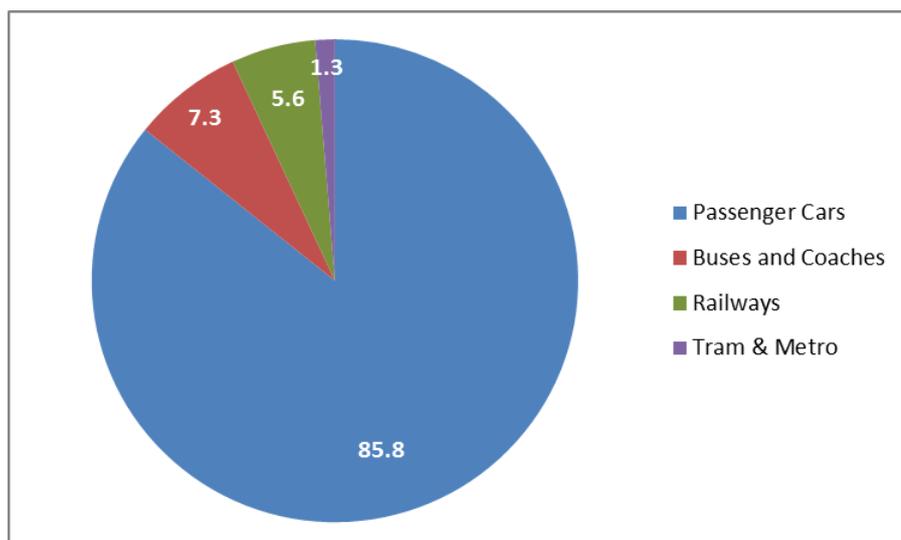
FIGURE 1 PASSENGER VOLUMES IN POLAND AND IN THE EU 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

¹ Source: Statistical Yearbooks of the Polish Main Statistical Office. http://www.stat.gov.pl/gus/roczniki_PLK_HTML.htm
Retrieved 17/04/2012

FIGURE 2 MODAL SPLIT IN PASSENGER TRANSPORT 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

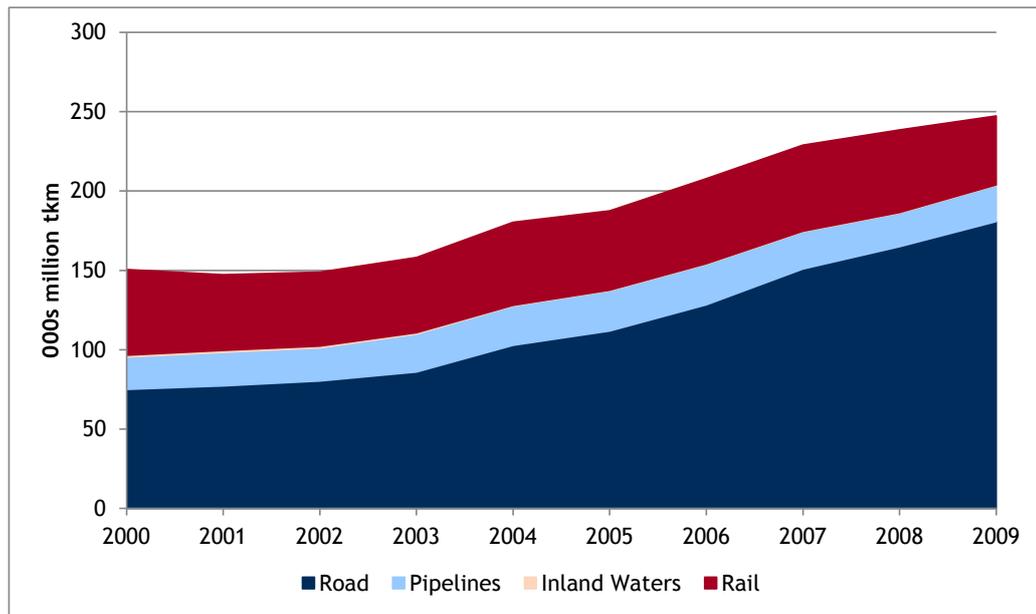
- 1.3 The relatively poor performance of rail as a mode is primarily due to a gradual worsening of the state of the railway infrastructure in Poland, with simultaneous large investments made in the motorway network and urban road networks leading to rail becoming uncompetitive in terms of journey time.
- 1.4 Another contributing factor was widespread route closures leading to a shrinking of the network as mentioned above. The density of the railway network has been reduced by approximately 23% from 84km/1000km² in 1990 to 65km/1000km² in 2008². Closures have particularly affected branch lines in the west of the country, where density was much higher than elsewhere.

Freight volumes and modal share

- 1.5 Freight volumes transported by rail in Poland have declined rather significantly since 2008, having fluctuated at between 45 and 55 million tonne-km per annum during the 2000s. This is in stark contrast to road traffic, which has been rising steadily during the decade and has more than doubled in volume between 2000 and 2009.

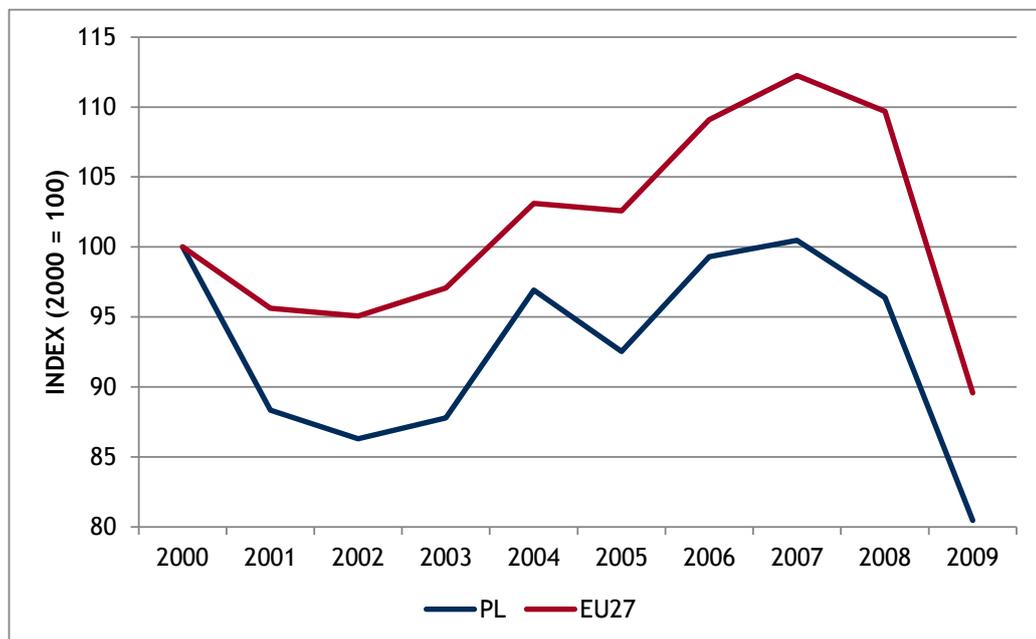
² Source: Eurostat. Transport infrastructure at regional level - Statistics Explained.
http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Transport_infrastructure_at_regional_level#Railways
 Retrieved 01/05/2012

FIGURE 3 FREIGHT TRANSPORT VOLUMES BY MODE 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

FIGURE 4 FREIGHT VOLUMES IN POLAND AND THE EU 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

2 Competition and market access

- 2.1 There are currently 117 licenced rail undertakings in Poland, which hold licences for:
- The carriage of passengers
 - The carriage of freight
 - The provision of rail vehicles
- 2.2 This number includes 14 undertakings, which operate on lines with a gauge different than the standard 1435mm.³

Passenger Operators

Overview

- 2.3 Poland has implemented a partially-unbundled model of the rail industry, whereby the PKP Group, which is owned by the State Treasury, comprises the infrastructure manager (PKP PLK), the incumbent monopolist long-distance operator (PKP Intercity), the incumbent freight operator (PKP Cargo), and a large number of other, smaller companies performing different functions within the rail sector.
- 2.4 The local and regional rail services are performed by a number of different companies. Przewozy Regionalne (PR) is the largest of them all. PR used to be part of the PKP Group until 2008, when its ownership was transferred to the different provincial governments, who each own a share in the company, roughly proportional to the length of the railway network on their territory at the time of the transfer. As such, PR will be considered as an incumbent undertaking for the purpose of this analysis. Non-incumbent rail undertakings are described further below.

Incumbent Long-Distance Operator: PKP Intercity

- 2.5 PKP Intercity is the incumbent long-distance operator, which holds a monopoly within this market segment. It has signed a 10-year PSC with the Minister of Infrastructure in 2010, which gives it a guaranteed level of subsidy in return for an agreed set of services.
- 2.6 Despite it being a monopoly operator within its market segment, PKP Intercity has posted losses for a number of years, as shown by the table below. Please note, that a significant structural change occurred in 2008, whereby semi-fast train services (pospieszne) were transferred from the regional railways section of PKP (which then became Przewozy Regionalne) to PKP Intercity, thus resulting in a jump in revenue, cost, employment and overall loss.

³ Source: Lista Licencjonowanych Przewoźników Kolejowych na dzień 13.03.2012.
<http://utk.gov.pl/download.php?s=1&id=2641> - retrieved 16/04/2012

TABLE 1 FINANCIAL RESULTS OF PKP INTERCITY 2007-2010

	2008	2009	2010
Revenue (€ mil.)	295.44	484.4	485.6
Expenses (€ mil.)	297.1	493.3	504.8
Net financial result (€ mil.)	-1.6	-67	-32.4
Staff numbers	8,339	9,105	8,270

Source: PKP Group Annual Reports, conversion rate of 1 EUR = 4.17 PLN used.

Przewozy Regionalne

- 2.7 Przewozy Regionalne (PR) is the incumbent regional railway operator in Poland, which is owned and financed by each of the regional governments. These sign a PSC agreement with Przewozy Regionalne each year, detailing the subsidy amount and services they expect to receive. PR has taken over a large proportion of PKP Group's debt upon its transfer to the provincial governments. Furthermore, the subsidies provided by the provincial governments, do not always cover the operating costs of PR when combined with farebox revenue.
- 2.8 PR is also hampered by its rolling stock situation. PR operates DMUs (owned largely by the provinces and provided to PR as part of the PSC agreements), EMUs, passenger carriages and diesel locomotives. It does not own any electric locomotives, and is forced to rent these (along with crews) from the PKP Group, which contributes to the high cost levels.

TABLE 2 FINANCIAL RESULTS OF PRZEWOZY REGIONALNE 2007-2010

	2008	2009	2010
Operating Revenue (€ mil.)	663.3	374.8	420.6
Operating Cost (€ mil.)	696.4	445.8	460.9
Net financial result from operations (€ mil.)	-32.9	-71.0	-40.8
Staff numbers	16,449	15,182	13,721

Source: PKP and Przewozy Regionalne Annual Reports, conversion rate of 1 EUR = 4.17 PLN used

- 2.9 Przewozy Regionalne has been shedding staff in an attempt to reduce costs. Unfortunately, it continues to operate at a loss, and it is heavily dependent on subsidies, as revenues from operation cover less than half of the operating costs. However, as PSCs with each of the regional governments are generally concluded on a one-year basis, this makes it very difficult for the company to make longer term plans. The railways also have to compete for subsidy funding with other funding requirements of the regional governments, which has become increasingly difficult.

Overview of new entrants

- 2.10 Aside from the two large incumbents, there are a small number of other passenger operators active in the regional market. All but one of these is, however, owned by the local governments. These have chosen to set up their own operators rather than deal with Przewozy Regionalne, which - due to its size and ownership structure - has been perceived as difficult to co-operate with. The smaller operators are owned wholly by the regional

governments (or the Warsaw city council as is the case with SKM Warszawa). They utilise rolling stock which is also owned by the regional governments and which has been hitherto provided to Przewozy Regionalne.

- 2.11 The only private mainline passenger operator is Arriva PR, which won the first ever tender for non-electrified passenger services in the kujawsko-pomorskie region in 2007. It has since won tenders to operate further routes in the neighbouring regions of pomorskie and warminsko-mazurskie⁴.

Freight operators

- 2.12 The Polish freight railway market is liberalised. Nonetheless, PKP Cargo, the incumbent freight operator, continues to be in the hands of the PKP Group, together with the incumbent intercity passenger, and infrastructure management companies. Crucially, during the division of PKP to conform to EU rules on separate accounts, PKP Cargo was allocated ownership of key seaport terminals, as well as the transshipment terminals on the eastern border of Poland (countries to the north and east of Poland have the 1524mm gauge); which has provided the incumbent with a significant advantage within the market.
- 2.13 Nevertheless, although PKP Cargo's market share was 70% in 2009, the freight railway market in Poland can be considered vibrant, with a large number of private operators competing for custom. However, market entry has been somewhat stifled by the lack of available rolling stock, with PKP choosing to either store or dispose of unwanted locomotives, rather than selling these to the competition.

Market openness and competition

Analysis of public service contracts

- 2.14 The competent authority structure in Poland is multi-tier and is organised as follows:
- The central government is responsible for the organisation and funding of long-distance rail transport
 - The regional governments are responsible for the organisation and funding of regional and local rail; as well as regional and long-distance bus and coach services
 - The local authorities are responsible for organising local public transport, which may include heavy rail if they so choose. So far only the city of Warsaw has created its own internal operator (SKM Warszawa), whereas the conurbation of Gdansk, Sopot and Gdynia co-operate with the local operator SKM Trójmiasto (a member of the PKP Group) and issue multi-operator tickets valid on SKM trains and other public transport vehicles within the conurbation
- 2.15 According to the RMMS, 76% of rail passenger-kilometres in Poland, including some long-distance services, are covered by public service contracts.
- 2.16 The Public Service Contract for long-distance services was signed in 2010 between the Ministry of Infrastructure and PKP Intercity, for a duration of 10 years. This PSC specifies the amount of subsidy the operator will receive, as well as the volume of train miles they

⁴ The names in the text refer to administrative bodies, whose names have been derived from the names of the regions (wielkopolskie, malopolskie, mazowieckie). The names of these bodies are - according to Polish grammar - adjectives and thus should not be written with capital letters.

are supposed to operate each year. PKP Intercity has used this PSC as a guarantee for a loan to purchase new rolling stock.

- 2.17 The Public Service Contracts for regional services are concluded typically on an annual basis between the regional governments and Przewozy Regionalne (and other smaller operators). The regional governments own a proportion of the rolling stock (typically new-build DMUs), which they hand over to the operators as part of the PSC.
- 2.18 As the figures quoted in Table 1 and Table 2 show, the subsidies provided to both PKP Intercity and Przewozy Regionalne do not manage to fully cover costs. This has led Przewozy Regionalne to resort to price competition with PKP Intercity on long-distance routes, by operating commercial services. Meanwhile, the quality of service offered by Przewozy Regionalne on its services covered by the PSCs was perceived to have deteriorated, prompting some regional governments to set up their own rail operators, whilst still retaining a stake in Przewozy Regionalne. Aside from replacement tenders in the kujawsko-pomorskie region, there are no further competitions for rail services planned at present.
- 2.19 Whilst the age of the rolling stock in Poland leaves much to be desired, both incumbent operators as well as regional governments are taking advantage of EU funding to either refurbish existing or buy new trains.

Analysis of open access

- 2.20 A number of freight Railway Undertakings operate on an open-access basis. There are no open-access passenger operators and to date none have expressed an interest in entering the Polish market. Possible causes include the state of the infrastructure (and the resulting poor competitive position), as well as high track access charges.

Time and cost to market

- 2.21 Urząd Transportu Kolejowego (UTK, Rail Transport Office) is the Polish National Safety Authority as well as the Regulatory Body. The UTK is responsible for issuing all licences and safety certificates, as well as for the authorisation of rolling stock. The official legal timescales for processing requests are judged as being in line with the EU average. The table below summarises the key fees and duration of the most important procedures.

TABLE 3 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating licence	3 months	€1,750
Safety certificate	3 months	€5,000
Authorisation of rolling stock	2 months	€25,000 max

Source: IBM (2011)

Access barriers

- 2.22 Whilst the UTK is considered to be acting in a transparent manner, it appears to have trouble meeting prescribed deadlines (IBM, 2011). The network statement is available in both Polish and English, and has a detailed description of the capacity allocation mechanism. However, it is important to note that the Polish infrastructure manager, which conducts the capacity allocation process, is a member of the incumbent PKP holding group.

2.23 As mentioned previously, obtaining second-hand rolling stock for freight has been a problem until recently. In the local passenger services market, regional governments will provide the rolling stock under their ownership when signing PSCs. This is usually limited to diesel multiple units in most regions.

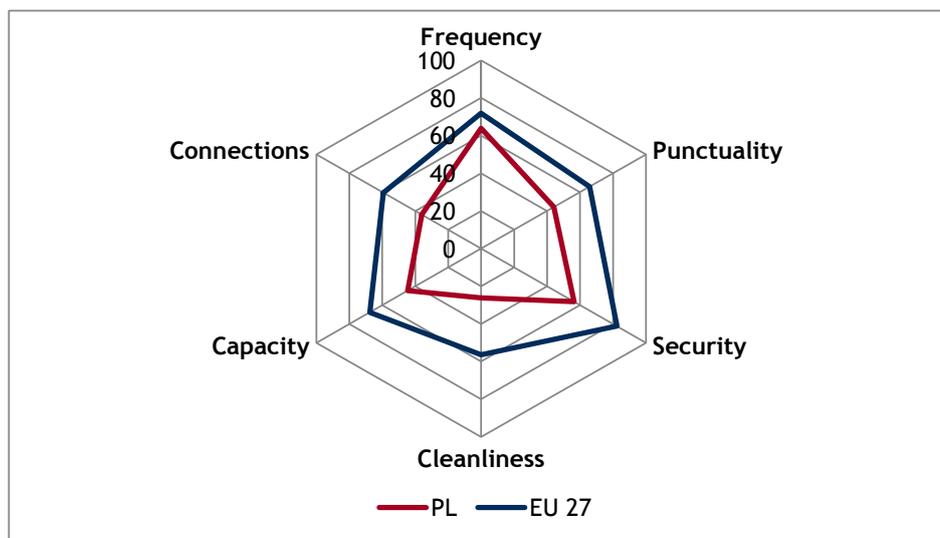
Complaints of discriminatory practices

2.24 Whilst the capacity allocation process has not been a source of complaints, the experience of Freightliner PL with the authorisation of the Class 66 locomotives in Poland shows, that discrimination exists with regard to the rolling stock authorisation process. Furthermore (ZNPK, 2011), as mentioned in 2.12, the incumbent freight undertaking, PKP Cargo, is the owner of many strategic freight sites, and has been known to discriminate against its competitors despite appearing to offer access to these locations on a non-discriminatory basis.

Quality and price indicators

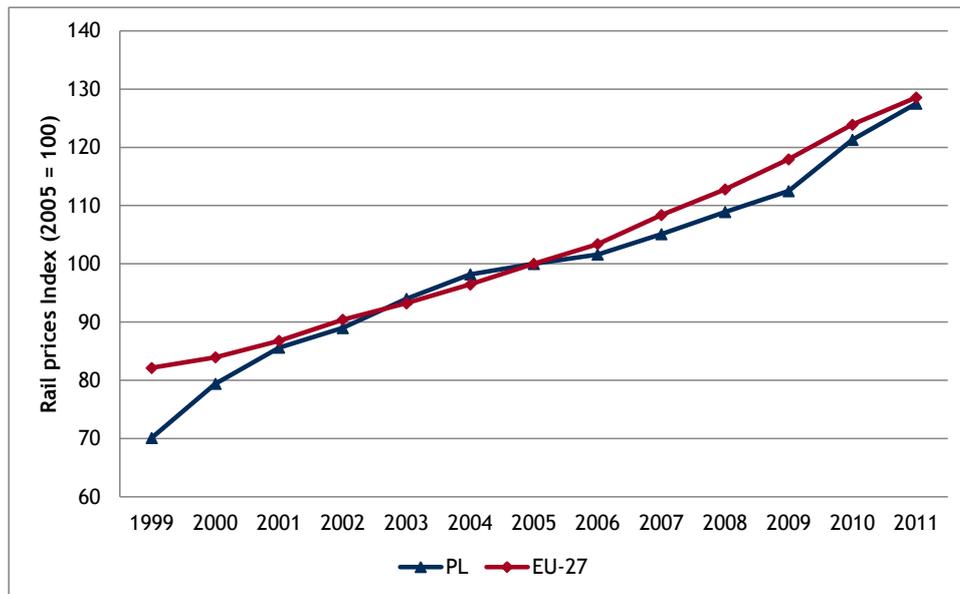
2.25 As shown in the figure below, the satisfaction with rail services in Poland is well below the EU average in all categories, and with regard to cleanliness of the trains in particular. The frequency of services appears to be the railways’ strongest point. As per the Global Competitiveness Report 2011-2012, the Polish railway infrastructure ranks a poor 87th in the world.

FIGURE 5 EUROBAROMETER SURVEY RESULTS 2011 - PASSENGER TRAINS



Source: Steer Davies Gleave analysis of Flash Eurobarometer (June 2011)

FIGURE 6 PRICE INDEX FOR PASSENGER RAIL TRANSPORT 2001-2011



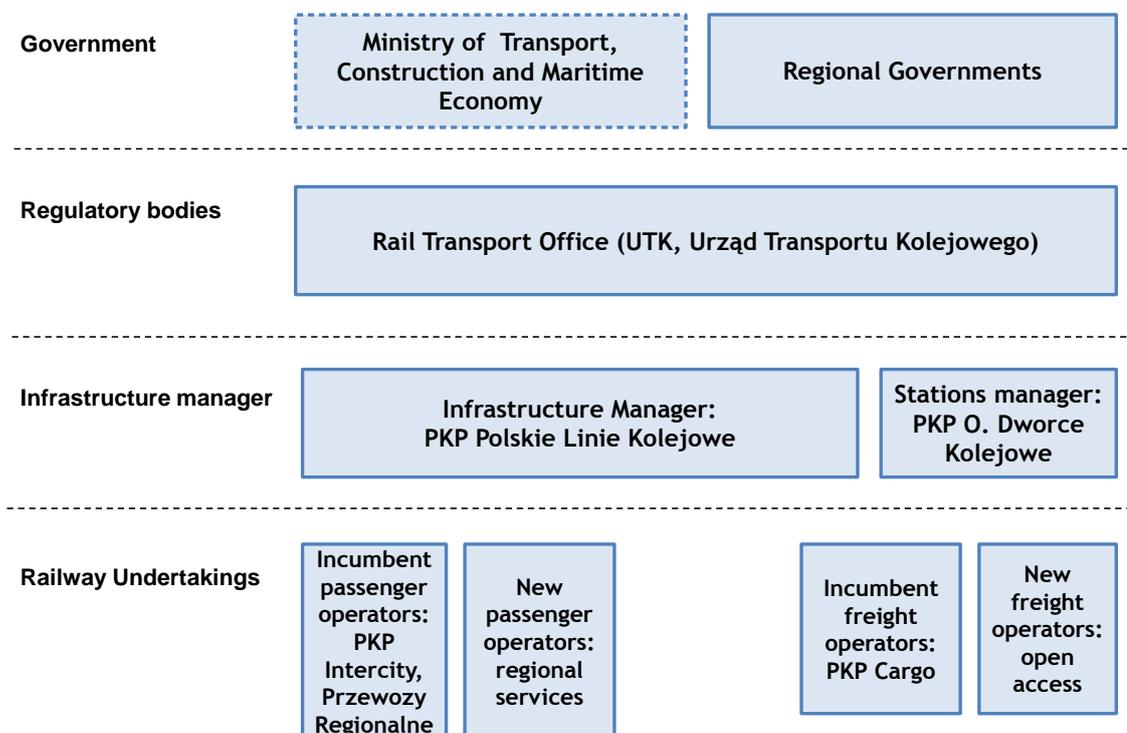
Source: Eurostat (2011)

- 2.26 As shown in Figure 6 above, ticket prices have risen in line with the EU27 average since 1999. Ticket prices are set by each of the passenger operators in conjunction with the Competent Authorities, who manage their PSCs. Some local authorities also have separate agreements with rail companies regarding the cross-acceptance of urban public transport tickets on trains and vice-versa. Although rail companies are responsible for their own ticket distribution, most of them have signed bi- or multi-lateral agreements to sell each other's tickets.

3 Regulatory framework

3.1 The institutional arrangements within the Polish rail industry can be summarised by the figure below.

FIGURE 7 INSTITUTIONAL ARRANGEMENTS WITHIN THE POLISH RAILWAY INDUSTRY



Source: Steer Davies Gleave

3.2 The roles of each of the institutions are as follows:

- | **Ministry of Transport:** responsible for the PSC for interregional and long-distance services, which was signed with PKP Intercity in 2010.
- | **Regional Governments:** responsible for the PSCs for regional and urban/suburban rail services on their respective territories.
- | **Regulatory Body and National Safety Authority:** The UTK acts as the Regulatory Body, the National Safety Authority, and the National Enforcement Body for rail passenger rights. The UTK has the power to investigate irregularities with respect to safety, and to refer instances of market discrimination to the Polish Consumer and Competition Office (UOKiK, Urząd Ochrony Konsumentów i Konkurencji). The UTK employs ca. 180 FTE staff, however, evidence suggests its budget may be insufficient given the scope of its tasks, and is smaller than similar industry regulators (SDG, 2012). The UTK may impose punitive fines of up to 2% of the annual revenue of the RU/IM. Any administrative decision reached by the UTK can be appealed in two ways:
 - In the first instance, by appealing to the UTK directly for reconsideration
 - In the second instance, to the administrative court if the institution or person is not satisfied with the outcome of the appeal to the UTK

- **Infrastructure manager:** PKP PLK is a Joint Stock Company, which is owned by the PKP Group, which itself is owned by the State Treasury. Although being part of the same owning group as the incumbent passenger and freight operators, PKP PLK is a separate company in legal and accounting terms, in compliance with the First Railway Package. PKP PLK is responsible for the maintenance of tracks, signalling, and power supply, as well as all structures within or directly adjoining the loading gauge of the train - this includes important elements of station infrastructure, such as platforms, pedestrian subways and pedestrian bridges. It is not responsible for the upkeep of road viaducts over the railway line, but it is wholly responsible for the maintenance of level crossings and railway viaducts over roads. It is also responsible for capacity allocation. The company covers 90% of its operating costs from track access charges.⁵

Analysis of unbundling and regulation

Degree of vertical separation

- 3.3 As described above, the Commission believes, that due to the fact, that the IM is part of a holding group, which includes the incumbent rail undertakings, the IM may not be able to make decisions with regard to capacity allocation in a transparent and objective manner. Furthermore, the Commission believes, that the accounting separation between the IM and other companies within the holding group remains unclear.
- 3.4 Given that the Polish government provides funding both for the incumbent RU and the IM, it is difficult for the IM to create company strategies independent of the RU. As funding levels are agreed on an annual basis, it is also difficult for the IM to plan for the medium and longer term.

Regulatory capacity and effectiveness

- 3.5 The UTK performs a number of roles, which - amongst others - are:
 - The economic regulation of the market
 - The safety authority
 - Rail passenger rights enforcement body
 - Approval body for internal rules and regulations for all Railway Undertakings
 - Inspection body and safety authority for all sidings and track owned privately (i.e. not by the IM), connected to the national railway network
- 3.6 The railway transport law of 2003 appears to be relatively skewed towards the functions of the UTK as a safety authority. This is partially because the UTK is a successor body to the Polish Main Railway Inspectorate (Główny Inspektorat Kolejnictwa), which was an independent rail safety authority prior to the UTK's existence. Independent economic regulation was not present, or indeed necessary, prior to the commencement of the unbundling process. As such, the UTK's powers in the field of economic regulation are quite limited, and amount to little more than the possibility of notifying the UOKiK (competition regulator) of any irregularities and assisting them with their inquiry.

⁵ Source: PKP Group Annual Report 2011.

4 Summary of findings

- 4.1 As in most of the newer Member States, the modal share of rail in Poland has been generally declining since the start of the 1990s. This has in part been due to a boom in road travel, but also due to widespread closures, which have led to the Polish railway network shrinking by over a quarter since 1989.
- 4.2 Owing to a poor state of rolling stock and infrastructure, both incumbent passenger undertakings have reported significant losses over the past few years, despite making efforts at cutting staff numbers and costs. The state of the railway has also translated into poor satisfaction with the services offered.
- 4.3 Nonetheless, the Competent Authorities appear reluctant to implement any form of competitive awards of rail services, which they generally continue to award directly to the incumbent companies or wholly owned subsidiaries.
- 4.4 Furthermore, the unbundling process has only been partially implemented in Poland, with the infrastructure manager still having the same owner as the incumbent passenger and freight companies, while being able to set and collect track access charges.
- 4.5 An additional issue is the relatively constrained role of the regulatory body, which relies on the competition regulator to take action.

TABLE 4 SUMMARY OF OUTSTANDING PROBLEMS

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	✓	<ul style="list-style-type: none"> PKP owns majority of rolling stock
	Vague rules on access to rail-related services	✗	
Industry consolidation	Incomplete unbundling	✓	<ul style="list-style-type: none"> Both the IM and the incumbent long-distance passenger and freight carriers sit within the PKP Group
Access barriers for new entrants	Ineffective unbundling	✓	<ul style="list-style-type: none"> PKP Cargo owns the most important transshipment terminals
	Incomplete unbundling	✓	<ul style="list-style-type: none"> The IM is part of the PKP group, and controls capacity allocation
	Deficient funding and investment framework	✓	<ul style="list-style-type: none"> Both incumbent passenger RUs are loss making The average age of passenger rolling stock is approximately 30 years
	Access barriers to infrastructure	✓	<ul style="list-style-type: none"> Costly and lengthy processes for approval of rolling stock
	Lack of structures/mechanisms for coordination	✓	<ul style="list-style-type: none"> Lack of integrated ticketing facilities
	Lack of financial transparency	✓	<ul style="list-style-type: none"> The IM and freight and passenger RUs all belong to the same holding group
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> No competition for long-distance PSCs, very limited competition for regional PSCs
	Distorted/Ineffective competition for PSOs	✓	<ul style="list-style-type: none"> Only one region has decided to implement competitive tendering for PSCs
	Absence of open access rights	✓	<ul style="list-style-type: none"> The entire long-distance passenger network is subject to a PSC which may prove contentious if an open access RU should choose to start operations.
	Discriminative framework conditions	✓	<ul style="list-style-type: none"> The regulatory body has limited powers in the field of economic regulation
Other causes	Country-specific problem drivers	✓	<ul style="list-style-type: none"> Poor state of the infrastructure and lack of - or ineffective use of - funds for track renewals

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EUROPEAN RAIL MARKET OPENING

Portugal

Country Fiche

July 2012

1 Evolution of the national market

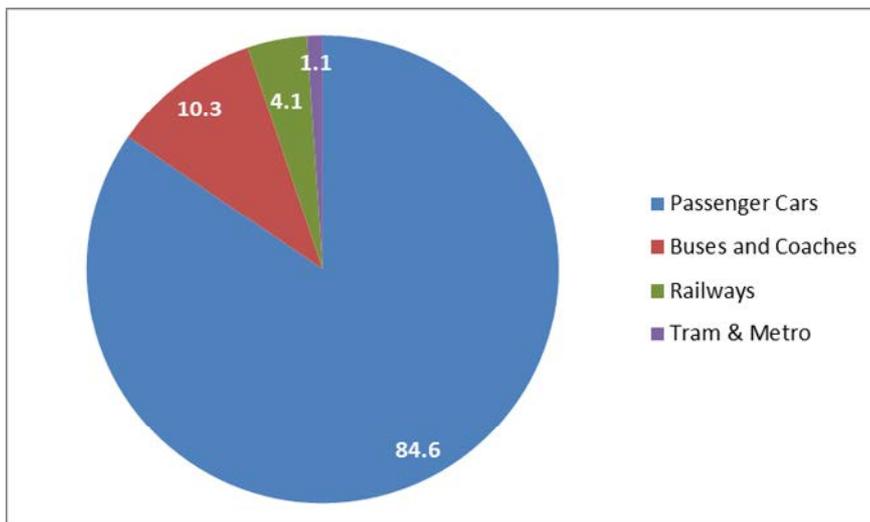
Structure of the network

- 1.1 The rail network in Portugal is around 2,800km long and connects the main cities along the north-south corridors. The Portuguese rail network can be described as one with a central axis running north-south which acts as the backbone of the network. The axis Lisbon-Coimbra-Porto-Braga covers approximately 55% of the population of Portugal, with the main centres of population being Lisbon and Porto.
- 1.2 The large majority of the 2,800km of railway lines in Portugal are broad gauge and 53% of the network is electrified. The region of Alentejo is the one with the lowest electrification rate.
- 1.3 Long-distance journeys account for 55% of all traffic (INE 2010), while 2.5% of passenger km were recorded on international routes. The high-speed lines, built in the early 90s, connect the northern part of Portugal with Algarve in the south for a length of 529km, 19% of the network (UIC 2009). CP runs Alfa Pendular services, which reach a speed of 220km/h, between Lisbon and Porto. However plans to expand the HS lines, including a Lisbon-Madrid link, have been shelved following the financial crisis.

Changes in volumes for passenger and freight services

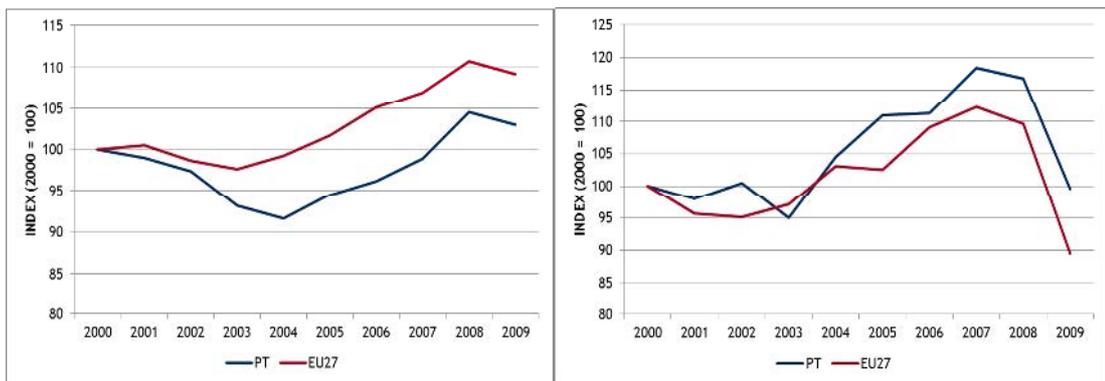
- 1.4 Historically, the modal share of rail has been low in the passenger sector; in 2009, 4.1% of all passenger km were travelled by rail (Figure 1), lower than the EU-27 average of 7%. Rail freight also holds a modest share of total tonne-kilometres (5.7% in 2009) compared to road transport (93.3% in 2009). This is significantly below the EU-27 average of 10%.

FIGURE 1 MODAL SPLIT IN PORTUGAL - 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

FIGURE 2 PORTUGAL AND THE EU-27, 2000-2009 - PASSENGER AND FREIGHT KM



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

- 1.5 In the passenger sector, the decline was steeper in Portugal than in the EU-27 between 2000 and 2004. Recovery began in 2004 (a year late than the rest of Europe) and continued until 2008. Freight patterns in Portugal more closely mirror the EU-27 ones.
- 1.6 Both passenger and freight traffic volumes have been declining in Portugal since 2008. The impact of the economic crisis has been particularly felt in the freight sector as traffic volumes declined by 15% in 2009. Figure 2 also shows that the continuous growth in passenger km in the period 2004-2007 has lagged behind EU-27 average and came to a halt in 2008, when passenger volumes started declining after 4 years.

2 Competition and market access

Overview of the passenger and freight operators

- 2.1 The state-owned railway company, Comboios de Portugal (CP), has been granted a concession for the operation of almost all national public services. The only new entrant, Fertagus, has been operating in the Portuguese market since 1999. While CP's traffic has declined by 22% between 2008-2010, Fertagus' traffic has remained stable making up 5% of total traffic in the country (REFER Annual Report 2010). Fertagus is part of the Barraqueiro group, 31% of which is owned by Arriva.
- 2.2 In the freight sector, the incumbent CP Carga has witnessed a huge decline in traffic volumes during the economic crisis. On the contrary, volumes operated by the only new entrant (Takargo) have quadrupled since it entered the market in 2008. Takargo's strengths are its international synergy with Spanish operator COMSA and its development of highly specialised services such as intermodal maritime transport¹.

Open access

- 2.3 There is open access to the Portuguese rail network for international passenger and freight services. The only open-access operator to date is Takargo, active in the freight market.

Access barriers

- 2.4 The regulatory body is the Unit of Rail Regulation (URF) within the IMTT is responsible for issuing licences, safety certificates and for the authorisation of rolling stock. The time and cost to market in Portugal are summarised in Table 1. The cost of licences in Portugal is higher than EU-average.
- 2.5 Table 1. The cost of licences in Portugal is higher than EU-average.

TABLE 1 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating licence	3 months	€50-70,000
Safety certificate	3 months	€5,000
Authorisation of rolling stock	4 months	€1,500

Source: IBM (2011)

- 2.6 The availability of rolling stock remains a potential barrier for new entrants. CP and CP Carga hold the majority of rolling stock (REFER 2010), while Fertagus owns its own 18, Alstom-manufactured trains. Rolling stock is particularly old as detailed in Table 2 below. However substantial investment took place in 2008-2009 to renew the fleet through new acquisition, while some of the old stock was sold to South American operators.

¹ Takargo information on the Mota-Engil website - <http://sinergia.mota-engil.pt/Detail.aspx?ParentId=42>

TABLE 2 ROLLING STOCK AGE IN PORTUGAL - CP

	<10 years	10/20 years	>30 years
CP Lisbon	1%	62%	27%
CP Oporto	81%	0%	16.5%
CP Regional	2.5%	6.5%	81%

Source: CER (2011)

Public service contracts

- 2.7 According to RMMS, 60% of passenger-kilometres are covered by public service obligations.
- 2.8 Long-distance passenger transport is not considered to be part of the public service obligations, and only suburban and regional passenger services are subject to PSCs. These account for 67% of all passenger km. CP has a unit responsible for such regional services. Although no provision is made for the duration of PSCs on the lines operated by CP, payments are currently being granted until the end of 2019.
- 2.9 The private operator Fertagus has won the only public tender in 1999 for the use of the network connecting Lisbon to the suburbs on the Setubal peninsula across the river Tagus. The single line extends for 54km and serves 14 stations. The contract was renewed in 2005 and again in 2010 (until 2019) through direct negotiation with the state.
- 2.10 Fertagus claims that the contract prorogation is attributable to the excellent results reached by the company over the concession years, including growth in passengers and positive financial results. The operator does not receive any financial compensation from the state but it is granted exclusive rights on the concession network. In addition, a revenue sharing agreement is in place with the state.

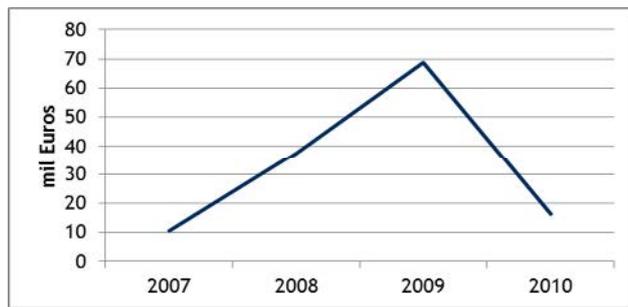
Public funds, investment and quality indicators

- 2.11 Around 30% of REFER's revenues come from the state which also subsidises the incumbent operator through compensation of PSOs - in 2009, the public contributions to CP amounted to €33m. However, both REFER and CP were loss-making in 2010 with operational results of -€100m and -€76m respectively.
- 2.12 These losses added to the historical financial problems of CP created by under-compensation and inefficiencies leading to severe debt accumulation (€3.7bn in 2010). In 2011, the state attempted to reduce the sum paid to the operator as part of its cost-reduction strategy, but was then forced to restore a compensation level of €38m.²
- 2.13 Investment by REFER in 2010 (€33m) was half of what was invested in 2003. CP invested 71.5% less in rolling stock renewal in 2010 (€23m) compared to 2009 as shown in Figure 3. The level of investment in both railway infrastructure and rolling stock is severely threatened by the current budget cuts enacted by the Portuguese government throughout 2011 and 2012. Plans for developing the country's high-speed lines have been shelved³. In addition, all public sector wages (including ~4,000 CP staff) have been cut by 5% in 2011.

² <http://www.portugaldailyview.com/whats-new/transport-portuguese-state-to-make-public-service-compensation-payments>

³ <http://www.railwaygazette.com/nc/news/single-view/view/high-speed-programme-axed.html>

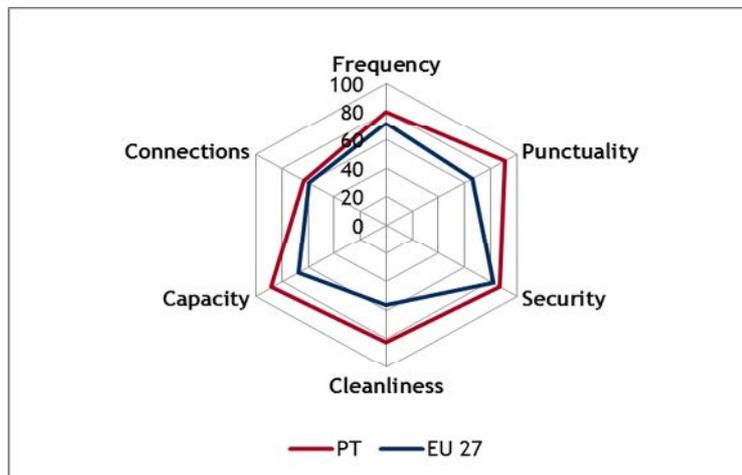
FIGURE 3 INVESTMENT IN ROLLING STOCK BY CP



Source: CP Annual Reports

- 2.14 However, Portuguese rail users seem to be satisfied with the level of service provided, according to the Eurobarometer survey 2011. The results, presented in Figure 4 below, show that Portugal outperforms the EU average in all quality indicators.

FIGURE 4 EUROBAROMETER 2011 - RESULTS FOR PORTUGAL AND EU-27



Source: Eurobarometer (June 2011)

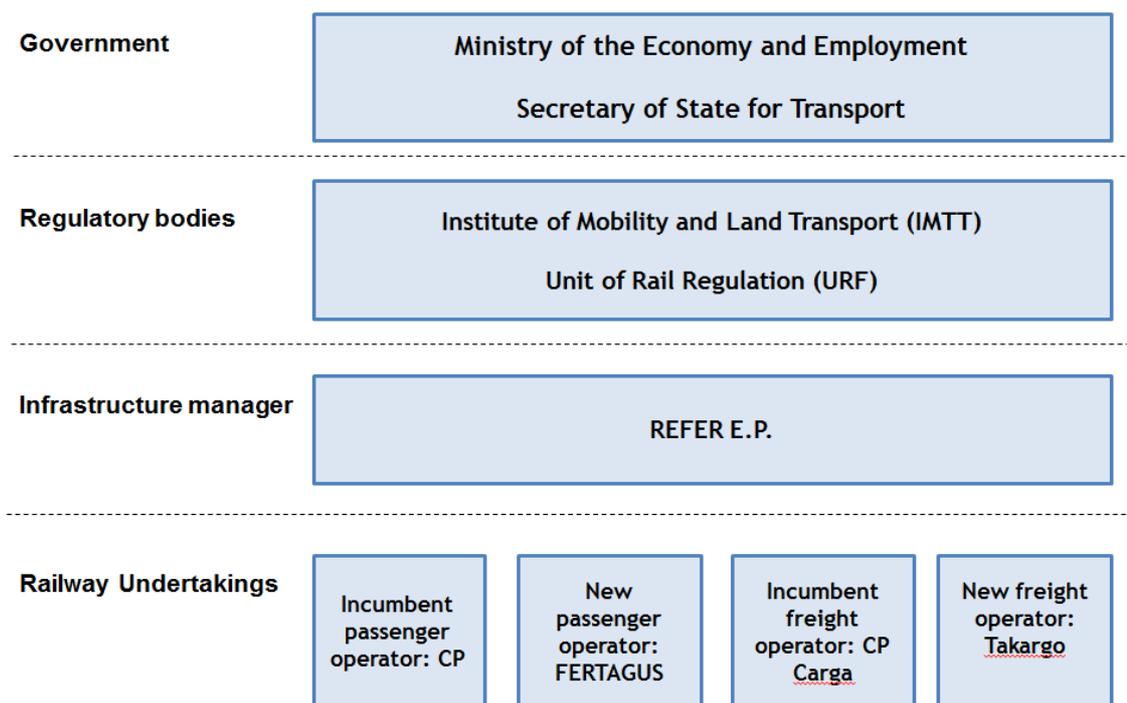
Stations and ticketing

- 2.15 The infrastructure manager, REFER, controls all the stations in Portugal including platforms and buildings (BAG-SPNV 2011). Ticketing services are the responsibility of each railway undertaking. While CP and Fertagus do not have an integrated ticketing system, they have both developed inter-modal integration.
- 2.16 As a result, CP users can buy a combined ticket for the metro, buses (operated by Carris) and rail; Fertagus users can benefit from a combined ticket with TST, the local bus company. In addition, Fertagus has struck deals with local public transport operators to increase accessibility to the station it serves.

3 Regulatory framework

3.1 A summary of the institutions involved in the rail sector in Portugal is provided in Figure 5 below. The regulatory framework provides for full vertical separation of the infrastructure manager and the operators since the creation of REFER in 1997. REFER is responsible for network maintenance, the publication of the network statement and capacity allocation; the regulatory body, instead, regulates market access as detailed above.

FIGURE 5 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN PORTUGAL



Source: Steer Davies Gleave

3.2 The rail sector is regulated by the Portuguese Railway Act (Decreto Lei 270-2003, re-enacted in Decreto Lei 231-2007) which guarantees non-discriminatory access to service facilities and provides for open access to rail freight transport. This is the main piece of legislation transposing *Directive 2001/14/EC* and *Directive 2004/51/EC*. *Directive 2007/58/EC* has been transposed by Decreto Lei 20/2010 opening up the market to international passenger transport.

4 Summary of findings

Identification of key problems

- 4.1 Portugal has demonstrated considerable progress in the transposition of EU Directives, implementing vertical separation, and has progressively opened up its rail market since the late 90s. However, this has not resulted in a high degree of competition given that only one new entrant is present in the passenger and freight market respectively.
- 4.2 The national operator, CP, is heavily controlled and financed by the government; for long-distance lines, it is not subject to PSOs as a result, it has few incentives to improve its service. State ownership also poses concrete risks in the present economic environment, as investment levels are being reduced and staff salaries are being cut prompting frequent strikes. The difficult economic conditions are also reflected in declining passenger and freight volumes in recent years. Table 3 provides a summary of the main problems.

TABLE 3 SUMMARY OF OUTSTANDING PROBLEMS

Root causes	Problem drivers		Country evidence
Long and costly procedures	Limited access to rolling stock	✓	<ul style="list-style-type: none"> Rolling stock ownership by CP
	Vague rules on access to rail-related services	✗	No evidence
Industry consolidation	Incomplete unbundling	✗	No evidence
	Ineffective unbundling	✗	No evidence
Access barriers to new entrants	Incomplete unbundling	✗	No evidence
	Deficient funding and investment framework	✓	<ul style="list-style-type: none"> Withdrawal of funds for infrastructure (e.g. high-speed) Budget cuts in the next few years
	Access barriers to infrastructure	✓	<ul style="list-style-type: none"> High cost to market
	Lack of structures/mechanisms for coordination	✓	<ul style="list-style-type: none"> No integrated ticketing between CP and Fertagus
	Lack of financial transparency	✗	No evidence
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> Direct award of PSCs to CP
	Distorted/ineffective competition for PSOs	✓	<ul style="list-style-type: none"> Incumbent and new entrant do not compete with each other
	Absence of open access rights	✗	No evidence
	Discriminative framework conditions	✗	No evidence

Potential examples of best practice

- 4.3 Despite the negative trends outlined above, the legislative and administrative barriers are low in Portugal, compared to other European counterparts. IBM 2011 finds that the regulatory body handles applications in a transparent manner and information is easy to acquire. The independence of the regulator is not an issue of concern either.
- 4.4 Suburban journeys constitute 42% of all passenger km in Portugal (INE 2010). The experience of Fertagus shows how this is a developed and potentially profitable market, especially around the main cities of the north-south axis. The new entrant Takargo has taken advantage of freight market liberalisation, developing international links to achieve economies of scale.

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EUROPEAN RAIL MARKET OPENING

Romania

Country Fiche

July 2012

1 Evolution of the national market

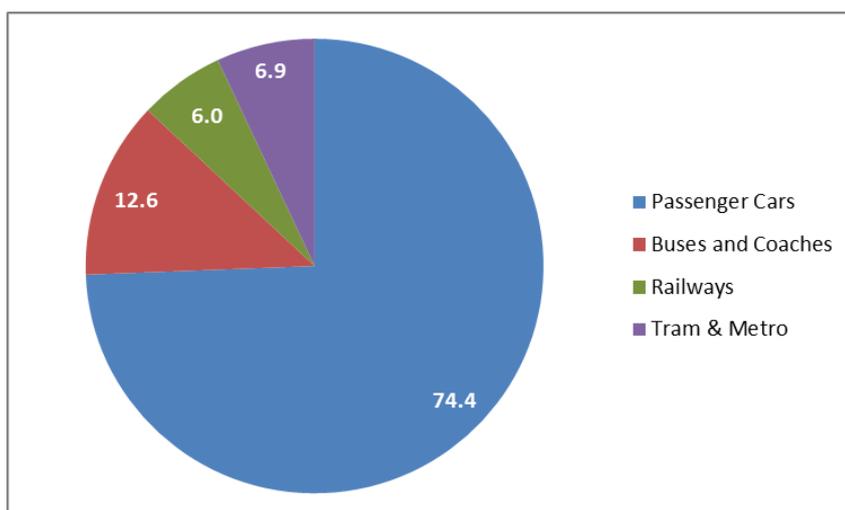
Structure of the network

- 1.1 The rail network in Romania is 11,800 km long and it is one of the largest in Europe. On the other hand, its density at 45.2km/1000km² is below the European average. Approximately 32% of the network is electrified. Both passenger and freight densities are below their respective European averages.
- 1.2 Romania has approximately 21.6 million inhabitants and a population density of 91/km².

Changes in volumes for passenger and freight services

- 1.3 Historically, the modal share of rail has been very high. However, the share of rail passenger transport has declined steadily throughout the 1990s. It fell to 14.4% of all passenger km in 2000, but to only 6% in 2009 (Figure 1). In the same 10 year period, the rise in motorisation levels led a sustained growth in car traffic.

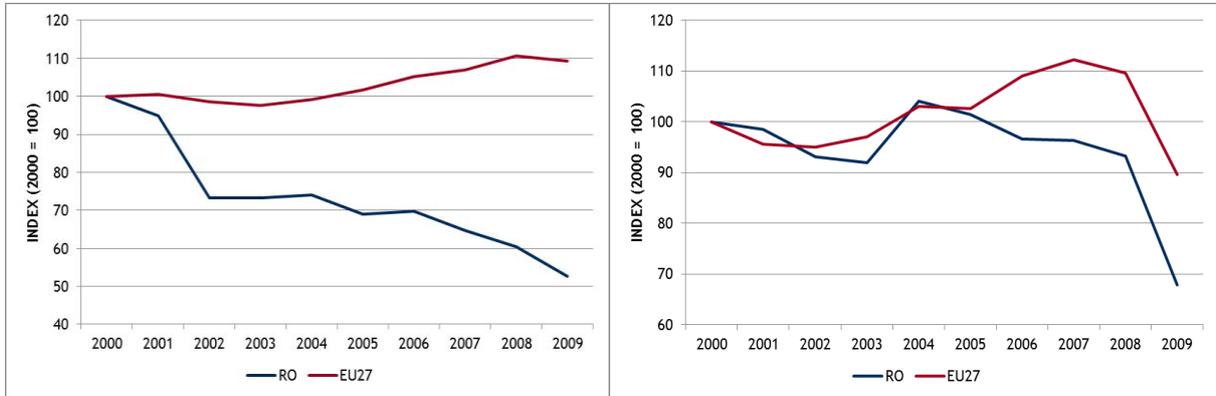
FIGURE 1 MODAL SPLIT IN ROMANIA - 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.4 The decline in passenger volumes (more than 40% between 2000 and 2009) is also shown in Figure 2. The freight sector has been suffering from 2004 onwards given the competition of new road transport options. The economic crisis has worsened its decline since the second half of 2008.

FIGURE 2 ROMANIA AND THE EU-27, 2000-2009 - PASSENGER AND FREIGHT KM



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

2 Competition and market access

Overview of the passenger and freight operators

- 2.1 Romania began reforming its rail sector in 1998, splitting the incumbent SNCFR into CFR Infrastructure (infrastructure manager), CFR Marfa (rail freight operator), and CFR Calatori (rail passenger operator). The latter is owned by the state and has directly awarded public service contracts (CER 2011). Until recently, it operated the totality of services. However in 2011, 15% of the network corresponding to non-interoperable tracks was leased out to private companies following competitive tenders¹.
- 2.2 The freight sector is fully liberalised and, unlike the passenger sector, new entrants compete with the state-owned incumbent CFR Marfa which still holds around 60% of the market share. One of the main competitors is GFR (Grumpet Group) which holds 27% of market share and pursues a strategy of international consolidation². The privatisation of CFR Marfa, planned for several years, appears to be going ahead and is expected to be finalised by October 2012 (PwC Deal News 02/12).

Open access

- 2.3 Domestic and international railway undertakings have open access to the Romanian rail network in the case of cross-border traffic, including cabotage. However to date, no operators have taken up these opportunities in the passenger sector. The effect of liberalisation in the freight sector can be viewed either as having a positive effect on intra-modal competition (i.e. growing relative shares of new entrants) or as having a negative impact on inter-modal competition (i.e. falling absolute rail shares).

Access barriers

- 2.4 The Romanian Rail Authority (AFER) is responsible for issuing licences, safety certificates and for the authorisation of rolling stock. The time and cost to market in Romania as prescribed by law are summarised in Table 1.

TABLE 1 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating licence	1 months	€2,000
Safety certificate	4 months	€750-1,500
Authorisation of rolling stock	1 month	n/a

Source: IBM (2011)

Public service contracts

- 2.5 Almost the entire rail passenger network is covered by public service contracts which have traditionally been awarded to the incumbent CFR Calatori by the Ministry for the duration of four years. Although the level of compensation should cover a reasonable profit of 3-5%,

¹<http://tren.transira.ro/>

² <http://www.railwaypro.com/wp/?p=6864>

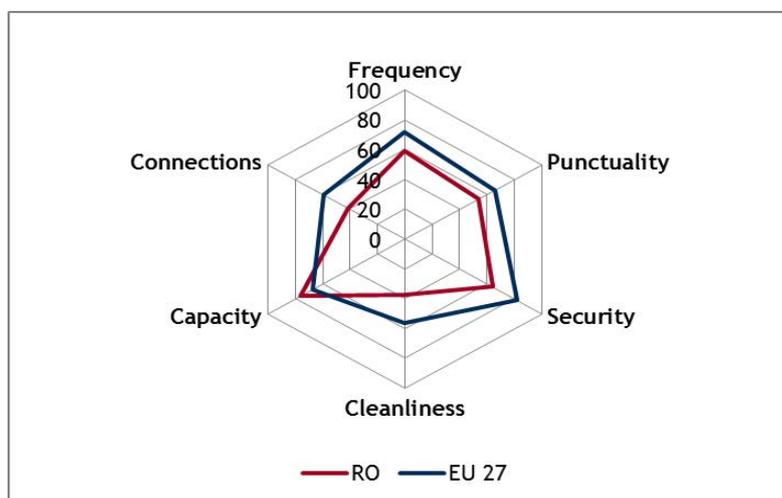
the CER (2011) reports that over the past years CFR has been undercompensated. The operator has borne the revenue risk fully. The annual revision of the contract also undermines CFR's ability to plan for the long-term.

- 2.6 In 2011, competitive tenders were opened on specific lines which were not won by the incumbent. A number of small, private operators are thus operating short-distance services.

Public funds, investment and quality indicators

- 2.7 Both the infrastructure manager and the incumbent operator have been accumulating losses in recent years. More than half of CFR Calatori's revenue in 2009 was provided by state contributions (UIC 2009) and the 2009 loss of almost €60m was not reversed in 2010 with another negative result of -€9m.
- 2.8 As a result, the level of investment in both infrastructure and rolling stock have been declining, slowing the processes of electrification, interoperability and speed enhancement that would be beneficial to improve the quality of railways. CFR owns the rolling stock used to operate passenger services. However, a considerable share of its trains are old: in 2010, 60% of CFR Calatori coaches and 37.2% of locomotives were over 30 years old. (CER 2011).
- 2.9 Rail customers are dissatisfied with the quality of services in Romania, according to the Eurobarometer Survey 2011. The results, presented in Figure 3 below, show that Romanian railways are rated below EU average in all quality indicators except for capacity. This, in turn, may not be a good result as it might reveal problems of underutilisation.

FIGURE 3 EUROBAROMETER 2011 - RESULTS FOR ROMANIA AND EU-27

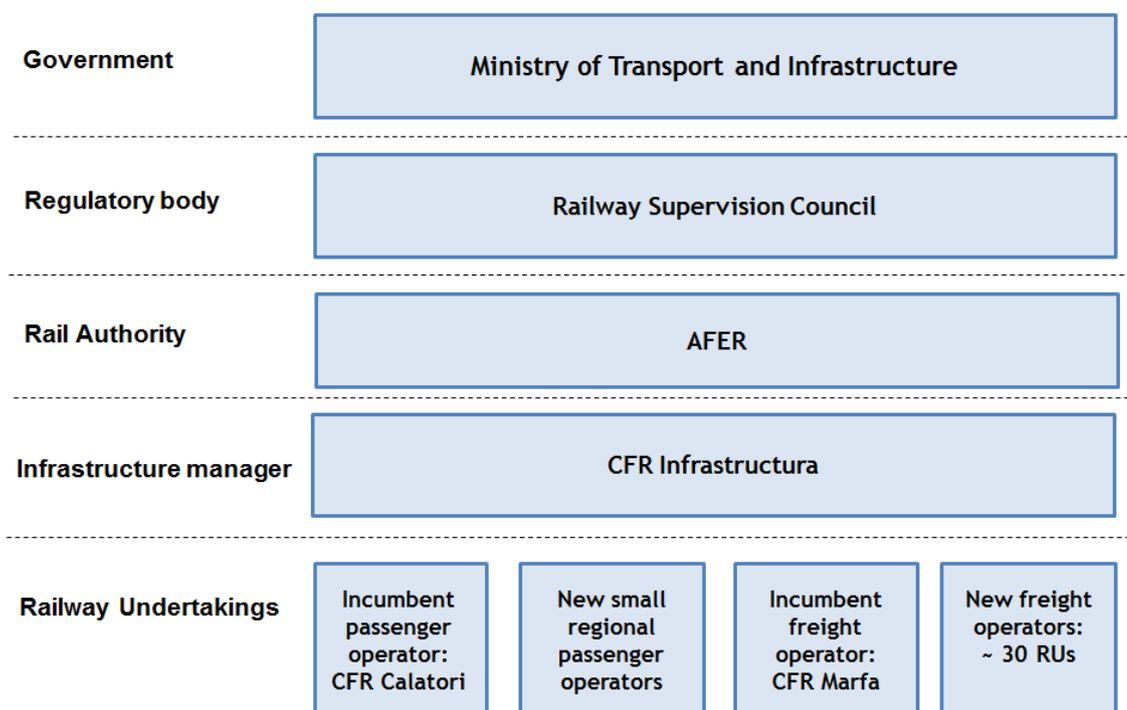


Source: Eurobarometer 2011

3 Regulatory framework

3.1 A summary of the institutions involved in the rail sector in Romania is provided in Figure 4 below. The regulatory framework provides for full vertical separation of the infrastructure manager and the incumbent CFR since 1998. CFR Infrastructura is responsible for network maintenance, the publication of the network statement and capacity allocation. The Rail Authority AFER is responsible for issuing licences and certificates. The regulatory body, RSC, supervises the entities mentioned above. It is constituted by seven members appointed by the Ministry of Transport every four years.

FIGURE 4 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN ROMANIA



Source: Steer Davies Gleave

3.2 The rail sector is regulated by a series of piecemeal regulations and laws that apply the relevant Railway Packages. Emergency Ordinance 12/998 provided for vertical separation of IM and RU and regulates PSCs, while OG 89/2003 instituted the regulatory body. Open access rights are guaranteed under Government Decision 155/2005.

4 Summary of findings

Identification of key problem drivers and elements

- 4.1 The competitiveness of the Romanian rail market is undermined by the presence of inefficient institutional arrangements and a dramatic fall in both passenger and freight demand throughout the 2000s.
- 4.2 The incumbent passenger operator CFR is a loss-making entity which does not have adequate financial resources to invest as much as it would be required to improve its services. The very low quality ratings also point to the need to invest. In turn, CFR Calatori suffers from the declining state of rail infrastructure which the indebted IM is failing to improve. Long-term planning is further impaired by the current PSC arrangements.
- 4.3 The independence and effectiveness of the regulator has been criticised given the close link between its members and the Ministry which appoints them. However, given the limited market openness, the actual capability of the regulator has rarely been tested.

Potential examples of best practice

- 4.4 The introduction of competitive tendering on some regional lines is a step in the direction of further market opening with some private operators gaining market shares.

TABLE 2 SUMMARY OF OUTSTANDING PROBLEMS

Root causes	Problem drivers		Country evidence
Long and costly procedures	Limited access to rolling stock	✓	<ul style="list-style-type: none"> Rolling stock ownership by CFR
	Vague rules on access to rail-related services	✗	No evidence
Industry consolidation	Incomplete unbundling	✗	<ul style="list-style-type: none"> Only partial separation of divisions
Access barriers to new entrants	Ineffective unbundling	✓	<ul style="list-style-type: none"> Only partial separation of divisions
	Incomplete unbundling	✓	<ul style="list-style-type: none"> Common members and offices (CFR Group)
	Deficient funding and investment framework	✓	<ul style="list-style-type: none"> Under-compensation of PSOs
	Access barriers to infrastructure	✓	<ul style="list-style-type: none"> Declining quality / underinvestment
	Lack of structures/mechanisms for coordination	✗	No evidence
	Lack of financial transparency	✓	<ul style="list-style-type: none"> Unavailable online information/reports
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> Direct award of PSCs to CFR on the main network
	Distorted/ineffective competition for PSOs	✓	<ul style="list-style-type: none"> Annual revision of PSCs Only peripheral lines subject to competition
	Absence of open access rights	✗	No evidence
	Discriminative framework conditions	✓	<ul style="list-style-type: none"> Regulator members appointed and dismissed by the Minister Direct award of PSCs to CFR on the main network

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EUROPEAN RAIL MARKET OPENING

Sweden

Country Profile

July 2012

1 Evolution of the national market

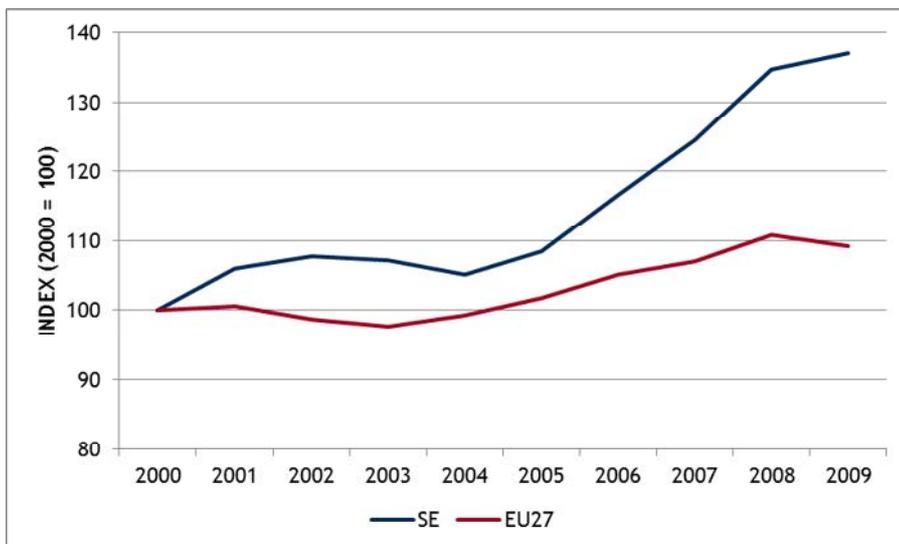
Structure of the network

- 1.1 Sweden has a population of approximately 9.5 million people. The highest population density is the southern part of the country, where the major cities are located. This is reflected in the development of the network, which is very dense along the Malmö-Stockholm-Göteborg lines and the corresponding commuter networks. Overall, network density is far lower than EU-27 (24km/1000km² compared to 56km/1000km²). The intensity of network use per kilometre in Sweden is higher than EU-27 average for freight transport and slightly below average for passenger transport
- 1.2 Total network length is approximately 9,950 kilometres. Electrified lines account for 83% of the network. However, the majority of lines (81%) are single-track. The Öresund Bridge between Malmö and Copenhagen provides a cross-border extension to the core network.

Passenger Volumes and Modal Share

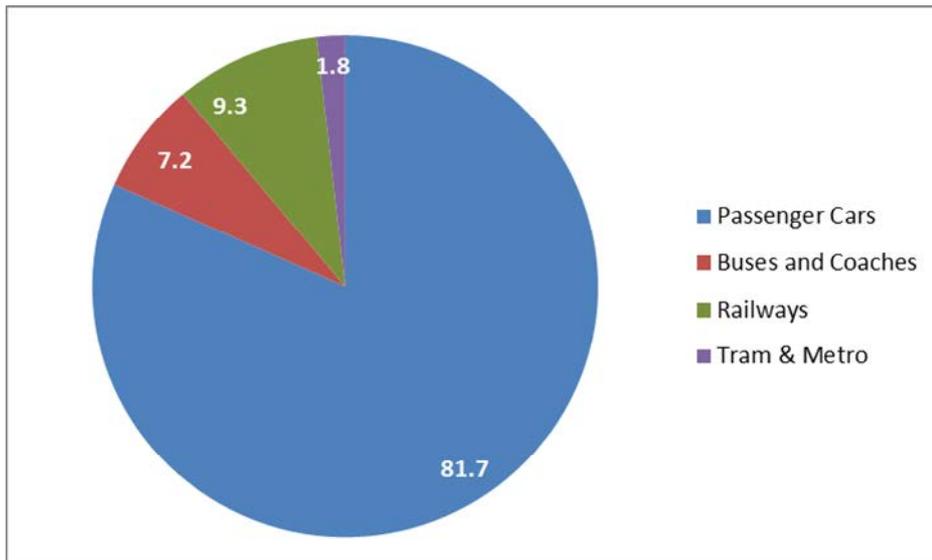
- 1.3 The rail modal share for passenger services is high (9.3% in 2009). Traffic volumes have been growing steadily during the 2004-2009 period in Sweden.

FIGURE 1 PASSENGER VOLUMES IN SWEDEN AND THE EU 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

FIGURE 2 MODAL SPLIT IN PASSENGER TRANSPORT 2009

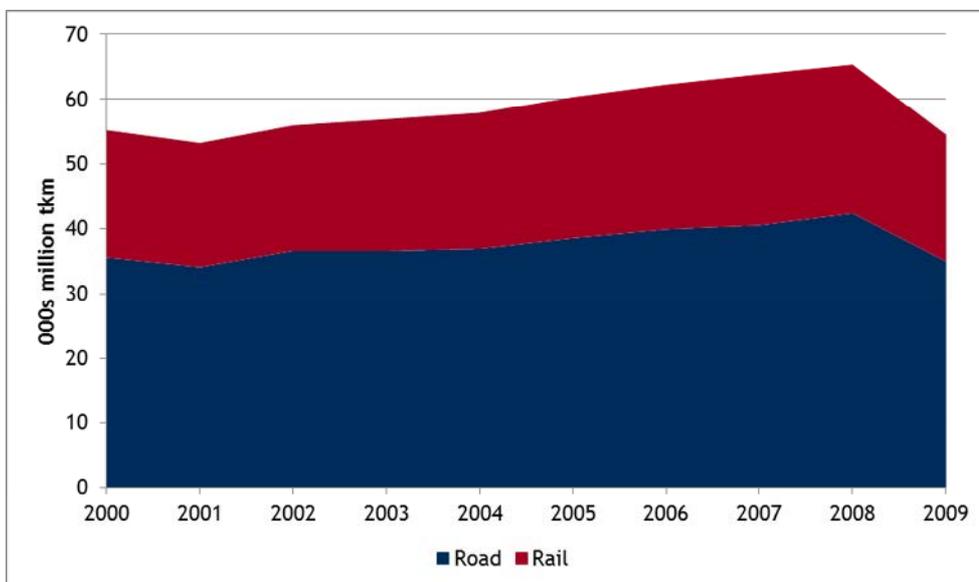


Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

Freight volumes and modal share

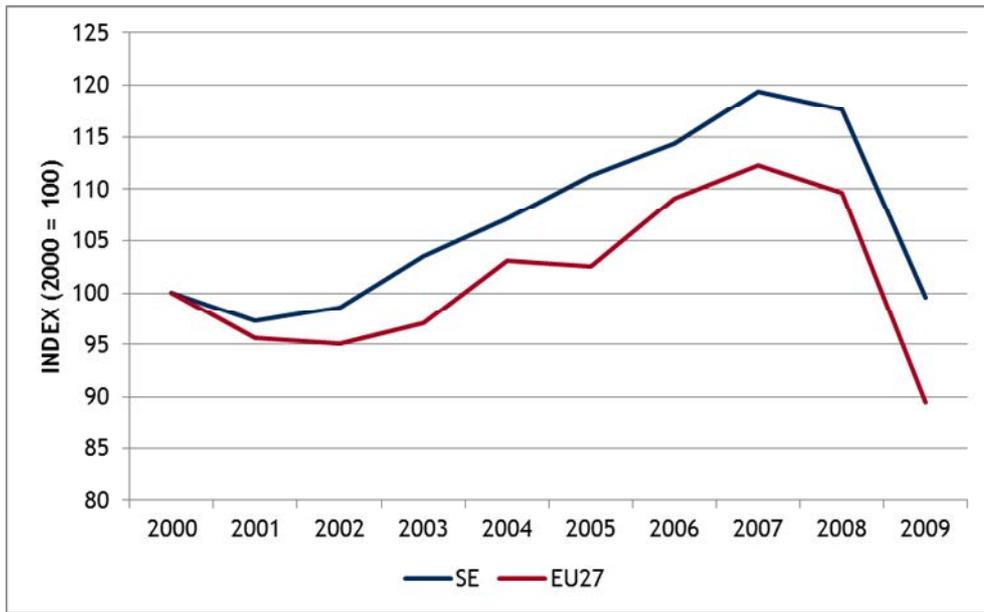
- 1.4 Freight transport by rail has a large modal share in Sweden. The only competing transport mode is road, given the absence of significant waterways and pipelines in the country. However, freight volumes have been declining in both rail and road since 2008. This left the modal share of rail at 35% (2009).

FIGURE 3 FREIGHT TRANSPORT VOLUMES BY MODE 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

FIGURE 4 FREIGHT VOLUMES IN SWEDEN AND THE EU 2000-2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

2 Competition and Market Access

Passenger operators

Incumbent: structure and activities

- 2.1 In 1988, Sweden was the first European country to separate infrastructure and operations with the creation of a state-owned infrastructure manager, Banverket. The loss-making incumbent operator SJ initially retained the monopoly of national (cross-county) services. In 2001, horizontal separation of the incumbent's freight division Green Cargo took place.
- 2.2 However, deregulation took place gradually thereafter: franchises for passenger services were introduced in 1999 and then open access in 2010. Regional passenger services have long been open to competition for the market, with regional authorities holding competitive tenders for the allocation of such services. Commuter traffic is high on the regional networks.
- 2.3 The current degree of market dominance by SJ is hard to quantify, given the progressive reforms and the distinction between national and regional services. IBM (2011) estimates that SJ holds approximately 90% of national market shares (operating the Stockholm-Göteborg/Malmö/Sundsvall and the Göteborg/Malmö/Copenhagen routes) and 55% of regional ones. Overall, this adds up to a market share of around 80% when considering the suburban subsidiary Stockholmståg. Market shares of new entrants are expected to rise as open access opportunities are taken up by new operators.
- 2.4 In recent years, SJ's financial performance has recorded profits despite the rise in operational costs and a slow-down in the growth of passenger volumes from 2009. Thus SJ appears to be financially viable without receiving direct subsidies on the long-distance, commercially viable routes it runs.

TABLE 1 FINANCIAL RESULTS OF SJ AB 2006-2010

	2006	2007	2008	2009	2010
Revenue (SEK m)	6,970	8,240	8,994	8,790	8,717
Expenses (SEK m)	6,375	7,429	8,203	8,163	8,270
Profit (SEK m)	368	493	525	460	294
Staff numbers	--	4,053	4,539	4,439	4,262

Source: SJ Annual Report 2010

- 2.5 Recent research backed by the train manufacturer Bombardier has demonstrated the viability of high-speed lines in Sweden. The research project also found that the 300km/h train equipped with Bombardier ECO4 technologies would maximise total train performance and make operations more energy-efficient operation¹.

¹ Railway Technology, January 2012

Overview of new entrants

- 2.6 Since the step-by-step market opening began in the 1990s, approximately 10 companies have entered the Swedish market for regional, less profitable services (CER 2011). The main operators are Arriva Tåg, Svenska Tågkompaniet (acquired by Norwegian operator NSB) and Veolia. In addition, A-Train operates an exclusive franchise on the line connecting Arlanda airport to Stockholm Central. The current market share of new entrants is approximately 20%.
- 2.7 The rate of market entry and exit has decreased in the period 2005-2009. Operators such as Keolis and the DSB-First joint venture have left the Swedish market, as the general trend of falling profitability and market consolidation have taken place (Transportstyrelsen 2009). In particular, SJ reports that new entrants tend to be subsidiaries of state-owned enterprises in other Member States which support them financially through public subsidies (SJ 2010).
- 2.8 The introduction of open access on the more profitable long-distance routes from 2012 is likely to produce changes in the market. Some operators will extend their services, while new ones are likely to enter the market (e.g. Skandinaviska Jernbanors).

Freight operators

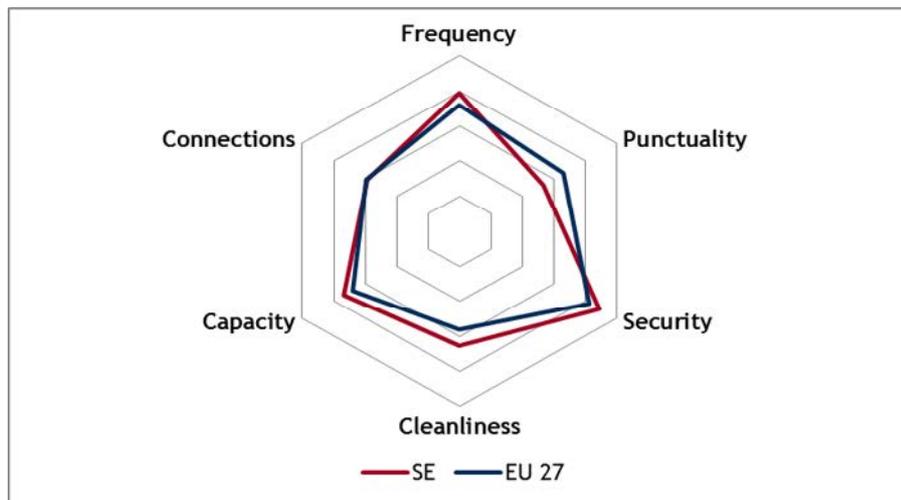
- 2.9 The incumbent operator in the freight market is Green Cargo, separated from SJ in 2001. Open access in the freight sector was introduced in 1996 and there are now several freight operators in Sweden. These include Hector Rail and MTAB. The share of new entrants in the freight sector is around 35% of all tonne-kilometres.
- 2.10 Originally, some of the first services offered by new entrants were complementary rather than competitive to the incumbent Green Cargo as they operated on a small scale, often acting as subcontractors to Green Cargo on peripheral parts of the network (Nilsson, 2002). The growth of new entrants in freight is partly due to international consolidation and stable profit margins (between 0 and 11% in the 2005-2009 period) that have sustained investment, especially in rolling stock renewal.

Quality and price indicators

- 2.11 Customer satisfaction in Sweden is high. According to the Eurobarometer survey 2011 (Figure 5), rail users are satisfied with the main quality indicators except for punctuality (only 52% of the users express satisfaction for this indicator). The punctuality record published by UIC for 2009, however, shows that 91% of all trains were on time in a “regular” year.
- 2.12 SJ’s annual report attributes the decline in quality and punctuality to the severe weather conditions recorded in winter of 2010-2011 which have led to service disruption. These “extreme” events have exposed Swedish railways to problems of reliability and resilience. Both factors are now considered important quality indicators to be improved in Sweden².
- 2.13 The price index for Swedish rail passenger services is displayed in Figure 6. Prices have generally risen until 2004 and then have slightly decreased. This seems to have had a significant impact on passenger numbers; according to SJ’s sensitivity analysis, a decrease in price of 1% leads to an increase in seat occupancy with a decrease in revenue lower than 0.01%. At the regional level, tariffs are set by the regional rail authorities.

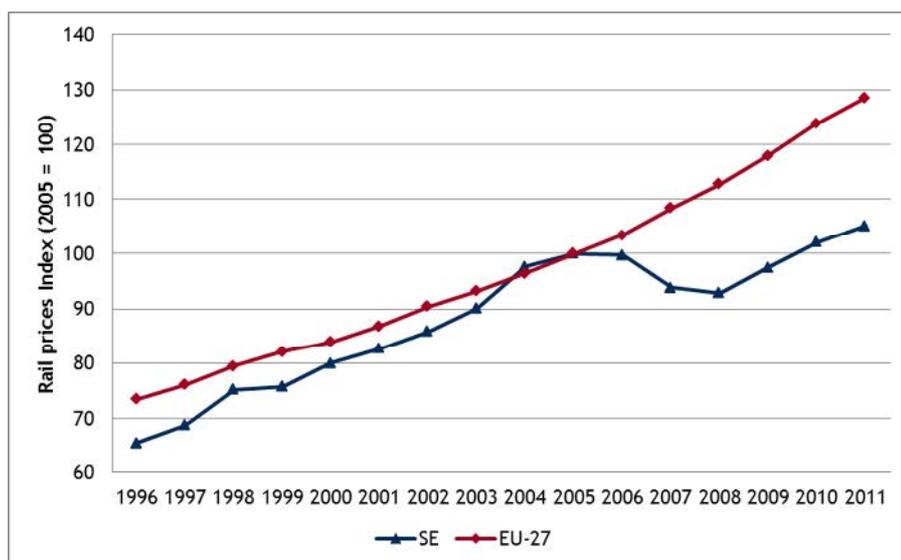
² Stakeholders comments

FIGURE 5 EUROBAROMETER SURVEY RESULTS 2011 - PASSENGER TRAINS



Source: Steer Davies Gleave analysis of Flash Eurobarometer (June 2011)

FIGURE 6 PRICE INDEX FOR PASSENGER RAIL TRANSPORT 1996-2011



Source: Eurostat (2011)

Market openness and competition

Public service contracts in Sweden

- 2.14 Following the gradual deregulation of the 1990s, traffic which cannot be run under commercial terms (i.e. without subsidies) is subject to public service contracts (PSCs) in Sweden. These contracts cover the equivalent of approximately 45% of all passenger-kilometres. Generally, the competent authority sets the requirements and applicants submit their bid accordingly. A bonus/malus regime exists on most PSCs. A two-tier system is currently in place in Sweden for the award of PSCs as set out below.
- 2.15 **National level** - The national public transport agency (previously Rikstrafiken, now part of Trafikverket) is responsible for PSCs at the national level. It defines the long-distance travel that falls under public service rules (i.e. unprofitable routes), it awards and manages PSCs with railway undertakings.

- 2.16 The average number of bidders for competitive tenders at the national level has been low, with an average of 2-3 bidders per contract. SJ has won most of the bids to date - although some contracts were awarded to the private operator BK Tåg, which went bankrupt in 2005 citing the inability to renegotiate a loss-making contract as the main reason for financial failure (Nordic Business Report, 2005). Older contracts had a duration of 15 years, while recently negotiated ones run for 6-8 years instead.
- 2.17 Contracts for long-distance services are generally of the 'net cost' type, implying that the operator also gets the revenues from ticket fares. The level of compensation covers the difference between revenue and costs during those hours that are identified as unprofitable during the contract negotiation.
- 2.18 **Local level** - The County Public Transport Authorities (CPTAs) have been responsible for urban and regional public services since 1990. Almost all CPTAs organised competitive tenders for their services. Regional transport authorities (RTAs) have replaced CPTAs in 2012, responding to a reorganisation trend which was leading to CPTAs coming together to reduce administrative costs and coordinate regional transport (CER 2011).
- 2.19 At the regional level, the average number of bidders has also been low, with 1-2 bidders per contract. In the regional markets, contracts are mostly awarded to new entrants, partly because SJ chooses not to participate in the tender.
- 2.20 On the first PSCs, awarded in 1989 and early-90s by the Jönköping and Halland counties, subsidies fell by 21%³. Competitive tendering on regional lines has led to subsidy reductions of 28% compared to previous levels⁴ in the second round of tendering (1994-1997). Regional services currently cover 40-60% of their costs through ticket revenues and regional funds cover residual costs (BAG-SPNV 2011, p.118). Contracts for local and regional rail services are generally of the 'gross cost' type, compensating the operator for its costs (with some margin) but with no revenue-sharing.
- 2.21 RTAs have set up a joint-stock company, Transitio, which leases trains to the winners of regional bids. This has allowed them to centralise the administration of their combined fleets of **rolling stock** specifically for the provision of public service transport (CER 2011).
- 2.22 The introduction of competitive tendering for public service contracts has thus been gradual and restricted to non-commercially viable lines. After each round of tenders, the level of direct **state contributions** has gone down compared to what was paid out prior to competitive bids. Nilsson (2002) estimated that the day-to-day operational costs for the state have been minimised in the period 1988-1993.
- 2.23 In parallel, **infrastructure investment** has been increasingly financed by public funds, channelled through the infrastructure manager Banverket. In this respect, competitive tendering and unbundling can be seen as two coordinated policy interventions aiming to reduce state contributions on the operational side while putting rail infrastructure management under the direct responsibility of the government. As a result, the level of investment increased considerably on the Swedish network.
- 2.24 SJ's staff was reduced from around 30,000 thousands **employees** in 1987 to around 10,000 employees in 1999 (Nilsson 2002). As restructuring took place, important operational functions were delegated to the new infrastructure manager and the independent freight

³ Alexandersson and Hulten (2006)

⁴ Wieland (2006)

operator. Staff levels have further decreased, and the group currently employed 4,262 people in 2010, accounting for around one third of the cost base (SJ Report 2010). However, the decrease in staff levels can be attributed to the commercial pressures faced by SJ rather than the introduction of PSCs.

- 2.25 The exit of DSB from the Göteborg local and regional service contract provides an example of early termination of PSCs in Sweden. DSB announced its intention to terminate the contract, which was supposed to run until 2018, due to the annual losses accumulated. After a series of negotiations to find a new operator, SJ has been awarded the Göteborg services from May 2012.

Open-access

- 2.26 In Sweden the commercially viable, long-distance services are run by the incumbent SJ at the operator's financial risk. This arrangement already shares most of the characteristics of an open access regime. However, the Swedish market has only officially been open to open access competition since October 2010 - any licensed operator can apply for train paths for any services. Open-access undertakings began their operations in 2012 as the new timetable came into force.

- 2.27 Some of the new services have been offered by established operators. For example Öresundståg, operated by Veolia, which took over from the now defunct DSB First, operates between Göteborg and Malmö roughly hourly from December 2011. Veolia's service is cheaper but also slower than SJ's, which also runs long-distance trains on the same route - taking 24 minutes longer for the 305 kilometre trip than SJ's fast service. The high frequency of Veolia's service, however, appears to have made SJ unable to attract enough passengers. As a result, SJ ended its Göteborg-Malmö (-Copenhagen) services from April 2012 with less than six weeks' notice.

- 2.28 In November 2011 a second open-access operator, Skandinaviska Jernbanors, started operating Göteborg-Skövde-Hallsberg-Stockholm-Uppsala with a train branded Blå Tåget ('Blue Train'). Currently two round trips a day are being operated. The new operator offers a faster service than SJ for a fixed price of SEK 500 which introduces simplicity in a system of differentiated fares.

- 2.29 However, Veolia's Göteborg to Malmö service has resulted in the withdrawal of SJ's previous service. If Veolia now withdraws its services, reduces frequency, or removes the first or last trains of the day, it is not clear how long it would take Trafikverket and/or the county transport authorities to identify a need for a service, and to procure one, presumably by competitive tender.

- 2.30 More widely, Sweden has a low population density with only three centres with a population of more than 250,000: Stockholm, and nearby Arlanda airport and Uppsala, Göteborg, and Malmö and the Øresund link to Copenhagen. Most of the other major population centres lie on a triangle of rail lines connecting these three centres.

- 2.31 Of the three sides of Stockholm-Göteborg-Malmö triangle:

- Göteborg to Stockholm has services by both SJ and Blå Tåget
- Stockholm to Malmö has services by both SJ and Veolia
- Malmö to Göteborg had services by both SJ and Veolia, until SJ withdrew

- 2.32 This suggests that, even on one of the three major routes, it may not be possible to sustain two commercially viable operators. Given the huge geographic concentration of

Sweden around these 3 population centres (Stockholm, Göteborg and Malmö), it also seems unlikely that commercially viable operations can be sustained on other routes serving smaller population centres. In conclusion:

- 2.33 It also seems unlikely that commercially viable operation can be sustained on other routes serving smaller population centres. In conclusion:
- Open access may already have reached its upper limit given Sweden's limited population and network geography.
 - Open access in "thin" markets may result in a brief period with two or more operators before one withdraws.

Access barriers

- 2.34 According to BAG-SPNV (2011), rolling stock in Sweden is expensive, procurement takes between two and three years and may be hard to sell if the operator loses a contract. The fact that SJ owns the majority of rolling stock also acts as a barrier. SJ also points to the shortage of spare parts for older rolling stock based on older technology which leads to high demand on SJ's rolling-stock expertise. In addition, Swedish trains usually run on the wider Scandinavian loading gauge of 3.45 metres, which is different from the rest of Europe.
- 2.35 Everis (2010) reports that "the example of UnionsExpressen demonstrates that new entrants can face challenges and regulatory hurdles". When the SJ-NSB joint venture between Stockholm and Oslo closed down in 2005, the Swedish private operator UnionExpressen applied to run the service in partnership with Norwegian haulage operator Ofofbanen. Ofofbanen rented rolling stock from SJ, but failed to obtain the necessary safety licences from the respective NSAs time to start operations as planned, and only received them in April 2008. By that time, SJ had already reopened its service. UnionsExpressen's operations began in June 2008 and already terminated in October 2008, given the low passenger numbers. As a result, SJ now has a monopoly on the line.
- 2.36 However rolling stock procurement is facilitated by specific market arrangements. The RTAs have created a leasing company called Transitio which leases trains out for regional services. Some rolling stock can also be leased from the state organisation Affärsverket Statens Järnvägar. The new entrant Skandinaviska Jernbanors managed to lease Bombardier-built Traxx locomotives from the German leasing company Railpool.
- 2.37 CER (2005) reports that as long as profit levels were high enough, SJ cross-subsidised services to compensate the loss-making ones. Initially, this may have represented a barrier to entry for other RUs in the first years following liberalisation.

Time and cost to market

- 2.38 A summary of the costs to market and the application times as set by the law is provided in the table below. The authority Transportstyrelsen is in charge of issuing licences and safety certificates. Sweden and Great Britain are the only countries where no fees are required to obtain the relevant authorisation. However, as the principle of cost-recovery is implemented across the transport authority, fees are expected to be introduced from 2012 - for example, safety certificates will cost between 3,700 and 21,000⁵.

⁵ <http://www.transportstyrelsen.se/en/About-us/Financing/Charges/>

TABLE 2 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating licence	3 months	No fees
Safety certificate	3 months	No fees
Authorisation of rolling stock	4 months	No fees

Source: IBM (2011)

Complaints of discriminatory practices

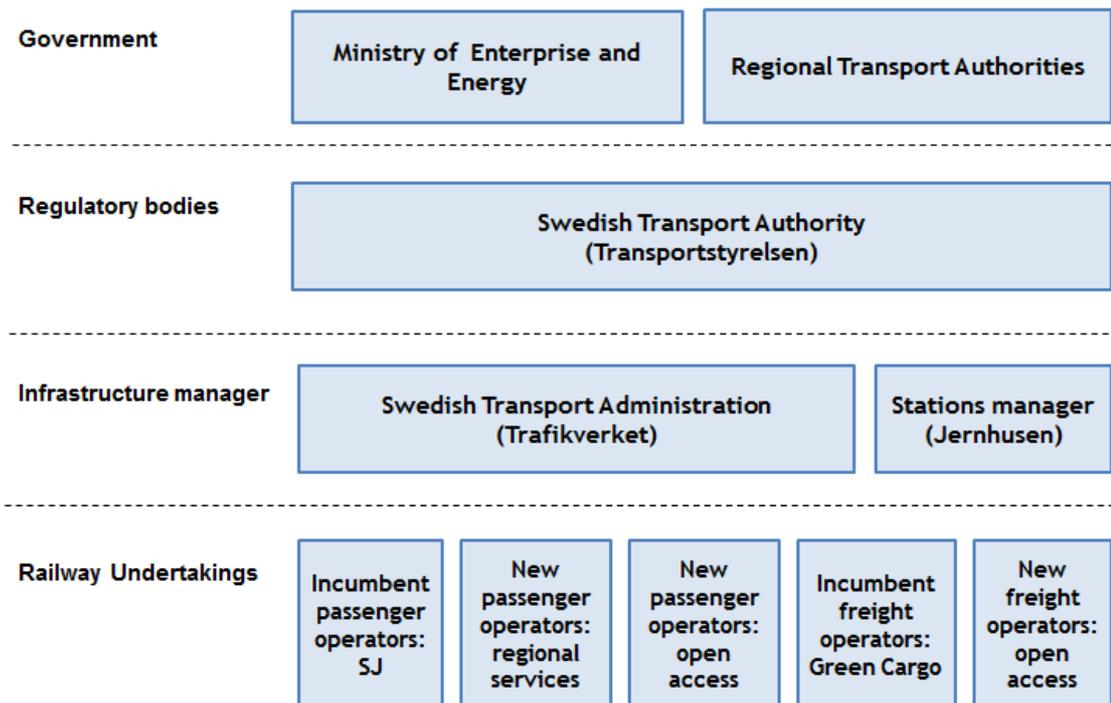
- 2.39 The Swedish regulatory body reports that the main concerns raised by new entrants in the market regard problems of access to rolling stock. At the regional level, 100% of the fleet used in contracted services is owned by the competent authorities or related rolling stock companies. However the problem arises with long-distance tendered services. In most cases, SJ has preferred to dispose of rolling stock instead of selling the vehicles.
- 2.40 Hulten (2011) analyses the degree of monopoly power that has remained in the hands of the incumbent SJ. The issues identified relate mostly to the attitude of SJ’s senior manager towards the new regulatory structure. For example, Hulten reports that SJ made an appeal to a higher court when it was sentenced to a fine by the regulator and that if SJ loses a tender there is an inclination to appeal to the Ministry for a reversal of the decision. These may be seen as anti-competitive practices.
- 2.41 Apart from these problems, the access to the Swedish market can be generally regarded as non-discriminatory both in terms of regulation and operating barriers. Merkert et al.(2008) conclude that the Swedish system “provides competition at not unusually high transaction costs” for train operators.

3 Regulatory framework

Main institutions and their role

3.1 Figure 7 summarises the main institutions regulating the rail market in Sweden. Their specific functions are described below.

FIGURE 7 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN SWEDEN



Ministry

3.2 The Ministry of Enterprise is responsible for transport and infrastructure with the goal of giving Sweden an economically efficient, sustainable transport system for people and enterprises throughout the country. Its direct responsibility for railway transport, however, is limited.

Regional Transport Authorities

3.3 At the regional level, the 21 Swedish counties are responsible for public transport services, assigned through public tendering by the Regional Transport Authorities. This level of governance is rather fluid, with some contracts being tendered at the interregional level.

Regulatory Body

3.4 The Swedish Transport Authority, Transportstyrelsen, was created in 2009, incorporating the existing Rail Agency. The Railway Department of the Authority is currently responsible for regulation, issuing licences, safety certificates and authorisation of rolling stock.

Infrastructure Manager

3.5 The infrastructure manager, Trafikverket, was created in 2010 with the task of developing the network and publishing the network statement (tasks previously performed by Banverket) and with the task of organising public tenders for the non-commercially viable

long-distance services (previously under the remit of the government authority Rikstrafiken).

- 3.6 The ownership of stations in Sweden falls mainly under the state-owned, ad hoc company **Jernhusen** which was created after the separation of SJ.

Analysis of unbundling and regulation

Vertical separation

- 3.7 Sweden was the first country in Europe to implement full vertical separation of infrastructure and operations. Unbundling has resulted in full accounting separation and in a clear-cut distinction between the IM's functions and those performed by the RU. IBM (2011) rates the Swedish market as accessible and attractive for new entrants, citing the low access barriers thanks to unbundling.
- 3.8 The ex-post evaluation of unbundling in Sweden suggests that it resulted in both benefits and costs. According to Nilsson (2002), investment levels increased five-fold in the early 1990s, but poor investment decisions have been made, partly due to political intervention and partly due to the disconnection between the customer and infrastructure owner.
- 3.9 Alexandersson and Hulten (2005) also concluded that the reforms have allowed investment to take place that would not otherwise have happened (though not through private financing but through government funding). They add that fragmentation of the railway may have caused some sub-optimisation and loss of scale economies, and that some projects have been financed without any certainty that there would be operators willing and able to run commercial services on them.
- 3.10 Overall, it appears that vertical separation has benefited consumers by supporting the gradual liberalisation of the rail market and lowering infrastructure charges, but taxpayers have borne increased costs to develop the railway network. This is reflected in the relative proportion of public funds shifting from the incumbent RU to the IM.

Regulatory Capacity

- 3.11 The regulatory body, Transportstyrelsen, performs the functions related to licensing described above as well as the following:
- Examining the Network Statement published by the infrastructure manager
 - Overseeing capacity allocation and the charging system
 - Examining timetable compilation and application
 - Conducting spot-checks for the implementation of interoperability
- 3.12 The powers of the regulatory body include the ability to impose fines and to take both ex-ante and ex-post decisions. Decisions by Transportstyrelsen have led to alterations in the Network Statements to increase transparency as well increased powers for the IM to handle capacity allocation.
- 3.13 Everis (2010) reports that the Swedish government considers the greatest achievements of the Swedish model to have been the creation of a "level playing field" for all actors in the transport sector, for example between rail and road users, where users pay for the use of infrastructure. The recent merger of the Swedish Rail Agency and the Swedish Road Agency into one transport agency (Transportstyrelsen) is a step forward in creating this equal playing field.

- 3.14 Given the full separation of operations and infrastructure and the presence of an independent regulator with wide powers, Sweden has received the highest scores in the Rail Liberalisation Index produced by IBM.

4 Summary of findings

- 4.1 Sweden was the first state in Europe to restructure its railways with the aim of increased competition. The initial separation of infrastructure manager Banverket from railway undertaking SJ took place in 1988. Subsequent domestic reorganisation, such as merging Banverket and Rikstrafiken into Trafikverket, has had little further impact.
- 4.2 Introduction of Directive 91/440/EEC and the first three Railway Packages has similarly had little material effect, because Sweden government policy had largely anticipated that of the European Commission.
- 4.3 Competition for the market has been generally successful, although allowing SJ to retain ownership of the rolling stock has been a material barrier to entry. This has been overcome in part by the creation of Transitio as a pool of rolling stock available for use on local services.
- 4.4 Competition in the market through domestic open access, introduced in 2010, has at first sight been successful, with new entry on two routes:
- Between Göteborg and Stockholm/Uppsala, Skandinaviska Jernbanors' Blå Tåget
 - Between Göteborg and Malmö, Veolia's roughly hourly service
- 4.5 However, the new Göteborg to Malmö service has resulted in the withdrawal of SJ's previous service.

Identification of key problem drivers and elements

- 4.6 The principal outstanding problem in Sweden is the difficulty of obtaining rolling stock for long-distance routes, which ultimately originates in the industry structure adopted in 1988.
- 4.7 As the Everis study has also identified, Sweden did not separate ownership of rolling stock from the incumbent operator, as the other precursor of liberalisation, Great Britain, did in 1994.
- 4.8 However, our analysis has identified two additional issues to be looked at:
- Scope for commercially viable open access services may be limited to a small number of interurban routes.
 - Open access competition may be unstable in thin markets. If neither operator on a route has a PSC, there may be only a brief period of competition before one withdraws.

Potential examples of best practice

- Rolling stock pooling at the regional level - Transitio is a rolling-stock company created especially in order to respond both to the need of matching long term investments in rolling stock with contracts for shorter periods (5-15 years) and to improve easiness of market exit for new entrants.
- Sweden's domestic legislative environment has enabled effective transfer of staff between RUs without leading to industrial action.

TABLE 3 SUMMARY OF OUTSTANDING PROBLEMS

Root Causes	Problem drivers		Country Evidence
Long and costly procedures	Limited access to rolling stock	✓	<ul style="list-style-type: none"> • SJ ownership on long-distance routes
	Vague rules on access to rail-related services	×	
Industry consolidation	Incomplete unbundling	×	
	Ineffective unbundling	×	
Access barriers for new entrants	Incomplete unbundling	×	
	Deficient funding and investment framework	×	
	Access barriers to infrastructure	×	
	Lack of structures/mechanisms for coordination	×	
	Lack of financial transparency	×	
Different market access rules in MSs	Absence of competition for PSOs	×	
	Distorted/Ineffective competition for PSOs	×	
	Absence of open access rights	×	
	Discriminative framework conditions	×	
Other causes	Country-specific problem drivers	✓	<ul style="list-style-type: none"> • Unstable open access competition • No commercial viability for low density routes

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EUROPEAN RAIL MARKET OPENING

Slovenia

Country Fiche

July 2012

1 Evolution of the national market

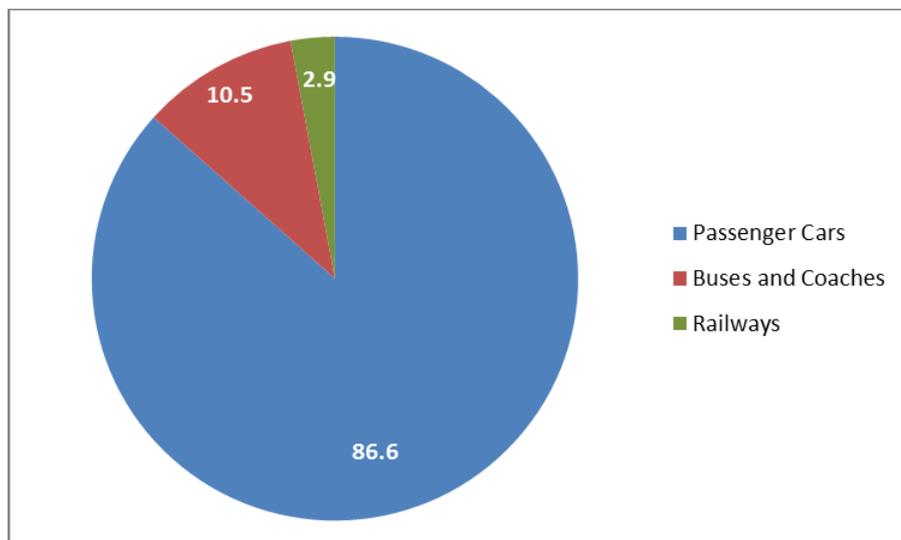
Structure of the network

- 1.1 The Slovenian rail network is about 1,200km long - the main line, which is double-track and electrified, runs east-west across the country. The density of the network is 60.6km/1000km². Over one third of the network is electrified. While the freight intensity of the network is above the European average, the passenger intensity lies below its European equivalent.

Changes in volumes for passenger and freight services

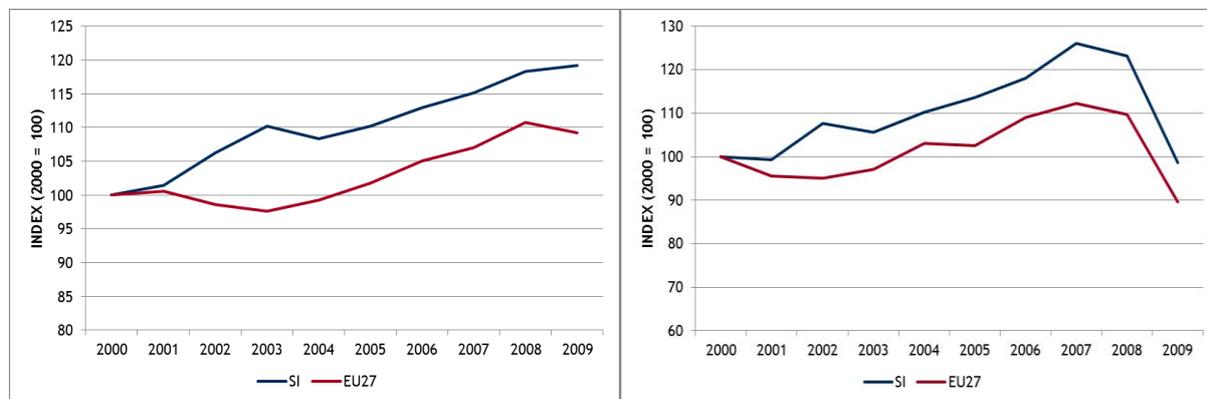
- 1.2 The modal share for rail passenger transport was approximately 2.9% in 2009 (see Figure 1) which is very low compared to the EU average. However, rail freight has a modal share of over 15%.

FIGURE 1 PASSENGER SERVICES MODAL SPLIT IN SLOVENIA - 2009



1.3 Rail passenger volumes have increased steadily from 2001 to 2008, above EU average. Growth slowed down in 2009 and passenger numbers appear to have declined slightly in 2010. The freight sector recorded a pronounced decline in tonne-km in 2009 (-26%) as a result of the economic crisis. However, preliminary data for 2010 shows that freight volumes have picked up in 2010 (+21%).

FIGURE 2 SLOVENIA AND THE EU-27, 2000-2009 - PASSENGER AND FREIGHT KM



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

2 Competition and market access

Overview of the passenger and freight operators

- 2.1 The domestic market is not open to competition and SŽ has been granted public service contracts for the near totality of the network. The company, which is fully state-owned, has recently been reorganised into a holding structure with three subsidiaries: passenger, freight and infrastructure.
- 2.2 The infrastructure subsidiary is in charge of infrastructure management and maintenance. The functions of capacity allocation and setting charges have been assigned to the Rail Authority AZP. Hence there is no full separation of infrastructure and operations.
- 2.3 SŽ has enjoyed a period of financial stability until 2009, when the decrease in passenger and freight volumes has reduced the operating revenue by 13%. SŽ has thus accumulated losses in recent years.
- 2.4 The only new entrant in the Slovenian market is the private freight operator ADT, a joint-venture between the port of Koper and Austrian operators. It holds 7% of the freight market share and it is specialised in international transport.

Public service contracts

- 2.5 More than 97% of the Slovenian network is covered by public service contracts, which are directly awarded to SŽ. Public service obligations include adequate service levels, special discounts, stable service frequencies and the obligation to run trains for the whole year, even if financially unviable. Specific quality criteria, measured by punctuality and customer satisfaction, are also included (CER 2011).
- 2.6 Following reforms in 2010 with the introduction of the new Railways Act, a major set of reforms is expected in 2013 - CER (2011) reports that there is a plan to integrate all modes of transport under a single contract, and the possibility of introducing competitive tenders is under evaluation.

Open access

- 2.7 Open access is guaranteed in the freight sector, but not in the passenger sector. ADT is the only open-access operator. Commercial cross-border rail passenger transport is possible.

Access barriers

- 2.8 The Slovenian rail network suffers from underinvestment and has not been developed in the past 10 years. The bad condition is reflected in numerous damages and defects on the tracks, on the catenary, signalling and safety equipment as well as on the switches. Due to these defects the speed for trains driving on the Slovenian railways is reduced to be able to assure traffic safety (Ecorys 2005).
- 2.9 Licences are issued by the Slovenian Rail Authority (AZP), which deals both with capacity allocation and safety issues. The time and cost to market in Slovenia are summarised in Table 1, as recently amended by the Railways Act 2009.

TABLE 1 COST TO MARKET AND TIME TO MARKET

Application type	Time	Cost
Operating licence	1 month	€1,400
Safety certificate	3 months	€1,400
Authorisation of rolling stock	30 days	€35

Source: IBM (2011)

2.10 All the rolling stock is owned by the incumbent operator SZ, which may constitute a considerable access barrier for new entrants. More than 33% of the fleet was more than 30 years old in 2010.

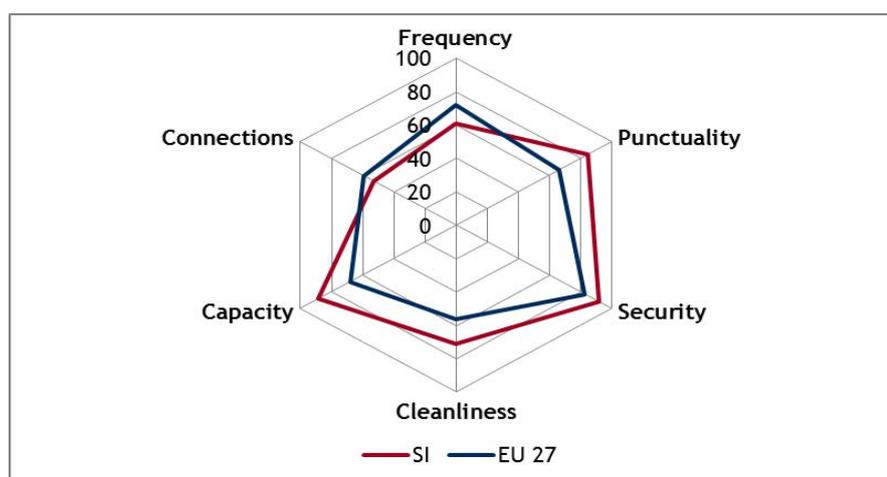
Public funds, investment and quality indicators

2.11 The level of compensation for PSOs corresponds to the difference between the planned revenues and costs, allowing for reasonable profits. However, in recent years revenues have been lower than expected - under these circumstances, SZ has borne the financial risk and has been undercompensated, accumulating losses (CER 2011). Public subsidies for 2010 reached €45m, compared to €34m from ticket revenues (ZS Annual Report 2010).

2.12 Recent investment appears skewed towards freight; in 2009, this was divided by 79% to freight, 16% to passenger and 5% to infrastructure (UIC). Freight investment has led to improvements in productivity (wagons productivity is above EU average) and the introduction of e-freight transport to order and track wagons across the network. Total investment has been halved in 2010 and the number of employees has decreased by 12% between 2008 and 2010 (SŽ Report 2011).

2.13 Slovenian rail users are satisfied with the level of punctuality, security and capacity offered by SZ, according to the results from Eurobarometer 2011 - displayed in Figure 3. However, the frequency of services and the availability of connections are only approved by 50% of customers.

FIGURE 3 EUROBAROMETER 2011 - RESULTS FOR SLOVENIA AND EU-27

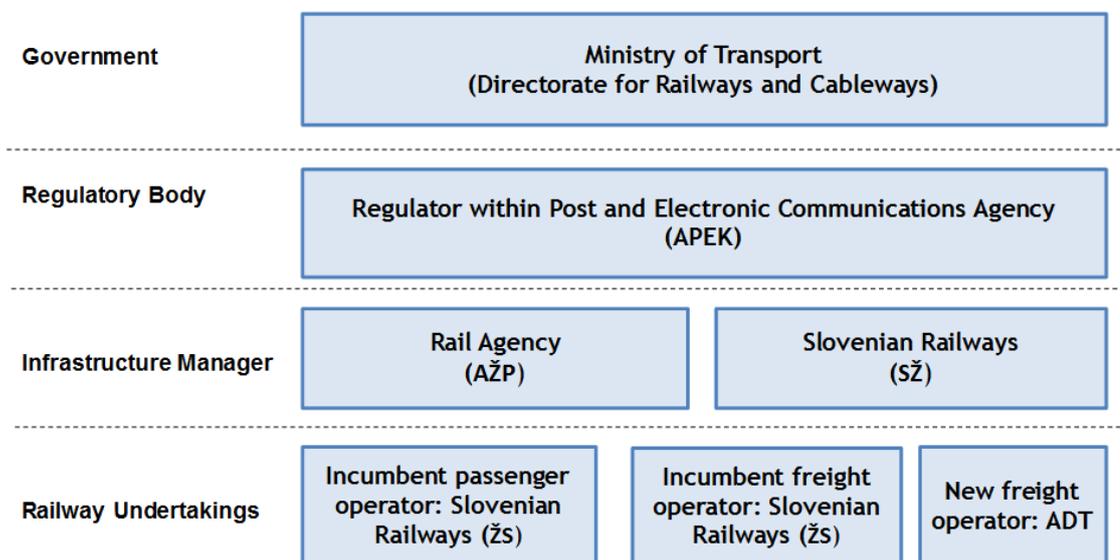


Source: Eurobarometer 2011

3 Regulatory framework

- 3.1 The institutional framework in Slovenia is summarised in Figure 4. The Ministry of Transport is responsible for the negotiation and award to PSCs. Until August 2011, the regulatory body was part of the Ministry. It is now an independent body which falls under the Communications Agency (APEK).
- 3.2 Infrastructure management and operations are only partially separated in Slovenia. The restructuring of the incumbent operator, which took place in 2010-2011, has led to the creation of an infrastructure division responsible for maintenance and development. The Rail Agency is instead in charge of timetabling, producing the network statement and allocating train paths.

FIGURE 4 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN SLOVENIA



4 Summary of findings

Identification of key problem drivers and elements

- 4.1 The Slovenian market is dominated by the incumbent operator, SŽ. Although the freight sector has been opened up to competition, only one operator (ADT) has entered the market specialising in port synergies and international transport. The passenger market is formally closed to competition and PSCs are awarded directly to SŽ.
- 4.2 The incomplete separation of infrastructure and operations does not ensure non-discriminatory access to the network in Slovenia. Some key functions, such as network maintenance, have been retained by the incumbent operator and are regulated by a contract concluded between SŽ and AZP. The current arrangements have not triggered the necessary incentives to improve the country's network, which is in need of modernisation.
- 4.3 As a result, new entrants in Slovenia face high access barriers and a discriminatory framework. The main problems are summarised in Table 2.

Potential examples of best practice

- 4.4 The Slovenian freight market, despite the low competitive pressures due to the entry of only one new operator, is dynamic and productive. Investment by ZS has allowed the renovation of rolling stock and the development of new technology such as the e-freight transport system.
- 4.5 The introduction of integrated transport contracts from 2013, as anticipated by CER, could represent a solution to revitalise the loss-making and declining rail passenger sector.

TABLE 2 SUMMARY OF OUTSTANDING PROBLEMS

Root causes	Problem drivers		Country evidence
Long and costly procedures	Limited access to rolling stock	✓	<ul style="list-style-type: none"> ZS ownership of rolling stock
	Vague rules on access to rail-related services	✗	No evidence
Industry consolidation	Incomplete unbundling	✓	<ul style="list-style-type: none"> Partial separation of ZS and AZP
Access barriers to new entrants	Ineffective unbundling	✓	<ul style="list-style-type: none"> ZS retains network maintenance and other functions
	Incomplete unbundling	✗	<ul style="list-style-type: none"> Partial separation of ZS and AZP
	Deficient funding and investment framework	✓	<ul style="list-style-type: none"> Under-compensation of PSCs Deficient infrastructure investment
	Access barriers to infrastructure	✗	No evidence
	Lack of structures/mechanisms for coordination	✗	No evidence
	Lack of financial transparency	✗	No evidence
Different market access rules in MSs	Absence of competition for PSOs	✓	<ul style="list-style-type: none"> Direct award of PSCs to ZS
	Distorted/ineffective competition for PSOs	✓	<ul style="list-style-type: none"> Direct award of PSCs to ZS
	Absence of open access rights	✓	<ul style="list-style-type: none"> Market closed for foreign RUs
	Discriminative framework conditions	✓	<ul style="list-style-type: none"> Direct award of PSCs to ZS New regulator developing capabilities

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EUROPEAN RAIL MARKET OPENING

Slovakia

Country Fiche

July 2012

1 Evolution of the national market

Network structure

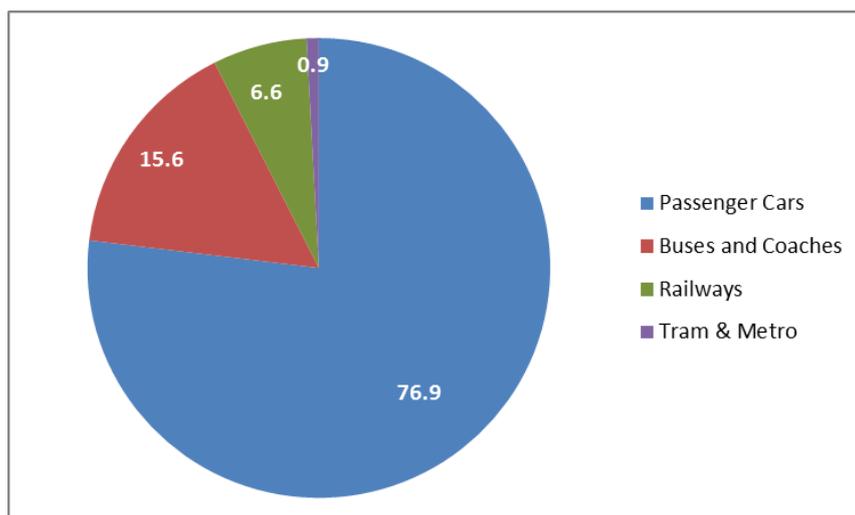
1.1 The rail network in Slovakia is 3,660 km long and it connects the capital Bratislava in the west to the main cities in the centre and east of the country. Network density is one of the highest in Europe and there are no significant capacity bottlenecks. Over 40% of the network is electrified. Passenger traffic intensity of the network is below the European average while freight traffic intensity lies above its European counterpart.

1.2 The population of Slovakia is 5.4 million and its population density is 111/km².

Changes in volumes for passenger and freight services

1.3 Despite only a moderate rise in car traffic and a decline in bus and coaches, rail has not gained market shares in the Slovakian passenger sector. Rail traffic has been declining since the early 90s and it accounted for 6.6% of all passenger-kilometres in 2009, as shown in Figure 1.

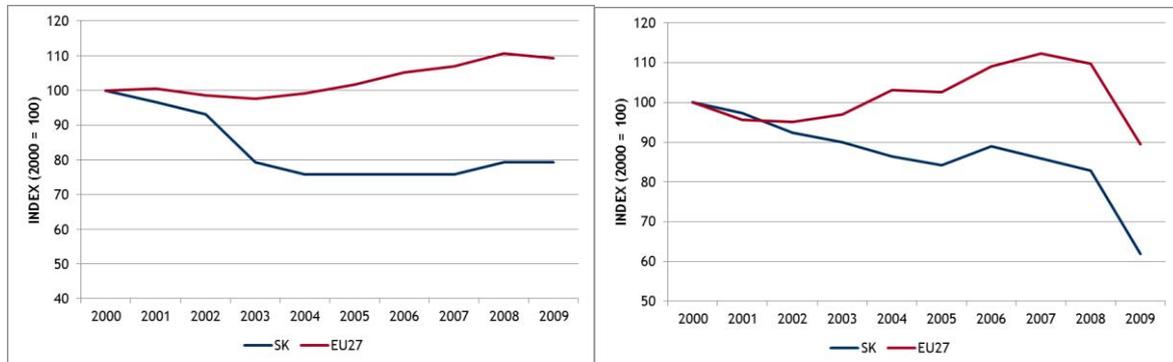
FIGURE 1 MODAL SPLIT IN SLOVAKIA - 2009



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

1.4 The decline in passenger volumes was particularly steep in the 2000-2003 period; after that, rail traffic has been fairly stable. On the contrary, freight volumes have been falling year on year and were almost 40% lower in 2009 than in 2000. This corresponds to a decrease in the share of freight transport from 42% in 2001 to 23% in 2009.

FIGURE 2 SLOVAKIA AND THE EU-27, 2000-2009 - PASSENGER AND FREIGHT KM



Source: Steer Davies Gleave analysis of European Commission Statistical Pocketbook (2011)

2 Competition and market access

Overview of the passenger and freight operators

- 2.1 Since its accession to the EU, Slovakia has been reforming its railway sector. Vertical separation of the infrastructure manager ZSR and the incumbent operator ZSSK took place in 2002 and, in 2005, passengers and freight operations at ZSSK were also separated.
- 2.2 Although the passenger sector is fully liberalised, the state-owned ZSSK has been awarded public service contracts by the Ministry of Transport directly for the entire network. ZSSK is a loss-making operator. From March 2012, however, the private Czech operator RegioJet has been running trains on the Bratislava-Dunajská Streda-Komárno line under a new PSC negotiated with the Ministry of Transport. RegioJet is the first new entrant in the Slovakian passenger market.
- 2.3 Several new entrants are operating in the liberalised rail freight sector, including SZDS, Express Rail Slovakia and other operators active in cross-border traffic with the neighbouring countries. However, the market share of new entrants was still limited to around 4% in 2009 and modal shares are declining. In addition, ZSSK Cargo has been incurring losses of over €100m both in 2009 and in 2010 (CER Annual Reports). Therefore, the company has transferred part of its assets to its passenger counterpart ZSSK and it is looking for new partners in the process of privatisation. The Czech operator CD Cargo has expressed interest (PwC News Deals, 09/11).

Public service contracts

- 2.4 PSCs have been traditionally directly awarded to the incumbent operator ZSSK. The current national (non-regional) contract, entered into in 2011 runs until 2020. It contains several public service obligations including quality criteria, penalties and tariff conditions. The latter is also regulated by the regulatory body URZD which sets maximum applicable tariffs countrywide.
- 2.5 RegioJet negotiated a 9-year contract for the Bratislava-Komárno line starting from 2012. This was the first time a PSC was not awarded to the incumbent operator in Slovakia. However, the contract was assigned directly to the new entrant following a negotiation, rather than being tendered out. According to CER (2011), the contract awarded to RegioJet was not placed for competitive bidding due to the lack of applicants. It is reported that the government will pay RegioJet €5.7 per train-km, compared to €6.76 paid to ZSSK¹.
- 2.6 In 2010, the Ministry of Transport announced plans for up to 35% of passenger services to be tendered by 2020. Devolution of tendering procedures to the nine Slovakian regions has also been on the agenda and it is reported that preliminary negotiations for the tendering of regional passenger services are taking place².

¹ Railway Gazette, “Franchising negotiations in Slovakia”, March 2012

² Ibid

Access barriers

- 2.7 The direct award of PSCs to the incumbent has been thus far the most significant barrier for new entrants in Slovakia. However, should competitive tendering go ahead at the regional level, new entrants could find it hard to acquire rolling stock, since ZSSK owns the train used to operate public services.
- 2.8 The railway authority (URZD) is responsible for issuing licences, safety certificates and for the authorisation of rolling stock. The time and cost to market in Slovakia as prescribed by law are summarised in IBM (2011) reports that some RUs have complained about the lack of transparency in the issuing of these certificates. This can represent an additional barrier despite the low cost to market in comparison to the rest of Europe.
- 2.9 Table 1. IBM (2011) reports that some RUs have complained about the lack of transparency in the issuing of these certificates. This can represent an additional barrier despite the low cost to market in comparison to the rest of Europe.

TABLE 1 COST TO MARKET AND TIME TO MARKET

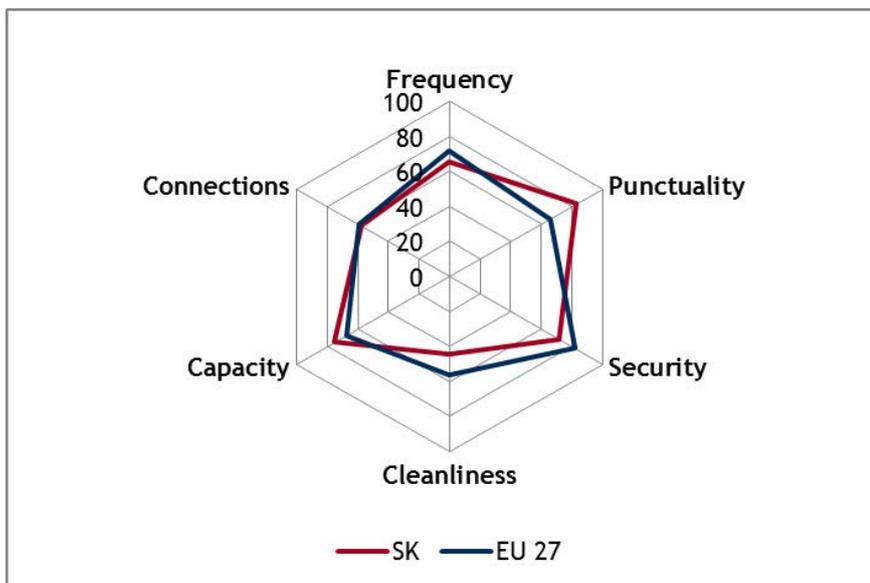
Application type	Time	Cost
Operating licence	3 months	€500
Safety certificate	4 months	€500
Authorisation of rolling stock	2 months	€100

Source: IBM (2011)

Public funds, investment and quality indicators

- 2.10 Both the IM and the incumbent RU receive state subsidies. In 2009, ZSSK received state contributions that covered two thirds of its operating costs (UIC 2009). However, the recent budget cuts have established a maximum amount for the overall compensation of PSCs by the State. This has created a funding gap for ZSSK which is being covered by debt (CER 2011).
- 2.11 The process of rolling stock renewal, initiated throughout the 90s, has come to a partial halt. As a result, 28% of the fleet in Slovakia is less than 10 years old while 30% of it is more than 30 years old. Staff costs have also reduced substantially, with a decrease in employment of 30% between 2001 and 2010.
- 2.12 However the Slovakian Ministry has begun a large investment programme, co-financed by the EU, for the construction of new terminals replacing the most outdated terminals and allowing the handling of continental load units. This programme will improve open access to terminals and support the growth of intermodal transport (UIC 2009).
- 2.13 According to the Eurobarometer Survey 2011, the security and cleanliness of trains in Slovakia is a source of concern for customers. However, punctuality of trains seems not to be a problem as shown in Figure 3.

FIGURE 3 EUROBAROMETER 2011 - RESULTS FOR SLOVAKIA AND EU-27

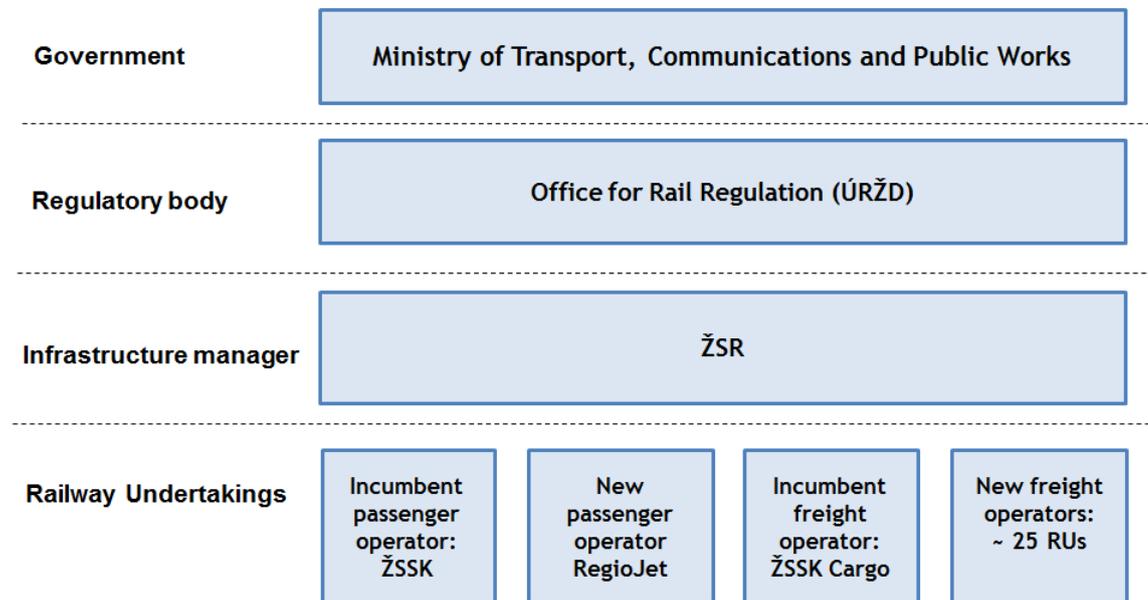


Source: Eurobarometer 2011

3 Regulatory framework

- 3.1 A summary of the institutions involved in the rail sector in Slovakia is provided in
- 3.2 Figure 4 below. The vertical separation of the IM and the incumbent RU took place in 2002, while the regulatory body URZD was created in 2006. This is a railway-specific organisation in charge of monitoring competition, reviewing the network statement and investigation the work of ZSR. It is also obliged to initiate investigations in response to complaints.

FIGURE 4 INSTITUTIONAL ARRANGEMENTS FOR RAILWAYS IN SLOVAKIA



Source: Steer Davies Gleave

4 Key findings

Identification of key problems

- 4.1 While the Slovakian institutional framework has been reformed throughout the 2000s, this has not resulted in a higher degree of competition nor in higher modal shares for rail. The market share of non-incumbents is still very low and rail, especially in the freight sector, has lost a considerable amount of traffic compared to other modes of transport. The economic downturn has exacerbated this decline.
- 4.2 The legacy of the state-owned ZSSK (loss-making and accumulating debt) seems hard to reverse in the context of the current budgetary cuts. At the same time, the ownership of rolling stock and facilities by the incumbent is a barrier for any new entrant.

TABLE 2 SUMMARY OF PROBLEMS

Root causes	Problem drivers		Country evidence
Long and costly procedures	Limited access to rolling stock	✓	• ZSSK ownership of rolling stock
	Vague rules on access to rail-related services	×	No evidence
Industry consolidation	Incomplete unbundling	×	No evidence
	Ineffective unbundling	×	No evidence
Access barriers to new entrants	Incomplete unbundling	×	No evidence
	Deficient funding and investment framework	✓	• Under-compensation of PSCs
	Access barriers to infrastructure	×	No evidence
	Lack of structures/mechanisms for coordination	×	No evidence
Different market access rules in MSs	Lack of financial transparency	×	No evidence
	Absence of competition for PSOs	✓	• Direct award of PSCs
	Distorted/ineffective competition for PSOs	✓	• Direct award of PSCs
	Absence of open access rights	✓	• Market closed for foreign RUs
	Discriminative framework conditions	✓	• Direct award of PSCs

Potential examples of best practice

- 4.3 Slovakia has implemented significant reforms in the railway sector. The regulatory framework provides for an independent regulator since 2006 and the vertical separation of infrastructure management and train operations has been increased in 2009. This is also recognised by an improvement in the IBM Rail Liberalisation Index (2011) and represents a best practice in the context of new Member States - elsewhere, legislative process has been much slower.

- 4.4 The government has presented plans to open up the rail market to competition, as a potential solution to the problems highlighted above. The first direct award of PSC to a new entrant, RegioJet, represents the first step in this strategy. However, more opportunities for new entrants and increased competition will come from the gradual tendering of regional concessions in the coming years. The privatisation of ZSSK Cargo is also on the agenda.

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CONTROL SHEET

Project/Proposal Name Further action at European Level regarding Market Opening for Domestic Passenger Transport by Rail and ensuring Non-Discriminatory Access to Rail Infrastructure and Services

Document Title Final Report

Client Contract/Project No.

SDG Project/Proposal No. 22445901

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REVIEW

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