

## **ANNEX 7**

### **CASE STUDY ITALY**

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## **1. Scope**

This section presents a brief overview of the structure of the Italian national railway industry together with the regional authorities and independent railway undertakings that can be found in every region, as well as the local railway undertakings.

Almost the entire national rail network is managed by Rete Ferroviaria Italiana (RFI), accordingly as far as infrastructure is concerned, this report focuses on that provided by RFI. The Ferrovie Nord Milano Group (FNM), who operate a 309 km network, to the North of Milano has also been considered, other small companies that also provide some infrastructure services have been ignored.

Narrow gauge and self-contained urban and local rail systems are not relevant to this study and have therefore been ignored.

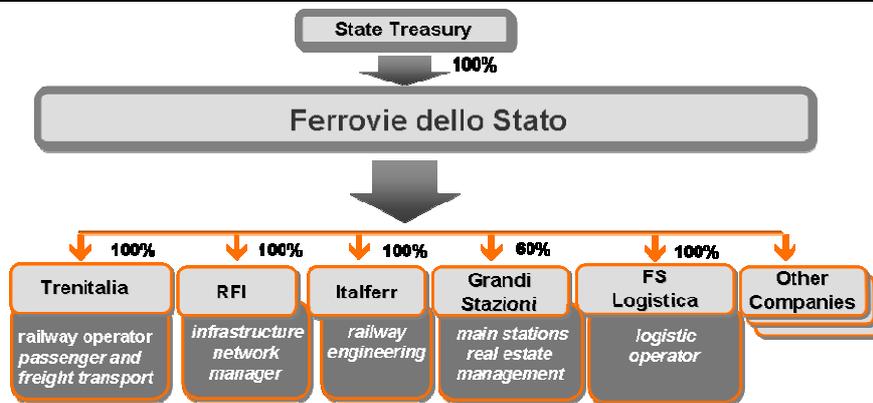
## 2. Regulatory Structure

### 2.1. Overview of current regulatory structure

The Italian Ministry of Infrastructure and Transport draws up the strategy for the Italian railway network, determines the infrastructure funding and is the awarding authority for the public services of national interest (the regional transport is under the regulatory authority of the Regions)

Since 2001, Ferrovie dello Stato (the historic incumbent) has been re-organised in the form of a holding company (FS S.p.A.) owning several subsidiary companies that operate in different sectors of the railway industry: including RFI S.p.A. (Rete Ferroviaria Italiana), the infrastructure manager, and Trenitalia S.p.A. RFI, the railway undertaking. Figure 1 shows the structure of the FS Group.

Figure 1. The FS Group



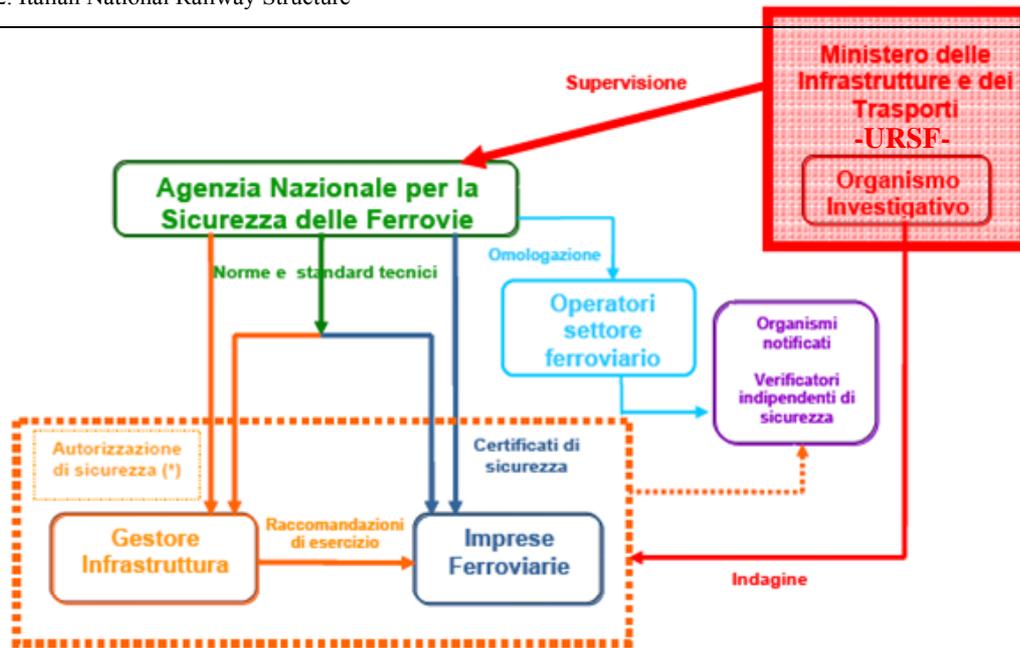
Source: Ferrovie dello Stato

The Ufficio Regolamentazione del Servizio Ferroviario (Office for Regulation of Railway Services, URSF), which reports direct to the Minister of Transport, serves as an independent regulatory agency. It has dedicated staff and budget, and is primarily responsible for monitoring competition, and issuing legal permits. It has the power to impose sanctions in the event of failure to respect rules on the access to the rail market and also in the event of failure to respect of its decisions.

The Agenzia Nazionale per la Sicurezza delle Ferrovie was set up by Government as an agency for railway safety: (National Authority for Railway Safety) (ANSF), independent of FS, to perform all rail safety duties.

Regulation is therefore by two agencies, one for safety, and one for economic regulation. Figure 2 shows the current regulatory structure and the players involved.

Figure 2. Italian National Railway Structure<sup>1</sup>



Source: [www.ansf.it/News/Rapporto\\_ANSF\\_2008.pdf](http://www.ansf.it/News/Rapporto_ANSF_2008.pdf)

## 2.2. History & evolution of regulatory structure

In Italy the recent re-organisation process has been as follows:

- In 1992-1993, FS changed its legal form from a public entity to a ‘private’ firm, Ferrovie dello Stato S.p.a, wholly owned by the Ministry of Finance;
- In 1999-2000, Ferrovie dello Stato (Gruppo FS) was split into three divisions: a medium-long distance passenger division (FS Divisione Passeggeri), a freight division (FS Cargo) and a regional passenger division (FS Regionale) in order to comply with EU legislation;
- In 2000, the three divisions were brought together as a railway undertaking called Trenitalia S.p.A., while, at the same time, FS set up an infrastructure manager Rete Ferroviaria Italiana S.p.A. (RFI) to create vertical separation between the infrastructure and service provision. RFI took charge of the infrastructure;

<sup>1</sup> However, as of 31 December 2008, ANSF has not started to issue safety authorisations.

- In 2001, FS was re-organised in the form of a holding company (FS-Holding) owning several subsidiary companies that operate in different sectors of the railway industry: including RFI and Trenitalia S.p.A. The following companies are controlled by Gruppo FS:
  - **Rete Ferroviaria Italiana SpA (RFI)**, the IM;
  - **Trenitalia SpA**, the incumbent passenger RU.

RFI has a subsidiary:

- **Treno Alta Velocità SpA (TAV)**, which holds a fifty year concession (which commenced in 1998) to design and to construct the Italian high speed network.

The other subsidiaries of Gruppo FS are:

- **Centostazioni SpA (59.99% stake) ([www.centostazioni.it](http://www.centostazioni.it))**, responsible for the administration and development of 103 medium sized stations;
- **Grandi Stazioni SpA (59.99% stake), ([www.grandistazioni.it](http://www.grandistazioni.it))**, responsible for the renewal and development of the thirteen largest railway stations;
- **Ferservizi SpA (<http://ferservizi.ferroviedellostato.it>)**, which supplies services not directly pertaining to rail transport to the group (e.g. management, telecommunications, etc);
- **Italferr SpA ([www.italferr.it](http://www.italferr.it))**, the company in charge of designing and coordinating new high speed lines and modernising the rail network, whose remit has also been extended to the international field;
- **Ferrovie Real Estate ([www.ferrovierialestate.it](http://www.ferrovierialestate.it))**, which looks after the estate activity, including land occupied by the infrastructure;
- **SITA (55% stake) ([www.sitabus.it](http://www.sitabus.it))**, which operates local and regional bus services, and tourist agencies.

In 2008 Gruppo FS had approximately 87 000 employees.

Italy transposed Directive 91/440/EC<sup>2</sup> by Presidential Decree no. 277/1998.

The new “package” consisting of the Directives of 2001 was transposed by Decree 188/2003 (the so-called “Consolidation Act” in the matter of railway transport). It

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<sup>2</sup> Directives 91/440/EEC and 2001/12/EC on development of railway enterprises concerning: the “break” of the State monopoly and the paramount principles of liberalisation and the right of access to the infrastructure

consists of four parts: - *railway undertakings, infrastructure managers, duties and fees, allocation of infrastructure capacity.*

### **2.3. Role of Regulator**

ANSF is the railway safety authority undertaking the safety duty previously performed by the Ministry of Transport and by RFI (the IM). It is independent of all railway undertakings (Article 4 of legislative decree 162/2007).

ANSF undertakes the following tasks (Article 6 of legislative decree 162/2007):

- technical and safety regulation;
- safety certification of railway undertakings, and safety authorisation of infrastructure managers;
- technical approval of rolling stock, systems and components;
- audit, inspections and monitoring on the application of safety standards and regulations.

URSF (Ufficio per la Regolazione dei Servizi Ferroviari) is the railway regulatory body, established under Article 37 of legislative decree 188/2003, which applied the first railway package. It is responsible for the general monitoring of railway competition. All applicants for capacity on the national rail network have the right to appeal to the regulatory body in any case they believe that they have been unfairly and in particular against decisions related to:

- the network statement and its criteria;
- the capacity allocation procedure and its results;
- the charging regulatory framework;
- the level of charges.

The URSF has the power to request any information from the Infrastructure Manager and all operators, to enable it to take action to remedy cases of unfair treatment. To these ends it has extensive power to apply sanctions.

## 3. The Rail Passenger Market

### 3.1. Overview

Since 2000 the access to the Italian railway market was opened for both freight and passenger services (although rights to provide passenger services are only available to foreign RUs where reciprocal rights are provided). Fifty-eight railway undertakings have obtained the necessary licences to date. The regime is a mixture of open access and exclusive public service contracts, in general high-speed and express services operate under an open access regime, while regional and urban services are procured under public service contracts, but there are exceptions. This is described in more detail below.

In Italy costs of almost all inter-regional transport services and, in some cases, also the transport services to medium and long distance are covered by “universal service” financed by region and state. Universal Service is defined in accordance with European Regulations, through Italian law 422/97 on Local Public Transport and through the services contract stipulated between the railway undertaking and the Regions. These contracts assign the responsibility of the whole planning of the rail transport “universal service” to the Regions.

The most recent Universal Service contracts expired in 31 December 2007 and have yet to be renewed; however, services are continuing under terms of continuity in the contracts. Universal night service contracts expired in 2004-2005 and, similarly have yet to be renewed. In practice there is a transitional regime, which should end with all contracts being let by a competitive tender. The current system continues to be of direct award of service contracts to RUs that already provide the regional service in question.

In the rail freight market several new entrants (some owned by foreign incumbents) have entered the Italian market (Trenitalia’s market share is 84.4%, new entrants’ market share 15.6%<sup>3</sup>). The new entrants have focussed on the most profitable market segment (international block trains) in which their market share is close to 50%.

In the passenger transport several local operators have joined Trenitalia in the market (market share: Trenitalia 91.2%, other RUs 8.8%<sup>4</sup>). Since December 2009 a joint venture between ÖBB, DB and FNM (Ferrovie Nord Milano) has entered the international passenger transport market and provides trains between Germany/Austria and North Italy in direct competition with Trenitalia.

Several companies (NTV<sup>5</sup> (high-speed services, Arenaways<sup>6</sup> (regional services in Northern Italy) are planning to enter the market in direct competition with Trenitalia.

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<sup>3</sup> Source: Conto Nazionale Trasporti 2007-2008

<sup>4</sup> Source: Conto Nazionale trasporti 2007-2008

<sup>5</sup> <http://www.ntvspa.it/en/index.html>

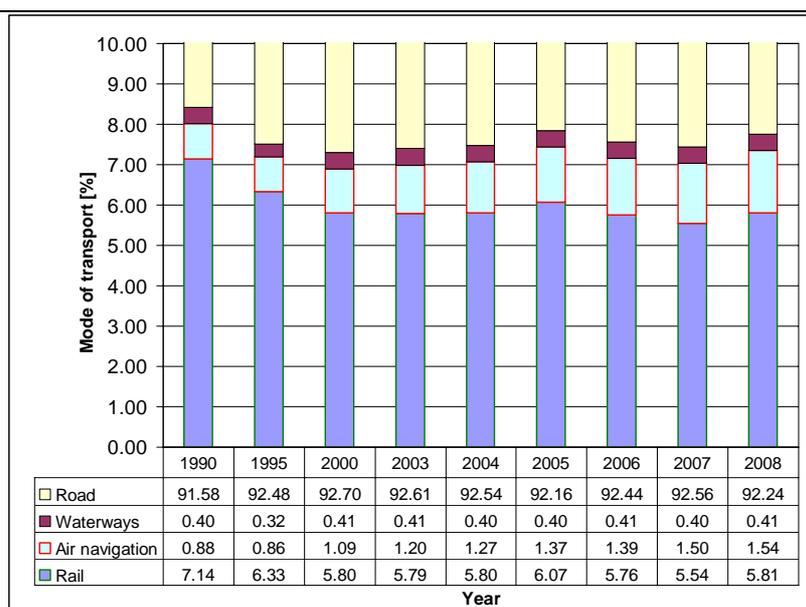
<sup>6</sup> <http://www.arenaways.com/index.php>

## 3.2. Market Trends

### *Development of passenger traffic*

Although road has held the largest market share for many years, its share has decreased slightly since 2000. Civil aviation is the only mode that has been increasing its modal share (from 0.88% in 1990 to 1.54% in 2008). Rail<sup>7</sup> by contrast, has lost modal share (declining from 7.14% in 1990 to 5.81% in 2008). Since 2000 rail has maintained its share at about 5.80%. This is shown in Figure 3.

Figure 3. Total domestic passenger traffic by mode – 1990, 1995, 2000, 2004-2008



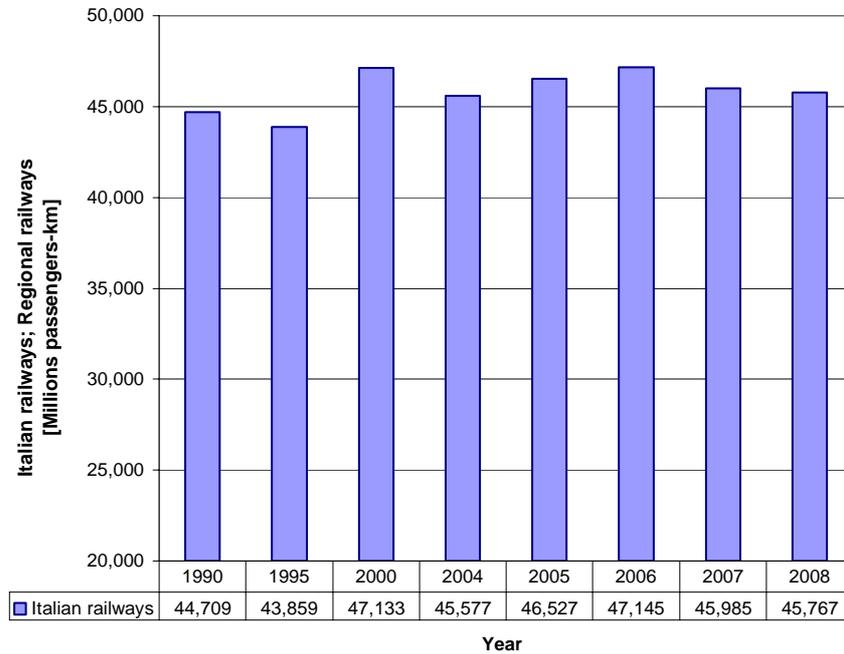
Source: Ministero delle Infrastrutture e dei Trasporti. “Conto Nazionale delle Infrastrutture e dei Trasporti Anni 2007-2008”<sup>8</sup>

Almost all rail traffic in Italy is domestic (99.0%) and between market opening in 2000 and 2008 traffic decreased by 2.90% (expressed in passenger-km) as shown in Figure 4; international traffic also fell during the same period. Before this period (1990-2000) traffic grew from 44 709 to 47 133 M passenger-km (+5.42%).

<sup>7</sup> Including “heavy rail”, tram, metro, funiculars and cableway.

<sup>8</sup> (\*) From year 2000 data supplied by Ferrovie dello Stato was calculated using a new methodology and is therefore is not comparable with the historical series. From 2005 data also includes *Cisalpino AG* domestic traffic.

Figure 4. Total domestic passenger traffic –1990, 1995, 2000, 2004-2008



Source: Ministero delle Infrastrutture e dei Trasporti. “Conto Nazionale delle Infrastrutture e dei Trasporti Anni 2007-2008”<sup>9</sup>

In volume terms, regional and medium/long distance railway traffic each represent half of the market. Both have fluctuated from year to year with small increases or decreases. Between 2000 and 2007 regional traffic grew by 11.3% whilst medium distance traffic decreased by 12.2%<sup>10</sup>.

The real competition from the opening of the market is not limited to passenger railway undertakings but civil aviation is also an important competitor. This is shown in Figure 5, which compares civil aviation and high speed rail traffic volumes.

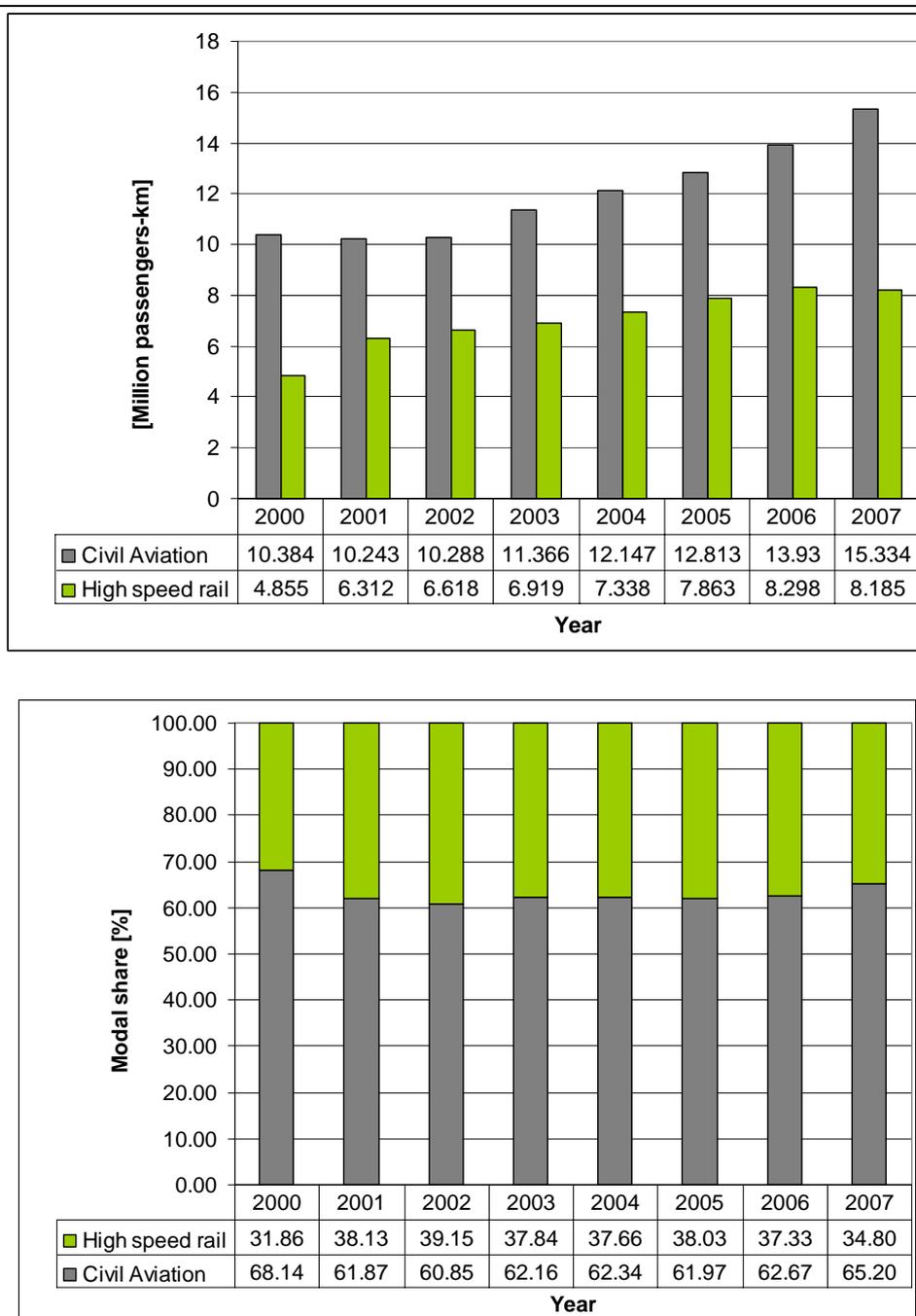
Italy was one of the first states in Europe to open a network of high speed, high capacity lines, better known by the initials AV/AC. This started with the Roma-Firenze line, the *Direttissima*<sup>11</sup>. In Italy traffic on the high-speed rail network grew by 68.5% from 2000 to 2007, some 3 330 Million passenger-km. Air traffic continues to grow, although growth has been lower than rail (47.7% equivalent to 4 950 Million passenger-km), over the same period

<sup>9</sup> (\*) From year 2000 data supplied by Ferrovie dello Stato was calculated using a new methodology and is therefore is not comparable with the historical series. From 2005 data also includes Cisalpino AG domestic traffic.

<sup>10</sup> Source: Conto Nazionale delle Infrastrutture e dei Trasporti

<sup>11</sup> The AV/AC network covers approximately 1 000 km with the network of Torino-Milan-Bologna-Firenze-Roma-Napoli-Salerno, Milano-Venezia will add 200 km (the first stage will be Milano-Verona, then Verona-Venezia with the possibility of an extension to Trieste).

Figure 5. Domestic Air and High Speed Rail passengers and modal share – 2000-2007



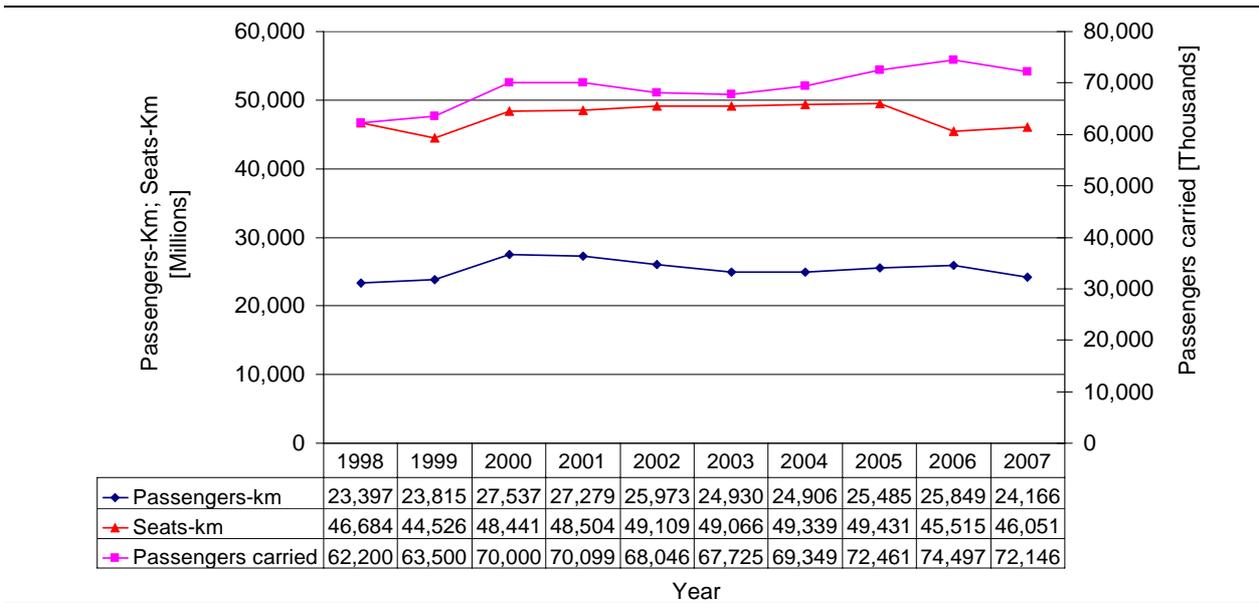
Source: Ministero delle Infrastrutture e dei Trasporti. “Conto Nazionale delle Infrastrutture e dei Trasporti Anno 2005 e Anni 2007-2008”

### ***Medium and long distance domestic passenger traffic by rail***

Domestic medium and long distance passenger traffic totalled 24.2 billion passenger-km and 72 million passenger journeys in 2007 (see Figure 5). The average distance travelled per passenger diminished from 393 km in 2000 to 335 km in 2007 with a greater concentration of demand on distances of less than 600 km (in particular a

decrease in demand for international and night transport was observed, due to competition from air carriers, particularly low cost carriers). Train mileage decreased in 2006 (by 1.9%) to bring supply in line with demand. These effects were not as a result of market opening but the result of cheaper air travel, which rail has been unable to match.

Figure 6. Medium/long distance railway passengers traffic - 1998-2007



Source: www. Source: Ministero delle Infrastrutture e dei Trasporti. “Conto Nazionale delle Infrastrutture e dei Trasporti Anni 2007-2008”

Rail traffic performance in 2007 demonstrates differing trends. In the medium/long distance market the volumes show:

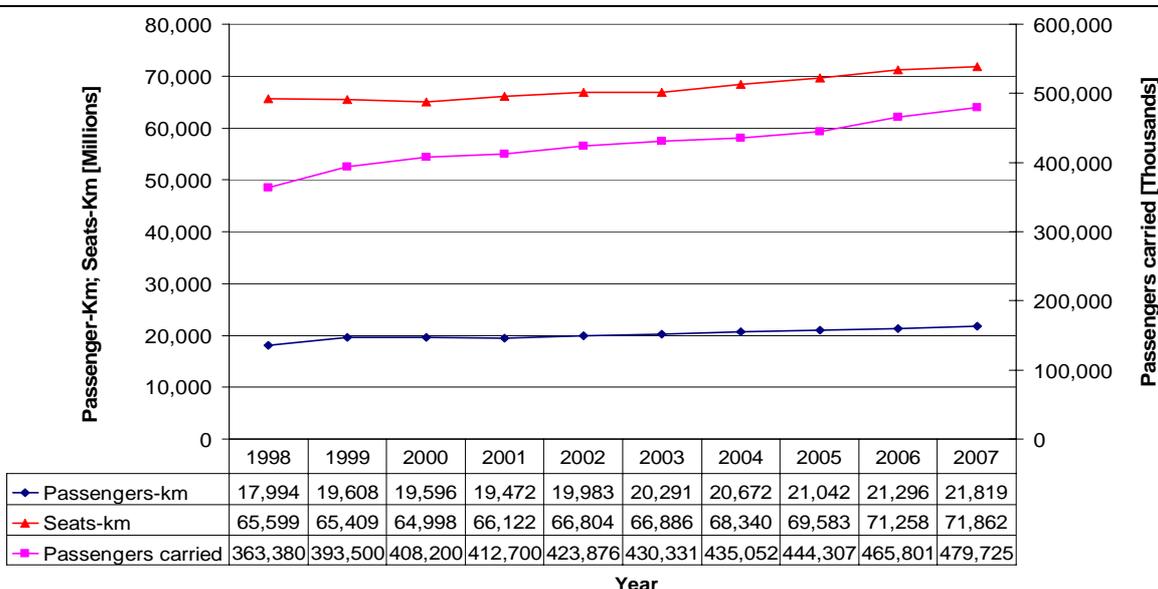
- an increase of 1.1% in passenger-km in the “market segment”, despite a significant price increase at the beginning of the year (although it should be noted that Italian train fares are low by general European standards);
- a significant decrease (by 11.3%) in passenger-km in the “universal subsidised” segment as well as in the “not market/not subsidised” segment (by 9.4%).

***Regional and metropolitan passenger traffic by rail***

The volume of regional and metropolitan transport increased in 2007 for the sixth consecutive year. This was primarily due to improved performance against the road alternative (see Figure 6) in the main metropolitan areas.

In particular, the increase, in terms of passenger-km, was 2.5% in 2007 in comparison to 2006 and 11% in comparison to 2000. A total of 480 million passengers were carried, an increase of 3% compared with 2006 and 17.5% compared with 2000.

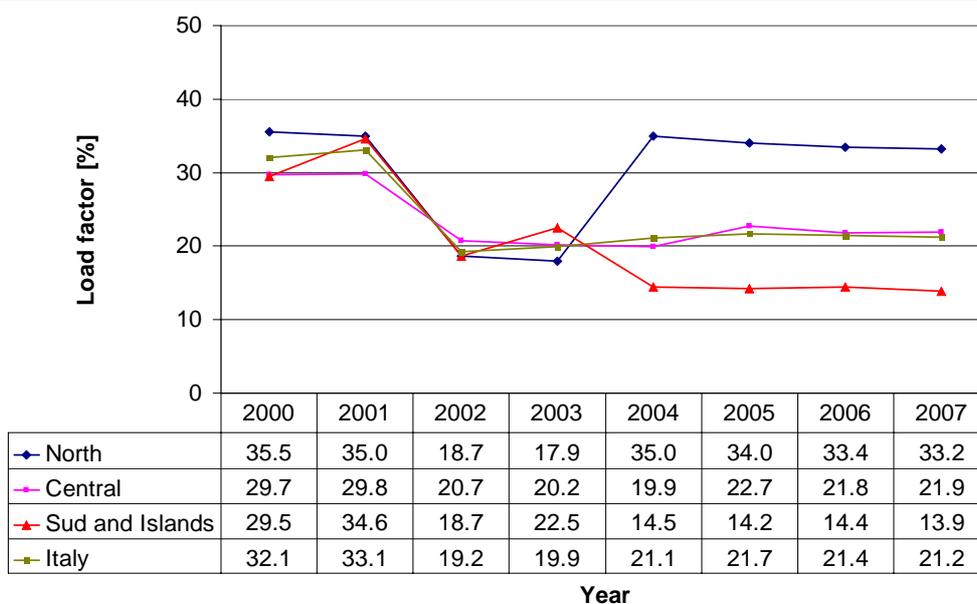
Figure 7. Regional railway passengers traffic - 2000-2007



Source: www. Source: Ministero delle Infrastrutture e dei Trasporti. “Conto Nazionale delle Infrastrutture e dei Trasporti Anni 2007-2008”

Figure 7 shows one of the key performance indicators for 2000-2007 years, regional railways’ load factors differentiated by geographic division. This is a useful measure of efficiency, comparing the service offered against demand.

Figure 8. Regional railway: Load factor by per geographic division - 2000-2007



Source: www. Source: Ministero delle Infrastrutture e dei Trasporti. “Conto Nazionale delle Infrastrutture e dei Trasporti Anni 2007-2008”

The trend of growing regional railway passenger traffic and increasing load factors has attracted new entrants to the market.

Passenger market opening has had little impact in the regional segment, but new entrants are beginning to enter the market, albeit tentatively and on a small scale. This is demonstrated by two new RUs who have decided to operate regional services in northern Italy (Arenaways and ÖBB-DB).

### 3.3. Passenger Rail Services

#### 3.3.1 Competition for the market and competition within the market

RUs operate passenger services under two different types of services: open access and public service contracts. Most of the long distance services are operated under an open access regime, regional services, when assigned to RU, are run under an exclusivity regime, regulated through contract services with regional authorities. Some unprofitable long distance services are also provided through public service contracts with the State (“universal services”).

In the course of the 2007 *Committenza Publica* contracts of service (contracts with a secured duration of six years and renewable for another six) are to be reformed. In this process “market services” will be clearly identified and separated from “universal services” supported by the state or region.

Public funding is limited to “universal services”: in other words heavy state support is provided for regional services, with the exception of some long distance services. In particular, the state supports some medium/long distance service, which otherwise would be likely to be withdrawn because they are not remunerative for the RU. The various market segments are being defined down to the level of individual trains. The list is being drawn up by the Ministry of Infrastructure and Transport in conjunction with Trenitalia under the terms of an agreement of 14 March 2008, entitled “*funds committed to the medium/long distance public passenger rail services*”. The list contains a list of trains to be subsidised by the state irrespective of the type of train. However, most high speed, Eurostar and Eurostar City trains have been allocated to the “market segment”. *Pro tem* all timetabled services not yet allocated to the “market segment” but not in the list of the trains subsidised by the state have been placed in a “not market/not subsidised” segment. It is not clear how this will be resolved.

Trenitalia is the primary operator of trains within Italy (its ownership structure is covered in 2.2 above).

Separate divisions are responsible for the passenger and freight traffic. The passenger division (Direzione Passeggeri) comprises two units:

1. Domestic and international (long distance, including high speed and international services);

2. Regional (local, regional and suburban services), which operates approximately 7 200 trains per day.

Domestic services are operated under the *Eurostar Italy* high speed, Eurostar (ES\*) and *Eurostar Fast* (ES Fast) brands. There are also "normal" intercity trains, which operate between the smaller cities, as well as serving the larger cities. It also operates night trains between Roma and Milano as well as between Milano and Napoli or Venezia.

Trenitalia also operates services in Sicily and Sardinia. However, the ferries from mainland to the two islands are operated by Rete Ferroviaria Italiana. Trenitalia also operate certain international operations services.

Although there are fifty-eight RUs which currently have a licence to operate on lines managed by RFI it is notable that many of them are not active, indicating the practical difficulties that they have faced.

Ferrovie Nord Milano Group (FNM) operates suburban and regional services under the LeNord company (wholly owned by FNM) on its own network to north of Milano. In August 2009, it signed an agreement under which FNM and Trenitalia will form a company in order to manage passenger transport in Lombardy. After one year experimental period, the region will pay 375 million euro per annum for improvement of services. The FS already had a share in 15% in FNM, while the Lombardia region holds a 58% shareholding. FNM has a fleet of 32 trains of two types, of which 17 are used from Trenitalia for services on the S5 "del Passante di Milano" line.

A daytime international service from Italy to Innsbruck and München via the Brenner Pass has operated since 13 December 2009 under a joint-venture between ÖBB and DB, which aims to improve quality an alternative for passengers. In Italy trains are staffed by FNM. The DB and ÖBB service provides connections between Italy, German and Austria by five daytime direct *Euro City* trains,, and two overnight *Euro Night* trains. In addition there is bus service linking Venezia and Klagenfurt ten times a day. Tickets may be obtained via the Internet; at a DB-ÖBB ticket office, or on-board, without supplement, for DB-ÖBB Euro City. It is only possible to buy tickets through the Trenitalia ticketing network for the *Intercitybus* and ÖBB *Euronight* elements of the service.

In addition to the international service discussed above, three new RUs are planning to commence operations in the "market services" segment for domestic rail passenger services using open access rights.

ArenaWays plans to operate an hourly service on the circular Torino-Alexandria-Milano-Novara-Torino route. It proposes to offer commuter quality services, using a timetable path that has been unused since Trenitalia has moved its service from traditional line to High Speed Torino-Novara-Milano line in 2009. The ticketing system will be electronic using a rechargeable smartcard, bought either via the Internet or at station kiosk. It will also be possible to purchase or recharge a ticket on board.

From December 2011 Nuovo Trasporto Viaggiatori (NTV) is planning to operate services on the high speed/high capacity network, which is currently being expanded. These services will connect the main city of: Bari, Bologna, Firenze, Milano, Napoli,

Roma, Salerno, Torino and Venezia with 54 journeys per day, totalling 13.5 million km a year and carrying roughly 10 million passengers per annum. NTV will be the first private railway undertaking (although SNCF have a significant shareholding in the company) operating high speed trains under an open access regime in Europe. NTV has ordered twenty-five brand new high-speed AGV trains from Alstom for €650 million. The trains are currently undergoing their vehicle approval process. Rather than attempting to gain access to an existing facility, NTV is building its own dedicated vehicle maintenance facility in Nola, near Napoli, planned to be completed in 2011, and costing ninety million euros. Planning the sales network and ticketing services is an on-going task, in particular NTV is trying to reach agreement with Grandi Stazioni SpA and Centostazioni SpA to obtain commercial space in station to sell tickets, including booking offices and automatic tickets machines. It will also be possible to buy tickets via Internet.

Rail market opening has led some RUs to demand and to obtain licences for the use of RFI infrastructure, although this has mainly been for freight traffic (e.g. Nord Cargo).

Regional administrations and local railways (former concession railways and government management) are assuming more and more responsibility for local services. At present they have the freedom to choose between public tender and direct award of public service contracts.

In some cases regions have partially financed the purchase of rolling stock by Trenitalia within the framework of public service contracts.

In many regions there are “independent” railways of long standing that own their own infrastructure. Recently, control of these railways, has been transferred to local and regional agencies.

To date six competitive tenders have been invited: in Emilia-Romagna (1), Liguria(1), Lombardy (3) and Veneto (1) for the assignment of local public transport services. Only three tenders have been awarded, in Emilia-Romagna to a joint-venture between Trenitalia, FER, ACT and CTM; only one in Lombardy to a joint-venture between Trenitalia, Le Nord and ATM limited to “Linea Passante”; and in Veneto to a joint-venture between Trenitalia and Sistemi Territoriali as unique participant. The Liguria competition has been repeated because of exclusion of two participants (Trenitalia and Le Nord).

The limited success of the bidding process, as shown in the analysis work may be attributed to barriers to entry. Organisational and process barriers reduced the attractiveness of the tender for all operators. Among the main barriers, the following issues can be identified:

- the parcels of services to be bid for were too large compared with the practice elsewhere in Europe (in Germany, for example);
- the level of funding identified in the tender was insufficient to allow a new entrant to justify investment in rolling stock in particular (given the short duration of the contract);

- lack of mechanisms to allow payments to be revised to reflect changes in fare levels (inflation related), improvements in services and costs arising from any unforeseeable and exceptional event;
- rolling stock was not included among the essential facilities made available to the successor by the previous operator, nor was it sold on the secondary market or made available after long waiting times (2-4 years) (but see Section 5.4 below for the Antitrust Authority's initiative to make rolling stock available).

A final and important obstacle must not be underestimated: the duration of service contracts available to tender.

In Italy, the duration of service contracts vary from one to three years, less than that found in other European countries. In France, the duration varies between five and ten years and Germany between ten and twelve years. Faced with these different and higher values, the time span of custody in Italy is too short to allow investment in the service in terms of quantity and quality and a reasonable pay-back to operators.

The success of the "Bassanini" (see 5.1 below) was also reduced by problems of application due to Italian regions blocking all tendering. Measures to obstruct market opening include, for example:

- opening of tenders without compliance with the provisions contained in Legislative Decree no. 422/97;
- extension of the transition period through a regional law;
- use of forms for the award provided by regional laws but not by the Legislative Decree no. 422/97;
- use the extension provided by Law 266/05.

The current system continues to be direct award of service contracts to RUs that already offer regional transport services.

Market opening has led to increased productivity, quality and efficiency from RFI, Trenitalia, and the FS Group, mainly as result of service rationalisation of the services and employee headcount reduction.

In the case of the incumbent RU (Trenitalia) the improvements stemmed from the need to make it fit to resist competitive pressure from potential new entrants, and the resultant need to make services more efficient and faster. The need for journey time acceleration has led, in certain cases, to reduction or cessation of calls at minor stations for Trenitalia services.

To stimulate competition the Italian Government choose to permit open access to the network. Law n. 99 of 23 July 2009 requires that railway undertakings must be in possession of a national license in order to operate domestic rail services in Italy. To obtain the license RUs must demonstrate the requirements in terms of financial and professional quality as well as the minimum that they must provide in terms of

additional services to users. Licensing for national passenger services can only be made for companies which are located in Italy or in case of foreign companies established abroad, those that offer reciprocal rights.

The rights to operate international passenger services under Directive 2007/58/EC and associated cabotage rights are limited to the requirements of the Directive. In assessing whether cabotage rights would jeopardise the economic equilibrium of a public service contract URSF considers the issue in terms of profitability, the impact on the cost to the authorities, passenger demand, the pricing of tickets, the location and number of stops, timings and frequency of the proposed new service.

A problem that can occur is competition from foreign companies that declare their passenger service as being an international service. This causes conflicts with the local service supplied under a PSO. This happens mainly in northern Italy in the areas near the border where, amongst other things, passenger traffic levels are high.

On 6 May 2010, URSF issued an executive decree (prot. No 201/1/URSF) establishing the criteria of Article 59 of Law 23 July 2009, No 99. This decree gives the URSF the right to assess whether the main purpose of a rail service is international passenger and to place restrictions on the right to carry domestic passengers, where the exercise of this right may affect the economic equilibrium of a public service contract.

The criteria used by URSF to determine compliance are based on percentage of turnover and total passengers carried (represented respectively by passengers on domestic and international routes), as well as the distance covered by the service. In particular URSF has established the following limits:

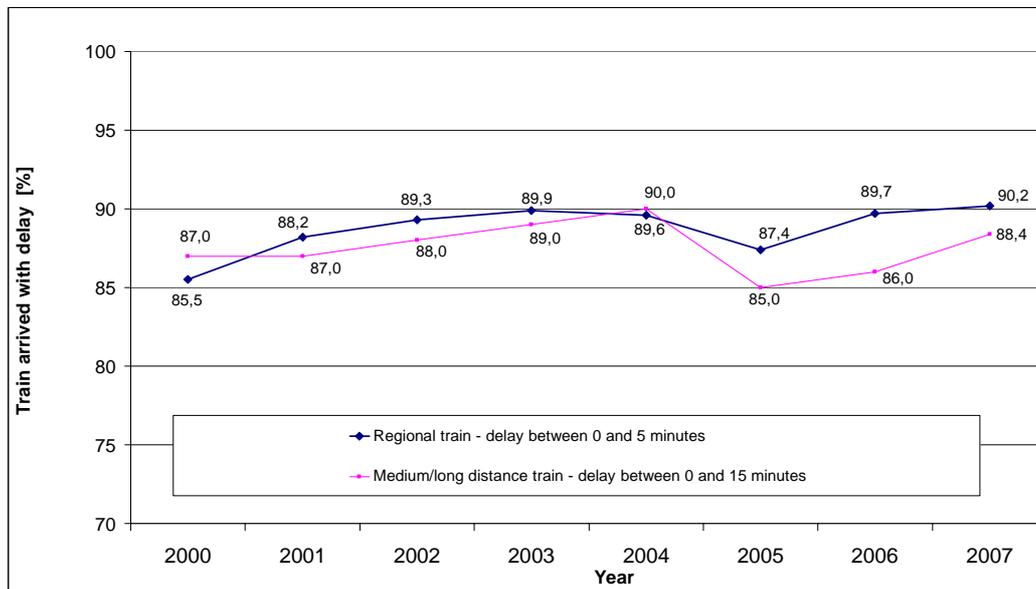
- National passenger loaded  $\leq 40$  % of total passenger;
- National turnover  $\leq 40$  % of total turnover;
- National distance covered  $\leq 70$  % of total distance.

There may be scope here for consideration of whether there should be European criteria. An additional interesting aspect of the impact of potential competition is on the quality of the services and in particular train punctuality.

### 3.3.2 Punctuality

The punctuality trend for regional railway passengers (train arrival between 0 and 5 minutes of correct time) is given in Figure 9, which shows that, except in 2005, there has been an upward trend in punctuality, reaching a level of 90.2% in 2007. In the medium to long distance market punctuality (train arrival between 0 and 15 minutes of correct time) reached the peak in 2004, before slumping in 2005 (probably as a result of a deep crisis of management) and recovering between 2005 and 2007.

Figure 9. Punctuality - Year 2000-2007



Source: Ministero delle Infrastrutture e dei Trasporti. “Conto Nazionale delle Infrastrutture e dei Trasporti Anni 2007-2008”

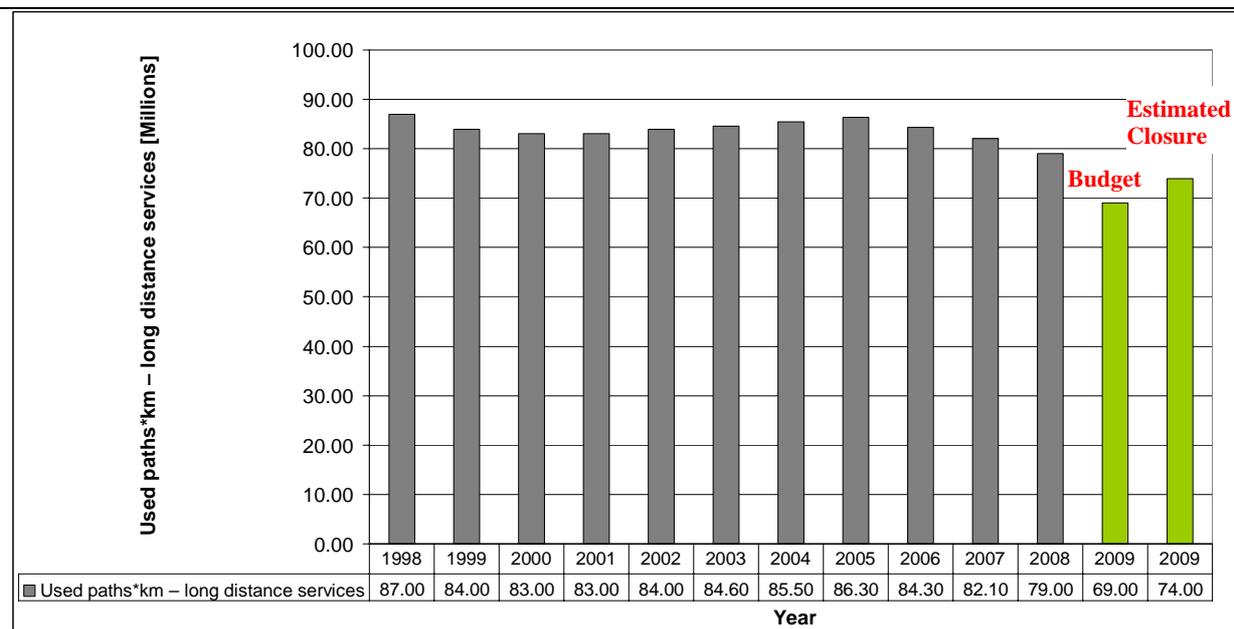
The above data only relates to Trenitalia services.

It should be noted that true competition really only started at the end of 2009, accordingly the ultimate impact of market opening on punctuality is not yet clear.

### 3.3.3 Service frequency

From beginning of the market opening process two opposing trends can be noted. On one hand long distance services (excluding high speed) were reduced (see Figure 10), on the other hand the frequency of regional and high speed services has grown (Figure 11 and 12).

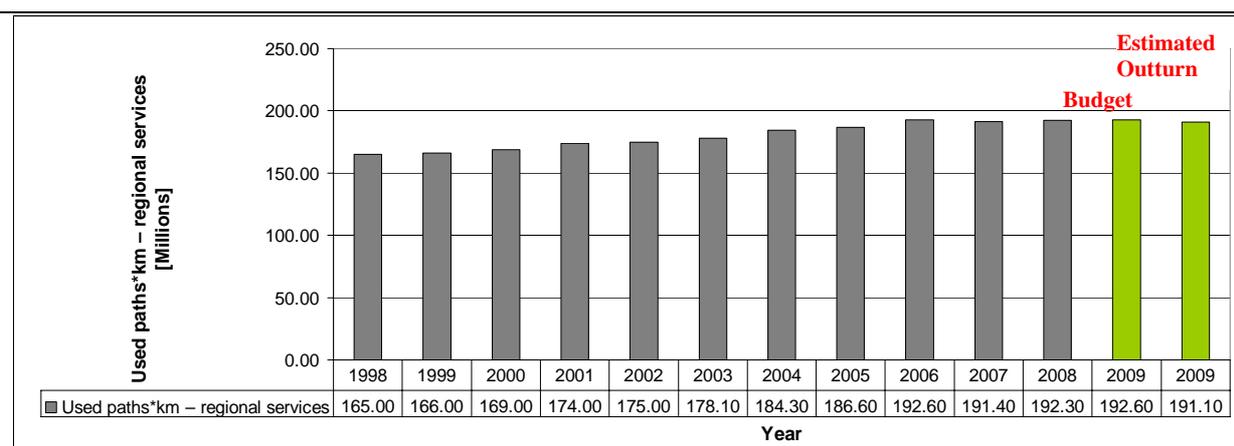
Figure 10. Utilised paths\*km – long distance services (Mio)



Source: Italian Infrastructure Manager - RFI

The number of paths\*km used by long distance services (see Figure 11), varied between 83 million and 87 million from 1998 to 2005, and suffered a marked decrease after 2005 reaching a value of 74 million in 2009 (estimated outturn figure). This can be ascribed to attempts to reduce the public support required by Trenitalia.

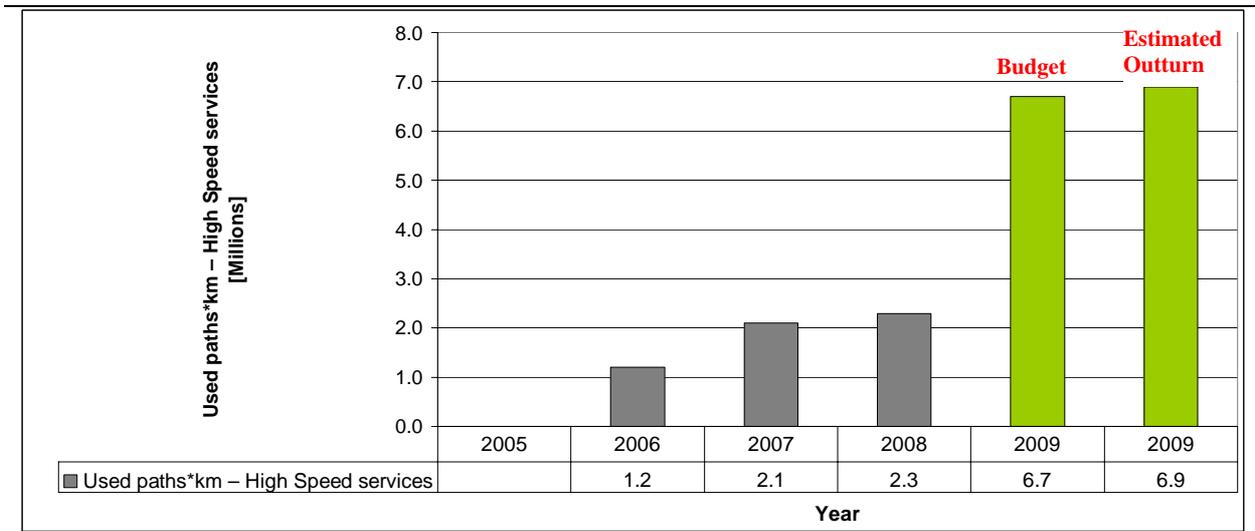
Figure 11. Utilised paths\*km – regional services (Mio)



Source: Italian Infrastructure Manager - RFI

Figure 11 shows progressive increase in the number paths\*km used by regional services from 1998 to 2006 and a constant level thereafter (around 192 million).

Figure 12. Utilised paths\*km – High Speed services (Mio)



Source: Italian Infrastructure Manager - RFI

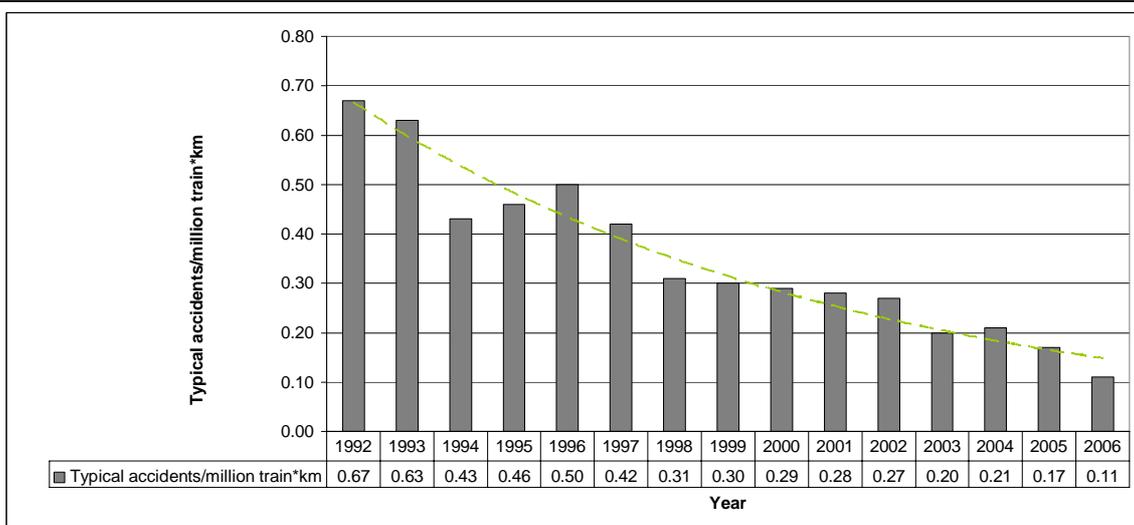
Figure 12 shows that the reduction in the number of paths\*km taken by long distance services (Figure 10) is mainly due to the marked increase in the number of paths\*km used by High Speed services especially in 2009. This growth reflects the expansion of the Italian high-speed rail network (expanding from one to six lines between 2005 and the end of 2009).

While the utilisation of long-distance paths therefore has decreased, there is more pressure on regional train paths, given that open access services would mostly be in the long-distance segment this means that path availability issue might only become an issue on the most popular routes. In the limited experience to date no path has been declined although in some cases the path originally requested by an RU has been modified by the infrastructure manager (e.g. refusal of ÖBB-DB’s request to use Milano Centrale forcing them to use Milano P. Garibaldi instead).

### 3.3.4 Safety

As elsewhere in Europe the accident rate has been in long-term decline; the picture over the last fifteen years is shown in Figure 13.

Figure 13. Typical accidents/million train\*km



Source: Italian Infrastructure Manager - RFI

There has been no discernable change in this trend of increasing rail safety as a result of market opening.

### 3.4. Commercial Issues

#### 3.4.1 Overall Cost of System

##### *Political and financial context*

The Ministry of Infrastructure and Transport establishes the global strategy for the Italian railway network and determines the funding available.

In 2007, RFI submitted an outline financial plan for the 2007-2011 period to Government, which appears not to have received official approval. It was developed by Ferrovie dello Stato (Gruppo FS), with the objective of trying to contain losses (nearly 2 billion euro in 2006) and to define the levels of investment necessary to increase rail traffic. The plan provides for a considerable reduction in staff and increase in productivity, a process that started in 2000 with market opening.

The plan includes proposed financing for the 2007-2011 period as follows:

- Infrastructure - 16 billion euro;
- Regional passenger services – 10.3 billion euro;
- Long distance passenger services - 1.3 billion euro;
- Freight services - 850 billion euro.

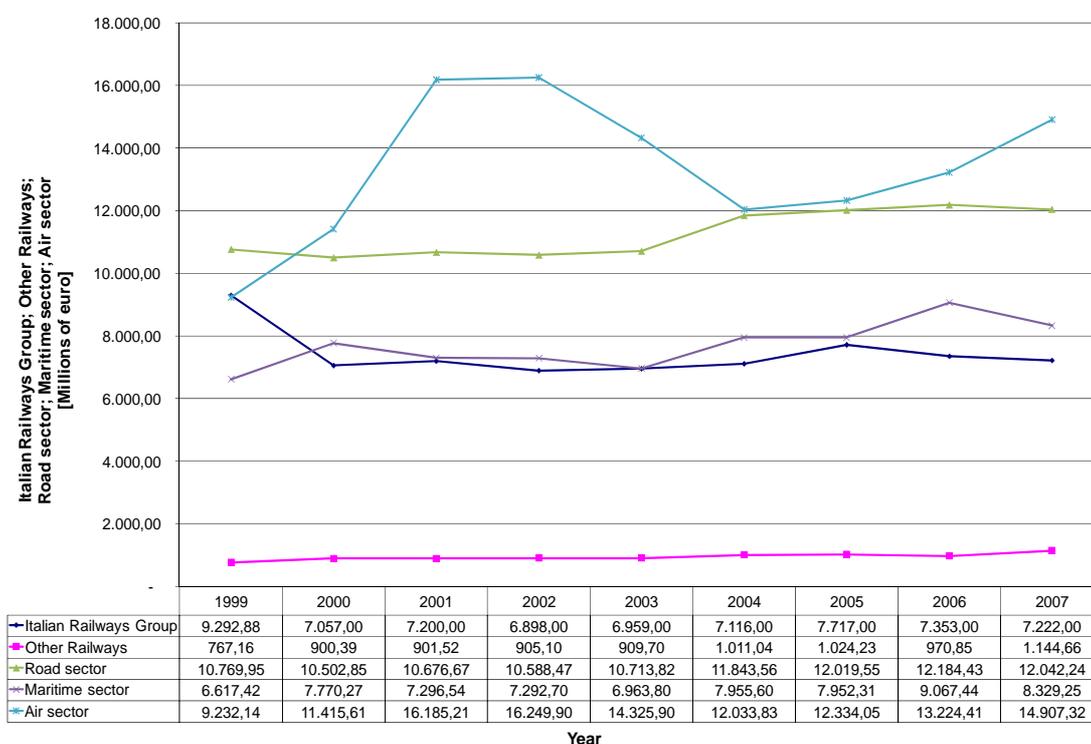
### Subsidised services

The public authorities subsidise two types of passenger services:

- Long distance services, considered of national interest, but which are not profitable are subsidised by Government.
- Regional services are subsidised at a regional level, since farebox revenue only covers approximately 35% of costs. In 2008 the average PSO compensation was around 8.2 €cent/pass-km. The fare level is regulated in the public service contracts. In 2008 the average fare level was 3.6 €cent/pass-km.

The figures below illustrate the historical development of production costs (Figure 14), investment (Figure 15). The figures refer to the 1999-2007 period.

Figure 14. Estimated operating costs by private operator in the transport sector - 1999-2007

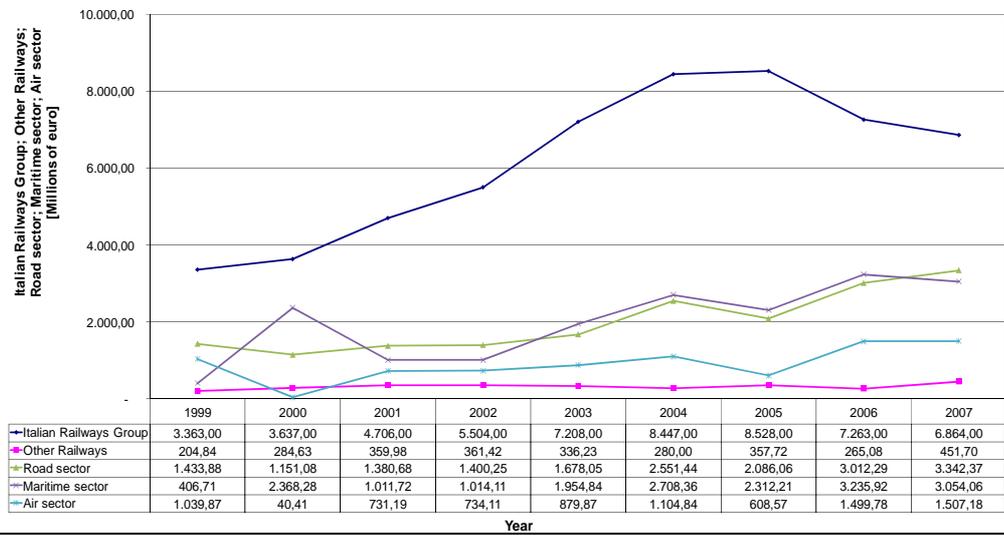


Source: Ministero delle Infrastrutture e dei Trasporti. "Conto Nazionale delle Infrastrutture e dei Trasporti Anni 2007-2008"

Rail costs have relative increased in recent years and are now 18.5% of the total for transport, 16% of them are for Gruppo FS following an initial after market opening. It seems that market opening has contributed to contain operational costs.

In the same time the investment in rail has been very high (Figure 15) in order to improve quality and safety.

Figure 15. Estimated investment by private operator in the transport - 1999-2007

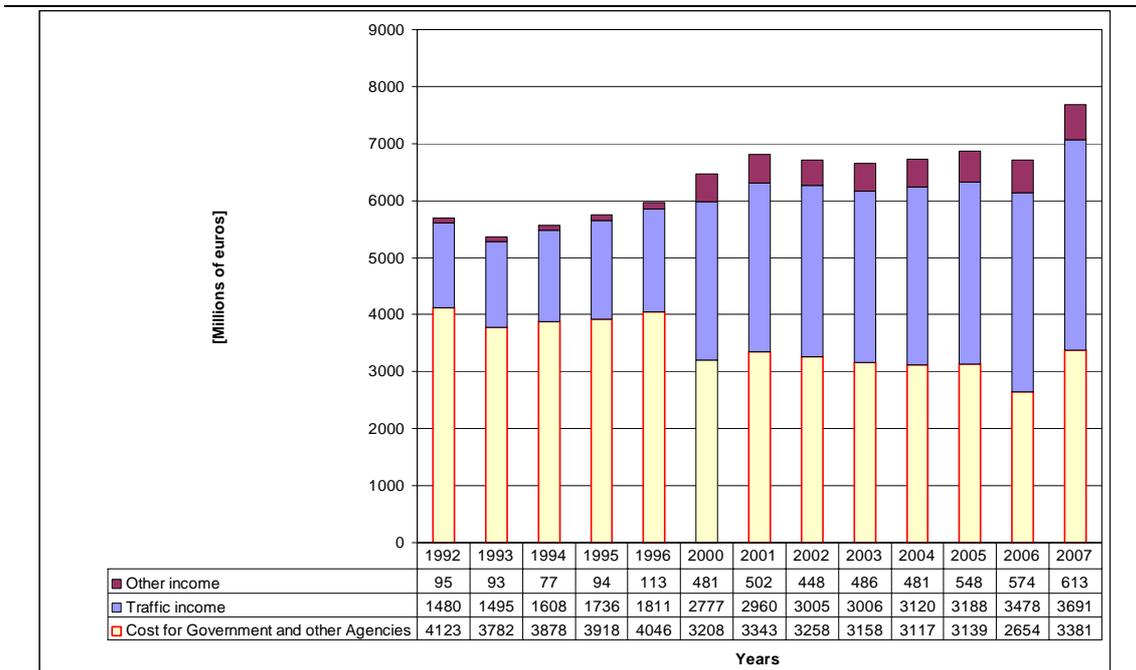


Source: Ministero delle Infrastrutture e dei Trasporti. “Conto Nazionale delle Infrastrutture e dei Trasporti Anni 2007-2008”

Indeed during the 1999 – 2007 period, rail investment has grown perceptibly (by more than 100 %), nevertheless this percentage growth is lower than other modes which have doubled (road and air) or tripled (sea) their investments. Gruppo FS with 23.2% is a significant player, it must be assumed that significant amounts are spent on new high speed lines and signalling systems.

Following market opening the total cost of the system has increased. While the level of support from Government and other agencies (including regions that let public service contracts) has decreased. This has been met by an increase in farebox revenue and in other income as shown in Figure 16.

Figure 16. Cost of the system: Years 1992-1996 & 2000-2007

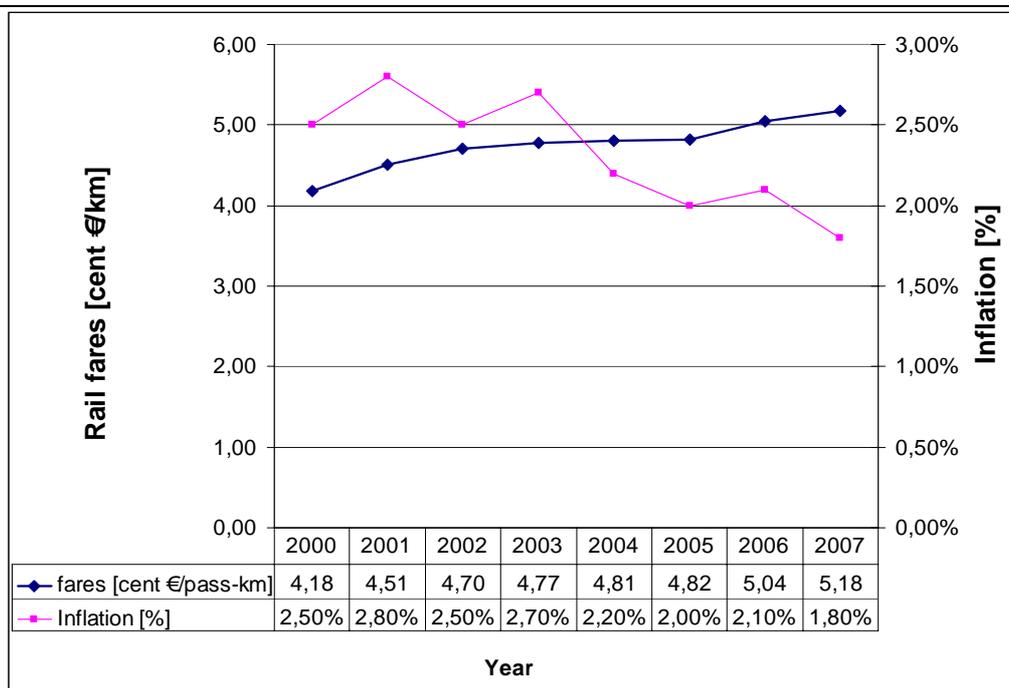


Source: Elaboration data on FS Group Annual Report 1996, 2004, 2005, 2006, 2007”

### 3.5. Fares

Market opening has made no difference to the degree of fare regulation, with the exception of services provided under a PSO contract with the state or with regional authorities. At the time of market opening only normal ‘turn up and go’ first and second class fares were regulated. Now there are a great variety of prices and promotions, with the most favourably ticket priced ones being available where tickets are purchased in advance. Figure 17 shows the change in average (because of a large number of offers and promotions) fare levels over time.

Figure 17. Average rail fares and Inflation – 2000-2007



Source: : Elaboration data on FS Group Annual Report 1996, 2004, 2005, 2006, 2007

Over the 2000-2007 period fare levels have risen; in part this has followed the inflationary trend, but over the last four years (2004-2007) fares have increased more than inflation.

It is difficult to verify the real effects of market opening on the fares. This is partly because the reduction in Government support discussed above has been one of the primary drivers of fare increases, and partly because of the impact of promotional fares in the high-speed market segment, the expansion of which has coincided with market opening: in the past most offers were oriented towards family and group travel. With the market opening and in the need to respond to air competition means that offers are now addressed to business travellers as well.

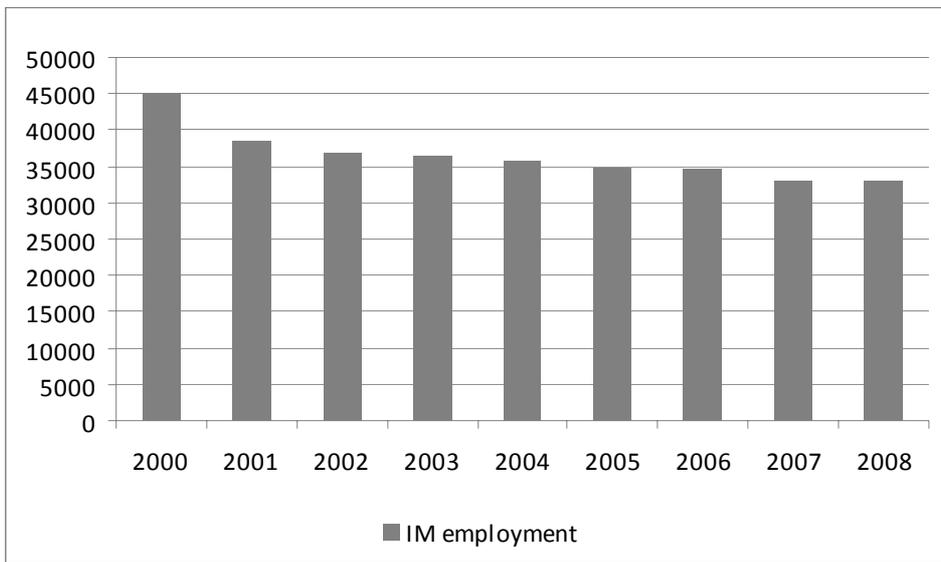
It is notable that new RUs are adopting different fare strategies using spot travel passes and carnets in order to acquire passengers and customer loyalty.

### 3.6. Employment

Following market opening, there have been substantial efforts to increase efficiency and productivity. This process has inevitably involved a reduction in direct employment, although as discussed below this process was already underway and it is questionable whether market open *per se* was really the catalyst for this.

In the case of RFI, headcount reduced over 2000 - 2008 period from 45 000 to less than 35 000, a reduction of 22 %, as shown in Figure 18.

Figure 18. IM employment 2000-2008



Source: FS Group

Trenitalia has been through the same process: headcount reducing from 61 000 to 48 000 over the 2000 - 2008 period: a reduction of 22 % as shown in Figure 19.

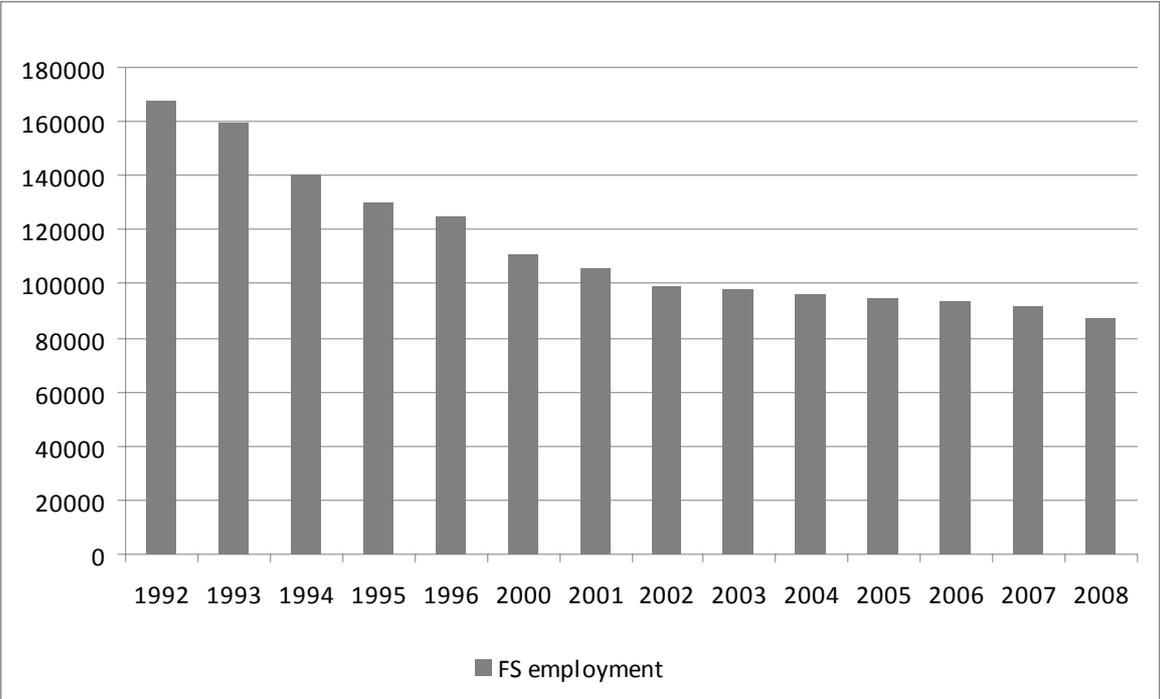
Figure 20 shows that the same trend has been followed by the entire FS Group and started several years before the opening market. Accordingly, given that FS was traditionally considered as over-staffed by western European standards, and the Government had grown increasingly resistant to covering FS's losses this process was in-train prior to market opening. There is no evidence that market opening can be tied to this headcount reduction, indeed as Figure 20 indicates there is evidence that market opening has actually stabilised the situation and has reduced the rate of reduction.

Figure 19. Trenitalia employment 2000-2008



Source: FS Group

Figure 20. FS Group employment 1992-1996 & 2000-2008



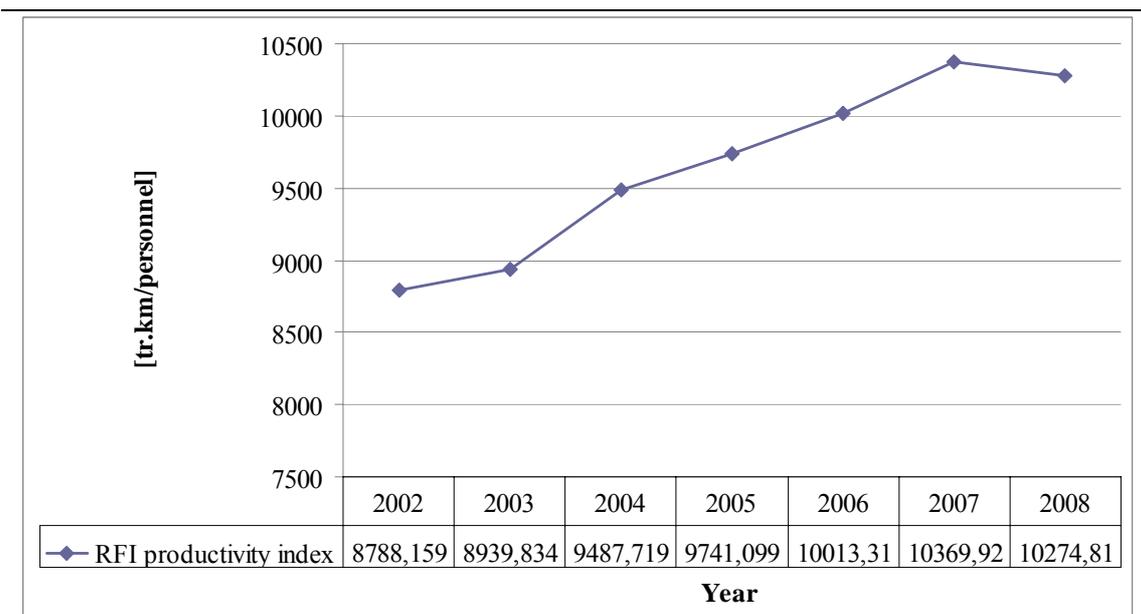
Source: FS Group

Other jobs have been created by new entrant RUs to replace those lost by the incumbent RU. NTV the largest new entrant RU in Italy is growing and has currently reached a level of almost 1 000 employees.

### 3.7. Productivity

The IM productivity index per employee is shown in Figure 22: this shows a trend of rising productivity until 2008.

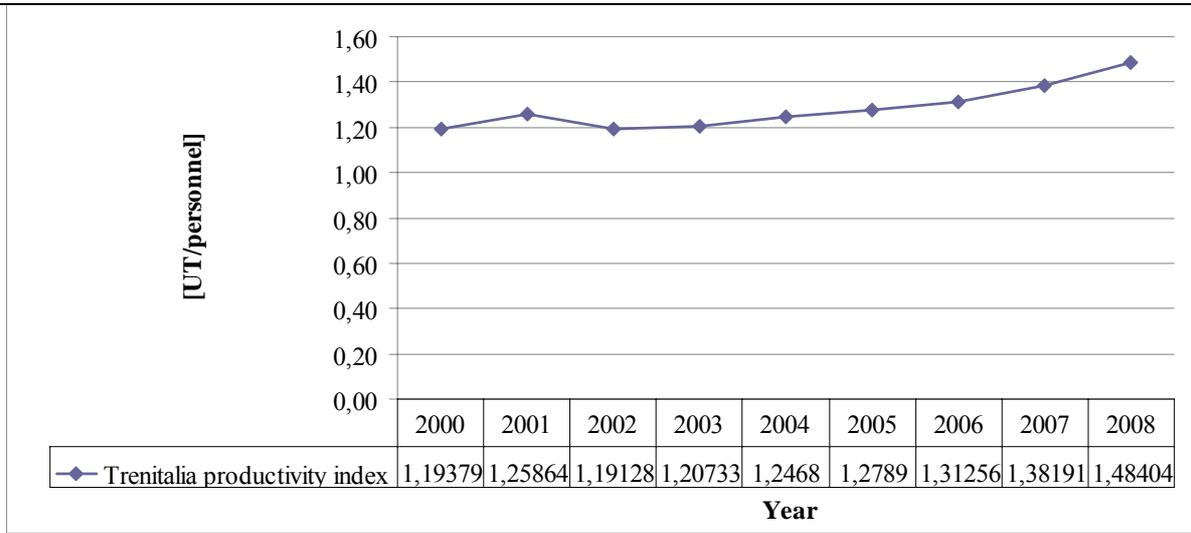
Figure 21. RFI productivity index (tr.km/personnel): 2002-2008



Source: Italian Infrastructure Manager - RFI

The productivity index of Trenitalia per employee is shown in Figure 23 (taken as employees per passenger- km+tonnes-km). This shows a trend of continuous improvement: from 1.19 in 2000 to 1.48 in 2009, an improvement of some 24% since market opening.

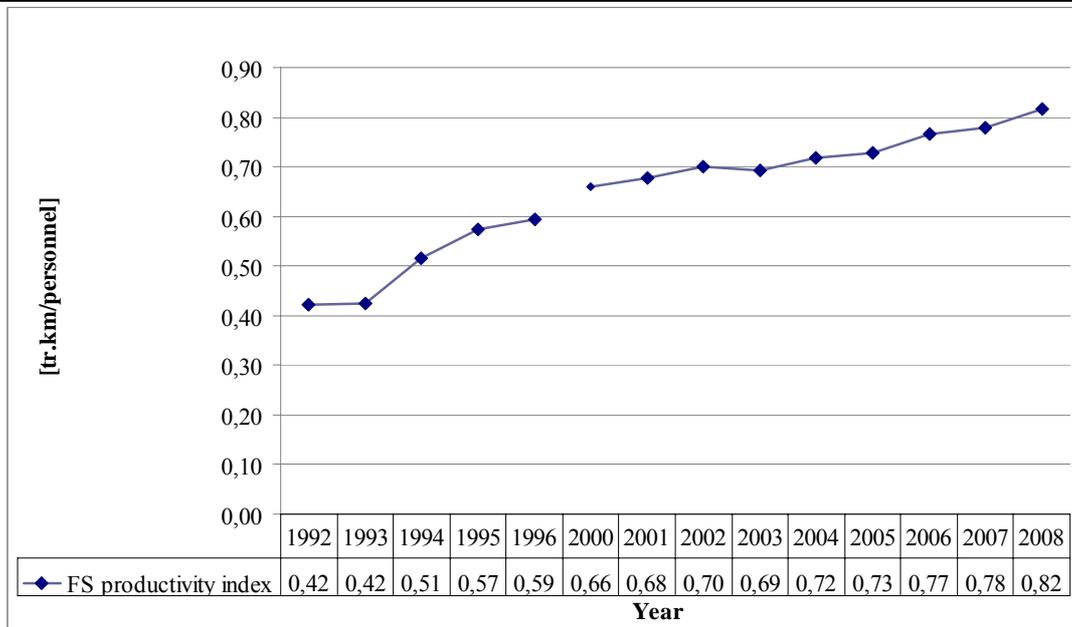
Figure 22. Trenitalia productivity index (UT/personnel): 2000-2008



Source: FS Group

It should be noted, however, that the process of increasing productivity started before market opening. Figure 24 shows the productivity index of FS Group between 1992 and 2008 (measured as train-km per employee). This trend is still ongoing.

Figure 23. FS productivity index (tr.km/personnel): 1992-1996 & 2000-2008



Source: Elaboration data on the basis of Annual Report (1992-1996) and FS Group (2000-2008)

## 4. Potential Entry Barriers to the Rail Passenger Market

### 4.1. Access to Infrastructure

#### 4.1.1 Timetabling and track access

Italian legislation requires that all RUs must be granted access to infrastructure under conditions of equality and non-discrimination (Decree No 188/2003). RFI is responsible for:

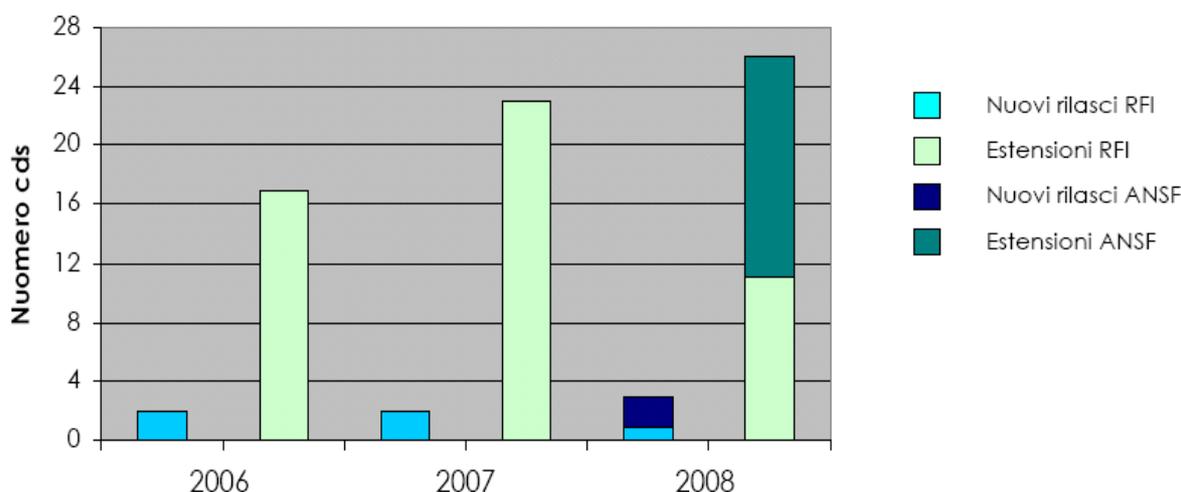
- the control of safe operation, maintenance and renewal of the infrastructure;
- issuing safety certificates (Figure 28);
- assigning infrastructure capacity;
- the Network Statement;
- computing and collecting infrastructure charges, on the basis of the principles established by the Ministry of Infrastructure and Transport (Decree 44T of 2001 set by Infrastructure and Transport Ministry ).

RFI requires a bank guarantee for 10% of the overall contractual financial obligation for track access charges, up to a maximum of €5 000 000,

Liability insurance maximum coverage: €50 000 000 for each accident/year.

Figure 24, taken from the ANSF report, summarises the take up of safety certificates by railway undertakings over the 2006-08 period. (Nuovi rilasci = new issues; estensioni = extensions).

Figure 24. Issue of safety certificates to railway undertakings



Source: [www.ansf.it/News/Rapporto\\_ANSF\\_2008.pdf](http://www.ansf.it/News/Rapporto_ANSF_2008.pdf)

As can be seen, there has been a continual increase in the number of safety certificates (new and renewals) issued. This indicates that the impact of market opening in Italy has been gradual: it has taken several years for new entrants to overcome the logistical challenges of market entry, and for their financial backers to gain confidence that market entry on equitable terms is possible and thus commit to the investment required.

The conditions upon which access is granted to the rail network are set out in the Network statement (PIR: *Prospetto Informativo della Rete*), which is published at least four months prior to the deadline for submission of applications for the allocation of capacity and contains information necessary for undertakings to plan their offers and apply for train paths. The PIR sets out in detail:

- the characteristics of the railway infrastructure, and the technical conditions for access to the network and freight facilities;
- the criteria and methodology for allocating capacity, and the methods for calculating access charges and charges for ancillary and optional services;
- the criteria, procedures, terms and conditions for the allocation of capacity and supply of ancillary and optional services, all information required for the submission of applications, and the measures adopted to maintain timetable robustness and deal with capacity constraints;
- description of the measures adopted to ensure adequate processing of applications of freight, international, and temporary or occasional services.

The maximum duration of the allocation of capacity cannot exceed the period covered by the relevant timetable, but the service supplier and the network operator may enter into long term framework agreements setting out commercial requirements and preferred paths, but subject to the network operator's annual allocation of capacity and the provisions of the PIR. RFI cannot enter into framework agreements covering more than 70% of network capacity, and no supplier can be awarded more than 85% of the capacity requested under its framework agreement proposal.

However, the latter limitation does not apply to low frequency (less than four paths/day) and local services, where the framework agreement can cover the entire capacity applied for by the railway undertaking.

Framework agreements are normally restricted to a maximum duration of five years, and in the case of specific requirements related to significant investments or commercial risks undertaken by the applicant, their duration can extend to a maximum of ten years. The capacity allocated to an applicant cannot be transferred, under penalty of forfeiture.

Capacity is allocated applying published priority criteria, favouring international trains, public service contracts, and high speed services. Access granted to priority services should not exceed 60% of total capacity for any given path. Within the same priority band, capacity is allocated on a 'first come first served basis'. The requirement for non-discriminatory access is subject to provisos for it to be made in a way that facilitates optimum and efficient use of the infrastructure.

The charges payable in respect of allocated capacity and optional or ancillary services provided by the network operator are determined by the Ministry of Transport upon evaluation of the submissions of RFI, and the opinion of the Inter-Ministerial Committee for Economic Planning (CIPE), and the regions and independent provinces.

RFI is responsible for drawing up the national rail timetable and controls a planning process optimising infrastructure capacity usage in line with demand and planned network development.

Dr Marco Kampp, DB's Managing Director for Italy, reports<sup>12</sup> difficulty in getting paths for the international open-access service run by DB and ÖBB between München and Milano. He reports that Trenitalia applied for the same paths for domestic trains and were awarded them, a decision that not only Dr Kampp would regard as surprising. Trenitalia subsequently did not use the paths. This appears to be a deliberate attempt to block competition. NTV did not reply to the Consortium's request for information, so we are not therefore aware of any practical problems on high-speed routes.

No national passenger timetable is published or publicly available.

#### 4.1.2 Open access

Open access applications can be made within an annual capacity bidding process. For example, process of assigning paths and infrastructure services for the timetable valid from 12 December 2010 to 10 December 2011 commenced on 12 April 2010. To be eligible for consideration all requests by railway undertakings had to be made by 12 April 2010.

Additional requests may be submitted after 12 April 2010, until a final cut-off date of 11 October 2010, with applications being treated in order of presentation, until all available capacity has been utilised. RFI has to make details of allocated paths available by 8 November 2010.

Any application submitted after the final cut-off date will be treated, in accordance with the PIR in force at that time.

RFI confirmed that information collected from RUs is treated confidentially, and is only used for the purpose of the allocation process in question. The DB/ÖBB problems discussed above might call this statement into question.

#### 4.1.3 Funding of infrastructure improvement

Investment to enhance the infrastructure is largely channelled through RFI. Under its contract with Government an investment of 26.1 billion euro is being made by Government in the rail network over the 2007-2011 period, disaggregated as follows:

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<sup>12</sup> Railway Gazette March 2010

- high speed/high capacity lines – 8.4 billion euro;
- modernisation of traditional lines – 16.7 billion euro;
- modernisation of signalling and other equipment - 1 billion euros.

Further funding was approved on 22 September 2009, providing FS with 2.3 billion euro in 2010 and little less in 2011 plus 185 million euro per year from 2010 to 2012 to continue developing the plans for the high speed/high capacity lines.

How priorities for investment are decided is not clear, presumably RFI is involved in drawing up priorities but it is not clear to what extent RFI or the Government is influenced by railway undertaking aspirations when deciding what investment is required.

#### **4.2. Access to Rolling Stock & Financing**

Modern rolling stock is versatile, and thanks to EU interoperability legislation is increasingly capable of being switched from state to state, but the time which commonly elapses between order and delivery of rolling stock is around three years. The considerable investment required in new rolling stock<sup>13</sup> makes it hard for new entrants to develop the business case or access the funding required to enter the market, although NTV are managing to procure a new fleet of high-speed rolling stock under a contract that also provides train maintenance for 30 years. Accordingly use of second-hand rolling stock is a more feasible way of entering the market for a new entrant RU of limited means; however, specification differences prevents would-be operators from importing used motive power from most other European states<sup>14</sup>, leaving ex-FS/Trenitalia traction as the only feasible option for most would-be new entrants.

In July 2003, the Antitrust Authority held that the rolling stock owned by Trenitalia, which has a fleet of over 80 000 items of rolling stock (with the highest average age of any fleet in Europe) does not qualify as an essential facility, and that Trenitalia is consequently not required to make its trains available to competitors.

The state cannot finance the purchase of rolling stock directly, and Trenitalia uses income arising from its commercial activities to purchase rolling stock, as opposed to funds arising from the Programme Agreement.

In 2009 the Antitrust Authority reported that the optimum way of undertaking a competitive tender would be under a financing policy of rolling stock in which the funds, centrally allocated, are available for the Region, without any constraints assignment to Trenitalia, in order to reduce the entry barriers for other railway undertakings.

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<sup>13</sup> Each new passenger carrying vehicle costs upwards of €1.5 M..

<sup>14</sup> There are exceptions like the imports from PESA in Poland, hauled passenger coaches conforming to UIC specifications are also interoperable, and in due course rolling stock constructed to EU interoperability legislation will increasingly ‘trickle down’ into the second-hand and the rental market. Italy’s use of 3kv on classic standard gauge routes is shared only by Poland and Belgium.

According to the Antitrust Authority it is necessary to define the area of "contribution" service clearly (type of train, capacity, stops, total and sectional running times), based on public mobility needs.

The Universal Service will have to be put into competitive tender, entrusted to enterprises able to minimise state aid and therefore the public funds used. The timing for receiving bids responding to the competitive tender will be such as to allow all potential competitors to find the rolling stock, stock which today is almost entirely held by Trenitalia.

The Authority notes that there is an area of medium and long-distance rail passenger service which is receiving state aid but is not defined exactly. It is not clear what types of trains are included or what the obligations for Trenitalia are (i.e., frequency of trains, stop and running times).

### **4.3. Access to Ancillary Services**

#### **4.3.1 Access to facilities**

The contract for access includes various ancillary services such as the drawing up of timetables, use of sidings within fixed time-bands, and the use of electric substations which the infrastructure manager is obliged to supply.

There are also optional services such as watering, routing for refuelling, washing rolling stock, train marshalling, and access to communication network. No particular problems have been reported concerning those optional services.

Nevertheless NTV approached the Italian Antitrust Authority demanding a quick answer from RFI to its request for access to the commercial facilities and stations. Particular issues were:

- a) access and use of the maintenance centre and other facilities in Naples; and
- b) access to space in passenger stations.

Italian Antitrust Authority in its decision on the NTV access to the commercial facilities and stations of RFI (*Provvedimento n. 20393, BOLLETTINO N. 42 DEL 9 NOVEMBRE 2009*) found that RFI behaviour complied with the European and Italian legislation because RFI does not control directly passenger station but those spaces are managed by Centostazioni and Grandistazioni.

NTV as ÖBB-DB and Arenaways will be allocated their own separate space in each station for their sales network and ticket office, including the installation of automatic ticket machines. The need for these separate facilities stems from the fact that the existing ticketing network is controlled by Trenitalia and there is legislation in force that requires ticket inter-availability between RUs. This is considered by the Consortium to be a rather unsatisfactory state of affairs: in a mature market a major station could have several RUs operating into it, which is a recipe for a confusing plethora of ticketing facilities. Indeed at some stations there might be insufficient space to incorporate

facilities for all RUs who need them, given other competing demands for commercial space at stations (see below).

ÖBB-DB trains are announced on station departure boards, which are managed by RFI. RFI states that this will be the case for all train operations at RFI stations (but see, however, the problems noted below). At the moment there is no official national timetable published, the only exception being the General Shunting Schedule issued by RFI and published at each station. This document gives the arrival and departure times of trains, including origin and destination, and does not specify the railway undertaking.

### 4.3.2 Station management

As noted above, commercial space at stations is managed by two different companies, Centostazione and Grandi Stazioni and their interest is to sell the commercial area in stations for the best price (including space to new entrants). Accordingly decisions on space allocation in stations are being made on a commercial basis rather than on the basis of operational need, thus it could be more lucrative to provide space for a shop selling, for example, socks than a ticket office, with deleterious consequences for rail use. To date there are no specific constraints on how they can sell space. It is not clear, however, whether Trenitalia gain preferential treatment by be guaranteed ticket office space or not.

RFI or other FS Group in respect of Article 20 of Law Decree 188/2003, besides being required to ensure equitable and non discriminatory access to intermodal terminals for freight, is also responsible for ensuring that *“the manager of the infrastructure, if unable to provide any of the services under paragraph 2, entrusts, within one year’s time from the coming into force of this Decree, the management of such services... to parties independent of the railway enterprises.”* The purpose of the rule is therefore traceable to the requirement to ensure the neutrality of the service supplier in respect of the railway transport enterprises, as corollary of the more general principle of separation between management of the infrastructure and transport activity.

Additional station services (e.g. water supply and pre-heating/air conditioning, refuelling facilities) are provided by RFI to all on non-discriminatory terms. These terms are set out in the Network Statement.

At the moment the announcements are made via an automatic system, but at main stations, additional announcements over public address systems are made by Trenitalia personnel.

As noted above, each new entrant RU needs to provide its own space for the ticketing office and automatic ticket machines. Indeed, despite ten years of market opening at present only Trenitalia has a sales and ticketing presence at Italian stations.

The only private new operator actually active (DB-ÖBB) sells most of its tickets on board (without penalty) or via the Internet. In Bologna, Milano, Bolzano and Verona, the main stations served by DB-ÖBB it is difficult find information and personnel that help passengers or intending passengers for the service. In Italy these services are colloquially known as “the ghost train”.

All RUs have access to GSM-R telecommunications network for ground-to-train connections. Moreover with regard to the information on the relevant train traffic and state of the infrastructure, the RUs that have entered into a track access agreement may use the IM's information systems. PICWEB-RU Web platform including the following modules:

1. Scheduling: a module for viewing scheduled trains and for rescheduling and operational management of trains.
2. Real time: a module for monitoring and controlling traffic and the infrastructure, by means of timetable information updated in real time.
3. Real time "Traingraph": a function for monitoring and controlling traffic and the infrastructure, by means of space-time graphics built using information updated in real time.
4. Production control: a module for producing and viewing reports and analyses relating to historical traffic data and the state of the infrastructure.
5. Reporting: a module for producing and viewing the total monthly access charges and the performance regime.

Although the Consortium sought the views of new entrant RUs, they failed to provide any feedback on these issues; accordingly it has no information on their view of the equitability of the conditions under which services are provided, whether they consider charges excessive, or any other difficulties that they have faced (e.g. "no space").

## 5. Market Entry Strategies

### 5.1. Award of franchises

RUs operate passenger services under two different types of services: open access and public service contracts. Most of the long distance services are operated under an open access regime, regional services, when assigned to RU, are run under an exclusivity regime, regulated through contract services with regional authorities. A few of these services have been awarded under a public bidding procedure. The authorities have the powers, to assign the services to a different company at expiry of the existing contracts, possibly by means of a public bidding procedure. Some unprofitable long distance services are also regulated through a public service contract with the State.

As mentioned above the RU that award a public service contract has an exclusivity operational regime. The performance of national passenger rail services, including cabotage rights on international services, may be restricted in law to pick up and set down passengers at stations along the route, where their operation would jeopardise the economic equilibrium of a public service contract in terms of profitability.

In Italy the regional and suburban transport sector has undergone a substantial reform, which started in 1997 with the D.Lgs.422/97 (also called *Bassanini Reform*), in order to set up the competition between RUs providing passenger services.

The Bassanini Reform of local public transport reorganised regional and local transport via road and rail, focusing on reforming the division of roles between the State and the regions. In almost all cases current regime continues to be of direct award of service contracts to companies that already offered the services of regional transport.

The reform has assigned the following roles to the State and the regions:

- to the State, determination, in the Financial Bill, of the fixed and additional quota to be allocated for regional transport financing;
- to the regions, control and specification of service quality, regulated by its contracts with RUs, and the investment contribution to service improvements.

Another change foreseen by the reform is to let all public transport services through competitive tender. The aim of this rule has been to set up a "market competition" that safeguards control of local public transport in the local community, but at the same time is able to develop several active RUs.

The "Bassanini reform", eleven years after its launch, has been only partially implemented. While it addressed the reorganisation of roles between the State and the regions, which entered into force in 2000, the complete use of competitive tendering for all public transport services is not yet a reality.

### 5.2. Revenue risk

As outlined in Section 3.3.1 above, arrangements for sharing the revenue risk have discouraged realistic bids for operating services.

### 5.3. Specification of services

All contracts quantify production in terms of train-km year, of all the options (trains, seats-km, passenger-km, etc) this option was considered easiest and less subject to distorting effects. The contracts indicate a total price for the basic production, namely that existing subscription, and a unit price (in train-km) for new service activation, as listed:

- Total Amount (e.g euro 184 M per 23.5 M train-km)
- Amount for each extra train (deducted for each train fewer) (e.g euro 7.15 /km)
- Access charge (now average about euro 2.70 /km) (e.g. Included, equal to about euro 66 M /year)
- Total contract value in 2007 based on actual scheduled train-km euro 188.32 M (of which 16.6 from regional resources)

The contracts also differ for the different approach to the infrastructure access charge (depending from historical reasons). When not included, it is paid in part by the Region.

An essential element of the contracts is to recognise quality in the reimbursement of RUs, in terms of punctuality, cleanliness, reliability of rolling stock, etc. A penalty system identifies the aspects of the service that are considered to be most critical, based on an assessment of passengers needs, and complaints received. The total penalty may not exceed a percentage of the value of the consideration (e.g. 3 to 4 % of the total contract value). To discourage the use of train cancellation as a device to avoid penalty payments, a penalty on cancellations is applied with an increasing value per event. It also introduces an additional penalty for repeated cancellations of the same train. The punctuality indices are monitored in a complete way, for the entire day and peak period but on Mondays to Fridays only, in order to improve the significance of the data. To identify cases of individual trains that are consistently delayed, there is an additional penalty related to delay accumulated in the month.

The contracts rely on continuous quality monitoring undertaken on trains and at stations throughout the contract period, by external auditors selected by the Region. The parameters measured are in line with the issues reported by passenger most frequently:

- the efficiency of the trains (e.g. functioning of the doors, heating and air conditioning, lighting, and the public announcement system if any);
- cleanliness of trains;
- the information displayed at the station.

For each issue a maximum penalty limit is set.

#### 5.4. Open access services

With the exclusion of “universal services” financed by service contract, all other rail services operate under open access. The philosophy behind this is that open access is anticipated to stimulate the market, encourage the incumbent RU to increase its productivity, and to attract investors (including private e.g. Arenaways and NTV) in railway passenger services.

The Authority of competition and the market (Antitrust), warns of the need for a clear distinction between the Rail Universal Service funded by state and region, which provides socially necessary services, and profitable market services, open to competition.

The Antitrust confirms that Universal Service contract awards should be by competitive tender, in order to minimise the costs to the community and to ensure the quality of the offer, and it requests Regions not to use direct awards for local public service contracts.

Nevertheless despite since Legislative Decree 19 November 1997 No 422, requiring the award of public service contracts through competitive tender, few have actually been awarded with this procedure: most still being direct awards and the relationship between the regions and Trenitalia are governed only by the extension of service contracts which expired in late 2007.

In regional transport, changes in regulations currently under legislative passage as Article 61 DDL n. 1195 will make direct awards permissible, contrary to the principle of competitive tender, and other regulations already in force (Article 25, paragraph 2, Law 28-01-2009 n. 2 and Article 7, paragraph 3-ter, Law 9-4-2009 n. 33) have authorised the expenditure of euro 480 million, to be shared between the Regions, for each of the 2009, 2010 and 2011 years for new service contracts between Trenitalia and the State or the Regions.

At the same time these regulations state that service contracts related to rail public transport "anyway awarded" must have a minimum term not less than six years, extendable for another six years. These measures ensure the availability of funds to the regions for the next three years, and constraining them to new contracts with Trenitalia, while re-introducing the possibility of direct awards, having the effect of removing the sector from any competitive comparison, at least until 2015.

The Authority states that in order to undertake effective competitive tendering, a financing policy for rolling stock in which centrally allocated funds are available for the Region to procure rolling stock, without any constraints tying these to Trenitalia, in order to reduce the entry barriers for other Railway Undertakings.

According to the Antitrust it is necessary to define the area of "contribution" service clearly (type of train, capacity, stops, total and partial running times), based on public need.

The Universal Service will have to be put out to competitive tender, entrusted to enterprises able to minimise the state aid and therefore the public funds used. The timing of completion of the competitive tender will be such as to allow all potential

competitors to find the rolling stock, which today is almost totally under the control of Trenitalia.

The Authority notes that there is an area of medium and long-distance rail passenger service that is receiving state aid but is not exactly defined. It is not clear what types of trains are included under this funding or what the obligations for Trenitalia are (i.e. frequency of trains, stop and running times).

In this situation it could have been in Trenitalia's interest to transfer, with the same benefits received, some of the demand of passengers from the Universal Service to that profitable market, thus distorting the comparison with other competitive railway undertakings.

There have been numerous public complaints to the Authority in recent months: passengers complaining about worsening punctuality, frequent cancellation of particular trains, changes to the timetable which no longer meet the demand of commuters. Only with the supply of new regional trains, has there been a positive picture, the faster trains permitting service accelerations.

The AGCM states, that in practice *"the opacity of regulatory framework can induce Trenitalia to split passenger demand artificially, forcing the purchase of services where money should be provided for free universal services"*.

## 6. “Network” issues

Ticket inter-availability is required by law (see 4.3.1 above) but the mechanisms to deliver this (revenue allocation systems in particular) do not appear to have been created. Significantly, attempts to set up common sales channels appear to have been blocked by Trenitalia. Accordingly there is no national ticket inter-availability between RUs, despite it being required by legislation.

There is no published national timetable. The traditional timetable is issued by Trenitalia, but this only includes its own trains or the services in joint-venture with other undertakings. The FS Group website provides on-line timetables for Trenitalia’s domestic services, and all international services, even those provided by foreign RUs.

The real Network effect at the moment is limited only to Regional tariff integration. However, integrated tariff systems at regional level are not widespread in Italy at present. There are some exceptions like the systems of:

- Campania (Unicocampania);
- Emilia-Romagna (STIMER);
- Tuscany (the Pegaso);
- Lazio (Metrebus).

Each of these provides availability on local rail services. Tariff integration between the operators, such as occurs in the Marche Region, is much less common. This region recently has been presented with a proposal for a new regional tariff structure based on the integration of tariffs between intermodal transport services as an evolution of the integrated system.

## **7. Additional Remarks**

On the basis of this work it is possible to provide some possible guidelines for the development and improvement of the national rail system within the current context of gradual liberalisation and competition in the sector.

As shown in previous sections of this Report, there are some critical areas on which attention and effort needs to be concentrated, including in financial terms, such as the principles and practice of competitive tendering and the allocation of train paths.

The Consortium considers that the Italian rail system needs to be reformed in order to deliver the advantages envisaged for market opening, especially infrastructural, and overcome the gap which today separates Italy from direct competitors in other European states.

1. Ensuring that systems to open the market are implemented properly and that there are no compromises
2. Ensuring that tenders for services are realistic in terms of their length, the sharing of risk and allocation of benefit
3. Ensuring that competition is not constrained by secondary factors such as availability of rolling stock
4. Ensuring funds are available to pay for the services the community decides to sponsor.

## 8. Summary & Conclusions

### 8.1. Qualitative

The opportunity for open access to the infrastructure has led to a number of new freight railway undertakings entering the market, but impact has been less marked in the passenger sector. Italy should also see the start of the first new entrant high-speed rail operator in Europe when NTV launches<sup>15</sup>, currently scheduled for late 2011.

Since December 2009 a joint venture between ÖBB/DB/LeNord has commenced several international services between Germany/Austria and North Italy in competition with Trenitalia. Although this is an international service and thus technically outwith the scope of this study it provides important lessons.

Regional authorities are assuming a more and more important role in defining and procuring local rail services, previously managed by Trenitalia. This allows new investment in infrastructure and rolling stock in order to offer more attractive services to the customers.

Figure 25. Roles distribution by authority

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| Role of the state   | Role of the regions   |
|---|---|
| <ul style="list-style-type: none"><li>➤ grants network concession</li><li>➤ funds maintenance and improvement of the network under Programme Agreement</li><li>➤ issues service licenses and authorizations</li></ul> | <ul style="list-style-type: none"><li>➤ enter into services agreements with operators to ensure public mobility</li><li>➤ subsidize guaranteed public mobility</li><li>➤ award contracts for local passenger transport services</li></ul> |

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Source: everis

*A priori*, high speed and regional rail transport probably represents the most interesting entry point into the Italian market for foreign railway undertakings.

Accordingly, in practice, competition is not yet real and effective because the share of transport provided by new entrants (whether domestic or foreign), and their presence in the Italian market, is currently of secondary importance. The Italian case is instructive in understanding that market opening by itself does not induce change in transport arrangements unless the necessary pre-conditions are in place (e.g. appropriate non-discriminatory processes for infrastructure access, access to suitable rolling stock, etc).

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<sup>15</sup> Although the French incumbent, SNCF, has a 20% share in the business.

Despite the modest degree of competition experienced in the rail passenger sector to date, market opening and competition has led to the improvement of the performance and of the productivity of both the infrastructure manager and of the incumbent railway undertaking.

## 8.2. Quantitative

### 8.2.1 Raw data

Between 2000 and 2007, medium/long distance traffic volume (passenger-km) decreased from 27 537 M passenger km to 24 166 M passenger km (-12.2%). However, over the same period regional traffic volume increased from 19 596 M passenger km to 21 819 M passenger km (+11.3%).

Rail transport modal share decreased from 7.14% in 1990 to 5.81% in 2008, but since 2000, with the beginning of liberalisation process, it has maintained a share of about 5.80%.

The average fares levels between 2000 and 2007 has increased from 4.18 €cent /pass-km to 5.18 €cent /pass-km, an increase of 23.9%.

Regarding service frequency, the used paths\*km for medium/long distance services (excluded high speed) have reduced from 83 M in 2000 to 74 M in 2009 (-10.8%), whereas for regional services the used paths\*km have increased from 169.0 M to 192.6 M between 2000 and 2006 (+14.0%) and stabilised at around 192.00 Millions, from 2006 to 2009. Used paths\*km for high speed services have exhibited a marked increase from 1.2 M in 2006 to 6.9 M in 2009 (475%), which represents the main cause of the reduction in the paths\*km used by long distance services.

From the market opening there has been a strong reduction in the financial support provided by Government and other agencies (including regions procuring public service contracts) and the traffic passenger income has increased. In particular since 2000 there has been a clear reversal of the previous trend of increasing financial support from government, and it is therefore possible to assert that the real benefit of the market opening has been a reduction in the level of public support required by the passenger rail industry.

The productivity index used to assess IM (RFI) efficiency: the ratio between train-km operated and the average annual employee numbers, has increased from 8 788.16 train-km/personnel in 2002 to 10 72481 train-km/personnel in 2008 (+16.9%) The productivity index used for the incumbent RU (Trenitalia): the ratio between the volume of traffic both passenger and freight train operated (passenger- km+tons-km) and the number of employees, grow over the last nine years (2000-2008) from 1.19 to 1.48 (+24.4%).

Figure 26. Raw data

|                     | 2000           |                |                |  | 2008           |                |                |
|---------------------|----------------|----------------|----------------|--|----------------|----------------|----------------|
|                     | HS (*)         | IC/Expr        | Regional       |  | HS (*)         | IC/Expr        | Regional       |
| <b>nr of trains</b> | 30.716         | 142.032        | 2.335.235      |  | 52.232         | 111.264        | 2.801.967      |
| <b>nr seats*km</b>  | 48.440.900.000 |                | 64.998.400.000 |  | 45.015.100.000 |                | 71.351.400.000 |
| <b>nr. pass</b>     | 14.300.000     | 55.700.000     | 408.200.000    |  | 17.500.000     | 45.282.000     | 513.672.400    |
| <b>nr. pass*km</b>  | 5.600.000.000  | 21.937.000.000 | 19.595.600.000 |  | 8.875.000.000  | 13.970.000.000 | 22.180.400.000 |
| <b>delays</b>       |                |                |                |  |                |                |                |
| <b>0-5'</b>         | 75,3%          | 73,3% (*)      | 62,1%          |  | 83,4%          | 68,4% (*)      | 97,1%          |
| <b>0-15'</b>        | 90,7%          | 87,3% (*)      | 85,5%          |  | 94,1%          | 89,7% (*)      | 97,6%          |

Source: FS group

### 8.2.2 Adjusted data

Given that, despite legislation market opening has yet to materialise in any meaningful way, for the reasons outlined herein, the underlying impacts of market opening cannot yet be quantified in Italy.