



**DISCUSSION PAPER ON THE PROCESS
FOR LIBERALIZING RAIL PASSENGER
TRANSPORT**

25 June 2014

PRO/DTSP/0001/14

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Madrid, 25 June 2014

The plenary of the board of the CNMC, in its session of 25 June 2014, has agreed to approve the following:

DISCUSSION PAPER ON THE PROCESS FOR LIBERALIZING RAIL PASSENGER TRANSPORT

I. INTRODUCTION

In Spain, the rail passenger transport market is largely closed to competition, except for the so-called services operated on their mainly tourist value, which were liberalized in 2013. The opening-up of the railway market has been gradual, driven by the railway packages passed at the Community level¹. In 2003, Act 39/2003 of 17 November on the Railway Sector was passed in Spain, leading to the liberalization of freight services by rail in 2005. Subsequently, in 2010, the opening-up of international passenger transport took place.

Recently, the Ministry of Development decided to take the first steps towards the gradual liberalization of national passenger rail transport, before a deadline is set by the European Union, thereby joining the other major European countries that have already opened up their markets.

The transport sector represents 5% of Spanish GDP and 4.4% of total employment. In addition, on a qualitative level, transport is a strategic sector as it is essential for the development of other industries and for the overall inter-connection of the country. The purpose of a global transportation system is to increase mobility and to promote economic and social inter-connection, using each mode of transport in the most efficient manner.

For this reason, by summarizing the knowledge gathered by the Competence and Regulation Authorities in the processes of liberalizing the network industries, and in order to promote a suitable framework for the liberalization of rail passenger transport, the CNMC wishes to contribute to the process with this document. From the point of view of competition and efficient economic regulation, a well-designed liberalization process with optimum regulation mechanisms helps to increase social welfare. It also strengthens confidence and credibility in Public Authorities.

The aim of all processes for opening up competition is to achieve higher levels of efficiency, which must result in a wider variety and frequency of services², higher quality performance, the promotion of innovation and more efficient prices. In addition, the benefits derived from liberalization do not only affect the railway sector. Given its role in social cohesion and its forward and backward linkages to other industries, it

¹ First Railway Package (2001), Second Railway Package (2004) and Third Railway Package (2007). The Fourth Railway Package is currently in process; the European Commission proposal proposes liberalizing national services by 2019.

² It is important to note that more frequent services also mean more income for ADIF from charges and, as a result, less time to recoup investment in railway infrastructure.

generates positive carry-over effects in other economic sectors. These effects may be direct, as in the case of locomotive and carriage manufacturing, or indirect, as in the tourist sector, for example.

Designing the system properly should start from a global concept of the Spanish transport system. It is an extraordinary opportunity for organizing this system from an inter-modal perspective, which would consist of using the most efficient mode of transport on each route, so that several modes of transport can compete, provided that the market can absorb the supply. In those cases where the market is unable to determine the most socially efficient public transport, other economic instruments should be used to identify them and to choose the most efficient mode for each destination or points en route. Therefore, unnecessary or disproportionate duplication should be reduced in places that do not have, and are unlikely to have, sufficient demand to reasonably cover the costs of investment in infrastructure and of operating and maintaining the transport service.

In addition, in a liberalized market, some services would not be provided by private initiative so that, in order to guarantee mobility and territorial cohesion, Public Service Obligations (PSOs) may be foreseen³, as long as these are necessary and proportionate and that they are not covered more efficiently by other modes of transport.

II. CHARACTERIZATION OF THE SECTOR

The railway transport liberalization process was launched by the EU in 2001 and, since then, a gradual opening-up process has taken place at different speeds in EU Europe.

- The First Railway Package⁴ guaranteed the independence of the infrastructure manager and liberalized international freight services. Directive 2012/34/EU was a redrafting of the First Railway Package, with new adjustments.
- The Second Railway Package⁵ focused on measures relating to safety, interoperability and the creation of ERA⁶.
- The Third Railway Package⁷ addressed the liberalization of international passenger transport, setting 1 January 2010 as the deadline for the opening-up of the market.

³ This includes the regional and mid-distance, metric-gauge network and AVANT (high-speed, mid-distance) services.

⁴ Directive 2001/13/EC; Directive 2001/24/EC and Directive 2001/16/EC.

⁵ Directive 2004/49/EC; Directive 2004/50/EC; and Directive 2004/51/EC.

⁶ European Railway Agency. Regulation (EC) 881/2004 of the European Parliament and of the Council was passed.

⁷ Directive 2007/58/EC; Directive 2007/59/EC.

The Fourth Railway Package is currently being negotiated. It is intended to set 2019 as the date for the opening-up of the national passenger transport market, and 2023 for the opening-up of public service obligations.

In Spain, the process began with the passing of Act 39/2003 of 17 November on the Railway Sector (RSA), which came into force on 1 January 2005 and liberalized freight services by rail.

The configuration of the Spanish railway model is based on the vertical separation of the infrastructure, which continues to be a public monopoly, and the provision of the service, which is open to competition. In Spain, RENFE, the public monopoly since 1941, was split into two different companies, the Railway Infrastructure Manager (*Administrador de Infraestructuras Ferroviarias* or ADIF) as the authority responsible for the management of the so-called General Interest Railway Network (*Red Ferroviaria de Interés General* or RFIG)⁸ and RENFE-Operadora, as the company responsible for providing the service. On narrow-gauge or metric-gauge lines, the public company Ferrocarriles de Vía Estrecha (FEVE) administered these lines and provided the service.

Currently, RENFE has a workforce of 14,000 workers; the number of passengers transported by RENFE-Operadora since 2005 is shown in the following table:

Table 1: Number of passengers x Km. RENFE-Operadora⁹. 2005-2013.

PERIOD	TOTAL	REGIONAL LINES	CONVENTIONAL MID-DISTANCE	HIGH-SPEED MID-DISTANCE	HIGH-SPEED AND LONG DISTANCE
2005	20,042	8,621	2,776	293	8,352
2006	20,480	8,748	2,855	410	8,468
2007	20,167	8,468	2,802	431	8,466
2008	22,281	8,364	2,831	595	10,491
2009	21,895	7,731	2,659	717	10,788
2010	21,166	7,448	2,542	754	10,423
2011	21,585	7,689	2,665	769	10,462
2012	21,319	7,614	2,527	762	10,416

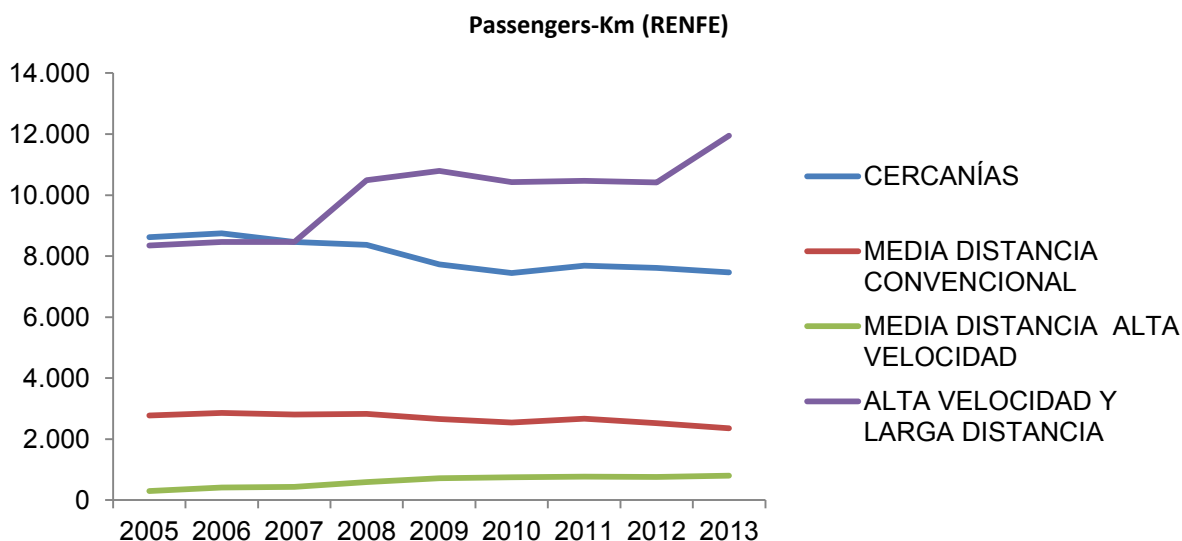
⁸ In addition to ADIF, there is a second infrastructure manager for the RFIG, TP Ferro, which manages the international gauge network (UIC) that connects Figueras with Perpignan. TP Ferro is a concessionaire company, 50% owned by the French company Eiffage, with the other 50% belonging to the Spanish company ACS.

⁹ Includes the figures for FEVE.

2013	22,563	7,467	2,351	801	11,943
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Source: Ministry of Development.

Graph 1: Evolution of passengers-Km. RENFE (2005-2013).

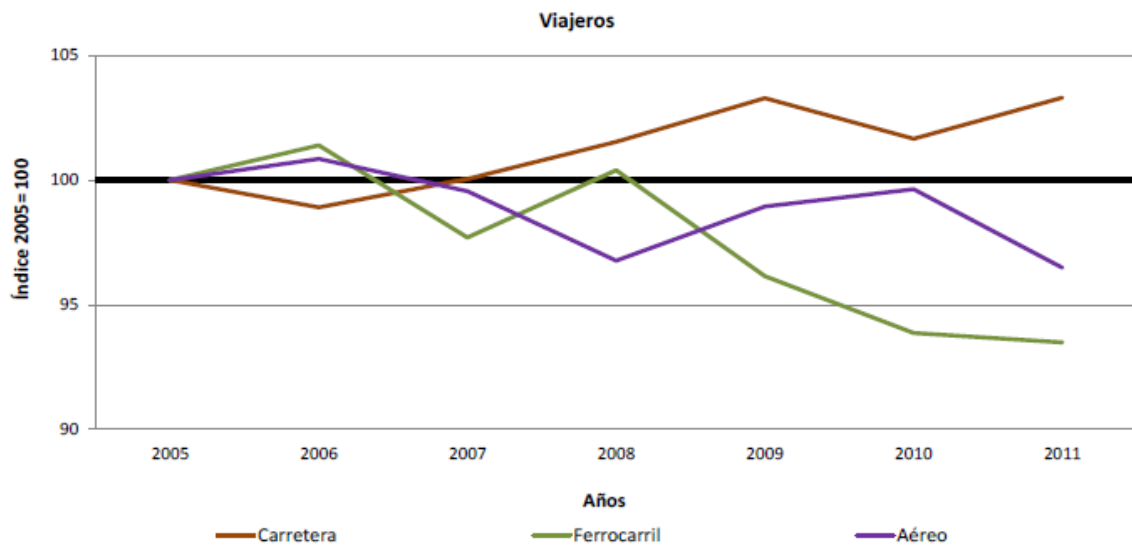


Source: Compiled by the author based on data from the Ministry of Development.

As the graph shows, high-speed and long-distance services have seen the greatest growth in the last eight years, followed by high-speed, mid-distance transport. However, both regional and conventional mid-distance services have experienced a decrease in the number of passengers-Km transported.

Graph 2 shows the passenger transport occupancy index by railway, which had been operated exclusively by the incumbent, RENFE-Operadora, until now, and a comparison with other modes of transport. Rail is the mode that is least used, experiencing a considerable drop since 2008.

Graph 2: Passenger transport occupancy indexes (Index 2005=100)



Source: Spanish Transport and Logistics Observatory. February 2014.

FEVE became extinct on 31 December 2012, with its infrastructure and service operations being transferred to ADIF and RENFE-Operadora, respectively. In 2013, ADIF-Alta Velocidad (High Speed) was created¹⁰ by splitting up the construction and administration branches of the high-speed railway infrastructure and with ADIF continuing to be the manager of the remaining RFIG railway lines (basically, the Iberian-gauge and metric-gauge lines).

The following graph shows the basic characteristics of the General Interest Railway Network in Spain:

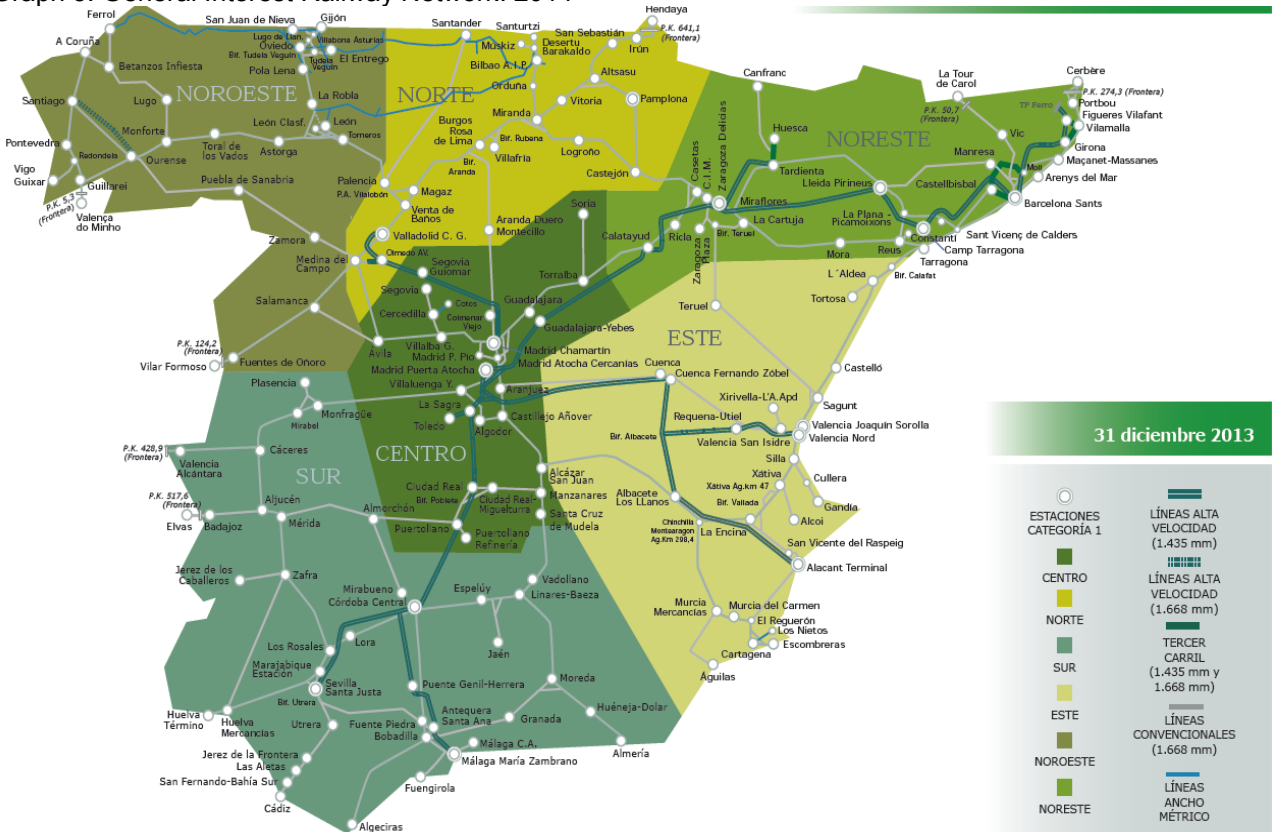
Table 2: General Interest Railway Network. Types of gauge. 2014

GENERAL INTEREST RAILWAY NETWORK	
Infraestructure	Kilometres
Pure International Gauge High-Speed Network (1435 mm)	2,322
Iberian Gauge High-Speed Network (1668 mm)	84
Pure Iberian Gauge Conventional Network (1668 mm)	11,483
Mixed Network (combination of Iberian gauge and International gauge)	119
Metric Gauge Narrow-Line Network (1000 mm)	1207
TOTAL	15,215

¹⁰ Royal Decree-Act 15/2013, of 13 December on the re-structuring of the public business entity "Administrador de Infraestructuras Ferroviarias" (ADIF) and other urgent measures for the economic order.

Source: 2014 Network Statement. ADIF

Graph 3: General Interest Railway Network. 2014



Source: 2014 Network Statement. ADIF

Spain has different gauges in its railway line configuration. The Iberian gauge, along which both passengers and freight are transported, predominates. In recent years, with EU support, investment has increased considerably in UIC-gauge or high-speed lines¹¹, where only passengers are transported. The metric-gauge lines are basically concentrated in the Cantabrian area. In general terms, UIC-gauge lines are profitable, whereas long distance, conventional-gauge lines are, on the whole, not profitable for their current operator, RENFE-Operadora.

However, in addition to the gauge difference, there are also differences in the line electrification system, as can be seen in the following table:

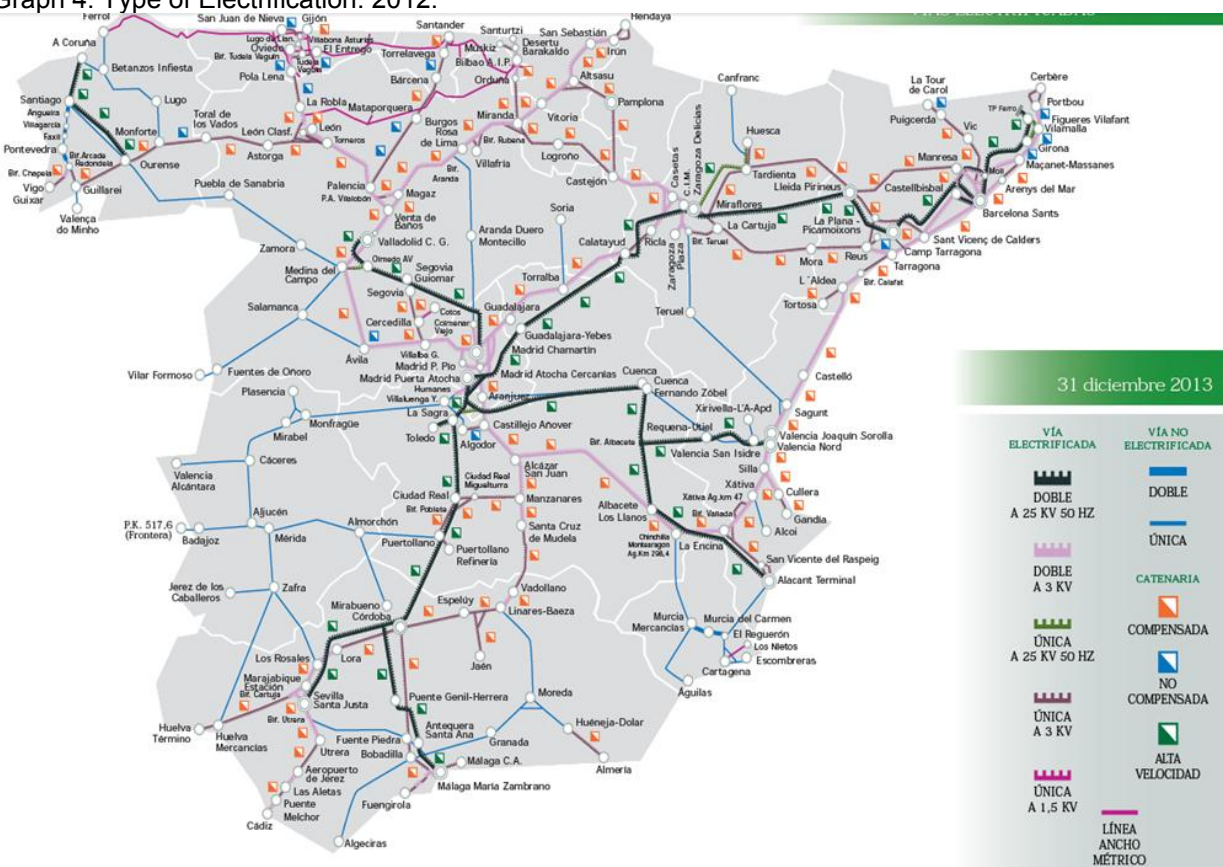
¹¹ Campos, J., De Rus, G., Barrón, I., 'El transporte ferroviario de alta velocidad' ('High-speed railway transport') (Fundación BBVA ('BBVA Foundation')): In Spain, a mixed, conventional high-speed operating model has been chosen, in which some conventional trains use the infrastructure built for high-speed trains.

Table 3: Type of Electrification. 2012.

TYPE OF ELECTRIFICATION	
Type of Infrastructure	Kilometres
Electrified Infrastructure	6,268
Non-electrified Infrastructure	9,654
Total	15,922

Source: National Statistics Institute.

Graph 4: Type of Electrification. 2012.

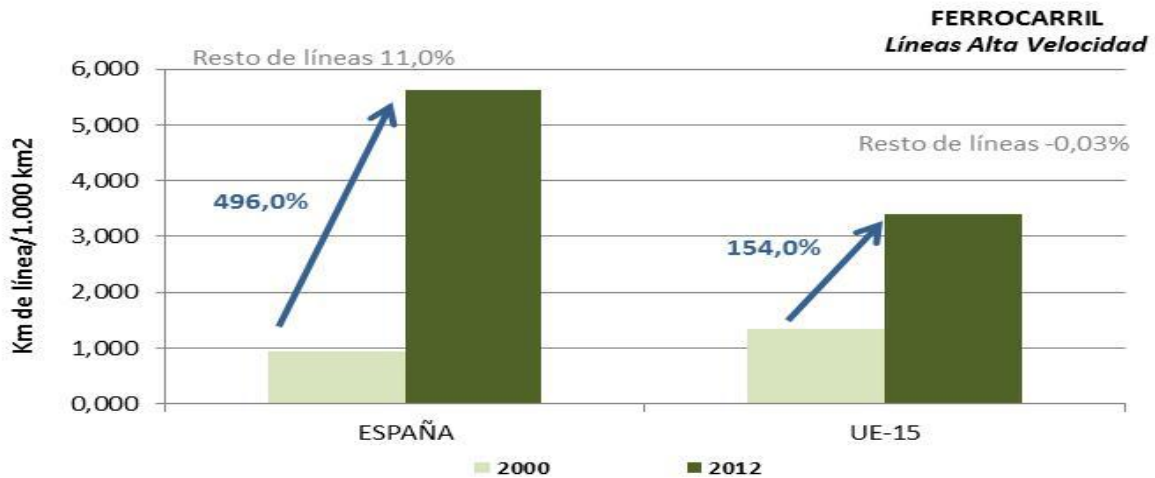


Source: 2014 Network Statement. ADIF.

61% of lines are not electrified, while there are different kinds of voltage among the electrified lines, which leads to interoperability problems.

In terms of high-capacity lines, Spain has experienced much greater growth in the last decade – in terms of density per line surface area – than the rest of the EU-15 countries, as can be seen in Graph 5:

Graph 5: Evolution of density (by surface area) of high-speed railway lines in Spain and the EU.



Source: 2014 Annual Report of the Spanish Transport and Logistics Observatory. Ministry of Development.

In regard to the provision of the service, the Railway Sector Act requires to meet a number of requirements in order to be able to operate in the market:

- Railway undertaking (RU) licence: For this to be granted, financial capacity must be proven, the competence of its staff must be guaranteed and the company must be a legal entity. There is one licence for the entire RFI.
- Safety certificate: This refers to each of the lines that it is intended to operate.
- Approval of rolling stock.
- Certification of drivers: this is a driving licence and a driving certificate¹². The latter is specific to each type of rolling stock and infrastructure.
- Allocation of capacity¹³, at the request of the rail companies, which is granted by the infrastructure manager.

In the rail freight market, seven RUs operate besides RENFE-Operadora, which continues to be the dominant operator nine years later, with a market share of 85%¹⁴.

In these 9 years, the market penetration share by new operators has been slight and railway has lost importance in comparison to other inland transport modes, reaching

¹² Contradictorily, these certificates for drivers are not individual: under current regulations, they belong to the rail company.

¹³ Allocation of capacity is defined as the assignment by ADIF of time slots to the different candidates, so that a train can travel between two points during a given period of time.

¹⁴ Data from ADIF; Km-Train scheduled. 2013.

4.8%¹⁵ of the total market in 2012. In view of this data, after almost a decade since the rail freight liberalization, no real market opening of the sector has been observed.

In the rail passenger market, no similar liberalization process has taken place and the market continues to be a public monopoly in the hands of RENFE-Operadora. However, in recent months, some steps have been taken for its progressive liberalization. From the regulatory point of view, this liberalization was preceded by Royal Decree-Act 22/2012, which envisaged the opening of passenger transport to competition and agrees on the division of RENFE into four commercial state companies, depending on their corporate purpose¹⁶:

- Renfe Viajeros (Passengers).
- Renfe Mercancías (Freight).
- Renfe Alquiler de Material Ferroviario (Rolling Stock Leasing).
- Renfe Fabricación y Mantenimiento (Manufacture and Maintenance).

RENFE-Operadora¹⁷ owns 100% of the share capital of these new companies and will act as the group's parent company, with corporate and service functions.

Subsequently, Royal Decree-Act 4/2013 established different systems of liberalization, depending on the passenger services being provided:

- Rail passenger transport operated on their mainly tourist value has been legally liberalized, so that there is no need for a specific certificate or temporary license to operate in the market. The services must be provided as part of a package sold by a travel agency, and, in addition to the transport service, the package must include at least two of the following items: i) accommodation for at least one night; ii) a food allowance off the train; iii) other non-supplementary tourist transport or accommodation services that represent a significant part of the package¹⁸.
- For public service obligations, a more belated opening-up is planned, through “competition for the market¹⁹”, in other words, through public

¹⁵ Eurostat.

¹⁶ Agreement by the Council of Ministers of 27 September 2013.

¹⁷ In 2013, RENFE-Operadora had a workforce of 14,800 persons and a Lay-Off Plan was carried out for 500 people.

¹⁸ See Regulatory Proposal Report IPN 98/13 Draft Tourist Railway Transport Ministerial Order.

¹⁹ See Footnote 7 on page 9 of INF/DP/0004/14 Report on the typical specifications for contracts for the management of regular, general-use public road transport passenger bus services: Competition for the market could, to some extent, be a substitute for competition in the market, allowing efficient economic solutions to be reached and not resulting in monopolistic revenues, but only if, among other things, there are no barriers to entry. See, for example, E. Chadwick; Results of Different Principles of Legislation and Administration in Europe; of Competition for the Field as Compared

tenders granting, for a given period of time, the right to the exclusive use of a given line or group of lines by a single RU, together with compensation mechanisms, where appropriate. This option follows the schedule put forward in the negotiations on the Fourth Railway Package, in which the Member States are permitted to start tendering processes for public service contracts before the 2023 deadline²⁰. Until the entry of new operators into the market, RENFE-Operadora is the appointed RU to provide this type of service.

- For the remaining passenger transport services that are not considered in the former sections, that is, commercial services, access by new RU will be based on a temporary license, whose number is set by the Government. The requirements and conditions for their granting will be drafted by the Ministry of Development.

This last group refers to the commercial services that are run both along UIC-gauge and conventional-gauge lines, which will be the first to allow new companies to enter through competition in the market. In addition to the above-mentioned requirements, the new model requires a temporary license (different from the RU license) to operate in the market. On 13 June 2014, the Government passed to start the process of liberalization with a tender for an operating license to provide services in the Levante Corridor. The operating license will be granted through a public tendering process and the winning bidder will be able to provide services in this corridor in competition with RENFE-Operadora for seven years term. When the operating license expires, the services will be provided under free competition.

III. THE EUROPEAN EXPERIENCE

The national rail passenger liberalization process has an asymmetric development in the European market. Some countries, such as Germany and the United Kingdom, opened up their markets over more than a decade ago, and others, such as Italy and Sweden, have done it recently. Nevertheless, most of the European countries, especially France, of great interest to Spain, have kept their national markets closed to competition.

with Competition within the Field of Service (1859). H. Demsetz. Why regulate utilities, (1968) P.A. Geroski. Competition in Markets and Competition for Markets, (2003).

²⁰ Although some of the more advanced European countries, such as Germany, United Kingdom, Sweden and Italy, already do this.

Unlike the rail freight transport liberalization process, in which most countries have applied a "competition in the market" model, the liberalization of passenger transport offers a wider range of possibilities. In general terms, with the exception of the United Kingdom, a process of opening up through competition in the market was chosen for the routes that would be profitable and could, therefore, benefit from the entry of one or more competitors. However, other services, especially those resulting from public service obligations and regional services, are provided under concessions or exclusive contracts²¹.

In order to learn from the liberalization processes already carried out in the EU, a summary is given below of the liberalization experiences of the major European countries.

A. GERMANY

The reform process began in Germany in 1994, when the liberalization of all the segments of the market was adopted (long-distance passenger services, regional passenger services and freight services) and a vertically integrated system set up in which the incumbent is a holding company that performs the duties of infrastructure manager and rail service provider²²²³. This reform also included a passenger transport regionalization process, which implied a transfer of powers in transport to the regions (*Länder*), which included the powers over the planning, management and funding of rail transport²⁴.

The area of rail passenger transport can be divided into two segments:

- Regional services: in principle, it would be possible to have *competition in the market* and, therefore, for different RUs to compete on the same route. However, this situation has not arisen yet and competition is present only through public tendering processes (*competition for the market*). The provision of the service may be granted directly to a RU or through a tendering process. This is a heavily subsidized segment.

²¹ In these cases, the trend in the European countries that have already opened up their markets is public tendering processes, rather than the direct appointment of an operator, in order to foster competition for the market.

²² Currently, DB AG is organized as a holding company with, among others, the following companies: DB Schenker Rail AG (freight transport), DB Regio AG (regional passenger transport), DB Fernverkehr AG (long-distance passenger transport) and the infrastructure companies DB Netz AG (railway infrastructure), DB Energie GmbH (power supply) and DB Station & Service AG (passenger stations).

²³ In the proceedings for non-compliance brought by the European Commission against Germany due to the lack of independence between the infrastructure manager and the service operator (Case C-556/10), the CJEU did not consider the existence of this lack of independence to have been sufficiently proven.

²⁴ For this reason, they receive state funds through the regionalization fund.

- Long-distance services: it is based on competition in the market and the services are not funded through public subsidies as there is no obligation for a public service in this market segment.

At the beginning of the liberalization process, both segments had barriers to entry, such as access to rolling stock, discriminatory treatment at the stations and the shortage of availability of train paths. After almost two decades since the beginning of the liberalization process, there have been asymmetric results, although there has been an increase in productivity in both²⁵ segments.

- In the regional market, since the liberalization took place, traffic has increased, the quality and the frequency of services have raised and the cost per train-Km for the public authorities has decreased²⁶. It is also forecasted a hike in traffic and new progress by granting more public contracts by public tender, instead of direct allocation²⁷.
- The results have been less encouraging in the long-distance segment. With the entry into force of the railway reform, the incumbent restructured the railway services, removing some of the routes offered up to that time, before the entry of new RU into the market. The result has been a reduction in the volume of passengers and in the frequency of long-distance services. A number of reasons may have favoured the entry of new RU into the regional market, at the expense of the long-distance market, such as public financial aid and the existence of public companies at the regional level that were supported to compete in the market.

In terms of market share, there has barely been any penetration by new companies into the profitable lines of the long-distance market, while the share of new operators in the passenger transport market under public service contracts amounts to 12%²⁸²⁹. In relation to prices, there have been increases in prices over and above the Consumer Price Index in both segments, with a lower increase in the long-distance transport services.

In view of the results of the liberalization of long-distance passenger transport, the possibility of adopting new measures to foster participation into the market has raised.

²⁵ Especially due to a reduction in the workforce.

²⁶ It is calculated that public subsidies have fallen by 20%.

²⁷ The Supreme Court ruling of 8 February 2011 determined that direct allocation of public passenger transport service contracts may only be permitted if certain requirements are met. Therefore, it is expected that the number of public contracts granted through tenders will increase in the future.

²⁸ Data for 2011.

²⁹ The market share of the new operators in the rail freight transport market amounts to 25%, in terms of Tonnes x Km.

Among the possible options, the most outstanding are tariff regulation charged by the incumbent and replacing the current system with a franchise system³⁰.

There have been other effects since the reform process, especially in the rolling stock market. In this market, there is a risk for RU, due to the fact that the useful life of this stock is longer than either the concession or operating periods for long-distance services. This risk has been eliminated or reduced considerably in the regional market but in the long-distance segment the problem has not been completely solved. Regional authorities have resorted to different alternatives: the creation of pools of rolling stock; the possibility of transferring rolling stock to the company awarded the next contract (rolling stock repurchasing guarantees); the purchase of the rolling stock by the regional authorities on the contract end date (guarantees on the residual price of the rolling stock); and financial support for operators from some regional authorities for the purchase of rolling stock.

B. UNITED KINGDOM³¹

The United Kingdom was one of the first European countries to bring in reform in the railway sector, by promoting the entry of new operators into the market with the passing of the *Railways Act* in 1993. This reform was based on a concession system. In principle, the infrastructure manager was privatised and a new agent was created, OPRAF³² that managed the concession system. However, due to a number of system failures, new reforms have taken place, such as the Transport Act in 2000 and the *Railways Act* in 2005³³.

The rail market liberalization process was accompanied by the division of the former public monopoly, *British Rail*, into a hundred or so companies, each linked to one rail market activity (there were several companies for each activity, in most cases): infrastructure, passenger transport³⁴, freight transport, railway infrastructure maintenance, rolling stock³⁵ and rolling stock maintenance, which were privatized. This division into multiple companies reduces or eliminates incentives to favour companies that used to belong to the former public monopoly.

³⁰ It is also foreseen the privatization of 25% of the capital of DB.

³¹ The rail passenger transport market in Northern Ireland has not been taken into account.

³² Office of Passenger Rail Franchising.

³³ The accident at Hatfield in 2000 led to criticism of the unsatisfactory levels of quality in the infrastructure, which, in turn, led to the replacement of the infrastructure administrator, Railtrack, by Network Rail and leaving the private infrastructure administrator system.

³⁴ Train Operator Company (TOC).

³⁵ Rolling Stock Operating Companies (ROSCOS).

The market is currently characterized by a system of concessions for exclusive operation³⁶, based on bundled services for which the operators compete. In general, a difference is made between long-distance, regional and urban transport service groups, although some concessions include a combination of all three types of services³⁷³⁸. The operators (currently more than twenty) compete for each one of the packages. As the system is set up, there is very little margin for competition in the market. In fact, only 2% of services are being performed under this scheme, with the remaining services being carried out under the concession system.

The concession award period currently ranges from seven to ten years, with a review five years after assignment.

It is worthwhile to pay attention to the process of creating the rolling stock market in the British market, with specific companies that lease out this type of stock. This option allows new entrants to gain access, in a less costly manner, to the leasing of this type of stock, which is not linked to the incumbent operator. This guarantees non-discriminatory treatment between the companies that participate in the market. The origins of this market came about with the division of the public incumbent into a number of companies (known as ROSCOS), three in the case of rolling stock, which were privatized in 1996. In addition, the rolling stock maintenance unit was split up into six different companies, independent of the ROSCOS. This division guarantees greater efficiency in maintenance activities and reduces or eliminates incentives to favour the maintenance of the rolling stock that belongs to the same company, both in time and financial terms³⁹ (as well as the possibility of establishing cross-subsidies between the different units of the incumbent).

The results of this liberalization process have not been uniform throughout the period, but there are a series of conclusions that can be drawn; i) There has been an increase in the use of the railways for passenger services; ii) employment has remained stable in the industry; and iii) there has been an increase in productivity. In regard to public funding, the franchise system has led to an increase in state contributions⁴⁰, although the British Government has stated its intention to reduce public support and boost rail fares.

³⁶ With the exception of the line linking Heathrow Airport and London.

³⁷ Especially in the case of Scotland.

³⁸ The composition of the services is decided by the Ministry of Transport, for the purpose of forming coherent groups.

³⁹ This problem currently exists in Spain, with rolling stock being repaired and maintained by Integria, which belongs to RENFE-Operadora.

⁴⁰ There are several reasons that could underpin this price increase: costs related to the liberalization process (transaction costs, profits of the franchisees, costs of leasing the rolling stock); and costs not linked to the liberalization process (an increase in the costs arising from infrastructure maintenance and higher standards for the rolling stock).

As a result of this process, there is no incumbent company in the United Kingdom, so that 100% of the market is operated by experienced companies, which are, at the same time, new entrants.

C. ITALY

Like Germany, in Italy a vertically-integrated system has been established in which there is a holding company (the incumbent), *Ferrovie dello Stato*, which holds 100% of the capital of a number of subsidiary companies, among them are the following companies: the infrastructure administrator RFI (*Rete Ferroviaria Italiana*); the RU, *Trenitalia*, the engineering company, *Italferr*, the station manager company, *Grandi Stazioni*, and the logistics company, *FS Logistica*.

The Italian railway market was opened up to competition for both freight and passenger transport in 2000, although the process has progressed at a slower pace in the case of passengers⁴¹. In the latter field, a mixed model of market access (generally for high-speed services and fast trains) and exclusive public service contracts (in general, for urban and regional services) has been adopted. Some of the not profitable routes are classified as providing a universal service, and, therefore, they receive public funding in order to operate⁴².

One of the problems regarding the participation of new entrants to the market is the fact that rolling stock is not considered to be an essential installation. This means that the incumbent, *Trenitalia*, is under no obligation to make its excess rolling stock available to the other RU in the market. In order to address this possible barrier to entry, the regions have public funding to facilitate access to rolling stock by railway companies.

In April 2010, the first private operator (*Arenaways*) entered the commercial segment of the market, and, in April 2012, the privately-owned company *Italo*⁴³, which competes with *Trenitalia* on some high-speed routes, entered the high-speed market. In 2011, the market share of the new entrants to the rail passenger transport market was 10%, taking into account their participation in all segments of the passenger market.

The opening-up of the market to competition has resulted in a hike in productivity, less employment in the sector, less public funding, and increased quality and efficiency at RFI and *Trenitalia*, due, especially, to the rationalization of their services.

⁴¹ In addition, in the case of national rail passenger transport, the right to provide services in this market is only permitted to foreign companies from countries of origin that recognize reciprocity.

⁴² The so-called universal service includes regional and urban services and unprofitable long-distance services that are considered to be of national interest.

⁴³ The French public company, SNCF, holds 20% of the capital of the company.

D. SWEDEN

The railway reform process in Sweden began in the 1980s, when Sweden became the first European country to split the public monopoly into two different companies: Banverket, which took on the powers in the area of infrastructure management, and SJ AB, as the railway service provider. In 2001, SJ AB carried out a restructuring in order to divide its activity into a total of eight different units, among which are the company responsible for providing passenger transportation (SJ Ltd) and the freight transport company (Green Cargo).

The process of liberalization in the passenger area was carried out gradually⁴⁴, finally ending in October of 2010^{45,46}. In that same year, a new authority, Trafikverket, was created, which assumes the powers in the area of railway infrastructure management that had been exercised by Banverket up to that time. Its powers also cover the management of air, sea and road transport. In addition, this new authority has also assumed the powers for the management of tendering processes, which were previously performed by the National Public Transport Agency⁴⁷ for long-distance passenger transportation.

The opening-up of the market took place through public tendering processes for the different routes. Specifically, in 1990, a distribution of powers was carried out. The regional lines were given to the Regional Public Transport Authorities⁴⁸, while SJ kept its powers over the main passenger lines and freight transport⁴⁹. The first tenders for the provision of passenger transport services took place at the regional level.

Currently, at the national level, Trafikverket is responsible for the management of tenders for long-distance passenger lines under exclusive public service contracts⁵⁰, while the regional authorities are responsible for the management of public tenders for regional routes that are run under exclusive public service contracts. In the case of commercial long-distance routes⁵¹, until 2010, the service was provided by the

⁴⁴ First of all, the opening-up to competition of charter services was carried out in 2007. In 2009, the vacation and weekend traffic market was opened up, and the total liberalization of international passenger traffic took place on 1 October 2009 (before the European obligation under the Third Railway Package). Finally, in 2010, the full liberalization of the passenger transportation market took place in Sweden.

⁴⁵ The only route that still remains closed to competition is the line between the Stockholm Arlanda Airport and Stockholm Central Station, on which the private RU A-Train has an exclusive concession until 2040 for the Arlandaexpress service.

⁴⁶ In addition, this process has been accompanied by the liberalization of the markets connected with the provision of the transport service, such as the rolling stock maintenance market.

⁴⁷ Rikstrafiken.

⁴⁸ County Public Transport Authorities (CPTAs).

⁴⁹ The liberalization of rail freight transport took place in Sweden in 1996.

⁵⁰ The period of validity of the contracts is five years.

⁵¹ Those not subject to public service contracts.

incumbent SJAB⁵², which could award concessions for those lines that were not considered profitable. Since 2010, the total opening-up of these services to competition has taken place.

The lower administrative barriers existing in Sweden compared to the other countries and, especially, to Spain should be noted, given that the issuing of the licences, safety certificates and official approval of rolling stock do not involve any payments whatsoever⁵³.

The results of the liberalization process have been moderately positive in Sweden. There has been an increase in the number of passengers transported and an increase in the share of the railways as a mode of passenger transport, at the expense of air and road transport. The market share of the new entrants into the rail passenger transport market is 45% in the case of public service contracts, although penetration in the profitable services segment is lower, with the new operators accounting for only 10% of the market⁵⁴. In addition, a reduction in the price of tickets, a reduction in total costs, and a reduction in the level of direct employment in the railway sector have been observed. Nevertheless, in the case of concessions, the existence of a limited number of competitors that participate in public tendering processes may be noted.

IV. ASSESSMENT

First of all, having analysed the operation and the essential components of the market, as well as the liberalizing experience of other European countries, the CNMC has positively evaluated the initiative to move the liberalization process forward, before the passing of the “Fourth Railway Package”. In addition, the CNMC considers that, in the light of the agreement of the Council of Ministers of 13 June 2014, there are some elements that could contribute to improving the passenger transport liberalization process.

Following the low level of success of the previous liberalization processes for freight and services operated on their mainly tourist value, the process that has now begun must be tackled based on the credibility and reputation of the model that has been adopted, in order to generate the maximum benefits for society. In this context, the CNMC is aware of the interest of the public (users and taxpayers) and of the different market players in the sector and other related markets.

⁵² With the exception of the provision of commercial night trains, which were opened-up to competition in April 2007.

⁵³ Also, in the case of the issuing of the safety certificate, the deadline for resolution is three months, compared to four months under Spanish regulations.

⁵⁴ Data for 2011.

⁵⁵ In the case of rail goods transport, the market share of the new operators amounts to 55%.

1. *The geographical scope of the temporary license must be as broad as possible so that the utmost benefit can be obtained from economies of scale, under the principle of market unity*

The text of the Royal Decree-Act 4/2013 is ambiguous regarding the scope of the temporary license model and whether it would be nationwide or more limited geographically. A literal reading of the article, however, seems more inclined to a model of a fragmented nature, as it states that *“The Council of Ministers shall determine the number of temporary licenses to be granted for each line or group of lines on which the service is provided in competition, as well as the period of validity of the temporary license”*. In the end, the Council of Ministers opted for granting one temporary license per rail corridor, with the first of these being for the Levante Corridor.

Opening up the railway passenger transport market under a nationwide model would allow RUs to benefit from a number of advantages stemming from the size of the territory. First of all, railway activity requires considerable investment (rolling stock, charges, the training of workers, etc.) and presents economies of scale⁵⁶, so that, up to a given level of activity, the average cost falls as activity increases, since the locomotives and wagons can be generally used on UIC-gauge lines. The greater the liberalized territory in which the new companies can compete, the greater their possibilities will be of taking advantage of economies of scale, of being more efficient when carrying out their activity and of competing with the incumbent.

This argument is covered in Act 20/2013 of 9 December on guaranteeing market unity, which states that; *“this fragmentation of the national market hampers effective competition and prevents RUs from fully taking advantage of the economies of scale offered by operating in a larger market, which may discourage investment and, in the end, reduce productivity, competitiveness, economic growth and employment”*. In addition, it states that the civil service departments are to observe the principles laid down in the above-mentioned act, especially in sectors of a strategic nature (transport, among others) and sectors with potential for revitalisation and economic growth (including infrastructure). In short, it is a matter of ensuring that the new operators are able to exercise competitive pressure in a credible manner, as occurred in air transport, in which the agility and flexibility of companies in moving aeroplanes to new routes played a key role in the success of the liberalization process.

In addition, territorial licenses may force new entrants to concentrate their activities in an excessively limited geographical area, preventing them from being able to take advantage of the economies of scale that the incumbent, RENFE-Operadora, enjoys,

⁵⁶ OECD (2005), Structural Reform in the Rail Industry.

due to the advantages it gains from its nationwide implementation. Obviously, the latter also starts out with a greater knowledge and experience of the market, with greater capillarity and possibilities of making a greater number of connections, as well as greater knowledge on the part of its users, including customer loyalty programmes⁵⁷.

The CNMC also understands the reasons for prudence that may have motivated the fact that liberalization began with just one corridor, including the need to adapt to the incumbent in a way that was not traumatic and the need to make the recently created Railway Security Agency fully operational. However, this Commission considers that the process should not stop after opening up one single corridor; instead, objective criteria should be set up that lay down a roadmap for fast and flexible opening-up and lend credibility to the process, while, at the same time, promoting the consolidation of alternative RUs.

2. Progressiveness

The Council of Ministers has opted for opening up the market in accordance with a progressive model. The CNMC understands that any possible progress must take place in accordance with defined criteria and with timetable guidelines. The Council of Ministers has announced the opening-up of the Levante Corridor but it has not pronounced yet on the timetable or the order in which the other corridors will be opened up.

Progressiveness should include the opening-up of a defined, known number of corridors, which would permit all the players to adapt to the new rail market situation. Obviously, this gradual opening-up must not be prolonged over excessive periods of time, since extending the transitional period for too long would lessen the credibility of the process and reduce or eliminate competitive tension in the corridors that have not yet been liberalized, making the consolidation of alternative RUs more difficult.

3. *The model must include at least the initial opening-up of the routes with the greatest demand in order to encourage the entry of new operators and the period of validity of the permits must ensure competitive pressure in the market*

⁵⁷ Economic theory, supported by experience, demonstrates that in these network sectors effective competition is only ensured when the entrants are capable of creating credible entry and exit (or movement) strategies. Apart from the economies of scale, scope and density that exist when operating simultaneously in more than one corridor, there are many advantages when the market determines the services and products to be offered.

This progressive model includes a transitional stage before the complete liberalization of the sector. Its success is vital for opening up the market after the temporary license lapse.

The temporary license model is based on the granting of a limited number of licenses to operate on the RFIG. In order to strengthen legal security and to make planning easier for potential entrants, it is necessary to define in advance and in a transparent manner the number of licenses, their scope and their period of validity, in order to prevent any possible perceptions of asymmetry⁵⁸. The main goal will be to maintain competitive pressure throughout the period of validity of the temporary license, so that once they have lapsed, the companies that are prepared to provide services when long-term commercial services have been fully liberalized will remain in the market, and to promote the subsequent opening-up of PSO services.

To do this, there are two essential factors that the temporary license system must include: the profitability of the railway routes and the period of validity of the temporary license.

First of all, under a gradual model, the success of the model is facilitated by initially opening up the railway corridors and routes that offer higher demand to new RU, in order to foster greater participation in the temporary license granting process and provide a return on investment⁵⁹. The Council of Ministers has decided to start the process of liberalization with the opening-up of the Levante Corridor. Hence, this indicates that all the routes that have a similar or higher demand are capable of absorbing a second RU in the market, especially the Madrid-Barcelona and Madrid-Seville lines. Otherwise, the initial opening-up of routes with lower demand would discourage the participation of new players in the market, since the incumbent has the ability to use economic resources from the more profitable lines to implement, where appropriate, aggressive price competition⁶⁰ in the liberalized corridors, with this finally leading to less competition in the market. This situation would unnecessarily and disproportionately strengthen the initial advantage of RENFE-Operadora and would lessen the credibility of the liberalization process after the transitional period.

At the international level, Italy has started its liberalization process by opening up the route with the highest demand, the high-speed, UIC-gauge Rome-Milan line.

⁵⁸ See Application of the Contracting and Competition Guide for tendering processes for the provision of public health in Spain.

⁵⁹ Daytime traffic on the main routes on UIC lines, point to point: Madrid-Barcelona 3,117,361; Madrid-Seville: 2,791,000; Madrid-Valencia: 1,885,850; Madrid-Málaga: 1,450,000; Madrid-Zaragoza: 1,189,000; Madrid-Alicante: 900,000

⁶⁰ This could reduce the competitive pressure on this fundamental variable: the mere indication that there are other lines from which the incumbent can withdraw resources to compete in those that have been liberalized erodes the competitive tension and the intention of new operators to go into competition at prices, that would favour the clients.

A second element to take into account concerns the period of validity of the temporary license, which must permit the amortization of the investments, in order to attract new competitors. However, the period of validity of a license also plays an essential part in ensuring competitive pressure in the market, especially in this transitional period. In fact, an excessively long period of validity would eliminate *de facto* the potential competition in the market⁶¹. The period of validity of a temporary license passed by the Council of Ministers is seven years.

The CNMC considers that the period of validity must be analysed individually for each corridor, taking into consideration each specific case and that it must: i) generate optimum competitive pressure for the provision of the service and its progressive improvement; and ii) allow the investments made by the RU to be sufficiently profitable to attract a greater number of possible bidders.

4. The possible cream-skimming the market phenomenon of the conventional long-distance service market should not hinder effective liberalization.

If carried out correctly, the opening-up of the commercial services market to competition will result in the entry of new competitors on profitable routes. UIC-gauge lines currently operated at high-speed are, on the whole, profitable routes, whereas conventional-gauge, long-distance routes are, on the whole, not profitable.

On a theoretical level, an incorrect design of the liberalization process could cause a possible cream-skimming of the market. In other words, it could lead to competitors entering the profitable routes and to the incumbent company, RENFE-Operadora, being the only RU forced to offer a service on the unprofitable routes. This situation would have a negative effect on the income of the public company, worsening its profit and loss account, which is already negative. Nevertheless, a variety of factors must be taken into consideration by the public sector when setting up measures related to unprofitable lines.

First of all, certain commercial lines that are not currently profitable could end up being profitable with a more efficient management of the resources. Also, although some of the lines are not profitable from an economic point of view strictly limited to the line, RENFE-Operadora would obtain an indirect benefit by providing the service due to network economies⁶². The provision of these services is a reflection of the capillarity of the incumbent and of its greater presence nationwide. In addition, mandatory operation on this type of Iberian-gauge lines would mean additional costs for new entrants, who

⁶¹ See: Guide on Public Contracting and Competition.

⁶² De Rus, G., Campos, J., Los Fundamentos Económicos de la Política de Transporte Europea: un Análisis Crítico (The Economic Fundamentals of the European Transport Policy: A Critical Analysis)

would have to invest in rolling stock suitable for operating on conventional tracks (in addition to investment in rolling stock for UIC-gauge tracks, suitable for high-speed routes and for high speeds), compared to RENFE-Operadora, which already has a practical monopoly over this type of rolling stock in a narrow market, with hardly any possibility of purchasing from international markets due to the specific nature of the Iberian gauge.

Secondly, should these unprofitable long-distance public transport services be considered to have an unavoidable and irreplaceable social impact that requires their mandatory provision by a RU, they must be declared to be PSO services and, therefore, obtain public financial compensation. If they are not declared to be PSOs but the route does not have sufficient demand to absorb the activity of various operators, a public tendering process for the operation of the line should be carried out, with an inter-modal approach.

In fact, under the inter-modal approach, the decision to operate this type of routes would be obtained from a financial analysis of the different modes of transport. On routes on which rail transport might be less efficient than other modes of transport, it would be advisable to reduce or avoid activity on this infrastructure so as not to produce any unnecessary inefficiency in the system.

5. The liberalization of the PSO services should be carried out, preferably, through public tenders that take into account the principles of efficient economic regulation and require more powers for the regulatory authority

The CNMC considers that opening up the so-called PSO services to the market must, as a general rule, be carried out within the framework of Regulation (EC) 1370/2007, in the way that best fosters competition, among those alternatives legally available under the Community framework; in other words, through, at least, “competition for the market”. There is still no timetable for opening-up PSO services in Europe, even though, in the negotiations for the Fourth Package, 2023 seems to be the deadline for the opening-up of these services. The CNMC considers that, if it is decided to open them up, public tendering processes must always take preference⁶³, as opposed to direct assignment, since tendering allows *ex ante* competition and facilitates the assessment of the minimum compensation to provide the service under certain quality criteria. If the tendering process is correctly designed, the mere existence of potential competition could have a “disciplinary effect”, which would bring the behaviour of the sole RU closer to what it would be if there was real competition.

⁶³ This reduces the risk of giving inappropriate economic compensation, either in excess or by default, to the designated RUs, and makes it easier to select the best possible bid for the provision of the service. Excessive compensation, which could be considered to be state aid, could violate article 107 of the Treaty on the Functioning of the EU if it affects competition.

In any case, if, despite the preceding recommendations, it is considered to directly allocate a line or group of lines with PSO services, or if the public tender does not have any bidders, the sustainability of the liberalization process would require this to be a transparent, non-discriminatory and proportional process, with appropriate deadlines and to set up periodic reviews to strengthen *ex post*. competition. In cases of direct allocation, the supervisory role should be significantly strengthened in order to prevent the approval of excessive compensation that could constitute state aid. The competent supervisory authority, the CNMC, should be able to verify the analytical accounting and the net cost of the operator or operators designated to provide PSO services and determine, independently of ministerial departments and companies, the compensation needed to provide the services under certain pre-established public requirements.

In addition, the specifications for the public tenders must include the conditions and requirements that the winning bidder must meet, which must be subjected to subsequent control by the regulatory authority. In the United Kingdom, this task was entrusted to an independent authority (the *Strategic Railway Authority*), which was in charge of monitoring compliance with the terms of the concessions⁶⁴.

The independence of the authority supervising tenders would seem to be highly appropriate for the viability of the liberalization process.

6. *Liberalization must be preceded by the restructuring of RENFE-Operadora and by greater transparency in the incumbent's accounting, in order to eliminate incentives for the appearance of cross-subsidies*

In order to ensure the viability of the public operator, RENFE-Operadora must take advantage of this liberalizing impulse in order to continue and accelerate its path toward adaptation and internal restructuring by reducing costs and increasing productivity. It should also seek the financial sustainability of each of its business units and greater efficiency in its provision of services, which would also result in an advantageous position for competing in the both Spanish and other European markets.

This internal restructuring process will contribute to the improvement of the profit and loss account of RENFE-Operadora, placing it in a better position to compete with new entrants and, at the same time, contributing to improving the assignment of RENFE-Operadora's surplus of resources to other companies in the sector. There is the example of other sectors, such as the postal sector, where liberalization took place without first addressing the restructuring of the incumbent, so that hardly any new

⁶⁴ This authority disappeared in 2006 and its duties were taken over by the Ministry of Transport. It must be remembered that in the United Kingdom, unlike Spain, there is no incumbent company with administrative dependence on the Ministry in charge of regulation and the approval of concessions.

operators have entered the market since 2010, as the State Post Office (Correos), the incumbent operator, continues to have more than 90% of market share, in terms of income, in the traditional postal market.

In addition, the RENFE-Operadora restructuring process must be accompanied by increased transparency in the accounting of the lines, especially in the context of liberalization through a restrictive territorial model with the monopoly operator, RENFE-Operadora, operating nationwide or through a model where all the national corridors are opened up, but gradually. These two possible models may give rise to the perpetuation of lack of transparency in the analytical accounting of the incumbent and the possible existence of “cross-subsidies” in the public company, which would hamper the liberalization process.

The existence of competition and efficient economic regulation must, where appropriate⁶⁵, entail the convergence of prices on these routes, through supply and demand, toward cost-related market prices. RENFE-Operadora operates nationwide and has a monopoly over the remaining lines that are not open to competition. Hence, the public RU could have incentives, at least temporarily, to offer lower prices than the new RU, not cost-orientated, on the corridors open to competition. In this way, it could increase its market share and slow down the liberalization process, withdrawing resources from its rivals, without this necessarily leading to a more efficient provision of the transport service. In strategic terms, the mere possibility to do so must be taken into consideration by potential operators before they enter the new market, thereby reducing, *caeteris paribus*, their interest in this market if no prior corrective measures are taken.

The possibility of systematically charging lower prices in the corridors where there is competition could be maintained, even with the current legal requirements for accounting separation, thanks to the higher relative profitability that RENFE-Operadora could obtain in other corridors that are not yet open. For example, the incumbent could charge higher prices in the corridors in which it has a monopoly in order to compensate for the results from those routes open to competition. However, new entrants would not be able to carry out this practice, since their activity in the sector would be limited to the corridors open to competition. This would put them at a competitive disadvantage and they would run the risk of being driven out of the market, due to factors unrelated to operating efficiency. This situation also implies that, *de facto*, the type of RUs that could consider entering the market would be unnecessarily restricted. The RUs that have other sources of revenue from outside the railway sector will have a strategic advantage to compete with the incumbent on the liberalized route, in detriment of the rest of RUs..

⁶⁵ This will occur if the competition is through pricing. Other variables exist on which there can be competition: quality, timetables, additional services, etc.

In order to avoid this situation, as a necessary but not sufficient condition, and in order to ensure a certain probability of success of the liberalization process, the incumbent would be required to carry out, a priori, internal restructuring and ensure transparency in its accounts, so potential RUs could assess the possibilities of making their entry into the market profitable, without any unnecessary uncertainty. For example, this could be done by publishing separate, detailed analytical accounting by line or railway corridor, which would assign the cost of the service to each of the routes in a transparent manner.

7. Liberalization must be accompanied by the elimination of any privileges that might favour the incumbent in detriment of new entrants

RENFE-Operadora, as incumbent, has a number of economic advantages, which may not be reproducible in the short term, but which could be obtained by new RUs at some point in the future. They stem from the incumbent's greater knowledge and experience of the market and, in theory, from a lower average cost due to economies of scale and network economies as a result of its performance all over Spain.

However, apart from these economic advantages, there are other advantages, of regulatory nature, that should be corrected prior to liberalization.

The Council of Ministers is the authority with the power to set the number of temporary licenses per line or group of lines and the Ministry of Development will be responsible for developing the requirements and conditions for taking part in the tendering processes for these temporary licenses. It has been expressly established that *RENFE-Operadora will have a temporary license to offer services throughout the country, without the need to enter the tendering process.*

This system favours RENFE-Operadora, since there are asymmetrical starting conditions that benefit the incumbent as compared to the other rail companies. The public company is exempt from taking part in the process to obtain a temporary license, which is an essential requirement for the participation in the market of the other RUs. This situation is similar to the now extinct Ninth Additional Provision of Act 39/2003 relating to the freight transport by rail, which laid down that RENFE-Operadora; "*shall, since the entry into force of the act, be assigned all the infrastructure capacity necessary for the performance of the freight transport services that the public company RENFE was providing at that time*".

This could also be a *grandfather clause* that, with the aim of guaranteeing the continuity of the provision of the rail service, exempts the incumbent from a number of procedures that are obligatory for other participants and grants the incumbent preferential use of the infrastructure. In this case, RENFE-Operadora is automatically qualified to provide the service in all the corridors in which it had previously been operating, that is, throughout Spain. Participation in the tender to obtain a temporary license involves an economic cost and a cost in terms of time for RUs, from which RENFE-Operadora is exempt.

The CNMC recommends that in the rail passenger transport liberalization, as in all network sectors⁶⁶, the appropriateness of imposing certain obligations on the incumbent should be assessed. In this context, any legislation favours the entrants does not constitute discriminatory competitive asymmetry but rather the creation of minimally neutral conditions in a situation that favours the historical monopoly right from the start.

- 8. The process of restructuring RENFE-Operadora should be accompanied by its separation of the Ministry of Development and ADIF in order to foster the entry of new operators into the rail sector*

RENFE-Operadora is a public business entity dependent on the same ministry as the infrastructure manager, ADIF. This link between these two players and the ministerial department may lead to aligned incentives that flout the principle of separation of activities, which is considered essential, according to the former liberalization processes of all the network sectors.

To begin with, the competent Ministry has the duties set down in article 81 of the Railway Sector Act. Such tasks include the strategic planning of the rail sector, the general planning and regulation of the system, the granting of licences, the granting of permits to provide PSO, and the development of the general framework for charges. In a market with several operators, all of these powers require not only impartial and independent action, intended to lead to efficiency and the proper operation of the system, but also the subjective perception of new entrants that this undoubtedly the case. However, as RENFE-Operadora is currently a company dependent on the regulatory ministry, in a liberalized market, the latter – even assuming that it has no incentives to favour the incumbent company in its decisions or that it is capable of avoiding such incentives – will not be able to signal that this is truly the case or that its decisions do not have a direct impact on the activity and on the profit and loss account of the entity, and, ultimately, of the ministerial department itself.

In addition, ADIF, as the infrastructure manager, also has duties that have an influence on the design and the operation of the market, laid down in article 21 of the Railway Sector Act, such as allocating capacity, determining charges and issuing preliminary reports prior to the granting of RU licences. The fact that RENFE-Operadora and ADIF report to the same ministry could generate a perception in the new liberalized market of the existence – real or not – of deviations in the behaviour of ADIF as regards necessary neutrality and equal treatment. Theoretically, there are incentives that favour the incumbent operator, with links with ADIF, rather than the other RU in the market.

⁶⁶ For example, a number of obligations could be imposed regarding the submission of analytical accounting by RENFE-Operadora, since this is the only company that operates throughout the entire country.

From a practical point of view, it is difficult to convince potential operators that this is not the case, if this simultaneous dependency continues.

Potential RUs will be aware that the incumbent, RENFE-Operadora, is a public company dependent on the same ministry as ADIF. This may lead to at least two problems:

- i) There may be incentives that the design of the model is guided by the partial objective of maximizing the value of RENFE-Operadora and/or ADIF, to the detriment of the broader objective of the efficiency of the system; and
- ii) the credibility of the liberalization process could be harmed if RUs perceive, even subjectively, that this relationship hinders a symmetrical access to information and/or the possibility of influencing the ministry . Therefore, the liberalization process should be accompanied by a strengthening of the CNMC as the independent regulatory authority. It should be given the ability to sanction and, in particular, increase its responsibility in the area of supervising the accounting of the infrastructure manager, with the aim of guaranteeing the financial balance and sustainability of the system.

Both of these obstacles would be diluted if the prior restructuring of RENFE-Operadora is carried out, as this would result in a more efficient competition in the market.

In order to reduce or eliminate these incentives, it is proposed that the CNMC participates more in some processes, such as determining railway charges, which are determined by the infrastructure manager⁶⁷. In order to guarantee greater objectivity in the process, the CNMC considers that it desirable that the infrastructure manager should make the proposal, as it has all of the information on its costs. Additionally, it would be appropriate to assess the possibility of enhancing the role of the regulatory authority on the approval of charges, in this case the CNMC, which is an independent authority and, due to its design under Act 3/2013, is impartial in regard to administrative departments and all the market players.

Therefore, in order to prevent these incentives from taking the form, either in reality or in the subjective perception of the operators, of discriminatory treatment for other RUs, as opposed to the incumbent operator, it is recommended that the incumbent and the infrastructure manager should stop reporting to the same ministry prior to the liberalization process.

⁶⁷ Until Royal Decree-Act 11/2013, the Ministry of Development was responsible for this.

9. *An effective liberalization process must guarantee the neutrality of the companies that lease and maintain the rolling stock of RENFE-Operadora. This implies the separation of activities and the decoupling, preferably by a privatisation process in a competitive procedure.*

Access to the related markets of rolling stock and rolling stock maintenance is essential in order to guarantee suitable access for new RUs and the proper operation of the railway market. This is particularly so in the context of the temporary license model that, temporarily, enables a set number of rail companies to operate in the market. The uncertainty regarding their period of validity makes it reasonable to place a priority on the leasing of rolling stock as compared to purchasing it, given the considerable cost in economic terms and in terms of the time involved in its purchase and official approval. Prior to the liberalization process, the Ministry of Development split RENFE-Operadora into four different companies and it must further reinforce this separation in order to guarantee full access to the rolling stock leasing and maintenance services.

In Spain, access to rolling stock has one particular feature that makes its purchase more difficult: Spain has networks with different gauges and the normal network has a different gauge from the European gauge. The restricted nature of the non-standard gauge markets makes even more restricted the purchase of rolling stock.

In order to reduce this barrier, it is desirable to guarantee, simultaneously to the liberalization process, access to the rolling stock, on the basis of non-discriminatory and reasonable conditions for new entrants. For example, through the creation of at least one rolling stock leasing companies which leases sufficient stock of wagons and locomotives to operate in the market, without any dependence on the incumbent.

The fact that the public sector has restructured RENFE-Operadora into four companies is therefore considered a positive sign. In theory, dividing up RENFE Rolling Stock Leasing makes this type of asset available to the operators in the market, with the aim of lowering or removing this particular barrier to entry. However, the entire 100% of the share capital of this company is owned by the same business group as the incumbent, so that there are still incentives for having objectives in common with the mother company and obstructing access to rolling stock by new entrants, either by setting an unnecessarily high price or making rolling stock available in small amounts or with delays, or providing older rolling stock that is less competitive than that used by the incumbent.

In addition to this option, there are other possibilities that have already been developed at the European level. For example, *pools* of rolling stock. In the case of markets that operate through concessions, for example, the possibility for the next winning bidder to opt to take over the rolling stock in the contract or using his own stock (rolling stock repurchasing guarantees) or the possibility that the authorities purchase the rolling stock at the end of the contract (guarantees on the residual price of the rolling stock).

The CNMC also considers that it is essential for the success of the liberalizing process that the company responsible for leasing rolling stock makes a sufficient number of trains available, so that the RUs can generate a volume of business that will allow them to compete on equivalent terms with the incumbent⁶⁸. In fact, an excessively small number of trains for UIC-gauge routes would represent an additional obstacle to competition that would be difficult to overcome and would make the entry of RUs into the market much more difficult.

Taking into account the singular nature of the transitional periods in all countries, and, particularly in Spain, the specific and multiple nature of the track gauge, it is essential to guarantee sufficient access to this type of stock under fair economic conditions. This would only be possible if the rolling stock unit is completely separate from the incumbent. For example, in the abovementioned experiences, this split could be done through a similar process to the British ROSCOS⁶⁹. Under this process, the current rolling stock unit should be divested from the incumbent and, in turn, split into different companies in the same business unit, allowing for the entry of private capital.

In addition to the rolling stock market, there is a second, related market, which is closely related to the incumbent company and also represents a barrier to entry⁷⁰. This is the rolling stock maintenance market. In order to fulfil the legal requirements on safety, rolling stock must comply with a maintenance plan. This involves an economic cost for the company, which should be efficient and meet the required safety objective, both in terms of cost of repair or maintenance and in terms of income lost due to inactivity while the locomotive or wagon is in the maintenance workshop.

The incumbent company has its own network of workshops, Renfe Fabricación y Mantenimiento (formerly the Integria network), which performs the maintenance on its own rolling stock and that of other RUs. However, as in the case of rolling stock, any real alternatives to this network are practically non-existent in Spain, since RENFE is the only company that has a network of workshops covering the entire country and, in addition, the incumbent has links with all the railway equipment manufacturers in Spain, through participation in mixed companies with the major rolling stock manufacturers. In a liberalized framework like the one that should exist, this situation would limit competition in the maintenance market and make it possible for the historic operator to

⁶⁸ The total rolling stock of the company RENFE Alquiler de Material Ferroviario consists of 51 trains, 19 of which are high-speed (AVE) and another 12 variable-gauge, i.e., those that can travel on both high-speed and conventional tracks. In addition, it will also lease out two sets of Talgo train carriages and 49 locomotives, 37 of which are electric and 12 diesel. It will also make 1173 carriages available for transporting all types of goods.

⁶⁹ This is the process used to split the former British public monopoly into several different companies. In the case of rolling stock, Rolling Stock Operating Companies (ROSCOS) were created and these were subsequently privatized.

⁷⁰ See the report on Competition in the transport of goods by rail in Spain.

influence the service provided to all other RUs, either by delaying the maintenance work done on the rolling stock, giving priority to its own rolling stock, or through inefficient pricing that could have a negative impact on all the companies and proportionately more on its competitors due to their smaller scale.

In short, rolling stock maintenance is an essential, necessary service for the provision of rail transport in all markets and is irreplaceable in a liberalized market. Maintenance cannot depend on the incumbent, since there are incentives to not behave in an efficient manner and to take into account objectives other than efficiency when providing this service. The CNMC therefore considers that, in parallel with the liberalization process, it would be appropriate to set a complete legal, accounting and operational separation of this rolling stock leasing unit, which could be done, for example, through the channels already commented.

10. Liberalization presents a framework of opportunity for removing other barriers to market access

The liberalization process involves the restructuring of a considerable part of this strategic sector and seeks systemic efficiency, for which it is necessary to make regulatory and operational changes to the market. Advantage should be taken of this circumstance in order to undertake a number of measures to facilitate entry to the market for new RUs and, as well as eliminating the above-mentioned privileges that RENFE-Operadora already has under the current regulatory framework, to advance toward increased transparency, independence and speed in the existing processes.

In fact, the process for obtaining all the permits needed to operate in the market can take over a year. Obtaining a licence, a safety certificate, approval for the rolling stock and certifications for railway personnel are all required. For commercial services, obtaining a temporary license is an added requirement. In order to prevent this process from leading to high administrative costs for railway companies, which already have the items mentioned above, it is desirable that the conditions and requirements for taking part in the tender for temporary licenses should not duplicate the requirements that have already been met by the RUs to obtain a licence, in terms of solvency, financial capacity and staff training. In addition, it should be remembered that, as laid down in the current regulations, these obligations are only set for new participants in the market, since RENFE-Operadora is exempt from having to obtain a temporary license in order to operate nationwide.

In addition, in order to ensure non-discriminatory treatment for the new operators, it would be necessary to set up an objective, transparent, non-discriminatory system for assigning capacity in which historic rights (grandfather clauses) are eliminated or limited to very specific circumstances and are rated by applying the principles of necessity and proportionality. Should this not happen, as the CNMC has stated in the *Report on the Draft Order for the declaration on the network and the procedure for allocating railway infrastructure capacity*, there would be incentives for the dominant operator to maintain

the most profitable routes and timetables, limiting or discouraging the entry by new companies into the market, to the ultimate detriment of the clients.