

# COMPETITION COMMITTEE



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**RECENT DEVELOPMENTS IN RAIL TRANSPORTATION SERVICES**

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## **FOREWORD**

This document comprises proceedings in the original languages of a roundtable on recent developments in rail transportation services held by the Competition Committee (Working Party No. 2 on Competition and Regulation) in June 2013.

It is published under the responsibility of the Secretary General of the OECD to bring information on this topic to the attention of a wider audience.

This compilation is one of a series of publications entitled "Competition Policy Roundtables".

## **PRÉFACE**

Ce document rassemble la documentation dans la langue d'origine dans laquelle elle a été soumise, relative à une table ronde sur les développements récents des services de transport ferroviaire qui s'est tenue en juin 2013 dans le cadre du Comité de la Concurrence (Groupe de travail no 2 sur la concurrence et la réglementation).

Il est publié sous la responsabilité du Secrétaire général de l'OCDE, afin de porter à la connaissance d'un large public les éléments d'information qui ont été réunis à cette occasion.

Cette compilation fait partie de la série intitulée "Les tables rondes sur la politique de la concurrence".

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## EXECUTIVE SUMMARY

*By the Secretariat.\**

From the discussion at the roundtable, the delegates' submissions and invited presentations and papers, several points emerge:

- (1) *Most developments in OECD railway sector reform since 2005 have concerned the ongoing opening-up of rail services to competition, especially in Europe.*

The objective for the railway sector is to ensure an optimal level of service quality and variety (including public interest considerations) and a high level of productive efficiency (and therefore a minimum level of subsidy where one exists), subject to efficient pricing of rail services to end-users (taking into account the price of substitute services, which are often subsidised). an optimal level of service quality and variety (including public interest considerations), and a high level of productive efficiency (and therefore a minimum level of subsidy where one exists). Reform in the railway sector, as in other utilities, is driven by a public policy perception that this objective can often best be pursued by promoting competition where it can be sustained.

The economic organisation and governance of the rail sector differs markedly among OECD countries (including the very different relevance across countries of passengers and freight services), hence this objective must be pursued under different circumstances. Geographic, demographic and economic features of different countries strongly influence the ability of alternative modes of transport to constrain potential market power in the rail sector (inter-modal competition), and the viability of different forms of competition within the rail sector itself (intra-modal competition). Differences in the type and speed of reform also reflect the complexity of the regulatory challenge and the lack of demonstrated blueprints for success.

Railway reform has continued in many OECD countries since 2005, the last year in which the OECD Competition Committee held a roundtable on the rail industry. Most developments have concerned the opening-up of rail services to competition through the granting of open access to monopoly infrastructures, especially in Europe. In the European Union, freight markets were opened up to competition in 2007 and international passenger services in 2010. In 2013, the EU Commission proposed a Fourth Railway Package which envisages open competition for all domestic passenger services by 2020, as well as new measures for the effective separation of infrastructure managers and transport service providers, and for fostering the technical interoperability of national systems.

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\* This Executive Summary does not necessarily represent the consensus view of the Competition Committee. It does, however, encapsulate key points from the discussion at the roundtable, the delegates' written submissions, and the Secretariat's background paper.

As a result, competition in freight services has increased everywhere, with the incumbent operator losing market shares sometimes substantially. There have also been developments outside the EU; for example, the strong increase of market competition in freight services in Australia and the development of a growing competitive freight wagon sector in Russia.

- (2) *Where liberalisation has occurred, rail industry outcomes, as measured by the intramodal market shares of train operators and the modal share of rail versus other forms of transport, are changing only gradually.*

Despite further liberalisation measures and the passage of time since previous reforms, industry outcomes, as measured by the intramodal market shares of train operators and the modal share of rail versus other forms of transport, are changing only gradually. The formal opening-up of freight rail to in-the-market competition, where it has occurred, has led to entry but only to a slow and limited erosion of incumbent providers' market shares. Many OECD members report that incumbents retain shares of between 70% and 90%. The reasons behind the ability of the incumbent to retain such a strong position in the market are manifold. They adopt behaviours that limit the ability of new entrants to gain market shares and there are still barriers limiting entry and expansion, such as difficulties in securing rolling stock, in obtaining access to stations and other shared facilities, and in changing existing capacity allocations.

The available evidence does suggest that liberalisation affected the modal share of rail, although not dramatically. For example, although the number passenger kilometres grew faster in Britain than in all other major European railways over the period 1995 to 2010, analysis suggests that the majority of this growth was due to exogenous factors. An econometric analysis presented at the roundtable provides only limited evidence that liberalisation increases the modal share of rail over road in passenger transport and no evidence of such an effect in freight transport, although reliably measuring such causal effects is extremely challenging.

In those countries where vertical separation has been introduced; policymakers and analysts continue to debate the question of how best to organise the vertical relationship between infrastructure management and transport activities. The main issue is that stricter separation can limit the incidence of anti-competitive behaviour, but it can also reduce technical efficiency. In any case, the experience of the countries that have liberalized, especially those that have done so through vertical separation, shows the importance of an independent regulator for promoting profitable entry.

A variety of forms of vertical separation exist among OECD members, ranging from mere accounting separation within a vertically integrated entity to full institutional separation (e.g. Sweden and the UK). Intermediate models involve organisational separation into subsidiaries under an overall holding company (e.g. Germany and Italy).

In a situation of vertical integration, the infrastructure provider is permitted to operate services in competition with others to which it must supply access on regulated non-discriminatory terms. This arrangement preserves the infrastructure provider's incentives to invest in the infrastructure, permits economies of scope, and facilitates the coordination of track and train activities. At the same time, however, it provides incentives for the vertically integrated company to foreclose, or otherwise disadvantage, rivals and to favour its own transportation arm, which harms competition and places a burden on regulators and competition authorities to prevent or remedy such conducts. Experience shows that these forms of discrimination can be subtle and are not easily eliminated by the requirement for non-discriminatory access.

Under vertical separation, the infrastructure manager is not permitted to operate transport services. Such separation is designed to remove the incentive for an infrastructure provider to discriminate in favour of a transport provider to which it is financially linked, thus enhancing competition. However this set-up can weaken the infrastructure manager's investment incentives and lead to a loss of economies of scope and other inefficiencies. The costs due to these inefficiencies are believed to be large because of the complexity of the interfaces between infrastructure and transport activities, which require an alignment of incentives between track and train operators. A 2004 study of the US freight sector concluded that an integrated freight railway could have a 20 to 40% cost advantage over a vertically separated one (although this cannot necessarily be generalised to other situations), while a 2012 study focused on the EU finds that vertical separation increases costs at higher traffic densities and argues that the imposition of full vertical separation in the EU would increase operating costs substantially.

Hence, there is mixed evidence on the overall impact of the degree of vertical separation on competition and on final outcomes (such as costs and quality). For example, costs of passenger rail provision (as measured by the level of public subsidies) are estimated to have fallen both in Sweden, which has full institutional separation, and in Germany, which uses the holding company model, while costs in the UK, which has full ownership separation, are estimated to have risen initially (at least until 2006). The evidence in other words confirms that vertical separation in order to produce beneficial outcomes has to be accompanied by appropriate institutional structures and regulatory provisions.

- (3) *The experiences of the countries that have used competitive tendering to allocate licences to provide train services suggest that a number of important trade-offs must be weighed. These include how to allocate risk between government and licensee, how to reduce the probability of hold-up or default, and how to appropriately determine the scope and duration of the licences.*

Competitive tendering has been used by some countries for the award of licenses to operate domestic passenger services, especially regional and local ones that are not commercially profitable as it helps to contain the size of subsidies. Many countries still do not make use of this award mechanism, but it will become mandatory in the EU for the award of licences to operate socially supported domestic services once the market for passenger rail services is opened up to competition across all member states.

The aim of competitive tendering is to create competition for the market and hence exploit the benefits that competition can bring in terms of lower costs, higher efficiency, greater quality and innovation. The design of the licences and of the tender mechanism is crucial to the success of competitive tendering in achieving these goals. The experiences of the countries that have used competitive tendering suggest that a number of important trade-offs must be weighed.

A key consideration is the allocation of risk between the operator and the government. The commercial performance of rail transport operators is subject to a variety of uncertainties, including exogenous (e.g. macroeconomic) risks which they are not in a position to manage and which it may be more appropriate for governments to assume.

The effectiveness of competitive tendering rests on the bidding competition: a) favouring the most economically efficient enterprises (i.e. those who are best able to minimise costs and maximise revenues, and so require a lower subsidy), and b) ensuring that this efficiency is passed on to the government (by the subsidy being competed down to a level that does not hand significant excess profits to the winner). The effectiveness of this mechanism rests on the possibility of potential competitors to have at their disposal rolling stocks and professionals so as



to be able to quickly enter the market. This may require creating a company that would own locomotives and wagons and would lease them to the winner of the bidding.

Although in general competitive bidding is an effective instrument for identifying the most efficient company that would serve a market, in the rail sector the effectiveness of ex-ante competition may be weakened. Indeed the possibility of hold ups is quite common and may originate from the social nature of rail services, especially passenger services, that cannot be interrupted. As a result governments would never allow a rail service operator to get bankrupt and as a result operators may be less disciplined in controlling costs. In the UK, for example, around half of franchises awarded since 1997 have been renegotiated ex post, because costs have proved higher or demand lower than forecast. Foreknowledge that the government will in practice partly insure the winning franchisee in turn encourages bidders to bid more aggressively for franchises than is justified by their cost structure or by a realistic forecast of demand, potentially leading to franchises being awarded to the 'wrong' bidder. It also weakens a franchise-holder's incentives to pursue cost-efficiency.

Where a franchisee encounters commercial difficulties and is not able to renegotiate its franchise terms, it may find it less costly to default on its obligations than to continue operating. Thus the possibility of simply 'walking away' from a franchise implies that operators can cut off their downside risk to some extent even without hold-up. Capital requirements can help to ensure meaningful bidding, reduce the probability of default, and provide a measure of public compensation if default occurs. However, higher capital requirements will tend to increase the profit margins (and hence the level of subsidy) demanded by bidders, and, particularly in the case of large franchises, may reduce the pool of bidders willing or able to compete for a franchise.

The scope and duration of franchises also involve trade-offs. Authorities must weigh the advantages of shorter franchises, which permit more regular competition for the market, against the disincentive for making investments and cost-reduction initiatives with a payback period that is longer than the lifetime of the contract. Larger franchises will tend to promote economies of density and scope. However, where there are few franchises available, bidders face an increased risk of failing to win a franchise and being stranded with assets, giving them an incentive to bid more aggressively. A smaller number of larger franchises may also deter the entry of new players.

Overall, therefore, it is clear that governments face complex decisions in pursuing an appropriate allocation of risk between government and franchisee while preserving performance and investment incentives. The outcome of the discussion has been that the risks and obligations assumed by the franchisee should be binding and not easily renegotiated. Capital requirements may also be used to encourage realistic bidding and deter default, but should not impose excessive burdens on operators.

- (4) *It is too early to draw conclusions on the regulatory and competition issues that might be raised by high-speed rail services.*

High-speed passenger services are being developed in many countries and between major European cities. So far the skills and resources needed to operate HSR trains are so demanding that typically only consortia including incumbent operators have been able to do so.

To date competitive provision of high-speed services has emerged only in Italy, where a rival operator has begun to operate services in competition with the incumbent, on a massive scale (25 trains, 49 routes, 12 stations). Entry has resulted in a strong increase in service levels, but it is too early to provide a definite judgements on the effect of competition in high speed services.

## ISSUES PAPER

*By the Secretariat* \*

### 1. Introduction<sup>1</sup>

Railway reforms are still very much in progress in many countries. One of the major objectives driving these reforms has been to ensure that end-user prices are at an efficient level (considering the level of costs and the price of substitute services), productive efficiency is high (and therefore subsidies are low), and investment and innovation guarantee a satisfactory level of service quality, safety and variety.<sup>2</sup>

A clear model for achieving this objective has not been found yet. In particular the appropriate role of intra-modal and inter-modal competition<sup>3</sup> remains a live question. This is due to a number of factors. First, fixed costs are sufficiently high and marginal costs sufficiently low that railways constitute a commonly cited example of “natural monopoly”. Second, railways provide both market-based and subsidised (socially important) services, and the argument is regularly made that competition harms the ability for profitable services to cross-subsidise social services, thereby avoiding the need for explicit public support. Third, in the railway industry multiple services are provided over a common infrastructure and using other common inputs, which generates considerable joint and common costs that have to be more or less arbitrarily allocated to the different services. Fourth, high and regular investments are necessary to ensure quality and safety on the infrastructure, but privatisation and competition may affect the incentives and the ability to guarantee the necessary level of investments. Fifth, coordination at various levels of the supply chain is important to guarantee a safe, efficient and smoothly functioning network, but this coordination is much more difficult if the infrastructure and the downstream operations are separated to ensure non-discrimination, increase transparency and foster competition.

Different countries have adopted a different combination of structure, balance between private and public ownership and regulation to achieve the objective mentioned at the start, with different degrees of success. Some have relied more heavily on inter-modal competition, while for others intra-modal competition has been essential. The kind of intra-modal competition also varies between countries. Regulation has been used to support or integrate competition in different manners.

Providing conclusive assessments of the relative merits of the different approaches is difficult. Indeed not all the approaches chosen have been fully implemented (as in a number of EU member states). Further the outcome is determined not only by the structure, ownership and regulation of the railway system, but

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\* This Issues Paper was prepared by Mr. Lou Thompson (Thompson, Galenson and Associates), consultant to the OECD Secretariat.

<sup>1</sup> The overall quantitative support for the analysis presented in this paper is too voluminous to be appended in its entirety. The reader is referred to the Excel file that may be found at [www.tgaassoc.com](http://www.tgaassoc.com) (Index 139, “Data for OECD Competition Report June 2013”). Appendix 1 only includes summary tables.

<sup>2</sup> See OECD (2012), page 5 Box 1.

<sup>3</sup> Intra-modal competition is competition from other rail operators. Inter-modal competition is competition from other transport modes.

also by the installed base of track<sup>4</sup> and the geography of the country (e.g. distances to be covered, population density, location of ports and waterways), as well as the regulation and the degree of public policy interventions in other transport modes (e.g. road pricing, taxes on fuel, environmental taxation). Nevertheless, many changes and reforms have happened since 2004, in particular in Europe. Outlining some of these changes and their impact on the performance of the railway sector is the objective of this paper.

The discussion below approaches the subject in three parts:

- a synthesis of the different approaches;
- an overview of the developments after 2004; and,
- an overview of the results and of the problems that have emerged as rail restructuring has proceeded.

## **2. Description of the different approaches taken to establish rail structure and implement restructuring**

By 2004, experience with rail reforms had shown that the actual implementation of competitive objectives rests on a complex interaction among structure, regulation and ownership. When these three elements are not mutually consistent, the objective of an economically efficient, financially stable and market-based competitive railway sector (and, as a result, transport sector) is often frustrated.

Table A below provides an overall picture of the interrelations among structure, regulation and ownership and their effect on competition.<sup>5</sup>

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<sup>4</sup> In many countries the network was built so as to avoid duplicating the infrastructure, which resulted in having a single route between two points. However, there are some notable exceptions, like the US and Canada, where more than one line connects two destinations.

<sup>5</sup> In an ideal world, structure and ownership would be selected so as to achieve the necessary degree of inter-modal and intra-modal competition, given the nature of existing transport infrastructures, and then the appropriate regulatory system would be designed. In practice, structure, regulation, ownership and competition are often determined separately, sometimes with different policy objectives in mind. The result can be highly inefficient.

**Table A: Railway structures and their interactions with regulation, ownership and competition**

| <b>Structure</b>                       | <b>Regulation</b>   | <b>Ownership</b>   | <b>Competition</b>  | <b>Current Examples</b>   |
|--|---|--|---|---|
| <b>Monolith*</b>                       | End charges to users  | Infrastructure and operator: public                      | Inter-modal   | China, India, Latin American concessions                          |
| <b>Tenant</b>                          | End charges to users and limited oversight of trackage charges  | Infrastructure: private operators: private and/or public | Inter-modal and intra-modal (side-by-side, end-to-end, tenants with tenants and tenants with the owner)   | US, Canada, Japan   |
| <b>Limited Neutral Access</b>          | End charges to users only, internal charges are mutually agreed | Infrastructure and operators: private or private/public  | Inter-modal and intra-modal (operators with access compete with each other if they provide same services, and they compete for capacity if they are passenger operators versus freight operators) | Mexico City (Ferrovalle), Conrail joint-use areas, port terminals |
| <b>Vertical separation/Open access</b> | Terms of user access  | Infrastructure and operators: public and/or private      | Inter-modal and intra-modal (tenants with tenants and tenants with the owner, and through exclusive franchises for socially supported services)   | EU model and actual experience in various member states           |

\* Private, exclusive mining railroads are not included in this discussion.

## 2.1 Structure

Most railways were at first monoliths, where a single owner is in control of all of the assets and is providing all the services to freight and passenger customers. Over time variations to this model, which is still adopted in some countries,<sup>6</sup> have started to develop.

One variant, which is common in North America and to some extent in Japan,<sup>7</sup> is to have some services provided separately by tenant operators on the lines of the owner railway. Tenancy can be a shared use of the same infrastructure by non-competing users, or it can involve competitive access by one freight

<sup>6</sup> For example this model is still in place in Turkey and India, as we shall discuss below.

<sup>7</sup> Amtrak operates as a tenant on nearly 40,000 km of freight lines in the US and VIA operates as a tenant on about 10,000 km of freight-owned lines in Canada. The Japan Rail Freight company operates as a tenant on the narrow gauge lines of the passenger companies.

or passenger carrier on the lines of another, usually called trackage rights or haulage rights. Hence, tenancies can be freight-on-freight (as in US and Mexico trackage rights), freight-on-passenger (like the Japan Rail Freight Company and freight railroads on Amtrak's Northeast Corridor in the US), passenger-on-freight (like Amtrak in the US and VIA in Canada on the freight railroads) and passenger-on-passenger (like US commuter trains on Amtrak's Northeast Corridor).

Trackage rights have sometimes been imposed as remedies for allowing a merger, in order to limit reductions in prior side-by-side competition,<sup>8</sup> but have more frequently been negotiated between railways when it has been in their mutual interest to do so. Trackage rights are also required in certain markets under the terms of the Mexican concession agreements. Tenants generally pay only the marginal cost<sup>9</sup> of their occupancy, though this can sometimes include the investment costs of added capacity, because the general assumption is that they are minority users of line capacity. Tenants typically receive lower access priority.<sup>10</sup>

Some jurisdictions, like the EU, have opted for vertical separation of the old monolith and open access to the infrastructure, in effect making all operators tenants on the lines of a separate infrastructure manager. Vertical separation can simply consist of a requirement that the company that manages the infrastructure keeps separate accounts for its infrastructure business and its downstream operations, and that it offer non-discriminatory access and access charges to qualified operators. Accounting separation should permit verification of the financial stability of the infrastructure manager and the setting of access charges that are related to the costs effectively incurred. However, vertical separation can go further and involve institutional separation, either with an "independent" infrastructure manager, that controls the network, and independent operators for freight, intercity, urban and regional passenger services within an overall holding company (as in Germany), or by completely severing the network provider from all operators (as in the UK). With vertical separation, access charges become difficult to set, because the requirement for non-discrimination can clash with the need to recover the fixed and variable costs of the network.<sup>11</sup>

In some systems part of the infrastructure is collectively owned by a number of vertically integrated railways, which have full and neutral rights of access to it. Access charges are usually determined by allocating operating and maintenance costs among users on a relatively simple basis, such as wagonloads or trainloads handled.

## 2.2 *Ownership*

Different degrees of involvement of the private and public sector have been explored with varying success around the world.

The monoliths still in place are all state-owned, as in China, India or Turkey. Indeed with this kind of structure the opportunity for private involvement is limited because there is no obvious reason to create a private monopoly in place of a public one.

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<sup>8</sup> See the competition section below for a definition of side-by-side competition.

<sup>9</sup> These are often also referred to as "variable costs" or "avoidable costs".

<sup>10</sup> The owning carrier typically considers its own traffic patterns and services first, and then gives the tenant access on a lower priority that does not conflict with its needs. In the US, by law, Amtrak is supposed to have highest priority on freight tracks. In practice, Amtrak's trains are often delayed by freight traffic.

<sup>11</sup> When the rail network is run by an entity that is separate from the operator(s) providing services on it, the latter has to pay an "access charge" to gain access to it.

Systems characterised by tenancy agreements can be publicly or privately owned. The US system was originally mostly privately owned and operated, though there were periods of public intervention, especially during large rail bankruptcies. This changed with the creation of Amtrak as a public company that assumed the financial burden of passenger service losses, stopping cross-subsidisation from freight operators. Canada, instead, had a publicly owned railway Canadian National, along with a privately owned railway Canadian Pacific. Canadian National was privatised in 1995. Similarly to the US, Canada created a public company (VIA) that provides passenger services through tenancy agreements. As a result, in both countries the infrastructure is now wholly privately owned by private freight operators but provides access to public passenger operators.

Vertical separation of previously publicly owned monolithic systems, as in EU member states, has created opportunities for a greater involvement of the private sector through the award of management contracts, franchises, or concessions, or even through the privatisation of some parts of the system.

### **Box 1: The UK experience**

The most prominent experience with privatisation of infrastructure and franchising to private companies of rail services is the one of the UK, which contains a number of significant lessons for other countries inside, and outside, the EU.

Beginning in the mid-1990s, the UK took the vertical separation idea and pushed it far beyond any point that the EU Commission had mandated. The old vertically integrated British Railways (BR) was entirely broken apart, with the infrastructure privatised (Railtrack), 25 geographically exclusive, commercial (“net cost”)<sup>12</sup> passenger franchises awarded, the freight business sold in its entirety to three private companies,<sup>13</sup> and three privately owned rolling stock leasing companies created. All this was to be overseen by government departments and new regulators. Reacting to political imperatives, the government forced the entire process of total vertical separation and privatisation to be planned and implemented within about two years.

The results were predictably mixed. Railtrack failed and was brought back into a quasi-public status (Network Rail). Many of the original passenger franchises failed, arguably due to irrational or strategic bidding, and had to be restructured into gross cost franchises or handled through temporary management contracts. A significant accident (Hatfield) disrupted the entire system and forced the Department for Transport (DfT) to take a more direct role in overseeing and funding the system, in particular investments in infrastructure. At the same time, the downward trend in passenger demand that had persisted since the late 1940s was sharply reversed, and demand levels eventually exceeded those of 60 years ago.<sup>14</sup> The average age of the rolling stock was cut nearly in half, and accident rates on the system continued to fall faster than they had been under BR. In real terms, average passenger tariffs have increased only slightly over the period of franchising.

<sup>12</sup> The terms “net cost” and “gross cost” are commonly used, but not precisely defined. In general, “net cost” means that the operator takes a greater degree of commercial risk in pricing, demand forecasting and investment, whereas “gross cost” franchise operators function more like management contractors at the direction of the owner.

<sup>13</sup> However, the Deutsche Bahn freight operator acquired the largest UK freight company (EWS). The Deutsche Bahn holding company is still owned by the German government; hence the status of EWS as a private operator is questionable.

<sup>14</sup> Indeed, since infrastructure separation and franchising were introduced, passenger traffic in the UK has grown faster than in any of the major EU countries, to the point where system congestion required massive investment in new capacity.

In recent years, the system's trajectory of increased demand, growing congestion and significant cost increases led to a series of deep re-examinations. The first step, the McNulty report published in 2011, generally concluded that, while the concept of franchising should be retained, the UK system was 20 to 40 % more costly than comparable EU systems and that a reconsideration of the total separation of infrastructure from the operators should be entertained. Then the failure in November of 2012 of the retendering of the Inter City West Coast (ICWC) franchise, which had been announced in August of 2012, touched off two inquiries and resulting reports: "The Report of the Laidlaw Inquiry", which investigated what had gone wrong in the franchise award; and "The Brown Review of the Rail Franchising Program", which reassessed the entire franchising programme in light of the experience to date and the lessons from the ICWC franchising failure in the Laidlaw Report.

In broad summary, the Laidlaw Inquiry concluded that the DfT had failed in its design of the tender for the new franchise and had, as a result, improperly awarded the franchise. The inquiry concluded that provisions setting out the obligations of the franchise in the event of default were improperly defined and assessed in the bid evaluation.<sup>15</sup> It recommended that the terms of the tenders for future franchises be reviewed in detail, and that DfT be provided with adequate skills and resources to implement the process more effectively in the future.

The results of the Brown Review are more complex, but start from the observation that passenger traffic in the UK has grown faster than in any other major EU system, the system has become the second safest in the EU and customer satisfaction levels appear to be higher than in most major EU railways.<sup>16</sup> The basic conclusion was that "...it is inconceivable that these gains could have been achieved, and changes successfully adapted to, if the franchising system was fundamentally broken".<sup>17</sup> From this perspective, Brown had a series of recommendations that would:

1. refine the bidding process to ensure that the government's objectives are clear and that the process is not overly complex;
2. improve the DfT's capability to formulate and evaluate franchise proposals;
3. set the franchise terms flexibly according to individual requirements;
4. allocate risks to the party best suited to bear them – specifically avoid allocation of large macroeconomic risks to bidders unsuited to bear them;
5. allow the bidding process and the eventual franchise terms to evolve in accord with comments and experience;
6. greatly strengthen the DfT's capability to oversee franchise performance; and
7. restart the franchising process.

The DfT is now considering the results of these two inquiries.

<sup>15</sup> "In particular, it is important for readers to be aware that passenger rail franchisees are set up as special purpose companies with little recourse to their owning groups and are typically thinly capitalised. The DfT is exposed to a risk of franchisee insolvency leading to premature termination of the franchise. The DfT's determination of whether (and to what extent) to require bidders to obtain commitments from owning groups for a subordinated loan facility ("SLF") is one of the ways in which the DfT seeks to address this risk." Laidlaw (2012), page 4.

<sup>16</sup> See Brown Report (2012), page 18.

<sup>17</sup> Ibid, page 18.

## 2.3 *Competition*

Providers of rail services can face competition from other providers of the same service – referred to as intra-modal competition – but can also face competition from other transport modes - referred to as inter-modal competition. The degree of both kinds of competition that providers face depends on a combination of factors, ranging from the installed base of track, to the geographical structure of the country and the size and location of the other transport infrastructures in place.

### 2.3.1 *Inter-modal competition*

Air, water and road (trucks and cars) transport are all potential alternatives to the use of the railway. The extent of substitutability between these modes of transport, and hence the level of inter-modal competition railway services face, depends on the geographic, demographic and economic features of different countries and the availability of these different modes. It also varies considerably between freight and passenger services.

In freight markets, railways typically move large lots, ranging from a wagonload weighing 50 tonnes to entire trainloads (unit or block trains) of 20,000 net tonnes or more. Rail freight services are typically relatively slow, with unpredictable arrival times due to marshalling and changes of locomotives and crews. This makes rail suitable for movements of large quantities of lower valued cargo over longer distances at low tariffs.<sup>18</sup> By comparison, inland water transport tends toward even larger lots moving at a slower pace with lower tariffs, whereas trucks move shipments that are at most half a rail freight wagonload, but move them significantly faster and more dependably, and charge much higher tariffs. Air cargo moves smaller lots faster and at even higher tariffs. The competitive interfaces among the freight modes are determined by the availability of these alternatives (e.g. water transport is not an option in an area without rivers or sea), as well as by the shipper's logistics cost, which is in turn determined by cargo value, minimum shipment size, average speed of the alternative services, and tariffs.

Rail passenger services can roughly be divided among: commuters, regional low-density, conventional intercity and high-speed. Competitive modes are autos, buses and airlines, each with a different combination of frequency of service, speed, reliability, comfort, and fares. Generally, rail can offer faster and better service in suburban markets where road congestion is significant and parking at destination is costly. High-speed rail (HSR) services occupy a natural market starting at distances (~150 km) where their speed dominates the ready availability and flexibility of autos, but below distances (~800 km), where airplanes' higher speed eventually takes over. In addition, rail services can generate significant social benefits, such as lower highway or air congestion, reduced emissions of pollutants and greenhouse gases, higher land use density, easier access to city centres and lower accident rates. As a result, because market forces will normally not internalise those benefits, governments can intervene either directly through financial support, or indirectly through regulation, to influence the pattern of services that the market would otherwise provide.

It is important to highlight that substitutes for the rail mode – in particular road transport, but also airlines – often do not face efficient usage and capacity charges for a number of policy and political reasons and this affects, and distorts, inter-modal competition. The distortion can be either positive or negative for railways depending on the specific circumstances.

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<sup>18</sup> The attractiveness of rail as a solution for freight movement varies according to the type of freight.



### 2.3.2 *Intra-modal competition*

Intra-modal competition is most important for restraining market power when a set of rail services has unique advantages compared to alternative modes of transport. Intra-modal competition can take a number of forms depending on the structure of the railway system and the nature of the infrastructure. The most important ones are:

- side-by-side competition;
- end-to-end competition;
- competition between tenants and owner or among tenants; and
- competition for the market.

Side-by-side, or parallel, competition is a form of “competition in the market” that takes place where competing vertically integrated railroads have their own infrastructure to serve a given market pair. This form of competition is prevalent in North America, where all major market areas are served by competing carriers, but it is absent in Europe.<sup>19</sup>

End-to-end competition is also a form of “competition in the market” that happens between vertically integrated railroads, but it concerns market pairs where their networks do not completely overlap, but compete in providing one leg of a multi-modal journey. This form of competition tends to be more effective for freight than for rail passenger services, as passengers tend to be more time-sensitive.

Competition can also take place on the same railroad between different service providers, either all tenants or tenant(s) and owner. This kind of competition can happen in a vertically integrated railroad, where tenants enter a market where the owner of the railroad already provides services (as in the case in the US where 27% of the line kilometres have more than one freight operator), or in vertically separated systems, where the owner of the infrastructure either is not involved in the provision of freight and passenger services or is separated from its downstream operation (as it happens in some EU countries.<sup>20</sup>).

Competition can also be for the market, rather than in the market, when providers of rail services bid to obtain an exclusive franchise on a specific destination pair. Tenders are especially common where train services are subsidised (e.g. commuter services in the Netherlands, Sweden and Germany) because, when properly designed and managed, competition between bidders can significantly reduce the amount of the financial support needed.<sup>21</sup>

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<sup>19</sup> See maps of US and Canadian railroads (Index 140, “US and Canadian Railway Maps”) on [www.tgaassoc.com](http://www.tgaassoc.com)

<sup>20</sup> For example, it has been estimated that there is a choice of operators for roughly 10 to 15% of UK passenger services, though the primary operator usually provides superior trip time or frequency.

<sup>21</sup> The EU (see the 2013 Communication on the Fourth Railway Package) argues that evidence from tender competitions run in Germany, Sweden and the Netherlands have led to saving in public funds of as much as 20-30%.

### **Box 2: Management Contracts, Gross-Cost and Net-Cost Franchising**

Management contracts, gross-cost franchising and net-cost franchising fall in the middle of a spectrum of methods for creating competition going beyond full public ownership and management as a ministry (China) or state-owned enterprise (most EU railways). It can also include contracting out of minor functions, such as station cleaning or food, but the impact is limited to the services contracted.

Management Contracts – private management competes for the right to operate public assets in a fully specified way (demand forecasts, tariffs, service levels, service quality, etc.). Management acts as an agent of the owner and assumes only a limited portion of cost risk under the specified conditions. Since the owner provides most assets, the contract period can be short (1-3 years). The primary motivation is to shift the managerial burden from public to private sectors in order to promote efficiency in operations. A specific use has been for short-term management of a franchise that is being re-bid.

Gross-cost Franchises – although the owner still assumes the major role in demand forecasting, revenue risk and service specification, the franchisee competes for a larger share of the operating cost risk and may take some role in providing assets. Franchise periods may longer (3-10 years). Gross-cost franchises are primarily suited to public services where private benefits are limited and there is no commercial role to be played but in which a private operator can avoid some of the rigidities and costs of public operation. Commuter or low density regional services are often gross-cost franchises.

Net-cost Franchises – the franchisee competes for a share of demand and revenue risks along with cost risks and is compensated for net support needed (if any) rather than for costs alone. Government risk is limited to some share of demand risk along with identified risks (relationships with other actors in the sector, policy change, major economic upheavals, etc.) that the franchisee is unable to assume. Government may make some pricing decisions and retain a role in service specification and regulation but the franchisee often makes some marketing and pricing decisions, such as first class fares or peak/off peak pricing. The franchisee may invest in assets, such as rolling stock, often through guaranteed re-purchase or leasing. These franchises typically have terms for 5 to as long as 30 years, depending on the balance between public benefits (shorter terms where politically sensitive) and commercial benefits (longer terms). Commercially drive intercity services can often be net-cost franchises.

Further stages are possible. For example, some countries (Argentina and Brazil) have tried fully commercial concessions (there is no clear distinction between franchising and concessioning) in which the concessionaire assumes most of the demand, revenue and costs risks, and operates essentially as a private owner for the term of the (typically longer) agreement. These have more frequently been used in freight than passenger services. There are cases of partial privatization (Taiwan HSR) in which asset ownership and most risks reside with the private owners, but Government retains or acquires a minority ownership share, thus keeping a voice in management and retaining a share of risk. There are also cases of full privatization (Japan) where government retains a voice in regulatory decisions such as pricing or entry in significant areas of activity but has no ownership role at all.

## **2.4 Regulation<sup>22</sup>**

The ability of competition to restrain tariffs, ensure a good level of service quality, and provide incentives towards productive efficiency and an adequate level of investment has considerable impact on the type and amount of regulation needed in a railway system.

<sup>22</sup> By regulation here we refer only to economic regulation, even though other forms of regulation can also change the competitive balance among transport modes and affect inter-modal competition. The most important types of regulation, in addition to the economic one, are safety regulation, which entails the specification by an independent agency of designs, equipment, assets or methods of operation that will improve the safety performance of an operator, and environmental regulation, which governs the impacts of operators on the environment (pollution, CO2 emissions, noise, etc). See OECD (2011) for a thorough discussion of the various meanings of regulation and of the role of the regulator.

Vertically integrated monopoly railways only face inter-modal competition, which may not be sufficient to constrain prices for end users, either freight or passengers. When this is the case some form of regulation is desirable to limit monopolistic pricing and to provide incentives towards cost efficiency. At the outset of the concessioning process, most Latin American countries did not find it necessary to regulate rail freight tariffs or intercity passenger tariffs because of intense competition from other modes, though there was oversight of commuter services. Subsequently, some forms of freight tariff regulation have been added in Brazil and Argentina.

Where tenants are present intra-modal competition can provide an additional constraint if the tenants, or the tenants and the owner, compete for the same customers. In the US a combination of effective inter-modal and intra-modal competition has allowed market forces to operate in the freight market since the early 1980s. Similarly neither Amtrak nor VIA has regulated tariffs for their passenger services and, after airline deregulation, the intercity passenger market has been fully competitive.<sup>23</sup> As for trackage rights, in the US these have to be based on avoidable costs and in the event Amtrak believes that a charge is excessive it can appeal to the regulator.<sup>24</sup> In Canada, instead, the law does not specify how trackage charges should be set and these charges have always been higher than in the US. It is not clear whether VIA has effective recourse.

EU countries have generally not found it necessary to regulate rail freight tariffs or intercity passenger tariffs because of intense competition from other modes, though there is oversight of commuter services, many of which are subsidised. Instead, regulation has mostly focused on access charges to ensure non-discrimination.<sup>25</sup>

Vertical separation was introduced with the aim of allowing competition to develop and limit non-discrimination, but has not always succeeded in achieving these objectives. First, if a good level of institutional separation is not achieved, the deliberate favouring by the infrastructure manager of a sister company or a national operator can happen. Further, a more serious problem of discrimination is inherent in the economic nature of railways because they have high fixed infrastructure costs and low short-run marginal operating costs. The most efficient charging approach that permits recovery of fixed costs – which consists of allowing access charges to rise above short-run marginal cost in inverse proportion to the elasticity of demand for the services provided, referred to by economists as “Ramsey-Boiteux pricing” – inevitably opens the door to discrimination of various kinds.

The EU Commission has attempted to resolve the latter dilemma by recommending that all infrastructure managers establish short-run marginal cost access charges, with the state owner providing full support for fixed costs and investments.<sup>26</sup> At the same time, the EU Commission has recognised that

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<sup>23</sup> So long as the US regulator could require freight companies to bury passenger deficits within freight profits, regulation of end-user charges prevailed. When Amtrak was separated and the deficits were made transparent and paid by the federal government, Congress deregulated passenger tariffs and cut services (by more than half from the level before Amtrak).

<sup>24</sup> Amtrak’s original charges were based on the belief that ample capacity existed on the lines of the freight railroads. Since the foundation of Amtrak, freight traffic density has quadrupled, and congestion has occurred, so the impact of Amtrak’s trains on infrastructure costs is no longer limited to maintenance, but has significant investment implications.

<sup>25</sup> EU access charges are also supposed to encourage efficient operations and infrastructure use; however, this objective has been difficult both to define and to implement, especially since infrastructure managers are required to recover fixed costs and cannot set charges equal to marginal costs (i.e. the most efficient level).

<sup>26</sup> See, EU Commission (1996), page 18. “The central theory of the Commission’s Green paper ‘Towards Fair and Efficient Pricing in Transport’ is that, as far as possible, charges should reflect both direct and

some members would not agree to pay full financial support from public coffers for budgetary reasons and has allowed the infrastructure managers to charge “mark-ups” over short-run marginal cost in order to generate a contribution from users to fixed costs, so long as the mark-ups were not unduly inefficient or discriminatory.<sup>27</sup> The emerging result has been a wide range of national targets for recovery of fixed costs through access charges and a disparate approach to formulating the structure and level of access charges across the EU. Some of the charges have been found to be illegal on grounds of intentional discrimination, while others reflect valid national objectives, but still restrict competitive entry. Whatever the motivation, users crossing national network boundaries face a patchwork of different access charging regimes that renders competition, especially at international level, more difficult.

### 3. Recent developments

Much has happened in the railway field since 2004. These developments are presented below under the heading of the different structural models discussed above. Specific developments in individual countries were discussed by the OECD as part of its review of structural separation in 2011,<sup>28</sup> <sup>29</sup> hence this paper will not discuss those. It will review changes in some countries that were not covered by the review (such as non-OECD members) and then it will focus on recent general trends in EU and North America. Because the most important changes since 2004 have probably happened within the EU, a large share of this section is devoted to them and to a critical assessment of the costs and benefits of vertical separation (the structural model favoured by the EU).

#### 3.1 *Vertically integrated railways*

It may be useful to start by reviewing the changes in the monolithic railways - Russia, China, Turkey, India and the Latin American concessions - because they furnish a useful bit of perspective on where reforms start, as originally most railways were vertically integrated, and the directions they can take initially.

In 2002, the Russian railway initiated a reform programme with a number of elements:

- the Ministry was split, with transport policy and planning transferred to a rail agency within the Ministry of Transport and rail activities lodged in a new, joint stock holding company (OAO RZD);
- infrastructure was to be separated from operations with freight access charges tied to the existing commodity-based tariff system;

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external **marginal** costs, should recover these costs and should be linked to the costs caused by users.” [emphasis added].

<sup>27</sup> It is difficult in railway accounting to define “marginal cost,” either short-run or long-run. In the US variable costs or avoidable costs tends to consider only the short-run impact on costs but can, depending on the specific issue, approximate long-run marginal costs and therefore include a measure of added capacity investment. In the EU the lack of a clear definition from the Commission has allowed each country to develop its own definition and measurement.

<sup>28</sup> See OECD (2011).

<sup>29</sup> The OECD (2011) review describes the experiences of the following countries: Australia, Austria, Canada, Denmark, Finland, France, Germany, Hungary, Italy, Japan, Korea, Mexico, Netherlands, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, UK and US. It also covers developments in the EU some of which are also examined here.

- the national freight carrier was to retain ownership of locomotives and control over freight movements;
- freight wagons were to be sold to private operators,<sup>30</sup> who would perform the marketing of freight and organise shipments;
- intercity passenger services were to be transferred to a separate company (owned by the holding company) similar to North American Amtrak and VIA; and
- commuter operations were gradually to be transferred to local authorities, though the railway stood willing to provide operations under a reimbursable contract.<sup>31</sup>

These reforms have proceeded more or less as planned and on schedule, though some observers have concluded that the retention of locomotives within the infrastructure manager and control of freight services, along with a single (relatively simple) freight tariff schedule, has acted to substantially limit the development of competition in the freight market, especially because inter-modal competition in Russia is restricted mostly to the European part of the country. There has so far been little or no effect on intra-modal competition, either in or for the market, in rail passenger services.

The Ministry of Railways (MOR) in China resisted reforms for many years, basically arguing that the railway was so central to the economy and rail traffic was so intense<sup>32</sup> that reforms would be disruptive and potentially risky for the economy. In addition, the Ministry undertook a dramatic, \$220 billion programme of HSR construction, which, MOR argued, required unified government management. Eventually, MOR lost some of its support, in part as a result of the perception of both corruption and monopolistic abuse by the railway. In early 2013, the Government split the railway between a policy and planning function, transferred to the Ministry of Transport, and a separated nationally-owned railway company in charge of the railway system. Though this is a first step in reform, done primarily for political reasons, it is not clear whether following steps along the lines of any of the structures that allow intra-modal competition will take place.

The Turkish State Railway is an example of even greater integration (both vertical and horizontal in this case), in that the railway company not only has a monopoly over the rail infrastructure and operation, but also controls the port system and uses port profits to support rail losses.<sup>33</sup> The government has long considered hiving off the port system from the railway and adopting an open access approach, but no real change has been committed.

Indian Railways is the main remaining example of a ministry that controls a monolithic railway system operating all freight, all intercity passenger services, and all significant commuter services. It even constructs and operates some of the major urban metro systems. Because Indian Railways is deeply

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<sup>30</sup> In the Russian structure, there is a distinction between a “carrier,” which owns the locomotives, hauls wagons and holds a common carrier obligation, versus “operators,” who own wagons and market rail freight services to shippers. There is a legal possibility that new carriers could be formed, but OAO RZD has resisted the idea. Shippers can be operators, but not carriers.

<sup>31</sup> See Thompson (2007), Drew and Ludewig (2011) and Pittman (2012) for a more detailed discussion of the Russian restructuring and its results.

<sup>32</sup> In China traffic density (traffic units/km) is triple that of the US system.

<sup>33</sup> See Thompson (2009). Note that South Africa is in a similar situation with a state-owned company that controls the railway system and also controls ports and pipelines.

enmeshed in the national economy and is particularly important for moving masses of people cheaply (and with cross subsidy from its freight traffic) significant reform movements have thus far been unsuccessful.

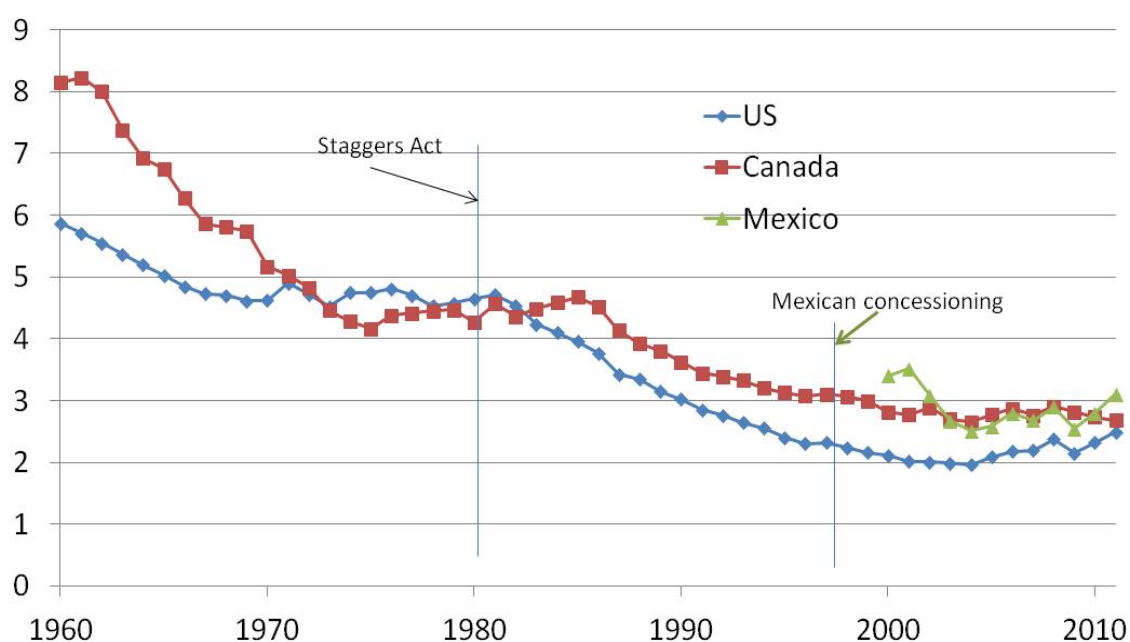
The Latin American railway concessions<sup>34</sup> are, for the most part, vertically integrated, although as discussed, certain parts of the Mexican system have tenancy competition (trackage rights by one concession on the lines of the other) and the Mexico City area (Ferrovalle) has a jointly owned, neutral access rail network for freight and suburban passenger operators. In broad terms, the Latin American freight concessions have experienced solid traffic growth, rapid increases in productivity and lower tariffs to customers, with the Brazilian and Mexican freight concessions doing relatively better than in other countries (Argentina, Chile, and Bolivia among others). Suburban passenger concessions in Buenos Aires have not done as well, principally because of political and economic turmoil in the country. Suburban concessions in Rio de Janeiro and Mexico City have survived relatively well, though demand has not met the expected levels.

### 3.2 Tenancy railways: US and Canada (and Mexico after concessioning)

In the countries where vertical integration is mitigated by the existence of tenancy agreements the most significant rail reforms were implemented well before 2004. No major changes have happened since then and the regulatory framework has been stable.

In fact, in the US 2004 seems to have seen the levelling off of the impact of the Staggers Act in reducing rail freight rates, as Figure 1 shows.

**Figure 1: Average Freight Revenue (constant 2010 US cents/tonne-km)**



Post 2004, US rail freight rates in real terms have trended slightly upward (about 25% above 2004 levels through 2011, but still about half the level before deregulation) while Canadian freight rates, which

<sup>34</sup> Thompson and Kohon (2012) discuss these railways in detail. See also Thompson, et al (2001), and Drew and Ludewig (2011).

generally track US rates, but are slightly higher because of a different commodity mix,<sup>35</sup> remained stable. Average Mexican rail freight rates are shown as well: they have tended to track US and Canadian rates because of the increasing integration of the Mexican system and its economy with that of these two countries. Immediately prior to concessioning, nearly 60% of Mexican rail tonnage was purely domestic, by 2010 that number had fallen to around 46%, though imports grew much faster than exports.

The rising trend mentioned earlier for the percentage of US lines with multiple operators has continued slowly after 2004 (from 24% to slightly over 28% in 2008 before falling slightly to 27% in 2011). What is not known is the actual competitive significance of these multiple operations, because trackage rights are sometimes commodity or capacity restricted.

McCullough and Thompson (2012) show that the competition fostered by the Staggers Act has generated manifest benefits to shippers and railways in the US and, because of the system interconnectivity, also for Canadian and Mexican shippers.<sup>36</sup> With this progress acknowledged, there have always been shippers and interest groups who feel they have suffered from the enhanced rate-making flexibility granted by the Staggers Act, or who believe that appeals to the regulator would be more beneficial than direct negotiation with the railroads. In addition, the rate increases since 2004, albeit largely caused by system congestion and energy cost increases, have generated additional political pressures for regulatory changes, including more regulatory intervention in rate-setting.

Objectively, however, the achievements of the US Class I freight railroads<sup>37</sup> after deregulation are clear:

- average freight rates in real terms are down by more than half;
- the industry is financially stable (mostly “revenue sufficient” in regulatory terms) and able to finance expansion to meet market demands;
- productivity has improved significantly; and,
- accident rates have fallen by more than two-thirds.

In a recent review of the performance of the US system, Christensen Associates concluded that “[b]ecause the railroad industry has remained approximately revenue sufficient in recent years ... providing significant rate relief to some shippers will likely result in rate increases for other shippers or threaten railroad financial viability” (Christensen (2010), page ii). In other words, the US rail freight system has reached a reasonably efficient state (a kind of Ramsey-Boiteux equilibrium), taking intra-modal and inter-modal competition fully into account.

Canada has two major railroads Canadian National and Canadian Pacific. Canadian law includes several provisions under which one railway can gain access to the facilities of another, but so far neither of the large railways has aggressively pursued the opportunity, possibly for fear of retaliation.

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<sup>35</sup> US railroads carry more coal at low tariffs than do Canadian railroads.

<sup>36</sup> This is true not just in overall average terms; it seems also to have been true for major commodity groups, such as coal, where the ability under the Act to sign contract tariffs has had an especially strong upward impact on productivity and downward impact on tariffs.

<sup>37</sup> In 2009, a freight railroad was defined as Class I if it had revenues greater than US\$380 million. Seven railroads met this standard. These generated 93% of all rail freight revenues. There were 556 Class II and Class III railroads, accounting for the remaining 7% of revenues.

In Mexico, the trackage rights that each concession was supposed to grant to the other were specified in the concession bidding. Negotiations between concessions to determine the conditions, including the access charges, have been protracted, and it is not clear whether effective competitive access has yet occurred.

### 3.3 *Vertical separation and open Access: the EU approach*

Though the general direction of rail restructuring in the EU was established as early as in 1991, the pace of implementation has been slow and has accelerated only after 2004.

A good summary of the EU Commission's overall concerns and initiatives post-2004 can be found in Directive 2012/34/EU aimed at "Establishing a Single European Railway Area", and the EU Commission's 2012 Communication on the Fourth Railway Package. A number of themes run through these documents, but they can roughly be summarised as saying that modest progress has been made in stabilising the position of the EU railways in the transport market but that many of the objectives of the rail reform have been frustrated by slow or incomplete implementation.

The EU Commission is now proposing a number of changes meant to speed up and deepen this implementation that focus on:

- institutional rather than just accounting separation of infrastructure from operations;
- full opening of the market for domestic passenger services;<sup>38</sup>
- encouraging competition in the market for those services that can be offered through open access and requiring competition for the market (through franchising) for socially supported services; and,
- further strengthening of interoperability and safety oversight.

An indication of the pressure for the implementation of the regulations has been the legal proceedings initiated by the EU Commission. For example, the EU Commission issued a series of letters of formal notice to 24 countries in June 2008,<sup>39</sup> many of which received multiple notices. Though issues differed across countries, they fell into three general categories:

the infrastructure manager did not have adequate independence, it did not face incentives to improve its performance, or it imposed access charges that were not clearly related to marginal cost;

the regulator was insufficiently independent and/or had inadequate authority to enforce regulations; and

the incumbent railway operator was not sufficiently independent and/or did not publish independent income statements and balance sheets.

In 2010, the EU Commission found it necessary to refer 13 Member States to the Court of Justice for continuing failures in the implementation of the directives. Twelve of these countries were already

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<sup>38</sup> Markets for freight services were already fully opened to competition in January 2007 and those for international passenger transport services in January 2010.

<sup>39</sup> See IP/08/1031, June 26, 2008.



included in the 2008 notices,<sup>40</sup> while Spain was added. The problems noted were basically the same: lack of independence of the infrastructure manager and distorted access charges, lack of regulatory independence and power, and lack of clear separation between infrastructure managers and railway undertakings. Though no decisions have so far been rendered in these cases, the Court of Justice's Advocate General found in the first five cases<sup>41</sup> that the EU Directives had been violated in a number of respects and that this have had a deleterious impact on access to the networks and, thus, on competition. Although the reduction from 2008 to 2012 in the number of member states in apparent violation (from 24 to 13) may indicate progress, it is important to note that the remaining 13 member states referred to the Court represent approximately 70% of the rail passenger and freight traffic in the EU. The overall impact on competition may be even higher where the non-compliant railway (e.g. Austria or Germany) carries a significant amount of transit traffic between two compliant states.

The most thorough, quantitative attempt to measure rail system liberalisation in the EU has been a series of studies conducted in 2002, 2004, 2007 and 2011 by Kirchner.<sup>42</sup> In these studies, Kirchner has developed an index of the performance of the rail sector of each country according to the legal system (LEX), the degree of access actually permitted to the system (ACCESS) and the level of competition (COM) within the rail system that has occurred. .

Kirchner's analytical approach is complex and providing a detailed description goes beyond the scope of this paper. However it is useful to briefly describe how the three indexes have been built. In general terms, the LEX index measures the extent to which the EU directives have been transposed into the legal system of the country. If a country has rewritten its laws to completely incorporate the EU requirements, it receives a score of 1000 points on the LEX index. The ACCESS index attempts to measure the degree to which a member has actually implemented, through regulation and enforcement, the EU requirements as expressed in national law. A perfect record would earn a score of 1000. There are, for example, countries that have a very high LEX index and a much lower ACCESS one because, though the law is fully compliant, the agency required to enforce the new laws has not yet been established. The LEX and ACCESS scores are then weighted to yield an overall index for each of the 25 member states having a railway,<sup>43</sup> as well as for Switzerland and Norway because these two countries have organised their systems in a manner consistent with the EU approach. The COM factor is a weighted average measure of the change in modal split for passenger and freight, the number of non-incumbent operators and the share of the rail market held by non-incumbent operators. The COM index is reported separately.

Kirchner's results are summarised in Table 1 in Appendix 1, which displays the results of the four studies.<sup>44</sup> Though the measurements include qualitative judgments and are undoubtedly less precise than the numbers would indicate, they do support several conclusions that seem reasonably robust. First, there has indeed been forward movement in the overall index: almost every country in almost every period has

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<sup>40</sup> These countries are: Austria, Czech Republic, Germany, Greece, France, Hungary, Ireland, Italy, Luxembourg, Poland, Portugal, and Slovenia.

<sup>41</sup> These cases were against Poland, Czech Republic, France, Slovenia and Luxembourg. See cases C-512/10, C-545/10, C-625/10, C-627/10 and C-412/11 and Press release No 169/12, Luxembourg, 13 December 2012.

<sup>42</sup> "Rail Liberalization Index," published in 2002, 2004, 2007 and 2011.

<sup>43</sup> Cyprus and Malta are not included, despite being EU member states, because they do not have railways.

<sup>44</sup> The 2002 results were not computed on the same basis as the later studies, so the comparison should be seen as approximate. Overall results for the EU 15, EU 10 and EU 25 are simple linear averages and should also be seen as indicative but not exact.

shown progress; averages for the EU 15<sup>45</sup> and the EU 10<sup>46</sup> increased in every study; and, the number of countries considered “advanced” steadily grew, though “on schedule” countries fell slightly because there were also a few backsliders.<sup>47</sup> Second, progress has been markedly greater in freight than in passenger services. The reason for this disparity is not entirely clear and may be due to a number of factors, including the fact that the regulations in the passenger area are more politically important and thus inherently harder and slower to change. Third, there is no significant difference between the EU 15 and the EU 10 in the overall measures of liberalisation, which is counter intuitive given that the EU 10 had much farther to go at the outset. Fourth, and perhaps most significant, progress on the procedural aspects (LEX and ACCESS) has been much faster and deeper than those in the actual implementation of competition (COM), an imbalance that is typical of the challenge of implementing laws and regulations, especially when underlying public awareness and support are weak.

According to Kirchner’s results, the average LEX index for the EU 25 in 2011 was 800, indicating that these countries, overall, are “advanced” in implementing the legal reforms. The average for the ACCESS index was 683, well above the lower “on schedule” threshold. By contrast, the average COM index was only 429, well below even the midpoint in the “delayed” range. Again accepting that these measures are reasonably representative of reality, they would support an argument that the ultimate objective of reform – enhanced competition among rail service suppliers – has significantly lagged behind its formal implementing system.

Table 2 in Appendix 1 summarises Kirchner’s data concerning the development of competition by non-incumbent operators. It shows:

- the number of non-incumbent operators (those not directly owned by the entity owning the infrastructure manager);
- the freight market share of the non-incumbent operators;
- the passenger market share of the non-incumbent operators;
- the market share of rail freight in the country in 2001 and 2008; and
- the market share of rail passenger service in the country in 2001 and 2008.

These data clearly show, on the one hand, that there has been an increase in the role played by non-incumbent operators, though this appears to be greater in freight than in passenger services; but, on the other hand, that these are not yet large players in most countries, especially in the provision of passenger services.

It is worth emphasising that Kirchner’s studies focus on intra-rail competition and do not consider how inter-modal competition, which is also important, has been developing.<sup>48</sup> However it is possible to

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<sup>45</sup> The EU 15 grouping includes the western European countries that joined the EU between 1952 and 1995: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, Netherlands, Portugal, Spain, Sweden and the UK.

<sup>46</sup> The EU 10 grouping includes the eastern European countries that joined the EU in 2004 and 2007: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.

<sup>47</sup> In Kirchner’s evaluation system, complete compliance in a category would earn a ranking of 1000 points. A rating above 800 points is considered “advanced.” A rating between 600 and 800 points is considered “on schedule.” A rating between 300 and 600 points is considered “delayed,” and a rating below 300 points is considered “pending departure.”

<sup>48</sup> Several possible measures could fill this gap in these indicators and render them more useful, including: measures of rail market share; measures of the percentage of traffic that is international as opposed to

give a picture of how rail stands compared to other transport modes using some figures collected by the EU Commission.

The rail market share of passenger-kilometres has been stuck at 7% for the EU 15 since the mid-1980s, while it has fallen from over 30% in the mid-1980s to 7% in 2011 for the EU 10. These numbers have to be viewed with some reservations since the denominator – total passenger travel including autos – is at best an approximation. With this acknowledged, there is no basis to argue that rail restructuring in the EU has improved rail's passenger market share though, of course, it is always possible that rail's share would have been even lower without vertical separation. These numbers are presented in Table 3 in Appendix 1.

The picture for rail's position in the freight market supports roughly the same conclusion. The freight market share for the EU 15 railways has fallen continuously from about 25% in 1980s to about 13% in 2011. The EU 10 freight share of about 23% is still higher than the EU 15, but the collapse has been much deeper since they started from over 70% in the 1980s. The EU 10 freight share may remain somewhat higher, partly because Estonia, Latvia, Lithuania and Poland retain broad-gauge connections with the Russian and Ukrainian systems. These figures are presented in Table 4 in Appendix 1.

Two further measures complement this picture: percentage of rail tonnage handled that moved in international trade and the average length of haul (ton-km divided by tons handled). The percentage of international rail tonnage for the EU 15 railways fell from 51.5% in 2001 to 42.6% in 2010, indicating, at least in this period, that rail freight flows among the EU 15 did not increase in line with structural changes in competitive access. This appears to be in contrast with the EU 10, where the international tonnage percentage did increase over the period, but this increase may be misleading because it is largely caused by a more rapid decrease in domestic tonnage than in total tonnage handled. Although the average length of haul did increase for both groups, the change is slight and, at around 260 km, is far below the level at which rail freight normally competes effectively with trucking.<sup>49</sup> See Table 5 in Appendix 1.

Beginning in 2003, Eurostat has provided data from which an Origin to Destination matrix for rail shipments could be constructed. Unfortunately, not every EU member state has provided data in every year, so a complete matrix cannot be developed. If the critical blanks are filled in by approximate interpolation (by the author), the results would support the conclusion reached above: international freight flows within the EU have not yet increased and, with few exceptions average length of haul has not increased and is shorter than desired if rail is to compete with trucks.

Taking all of these measures together, a reasonable conclusion is that the EU railways have made progress in implementing the legal and procedural aspects of the EU Commission's Directives, but have not made comparable progress in bringing significantly more competition on the rail network, especially in passenger services. In addition, there is little reason to conclude that the underlying objective, creating a common railway area in which more rail traffic moves across borders, has yet been achieved.

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domestic; and, a reliable measure of length of haul (as an increase in this measure could indicate movement beyond national boundaries and a strengthening of rail's competitive position).

<sup>49</sup> The average rail freight length of haul in 2010 in other relevant countries was: China 840 km; Canada 1097 km; Russia 1441 km; and, US 1524 km.

### Box 3: the Swedish experience

Sweden is an interesting example of a country that has followed the path of vertical separation and has, thus, managed to introduce intra-modal competition for the provision of most services.

After years of struggling with railway finances, in 1988 Sweden separated its railway infrastructure from the incumbent operator (SJ), four years before the EU Commission began the process across the EU. The purpose of the change was primarily to clarify the accounts of the railway and to separate socially important services from commercial ones, so that public support could be limited to public objectives. In addition, the separation permitted the state to finance infrastructure directly through the infrastructure manager (Banverket), and to impose access charges that would put railways on an equal footing with other modes, including environmental impacts. Intra-modal competition, either in or for markets, was not an objective at the outset, and SJ was left in control of the scheduling and dispatching on the network.

In 1996, control of scheduling and access was shifted to Banverket from SJ, and open access for freight was imposed. SJ continued to operate all passenger services, with support for local and regional services negotiated with local authorities. By 1998, local authorities started to put more and more local services up for competitive franchises and, over the next few years, SJ lost many of the competitions because of its high costs and rigid management, though in some cases SJ was penalised for unfairly low bids that generated losses. SJ managed to retain a monopoly on “profitable” intercity passenger services. Beginning in 2006, the SJ monopoly over intercity passenger services was eroded, at first with entry in the provision of overnight and weekend trains, then international trains and, in December 2011, the network was fully opened to competing passenger operators.<sup>50</sup>

In 2011 Sweden received the highest score in a study performed by Kirchner (2011), which tries to assess the degree of liberalisation of the railway industry achieved by EU member states via a number of indices.<sup>51</sup> Currently, rail infrastructure is managed by the state agency (Trafikverket) that manages all transport infrastructures. Access charges for freight are low and simple. The state-owned freight operator (Green Cargo) still provides the majority of freight service, but faces increasing competition, both inter-modal and intra-modal. All local and regional passenger services are subjected to gross-cost franchised competition and local authorities work together to provide jointly needed assets, such as rolling stock. Unprofitable intercity services are typically net-cost franchises competitively awarded by a state agency (Rikstrafiken, now part of Trafikverket). However, “profitable” intercity passenger services are still for the most part (around 90%) provided by SJ.

<sup>50</sup> As in Italy this happened before the deadline set by the EU commission to all member states.

<sup>51</sup> The study is discussed at greater length later in this paper. The values of the indices are shown in Table 2 in Appendix 1. Sweden had the highest overall score in 2011 for both passengers and freight.

#### **Box 4: The Italian experience**

The Italian experience shows that the implementation of vertical separation requires considerable political will for it to be effective and start generating any benefits.

Italy started reforms in railway sector at a slow pace. Ferrovie dello Stato (FS) was a state-owned monolith until the year 2000. European Directives were transposed in national laws and regulation with long delays and their formal adoption took even longer.

However, around the year 2000, the situation started changing: Ferrovie dello Stato (FS) was transformed into a holding company, comprising an infrastructure manager (Rete Ferroviaria Italiana) and an operator responsible for freight and passenger services (Trenitalia). Further, a law was issued<sup>52</sup> that granted all EU railways operators open access to the Italian railway infrastructure, thus depriving FS (or better its subsidiary Trenitalia) of the monopoly it had so far enjoyed on both freight and passenger services. This law went much further than the targets set by the EU commission, and in 2013 Italy is still one of the few member states with a railway system that is completely open to competition.<sup>53</sup> In 2012 another law passed, which established an independent transport regulator, but the agency has not been set up yet.

Despite this progress, Trenitalia still largely dominates the Italian railway and intra-modal competition is extremely limited. The market share of new entrants in freight is 15%; and entry in the domestic passenger market has so far had limited success. Arenaways, the incumbent's first competitor on the passenger rail transport market, started operating on the profitable route between Milan and Turin in 2008, but by 2011 it had gone bankrupt. AGCM was involved and it found FS guilty of two exclusionary practices against the new entrant. FS was, thus, fined for abuse of dominant position.<sup>54</sup> Local authorities are still resisting the introduction of tenders for the allocation of regional and commuter subsidised services.

A year ago Italo (owned by Nuovo Trasporto Viaggiatori) started operating passenger services on the first completed segment of the HSR network linking Naples to Milan. Italo is the first new entrant in the provision of HRS services in the EU. Entry is too recent to derive any conclusions on its effects and its success. It is worth mentioning that before launching its passenger services, the company brought a case to the AGCM against FS alleging that the company was favouring its subsidiary Trenitalia in the provision of access to its infrastructure, but the case was closed as no evidence of an abuse was found.

### **3.4 A critical assessment of the effects of vertical separation**

The widespread introduction of vertical separation in Europe has prompted the development of a body of research on the effect on costs of breaking down a vertically integrated railway system. These are worth discussing as they raise a number of issues that countries that are following this path will face (and some already are).

From the point of view of technical efficiency, vertical separation clearly generates a number of costs. Some costs, like the transaction costs in terms of negotiation and enforcement of contracts between the operators and the infrastructure manager, would be avoided by a vertically integrated railway; other costs, such as the sub-optimum design and maintenance at the wheel/rail interface caused by a misalignment between the incentives of the operators and of the infrastructure manager, may potentially be higher for

<sup>52</sup> Law 388/2000.

<sup>53</sup> The EU has required member states to open the market for freight services and the market for international passenger services, but not yet the market for domestic passenger services.

<sup>54</sup> The fine, however, was limited to €300,000.

separated railways. Recent academic studies aimed at measuring these costs are indicative, but not yet conclusive, reflecting the complexity of the issue.

One approach to measuring these costs developed by Ivaldi and McCullough (2004) reached the conclusion that an integrated freight railroad could have a 20 to 40% cost advantage over a vertically separated railroad. This result, however, is limited to the technology and operating conditions prevailing in the US.

An alternative approach, which looks at the EU experience, developed by van de Velde et al. (2012) concluded that the added costs of separation are lower for low-density railways and higher for high-density railways, and that the costs of misaligned incentives due to vertical separation are likely to be higher than the direct increases in operating costs. The authors also claim that the complete imposition of vertical separation throughout the EU might add as much as €5.8 billion/year to the operating costs of the networks “for no accompanying benefits”.<sup>55</sup> Hence, they argue that “[c]ountries should be free to choose the structural option that best suits their circumstances – thus allowing competition between different organisational models – subject to providing for non-discriminatory access for competitors. This should include both the possibility of switching from a holding model to vertical separation, and the possibility of switching from vertical separation to a holding model.”<sup>56</sup> In the terminology of this paper, this could be read as arguing that the tenancy approach might be preferable to full vertical separation in some cases, depending on total traffic density and on the degree to which the tenants would compete for capacity and would compete in the provision of the same services.

A study commissioned in the UK (McNulty (2011)) to assess the cost efficiency of the British railway system concluded that Network Rail is less efficient than many other EU infrastructure managers by as much as 20 to 40%, but this finding was only partly related to added costs due to vertical separation.

Though most studies have found that vertical separation causes an increase in costs, there have been fewer studies of the benefits that have been, or might be, achieved from separation. But there is evidence that the costs to public authorities of providing regional and interregional services fell by 20 to 50% when the services were tendered,<sup>57</sup> a form of competition that is only possible when vertical separation is introduced. Such a reduction might well be greater than the related 5% cost increases due to separation assessed by van de Velde (see above).<sup>58</sup>

One of the benefits of tenancy separation (in the US), and of tendering out socially supported passenger services in the EU, has been a clarification of the costs and revenues generated by different services. This allows government support, where necessary, to be targeted, justified and limited, while the commercial services no longer have to carry a burden of cross-support.<sup>59</sup> More broadly, it has been argued that separating the freight services from the passenger ones and franchising the passenger services to private operators permits more focus and commercial “flair” on the part of the operators than would ever be possible in a vertically integrated public entity.

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<sup>55</sup> Van de Velde et al (2012), page 4.

<sup>56</sup> Van de Velde et al. (2012) page 6.

<sup>57</sup> See ECMT (2007).

<sup>58</sup> The €5.8 billion calculated by van de Velde, et al, is, according to the author’s rough calculation, somewhat less than 5% of the total operating costs of the EU 25 railways, so the benefit of competition might well be worth the added costs.

<sup>59</sup> This benefit was emphasised by the EU Commission in the proposed Directive 2013/0029 (COD), page 3.

To some extent this is also a discussion of the advantages of the private sector over the public sector in the commercial delivery of services to customers rather than of separation *per se*; but, as noted, vertical separation, at least on a tenancy basis, is a critical part of any programme to improve market focus, while at the same time limiting and targeting public subsidies. It is also worth noting that the competition for the market that was enabled by the break-up of old vertically integrated systems was the basis for the successful reforming of the Latin American railways, of which the Mexican experience is one example.

#### **Box 5: The French experience**

The French experience shows some of the problems that many member states have faced and are facing in implementing vertical separation.

The French National Railway (SNCF) is the largest passenger railway (by passenger-km) and the third largest freight railway (by tonne-km) in the EU. Its high-speed services are second only to Japan in passenger traffic and, validly, claim to be among the most technically sophisticated in the world. Technological prowess is balanced by institutional resistance: France has “almost always [been] one of the last countries to incorporate the Community texts into national law ... and generally battled in the corridors in Brussels to reduce the scope and push back the deadlines.”<sup>60</sup>

France adopted a unique approach to infrastructure separation, creating in 1997 an infrastructure agency, Réseau Ferré de France (RFF), that served as a planner and oversight agency for the network, but that was required to contract with SNCF for actual management of the network, including scheduling and dispatching. Though RFF attempted to assert its independence, the imbalance of employees (1250 for RFF, 51,000 for SNCF in infrastructure alone and 152,000 in total) ensured domination by SNCF. Resistance to change, particularly to a greater separation of RFF, was attributed to labour union opposition to any breakup of SNCF that might promote the possibility of an increase in the role of the private sector.<sup>61</sup> RFF’s actual independence was further limited by the large debt (€28 billion) it inherited and by RFF’s high dependence on government for investment.

In late 2009, a new rail regulatory authority (ARAF) was created, whose responsibility was to promote access to RFF’s network and to recommend changes in RFF’s access charges if they were found to be inconsistent with economic efficiency or discriminatory. In 2010, a separate controller of traffic (DGF) was created to ensure clearly separate and independent control over access to the network, which reports to RFF but is operated by SNCF.

The ability of the RFF and DGF to act independently has been questioned in the decision by the Autorité de la Concurrence to impose a €60 million fine on SNCF for “several practices that hindered or delayed the entrance of new operators in the railway freight sector”.<sup>62</sup> The offenses apparently included RFF allowing SNCF to obtain commercial information about its potential competitors. As mentioned, in late 2012 France was found to be non-compliant with EU regulations in the EU Advocate’s recommendations.

Indeed the Kirchner COM index ranks France at 21st in 2009 and the rating, which scores 334, is barely above the “delayed” category, which Kirchner explains is because “... the national rail passenger transport market is still completely closed ... [and] ... SNCF discriminates against external [non-incumbent] operators”. The situation is only slightly better in freight services, where there are now around 16 independent operators with a 17% market share.

SNCF never accepted the independence of RFF and has battled for reintegration, arguing that the added costs of separation were not justified. In late 2012, the government announced that the infrastructure and operations would be reintegrated, apparently under a holding structure similar to that of Deutsche Bahn. RFF and the infrastructure divisions of SNCF will merge to form a unified infrastructure manager that will be placed under the holding company along with the operations of SNCF. The regulator’s role will continue as an overseer of the new company, but its authority to enforce its recommendations is not well established.

<sup>60</sup> Emile Quinet in Drew and Ludewig (2011), page 81.

<sup>61</sup> Ibid, page 80.

<sup>62</sup> See ERFA press release from 19 Dec 2012.

## 4. Overview of the outcomes

### 4.1 *Monolithic railways*

As discussed above, most of the old monoliths are changing, though the impact so far has been felt more in the structure than in the level of competition. Russian Railways is now horizontally separated, and the passenger carrier is a tenant on the infrastructure of the parent corporation. Freight wagon ownership is now largely private. Freight traffic has grown strongly, though it is still not back to Soviet Union levels. Passenger traffic has stabilised and is slowly growing.

Change in China is still nascent, and the publicly owned railway continues to occupy a dominant position in transport though, for both passengers and freight, inter-modal competition is growing rapidly. In any event, the planned changes do not envision intra-modal competition in either passenger or freight traffic.

In India, driven by rapid economic growth in general and by a lack of highway and air infrastructure, both freight and passenger rail traffic have grown strongly. India plans to invest in all forms of transport, which will create inter-modal competition for rail, but there are no plans to implement any form of intra-modal rail competition.

In Turkey the government has considered separating the existing state-owned monolith to introduce some competition, but so far there are no clear plans to undertake such a change. The government has acknowledged that, if Turkey were to join the EU, these reforms will need to be implemented.

### 4.2 *Tenancy railways*

The North American approach to freight transport competition in which the private freight railroads face a mix of inter-modal and intra-modal competition (based both on side-by-side and trackage rights competition) has been generally successful in promoting efficient operations and generating roughly adequate finance to cover costs, while charging low tariffs without any significant public support. The performance of the system in the period from deregulation to 2004 and then subsequently, yielded large benefits to railways, shippers and the public, though the growing network congestion up to 2008 has indicated that tariffs would need to rise in order to finance new capacity, and this has led to protests from some shippers. The US Congress continues to consider changes in regulation that would limit railroad ratemaking flexibility, even though the indication is that the financial health of the system might be compromised. At the same time, problems with federal and state budgets are throwing into doubt the past sources of public finance for highways, waterways and airports, opening the prospect of renewed system congestion for all freight modes when the economies return to economic growth.

Intercity rail passenger services are provided by Amtrak in the US and VIA in Canada (there is no significant intercity service in Mexico). Both carriers depend heavily on public support, which far outweighs their actual role in the transportation system. Indeed because of the countries' large size and relatively low population density, in North America rail cannot easily compete with other means of transport as far as passengers are concerned. Despite this, there are proposals to invest heavily in improved intercity service in the US, and California has actually started construction of an HSR line from San Francisco to Los Angeles. Implementation of these proposals, and completion of the California system, will require development of a new Federal funding program that currently has unclear prospects because of budget limitations.



### 4.3 *Neutral access railways*

Neutral access railways have been relatively limited solutions to specific problems, typically related to ensuring common and neutral access to a freight traffic generating area. The main application has been in the joint terminal companies in North America, including Mexico City, but there are similar port access companies in the EU. Public information on the performance of these kinds of railways is usually limited, but there have certainly been no apparent failures, and the operation of the Mexico City terminal company has been stable, in line with the freight and passenger concessions that own it.

### 4.4 *Vertical separation and open access: the EU*

Although progress has clearly been made in formulating and implementing the EU Commission's Directives aimed at creating an open access rail market across the boundaries of the Union, the current status of the system lags significantly in developing effective competition between commercially driven enterprises in national or international freight markets and, even more so, in passenger markets. It is too early to determine if the reason lies in the slow and incomplete introduction of vertical separation and the still large involvement of the state in the sector, or whether this type of structure presents some problems, such as how to set access charges, that are difficult to address. A few observations can be made at this point, though only time will provide better answers.

As already discussed one of the major difficulties inherent with implementing vertical separation is how to achieve full cost recovery, while providing incentives for the efficient use of the infrastructure and ensuring non-discriminatory access. Different approaches have been used in the EU, all with their advantages and disadvantages. Some countries have imposed high financial targets on access charges (i.e. a higher degree of recovery of fixed costs), which ensure recovery of the costs, but limit the competitive position of rail operators in both domestic and international traffic.<sup>63</sup> In other countries infrastructure managers receive public funding to cover fixed costs (as encouraged by the EU Commission), but this implies that these entities cannot become truly independent and free from political pressure. This has led to a patchwork of inconsistent and conflicting access charging regimes that almost certainly impedes international competition.<sup>64</sup>

Vertical separation allows introduction of competition for the market for socially supported commuter or regional services, but since many European incumbent operators are still publicly owned, they retain considerable power to limit the introduction of tenders, or to raise barriers to entry for potential competitors. Hence, tenders have so far been used only in a few countries and with mixed success. Tenders for relatively small, local systems operated largely for social purposes (as in Sweden and the Netherlands) have been relatively successful. Tenders for intercity services with largely commercial objectives, as in the UK, have faced more problems, with some franchises evolving away from net cost to gross cost as a better understanding of objectives and risks was developed.

High-speed passenger services are being developed in many countries and between major European cities, such as Paris, Brussels, Frankfurt, London and Amsterdam. Thus far, however, the skills and resources needed to operate HSR trains are so demanding that in general only consortia including incumbent operators have been able to do so, and this again is giving them an advantage that makes

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<sup>63</sup> For example in the EU 10 countries access charges place most of the financial burden on freight operators, which clearly constrains their ability to compete with other modes of transport, and this limit necessarily spills over onto international traffic.

<sup>64</sup> Further access charge structures that favour passenger flows over freight flows will also affect competition in the domestic freight market, though the effect will be inter-modal and not intra-modal.

subsequent competitive entry difficult. In Italy a private operator has recently started providing domestic HSR services (see Box 4), but it is too soon to say whether it will be successful.

The lack of complete and consistent cross-sectional and time series data on EU railways makes it difficult to perform any detailed quantitative analysis of this industry, but from those that are available it is at least possible to derive some conclusions that support some of the observations made above. Table 6 in Appendix 1 proposes a rough comparison of the tariffs charged by different railways, as collected by the Union Internationale des Chemins de Fer. Some caution is needed in interpreting these figures because comparisons across currencies are always approximate, and because the data used are not necessarily all prepared to the same auditing standards. Also, it should not be inferred that costs for providing these services bear any necessary relationship to the revenues derived from them and, of course, overall average revenues cover a wide range of revenues for specific commodities or services.

The first conclusions that can be drawn from these figures is that well over half the traffic on the EU 15 (i.e. western EU countries) railways is passengers, whereas this share drops to only about 25% of the traffic on the EU 10 (eastern EU countries) railways. Given that studies have argued that it is inherently more costly to produce a passenger-km than a tonne-km, it is likely that the main target for competition for the EU 15 might be on the passenger side, whereas freight might be more important for the EU 10. A second conclusion is that the EU 10 railways appear to charge far less than the EU 15 (or most railways outside the EU) for passenger services, indicating that the former countries may be generating losses on these services and shifting infrastructure costs to freight. This fact, together with the known propensity of these countries to impose higher access charges on freight operators, suggests that these railways may be limiting the competitiveness of freight services to support passenger services.

A different comparison between freight tariffs is also significant. Average freight tariffs in the US (0.017 €/tonne-km) and Canada (0.023 €/tonne-km) are much lower than those in the EU 10 (0.031 €/tonne-km) and the EU 15<sup>65</sup> (0.047 €/tonne-km). As discussed above, however, it is entirely possible that a major portion of the differences among the US, Canada, the EU 10 and the EU 15 can be attributed to factors, such as passenger service schedule priority, freight versus passenger dominance, low axle loads, or short trains, that cannot be readily overcome through enhanced competition among freight operators. Of course better service or greater commercial orientation by the freight operators might well increase their share in the transportation market, but achieving them would require a change in their structure and an effort to resolve issues of priority with passengers. It might also require an increased focus on the physical characteristics of the International Corridors for Rail Freight supported by the EU Commission to ensure consistency in technology and permitting the highest feasible freight train loadings, as well as simplified and more harmonized access charges.

Data on passenger volumes, passenger-km and average trip lengths (which can be found in Table 7 in Appendix 1) underline another point. Not only are passenger services a major user of the EU rail networks, but short haul commuter services play a very significant role in many systems. Hence, franchised competition for the markets might be as significant in reducing costs and improving services as competition in the market for long haul services.

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<sup>65</sup> There are no data available for UK freight tariffs as the UK operators are private and do not report to the Union Internationale des Chemins de Fer. Thus, this number strictly speaking should say EU 14. It is unlikely that inclusion of the UK data, if it were available, would change the average or the conclusion that EU10 and EU15 freight tariffs are significantly higher than in the US and Canada.

## 5. Conclusions

This paper outlines some of the changes and reforms that have taken place in the railway industry around the world since 2004, and briefly discusses the problems they have encountered and their impact on the performance of rail services.

Different countries have adopted a different combination of structure, balance between private and public ownership and regulation to ensure that end-user prices are at an efficient level, productive efficiency is high and subsidies low, and investment and innovation guarantee a satisfactory level of service quality, safety and consumer/shipper choice. Providing an assessment of the relative merits of the different approaches is not the objective of this paper, but a few interesting conclusions can be drawn from the facts and data examined in it.

The North American approach to freight transport, based on a mix of inter-modal and intra-modal competition between vertically integrated privately owned railways, has been generally successful. However, as congestion on the network has been increasing, tariffs may need to rise in order to finance new capacity. By contrast, North American passenger services are largely provided by publicly owned companies: Amtrak in the US and VIA in Canada. There are no significant intercity services in Mexico. So far end user prices have not been regulated, but both carriers depend heavily on public funding, which has been disproportionate to their actual role in the passenger transportation system (as the countries' large size and relatively low population density mean that long-haul, intercity rail does not easily compete with other means of transport).

Turkey, China and India still have vertically integrated state-owned railways, and no major reforms are being planned. Russia, however, has started moving away from this model by creating a joint stock holding company responsible for all rail activities and by separating the infrastructure from the operations, but the results of these changes remain to be seen.

In the EU the Commission has continued along the path of liberalisation, vertical separation between infrastructure and operations, and horizontal separation of freight, regional passenger and intercity passenger services it started in 1991. Individual member countries are implementing the required reforms and, after a slow start, there has finally been progress on the legal and institutional side since 2004. The development of actual intra-modal competition in EU member states has, however, lagged behind. Hence, to date at least, the expected favourable impacts of separation and competition, such as traffic growth, higher market share compared to other transport modes, increase in cross-border traffic or lower end-user charges do not appear to have emerged to any great degree (though a lack of specific data makes it difficult to measure these impacts with precision).

The slow progress in competition among operators, especially for passenger services, may be due to the incomplete separation between infrastructure managers and operators and to the continuing strong presence of the state in the sector, which leads to discrimination in favour of incumbents. It may also be due to the complex patchwork of access charge regimes. Nevertheless, actual results may still be better than those that would have occurred if the old system structure had not changed.

Competition for exclusive franchises for subsidised commuter and low-density regional services has made better progress, though only in some countries. Sweden is a good example of relatively successful tenders for smaller franchises, while the UK has experienced a number of problems, but is learning from past successes and failures. Nevertheless the experiences of the last few years have shown that franchising is complex and some issues, such as risk transfer and incompatibility between franchise length and asset life, require careful attention and resolution.

The debate on vertical separation, its problems, its costs and its benefits is still ongoing and new studies continue to focus on estimating the added costs that this type of approach engenders. So far, less attention seems to have been paid to evaluating the benefits, which might well outweigh the costs, at least in some cases. Hence, a clear conclusion has not yet been reached on whether complete vertical separation is better than other structural approaches, at least for countries like EU member states where side-by-side competition will not be possible.

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## ANNEX 1.

Table 1: Rail Liberalisation Index for EU Railways

|         | >800                    | Advanced | 600 to 800 | On Schedule | 300 to 600 | Delayed | <300  | Pending Departure |      | No data |      |      |        |      |      |      |      |      |      |      |
|---------|-------------------------|----------|------------|-------------|------------|---------|-------|-------------------|------|---------|------|------|--------|------|------|------|------|------|------|------|
| Country | Overall Liberalization* |          |            |             | 2007       |         | 2011  |                   | LEX  |         |      |      | ACCESS |      |      |      | COM  |      |      |      |
|         | 2002                    | 2004     | 2007       | 2011        | Frnt.      | Pass.   | Frnt. | Pass.             | 2002 | 2004    | 2007 | 2011 | 2002   | 2004 | 2007 | 2011 | 2002 | 2004 | 2007 | 2011 |
| UK      | 805                     | 781      | 827        | 865         | 848        | 798     | 862   | 852               | 960  | 940     | 969  | 980  | 740    | 715  | 791  | 837  | 780  | 580  | 793  | 866  |
| DE      | 760                     | 728      | 826        | 842         | 844        | 809     | 875   | 814               | 840  | 750     | 905  | 935  | 840    | 720  | 807  | 819  | 520  | 505  | 555  | 615  |
| SE      | 760                     | 729      | 825        | 872         | 908        | 742     | 896   | 855               | 800  | 680     | 857  | 960  | 760    | 760  | 817  | 850  | 720  | 510  | 633  | 577  |
| NL      | 720                     | 695      | 809        | 817         | 887        | 732     | 884   | 779               | 760  | 670     | 865  | 887  | 820    | 710  | 795  | 799  | 460  | 455  | 509  | 680  |
| AT      | 430                     | 579      | 788        | 806         | 852        | 727     | 873   | 761               | 680  | 530     | 819  | 895  | 410    | 600  | 781  | 784  | 240  | 232  | 349  | 575  |
| DK      | 720                     | 693      | 788        | 825         | 811        | 757     | 851   | 808               | 860  | 790     | 821  | 925  | 770    | 650  | 780  | 800  | 480  | 390  | 498  | 655  |
| CH      | 650                     | 677      | 757        | 741         | 848        | 662     | 850   | 680               | 600  | 605     | 670  | 678  | 770    | 710  | 778  | 756  | 440  | 495  | 459  | 509  |
| PL      |                         | 549      | 739        | 737         | 786        | 692     | 826   | 699               |      | 600     | 783  | 803  |        | 530  | 728  | 720  |      | 175  | 490  | 518  |
| CZ      |                         | 549      | 738        | 738         | 798        | 679     | 783   | 705               |      | 530     | 839  | 786  |        | 560  | 713  | 726  |      | 215  | 279  | 422  |
| RO      |                         |          | 722        | 726         | 797        | 650     | 834   | 650               |      |         | 822  | 783  |        |      | 697  | 711  |      |      | 440  | 487  |
| PT      | 380                     | 668      | 707        | 737         | 797        | 619     | 847   | 676               | 700  | 820     | 829  | 884  | 290    | 605  | 676  | 701  | 220  | 190  | 200  | 434  |
| SK      |                         | 458      | 700        | 738         | 756        | 643     | 793   | 702               |      | 535     | 853  | 857  |        | 430  | 662  | 708  |      | 260  | 381  | 381  |
| NO      | 390                     | 589      | 698        | 729         | 836        | 574     | 861   | 652               | 580  | 570     | 777  | 769  | 410    | 595  | 679  | 719  | 140  | 135  | 274  | 482  |
| EE      |                         | 257      | 691        | 729         | 727        | 667     | 781   | 701               |      | 380     | 728  | 840  |        | 205  | 680  | 702  |      | 245  | 704  | 629  |
| LT      |                         | 222      | 684        | 592         | 744        | 624     | 703   | 530               |      | 260     | 820  | 730  |        | 210  | 650  | 558  |      | 165  | 184  | 120  |
| IT      | 560                     | 688      | 676        | 737         | 734        | 617     | 809   | 706               | 660  | 740     | 819  | 795  | 680    | 670  | 640  | 722  | 240  | 225  | 293  | 470  |
| SI      |                         | 326      | 665        | 672         | 743        | 585     | 799   | 590               |      | 550     | 622  | 655  |        | 230  | 675  | 676  |      | 120  | 153  | 337  |
| BG      |                         |          | 652        | 718         | 761        | 557     | 806   | 668               |      |         | 722  | 839  |        |      | 635  | 688  |      |      | 241  | 421  |
| LV      |                         | 516      | 650        | 587         | 733        | 576     | 747   | 500               |      | 580     | 683  | 780  |        | 485  | 642  | 539  |      | 225  | 313  | 411  |
| BE      | 395                     | 461      | 649        | 753         | 780        | 518     | 881   | 663               | 380  | 425     | 740  | 820  | 500    | 475  | 626  | 737  | 180  | 180  | 201  | 424  |
| HU      |                         | 366      | 637        | 658         | 740        | 533     | 780   | 592               |      | 485     | 731  | 822  |        | 320  | 613  | 616  |      | 125  | 275  | 522  |
| FI      | 410                     | 542      | 636        | 672         | 732        | 540     | 753   | 661               | 620  | 640     | 732  | 729  | 440    | 505  | 612  | 657  | 160  | 140  | 145  | 156  |
| ES      | 195                     | 148      | 630        | 583         | 785        | 486     | 770   | 485               | 300  | 250     | 711  | 701  | 180    | 105  | 610  | 554  | 140  | 110  | 151  | 333  |
| LU      | 280                     | 467      | 581        | 585         | 688        | 474     | 742   | 508               | 520  | 530     | 551  | 669  | 220    | 440  | 588  | 564  | 152  | 120  | 115  | 104  |
| FR      | 340                     | 305      | 574        | 612         | 727        | 431     | 772   | 521               | 340  | 360     | 595  | 650  | 430    | 280  | 568  | 602  | 152  | 130  | 178  | 334  |
| GR      | 210                     | 162      | 559        | 592         | 690        | 429     | 698   | 559               | 260  | 305     | 619  | 859  | 240    | 100  | 544  | 525  | 100  | 100  | 133  | 136  |
| IE      | 295                     | 149      | 333        | 467         | 458        | 206     | 603   | 399               | 520  | 180     | 332  | 414  | 280    | 130  | 338  | 481  | 100  | 100  | 115  | 120  |
| Sample  | 17                      | 25       | 27         | 27          | 27         | 27      | 27    | 27                | 17   | 25      | 27   | 27   | 17     | 25   | 27   | 27   | 17   | 25   | 27   | 27   |
| EU 15   | 484                     | 520      | 681        | 718         | 769        | 592     | 808   | 670               | 613  | 574     | 744  | 807  | 507    | 498  | 665  | 695  | 310  | 264  | 325  | 432  |
| EU 10   | -                       | 405      | 688        | 690         | 759        | 621     | 785   | 634               | -    | 490     | 760  | 790  | -      | 371  | 670  | 664  | -    | 191  | 346  | 425  |
| EU 25   |                         | 480      | 683        | 706         | 765        | 604     | 799   | 655               |      | 545     | 751  | 800  |        | 454  | 667  | 683  |      | 239  | 333  | 429  |

\* The overall Liberalization Index is a weighted average of the Lex (20%) and ACCESS (80%) indices

Source: Rail Liberalization Index report of indicated year

Note: 2002 Indices were visually estimated from graphs. Numbers shown were then calculated by multiplying the original numbers by 4, 2 and 4 respectively.

Table 2: Summary of Data on Role of External RU's and Rail Role in National Transport

| Country | No. of External Rus |      |       | Mkt Share of External RU's (%) |        | Rail Frt Mkt Share |      | Rail Pass. Mkt Share |      |
|---------|---------------------|------|-------|--------------------------------|--------|--------------------|------|----------------------|------|
|         | Frt                 | Pass | Total | Frt*                           | Pass** | 2001               | 2008 | 2001                 | 2008 |
| AT      |                     |      | 18    | 17                             | 10     | 29.6               | 27.4 | 9.7                  | 11.1 |
| BE      |                     |      | 6     | 10                             | 0      | 10.4               | 12.8 | 6.2                  | 7.2  |
| BG      | 6                   |      | 6     | 29                             | 0      | 36.7               | 20.5 | 6.5                  | 4.1  |
| CH      | 7                   | 14   | 21    | 32 AVG                         |        | 41.5               | 38.9 | 13.3                 | 16.0 |
| CZ      | 40                  | 6    | 46    | 18                             | 1      | 30.1               | 23.3 | 8.3                  | 7.1  |
| DE      |                     |      | 247   | 25                             | 12     | 18.6               | 22.2 | 7.6                  | 8.6  |
| DK      | 2                   | 2    | 4     | 100                            | 9      | 8.2                | 8.7  | 9.0                  | 9.4  |
| EE      | 3                   | 3    | 6     | 56                             | 55.3   | 68.6               | 44.7 | 1.9                  | 2.1  |
| ES      | 5                   | 0    | 5     | 5                              | 0      | 6.8                | 4.1  | 5.1                  | 5.5  |
| FI      | 0                   | 0    | 0     | 0                              | 0      | 24.4               | 26.5 | 4.8                  | 5.4  |
| FR      |                     |      | 16    | 16.6                           | NA     | 19.0               | 15.9 | 8.5                  | 10.1 |
| GB      | 5                   | 23   | 28    | 100                            | 100    | 10.6               | 13.4 | 5.3                  | 6.8  |
| GR      | 0                   | 0    | 0     | 0                              | 0      | 2.3                | 2.7  | 1.9                  | 1.3  |
| HU      | 0                   |      | 20    | 90                             | 0      | 13.3               | 12.3 | 28.1                 | 20.6 |
| IE      | 0                   | 0    | 0     | 0                              | 0      | 4.0                | 0.6  | 3.2                  | 3.4  |
| IT      | 16                  | 14   | 30    | 20                             | 0      | 10.6               | 11.7 | 5.4                  | 5.7  |
| LT      | 0                   | 0    | 0     | 0                              | 0      | 48.3               | 41.9 | 2.5                  | 1.0  |
| LU      | 0                   | 0    | 0     | 0                              | 0      | 6.5                | 2.5  | 5.1                  | 4.3  |
| LV      |                     |      | 2     | 20                             | 0      | 72.6               | 61.3 | 8.0                  | 5.3  |
| NL      | 26                  | 5    | 31    | 100                            | 12     | 3.4                | 4.9  | 9.4                  | 9.7  |
| NO      |                     |      | 9     | ?                              | 13     | 16.0               | 15.0 | 5.0                  | 5.1  |
| PL      |                     |      | ?     | 30                             | 5      |                    | 30.0 | 6.9                  | 6.2  |
| PT      | 1                   | 1    | 2     | ?                              | 9.3    | 6.7                | 6.1  | 4.4                  | 4.1  |
| RO      | 20                  | 4    | 24    | 50                             | 2      | 43.1               | 19.0 | 15.5                 | 7.6  |
| SE      | 4                   | 5    | 9     | 56                             | 10***  | 38.0               | 35.3 | 8.0                  | 9.3  |
| SI      | 2                   | 0    | 2     | 7                              | 0      | 27.0               | 17.8 | 2.9                  | 2.9  |
| SK      |                     |      | 27    | 4                              | 0      | 42.4               | 23.4 | 8.0                  | 6.5  |

\*% of tonne-km

\*\* % of passenger-km

\*\*\* Mostly based on regional transport. Share in intercity transport is still zero.

Source: Kirchner (2011)

**Table 3: Rail Passenger-km as Percent of Total Surface Passenger-km**

|                  | 1970 | 1975 | 1980 | 1985 | 1990 | 1995 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>EU15</b>      | 10.4 | 9.5  | 8.5  | 8.2  | 7.1  | 6.7  | 7.0  | 6.9  | 6.8  | 6.7  | 6.8  | 7.1  | 7.4  | 7.4  | 7.8  | 7.6  | 5.9  |
| <b>EU10</b>      | 50.1 | 40.1 | 35.8 | 32.6 | 29.1 | 16.2 | 12.3 | 11.6 | 10.3 | 10.3 | 9.9  | 9.0  | 8.6  | 8.3  | 7.8  | 7.3  | 7.0  |
| <b>EU25</b>      | 14.4 | 13.0 | 11.5 | 11.2 | 9.6  | 7.6  | 7.5  | 7.4  | 7.1  | 7.1  | 7.1  | 7.3  | 7.5  | 7.5  | 7.8  | 7.6  | 6.0  |
| <b>Australia</b> | 11.1 | 6.6  | 5.5  | 4.8  | 4.6  | 4.2  | 4.3  | 4.5  | 4.4  | 4.3  | 4.1  | 4.1  | 4.3  | 4.5  | 4.8  | 5.1  |      |
| <b>Canada</b>    |      |      |      |      |      | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  |      |
| <b>CH</b>        | 17.2 | 14.4 | 13.1 | 12.5 | 13.8 | 12.9 | 13.1 | 13.6 | 14.3 | 14.5 | 14.7 | 15.6 | 15.9 | 16.4 | 16.5 | 17.0 | 17.4 |
| <b>China</b>     | 69.7 | 66.5 | 60.6 | 54.5 | 49.9 | 43.5 | 40.5 | 39.8 | 38.9 | 38.4 | 39.5 | 39.5 | 39.5 | 38.5 | 38.4 | 36.8 |      |
| <b>India</b>     |      |      |      |      |      |      | 94.3 | 14.8 | 15.5 | 15.0 | 14.2 | 12.6 |      |      |      |      |      |
| <b>Japan</b>     | 50.4 | 47.3 | 42.2 | 40.3 | 31.2 | 30.4 | 28.8 | 28.8 | 28.6 | 28.7 | 28.9 | 29.5 | 30.1 | 30.6 | 30.9 |      |      |
| <b>Korea</b>     |      |      |      |      |      |      |      | 18.1 | 17.5 | 15.5 | 21.5 | 21.4 | 21.5 | 21.4 | 21.2 |      |      |
| <b>Mexico</b>    | 6.6  | 3.8  | 3.3  | 2.8  | 1.9  | 0.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.1  |
| <b>NO</b>        | 8.1  | 6.9  | 7.2  | 5.8  | 4.9  | 5.2  | 5.7  | 5.5  | 4.9  | 4.8  | 5.0  | 5.2  | 5.3  | 5.4  | 5.5  | 5.4  | 4.6  |
| <b>RUSSIA</b>    | 65.6 | 58.5 | 52.0 | 50.6 | 51.1 | 50.5 | 49.1 | 47.9 | 47.3 | 48.8 | 49.4 | 54.8 | 56.7 | 53.8 | 53.7 | 51.8 | -    |
| <b>Turkey</b>    | 11.9 | 6.5  | 7.6  | 6.6  | 4.5  | 3.6  | 3.0  | 3.2  | 3.1  | 3.5  | 2.9  | 2.7  | 2.7  | 2.6  | 2.4  | 2.5  | 0.7  |
| <b>US</b>        | 0.4  | 0.2  | 0.2  | 0.2  | 0.3  | 0.2  | 0.2  | 0.2  | 0.2  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.2  |      |

Source: See Index 139 in Publications at [www.tgaassoc.com](http://www.tgaassoc.com)



**Table 4: Rail Freight Tonne-km as Percent of Total Surface Freight Tonne-km**

|                  | 1970 | 1975 | 1980 | 1985 | 1990 | 1995 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>EU15</b>      | 32.0 | 23.4 | 21.5 | 20.4 | 20.2 | 15.4 | 15.6 | 14.9 | 14.4 | 14.4 | 14.3 | 13.7 | 14.3 | 14.2 | 14.2 | 11.6 | 12.8 |
| <b>EU10</b>      | 77.3 | 72.9 | 65.9 | 65.8 | 59.8 | 45.5 | 40.0 | 36.9 | 35.0 | 34.3 | 31.9 | 29.0 | 27.5 | 26.0 | 24.9 | 22.2 | 23.3 |
| <b>EU25</b>      | 46.6 | 40.6 | 36.7 | 35.6 | 30.9 | 21.7 | 20.1 | 19.0 | 18.5 | 18.5 | 18.1 | 17.1 | 17.4 | 17.0 | 16.8 | 14.3 | 15.6 |
| <b>Australia</b> | 59.6 | 64.8 | 56.2 | 51.3 | 51.9 | 49.7 | 49.7 | 49.6 | 50.7 | 51.4 | 51.7 | 52.4 | 52.2 | 52.9 | 53.5 |      |      |
| <b>Canada</b>    |      |      |      |      |      |      | 73.7 | 75.3 | 75.2 | 75.7 | 71.6 | 74.5 | 75.3 | 77.4 | 71.7 | 68.3 |      |
| <b>CH</b>        | 53.0 | 46.6 | 49.0 | 44.2 | 41.2 | 39.6 | 44.3 | 43.4 | 42.0 | 40.8 | 42.2 | 42.0 | 42.7 | 40.8 | 41.0 | 38.2 | 39.4 |
| <b>China</b>     | 76.5 | 58.2 | 47.5 | 44.2 | 58.8 | 54.5 | 50.6 | 54.8 | 54.2 | 54.8 | 52.0 | 49.8 | 47.6 | 45.2 | 32.5 | 30.6 |      |
| <b>India</b>     |      |      |      |      |      |      | 84.4 | 36.7 | 36.8 | 36.5 | 36.6 | 30.0 | 36.4 |      |      |      |      |
| <b>Japan</b>     | 31.7 | 26.6 | 17.3 | 9.6  | 9.0  | 7.9  | 6.6  | 6.6  | 6.6  | 6.6  | 6.4  | 6.4  | 6.3  | 6.2  | 6.0  | 5.7  | 6.2  |
| <b>Korea</b>     |      |      |      |      |      |      |      | 10.4 | 10.5 | 10.1 | 9.5  | 9.1  | 8.8  | 9.4  | 9.9  |      |      |
| <b>Mexico</b>    | 34.5 | 38.5 | 33.4 | 31.2 | 25.1 | 18.8 | 19.9 | 19.5 | 21.1 | 21.7 | 21.4 | 26.1 | 26.0 | 25.8 | 24.7 | 24.6 | 26.3 |
| <b>NO</b>        | 31.2 | 24.8 | 24.0 | 21.6 | 13.7 | 9.9  | 9.7  | 10.2 | 8.9  | 8.1  | 9.3  | 9.7  | 10.4 | 10.7 | 11.1 | 12.3 | 11.7 |
| <b>Russia</b>    | 76.2 | 69.3 | 59.8 | 59.8 | 59.0 | 57.0 | 58.6 | 58.0 | 56.8 | 57.0 | 56.4 | 56.4 | 57.5 | 59.3 | 60.3 | 57.9 | 59.4 |
| <b>Turkey</b>    | 22.5 | 18.0 | 8.9  | 9.1  | 5.7  | 6.8  | 4.3  | 3.7  | 3.5  | 4.8  | 5.2  | 5.0  | 4.9  | 4.8  | 4.6  | 4.4  | 4.7  |
| <b>US</b>        | 39.5 | 36.5 | 38.7 | 36.7 | 37.5 | 40.2 | 41.5 | 42.1 | 41.5 | 42.1 | 43.5 | 43.9 | 45.2 | 45.2 | 44.6 |      |      |

Source: See Index 139 in Publications at [www.tgaassoc.com](http://www.tgaassoc.com)

Table 5: Freight Traffic Changes in EU Railways 2001, 2003 and 2010

|             | Railway     | Percent International Tons |      |      | Avg Lgth of Haul (km) |       |       |
|-------------|-------------|----------------------------|------|------|-----------------------|-------|-------|
|             |             | 2001                       | 2003 | 2010 | 2001                  | 2003  | 2010  |
| AT          | ÖBB         | 75.4                       | 76.3 | 65.0 | 202.9                 | 206.7 | 196.4 |
| BE          | SNCB/NMBS   | 83.7                       | 68.3 | 61.3 | 63.7                  | 130.9 | 148.9 |
| BG          | BDZ         | 14.5                       | 20.4 | 30.5 | 254.3                 | 262.7 | 218.2 |
| CZ          | CD          | 59.3                       | 62.2 | 60.6 | 189.4                 | 183.1 | 180.9 |
| DE          | DB AG       | 34.9                       | 36.5 | 36.5 | 268.8                 | 276.0 | 313.4 |
| EE          | EVR         | 100.0                      | 90.8 | 85.7 |                       | 218.2 | 211.1 |
| ES          | RENFE       | 19.0                       | 18.8 | 15.6 | 463.0                 | 447.5 | 461.8 |
| FI          | VR          | 42.4                       | 42.6 | 35.0 | 236.5                 | 231.0 | 272.4 |
| FR          | SNCF        | 45.1                       | 43.2 | 18.7 | 399.1                 | 388.1 | 354.5 |
| GR          | OSE         | 87.2                       | 70.6 | 86.4 |                       | 175.9 | 184.6 |
| HU          | MÁV Rt.     | 62.6                       | 69.6 | 74.3 | 170.5                 | 177.3 | 200.2 |
| IT          | FS          | 61.7                       | 62.6 | 53.8 | 279.4                 | 273.2 | 284.2 |
| LT          | LG          | 78.3                       | 87.5 | 70.6 | 265.3                 | 263.7 | 279.5 |
| LU          | CFL Cargo   | 89.8                       | 84.4 | 75.3 | 34.4                  | 35.5  | 31.4  |
| LV          | LDZ         | 93.1                       | 95.2 | 97.4 | 374.3                 | 364.1 | 268.0 |
| PL          | PKP         | 41.1                       | 46.5 | 36.3 | 287.5                 | 293.0 | 268.1 |
| PT          | CP CARGA    | 10.4                       | 10.4 | 5.1  | 235.2                 |       | 209.5 |
| RO          | CFR Marfa   | 18.0                       | 25.3 | 12.1 | 221.7                 | 213.2 | 182.8 |
| SI          | SZ          | 90.6                       | 92.0 | 77.4 | 191.7                 | 190.9 | 210.4 |
| SK          | ZSSK Cargo  | 78.9                       | 83.5 | 88.6 | 203.9                 | 200.2 | 198.6 |
| CH          | SBB CFF FFS |                            | 58.1 | 53.4 |                       | 169.7 | 163.3 |
| HR          | HZ          | 78.7                       | 68.7 | 83.6 | 191.9                 | 212.1 | 214.5 |
| TK          | TCDD        | 6.6                        | 11.1 | 11.6 |                       | 549.6 | 470.6 |
| <b>EU15</b> |             | 51.6                       | 48.2 | 42.6 | 252.7                 | 270.1 | 278.3 |
| <b>EU10</b> |             | 50.0                       | 46.6 | 60.7 | 163.7                 | 201.8 | 232.1 |
| <b>EU25</b> |             | 50.8                       | 47.4 | 50.5 | 208.1                 | 235.9 | 258.1 |

Source: See Index 139 in Publications at [www.tgaassoc.com](http://www.tgaassoc.com)

Table 6: Rough Comparisons of International Railway Tariffs (2010 data)

|    |                        | Passenger<br>revenue<br>(000,000 €) | Passenger-km | Rev/pass-<br>km | Freight<br>revenue<br>(000,000 €) | Tonne-km  | Rev/tonne-<br>km |
|----|------------------------|-------------------------------------|--------------|-----------------|-----------------------------------|-----------|------------------|
| AT | ÖBB                    | 1,629                               | 10,186       | 0.160           | 1,925                             | 26,045    | 0.074            |
| BE | SNCB/NMBS              | 1,393                               | 10,493       | 0.133           | 267                               | 6,542     | 0.041            |
| DE | DB AG*                 | 13,357                              | 77,221       | 0.173           | 4,584                             | 105,800   | 0.043            |
| DK | DSB                    | 1,192                               | 7,405        | 0.161           |                                   |           |                  |
| ES | RENFE                  | 1,705                               | 20,977       | 0.081           | 231                               | 7,419     | 0.031            |
| FI | VR                     | 422                                 | 3,959        | 0.107           | 331                               | 9,750     | 0.034            |
| FR | SNCF                   | 12,513                              | 84,860       | 0.147           | 1,134                             | 22,840    | 0.050            |
| IE | CIE                    | 164                                 | 1,677        | 0.098           | 5                                 | 92        | 0.055            |
| IT | FS                     | 5,048                               | 43,349       | 0.116           | 892                               | 13,405    | 0.067            |
| LU | CFL                    | 203                                 | 347          | 0.584           |                                   |           |                  |
| NL | NS                     | 2,835                               | 15,352       | 0.185           |                                   |           |                  |
| PT | CP                     | 210                                 | 3,718        | 0.057           |                                   |           |                  |
| PT | CP Carga               |                                     |              |                 | 59                                | 1,932     | 0.030            |
| SE | GREEN CARGO            |                                     |              |                 | 557                               | 17,100    | 0.033            |
| SE | SJ                     | 667                                 | 6,774        | 0.098           |                                   |           |                  |
| UK | ATOC                   | 7,609                               | 54,100       | 0.141           |                                   |           |                  |
|    | <b>EU 15 Average**</b> | 41,337                              | 340,418      | 0.121           | 9,985                             | 210,925   | 0.047            |
| BG | BDZ                    | 41                                  | 2,105        | 0.020           | 74                                | 2,352     | 0.032            |
| BG | BRC                    |                                     |              |                 | 14                                | 630       | 0.022            |
| CZ | CD                     | 262                                 | 6,553        | 0.040           | 558                               | 13,564    | 0.041            |
| EE | EVR                    |                                     |              |                 | 44                                | 6,261     | 0.007            |
| HU | FLOYD                  |                                     |              |                 | 5                                 | 102       | 0.049            |
| HU | GySEV/RÖEE             | 16                                  | 186          | 0.089           | 43                                | 740       | 0.057            |
| HU | MAV                    | 246                                 | 5,259        | 0.047           |                                   |           |                  |
| LT | LG                     | 22                                  | 373          | 0.060           | 346                               | 13,431    | 0.026            |
| LV | LDZ                    | 15                                  | 83           | 0.182           | 250                               | 13,175    | 0.019            |
| PL | PKP                    | 656                                 | 15,715       | 0.042           | 1,164                             | 34,327    | 0.034            |
| RO | CFR Calatori           | 466                                 | 5,248        | 0.089           |                                   |           |                  |
| RO | CFR Marfa              |                                     |              |                 | 237                               | 5,611     | 0.042            |
| RO | CTV                    |                                     |              |                 | 13                                | 614       | 0.022            |
| RO | GFR                    |                                     |              |                 | 124                               | 2,984     | 0.041            |
| RO | TFG                    |                                     |              |                 | 14                                | 319       | 0.044            |
| RO | SERVTRANS              |                                     |              |                 | 35                                | 1,152     | 0.030            |
| SI | SZ                     | 79                                  | 813          | 0.097           | 118                               | 3,617     | 0.033            |
| SK | ZSSK                   | 85                                  | 2,291        | 0.037           |                                   |           |                  |
| SK | ZSSK Cargo             |                                     |              |                 | 328                               | 8,180     | 0.040            |
|    | <b>EU 10 Average</b>   | 1,890                               | 38,626       | 0.049           | 3,364                             | 107,059   | 0.031            |
| CH | BLS                    | 129                                 | 834          | 0.154           |                                   |           |                  |
| CH | BLS Cargo              | -                                   |              |                 | 126                               | 952       | 0.132            |
| CH | SBB CFF FFS            | 2,321                               | 16,868       | 0.138           | 652                               | 7,778     | 0.084            |
| NO | NSB                    | 526                                 | 2,750        | 0.191           |                                   |           |                  |
| RU | RZD                    | 1,066                               |              |                 | 23,277                            | 2,011,308 | 0.012            |
| TR | TCDD                   | 99                                  | 5,491        | 0.018           | 230                               | 11,300    | 0.020            |
| CA | Total Canada           | 207                                 |              |                 | 6,905                             | 299,731   | 0.023            |
| US | AAR Class I            | -                                   |              |                 | 42,637                            | 2,468,738 | 0.017            |
| US | AMTRAK                 | 1,303                               | 10,197       | 0.128           |                                   |           |                  |

\* Data taken from DB Annual Report for rail freight only (excludes trucking)

\*\* Data not available for Greece and freight data not available for UK

Source: UIC International Railway Statistics 2010, Tables 51, 61 and 72

Table 7: Commercial Passenger Traffic on the National Territory

|    | Railway      | PASSENGERS (000) |                     |                |           |                  | Passenger-Km (000,000) |                     |                |         |                  | Average Trip Length (Km) |                     |                |       |
|----|--------------|------------------|---------------------|----------------|-----------|------------------|------------------------|---------------------|----------------|---------|------------------|--------------------------|---------------------|----------------|-------|
|    |              | Commuter         | Intercity Internat. | Intercity Dom. | Total     | Percent Commuter | Commuter               | Intercity Internat. | Intercity Dom. | Total   | Percent Commuter | Commuter                 | Intercity Internat. | Intercity Dom. | Total |
| BE | SNCB/NMBS    | 144,334          | 15,949              | 60,096         | 220,379   | 65.5             | 5,684                  | 1,488               | 3,321          | 10,493  | 54.2             | 39.4                     | 93.3                | 55.3           | 47.6  |
| DE | DB AG        | 1,226,432        | 13,910              | 656,235        | 1,896,577 | 64.7             | 17,916                 | 4,931               | 54,374         | 77,221  | 23.2             | 14.6                     | 354.5               | 82.9           | 40.7  |
| DK | DSB          |                  | 35,355              | 162,880        | 198,234   |                  |                        | 1,512               | 5,893          | 7,405   | -                |                          | 42.8                | 36.2           | 37.4  |
| ES | RENFE        |                  | 712                 | 453,035        | 453,747   |                  |                        | 557                 | 20,420         | 20,977  | -                |                          | 782.3               | 45.1           | 46.2  |
| FI | VR           |                  | 346                 | 68,604         | 68,950    |                  |                        | 90                  | 3,869          | 3,959   | -                |                          | 260.1               | 56.4           | 57.4  |
| FR | SNCF         | 690,081          | 21,690              | 365,657        | 1,077,429 | 64.0             | 14,631                 | 6,805               | 63,424         | 84,860  | 17.2             | 21.2                     | 313.7               | 173.5          | 78.8  |
| GB | ATOC         | 586,294          |                     | 744,887        | 1,331,180 | 44.0             | 15,067                 | ...                 | 38,249         | 53,316  | 28.3             | 25.7                     |                     | 51.3           | 40.1  |
| IE | CIE          |                  |                     | 38,226         | 38,226    |                  |                        |                     | 1,677          | 1,677   | -                |                          |                     | 43.9           | 43.9  |
| NL | NS           | ...              | ...                 | ...            | 324,005   |                  | 1,890                  | 176                 | 13,286         | 15,352  | 12.3             |                          |                     |                | 47.4  |
| PT | CP           | 79,837           | 140                 | 50,105         | 130,082   | 61.4             | 1,291                  | 103                 | 2,325          | 3,718   | 34.7             | 16.2                     | 737.1               | 46.4           | 28.6  |
| BG | BDZ          | -                | 446                 | 29,670         | 30,116    | -                | -                      | 60                  | 2,045          | 2,105   | -                |                          | 135.0               | 68.9           | 69.9  |
| CZ | CD           | 76,375           | 2,338               | 83,977         | 162,690   | 46.9             | 2,172                  | 326                 | 4,055          | 6,553   | 33.1             | 28.4                     | 139.4               | 48.3           | 40.3  |
| EE | EVR          |                  | 98                  | 4,707          | 4,805     |                  |                        | 18                  | 230            | 248     | -                |                          | 183.7               | 48.9           | 51.6  |
| HU | MAV          | 56,377           | 1,988               | 46,388         | 104,753   | 53.8             | 1,547                  | 338                 | 3,374          | 5,259   | 29.4             | 27.4                     | 170.0               | 72.7           | 50.2  |
| LT | LG           | 844              | 881                 | 2,638          | 4,363     | 19.3             | 23                     | 147                 | 203            | 373     | 6.2              | 27.3                     | 166.9               | 77.0           | 85.5  |
| LU | CFL          | -                | 5,374               | 12,621         | 17,995    |                  |                        | 101                 | 246            | 347     | -                |                          | 18.8                | 19.5           | 19.3  |
| LV | LDZ          | -                | 320                 | 18             | 338       |                  |                        | 79                  | 4              | 83      | -                |                          | 246.9               | 222.2          | 245.6 |
| PL | PKP          | 94,135           | 1,695               | 92,852         | 188,682   | 49.9             | 4,818                  | 516                 | 10,381         | 15,715  | 30.7             | 51.2                     | 304.4               | 111.8          | 83.3  |
| RO | CFR Calatori | 20,710           | 442                 | 36,518         | 57,670    | 35.9             | 602                    | 129                 | 4,517          | 5,248   | 11.5             | 29.1                     | 291.9               | 123.7          | 91.0  |
| SI | SZ           | 6,574            | 926                 | 8,720          | 16,220    | 40.5             | 196                    | 134                 | 483            | 813     | 24.1             | 29.9                     | 144.5               | 55.4           | 50.1  |
| SK | ZSSK         |                  | 2,858               | 42,146         | 45,004    |                  |                        | 188                 | 2,104          | 2,291   | -                |                          | 65.7                | 49.9           | 50.9  |
| NO | NSB          |                  |                     |                | 50,476    |                  |                        | 72                  | 2,678          | 2,750   | -                |                          |                     |                | 54.5  |
| JP | CJRC         | 266,035          |                     | 249,030        | 515,065   | 51.7             | 6,851                  | -                   | 45,891         | 52,742  | 13.0             | 25.8                     |                     | 184.3          | 102.4 |
| JP | EJR          | 3,794,950        |                     | 2,260,612      | 6,055,562 | 62.7             | 73,737                 | -                   | 51,795         | 125,532 | 58.7             | 19.4                     |                     | 22.9           | 20.7  |
| JP | HRC          | 74,308           |                     | 52,669         | 126,977   | 58.5             | 1,426                  | -                   | 2,823          | 4,249   | 33.6             | 19.2                     |                     | 53.6           | 33.5  |
| JP | KRC          | 196,514          |                     | 101,340        | 297,854   | 66.0             | 3,937                  | -                   | 4,138          | 8,075   | 48.8             | 20.0                     |                     | 40.8           | 27.1  |
| JP | ShRC         | 28,641           |                     | 16,469         | 45,110    | 63.5             | 598                    | -                   | 781            | 1,379   | 43.4             | 20.9                     |                     | 47.4           | 30.6  |
| JP | WJRC         | 1,133,071        |                     | 645,345        | 1,778,416 | 63.7             | 23,411                 | -                   | 29,203         | 52,614  | 44.5             | 20.7                     |                     | 45.3           | 29.6  |
| KR | KORAIL       | 9,887            |                     | 1,051,054      | 1,060,941 | 0.9              | 603                    | -                   | 32,409         | 33,012  | 1.8              | 61.0                     |                     | 30.8           | 31.1  |

Source: UIC, International Railway Statistics, 2010, Table 51



## AUSTRALIA

### 1. Background

The Australian rail network consists of approximately 33,000 kilometres of track, with around 10 per cent being electrified. The Australian rail sector is very diverse in terms of territorial coverage, markets, industry dynamics and regulatory responsibility.

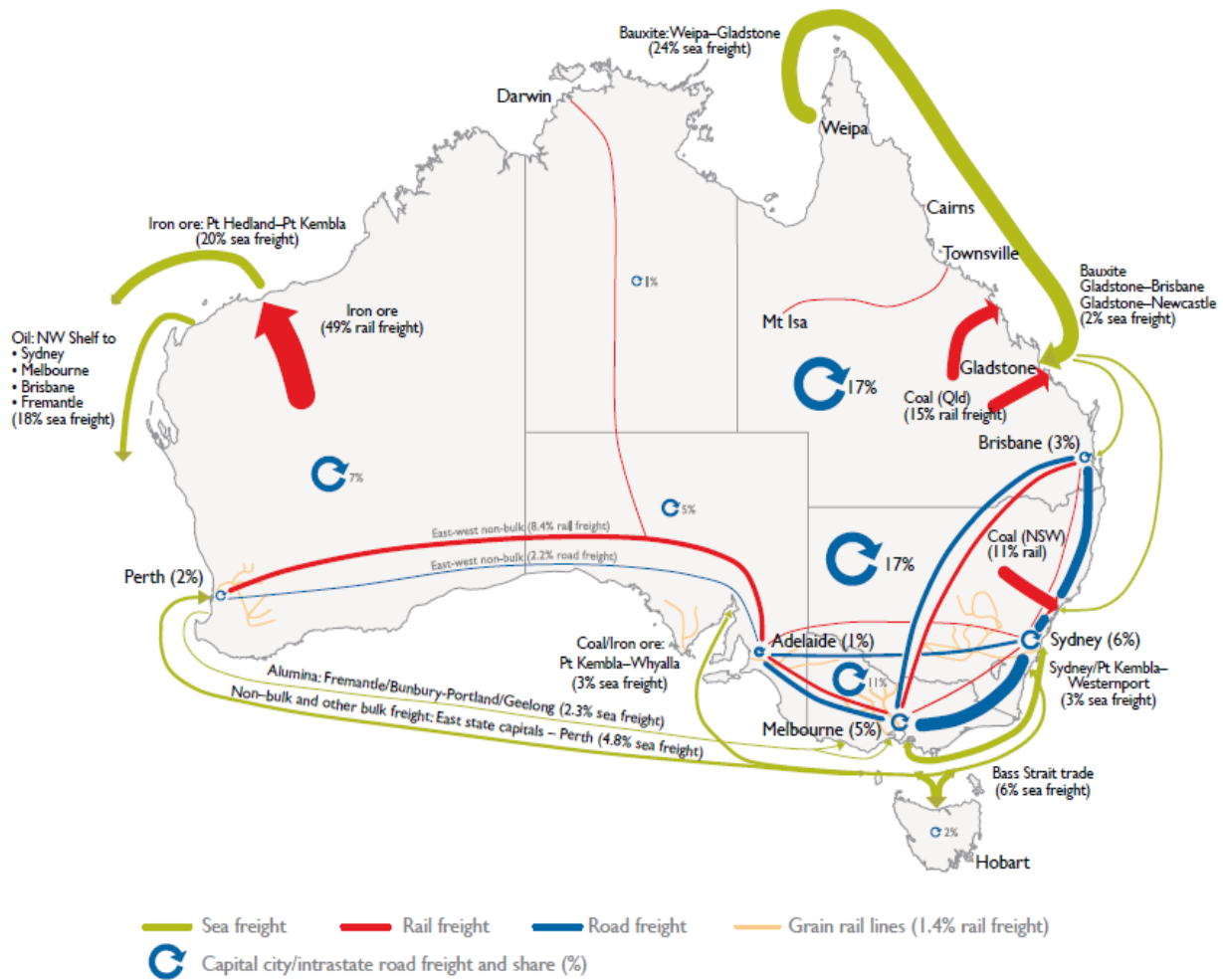
The major rail markets are:

- Export iron ore in northwest Australia
- Export coal on the east coast
- Export grain in southwest Australia and the east coast
- Interstate general freight and steel
- Metropolitan passengers

The rail movement of minerals and quarry materials, inter-city passengers and tourists are also significant at the local level.

Figure 1 illustrates the relative significance of rail freight to the Australian freight transport sector. The Australian rail freight task is dominated by the movement of bulk freight, particularly iron ore in Western Australia which represents almost 60 per cent of the nation's rail freight task measured in tonne-kilometres (BITRE 2012, p. v).

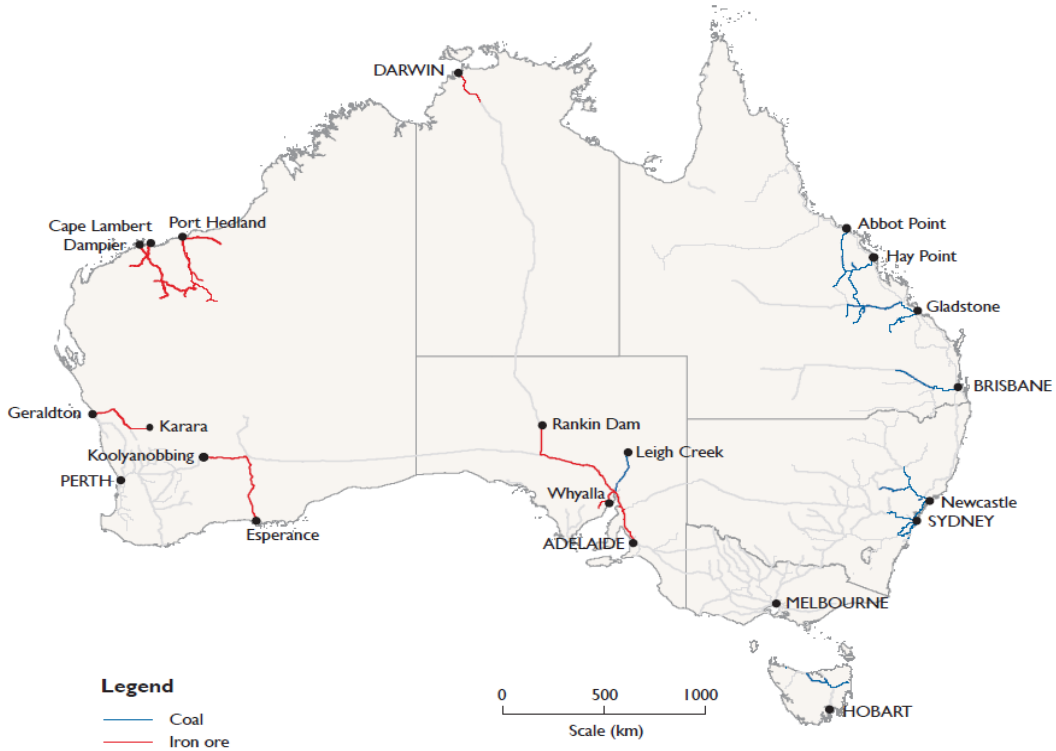
Figure 1: Principal Freight Movements in Australia, 2006-07



Source: BITRE 2009, cited in BITRE 2012

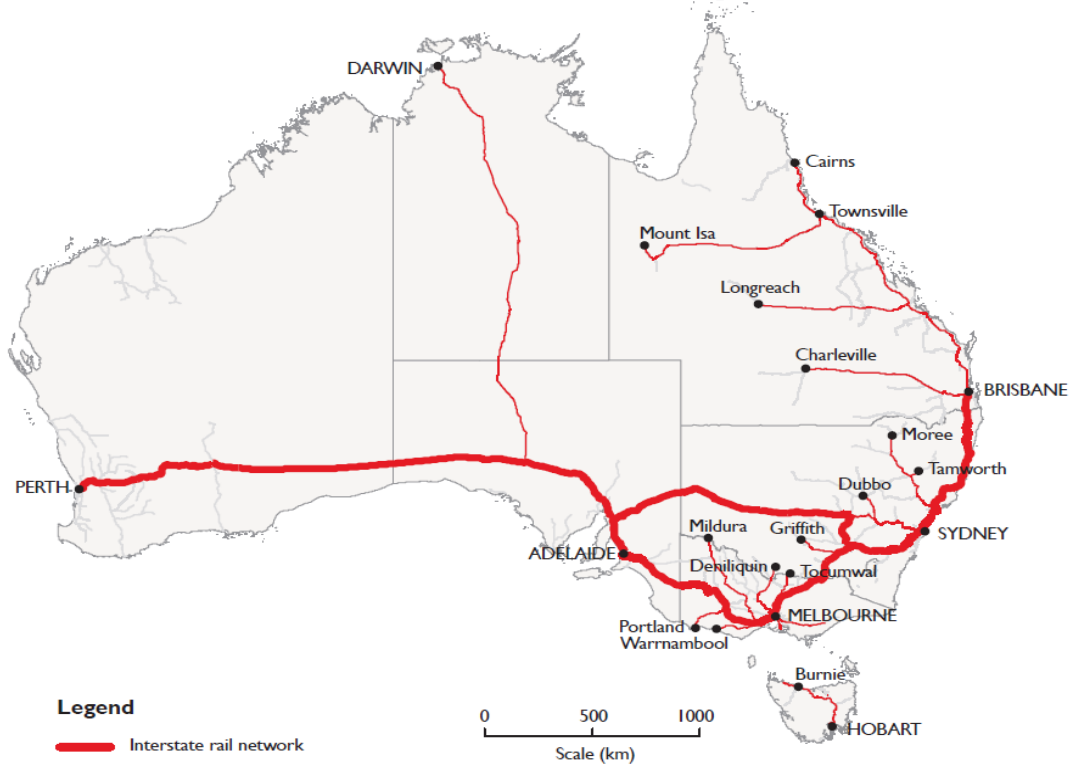
The significance of the Australian rail sector's support of the Australian economy cannot be understated. Iron ore and coal exports from Australia are in excess of 400mtp and 300mtp respectively, with a combined total value of over \$110 billion in 2011. The Australian iron ore and coal networks are illustrated in Figure 2.

Figure 2: Lines Used for Iron Ore and Coal Movements, 2012



Source: BITRE rail database, cited in BITRE 2012

Figure 3: Lines Used for Intermodal Movements, 2012



Source: BITRE rail database, cited in BITRE 2012



In recent years there has been substantial private and public investment in various parts of the rail network, with the Australian Government alone investing over \$7.2 billion on freight rail, intermodal terminals and urban rail projects between 2008 and 2014.

With the completion of the Alice Springs – Darwin line in 2004, all mainland capital cities are now connected by a standard gauge (1435 mm) network, creating the backbone of the intermodal network (see Figure 3).

Three states (Queensland, Western Australia and Tasmania) continue to have substantial narrow gauge networks, and Victoria has a substantial broad gauge network.

Between 2009 and early 2012 over 330 kilometres of new track was opened, principally for the export of iron ore and coal, while in early 2012 there were more than 230 route kilometres of railway being constructed, including 37 kilometres of urban railways (BITRE 2012, p. v).

Over the past decades, two substantial new rail network projects on the Australian east coast have been proposed:

- An inland rail line between Melbourne and Brisbane as an alternative to current need to move freight between these two cities via the congested Sydney network; and
- A high speed rail line connecting Melbourne, Sydney and Brisbane.

Major studies into these projects have recently been completed, providing the basis for future planning for the construction of these projects.

The *Melbourne-Brisbane Inland Rail Alignment Study* (ARTC 2010) determined the optimum alignment as well as the economic benefits and likely commercial success of an inland freight line. Although the study determined that the level of demand that would support a positive economic benefit is not expected till between 2030 and 2035, the Australian Government has committed \$300 million to undertake detailed planning, environmental assessments, begin land acquisition and community consultation from 2014.

The *High Speed Rail Study: Phase 2 Report* (AECOM 2013) presented the results of the most detailed investigation yet undertaken of the likely costs and benefits of constructing Australia's first high speed rail (HSR) network. The study concluded that HSR between Melbourne and Brisbane (via Sydney with a link to Canberra) would have an estimated construction cost of \$114 billion and that the overall HSR program and the majority of its individual stages would be expected to produce only a small positive financial return on investment. Once fully operational (from 2065), the HSR network could carry approximately 84 million passengers each year and substantially improve accessibility to the regional centres it served. The Australian Government has commenced a comprehensive program of public consultation and established a high level HSR advisory group.

## **2. Major Changes in the Australian Rail Sector Since 2004**

### **2.1 Overview**

The major Australian rail sector reforms of the 1990s and early 2000s continued to have a significant influence over recent and near term industry developments. The major changes in the sector since 2004, while inter-related, can be described as:

- Continuing historical high levels of investment across the broad range of Australian rail networks;
- Reform and/or privatisation of government rail agencies, including the transfer of track management authorities; and
- Increased competition between rail service providers.

## 2.2 *Network Investment*

### 2.2.1 *Infrastructure Australia*

In 2008 the Australian Government established Infrastructure Australia, a statutory body with responsibility for advising governments, investors and infrastructure owners on a wide range of infrastructure issues including:

- Australia's current and future infrastructure needs;
- Mechanisms for financing infrastructure investments; and
- Policy, pricing and regulation and their impacts on investment and on the efficiency of the delivery, operation and use of national infrastructure network.

Reporting regularly to the Council of Australian Governments (through the Federal Minister for Infrastructure and Transport) Infrastructure Australia's focus is on assisting Australian governments to develop a strategic blueprint for unlocking infrastructure bottlenecks and to modernise the nation's economic infrastructure.<sup>1</sup>

### 2.2.2 *Networks Supporting Bulk Exports*

Since the early 2000s, rail network investments have grown in response to the need to move rapidly growing volumes of export iron ore and coal. This has been supported by government policies to improve the quality of rail services as a means of addressing road network congestion, and improve transport safety and environmental outcomes.

In general, the investments in the **export mining networks** have been driven by the private sector, either through direct investment in closed rail systems (e.g. iron ore miners in the Pilbara region) or indirectly through negotiation and purchase of capacity with open access track managers (e.g. coal miners in the New South Wales and Queensland coal basins).

With respect to **regional freight** rail links, the most substantial developments have been in the grain sector where the states of New South Wales, South Australia and Western Australia have completed major reviews into the adequacy of their grain lines. These reviews were in response to the substantial deterioration of the over 100 year old state networks that support grain exports of over 32mtpa<sup>2</sup>. In some

<sup>1</sup> <http://www.infrastructureaustralia.gov.au/about>

<sup>2</sup> Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) estimates of wheat and coarse grain exports for 2011/12 ([www.daff.gov.au/abares](http://www.daff.gov.au/abares)). This is a record year. The Australian Grain Exporters Association estimates that for 10 years up to 2008, the average annual volume of grain exports was 13.8mt (AGEA 2011, p. 2).

instances the lines had deteriorated to the point where grain rail services could no longer be provided, and consequently the burden of the task shifted to the less efficient regional road network.

In all three states, the reviews have resulted in a rationalisation of the regional rail networks whereby the least cost effective links were abandoned and the remaining links are brought up to a 'fit-for-purpose' standard. In terms of financial support, the state governments have adopted a mix of subsidies ranging from contributing to the upgrade of the physical infrastructure to support of services.

### 2.2.3 *Interstate Network*

**Public sector investments** have been equally focused on expanding and upgrading the current network, particularly with respect to regional and interstate freight, and urban passenger rail. Since 2004, two major extensions of the interstate rail network have occurred:

- The completion of the 1,420 kilometre Alice Springs to Darwin standard gauge line in 2004, linking Darwin to the inter-state network for the first time. Unlike the majority of the interstate network, the Australian Government owned Australian Rail Track Corporation (ARTC)<sup>3</sup> is not the below rail manager for this track. Instead a similar Northern Territory Government and South Australian Government owned manager was created (AustralAsia Railway Corporation) with regulatory oversight assigned to the South Australian Essential Services Commission. Since 2010, operation of the rail line has been the responsibility of Genesee and Wyoming under a concession deed with the AustralAsia Railway Corporation.
- In 2013, the 36 kilometre Southern Sydney Freight Line commenced operations. This line, funded by the ARTC's own financial resources, provides a dedicated freight line in southern Sydney, removing commuter peak hour curfews on freight trains.

Future investments in the interstate network are focused on expanding **intermodal terminal capacity** in Sydney (Moorebank Intermodal Terminal<sup>4</sup>), Melbourne (prefeasibility study underway) and Brisbane (future options being considered). In all instances, the Australian and state governments are directly involved in the planning of these terminals because of their influences on the supporting rail and road networks, associated land-use planning requirements and their social externalities.

### 2.2.4 *Metropolitan Passenger Rail*

Recent years have seen an increase in the investment in metropolitan passenger networks. Recent investment by state government owned track managers have been in upgrading track standards, simplifying networks and investing in new rolling stock. There has also been substantial planning for major new links (e.g. North West Rail and South West Rail in Sydney, and projects in Perth and Adelaide) that are expected to be constructed in the short term to meet the needs of Australia's rapidly growing cities.

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<sup>3</sup> The ARTC was created after the Commonwealth and State Governments agreed in 1997 to the formation of a 'one stop' shop for all operators seeking access to the National interstate rail network. The ARTC is responsible for providing seamless and efficient access to the users of the interstate rail network including managing track maintenance and construction, and efficient train operational control. The ARTC's activities are funded through a combination of internal financing, Australian Government equity injection and grant funding. See [www.artc.com.au](http://www.artc.com.au)

<sup>4</sup> To develop intermodal capacity in Sydney and relieve congestion on roads around Port Botany, the Australian Government has commenced development of a new intermodal terminal at Moorebank. With a design capacity of 1.7 million containers per annum, the project is expected to provide \$10 billion in economic benefits and eliminate 3,300 truck movements off Sydney's roads every day. This will complement the Southern Sydney Freight Line and Port Botany rail upgrades.

While metropolitan passenger rail operations are primarily the responsibility of state governments, the Australian Government has invested \$3.8 billion towards urban public transport projects in the period 2008-09 to 2013-14 and has provided (jointly with state governments) funding for key passenger rail projects. One example is the Regional Rail Link in Victoria, which separates regional and metropolitan trains through Melbourne and provides 90 kilometres of new track, creating capacity for an additional 54,000 passenger trips each day.

Most jurisdictions continue to own their metropolitan passenger networks and in some instances (e.g. Queensland and New South Wales) governments are implementing policies to take greater control of their rail agencies. In contrast the Victorian Government has a hands off approach to managing their rail assets, outsourcing control and maintenance of the below rail assets through franchise concessions. Also, the NSW Government has indicated it intends to pay a private operator to run the new North West Rail Link as the specifications for this line are for a single deck, rapid transit service to operate separate from the existing passenger network<sup>5</sup>.

In further developments, the NSW Government announced<sup>6</sup> in 2012 a plan to provide a major overhaul of the Sydney passenger rail network by introducing new single deck high frequency trains in addition to the existing double deck services, as well as planning for a second rail crossing under Sydney Harbour.

#### 2.2.5 *Infrastructure Financing*

Expansion of metropolitan passenger rail networks and the construction of nation building projects such as the proposed A\$4.7 billion Melbourne-Brisbane inland freight line<sup>7</sup> and the A\$114 billion Melbourne-Brisbane high speed rail network<sup>8</sup> require large capital outlays. Consequently, governments around Australia are examining ways to encourage greater **private sector** involvement in infrastructure.

To help meet this challenge the Australian Government established the Infrastructure Finance Working Group in 2011. Consisting of leaders from the private and public sectors, the Working Group was tasked with identifying ways to encourage greater private sector investment in infrastructure<sup>9</sup>.

The Working Group's report contains a number of recommendations on how governments can improve their engagement with the private sector to meet Australia's infrastructure needs. Specifically, the report recommended major reform in the areas of:

<sup>5</sup> For further information see <http://www.transport.nsw.gov.au/tags/North-West-Rail-link>

<sup>6</sup> For further information see <http://www.transport.nsw.gov.au/media-releases/fixing-trains-sydneys-rail-future>

<sup>7</sup> See [http://www.nationbuildingprogram.gov.au/projects/ProjectDetails.aspx?Project\\_id=040791-10SA-NP](http://www.nationbuildingprogram.gov.au/projects/ProjectDetails.aspx?Project_id=040791-10SA-NP) for details of the 2010 *Melbourne-Brisbane Rail Alignment Study*.

<sup>8</sup> See [http://www.infrastructure.gov.au/rail/trains/high\\_speed/index.aspx](http://www.infrastructure.gov.au/rail/trains/high_speed/index.aspx) for details of the 2013 *High Speed Rail Study Phase 2 Report*.

<sup>9</sup> A copy of the 2012 Infrastructure Finance and Funding Reform Report can be found here <http://www.infrastructure.gov.au/infrastructure/iff>. The Australian Government has also developed the National Infrastructure Construction Schedule (NICS), the first-ever national government infrastructure project pipeline. Its implementation is a collaborative effort between the Commonwealth, state and territory governments and local government. NICS provides industry with information on major infrastructure projects committed by governments across the country in a dynamic, easy-to-use manner. See [www.nics.gov.au](http://www.nics.gov.au)

- Infrastructure funding;
- Improved infrastructure planning to provide a larger pipeline of projects; and
- More flexible and efficient markets to attract greater private investment.

In its recent 2013-14 Budget, the Australian Government announced that the next phase of the Nation Building Program will include two ‘mega’ rail projects. The Government is looking to utilise new funding and financing arrangements to help attract private sector involvement in these projects, which are:

- **Melbourne Metro:** a transformational project that will untangle the inner core of the metropolitan rail network through the construction of a 9 kilometre underground railway. Once completed the line will provide for an additional capacity of 19 train services per hour for an extra 20,000 passengers; and
- **Cross River Rail in Brisbane:** consisting of a new 10 kilometre underground tunnel, providing additional capacity for more than 17,000 people removing approximately 14,000 private cars from the road network.

In order to support continued partnerships between the Government and the private sector, the 2013-14 Budget also announced that a new advisory function would be established within the Commonwealth Treasury to provide guidance on the most appropriate funding and financing structures to bring complex infrastructure projects to market. This will contribute to minimising the risks that could be associated with new financing arrangements, and help to build investment capacity in Australia.

## **2.3 Reform of Government Rail Agencies**

### **2.3.1 Queensland**

The most significant recent development in the reform of Australian government rail agencies has been the structural separation of the Queensland Government owned corporation QR Limited into QR National and Queensland Rail in 2010, and the subsequent privatisation of QR National (which was recently renamed Aurizon).

The 2010 structural separation involved QR National being given responsibility for the above rail freight assets of QR Limited, and responsibility for the below rail assets associated with the Central Queensland Coal Network. Queensland Rail retained ownership of the remaining Queensland regional freight network, the Queensland passenger network and the above rail passenger assets and services.

Reflecting the company’s status as one of the largest provider of rail services in Australia, the privatisation of QR National was one of the five largest demergers in Australian corporate history. On completion of the float, the Queensland Government retained a minority stockholding of 34 per cent, which has since been reduced to 9 per cent.

The Central Queensland Coal Network is a 2,670 km rail network, comprising four major coal systems (Moura, Blackwater, Goonyella and Newlands). As such it is Australia’s largest export coal network. Aurizon’s concession for the assets of this network is based on a 99 year lease, with its network access undertakings being regulated by the Queensland Competition Authority.

### 2.3.2 Interstate Network Lease Transfers

With the exception of the privatisation of QR National, there has been little change in the public and private *ownership* of below rail assets. However, there has been a series of structural reforms that have culminated in a significant extension of the Australia Rail Track Corporation's (ARTC) *control* of the interstate rail network.

When the ARTC was established in 1998 the scope of activities was initially limited to the former Australian National assets in South Australia and a management lease of the Victorian standard gauge interstate network.

The recent extensions of ARTC's control of the interstate network are:

- **2004:** A 60 year lease agreement with New South Wales Government, which initially provided ARTC with the management of the NSW component of the interstate network and the Hunter Valley (coal) network.
- **2008:** ARTC's lease of the Victorian standard gauge network is extended to 2059 and provides for the conversion of some broad gauge tracks to standard gauge and some to dual gauge.
- **2010:** The Queensland Government leases to ARTC the standard gauge rail line from the Queensland border to the Acacia Ridge intermodal terminal in Brisbane.
- **2011:** Inclusion of the 370km of Gunnedah Basin coal link in the ARTC's NSW Interstate and Hunter Valley networks lease.
- **2012:** Management and operation of the Sydney Metropolitan Freight Network (MFN) transferred to ARTC from the NSW Government agency, RailCorp<sup>10</sup>. The MFN is a 19 kilometre dedicated freight line linking the interstate network in Sydney to Port Botany, and the ARTC's lease enables the Corporation to consolidate control of traffic on the Melbourne-Sydney-Brisbane corridor.
- **Current:** The ARTC currently has rights to sell access between Kalgoorlie and Perth to interstate rail operators under a wholesale access agreement with the Western Australian open access track owner Brookfield Rail (also known as WestNet).

The Australian Competition and Consumer Commission (ACCC) is the regulator of the ARTC's network access undertakings on the interstate and Hunter Valley networks. The ACCC accepted ARTC's Interstate Access Undertaking (IAU) under Part IIIA of the then *Trade Practices Act 1974* (now known as the *Competition and Consumer Act 2010* (Cth)) on 30 July 2008. The IAU does not incorporate access to the rail network in the Hunter Valley, which is covered by the Hunter Valley Access Undertaking accepted by the ACCC on 29 June 2011.

### 2.4 Competition in the Australian Rail Sector

Significant developments in the structure of the Australian rail industry have occurred since 2006:

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<sup>10</sup> The MFN lease was originally part of the 2004 Australian and NSW Governments' agreement for the ARTC to lease the NSW component of the interstate network and the Hunter valley network for 60 years.

- **2006:** Queensland Rail (QR) purchases Australia Rail Group's (ARG) Western Australia freight business
- **2006:** Genesee & Wyoming takes full control of ARG's South Australian operations
- **2006:** The ACCC approves Australia's largest transport industry takeover, allowing Toll Holdings to acquire rival Patrick Corporation. The enforceable undertaking given by Toll eventually led to the rail and port operations being split from Toll to form Asciano in 2007.
- **2010:** The Aurizon float allows the company to continue in its development from a state based operator to a national provider of rail services, and increases the competitive tension in the national market, particular against Asciano across a broad range of commodity and network markets.
- **2010-11:** Aurizon trebled its presence in the NSW coal market and in 2012 it expected to move 45 mtpa of coal in the Hunter Valley (QRN 2012, p. 20).
- **2013:** Aurizon announced a financial restructure that provides the company with the flexibility to introduce a minority interest in the Aurizon Network division.

### **3. Recent Developments in Rail Regulation**

The most recent developments in the regulation of the Australian rail sector relate to:

- The establishment of a National Rail Safety Regulator; and
- Implementation of the National Competition Policy.

#### **3.1 National Rail Safety Regulator**

By 2002 above rail freight services in Australian had been fully privatised (except for Queensland Rail which operated as a government owned, corporatised entity). During this period of restructuring, two policy objectives were being sought: improved rail safety and the economic imperative of fostering competitive and efficient rail services and networks. The safety objective required regulators to "undertake new tasks, including the accreditation of operators and their safety management systems and the imposition of sanctions and penalties for unsafe practices" (Walker 2006, p. 6).

Each jurisdiction adopted separate rail safety regulatory frameworks, being influenced by the competing competition policy objective and jurisdictional institutional arrangements. Consequently, it became obvious that duplication and inconsistencies between jurisdictional rail safety regimes was creating substantial regulatory burden upon the rail industry<sup>11</sup>. In response, and as part of the Australian Government's Seamless National Economy agenda, the Council of Australian Governments (COAG) agreed in 2009 to the establishment of a national rail safety law and national rail safety regulator.

In August 2011, COAG signed the Intergovernmental Agreement (IGA) on Rail Safety Regulation and Investigation Reform to establish the Office of the National Rail Safety Regulator (ONRSR) in South

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<sup>11</sup> In February 2006, the Council of Australian Governments agreed that reform of rail safety regulation was one of six priority cross-jurisdictional "hot spots". See COAG Communique of 10 February 2006 at [http://archive.coag.gov.au/coag\\_meeting\\_outcomes/archive.cfm](http://archive.coag.gov.au/coag_meeting_outcomes/archive.cfm)

Australia. The IGA also established the Australian Transport Safety Bureau as the national ‘no-blame’ investigator for rail in Australia<sup>12</sup>.

The creation of a national rail safety law was based on the past successful approach to national transport regulation whereby model law is established in one jurisdiction (in this case the *Rail Safety National Law (South Australia) 2012*) with other States and Territories each passing enabling legislation to give effect to the Rail Safety National Law within each jurisdiction<sup>13</sup>.

As a result of the cooperation between State and Federal Governments, state based regulators and the wider rail industry, the Office of the National Rail Safety Regulator (ONRSR) was established in January 2013. Although the ONRSR’s powers currently only extend to the jurisdictions of New South Wales, South Australia, Tasmania and the Northern Territory, it is expected that Western Australia, Victoria, Queensland and the Australian Capital Territory will also be regulated by the ONRSR within 12 months, subject to the passage of further state law.<sup>14</sup>

### 3.2 *Implementation of National Competition Policy*

#### 3.2.1 *Access Regulation*

The ACCC has rail regulation responsibilities which arise from the National Access Regime in Part IIIA of the *Competition and Consumer Act 2010*. The ACCC’s responsibilities include:

- Assessing Part IIIA undertakings submitted by rail access providers in relation to rail track infrastructure (‘below rail’ services); and
- Carrying out functions under accepted undertakings (which includes, if required, arbitrating access disputes).

To date only the ARTC has submitted an undertaking under Part IIIA of the *Competition and Consumer Act 2010*. Two undertakings are currently in place, one for the national interstate rail network (Interstate Access Undertaking – **IAU**) accepted on 30 July 2008 and one for the Hunter Valley rail network in New South Wales accepted on 29 June 2011 (**Hunter Undertaking**).

#### 3.2.2 *Pricing approaches*

The IAU incorporates a hybrid price-cap and revenue-cap model. Prices for reference ‘indicative’ services are set at the beginning of the regulatory period and adjusted each year for changes in Australia’s Consumer Price Index. The ARTC determines prices for other services by reference to the indicative prices. The ARTC’s aggregate revenue (which is dependent upon actual volumes for all services) is also subject to a revenue cap. Within this model, the ARTC has considerable discretion in differentiating access charges for non-indicative services.

The ACCC considered that, permitting some price differentiation, allowing ARTC to recover its full costs of providing services was appropriate.

<sup>12</sup> The [Transport Safety Investigation Act 2003](#) provides a legislative basis for the Australian Transport Safety Bureau (ATSB) to conduct rail safety investigations on the Defined Interstate Rail Network.

<sup>13</sup> Information on the development and implementation of the Rail Safety National Law can be found at [http://www.infrastructure.gov.au/rail/legislation/ntc\\_ris.aspx](http://www.infrastructure.gov.au/rail/legislation/ntc_ris.aspx)

<sup>14</sup> See [www.onrsr.com.au](http://www.onrsr.com.au)



With respect to the Hunter Undertaking, the ACCC approved a ‘loss capitalisation’ approach to determining the revenue cap for certain sections of the network (called **Pricing Zone 3**). Loss capitalisation allows the ARTC to incorporate revenue shortfalls in any year to its regulated asset base and recover those losses in later periods.

In approving the loss capitalisation approach, the ACCC noted that Pricing Zone 3 served new mines in the Gunnedah Basin which were predominately in start-up phase. The ACCC considered that the use of loss capitalisation in these circumstances would facilitate ARTC investing in track infrastructure to service those mines (even though it would not earn a return on those investments in the short term) and therefore facilitate increased coal exports via the Port of Newcastle.

### *3.2.3 Extension regulation*

The ACCC has powers to direct an infrastructure operator to extend a facility to assist in achieving efficient investments in infrastructure. These powers have never been exercised.

The ACCC has considered it preferable to provide effective incentives to prompt the infrastructure operator to extend its facility, including, when appropriate, providing the option of user-funded extensions.

Australia considers that this ‘user-funding’ option seeks to avoid the possibility of hold-up by a monopoly infrastructure owner not investing in new capacity and facilitates private investment in the rail network and reduces the risk to ARTC.

Infrastructure operators and access seekers will sometimes have conflicting interests or incentives to resist negotiating an extension to a facility. In these cases, the threat of an ACCC direction that an infrastructure operator must extend a facility may provide an incentive for the parties to reach a commercial agreement.

### *3.2.4 Review of the National Access Regime*

The OECD review of Australia’s national competition policy (NCP) commented on the success of the policy but did note that some aspects of the NCP remained unfinished, particularly with respect to access to railway lines (OECD 2010, p. 18).

The National Access Regime (NAR) was introduced in 1995 as part of the NCP package. The NAR is intended to promote the economically efficient operation of, use of, and investment in, the infrastructure by which services are provided, thereby promoting effective competition in upstream and downstream markets. The NAR sits alongside other industry-specific access regimes (including Commonwealth and state and territory regimes), and was legislated following government consideration of the outcomes of the 1993 review of National Competition Policy by the Independent Committee of Inquiry (the Hilmer Committee).

The National Access Regime was strengthened with the 2006 agreement by the Australian, state and territory governments signing the Competition Infrastructure Reform Agreement (CIRA). This agreement “sets out commitments to achieve a simpler and consistent national approach to the economic regulation of significant infrastructure, including ports and railways” (PC 2012, p. 2).

The Productivity Commission<sup>15</sup> last reviewed the Regime in 2001 “at a time when few applications for access to infrastructure services had been considered” (PC 2012, p. 2). The Commission is currently undertaking a new review of the NAR<sup>16</sup>, and the submission by one Australia’s largest rail service providers is telling in terms of the extent the NAR has permeated the rail sector since 2001.

*“Asciano’s above rail operations rely on third party access to below rail infrastructure owned by over ten third parties. Access to these below rail infrastructure assets is regulated by six access regulators acting under five state based access regimes and the Commonwealth access regime” (Asciano 2013, p. 5).*

In summary, the Commission has been asked to:

- examine the rationale, role and objectives of the National Access Regime (the Regime), and Australia’s overall framework of access regulation
- assess the performance of the Regime in meeting its rationale and objectives
- report on whether the implementation of the Regime adequately ensures that its economic efficiency objectives are met
- provide advice on ways to improve processes and decisions for facilitating third party access to essential infrastructure
- review the effectiveness of the reforms outlined in the Competition and Infrastructure Reform Agreement (CIRA), and the actions and reforms undertaken by governments in giving effect to the CIRA
- comment on other relevant policy measures, including any non-legislative approaches, which would help ensure effective and responsive delivery of infrastructure services over both the short and long term.

The Productivity Commission’s final report to Government is due be completed in October, 2013. It should be noted that this review is separate to state government reviews of their own access regulatory regimes, including reviews of below rail owners’ access undertakings. For example, the Queensland Competition Authority is currently reviewing the separate undertakings of Aurizon Network Pty Ltd and Queensland Rail Ltd<sup>17</sup>, while the Western Australian Auditor General recently reviewed the Western Australian rail freight network lease (WA AG 2013).<sup>18</sup>

#### **4. Summary**

It is clear that productivity improvements within the rail sector can provide strong benefits for the transport sector as a whole, reducing the cost of freight and ultimately helping to reduce the costs of goods and services for consumers.

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<sup>15</sup> The Productivity Commission is the Australian Government’s independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed simply, is to help governments make better policies in the long term interest of the Australian community.

<sup>16</sup> See <http://www.pc.gov.au/projects/inquiry/access-regime>

<sup>17</sup> See <http://www.qca.org.au/rail/>

<sup>18</sup> The Western Australian Auditor General’s report can be found here <http://www.audit.wa.gov.au/report2013.php>

In 2010 the OECD observed:

- “Australia has been one of the most successful OECD countries in weathering the Global Financial Crisis. Mature regulatory settings and a strong fiscal position have worked in Australia’s favour.”
- “The government has laid out an ambitious regulatory reform agenda to build a seamless national economy and unleash productivity.”
- “Australian competition law has been effective in establishing robust and competitive markets.”

But while “there has been significant reform in the last decade ... there is also a need to give greater prominence to long standing commitments to further reform of particularly challenging aspects of the transport... sectors” (OECD 2010, p. 13).

Improvements in the regulatory and statutory oversight of the rail sector can still be made, and would help to drive improvements in productivity more broadly. This will be important, since Australia’s terms of trade, which have been a key driver of recent economic growth, are expected to decline over the medium-term. As has been the case throughout most of Australia’s history, productivity growth will be a key factor which determines future growth in Australian living standards.

Nevertheless, the outlook for the Australian rail sector is positive. The competitive dynamic in the provision of below and above rail services is intensifying, and the benefits of recent private and public infrastructure investment are yet to be fully realised. There are also new policy initiatives being implemented in various jurisdictions that will take time to substantially influence the performance of the rail sector.

Consequently, in keeping with the Australian public policy imperative of evidence based decision-making, government initiated reviews such as the recent Western Australia Auditor General’s review of the lease of that state’s rail network, the current Productivity Commission’s review of the National Access Regime and future reviews of below rail access undertakings are important in providing the ground work for the direction of future reforms.

Looking ahead, there is a strong case for continued investment in rail infrastructure. There will be a greater focus on the integration of transport modes, particularly in light of forecasts that freight demand will increase significantly over the next 20 years. For example, Infrastructure Australia has stated that between 2010 and 2030, truck traffic is predicted to increase by 50 per cent, rail freight is expected to jump 90 per cent and the number of containers crossing the nation's wharves is estimated to increase by 150 per cent.<sup>19</sup>

Continued investment in urban passenger rail will also remain important in the future, in order to relieve congestion and improve liveability in Australia’s major cities. Traffic congestion is predicted to worsen significantly, potentially rising to around \$20 billion each year by 2020. Projects such as Melbourne Metro and Brisbane Cross River Rail are designed to help reduce traffic congestion by providing commuters with greatly improved public transport options.

Despite the need for further investment in both freight and passenger rail, governments around Australia are facing periods of fiscal consolidation, and continue to face demands from the community for sustained expenditure in areas such as health and education. To address this challenge, it is clear that

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<sup>19</sup> <http://www.infrastructureaustralia.gov.au/freight/>

governments should continue consider ways to create opportunities for increased private sector involvement in infrastructure, including in rail where appropriate. Greater private sector involvement in Australia's infrastructure could help to open up the industry to the prospect of greater competition and lead to significant productivity improvements. Private sector provision of infrastructure will also need to be supported by strong competition laws, further harmonisation of state regulations, and an effective infrastructure access regime, which is currently being examined by the Productivity Commission.

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**RAIL PROJECTS<sup>20</sup> FUNDED BY AUSTRALIAN GOVERNMENT SINCE 2004**

|   |                |
|---|----------------|
| Acacia Ridge level crossing grade separation at Beaudesert Road                   | QLD            |
| Adelaide to Kalgoorlie New and Extended Loops                                     | SA & WA        |
| Albury to Melbourne to Geelong Rerailing Project                                  | VIC            |
| Altona Intermodal Terminals Access  | VIC            |
| Bakewell Underpass Project - Rail Improvements                                    | SA             |
| Ballast Rehabilitation Program - track upgrade Sydney to Melbourne                | NSW & VIC      |
| Bowmans Intermodal expansion  | SA             |
| Broken Hill to Parkes Concrete Resleepering Project                               | NSW            |
| Cootamundra to Crystal Brook New and Extended Loops                               | NSW & SA       |
| Cootamundra to Parkes Track Upgrade   | NSW            |
| Crossing loops at Mingary, Pt Germein, Matakana and Kinalung                      | NSW & SA       |
| Daddow Road Grade Separation  | WA             |
| Dynon Port Rail Link  | VIC            |
| Eastern Goldfields Railway Crossing Loop Extensions Western Australia             | WA             |
| Eastern Goldfields Railway Resleepering Western Australia                         | WA             |
| Freight rail upgrades between Sydney and Newcastle -                              |                |
| Epping to Thornleigh Third Track  | NSW            |
| Freight rail upgrades between Sydney and Newcastle – Gosford Passing Loops        | NSW            |
| Freight Rail Upgrades between Sydney and Newcastle - Hexham Freight Loop          | NSW            |
| Freight Rail Upgrades between Sydney and Newcastle -                              |                |
| North Strathfield Rail Underpass  | NSW            |
| Fremantle Ports - North Quay Rail Loop  | WA             |
| Gawler Line Modernisation   | SA             |
| Gheringhap to Maroona Passing Loops Project                                       | VIC            |
| Gold Coast Light Rail   | QLD            |
| Goodwood and Torrens Junctions  | SA             |
| Hunter Valley: Bidirectional Signalling Between Maitland and Branxton             | NSW            |
| Hunter Valley: Liverpool Range New Rail Alignment                                 | NSW            |
| Hunter Valley: Minimbah Bank Third Rail Line                                      | NSW            |
| Hunter Valley: Ulan Line Passing Loops and Duplication                            | NSW            |
| Hunter Valley: St Helliers to Muswellbrook Duplication                            | NSW            |
| CDMA telecommunications on interstate rail network Brisbane to Perth.             | Qld, NSW, Vic, |
| SA & WA   |                |
| Kewdale Intermodal Rail Supply Chain  | WA             |
| Koolyanobbing to Kalgoorlie Capacity Project                                      | WA             |
| Main North-South Line Rail Capacity Improvements                                  | TAS            |
| Maldon, Moss Vale and Glenlee Passing Double Track Passing Loops                  | NSW            |
| Melbourne to Adelaide Extended Loops  | VIC & SA       |
| Melbourne to Junee Passing Loops  | NSW & VIC      |
| Mildura Rail Corridor Freight Upgrade Project.                                    | VIC            |
| Moreton Bay Rail Link   | QLD            |
| New passing loops at Mungala, Haig and Winninowie on the Trans Australian Railway | SA & WA        |
| Noarlunga to Seaford Rail Extension   | SA             |

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Construction projects only where construction has commenced. List not comprehensive of all rail projects. In addition the Australian Government funded a Boom Gates Program which upgraded 300 high-risk level crossings across Australia

|   |          |
|---|----------|
| North Coast Curve Easing Project  | NSW      |
| Perth City Link   | WA       |
| Port Botany Rail Line Upgrade Stage 1 and 2   | NSW      |
| Port of Melbourne Rail Access Improvement Project                                       | VIC      |
| Queensland Border to Acacia Ridge Track Upgrade   | QLD      |
| Rail Capacity Improvements at Rhyndaston  | TAS      |
| Rail Improvements between Port Augusta and Tarcoola                                     | SA       |
| Rail Upgrades at Geelong Port and on the Melbourne-Adelaide Line                        | VIC      |
| Rail upgrades Northern Sydney   | NSW      |
| Regional Rail Link  | VIC      |
| Remote control of entry and exit to/from crossing loops on the Trans Australian Railway | NSW, SA, |
| WA  |          |
| Seymour to Wodonga Track Upgrade  | VIC      |
| Strengthening the Murray River Bridge, Albury, NSW                                      | NSW      |
| Strengthening the Murray River Bridge, Murray Bridge, SA                                | SA       |
| Sydney to Brisbane New, Extended and Upgraded Loops                                     | NSW      |
| Tasmanian Rail Rescue Package   | TAS      |
| Tottenham to West Footscray Rail Link (Tottenham-Dynon upgrade)                         | VIC      |
| Upgrade of the Boyer Line   | TAS      |
| Upgrade of the Burnie to Western Junction Line  | TAS      |
| Upgrade of the Fingal Line  | TAS      |
| Upgrade of the Hobart to Western Junction Line  | TAS      |
| Upgrade of the Melba Flats to Burnie Line   | TAS      |
| WA Grain Rail   | WA       |
| Warrnambool Intermodal Terminal   | VIC      |
| Western Victoria Track Upgrades   | VIC      |
| Whyalla - Broken Hill and Parkes - Cootamundra Rerailing Project                        | NSW & SA |
| Wimmera Intermodal Terminal at Dooen  | VIC      |
| Wodonga Rail Bypass and Duplication   | VIC      |



## CZECH REPUBLIC

### 1. Structure and ownership

#### 1.1 *Transformation of the rail transport in the Czech Republic*

After the introduction of the free-market oriented mechanisms into the Czech economy in 1989, Czech Railways, the biggest and dominant national carrier, was established by the Czech Railways Act of the Czech National Council No. 9/1992 Coll. on 20 December 1992 and became effective as of 1 January 1993. At the same time the Czech and Slovak Federal Republic ceased to exist and two independent states were formed – the Czech Republic and the Slovak Republic. Czech Railways was established as a succession entity of the Czechoslovak State Rail, state organization.

In the Czech railway system changes concerning the separation of the national provider of passenger services took place (hereinafter “Czech Railways” or “ČD”). First, there was the separation of the railway infrastructure (2003) and second, the separation of railway staff and operations (2011). Both were incorporated into the national railway infrastructure administrator (hereinafter referred to as “the Railway Infrastructure Administration” or “the SŽDC”). Recently, there has been a running discussion regarding the sale of ČD stations and other properties and last year their sale to SŽDC was considered.

Generally, SŽDC provides the operation of the railway infrastructure, operability of the railway infrastructure, maintenance and repair of the railway infrastructure, modernization and development of the railway infrastructure and supervision of the railway infrastructure utilization and of rail operation and operability.

Operating the railway infrastructure means running and servicing it and organizing rail transport. Pursuant to the Railway Act, SŽDC is obligated to ensure the operation of the national and regional rail networks. From 1 July 2008, SŽDC performed the duties of a rail operator in-house; only the work associated with “rail service” (i.e. traffic control at stations and along rail lines) was outsourced to ČD until 31 August 2011. On 1 September 2011 organizational changes were implemented and the contractual relationship with ČD was terminated. The change brought about the transfer of staff. This transfer mainly applied to operating staff (in particular traffic controllers, dispatchers, operators, signalmen, points operators, block signalmen and train announcers) and partially also to managerial staff at all levels. Since that date, rail service has been incorporated into the organizational structure of SŽDC and all rail operating activities have been provided directly by SŽDC.

In December 2002, České dráhy, state organization, ceased to exist following the Act No. 77/2002 Coll. on Transformation of Czech Railways, state organization (“the Act”). As of January 2003, two successor organizations - České dráhy (joint-stock company which sole shareholder is the Czech Republic), and Railway Infrastructure Administration (state organization, “RIA”) - were established.



Pursuant to the Act, the scope of business was assigned to the companies as follows:

*1.1.1 RIA*

- Management of the state assets mainly represented by the railway infrastructure,
- Role of a rail owner,
- Allocation of the railway infrastructure capacity.

*1.1.2 České dráhy*

- Provision of freight and passenger services,
- Role of a rail operator.

The separation of the provision of transport services and the operation of infrastructure was the crucial step for the transformation of the rail transport and application of the EU Directive<sup>1</sup>. In the first phase, the separation was carried out insufficiently as the interconnection of economic activities between RIA and České dráhy remained at very high level and was quite non-transparent (České dráhy paid RIA for the use of railway infrastructure and České dráhy charged RIA for the railway infrastructure operation and maintenance. As České dráhy was the main customer of RIA, it was the way how the state could “subsidize” České dráhy by the payment of invoices).

As of 1 December 2007, the company ČD Cargo, joint-stock company (hereinafter “ČD Cargo“) was established by the separation of the freight services provision from ČD.

In 2008, the amendment of the Act entered into force and the role of a rail operator was transferred from České dráhy to RIA. Since this year, RIA has been the operator of a national and regional rail owned by the Czech Republic and provided operation, operability, modernization and development of the railway infrastructure.

However, the rail service was still performed by České dráhy (i.e. traffic control at stations and along rail routes). This so called “live infrastructure” was transferred from České dráhy to RIA following the Resolutions of the Czech Government in September 2011.<sup>2</sup> This change meant the termination of contractual relationships between the companies and a transfer of 9,500 employees (train dispatchers, operators, signalmen and train announcers) from České dráhy to RIA. Since September 2011, all rail operating activities, including rail service, have been provided directly by RIA, which became a full-fledged infrastructure operator pursuant to EU law. The transformation process was thus completed.

Major changes as for the sector regulation have not occurred since 2004. No new sector regulator with extended powers has been set up, even though the discussion has been held. Lately, changes to end-user price regulation for passenger services have been considered, particularly for some groups of passengers.

Nowadays, maximum access charges are being used in the Czech Republic. In accordance with EU legislation, access charges should be calculated at direct costs incurred to provide services. The exact date of the implementation of these changes has not been specified yet.

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<sup>1</sup> Council Directive No. 91/440/EEC of 29 July 1991 on the development of the Community’s railways.

<sup>2</sup> Resolution of the Czech Government No. 100 of 9 February 2011, and Resolution of the Czech Government No. 486 of 22 June 2011.

## 1.2 Access to the market of rail transport

In the Czech Republic, equal access to the state-owned railway infrastructure is guaranteed for all carriers that meet the terms defined by the Act No. 266/1994 Coll. on Rail Systems. As of 1 January 1995 the Czech Republic introduced a standard system for granting licences to operate rail transport, and as of 1 May 2004 a license to operate rail transport has been awarded by the Rail Authority.<sup>3</sup>

The allocation of capacity of railway infrastructure which is owned by the Czech Republic is in the responsibility of RIA. The charges collected for the use of railway infrastructure are regulated and shall not exceed the maximum prices set by the regulation authority (Ministry of Finance).

**Table 1: Classification of operators of the national and regional rail networks owned by the state as of 31 December 2011 (by the length of operated lines)**

| <b>Operator</b>                | <b>data in km</b> |
|--------------------------------|-------------------|
| RIA                            | 9,413             |
| Viamont, a.s.                  | 37                |
| Advanced World Transport, a.s. | 20                |

The access of new carriers to the market is extremely difficult as the high economic and non-economic barriers prevent the access (e.g. license requirements, significant input costs, price regulation, state protectionism, etc.). From this reason, the competition in transport relies rather on inter-modal competition, particularly on bus transport for passenger services and on road transport for freight services.

## 1.3 Subsidies

### 1.3.1 State subsidies in rail passenger transport

The state (Ministry of Transport or regional authorities) concludes contracts with carriers in order to ensure basic passenger transport for its citizens. Carriers are entitled to reimbursement of the provable loss,<sup>4</sup> resulting from public service obligation. The reimbursement of the provable loss is regulated by the Act on Rail Systems and the Regulation No. 241/2005 Coll. on provable loss in rail public passenger transport.

In October 2009, the Czech Government published the document “Memorandum to ensure stable funding of public transport services provided by regional rail passenger transport”. This Memorandum has guaranteed provision of stable funding for the regional authorities in the period 2010-2019 under the condition that the authorities would conclude the contract with the sole carrier. The Memorandum did not require selecting the carrier in the tender. Following this Memorandum, all regional authorities and Ministry of Transport concluded the contract with České dráhy (without tendering procedure). A few days later, on 3 December 2009, the Regulation (EC) No. 1370/2007 on public passenger transport services by rail and by road entered into force. The Regulation stipulates awarding of contracts for the public rail transport on the basis of competitive tendering procedure.

In 2010, the Czech carrier Student Agency filed a complaint against the conduct of regional authorities with the European Commission. The company stated that the concluded contracts represented the prohibited

<sup>3</sup> Rail Authority – an administrative body established by the Act No. 266/1994 Coll. on Rail Systems; [www.ducr.cz](http://www.ducr.cz)

<sup>4</sup> Provable loss is defined as the difference between the sum of the economically substantiated costs and the adequate profit and between the earned receipts and revenue.

state aid and prevent the competitors from entering the market of regional rail passenger transport for next 10 years. In 2012, the European Commission discontinued the investigation for lack of evidence.

**Table 2: Subsidies to scheduled public railway passenger transport (in millions of CZK)**

|  | 2008  | 2009  | 2010  | 2011  |
|--|-------|-------|-------|-------|
| <b>State budget</b>                          | 4,035 | 3,997 | 4,070 | 4,074 |
| <b>Regional (district) authority budgets</b> | 5,085 | 8,377 | 8,458 | 8,672 |

### 1.3.2 *Investment and operating subsidies*

The operation and operability of the railway infrastructure, as well as its modernization and development are supported by subsidies received mainly from the State Fund for Transport Infrastructure and the state budget.<sup>5</sup>

**Table 3: Direct subsidies received by RIA (in millions of CZK)**

|   | 2008   | 2009   | 2010   | 2011   |
|---|--------|--------|--------|--------|
| <b>Subsidies for repair and maintenance</b>         | 5,464  | 9,465  | 9,936  | 9,284  |
| <b>Subsidies for construction and modernization</b> | 15,782 | 18,960 | 14,775 | 11,415 |

### 1.4 *Price regulation in rail passenger transport*

The prices of basic and special fares are regulated by the Ministry of Finance. The special fares shall be granted to passengers by all carriers under same conditions. The following groups of passengers are eligible to special fares: children under 6 years, students under 26 years, people with disabilities and parents visiting their children with disabilities in institutions.

## 2. **Competition for the provision of freight services**

### 2.1 *Intra-modal competition for the provision of freight services*

At the beginning of 1990's, freight services were carried out by České dráhy that held nearly 100 % market share. In 1995, the Act on Rail Systems entered into force. The Act enabled the access of any carrier with a valid license to the state and regional railway lines. With the entrance of new carriers<sup>6</sup>, the company lost a part of its market share but still has been keeping the dominant position in the market. In December 2007, České dráhy established the company ČD Cargo as its subsidiary company fully specialized in freight services.

However, since 2011, actual intra-modal competition has been introduced by the entrance of an alternative operator (followed by another one in 2012) on one of the nationally frequented lines for conventional intercity passengers.<sup>7</sup> Furthermore, the beginning of the liberalization of national lines took place in 2012. Up to the year 2028, there is going to be tendered franchises for the provision of passenger services (socially supported) on the other national lines, which are currently operated by Czech Railways

<sup>5</sup> Other sources of subsidies are: Transport Operational Programme, EU funds, European Investment Bank, municipalities and regions.

<sup>6</sup> In February 2013, 81 carriers operated on the railway infrastructure owned by RIA, however their market shares were insignificant.

<sup>7</sup> Competition "in-the-market".

(competition “for-the-market“). All bidders of these tenders are obliged to provide their own trains and staff.

The pilot tender was opened in 2012 followed by two suggestions of reviewing criteria laid down by the Ministry of Transport. The public procurement authority<sup>8</sup> has not found any misconduct in the tender procedure and its criteria. There were just two bidders, except for Czech Railways, that took part in the bidding process with criteria used for selecting the bids as follows.

- The amount of unit subsidy required (92 %)
- The variable part of subsidy on a performance change (4 %)
- Internet access provision (1 %)
- Refreshment provision (1 %)
- Ticket sales at the other stations (2 %)

For Czech Railways as the incumbent, current operator on the line in question and potential bidder, the condition to use their own matching trains could have been a barrier to entry because of their obligation to get through a tendering procedure for having them. However, the public procurement authority has not consented to it.

The pilot tender was finally canceled in 2013 since just one bid had remained to be considered when the other was wrongfully fulfilling a bidding condition (the submission the education certificates of top managers). Therefore, the Ministry of Transport decided under the Public Procurement Act to make a proposal to the company which had offered the best bid so that the process of liberalization would not be delayed. The level of unit subsidy required is supposed to be lower or at least nearly the same.

In connection with the entrance of alternative operators, the Office for the Protection of Competition (hereinafter referred to as “the Office“) initiated its administrative procedure in 2012 for a potential breach of the Czech competition law by the abuse of the dominant position by the incumbent, Czech Railways, in the market of passenger transport performed on the respective national line. Anticompetitive conduct should consist in predation, so as to foreclose its actual or potential competitors in the market.

**Table 4: Share of carriers in freight transport production in 2010 and 2011 (in %)**

| Carrier                  | gtkm 2010 | trkm 2010 | gtkm 2011 | trkm 2011 |
|--------------------------|-----------|-----------|-----------|-----------|
| ČD Cargo                 | 86.84     | 78.19     | 84.36     | 76.18     |
| Advanced World Transport | 5.63      | 4.14      | 6.21      | 4.60      |
| Unipetrol Doprava        | 3.62      | 2.96      | 3.53      | 3.09      |
| České dráhy              | 0.89      | 4.28      | 0.58      | 3.37      |
| Other carriers           | 3.02      | 10.43     | 5.32      | 12.76     |

**Note:** trkm – train kilometre represents the distance travelled by train in kilometres.

**gkkm** – gross ton kilometre is a product of the gross weight of the rolling stock (tractive units, railway carriages and other vehicles on own wheels) integrated in the train and the distance travelled in kilometres.

<sup>8</sup> Which is also The Office for the Protection of Competition in the Czech Republic.

## 2.2 *The infringement of the Act on the Protection of Competition*

In 2008, the Office imposed a fine of 270 million CZK (10.8 million EUR) to České dráhy for an abuse of dominant position in the market of freight transport of substrates transported in large volumes within the area of the Czech Republic. In its decision, the Office stated that both Czech and EU competition law had been infringed in the following way:

- In the period from 2003 to 2007, České dráhy charged its customers (without objectively justifiable reasons) different prices for services with comparable parameters, and also applied different profit margins. České dráhy thus disadvantaged some of its customers for whom significantly higher prices were set in comparison with other customers under similar or comparable conditions.
- The possibility for other freight carriers to establish themselves in the market was restricted. České dráhy provided customers who had been offered transport services by its competitors with better conditions. The competitors of České dráhy were not able to react adequately to such price policy.
- From January 2005 to November 2007, České dráhy without objectively justifiable reasons applied different conditions towards its customers regarding provision of so-called level prices (different volumes of transported goods necessary for quantity rebates, and different rebates when achieving the defined volumes of the transported goods).

České dráhy appealed against the decision to the Chairman of the Office. He decreased the fine by 16 million CZK (0.64 million CZK) as the duration of unlawful conduct was reduced by 20 %. The Chairman's decision was confirmed by the Regional Court in 2011. České dráhy filed a cassation complaint with the Supreme Administrative Court. The decision has not been issued yet.

## 2.3 *Inter-modal competition for the provision of freight services*

In the Czech Republic, the majority of freight services is provided by the road carriers. Only about 20 % of goods are transported by trains. This share of the rail transport is difficult to be increased as the demand for freight services is changing; customers require higher quality and speed of the services, door to door and just in time transport, transit transport, etc. The rail transport is in this respect disadvantaged as it is limited by its network character, low average speed and insufficient inter-operability of national rail systems. The change of type of transported goods also caused unfavourable impact on rail transport. Demand for transport of the goods in units and products in smaller volumes in single wagons exceeds the demand for transport of bulk material or heavy loads hauled in whole trains. From these reasons rail transport has been replaced or supplemented with road transport.

**Table 5: Inter-modal comparison of freight transport performance (in %)**

|                                     | <b>2007</b> | <b>2008</b> | <b>2009</b> | <b>2010</b> | <b>2011</b> |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|
| <b>Rail transport</b>               | 17.7        | 17.6        | 16.7        | 18.4        | 19.5        |
| <b>Road transport</b>               | 80.2        | 79.9        | 80.8        | 78.8        | 78.4        |
| <b>Other transport</b> <sup>9</sup> | 2.1         | 2.5         | 2.5         | 2.8         | 2.1         |

As was already stated, the charges for use of the railway infrastructure are collected by RIA. At this moment the prices charged to passenger carriers are lower than prices charged to freight carriers. Ministry

<sup>9</sup> Other transport includes: water transport, air transport and oil pipeline transport.

of Transport is going to put forward a proposal for elimination of this disproportion by decreasing the amount of freight transport charges. The decrease is also necessary in order to become equal to the tariffs of the neighbouring countries and in order to become more competitive with road transport.

In March 2013, RIA increased the rebate for single wagon loads transport from 15 % to 55 %. The aim of the change was to open this segment of the freight transport to the competition, reduce the price of freight transport operation, prevent the transfer of goods from rails to roads and increase the incentive to use more environmentally friendly means of transport. As the majority of single wagon loads transport services is provided by the ČD Cargo, the rail union members regard the change as the effort to save this company that currently faces the economic difficulties. The Ministry of Transport denied such statements and declared that next steps supporting the rail transport (strategic multinational partnership, establishment of a network of public logistic centres, etc.) shall follow in near future.

### 3. Competition for the provision of passenger services

As can be seen in the Table 6, although the bus transport holds a dominant position in the Czech Republic, the rail transport still covers a significant percentage of the passenger transport. As it was already mentioned in point 1.2., equal access to the state-owned railway infrastructure is guaranteed for all carriers that meet the terms defined by the Act No. 266/1994 Coll. on Rail Systems which facilitated the legal framework for the beginning of effective competition in this sector. Despite the legal framework, the competition in the rail passenger transport became effective only a few years ago. Besides the dominant state-owned joint-stock company České dráhy, two main rail passenger transport providers are currently active in the market: Regiojet (part of the STUDENT AGENCY group) and Leo Express.

**Table 6: Inter-modal comparison of passenger transport (in millions of passengers)**

|                              | 2007    | 2008    | 2009  | 2010    | 2011    |
|------------------------------|---------|---------|-------|---------|---------|
| <b>Rail transport</b>        | 184.2   | 177.4   | 165   | 164.8   | 167.9   |
| <b>Bus transport</b>         | 375     | 373.4   | 367.6 | 372.5   | 364.6   |
| <b>Water transport</b>       | 1.1     | 0.9     | 1.2   | 0.9     | 1.0     |
| <b>Air transport</b>         | 7.0     | 7.2     | 7.4   | 7.5     | 7.5     |
| <b>City public transport</b> | 2,258.4 | 2,323.8 | 2,262 | 2,260.3 | 2,138.5 |

#### 3.1 *Subsidized and non-subsidized provision of rail passenger services*

As it is explained in point 1.3.1, the basic rail passenger transport is ordered by the Ministry of Transport, regions and municipalities. As the transport ordered by the public authorities is considered to be a public service, the provable loss arising from the provision of the rail transport is compensated to the provider.

The rail transport may be ordered also by private undertakings or the providers may operate the rail passenger transport at their own expense without the state aid. However, if the provision of subsidized rail passenger transport is considered, the competition is rather constrained due to the existing “Memorandum to ensure stable funding of public transport services provided by regional rail passenger transport” (see the point 1.3.1) which allowed the public authorities to award the contract directly and due to the preference of České dráhy in last years. Therefore the main provider of subsidized rail passenger transport remains the state-owned joint-stock company České dráhy.

Currently, the financing of rail passenger transport in the Czech Republic is still not effective and leads to inefficient expenditure of public resources. The inefficient rail transport increases the dependence on the state aid and in spite of subsidies, České dráhy is still in loss when the rail passenger services are considered.

The most lucrative rail line is the connection between Prague and Ostrava where two main private undertakings the Regiojet (2011) and Leo Express (2012) operate besides České dráhy.

**Table 7: The share of rail passenger services on the rail line Prague - Ostrava**

| Number of trains operated on the rail line per day since December 2012 |    |
|--|----|
| České dráhy  | 38 |
| Regiojet   | 18 |
| Leo Express  | 16 |

### 3.2 Competition effects and new market entrants

The efficient competition in the provision of rail passenger services increased in past two years and positive effects have emerged. The announcement of the Regiojet intention to enter the market worked as an incentive for České dráhy to react and adjust its strategy to the new market situation. The competition was increased even further when the third undertaking the Leo Express started to operate in 2012. In response to the new competitors, České dráhy decided to improve the quality of their services by extensive modernization of trains and related services and offering lower prices.

České dráhy started to purchase new modern trains as well as modernize and reconstruct the current ones. Steward services including the offer of daily news and meals and beverages on board were established. In 2012, the joint-stock company JLV won the public contract for the newly established provision of the catering services on board for following 4 years. Due to the competing tenders, České dráhy announced a saving of 10 million CZK on this service.

In 2011, as a reaction to the new market entrants, České dráhy started to offer special prices and packages on the most lucrative line Praha – Ostrava. The new diversification of transport providers brought the new benefits to consumers in the way of increasing quality of services and new special price offers of České dráhy.

One of the two largest private rail passenger transport providers RegioJet has been operating in the Czech Republic and Slovakia since 2011. It is a subsidiary of the Student Agency group. Even though the Regiojet operates on the most profitable line, after the first year of operation the Regiojet ended up in a significant loss. However, the loss was covered by a huge profit of the whole STUDENT AGENCY group. According to the owner of the group, the year 2012 was not a very profitable either. Regiojet has already filed a complaint to the Office against alleged anticompetitive predatory pricing of České dráhy which started as a reaction on the Regiojet market entry. The Office initiated the administrative proceeding but has not concluded any decision yet.

The pricing competition in the line Praha-Ostrava became even more intense due to the entry of the third competitor Leo Express in the second half of 2012. Leo Express shall expand its services from the connection Prague – Ostrava to other regions during the year 2013. As the competition has just started to evolve and the first Office's investigation and related analyses have not been finished yet, there are currently no more specific data about the competition performance available.

**Table 8: Price comparison on the rail line Prague – Ostrava (February 2013)**

|                         | Prices in CZK in a peak hour | Prices in € in a peak hour |
|-------------------------|------------------------------|----------------------------|
| České dráhy             | 295                          | 11.5                       |
| České dráhy – Pendolino | 395                          | 15.4                       |
| Regiojet                | 325                          | 12.7                       |
| Leo Express             | 289                          | 11.3                       |

### 3.3 *Tendering for provision of rail passenger services by public authorities*

Even though the legislation allows the private sector to enter the market, there has been a lack of real awarding procedures. The most problematic issue from the competition perspective is the Memorandum which allowed the public authorities to sign a contract without an actual awarding procedure. In most cases, the Ministry of Transport and other public authorities preferred to sign a contract directly with České dráhy. In past few years, several award procedures were initiated but most of them were either set aside or private bidders were excluded because of not fulfilling the awarding criteria.

In 2012, the Ministry of Transport called for competition on the provision of the rail line among cities Olomouc-Krnov-Ostrava for 15 years starting in 2014. The contracting authority required tenderers to offer full services including trains of sufficient quality and customer centers for selling the tickets and provision of information. Within the liberalization process of the rail transport, this was the pilot tender in the Czech Republic for subsidized provision of the rail passenger transport. The main criteria used for selecting the bids were the economic benefits (the required subsidy for the service provision), criteria of minor importance included availability of internet connection, catering on board and number of stations where the ticket selling offices would be operated.

The Regiojet and Arriva consortium submitted their tenders but the latter one was excluded from the selection process as it did not fulfill the awarding criteria. The Ministry later announced the cancelation of the awarding procedure and the intention to sign the contract directly with the Regiojet. According to available data, Regiojet offered up to 40 CZK saving on subsidy for 1 train km when compared to České dráhy that did not submit their bid officially due to a short deadline.

The Office for the Protection of Competition received several complaints regarding the awarding procedure (also submitted by the České dráhy) but the Office did not find any breach of the relevant acts. České dráhy complained against the procedure of the contracting authority when making public the awarding procedure. Also a lot of awarding criteria were the subject of dispute due to the alleged intention to discriminate České dráhy. The Office did not find any argument sufficiently reasonable for initiating the administrative proceeding in this case. The contract with Regiojet shall be signed in 2014 but the preliminary contract shall be signed in the first half of 2013 so the Regiojet is able to purchase the new trains and necessary facilities in time.

### 3.4 *Tendering in regions*

Only a few regions called for competition for particular rail lines or group of rail lines in last years. Some regions tried to force České dráhy to make its operation and costs more transparent. Several providers (Regiojet, Leo Express and Veolia Transport) have recently submitted offers to the regions and municipalities so it may be assumed that the public authorities shall start to call for competition more often in upcoming years.

## 4. **High-speed rail services**

High-speed rail services are not provided on the network in the Czech Republic. Currently only the modernization of conventional railway lines<sup>10</sup> is under way, especially those lines which serve as transit corridors. In future, it is planned to operate about 700 kilometres of high-speed railway lines in the Czech Republic. The first high-speed line shall be built in 2018.

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<sup>10</sup> Conventional railway lines are lines designed for the speed lower than 200 km per hour.



## **5. Investments**

Investments into railway infrastructure and trains come from both, the private and public sectors. SŽDC as a manager of the state-owned infrastructure also ensures investment activities. The main sources for investment expenditures are contributions from SFTI and EU funds.

Private owners of railway infrastructure may use their own financial resources for investment activities as well as SFTI and EU funds.

Investments in trains are financed by their owners (usually carriers). In the case of vehicles for passenger transport, there is also the possibility of co-financing from EU resources within the Regional Operational Programme.

There have been no major changes since 2004, except for the fact that after joining the EU there have been more possibilities of using EU funds.

## **6. Conclusions**

The text above describes the market of rail services in the Czech Republic, structure and ownership of the services, the legal framework facilitating the market entry of private undertakings and the state aid for the rail transport. The contribution focused on the competition for the provision of freight services and the evolving competition in the market of the rail passenger services.

The competition for provision of the rail passenger services started to be effective especially from the consumer perspective just a few years ago and several complaints have already been submitted to the Office. However, based on the activity of the new market entrants it is possible to assume that the competition will further evolve. Currently the crucial aspect is the approach of the public authorities regarding the provision of subsidized rail transport and their willingness to call for the competition and support the openness of the relevant markets.

## DENMARK

### 1. Competitive tendering

#### 1) The current Danish position on competitive tendering

The Danish stance on extending the tendering development process further within the Danish provision of passenger services is skeptical.

The position of the Danish Government is that the European railway market is not yet mature enough for the fourth railway package as proposed by the EU Commission. It is the position of the Danish Government that the right way forward is to get the existing regulation working efficiently, instead of proceeding ahead with the new wide-ranging initiatives. Moreover, it is the Danish position that improvements to the infrastructure is a basic condition in order to achieve growth in passenger numbers in the public transportation domain, not merely a one-sided focus on competition and tendering.

The position of the Danish Competition Counsel is generally positive towards the proposal by the EU Commission and finds that it can contribute to an opening of the national railway markets making them more competitive and effective.

#### 2) Danish examples of competitive tendering

In recent years the Danish provision of passenger service has been exposed to competitive tendering in a few cases.

The regional provision of passenger service in the areas of Mid and Western Jutland has been exposed to competitive tendering twice – in 2003 and 2010. Both times the tender was won by Arriva in competition with the state operator. The contracts have been evaluated and have been shown to result in direct savings to the Danish government.

The second example is the tender of the so called “Kystbanen”, servicing the upper east coast of Zealand between Helsingør and Copenhagen and onwards to Malmö in southern Sweden. The tendering process was actualized in 2007 and taken over by the winning company in 2009. The tender was won by DSB First (Owned jointly by the national operator DSB and the Scottish company FirstGroup) and their activities have been continued in the Danish-British company DSB Oresund. It has not yet been decided whether the provision of passenger services will be exposed to a tender again when the contract expires in 2015, or given back to the national operator, DSB.

However, the national operator DSB still holds the vast majority of the market and the state has agreed not to expose more than a maximum of 15 per cent of the railway lines to competitive tendering.

### 2. Differences between standards, equipment and signaling systems

In connection to the matter of differences between standards, equipment and signaling systems there has been a few recent developments in Denmark.

Firstly, a new electronic ticket system has been introduced. The system is based on a smartcard similar to the British Oyster card, where the passenger checks in and out when using public transportation. The ticket system is used in all forms of public transportation, inclusive of busses as well as trains. In addition to this it can handle more than one operator on the same train line if required and therefore it is geared for intermodal as well as intramodal competition on the provision of passenger services. The card is scheduled to be fully integrated at the end of 2013.

Secondly, it should be mentioned, that the Danish infrastructure company Banedanmark is currently replacing the signaling system throughout the entire Danish railway network. The new signaling system is in accordance with the common European signaling standard ERTMS (European Rail Traffic Management System), and therefore capable of operating cross borders. Essentially this means that locomotives or train sets to and from other EU nations will be able to interoperate within the Danish rail network without modification or adjustment due to a unified, common management system. The system is scheduled to be fully introduced in 2021.

### **3. Investment and infrastructure**

The investment in railway infrastructure is a public responsibility in Denmark now as well as in 2004. The operation and maintenance of the general railway is carried out by the state owned infrastructure company Banedanmark. Larger infrastructure projects are carried out by designated state owned companies, when they do not directly concern the operation and maintenance of the existing railway.

In 2008 Denmark and Germany signed a state treaty for the establishment of a fixed link across the Fehmarnbelt. The Fehmarnbelt Fixed Link will most likely be built as a 17.6 km long immersed tunnel for combined rail and road traffic. The Fehmarnbelt link will be an important rail freight corridor, improving connectivity from Scandinavia to Germany and vice versa. The general traffic on the crossing via the ferry on the same route has grown by an average of almost 3 per cent a year since the early 1980s. The construction of the Fehmarnbelt Fixed Link itself is estimated to take 6½ years with a scheduled opening date in 2021.

In Copenhagen the development of a new metro City Circle in addition to the existing metro system in the city started in 2009. When operational the City Circle line is expected to have a patronage of 233.800 commuters during weekday operations. The City Circle line will have 17 underground stations and will connect most of Copenhagen's more heavily built up residential areas with the inner city. The project is scheduled to be completed by 2018.

## EUROPEAN UNION

This contribution is based on the experience gained on the rail sector since 2004 by the Directorate-General for Competition of the European Commission. This experience stems from its enforcement activities of antitrust, merger and State aid rules and its advocacy for the major policy initiatives liberalising the rail sector in the EU.

### 1. Introduction: Objectives of the European Union for the rail sector

The rail sector is an important component of the transport industry in the EU. In 2010<sup>1</sup>, the rail sector represented 10 % of the EU transport sector and employed more than 0.7 million persons. The efficiency of the rail sector is also essential for the EU's competitiveness since it delivers significant input to many sectors of the economy (through freight transport services) and to consumers directly (through passenger transport services).

In the last 10 years, the European Union has considered the development of the rail sector as "an objective of utmost importance, not only of the EU transport policy, but also of economic policy at large"<sup>2</sup>. The EU has aimed at overcoming the decline of the rail sector before 2004 due to a decrease in public and private funding. Its objective is to realise the full potential of rail as an environmentally friendly mode delivering high quality, reliable, safe and secure transport services. The EU has focused on creating a genuine Single European Railway Area building on three major pillars: opening of rail transport markets to competition, improving the interoperability and safety of national networks, and developing rail transport infrastructure.

This contribution provides an overview of the main evolutions that have affected the EU rail sector on the regulatory and market fronts. Section 2 describes the major rail policy initiatives at EU-level since 2004. Section 3 describes the economic characteristics and market developments of the rail sector while Section 4 identifies the specific challenges for competition policy raised by these characteristics and developments. Section 5 concludes by outlining the contribution of competition policy to improving the performance of the EU rail sector.

### 2. The EU regulatory framework for the rail sector

#### 2.1 Principles of the EU regulatory framework for the rail sector

The regulatory framework for the rail sector progressively introduced in the EU aims at creating a single European railway market along the following principles:

- Separation between the management of rail infrastructure and the provision of rail services: the manager of the rail infrastructure is independent from any railway undertakings for performing essential functions (such as the allocation of rail capacity or infrastructure charging), it must keep separate financial accounts and grant access to rail infrastructure in a non-discriminatory manner.

<sup>1</sup> Eurostat database – latest data at rail sector level are only available for 2010.

<sup>2</sup> COM(2010) 474 final, 17.9.2010, Communication from the Commission concerning the development of a Single European Railway Area, p. 4.

- Progressive opening to competition of railway transport services: any licensed EU railway undertaking with the necessary safety certification can offer rail transport services in opened markets.
- Harmonisation of national railway systems: the harmonisation concerns technical, safety and administrative differences across Member States to increase the inter-operability of national rail systems as well as their inter-connection.

## 2.2 *Successive EU Railway Packages*

Successive EU "Railway Packages" have implemented the key principles set out above. The First Railway Package<sup>3</sup> of 2001 notably defines the separation between infrastructure manager and railway undertakings. In 2004, the Second Railway Package<sup>4</sup> fully opened freight markets to competition as from 2007, and created the European Railway Agency to foster interoperability of the national rail systems. The Third Railway Package<sup>5</sup> adopted in October 2007 introduced open access rights for international rail passenger services by 2010. In 2012, the EU simplified and improved existing rail legislation by recasting the first railway package<sup>6</sup>, notably improving access to rail-related services for freight and passenger trains and strengthening the power of national rail regulators.

In January 2013, the Commission proposed a Fourth Railway Package to finalise the evolution of the EU railway system towards a Single European Railway Area. The Commission's propositions include new resources and means to develop the inter-operability of national rail systems, stricter separation requirements between infrastructure managers and railway undertakings and the liberalisation of rail domestic passenger services by 2020<sup>7</sup>. These propositions are being discussed by the European Parliament and the European Council in the co-decision procedure.

## 2.3 *Fragmented national regulatory frameworks*

Within the EU regulatory framework, Member States have a margin of manoeuvre to implement the key principles set by the successive Railway Packages. This has led to the cohabitation of different levels of market opening and of different models for the separation between infrastructure management and rail operations.

Some Member States have notably chosen to go "faster" on the liberalisation route than the requirements set out by the EU framework by opening domestic markets ahead of the common deadline. Some Member States have for instance opened rail freight market to competition up to 10 years before the EU deadline (Germany, UK). Similarly, domestic passenger markets are currently opened to competition, either in full or in part, in several Member States<sup>8</sup>, despite it not being required at EU level.

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<sup>3</sup> Directives 2001/12/EC, 2001/13/EC and 2001/14/EC of 26.2.2001 (OJ L 75, 15.3.2001, p. 1-48).

<sup>4</sup> Directives 2004/49/EC, 2004/50/EC and 2004/51/EC of 29.4.2004 and Regulation 2004/881/EC (OJ L 220, 21.6.2004).

<sup>5</sup> Directives 2007/58/EC and 2007/59/EC of 23.10.2007 and Regulations 1370/2007/EC, 1371/2007/EC and 1372/2007/EC of 23.10.2007 (OJ L 315, 3.12.2007).

<sup>6</sup> Directive 2012/34/EU of 21.11.2012 (OJ L 343, 14.12.2012).

<sup>7</sup> The liberalisation of domestic rail passenger services covers both open access rights for any passenger services provided it does not compromise the economic equilibrium of existing public service contracts and common rules for the competitive tendering of public service contracts for passenger transport by rail. See COM(2013) 25 final, 30.1.2013, Communication from the Commission on the Fourth Railway Package.

<sup>8</sup> Austria, Denmark, Germany, Italy, Netherlands, Sweden and the UK.

In addition, Member States have adopted different governance models for implementing the separation obligation between infrastructure manager and railway undertakings. A common model is full institutional separation, where the infrastructure manager is an independent undertaking fully separated from any railway undertakings<sup>9</sup>. Another model is the "vertically-integrated" holding, where the infrastructure manager and the incumbent railway undertakings are part of the same structure with internal separation rules<sup>10</sup>. A range of intermediate options, with different levels and means of separation between infrastructure management and railway undertakings operations can be found in other Member States.

### 3. Characteristics and developments of the EU rail markets since 2004

Despite the important evolutions in the rail regulatory framework since 2004, the overall performance of the EU rail sector has been mixed, as measured by the evolution of rail inter-modal shares in total transport. In the freight sector, it decreased from 10.5% in 2005 down to 10.2% in 2010. In the passenger sector, rail transport position has on the contrary slightly increased from 6.1% to 6.3% over the same period<sup>11</sup>. This limited take-up of the rail sector can be related to its key characteristics that still frustrate the full realisation of the liberalisation benefits and the development of intra-modal competition. However, the limited growth in inter-modal rail market shares also indicate that rail transport services are constrained by competition from other transport modes such as air, road and maritime transport (inter-modal competition).

#### 3.1 *Unique and costly infrastructure*

As a network industry, rail services require an infrastructure which is generally unique and historically developed and financed – and still is to a large extent – by public funds. Tracks, stations, or freight terminals are generally considered as non-replicable by the market and there is thus no "side-by-side" competition of rail infrastructure in the EU. This requirement to "share" infrastructure naturally frustrates the development of intra-modal competition and the creation of new services. Indeed, intra-modal competition has increased significantly but remains limited – in 2010 non-incumbent railway undertakings operated 25% of the rail freight services (up from 14% in 2006) and 20% for passenger (up from 13% in 2006)<sup>12</sup>. Using rail infrastructure also creates significant economies of scope and scale as well as network effects which provide a competitive advantage to larger undertakings – and make initial growth in market shares more difficult for new entrants. This is highlighted by the constant fragmentation of the rail services market beyond the incumbent since liberalisation. Even in the most advanced markets in terms of liberalisation, the challenger rarely reaches market shares above 5%.

#### 3.2 *High barriers to entry*

The rail industry requires high upfront investments (rolling stock, licensing) that should be recouped by low future margins in an uncertain environment regarding the maintenance and development of rail infrastructure by the State. In addition, technical and safety requirements hinder entry by new market players (cross-border differences in signalisation or gauge, lack of cross-border connections) and limit the

<sup>9</sup> Notably in Denmark, the Netherlands, Sweden, Finland, Spain, Portugal and the UK.

<sup>10</sup> This model is for instance adopted by Austria, Germany, Italy or Poland. The Commission initiated Court actions against this model since it considered that it did not adequately transpose the separation requirements set out in the first Railway Package. The Court rejected the Commission's argument by mentioning that vertically integrated models *per se* did not infringe separation requirements. See notably Case C-556/10 *Commission v Germany* (not yet published).

<sup>11</sup> Intermodal market shares by volume transported, respectively in tonne-kilometre (freight) and passenger-kilometre (passenger). Eurostat database on transport.

<sup>12</sup> SEC(2007) 1323 and SWD(2012) 246 final/2, Commission's reports on monitoring development of the rail market.

economies of scale and scope that could be gained by operating in an integrated EU internal market. This has been highlighted by the very limited level of entry so far in the long distance passenger market despite its liberalisation in 2010. The number of new international services opened has been very limited, and the number of new services opened by new actors even more so.<sup>13</sup>

### **3.3 *Special status of incumbent railway undertakings***

In all Member States but the UK, rail incumbents – the former State monopolies – play a special role in their domestic market. They are the only railway undertakings active in all rail markets and segments: single wagon freight, block wagon freight, inter-modal transport, regional passenger and long distance passenger. Incumbents generally also have privileged knowledge and access to rail infrastructure and rolling stock as well as to rail-related services. This factor is compounded when rail incumbents are also active as the infrastructure manager, either within a holding or as the sole providers of rail-related services. Last, incumbents have generally inherited a large volume of operations secured through directly awarded long-term public service contracts. This special status explains that market shares of incumbents have remained very high in most Member States despite constant erosion.

### **3.4 *Public service nature of certain rail services***

The rail sector is characterised by the importance of the State support for its functioning. Beyond its reliance on public funding to finance infrastructure, the rail sector fills certain public service obligations as defined by national or local authorities for the transport of passengers within Member States in accordance with EU legislation. Member States (generally local authorities) finance the operation of public service contracts by railway undertakings to ensure the continuation of services that would not be operated commercially. In 2009, this amounted to €20 billion in government payments for public services obligations (PSOs) and €26 billion in public investment for infrastructure. Moreover, the amount of subsidies granted to the rail sector has increased since 2004 in the EU faster than total passenger kilometres.<sup>14</sup>

## **4. *Key competition enforcement priorities for the EU in the rail sector***

The economic characteristics of the rail sector described in Section 3 may hamper the development of intra-modal competition. Competition authorities at national and EU levels complement the regulatory framework to ensure that new entrants overcome the difficulties created by these characteristics by leveraging the entire "toolkit" of competition policy.

### **4.1 *Preventing integrated incumbents to leverage infrastructure to foreclose competitors***

Vertically-integrated holdings create a risk that the incumbent leverages its position as infrastructure manager to hamper the entry of competitors on the rail transport services market. Vertical integration indeed creates perverse incentives for the incumbent to favour its own downstream subsidiaries. Competition policy can complement the non-discriminatory access requirements imposed by EU regulation to prevent such situations. Practices by an integrated rail incumbent that would prevent or degrades access

<sup>13</sup> A 2012 study identified only 9 open access long distance service by new entrants. See Steer Davies Gleave, Further Action at European Level Regarding Market Opening for Domestic Passenger Transport by Rail and ensuring Non-Discriminatory Access to Rail Infrastructure and Services.

<sup>14</sup> COM(2013) 25 final, 30.1.2013.

of railway undertakings to indispensable infrastructure could constitute an infringement of Article 102 of the Treaty on the Functioning of the European Union (TFEU) on abuse of dominant position<sup>15</sup>.

The Commission has initiated proceedings in two such cases in 2012 and 2013 in the rail sector<sup>16</sup>. In the Deutsche Bahn case, it is investigating whether the prices of traction current charged by the vertically integrated Deutsche Bahn do not lead to a margin squeeze for its competitors in the freight and passenger markets. In the Baltic Rail case, it is investigating whether the removal of a track by the vertically integrated Lithuanian incumbent would not constitute a refusal to supply its potential competitors.

#### **4.2 Lowering barriers to entry through merger or cooperation**

The high administrative, technical and financial barriers to entry in the rail sector create incentives for a new entrant to cooperate with an existing market player to lower these barriers. This "cooperation" can take a large range of forms, from operational and technical agreements to operational and commercial alliances such as in the high-speed international market. It can also involve acquisition. From a competition perspective, such cooperation may create efficiencies and foster competition by enabling market entry and the development of new services. However, it may also raise competition concerns by restricting the level of competition between actors that could be direct competitors.

Some incumbents have for example "purchased" entry in recently opened markets. In 2010, Deutsche Bahn acquired Arriva, a European rail and bus operator to enter several Member States (notably the UK and Sweden). It offered to divest Arriva's German activities to remedy the Commission's concerns on the impacts of the acquisition for competition in the German market, where Deutsche Bahn enjoyed very high market shares and Arriva Deutschland had become one of the major competitive forces. Arriva's German activities were purchased in 2011 by the Italian incumbent Ferrovie dello Stato (FS) and Cube Transport, highlighting the importance of acquisition for incumbents' entry in their non-domestic markets. Entry has also taken the form of joint-venture between incumbents and new entrants, such as in 2011 between Trenitalia, the passenger division of FS, and the private French rail and bus operator Veolia Transport for the provision of international rail passenger transport services. The deal was cleared in particular since Veolia Transport was a newcomer to the markets concerned<sup>17</sup>.

#### **4.3 Preventing incumbent railway undertakings to reinforce their market power**

Given their high intra-modal market shares, incumbents may exert market power on their domestic rail markets if there are no competitive constraints from other transport modes. The definition of the relevant markets is thus an important element of competition enforcement in the rail sector, since it will directly impact whether the strong intra-modal position of rail incumbents translates into a dominant position. Provided that some incumbents are dominant on their domestic rail markets, competition authorities shall monitor the potential exclusionary effects that their market practices may have. Exclusionary practices that could be employed by rail incumbents include tying or bundling (across segments of a market for instance) and predatory pricing on specific submarkets. The Commission has not

<sup>15</sup> Such practices could be qualified as refusal to supply or margin squeeze. See Guidance on its enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings. (OJ C 45, 24.2.2009).

<sup>16</sup> See IP/12/597 of 13.6.2012 for the Deutsche Bahn case and IP/13/197 of 6.3.2013 for the Baltic Rail case. The opening of proceedings does not prejudge the outcome of the investigation; it means that the Commission treats the case as a matter of priority.

<sup>17</sup> See cases M.5885 *DB/Arriva*, M.6124 *Ferrovie dello Stato/CUBE Transport/Arriva Deutschland* and M.6150 *Trenitalia/Veolia Transport/JV*.



recently conducted such cases, which generally concern domestic markets, contrary to national competition authorities.<sup>18</sup>

In the long distance passenger transport sector, the Commission has generally defined the relevant markets as point-to-point travel (Origin & Destination route), in line with its practice in other transport sectors such as air, bus and ferry services. Such market definition corresponds to the demand-side perspective whereby passengers usually do not readily substitute destinations but can substitute transport modes.<sup>19</sup> On this basis, the potential dominance of a railway undertaking would depend on the respective inherent advantages of air, rail and bus services on each O&D route. In the case of regional passenger transport, where services are generally operated under public service contracts, there is no competition between operators of public passenger services by rail on the different O&D markets. The competitive analysis thus focuses on the market for granting public transport contracts, where the competitive process actually takes place, such as was for instance the case when the Commission assessed the competitive tendering of rail franchises to operators in the UK.<sup>20</sup>

In the rail freight sector, specialised transport activities (either by products transported or by type of services offered) may constitute separate markets due to limited demand and offer substitutability. For instance, when assessing the acquisition of the Swiss Compagnie Financière Ermewa (Ermewa) by Transport et Logistique Partenaires SA (TLP), the Commission considered that a relevant market for assessing the transaction was the transport of cereal by rail.<sup>21</sup>

#### **4.4 State aid issues and public services obligations**

Railway companies can benefit from State support which is compatible with the internal market, in particular for their public services obligations, the financing of investments and the coordination of transport activities. The Commission has thus developed a framework<sup>22</sup> to assess when State aid to railway undertakings may distort competition in the internal market.<sup>23</sup>

Two main issues regarding potential distortion of competition through public support have recently aroused: the transfer of infrastructure to transport undertakings under non market conform conditions and the undue transfer of State aid to the incumbent railway undertaking. In the case of vertically-integrated holding, transfers of infrastructure from the infrastructure manager to railway undertakings may occur. While infrastructure managers are currently not subject to competition and therefore can legally receive State funding, such transfers would imply incompatible aid to the railway undertaking by reinforcing their

<sup>18</sup> See notably the French Competition Authority Decision against SNCF of 18.12.2012.

<sup>19</sup> See for example case M.2446 *Govia/Connex South Central*.

<sup>20</sup> See cases COMP/M.3273 *First/Keolis/TPE JV*. See also M.4806 *DSB/First/Öresundstag* for rail services operated between Sweden and Denmark.

<sup>21</sup> See case M.5579 *TLP/Ermewa*.

<sup>22</sup> The Commission relies on the following basis to assess State aid in the rail sector: the Community guidelines on State aid for railway undertakings (OJ C184 of 22.07.2008), Regulation 2007/1370/EC (OJ L 315, 3.12.2007) and Article 93 TFEU.

<sup>23</sup> The Community guidelines cover the public financing of railway undertakings by means of infrastructure funding, aid for the purchase and renewal of rolling stock, debt cancellation with a view to the financial rejuvenation of railway undertakings, aid for restructuring of freight divisions of railway undertakings, aid for the needs of transport coordination and State guarantees for railway undertakings. Regulation 2007/1370/EC defines the criteria with which the competent authorities shall comply when contracting and providing passenger public transport services. Article 93 TFEU is directly applicable for establishing the compatibility of aid not covered by Regulation 2007/1370/EC.

market position. Public support can also take the shape of cross financing between infrastructure managers and incumbent railway undertakings. In such cases, the railway undertakings also benefit from the State support granted to the non-competitive activity of the infrastructure manager, and such public support could distort competition on the rail transport markets.

Railway undertakings may also benefit from compensations for their public service mission. However, such compensations should be used exclusively for this mission and should be limited to its actual costs (no over-compensation). In this context, the Commission enforces a level playing field between railway undertakings by ensuring that their commercial activities do not actually benefit from over-compensations granted for public service obligations. The Commission has for example been conducting such investigations on compensations granted in Germany to DB Regio for the operations of the regional passenger transport in Berlin and Brandenburg<sup>24</sup>.

## 5. Conclusion

The EU rail sector regulatory and competitive environments have dramatically evolved since 2004. Major initiatives have been implemented at EU-level to liberalise the market and spur the uptake of competition. This *de jure* liberalisation has been complemented by the work of competition authorities, both at EU and national levels, which have increased their oversight of the rail sector to monitor that entry in the rail market was not unduly deterred.

This dual approach to liberalisation has led to an increase in intra-modal competition. Ever more railway undertakings are active in Europe and their combined market shares keep on increasing despite the adverse economic climate. Moreover, competition between railway incumbents in each other's domestic markets is also accelerating, following several important acquisitions. This increase in competition has however yet to transform into significantly improved performance of the rail sector compared to other modes. Despite the progress achieved – as mentioned in the Communication on the development of a "Single European Railway Area"<sup>25</sup>, the rail sector remains poorly perceived by consumers and rail prices increase faster than other transport prices<sup>26</sup>.

Looking forward, while the important regulatory changes brought about by the Recast and the Fourth Railway Package set in, the role of competition enforcement will increase to ensure a level playing field in the Single European Railway Area. This role may also evolve, from mainly monitoring practices of the railway incumbents, to assessing more consolidation and cooperation on the markets.

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<sup>24</sup> See case C47/2007 *DB Regio AG – Contrat de service public* (OJ C 35, 8.2.2008, p.13).

<sup>25</sup> "Following a long period of decline, since 2000 the European railway industry has managed to increase passengers and freight volumes transported and to stabilise modal share. [...] Safety has also improved significantly". COM(2010) 474 final, 17.9.2010, Communication from the Commission concerning the development of a Single European Railway Area.

<sup>26</sup> Rail services are ranked 27<sup>th</sup> out of 30<sup>th</sup> in terms of consumer satisfaction (see Consumer Market Scoreboard 2012). In 2011, prices of rail services for passenger have increased by 29% since 2005 (compared to +20% by air and 21% for transport services in general).

**Overview of the Commission's competition enforcement activities in the rail sector**

| <b>Economic characteristics</b>                         | <b>Potential competition issues</b>  | <b>Relevant competition instruments</b>  | <b>Example of cases</b>  |
|---|--|--|--|
| <b>Unique and costly infrastructure</b>                 | <ul style="list-style-type: none"> <li>▪ Foreclosing practices by vertically integrated network manager                             <ul style="list-style-type: none"> <li>— (Constructive) refusal to supply</li> <li>— Margin squeeze</li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>▪ Article 102 TFEU on abuse of dominance</li> </ul>   | <ul style="list-style-type: none"> <li>▪ DB</li> <li>▪ Baltic Rail</li> </ul>  |
| <b>High barriers to entry</b>                           | <ul style="list-style-type: none"> <li>▪ Cooperation between railway undertakings to overcome barriers to entry                             <ul style="list-style-type: none"> <li>▪ Mergers involving incumbent railway undertaking</li> <li>▪ Joint-venture and agreements between railway undertakings</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>▪ Article 101 TFEU on agreements between undertakings</li> <li>▪ EU Merger Regulation</li> </ul>          | <ul style="list-style-type: none"> <li>▪ DB/Arriva</li> <li>▪ FS/CUBE/Arriva</li> <li>▪ Veolia/Trenitalia</li> </ul> |
| <b>Special status of incumbent railway undertakings</b> | <ul style="list-style-type: none"> <li>▪ Foreclosing practices of dominant railway incumbents on rail transport markets:                             <ul style="list-style-type: none"> <li>— Tying or bundling of services</li> <li>— Predatory pricing</li> </ul> </li> </ul>  | <ul style="list-style-type: none"> <li>▪ Article 102 TFEU on abuse of dominance</li> </ul>   | <ul style="list-style-type: none"> <li>▪ No EU level case</li> <li>▪ National cases (e.g. FR)</li> </ul>             |
| <b>Public service nature of certain rail services</b>   | <ul style="list-style-type: none"> <li>▪ Overcompensation of public service obligations</li> <li>▪ Transfer of infrastructure or vertical cross-subsidies</li> </ul>   | <ul style="list-style-type: none"> <li>▪ State aid cases on overcompensation</li> <li>▪ State aid cases on transfer of infrastructure</li> </ul> | <ul style="list-style-type: none"> <li>▪ DB Regio</li> </ul>   |

## FRANCE

*(Version française)*

Le secteur des transports est un secteur essentiel qui constitue un support de l'activité économique d'un territoire dans son ensemble. Cette activité permet, en effet, la réalisation d'échanges économiques, c'est-à-dire la rencontre de l'offre et de la demande, les infrastructures et services de transport étant ainsi indispensables au bon fonctionnement des marchés. L'importance de ce secteur a notamment été reconnue au niveau de l'Union européenne au sein de laquelle le développement de réseaux européens de transport et leur ouverture à la concurrence ont toujours été considérés comme des conditions nécessaires à la construction d'un marché unique.

S'agissant plus particulièrement du secteur du transport ferroviaire, il convient, à titre liminaire, de rappeler que ce dernier connaît de fortes spécificités qui doivent être prises en compte afin d'apprécier pleinement les enjeux de sa régulation.

D'un point de vue économique tout d'abord, ce secteur connaît un fonctionnement propre lié en particulier à l'existence d'investissements lourds à réaliser par l'ensemble des opérateurs (gestionnaire comme entreprises ferroviaires), à une croissance des rendements de ces investissements qui est faible, ainsi qu'à l'existence d'un mode de financement hybride qui repose à la fois sur la contribution des utilisateurs et sur le contribuable. Enfin, ce secteur est caractérisé par la coexistence de services différents sur un même réseau (fret, transport de voyageurs, lignes à grande vitesse, transport régional et interurbain) qui partagent des coûts communs mais dont le schéma d'ouverture à la concurrence appelle des réponses distinctes.

D'un point de vue politique ensuite, il convient de rappeler que la régulation de ce secteur doit permettre la mise en œuvre de préoccupations d'intérêt général, telles que le service public de transport<sup>1</sup>, la sécurité, l'aménagement du territoire, l'interopérabilité ou encore le caractère abordable des tarifs. Dans ce contexte, la concurrence au sein du secteur ferroviaire n'a en aucune manière pour but de protéger certains acteurs du marché mais s'inscrit dans le cadre d'autres préoccupations d'intérêt général et vise à servir les différentes dimensions du bien-être du consommateur (prix, qualité, diversité de l'offre), ce consommateur n'étant pas seulement l'usager final, mais également le client intermédiaire, la collectivité territoriale, et, dans certains cas, comme celui des trains dits « d'équilibre du territoire » qui participent d'une politique nationale d'aménagement du territoire, l'Etat.

Ainsi, la combinaison entre, d'une part, une régulation concurrentielle fondée sur une analyse économique approfondie qui permet de stimuler la productivité et l'investissement et d'accroître le choix des usagers, et, d'autre part, une régulation sectorielle qui prend en compte l'ensemble des préoccupations d'intérêt général, permet de dessiner un schéma de régulation équilibré qui tient compte des spécificités du secteur ainsi que du contexte économique et social français.

Les enjeux concurrentiels dans le secteur du transport ferroviaire sont donc nombreux et variés, et la pratique décisionnelle française en matière de concurrence reflète cette richesse des problématiques, qui tient aux particularités du secteur et au contexte dans lequel il se place. L'Autorité de la concurrence

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<sup>1</sup> Le droit au transport a été reconnu à partir de 1982 dans la loi « LOTI ».

(« l'Autorité ») a appuyé la mise en place et le renforcement d'une régulation sectorielle efficace et incitative (**point I**), tout en exerçant son propre office, qui consiste à préserver les espaces ouverts à la concurrence à ce stade, et à proposer ou mettre en œuvre une évolution de la régulation à mesure de l'évolution des modes de transport (**point II**) et en particulier du nouvel enjeu de l'intermodalité (**point III**).

## **1. Le secteur du transport ferroviaire : quelle concurrence et quelle régulation ?**

L'existence d'un opérateur historique puissant, susceptible de faire jouer des économies d'échelle, de contribuer à la réalisation de missions d'intérêt général et d'en répercuter le bénéfice aux usagers constitue un atout. L'exercice d'une pression concurrentielle sur un tel opérateur<sup>2</sup> renforce cependant les incitations à l'investissement et à la qualité des services. C'est pourquoi le législateur a décidé d'ouvrir à la concurrence le fret en 2006 et le transport international de passagers en 2009.

Par ailleurs, la Commission européenne vient de soumettre au Parlement européen et au Conseil de l'Union européenne, qui réunit l'ensemble des Etats membres, dont la France, une proposition prévoyant notamment l'ouverture à la concurrence du transport domestique de passagers au sein de l'Union européenne à compter de décembre 2019<sup>3</sup>.

Dès lors que le législateur a décidé d'une ouverture à la concurrence, il appartient aux régulateurs, l'Autorité et le nouveau régulateur sectoriel, l'Autorité de régulation des activités ferroviaires (ARAF), installée en 2010, de veiller à ce que les conditions de sa mise en œuvre soient effectives.

### **1.1 La nécessité d'une régulation sectorielle forte et effective**

L'Autorité, dans les six avis qu'elle a rendus concernant la mise en place d'une régulation sectorielle<sup>4</sup> a soutenu la création de l'ARAF.

L'ARAF, autorité publique indépendante, a été créée en 2010 pour concourir au bon fonctionnement du service public et des activités concurrentielles de transport ferroviaire au bénéfice des usagers et clients des services de transport ferroviaire. Elle doit veiller en particulier à ce que les conditions d'accès au réseau ferroviaire par les entreprises ferroviaires n'entravent pas le développement de la concurrence. L'ARAF dispose à cet effet d'un pouvoir réglementaire délégué (règles relatives aux conditions de raccordement au réseau ferroviaire et aux conditions techniques et administratives d'accès au réseau et de son utilisation, conditions d'accès aux services présentant un caractère de facilités essentielles et leurs conditions d'utilisation, fixation des périmètres de chacune des activités soumises à des règles de régulation) ainsi que de pouvoirs d'autorisation, d'approbation, d'opposition, de recommandation, de règlement des différends

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<sup>2</sup> Ce fut par exemple le cas avec la mise en place récemment de l'offre Ouigo par la SNCF qui est une offre de train à grande vitesse low cost.

<sup>3</sup> Le Parlement européen et le Conseil de l'Union européenne débiteront prochainement l'examen de cette proposition qui vise également un renforcement de la coopération entre infrastructures transeuropéennes, précise la définition des fonctions essentielles (développement et entretien du réseau) qui ne peuvent être assurées que par un gestionnaire unique d'infrastructures indépendant des activités d'exploitation, et affermit l'exigence de séparation entre le gestionnaire d'infrastructures et les entreprises ferroviaires.

<sup>4</sup> Les six avis rendus par l'Autorité sont les suivants : 08-A-17 du 3 septembre 2008, 08-A-18 du 13 octobre 2008, 09-A-55 du 4 novembre 2009, 10-A-04 du 22 février 2010, 11-A-15 du 29 septembre 2011 et 11-A-16 du 29 septembre 2011.

et de sanction. L'ARAF se voit par ailleurs transmettre par l'Autorité de la concurrence toute saisine de cette dernière entrant aussi dans son champ de compétence<sup>5</sup> afin qu'elle puisse émettre un avis<sup>6</sup>.

L'Autorité de la concurrence a par ailleurs invité le législateur à accorder à l'ARAF des pouvoirs effectifs, parmi lesquelles la mise en place d'une régulation *ex ante* incitative des tarifs des sillons, des redevances d'accès aux gares, de l'ensemble des documents d'accès au réseau ainsi que du document de référence du réseau, un pouvoir d'inspection et d'audit renforcé (pour atténuer l'effet d'asymétrie d'information sur les coûts réels encourus) ou encore des pouvoirs de régulation *ex post* pour vérifier notamment la réalisation des investissements programmés et la bonne circulation des informations stratégiques (telles que les horaires).

La mise en place d'un régulateur sectoriel fort, doté de pouvoirs effectifs, était en effet, selon l'Autorité, complémentaire de sa propre activité qui consiste à protéger les espaces faisant déjà l'objet d'une concurrence en application des articles L. 420-1 et -2 du Code de commerce et, le cas échéant, 101 et 102 du traité sur le fonctionnement de l'Union européenne et à énoncer toute recommandation en vue de renforcer l'effectivité de la régulation dans le secteur ferroviaire.

D'autres positions publiques avaient été prises en France, parallèlement à celle soutenue par l'Autorité de la concurrence, en faveur de la création d'un régulateur sectoriel efficace et doté de pouvoirs renforcés. Ainsi, la Cour des comptes dans un rapport publié en 2008 indiquait dans ce sens « *Une autorité de régulation est nécessaire dans la mesure où l'Etat peut difficilement arbitrer des conflits opposant l'entreprise ferroviaire SNCF et ses concurrents. Elle doit disposer d'autant plus de pouvoirs et de moyens que le gestionnaire de l'infrastructure est proche de l'entreprise ferroviaire SNCF* »<sup>7</sup>.

Plus récemment dans un rapport remis au gouvernement par M. Jacques Auxiette, président du Conseil régional des Pays-de-Loire et président de la commission « infrastructures et transports » de l'association des régions de France, afin de préparer une future réforme du secteur ferroviaire français (cf. infra), ce dernier recommandait « *de faire de l'ARAF une autorité non seulement en charge du respect des règles de la concurrence, mais avant tout préoccupée de la qualité du service à l'usager et de l'équilibre économique du système* », ce qui « *pourrait à plusieurs égards accroître la transparence du système ferroviaire et donner à l'autorité politique des éléments objectifs lui permettant de rendre ses arbitrages dans les meilleures conditions* »<sup>8</sup>. Par ailleurs, des recommandations de ce rapport convergent avec celles auparavant énoncées par l'Autorité en ce qui concerne un renforcement des pouvoirs de l'ARAF notamment en matière de validation des règles comptables et de la séparation comptable entre la SNCF et RFF, de contrôle *ex ante* du document de référence du réseau et *ex post* de la réalisation des investissements programmés.

Au-delà de ces aspects institutionnels, l'un des points essentiels de la régulation économique du secteur ferroviaire porte sur les conditions et l'application d'une séparation effective de la gestion, d'une part, des infrastructures et, d'autre part, de l'exploitation d'activités économiques de transport ferroviaire.

<sup>5</sup> Article L.2135-13 du code des transports.

<sup>6</sup> Article R.463-9 du code de commerce.

<sup>7</sup> *Le réseau ferroviaire, une réforme inachevée, une stratégie incertaine*, Cour des comptes, 2008 (mise à jour en 2011), p. 138.

<sup>8</sup> *Un nouveau destin pour le service public ferroviaire : les propositions des régions*, Jacques Auxiette, 22 avril 2013, p.27 et 28.

## 1.2 *Le débat relatif au modèle français de structuration de son « pôle ferroviaire »*

Au début des années 1990, la directive européenne n°91/440/CE a prévu une séparation organique entre l'activité de gestion de l'infrastructure et l'exploitation des services de transport ferroviaire. Ainsi, en France, le réseau, dont la société Réseau ferré de France (RFF - établissement public à caractère industriel et commercial créé en 1997) a pris en charge la gestion, a été séparé de l'exploitation, assurée par la SNCF<sup>9</sup>.

Cette séparation, exigée par le droit sectoriel de l'Union européenne en vigueur<sup>10</sup>, est également souhaitable du point de vue des règles de concurrence par les mérites. Elle vise à prévenir des situations de conflit d'intérêts ou toute pratique discriminatoire en faveur des opérateurs historiques. Ces derniers sont en effet naturellement exposés à la tentation d'utiliser les leviers à leur disposition, en particulier les leviers relevant de leur accès à des fonctions essentielles de gestion du réseau, afin d'évincer des concurrents.

Les modalités d'attribution des sillons illustrent particulièrement cette nécessité de séparation. En effet, toute entreprise ferroviaire doit obtenir des sillons pour pouvoir circuler sur le réseau ferré national. L'attribution de ces derniers constitue donc une fonction essentielle de régulation. Dans l'hypothèse où un opérateur historique interviendrait au côté du gestionnaire d'infrastructures dans le cadre de cette procédure, il serait, d'une part, susceptible d'utiliser les informations obtenues sur ses concurrents à des fins commerciales propres, et, d'autre part, les nouveaux entrants sur le marché pourraient être victimes de comportements discriminatoires dans le cadre de la procédure d'attribution, et ce, au profit de l'opérateur historique.

Dans ce contexte, le Conseil de la concurrence puis l'Autorité ont été particulièrement attentifs au respect du principe de séparation entre gestion des infrastructures et exploitation du réseau.

En particulier, comme l'a souligné l'Autorité dans plusieurs avis relatifs à la réforme du secteur ferroviaire, le gestionnaire d'infrastructures, RFF, dans le cadre de la réforme intervenue en 1997, ne s'est pas vu transférer toutes les ressources techniques et humaines nécessaires à l'accomplissement de ses tâches et a, de fait, délégué à la SNCF certaines missions de régulation, notamment l'attribution des sillons dits de « dernière minute », ou les infrastructures et installations en gares qui sont partagées entre la SNCF et RFF (cf. infra point 1.3)<sup>11</sup>.

Aussi, la SNCF reste cliente et sous-traitante de RFF et RFF reste le principal fournisseur de service d'accès de la SNCF (qui en est le principal client) et le premier client de la branche infrastructure de cette dernière.

Ce déséquilibre de compétences entre le gestionnaire d'infrastructures, RFF, et l'exploitant, SNCF, et l'insuffisante séparation fonctionnelle qui en résulte ont été soulignés à plusieurs reprises par l'Autorité dans ses avis<sup>12</sup> dans lesquels elle recommandait que RFF se voit transférer *a minima* les services nationaux et régionaux de la SNCF spécialement chargés de l'attribution des sillons afin de mettre un terme à ce problème.

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<sup>9</sup> Loi n°97-135 du 13 février 1997 (JO du 15/02/1997) portant création de Réseau Ferré de France en vue du renouvellement du transport ferroviaire.

<sup>10</sup> Voir les directives 2001/12/CE, 2001/14/CE et 2012/34/UE.

<sup>11</sup> Avis 08-A-17 du 3 septembre 2008.

<sup>12</sup> Voir en particulier les avis 08-A-17 du 3 septembre 2008 et 11-A-15 du 29 septembre 2011.

De manière générale, l'Autorité s'est en effet prononcée dans ses différents avis en faveur du transfert de la propriété des infrastructures essentielles à une entreprise distincte de l'opérateur de service ; l'Autorité considérant cette option comme le moyen le plus efficace pour assurer l'accès non discriminatoire de l'ensemble des opérateurs aux infrastructures<sup>13</sup>. Par ailleurs, l'option plus lourde consistant à transférer à RFF toutes les directions de la SNCF en charge de la gestion effective du réseau faisait également partie des solutions envisagées par l'Autorité.

Enfin, l'Autorité a souhaité dans ce sens un renforcement des pouvoirs de l'ARAF et a notamment mis en avant la nécessité d'une véritable séparation juridique et fonctionnelle, voire patrimoniale, entre les activités de régulation liées à la gestion des infrastructures et les activités d'exploitation au sein de la SNCF, dont le respect serait assuré par l'ARAF.

Les recommandations de politique économique de l'OCDE pour la France publiées le 19 mars 2013 ont fait écho à cette préoccupation quant à la structuration du système ferroviaire français<sup>14</sup>.

Un projet de réforme ayant pour ambition de créer un « gestionnaire d'infrastructures unifié » rassemblant le gestionnaire de réseau, RFF, et les branches de la SNCF en charge des infrastructures et des fonctions liées à la circulation ferroviaire (attribution des sillons, tarification, gestion des circulations, entretien, aménagement et extension du réseau), au sein d'un pôle public ferroviaire associant également le transporteur public, est actuellement en cours de préparation par le gouvernement. Deux rapports ont été rendus au gouvernement à ce sujet le 22 avril 2013, chacun se prononçant en faveur d'une telle réforme<sup>15</sup>. Les conditions de gouvernance du nouvel ensemble ainsi que les modalités de sa régulation ont été esquissées dans ces deux rapports mais devront être précisées dans le projet de loi en préparation par le gouvernement.

### **1.3 Une illustration de l'activité de régulation du secteur ferroviaire du point de vue des structures : l'avis sur les gares de voyageurs**

La problématique relative à la séparation juridique et fonctionnelle entre l'opérateur historique et le gestionnaire de réseau, afin notamment d'assurer un accès non discriminatoire aux infrastructures pour les entreprises ferroviaires, a trouvé un écho particulier en France s'agissant de la problématique de la gestion des gares.

<sup>13</sup> Avis 09-A-55 du 4 novembre 2009 : une telle séparation supprime les risques de conflit entre les différentes activités de l'opérateur historique (subventions croisées, recueil d'informations sur la stratégie commerciale des concurrents) et réduit les coûts de contrôle. Cette option présente aussi l'avantage de prévenir les risques de confusion entre les fonctions de régulation et d'exploitation.

<sup>14</sup> L'OCDE a notamment relevé : « *Le secteur du rail est un autre secteur dans lequel la France est en retard sur la plupart des pays européens en termes de libéralisation et de concurrence, ce qui engendre des coûts pour les usagers et les finances publiques (CAS, 2011). L'opérateur historique, la SNCF, a été sanctionné en 2012 pour entrave à l'entrée de nouveaux opérateurs sur le marché du fret (Les Echos, 2013). La décision récente du gouvernement de fusionner le gestionnaire de réseau (RFF) et la SNCF constitue un pas en arrière, même si la façon dont la séparation avait été conduite en 1997 n'a pas permis de renforcer suffisamment la concurrence ; elle visait essentiellement à soustraire du périmètre Maastrichtien une partie de la dette du secteur. De plus, la séparation fonctionnelle et juridique des gares vis-à-vis de la SNCF est souhaitable. Comme l'exemple allemand l'a montré, l'abandon du statut de cheminot pour les nouvelles recrues de l'opérateur historique est également essentiel pour accroître la concurrence dans le secteur.* »

<sup>15</sup> *Réussir la réforme du système ferroviaire*, Jean-Louis Bianco, 22 avril 2013 et *Un nouveau destin pour le service public ferroviaire : les propositions des régions*, Jacques Auxiette, 22 avril 2013.



La loi n°97-135 du 13 février 1997 avait transféré, au gestionnaire de réseau, RFF, la pleine propriété des biens constitutifs de l'infrastructure ferroviaire. Toutefois, les gares de voyageurs, une large partie des infrastructures de fret et d'autres infrastructures, telles que celles de fourniture de gazole, ont été exclues de ce transfert à RFF. Concernant les gares de voyageurs, elles sont donc gérées par l'opérateur historique, la SNCF ayant créé une direction autonome chargée de leur gestion (la société Gares & Connexions).

Or, comme l'a souligné l'Autorité à plusieurs reprises, notamment dans l'avis 09-A-55 du 4 novembre 2009, les gares ferroviaires présentent les caractéristiques d'infrastructures essentielles au transport ferroviaire dès lors (i) qu'elles sont indispensables à un opérateur pour pouvoir offrir un service et (ii) qu'elles sont impossibles à reproduire par des moyens raisonnables. Ainsi, le fait que ces installations soient gérées par la SNCF soulève de nombreuses questions.<sup>16</sup>

L'Autorité a donc porté une attention particulière à ce problème et a considéré que le système mis en œuvre n'était pas pleinement satisfaisant.

En premier lieu, concernant la gouvernance de la branche en charge de la gestion des gares, l'Autorité avait estimé que la nomination et la révocation du directeur de Gares & Connexions, qui restent soumises à l'appréciation du conseil d'administration de la SNCF et de son président, ne pouvaient caractériser une véritable autonomie.

En deuxième lieu, l'Autorité avait considéré que la structure financière très fragile de Gares & Connexions la rendait très dépendante du reste de la SNCF, ce qui pourrait se traduire par un renchérissement du prix demandé pour l'accès aux gares et serait donc préjudiciable à l'entrée de nouveaux transporteurs sur le marché. En particulier, la quasi-inexistence de fonds propres rendait impraticable la prise en charge des investissements en gares très élevés annoncés par la SNCF. De plus, les seuils d'engagements du directeur en charge de la gestion des gares étant également très en deçà des sommes à investir, la SNCF gardait un entier contrôle sur les investissements mis en œuvre.

En troisième lieu, l'Autorité a estimé que les règles qui s'imposent à la SNCF en matière de protection des informations commerciales communiquées par les nouveaux entrants, notamment à l'occasion de leur demande d'accès aux gares, ne présentaient pas les garanties suffisantes pour éviter que l'opérateur historique dispose d'un avantage concurrentiel indu. De même, l'Autorité a relevé que le fait que les transporteurs concurrents demandant des prestations d'accès aux gares doivent s'adresser à un service de la direction générale de la SNCF (la plateforme de service aux entreprises ferroviaires, PSEF) présentait le risque que la SNCF connaisse les projets des transporteurs concurrents bien en amont de leur mise en place.<sup>17</sup> Ce sujet a également été abordé dans un cadre contentieux dans la décision 12-D-25 (cf. infra point II).

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<sup>16</sup> Plusieurs expériences étrangères, notamment allemande et italienne, ont révélé que l'accès des nouveaux entrants aux espaces en gares est souvent rendu difficile par l'opérateur historique et ce, même lorsque le gestionnaire des gares et l'exploitant issu du monopole historique sont filialisés, comme en Allemagne (cf. Commission européenne, *Study on regulatory option on further market opening in rail passenger transport*, Everis, Bruxelles, 2010, p. 111, 153 et 235).

<sup>17</sup> Dans le même sens, l'Autorité a souligné qu'il existait un risque que les informations relatives au transport ferroviaire (par exemple les horaires) ne soient pas transmises dans des conditions non discriminatoires aux opérateurs concurrents de la SNCF, tant sur le marché du transport ferroviaire (avis 11-A-15) que sur ceux du transport urbain et interurbain (avis 09-A-55).

En dernier lieu, dans la mesure où les gares constituent le point de jonction des autres réseaux de transport et représentent de ce fait un enjeu sur les marchés connexes de transport où la SNCF est également présente (notamment le transport urbain), l'Autorité a souligné que le manque d'indépendance de la branche Gares & Connexions vis-à-vis de ses activités concurrentielles était de nature à fausser le jeu de la concurrence sur d'autres marchés que celui du transport ferroviaire (cf. infra point III).

Dans ce contexte, l'Autorité s'est prononcée en faveur d'une séparation juridique entre la SNCF et Gares & Connexions. Toutefois, consciente de la difficulté de mettre en œuvre une telle séparation, elle a admis qu'une séparation fonctionnelle entre les activités de transporteur et de gestionnaire de gares puisse perdurer à court terme en respectant une répartition stricte des compétences sur les plans fonctionnel, financier, opérationnel et humain<sup>18</sup>.

Elle a par ailleurs préconisé dans l'avis 11-A-15 que le régulateur sectoriel soit notamment doté de pouvoirs de contrôle *ex ante* des coûts répercutés aux entreprises ferroviaires afin de garantir leur caractère transparent, objectif et non-discriminatoire. Toujours selon l'Autorité, l'ARAF doit également pouvoir intervenir *ex post* pour vérifier la réalisation des investissements programmés et s'assurer de la sincérité des coûts intégrés dans la base de charges au titre de la dotation aux investissements. Il semblait en effet particulièrement problématique qu'à ce stade de l'ouverture à la concurrence d'une industrie de réseau caractérisée par le nombre très important de facilités essentielles potentiellement concernées, l'opérateur historique soit laissé seul maître de la détermination des coûts d'accès et des services fournis par ces installations. Il existait également un risque de surinvestissement en gare de nature à renchérir les coûts d'accès des tiers.

Un rapport remis au gouvernement le 22 avril 2013 en vue d'une réforme du secteur ferroviaire<sup>19</sup> recommande également le renforcement des pouvoirs de l'ARAF en proposant de lui confier « *les missions de contrôle et de mise en œuvre des règles de séparation comptable des activités [de la SNCF], dans l'objectif d'atteindre plus de transparence et d'équité dans les relations entre les différents acteurs* ».

## **2. La surveillance et le contrôle des pratiques anticoncurrentielles dans le secteur du transport ferroviaire**

La régulation du secteur ferroviaire doit aussi intégrer la surveillance et le contrôle des pratiques anticoncurrentielles, activité qui constitue le complément indispensable de la régulation sectorielle.

La décision que l'Autorité de la concurrence a récemment rendue en décembre 2012 dans le secteur du fret (ouvert à la concurrence depuis 2006) ou celle relative à la réservation en ligne de billets de trains de 2009 illustre cette complémentarité entre les deux types de régulation.

En premier lieu, dans sa décision 12-D-25<sup>20</sup> dans le secteur du fret, l'Autorité a sanctionné la SNCF à hauteur de 60,9 millions d'euros pour avoir abusé de sa position dominante à la suite notamment d'une plainte d'un concurrent<sup>21</sup>.

Dans cette décision très étayée, l'Autorité a tout d'abord retenu que la SNCF avait utilisé des informations confidentielles obtenues dans le cadre de sa mission publique de gestion des infrastructures à

<sup>18</sup> Avis 11-A-15

<sup>19</sup> *Un nouveau destin pour le service public ferroviaire : les propositions des régions*, Jacques Auxiette, 22 avril 2013, p. 31.

<sup>20</sup> Décision 12-D-25 du 18 décembre 2012 relative à des pratiques mises en œuvre dans le secteur du transport ferroviaire de marchandises.

<sup>21</sup> Cette décision fait actuellement l'objet d'un recours devant la Cour d'appel de Paris.

des fins commerciales. En effet, parallèlement à son activité de transport ferroviaire, la SNCF est gestionnaire d'infrastructure déléguée (GID) pour le compte de RFF qui la rémunère à cet effet (cf. supra point 1.2). A ce titre, elle recueille, à l'occasion des demandes d'attribution de sillons ou de visites de sites techniques par les nouvelles entreprises ferroviaires, des informations sensibles et confidentielles concernant la stratégie et les intentions commerciales de ces concurrents. Elle a ainsi connaissance, par exemple, des clients démarchés, des appels d'offres concernés, des plans de transport envisagés par ses concurrents (sillons utilisés, longueur des trains, tonnages transportés, calendrier, provenance et destination du trafic, etc.).

Or, il est apparu que des informations confidentielles avaient fréquemment été utilisées par la branche Fret de la SNCF notamment pour adapter sa stratégie commerciale sur les trafics spécifiquement visés par ses concurrents. L'Autorité a relevé que cette pratique avait entravé artificiellement le développement de ses concurrents et porté atteinte au fonctionnement concurrentiel du secteur.

Par ailleurs, l'Autorité a retenu que la SNCF avait mis en œuvre des pratiques visant à empêcher ses concurrents d'accéder à des capacités et des équipements ferroviaires indispensables à leur activité. En particulier, la SNCF a mis en place les pratiques suivantes :

- La limitation de l'accès des concurrents aux cours de marchandises : les cours de marchandises sont des terrains reliés au réseau permettant de charger et décharger les marchandises entre le rail et la route qui constituent des infrastructures indispensables pour les entreprises ferroviaires de fret qui doivent pouvoir y accéder pour exercer leur activité. Or, la SNCF est à la fois utilisateur et gestionnaire d'un grand nombre de ces infrastructures.

En dépit de ses obligations réglementaires et de multiples interventions de RFF, la SNCF a publié tardivement la liste de ces équipements et surtout s'est abstenue d'en préciser, de façon transparente et suffisamment claire, les conditions d'utilisation et de tarification, les entreprises ferroviaires se trouvant dans l'incapacité de démarcher utilement leurs clients et de formuler des offres commerciales de façon crédible.

- La surréservation des sillons : comme cela a été rappelé (cf. supra point 1.2) l'accès aux sillons conditionne la capacité des entreprises ferroviaires à offrir des services de transport sur le marché. Or, dans sa décision, l'Autorité a retenu que la SNCF a pratiqué une politique de surréservation des sillons dans des proportions très importantes et qu'elle n'a pas restitué ceux qu'elle n'utilisait pas (ou l'a fait très tardivement). Les autres entreprises ferroviaires actives dans le secteur du fret ont de ce fait été privées de la possibilité de les utiliser, certaines d'entre elles ayant pu être dissuadées de concourir à certains appels d'offres ou s'étant trouvées dans l'incapacité d'honorer des commandes d'ores et déjà reçues.
- La surréservation de wagons : l'une des filiales de la SNCF, la société SGW, intervient sur le marché de la location de wagons. Or, il s'est avéré qu'au moment de l'ouverture du marché à la concurrence en 2006, la SNCF aurait provoqué une pénurie d'un certain type de wagons (le wagon EX) indispensable pour transporter certains produits (en particulier les produits de carrière ou les granulats) en se réservant l'exclusivité d'utilisation de l'intégralité de ce parc de wagons alors qu'elle n'utilisait en pratique qu'incomplètement.

La plainte à l'origine de cette décision alléguait également huit autres griefs, que l'Autorité a écartés, et soutenait que la SNCF poursuivait une stratégie délibérée d'éviction de ses concurrents dans la fixation de ses tarifs pour les trains massifs. L'instruction n'ayant pas mis en évidence une telle stratégie mais ayant constaté que les tarifs pratiqués avaient pour effet potentiel d'évincer les concurrents, l'Autorité a prononcé une injonction pour que l'opérateur mette en place une comptabilité analytique et rapproche progressivement les tarifs des coûts réellement encourus, en tenant compte du contexte particulier de la filière du fret.

En second lieu, dans une décision datant de 2009<sup>22</sup>, l'Autorité de la concurrence avait également sanctionné la SNCF ainsi que la société Expedia (société exploitant plusieurs agences de voyages en ligne), à hauteur respectivement de 5 millions et 500 000 euros, pour avoir favorisé les filiales de la SNCF au détriment des agences de voyage concurrentes.

### **3. L'adaptation de la régulation à un nouvel enjeu : l'intermodalité**

L'Autorité s'est également intéressée à l'évolution des transports, et en particulier au nouvel enjeu que constitue l'intermodalité, c'est-à-dire la capacité des opérateurs de transport à assurer des prestations permettant d'assurer une continuité entre les différents modes de transport et de rendre fluide et prévisible le trajet de l'usager ou des marchandises.

En premier lieu, l'intermodalité appelle une évolution de la régulation sectorielle, comme l'a relevé l'Autorité dans deux avis<sup>23</sup> et à travers l'enquête sectorielle qu'elle a récemment lancée.

Tout d'abord, comme cela vient d'être rappelé, dans son avis 09-A-55 concernant la gestion des gares (cf. supra point 1.3), l'Autorité s'est intéressée au fait que l'intermodalité est devenue un élément d'appréciation incontournable des offres des transporteurs lors des appels d'offres de transport public lancés par les collectivités territoriales.

Or, la SNCF est présente sur l'ensemble de la chaîne de transport, du train au vélo, en passant par les prestations liées au transport ou la gestion de parcs de stationnement. Elle continue d'étendre sa diversification sur les marchés connexes au transport ferroviaire, notamment par l'intermédiaire de Keolis, premier opérateur privé de transport urbain dont elle a pris le contrôle et qui occupe également une place majeure sur le transport interurbain (cf. infra).

Ainsi, dans cet avis, si l'Autorité n'a pas remis en cause la stratégie de diversification de la SNCF, dès lors qu'elle est susceptible d'être un facteur d'animation de la concurrence sur les marchés où elle est présente, elle a en revanche considéré que cette stratégie devait faire l'objet de précautions particulières compte tenu de sa position extrêmement forte sur le transport ferroviaire. L'Autorité a en particulier relevé que :

- La position de la SNCF sur le marché du transport ferroviaire de voyageurs était susceptible de fausser la concurrence entre les filiales de la SNCF et leurs concurrents et qu'elle devait par conséquent veiller à ne pas proposer aux autorités organisatrices d'appel d'offres une offre de transport intégrée verticalement qui présenterait un avantage concurrentiel significatif auquel les autres opérateurs de transport ne pourraient prétendre.
- La SNCF devait également veiller à ne pas se livrer à des pratiques susceptibles d'être qualifiées de prix prédateurs, la puissance financière de la SNCF pouvant lui permettre de supporter dans le temps des pertes élevées dans le cadre de ses activités de diversification et affecter la concurrence sur ces nouveaux marchés.
- L'information en matière de transport ferroviaire influait sur la capacité des opérateurs de transport urbain ou interurbain de voyageurs à proposer aux autorités organisatrices des offres de transport public prenant en compte la dimension intermodale et que, dans ce contexte, il était indispensable que tous les opérateurs de transport urbain et interurbain répondant à un appel

<sup>22</sup> Décision 09-D-06 du 5 février 2009 relative à des pratiques mises en œuvre par la SNCF et Expedia Inc. dans le secteur de la vente de voyages en ligne.

<sup>23</sup> Voir les avis 09-A-55 du 4 novembre 2009 et 10-A-04 du 22 février 2010.

d'offres en matière de transport public puissent disposer des informations relatives au transport ferroviaire, et en particulier les horaires, dans une gare donnée.

Ensuite, dans l'avis 10-A-04, l'Autorité a invité les pouvoirs publics à élargir les pouvoirs de l'ARAF au transport aérien et au transport urbain. L'Autorité a en effet souligné qu'une fusion des compétences au sein d'un régulateur unique des transports permettrait de mieux appréhender les problématiques communes à tous les secteurs des transports.

Enfin, l'Autorité a lancé le 26 février 2013 une enquête sectorielle concernant le fonctionnement concurrentiel du marché du transport interrégional régulier par autocar. Dans le cadre de cette enquête, l'Autorité entend notamment identifier dans quelle mesure le faible développement de ce moyen de transport peu onéreux aurait pour source un déséquilibre avec les moyens alloués en matière de transport ferroviaire. Ainsi, elle souhaite notamment analyser dans quelle mesure le subventionnement des lignes ferroviaires par l'Etat peut limiter l'ouverture de lignes de transport routier.

Par ailleurs, l'Autorité s'interroge sur le fait de savoir si l'égalité des chances est bien garantie entre tous les opérateurs potentiellement intéressés par ce marché. En effet, il convient, selon elle de se demander, si les entreprises multimodales, comme la SNCF, disposent d'avantages concurrentiels susceptibles de dissuader l'entrée d'autres opérateurs ou de renforcer leur position sur ce marché naissant (notamment dès lors que la SNCF a diversifié ses activités sur transport urbain de voyageurs).

En second lieu, le principe de l'intermodalité est aussi présent dans l'analyse concurrentielle. Dans trois décisions de concentration concernant des rapprochements ou des rachats d'entreprises impliquant l'opérateur historique, l'Autorité de la concurrence a obtenu des engagements pour préserver l'intermodalité, que ce soit pour le transport combiné de fret rail-route et pour le transport de voyageurs par rail et par autobus.

Dans une décision concernant le rachat par le groupe SNCF du premier opérateur de transport combiné rail-route et gestionnaire des principaux terminaux de fret, Novatrans<sup>24</sup>, l'Autorité a obtenu que Novatrans organise des appels d'offres pour le recours aux services de traction de trains, afin de permettre aux concurrents de proposer, le cas échéant, des offres économiquement plus avantageuses que celles de la SNCF. Par ailleurs, la nouvelle entité s'est engagée à garantir un accès ouvert et non discriminatoire des terminaux de transport combiné de marchandises et de la réservation de trains de marchandises au bénéfice des transporteurs routiers.

Dans le secteur du transport de voyageurs, l'Autorité s'est enfin intéressée aux conséquences de la diversification de l'opérateur historique dans deux décisions de concentration<sup>25</sup> concernant la prise de contrôle conjointe puis exclusive par sa filiale Keolis (premier opérateur de transport urbain en France) d'entreprises actives dans le conseil et l'audit en transport public ainsi que dans la gestion de gares routières. L'Autorité, approfondissant l'analyse concurrentielle engagée à l'occasion de son avis 09-A-55, a obtenu des engagements visant à prévenir l'utilisation d'informations confidentielles sur la qualité des prestations des concurrents, à assurer à l'ensemble des opérateurs de transport urbain un accès équitable et non discriminatoire aux services en gare gérés par la SNCF et aux informations essentielles en matière d'horaires, et à accorder à tous la possibilité de conclure des contrats de garanties de correspondance.

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<sup>24</sup> Décision 09-DCC-54 du 16 octobre 2009 relative à la prise de contrôle exclusif de la société Novatrans SA par la société Transport et Logistique Partenaires SA.

<sup>25</sup> Décision 10-DCC-02 du 12 janvier 2010 relative à la prise de contrôle conjoint des sociétés Keolis et Effia par les sociétés SNCF-Participations et Caisse de Dépôt et Placement du Québec et décision 12-DCC-129 du 5 septembre 2012 relative à la prise de contrôle exclusif du groupe Keolis par la société SNCF-Participations.

## FRANCE

*(English version)*

The transport sector is an essential sector providing support to the territory's economic activity as a whole. Transport facilitates trade by bringing together supply and demand, and as a result transport infrastructure and services are indispensable in terms of the effective functioning of the markets. The importance of this sector has particularly been acknowledged at a European Union level, where the development of European transport networks and opening them up to competition have always been considered necessary conditions of building the single market.

In relation more specifically to the rail transport sector, it should first be noted that this has its own, very specific characteristics which must be taken into account in order to fully understand the particular issues of its regulation.

From a financial point of view first of all, this sector has its own specific way of operating that is linked in particular to the existence of heavy investment made by all operators (management as well as rail undertakings), a low growth of return on this investment, as well as the existence of a hybrid means of financing that relies both on the contribution of users and on the taxpayer. In short, this sector is characterised by the coexistence of different services on a single network (freight, passenger transport, high-speed lines, regional and inter-city transport) which share common costs but whose frameworks for opening up to competition call for different responses.

From a political point of view, it should be noted that the regulation of this sector must allow concerns of general interest to be met, such as those related to the public transport service<sup>1</sup>, safety, land-use planning, interoperability and the affordability of fares. In this context, competition within the rail sector is not aimed at protecting specific market players, but falls within a framework of other general-interest concerns and aims to meet the different aspects of consumer welfare (price, quality, diversity of supply). This consumer is not only the end user, but also the intermediate customer, the local and regional authorities and, in certain cases, such as that of the so-called "territorial equilibrium" trains which form part of a national policy of land-use planning, the State.

Thus, the combination between, on one hand, competition regulation based on in-depth economic analysis allowing stimulation of productivity and investment and broadening user choice, and on the other hand, sector-specific regulation taking into account all general-interest concerns, makes it possible to draw up a balanced plan for regulation that takes into account the sector's specific characteristics as well as the French economic and social context.

Competition-related issues in the rail transport sector are, therefore, extensive and varied, and French decision-making practice in relation to competition reflects this breadth of issues, which are specific to the sector's particular characteristics and the context in which it is set. The Autorité de la concurrence ("the Autorité") has supported the development and strengthening of effective and incentive-based sector-

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<sup>1</sup> The right to transport has been recognised since 1982 in the "LOTT" law.

specific regulation (**point 1**), while carrying out its own role which consists of preserving areas open to competition at this stage, and suggesting or implementing changes in regulation as transport evolves (**point 2**), in particular in relation to the new challenge of intermodality (**point 3**).

## **1. The rail transport sector: what competition and what regulation?**

The existence of a powerful incumbent operator, able to bring economies of scale into play, to contribute to the execution of general-interest missions and to pass on the benefits thereof to users is an asset. However, where competitive pressure is applied to such an operator<sup>2</sup> the incentive for investment and quality of service is increased. This is why the legislator decided to open freight to competition in 2006 followed by international passenger transport in 2009.

In addition, the European Commission has just submitted a proposal to the European Parliament and the EU Council, which brings together all the Member States including France. This proposal envisages in particular opening up the domestic transport of passengers to competition within the European Union from December 2019.<sup>3</sup>

Since the legislator has decided to open the sector to competition, it is up to the regulators, the Autorité and the new sector-specific regulator, the *Autorité de régulation des activités ferroviaires* [Rail Activities Regulation Authority] (ARAF), established in 2010, to make sure that the conditions for its implementation are effective.

### ***1.1 The need for strong and effective sector-specific regulation***

The Autorité supported the creation of ARAF in the six opinions that it gave on the establishment of sector-specific regulation.<sup>4</sup>

ARAF, an independent public authority, was created in 2010 to ensure that rail-transport public services and competitive activities function properly to the benefit of rail-transport service users and clients. In particular, the Autorité is tasked with ensuring that rail-network access conditions for rail undertakings do not hamper the development of competition. To this end, ARAF has been delegated regulatory power (regulations on conditions for linking to the rail network and technical and administrative conditions for access to the network and its use, conditions of access to services classed as essential facilities and conditions for the use thereof, establishment of perimeters for each of the activities subject to regulation rules), as well as powers of authorisation, approval, opposition, recommendation, dispute resolution and sanction. Furthermore, the Autorité de la concurrence will refer to ARAF any matters that fall within its field of competence.<sup>5</sup> so that it can issue its opinion.<sup>6</sup>

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<sup>2</sup> This was for example the case with the recent establishment of the Ouigo service by the SNCF which is a low-cost high-speed train service.

<sup>3</sup> The European Parliament and the EU Council will shortly start examining this proposal which as well as aiming to strengthen cooperation between Trans-European infrastructures, specifies the definition of essential functions (network development and upkeep) which can only be provided by a sole infrastructure manager, independent of operating activities, and confirms the requirement for separation between the infrastructure manager and the rail companies.

<sup>4</sup> The six opinions given by the Autorité are as follows: 08-A-17 of 3 September 2008, 08-A-18 of 13 October 2008, 09-A-55 of 4 November 2009, 10-A-04 of 22 February 2010, 11-A-15 of 29 September 2001 and 11-A-16 of 29 September 2011.

<sup>5</sup> Article L.2135-13 of the French Transport Code.

The Autorité de la concurrence has also asked the legislator to grant ARAF effective powers, including the establishment of an incentive-based *ex ante* regulation of train path costs, station access charges, all network access documents as well as the network reference document, greater powers of inspection and audit (to mitigate the effect of skewed information on actual costs incurred) and also *ex post* powers of regulation to verify, in particular, the execution of planned investments and proper circulation of strategic information (such as timetabling).

According to the Autorité, the establishment of a strong sector-specific regulator, with effective powers, was complementary to its own activity which consists of protecting the areas that are already subject to competition in application of Articles L. 420-1 and -2 of the French Commercial Code, and of relevant 101 and 102 of the Treaty on the Functioning of the European Union, and of establishing any recommendations aimed at strengthening the effectiveness of regulation in the rail sector.

In parallel with this support from the Autorité de la concurrence, other French public authorities took a stance in favour of the creation of an efficient sector-specific regulator with greater powers. In a report published in 2008, the *Cour des comptes* [Court of Auditors] stated, “*A regulatory authority is necessary because it is difficult for the State to settle conflicts between the rail undertaking SNCF and its competitors. It must have more power and authority since the infrastructure manager has links to the SNCF rail undertaking*”<sup>7</sup>.

More recently in a report submitted to the government by Mr Jacques Auxiette, president of the Regional Council of the Pays-de-Loire and President of the “Infrastructure and Transport” Committee of the Association of French Regions, with a view to preparing for future reform of the French rail sector (see above), he recommended “*making ARAF not only an authority that is charged with ensuring respect of competition rules, but above all concerned with quality of service to the user and the system’s economic stability*”, which “*could in many ways enhance the transparency of the rail system and provide the political authority with objective views which would allow it to settle disputes in the best possible conditions*”<sup>8</sup>. The recommendations in this report are in line with those previously announced by the Autorité with regard to strengthening ARAF’s powers, in particular in relation to the validation of accounting regulations and the separating of SNCF and RFF accounts, *ex ante* control of the network reference document and the *ex post* realisation of planned investments.

Above and beyond these institutional factors, one of the essential points of economic regulation of the rail sector lies in the conditions for and application of effective separation of infrastructure management from the operators involved in rail transport economic activities.

## **1.2 The debate on the French model of structuring its railway administration**

In the early 1990s, European Directive no. 91/440/EC envisaged an organic separation between the organisations managing the infrastructure and those managing the services in the rail transport sector. Thus in France, management of the network was taken over by the Company Réseau Ferré de France (RFF – a

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<sup>6</sup> Article R.463-9 of the French Commercial Code.

<sup>7</sup> *Le réseau ferroviaire, une réforme inachevée, une stratégie incertaine* [The rail network, an unfinished reform, an uncertain strategy], Court of Auditors, 2008 (updated in 2011), p. 138.

<sup>8</sup> *Un nouveau destin pour le service public ferroviaire: les propositions des régions* [A new destiny for the public rail service: regional proposals], Jacques Auxiette, 22 April 2013, p.27 and 28.



public body with both industrial and commercial functions set up in 1997) and separated from operations, which are provided by SNCF<sup>9</sup>.

This separation, required under the European Union sector-specific law of the time<sup>10</sup>, is likewise desirable from the point of view of the rules of competition on the merits. It is aimed at preventing situations of conflict of interest or any discriminatory practice in favour of incumbent operators. The latter are naturally exposed to the temptation of using the tools at their disposal to squeeze out competitors, in particular those tools arising from their access to essential network management functions.

The method of awarding train paths particularly illustrates this need for separation. All rail undertakings must obtain train paths in order to be able to operate on the national rail network. The award of train paths is therefore an essential function of regulation. Where the incumbent operator acts alongside the infrastructure manager within the framework of this procedure it would, firstly, be likely to use the information obtained on its competitors for its own commercial ends, and secondly, new entrants onto the market could be the victims of discriminatory behaviour within the framework of the award procedure, to the profit of the incumbent operator.

In this context, the Conseil de la concurrence then the Autorité paid particular attention to the principle of separating infrastructure management from network operation.

In particular, the Autorité has highlighted in several opinions issued on rail-sector reform that the infrastructure manager RFF, within the framework of the reform which took place in 1997, did not have all the technical and human resources transferred to it that were necessary to fulfil its tasks and, in fact delegated certain regulatory tasks to SNCF, in particular the award of so-called “last minute” train paths, as well as the station infrastructure and facilities which are shared between SNCF and RFF (cf. point 1.3 above)<sup>11</sup>.

In addition, SNCF is still RFF’s client and sub-contractor and RFF is still the principal access-service supplier to SNCF (who is its main client) and the latter’s main infrastructure branch client.

This imbalance of competencies between the infrastructure manager, RFF, and the operator, SNCF, and the resulting shortfall in terms of functional separation have been highlighted on several occasions in the Autorité’s opinions<sup>12</sup>, where it has recommended that *a minima* the SNCF’s national and regional services specifically tasked with the award of train paths should be transferred to RFF in order to put an end to this problem.

In general terms, the Autorité has given various opinions in favour of transferring ownership of the essential infrastructure to an undertaking other than the service operator; the Autorité considers this option as the most effective means of assuring non-discriminatory access for all operators to the infrastructure<sup>13</sup>.

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<sup>9</sup> Law no. 97-135 of 13 February 1997 (JO of 15/02/1997) on the creation of the Rail Network of France in view of the renewal of rail transport.

<sup>10</sup> See Directives 2001/12/CE, 2001/14/EC and 2012/34/EU.

<sup>11</sup> Opinion 08-A-17 of 3 September 2008.

<sup>12</sup> See in particular opinions 08-A-17 of 3 September 2008 and 11-A-15 of 29 September 2011.

<sup>13</sup> Opinion 09-A-55 of 4 November 2009: such a separation reduces the risks of conflict between the historic operator’s different activities (cross-subsidies, collection of information on competitors’ commercial strategy) and reduces monitoring costs. This option also offers the advantage of lessening the likelihood of confusion between regulatory and operating functions.

In addition, the most high-impact option consisting of transferring all SNCF management bodies in charge of actual network management to RFF was also one of the solutions envisaged by the Autorité.

Finally, in this area the Autorité wanted to strengthen ARAF's powers and in particular bring to the forefront the need for real legal, functional and indeed ownership separation of the regulation activities linked to infrastructure management and operating activities within the SNCF. This separation would be carried out by ARAF.

The OECD's economic policy recommendations for France published on 19 March 2013 reiterated this concern with regard to the structuring of the French rail system.<sup>14</sup>

A proposed reform aimed at creating a "unified infrastructure manager" combining the network manager, RFF, and the branches of the SNCF in charge of infrastructure and functions linked to rail movement (award of train paths, pricing, traffic management, upkeep, network planning and extension), within a public rail authority also including the public transport operator, is currently being drawn up by the government. Two reports were submitted to the government on this subject on 22 April 2013, each of them finding in favour of such a reform.<sup>15</sup> The conditions of governance of the new group as well as the way in which it will be regulated have been outlined in these two reports, but would have to be clarified in the draft law being drawn up by the government.

### ***1.3 An illustration of rail-sector regulation activity from the structural point of view: the opinion on passenger stations***

The problem with the legal and functional separation between the incumbent operator and the network manager, particularly with regard to ensuring non-discriminatory access to infrastructure by the rail undertakings, struck a strong chord in France in relation to the problems of station management.

Law no. 97-135 of 13 February 1997 transferred full ownership of the assets comprising the rail infrastructure to the network manager, RFF. However, the passenger stations and a large proportion of the freight infrastructure and other infrastructure, such as that related to diesel supply, were excluded from this transfer to RFF. Consequently, passenger stations are managed by the incumbent operator, SNCF, which set up an autonomous body in charge of their management (the company Gares & Connexions).

But as the Autorité has highlighted on several occasions, particularly in opinion 09-A-55 of 4 November 2009, railway stations constitute infrastructure which is essential to rail transport since (i) they are indispensable to an operator in order for it to be able to offer a service and (ii) they are impossible to

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<sup>14</sup> The OCDE particularly highlighted the following: *"The rail sector is another sector where France is behind the majority of European countries in terms of liberalisation and competition, which generates costs for users and public finances (CAS, 2011). The historic operator, the SNCF, was fined in 2012 for obstructing the entrance of new operators to the freight market (Les Echos, 2013). The government's recent decision to merge the network manager (RFF) and the SNCF is a backwards step, even if the way in which the separation was carried out in 1997 did not allow competition to be sufficiently strengthened; it was essentially aimed at removing part of the sector's debt from the scope of the Maastricht treaty. Furthermore, the functional and legal separation of stations from SNCF is desirable. As the German example has shown, abandoning the "railwayman" status for new recruits of the historic operator is likewise essential in order to foster competition in the sector."*

<sup>15</sup> *Réussir la réforme du système ferroviaire* [Achieving reform in the rail system], Jean-Louis Bianco, 22 April 2013 and *Un nouveau destin pour le service public ferroviaire: les propositions des régions* [A new destiny for the public rail service; regional proposals], Jacques Auxiette, 22 April 2013.

replicate by reasonable means. Thus, the fact that these facilities are managed by the SNCF gives rise to many questions.<sup>16</sup>

The Autorité therefore paid particular attention to this problem and found that the system that had been implemented was not fully satisfactory.

First, with regard to the governance of the branch in charge of station management, the Autorité found the fact that the appointment and dismissal of the director of Gares & Connexions was still subject to the approval of the SNCF board and its Chairman, did not constitute genuine autonomy.

Secondly, the Autorité held that the highly fragile financial structure of Gares & Connexions made it very dependent on the rest of the SNCF, which could lead to an increase in the price set for access to the stations and would therefore be prejudicial to the entry of any new transport operators onto the market. This was particularly the case as the fact that its own equity was almost non-existent rendered its coverage of the very high investment in stations announced by the SNCF impractical. Furthermore, since the approval thresholds of the director in charge of managing stations were also significantly lower than the sums to be invested, the SNCF retained full control over the investments made.

Thirdly, the Autorité held that the rules imposed on the SNCF in matters of the protection of commercial information provided by new entrants, particularly at the time of their application for access to the stations, did not present sufficient guarantees to prevent the incumbent operator enjoying an undue commercial advantage. Likewise, the Autorité highlighted that the fact that competing transport operators requesting station access services have to go through a department of the SNCF Directorate-General (PSEF, the rail companies service centre) meant the SNCF could potentially know the plans of competing transport operators before they were put into place.<sup>17</sup> This subject was also tackled within the framework of a legal dispute in decision 12-D-25 (cf. point II above).

Lastly, to the extent that stations constitute the interface with other transport networks and consequently represent a key factor in related transport markets where SNCF is likewise present (particularly in urban transport), the Autorité highlighted that the Gares & Connexions branch's lack of independence with regard to its competitive activities was such that it would distort competition on markets other than just rail transport (cf. point III above).

In this context, the Autorité has argued in favour of a legal separation between the SNCF and Gares & Connexions. However, aware of the difficulty of implementing such a separation, it has conceded that a functional separation between the activities of transporter and station manager may be the best plan in the short term, adhering to a strict division of competences from a functional, financial, operational and human resources point of view.<sup>18</sup>

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<sup>16</sup> The experience of several other countries, in particular Germany and Italy, has shown that access by new entrants to station areas is often made difficult by the historic operator, even when the stations manager and the operator resulting from a historic monopoly are subsidiaries, as is the case in Germany (cf. European Commission, *Study on regulatory option on further market opening in rail passenger transport*, Everis, Brussels, 2010, p. 111, 153 and 235).

<sup>17</sup> Similarly, the Autorité emphasised that there was a risk that information on rail transport (for example timetabling) would not be transferred under non-discriminatory conditions to operators in competition with SNCF, both on the rail transport market (opinion 11-A-15) and urban and regional transport markets (opinion 09-A-55).

<sup>18</sup> Opinion 11-A-15

It also recommended in opinion 11-A-15 that the sector-specific regulator be given powers of *ex ante* monitoring of costs passed on to rail undertakings with a view to guaranteeing that they are transparent, objective and non-discriminatory. Again, according to the Autorité, ARAF must also be able to act *ex post* to verify that planned investments are being made and make sure that the costs included in the basis of charges under allocation to investments are genuine. Indeed, it seemed particularly problematical that at this stage of the opening up to competition of a network industry characterised by the very high number of essential facilities potentially concerned, the incumbent operator was solely responsible for determining access costs and services provided by these facilities.. There was likewise a risk of over-investment in stations in order to raise access costs to third parties.

A report submitted to the government on 22 April 2013 with a view to reform of the rail sector.<sup>19</sup> likewise recommends that ARAF's powers are strengthened, with the proposal to entrust it with "*monitoring missions and the implementation of regulations governing accounting separation for the activities [of the SNCF], with the aim of attaining greater transparency and fairness in relations between the different stakeholders*".

## **2. Monitoring and controlling anti-competitive practices in the rail transport sector**

Regulation of the rail sector must also include the monitoring and control of anti-competitive practices, an activity which is an indispensable addition to sector-specific regulation.

The decision recently made by the Autorité de la concurrence in December 2012 in the freight sector (open to competition since 2006) and the one made with regard to the on-line reservation of train tickets in 2009 illustrates the complementary nature of these two types of regulation.

First, in its decision 12-D-25<sup>20</sup> in the freight sector, the Autorité fined the SNCF 60.9 million euros for having abused its dominant position following a complaint from a competitor.<sup>21</sup>

In this fully substantiated decision, the Autorité first held that the SNCF had used confidential information obtained within the framework of its public infrastructure-management mission for commercial purposes. In fact, in parallel to its rail transport activity, the SNCF is the delegated infrastructure manager (GID) on behalf of RFF which pays it for this (cf. point 1.2 above). On this basis, when new rail undertakings request the award of train paths or technical site visits, it collects sensitive and confidential information concerning the commercial strategy and intentions of these competitors. It therefore knows, for example, the clients involved, the tenders concerned, its competitors' intended transport plans (the train paths used, train lengths, tonnages transported, timetabling, origin and destination of the traffic, etc.).

It was revealed that confidential information was frequently used by SNCF's freight branch, in particular to adapt its commercial strategy towards the traffic specifically targeted by its competitors. The Autorité revealed that this practice had artificially hindered its competitors' development and undermined competition in the sector.

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<sup>19</sup> *Un nouveau destin pour le service public ferroviaire: les propositions des régions* [A new destiny for the public rail service: regional proposals] Jacques Auxiette, 22 April 2013, p. 31.

<sup>20</sup> Decision 12-D-25 of 18 December 2012 regarding practices implemented in the transport of goods by rail sector.

<sup>21</sup> This decision is currently under appeal before the Appeal Court of Paris.

The Autorité also found that SNCF had implemented practices aimed at preventing its competitors from having access to the rail capacities and equipment essential to their activity. In particular, the SNCF put the following practices into place:

- Limiting competitors' access to freight yards: the freight yards are areas linked to the network where goods can be loaded and unloaded between rail and road. They constitute indispensable infrastructure for rail freight undertakings which must have access to them in order to carry out their activity. SNCF is both the user and the manager of a large proportion of this infrastructure.

Despite its regulatory obligations and multiple interventions by RFF, SNCF published the list of this equipment late and above all failed to specify, in a transparent and sufficiently clear manner, the conditions of use and cost, so the rail undertakings found themselves unable to usefully reach agreements with their customers and make credible commercial offers.

- Overbooking of train paths: as noted previously (cf. point 1.2 above) access to train paths is an essential aspect of rail undertakings' capacity to offer transport services on the market. In its decision, the Autorité found that the SNCF had practised a policy of overbooking of train paths in very high proportions and did not return what it did not use (or did so at a very late stage). Consequently, other rail undertakings active within the freight sector were deprived of the possibility of using them, and some of them may have been dissuaded from responding to calls to tender on some occasions or have found it impossible to meet orders that had already been received.
- Overbooking of wagons: one of the SNCF's subsidiaries, the company SGW, operates in the wagon leasing market. When the market was opened up to competition in 2006, the SNCF was found to be responsible for restricting the availability of a certain type of wagon (the EX wagon), which is deemed an essential resource for transporting certain products (in particular quarry aggregate and granulates), by booking exclusive use of the wagon stock while in practice only using some of it.

The complaint from which this decision stems also alleged eight other grievances, which the Autorité did not uphold, and claimed that the SNCF had pursued a deliberate strategy of ousting its competitors by fixing its prices for large trains. Although the investigation did not bring such a strategy to light, it found that the prices charged did have the potential to squeeze out competitors, so the Autorité issued an injunction under which the operator was obliged to establish an analytical accounts system and bring prices progressively into line with the costs actually incurred, bearing in mind the particular context of the freight sector.

Secondly, in a decision dating from 2009.<sup>22</sup>, the Autorité de la concurrence also fined the SNCF and the company Expedia (a company operating several on-line travel agencies), 5 million and 500,000 euros respectively, for having favoured SNCF subsidiaries to the detriment of competing travel agencies.

### **3. Adapting the regulation to a new challenge: intermodality**

The Autorité is also interested in changes to transport, and in particular the new challenge constituted by intermodality, namely the capacity of transport operators to offer services ensuring continuity between different means of transport and making the transit of users and goods more fluid and predictable.

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<sup>22</sup> Decision 09-D-06 of 5 February 2009 regarding practices implemented by the SNCF and Expedia Inc. in the on-line travel agency sector.

First, intermodality requires changes to sector-specific regulation, as the Autorité stressed in its two opinions<sup>23</sup> and through the sector-specific enquiry that it recently launched. First, as noted above, in its opinion 09-A-55 on station management (cf. point 1.3 above), the Autorité was interested in the fact that intermodality has become a key element in the assessment of bids made by transporters in public transport calls for tenders launched by local and regional authorities.

SNCF is present across the whole transport chain, from train to bicycle, including transport-related services and services linked to the management of parking areas. It continues to extend its diversification to markets connected to rail transport, in particular through its takeover of Keolis, the number one private urban transport operator which is also a major player in regional transport (cf. above).

Thus, in this opinion, while the Autorité did not challenge the SNCF's diversification strategy, since it is liable to be a factor in driving competition on the markets in which it is present it did however consider that this strategy should be subject to particular precautions bearing in mind its extremely strong position in rail transport. The Autorité in particular highlighted that:

- The SNCF's position on the passenger rail transport market was liable to distort competition between the SNCF's subsidiaries and their competitors, and that consequently it should make sure that it does not propose a vertically integrated transport bid to the authorities organising calls for tender, as this would present a significant competitive advantage to which the other transport operators would not be able to aspire.
- The SNCF must also ensure that it does not engage in commercial practices liable to be classified as predatory pricing, since the SNCF's financial power might allow it to sustain high losses over time within the framework of its diversification activities which could affect competition on these new markets.
- Information in matters of rail transport had an influence on the capacity of urban or regional transport operators to submit bids to authorities organising public transport tenders, bearing in mind the intermodal dimension and that, in this context, it was essential for all urban and regional transport operators submitting a bid in a public transport-related tender process to have all the information available to them about rail transport, and in particular timetabling, for any given station.

In opinion 10-A-04, the Autorité invited the public authorities to extend ARAF's powers to air and urban transport. The Autorité in effect highlighted that a merger of competences into a single transport regulator would make it easier to address the particular issues shared by all transport sectors.

Finally, on 26 February 2013, the Autorité launched a sector-specific enquiry into the competitive operation of the inter-regional regular coach service market. Within the framework of this enquiry, the Autorité particularly intends to identify to what extent the low level of development of this cheap means of transport may lie in an imbalance with the resources allocated to rail transport. Thus, it hopes notably to analyse to what extent State subsidies of railway lines may limit the opening of road transport lines.

The Autorité also wants to find out whether equal opportunities are really guaranteed among all the operators potentially interested in this market. The question it is asking is whether multimodal undertakings such as the SNCF have competitive advantages likely to dissuade other operators from entering the market or to strengthen their position on this emerging market (in particular since the SNCF has diversified its activities in urban passenger transport).

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<sup>23</sup> See opinions 09-A-55 of 4 November 2009 and 10-A-04 of 22 February 2010.

Secondly, the principle of intermodality is also present in competition analysis. In three merger decisions regarding the merger or buy-out of undertakings involving the incumbent operator, the Autorité de la concurrence obtained commitments that intermodality would be upheld, both for combined road and rail freight transport and for passenger transport by rail and coach.

In a decision on the buy-out by the SNCF group of the number one combined road and rail transport operator and manager of the main freight terminals, Novatrans.<sup>24</sup>, the Autorité agreed that Novatrans would organise calls for tender for the use of train traction services, in order to allow competitors to put forward, if relevant, bids that would be financially more advantageous than those offered by SNCF. In addition, the new entity undertook to guarantee open and non-discriminatory access to the combined goods transport terminals and to the reservation of freight trains for road hauliers.

In the passenger transport sector, the Autorité finally turned its attention to the consequences of the diversification of the incumbent operator in two merger decisions.<sup>25</sup> regarding the joint, then sole acquisition by its subsidiary Keolis (number one urban transport operator in France) of undertakings active in the consultancy and auditing of public transport as well as the management of bus stations. As part of a deeper analysis of competition undertaken under its opinion 09-A-55, the Autorité obtained commitments aimed at preventing the use of confidential information on the quality of services provided by competitors, in order to ensure that all urban transport operators have fair and non-discriminatory access to station services managed by the SNCF and to essential information in relation to timetables, and to grant all parties the possibility of entering into connection guarantee agreements.

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<sup>24</sup> Decision 09-DCC-54 of 16 October 2009 regarding the sole acquisition of the company Novatrans SA by the company Transport et Logistique Partenaires SA.

<sup>25</sup> Decision 10-DCC-02 of 12 January 2010 regarding the joint acquisition of the companies Keolis and Effia by the companies SNCF-Participations and Caisse de Dépôt et Placement du Québec and decision 12-DCC-129 of 5 September 2012 regarding the sole acquisition of the Keolis group by the company SNCF-Participations.

## HUNGARY

### 1. Introduction

Hungary's rail network is an important part of the EU rail market as a result of its location in Central-Eastern Europe. The liberalisation process started soon after the Hungarian accession to the EU in 2004, primarily in the market of freight transportation. This submission aims to describe the current regulatory framework based on the Railway Act<sup>1</sup> adopted in 2005, as well as the structure of the railway market. Due to a lack of real competition in the passenger service market, this paper primarily focuses on the structure of the rail freight market.

As the opening up of the rail freight market resulted in a serious conflict of interest for the incumbent companies, they tried to minimise their losses by restricting competition. The Gazdasági Versenyhivatal (the Hungarian Competition Authority, hereafter referred to as GVH) initiated competition supervision proceedings against the incumbent companies and found that they were engaged in a cartel agreement; moreover one of them had abused its dominant position. These cases will also be dealt with as part of the present submission.

### 2. Regulatory framework

The EU legislation governing the railway industry requires that the essential functions relating to the management of the infrastructure are independent of railway undertakings in order to ensure that there is no discrimination between operators. To satisfy this requirement, Hungary created the following system.

#### 2.1 *Infrastructure management*

The Hungarian railway network infrastructure is managed by two incumbent companies: MÁV Magyar Államvasutak Zártkörűen Működő Részvénytársaság (hereafter referred to as MÁV) and Győr-Sopron-Ebenfurti Vasút Zártkörűen Működő Részvénytársaság (hereafter referred to as GySEV).

The open access railway network is owned by the Hungarian State (with the exception of around 300 km which belongs to GySEV), but MÁV and GySEV are entrusted with the maintenance and management of the network for an indefinite period of time.

The most important duty of the infrastructure managers is to operate the open access railway network and provide those services which are set out in the Network Statement for authorised applicants. In case of emergency the infrastructure managers are authorised to revoke the allocated train paths.

#### 2.2 *Capacity allocation*

In the event that the infrastructure managers are not independent companies, the capacity allocation of the railway network shall be undertaken by an independent entity in accordance with the relevant EU legislation. Due to the fact that MÁV and GySEV operate the railway network as non-independent and

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<sup>1</sup> Act CLXXXIII of 2005 on Rail Transport



integrated companies in their roles as infrastructure managers, an independent state owned company. The VPE Vasúti Pályakapacitás-elosztó Korlátolt Felelősségű Társaság (Rail Capacity Allocation Office Limited Liability Company) (hereafter referred to as VPE), was established in 2003.

In accordance with the Railway Act, VPE shall perform the following tasks:

- the capacity allocation of the railway network;

The open access railway network can be used by the infrastructure managers and authorised applicants. Authorised applicants need to apply to an infrastructure manager for train paths and services.

- the development of the Network Statement of the non-independent infrastructure managing railway company;

The objective of the Network Statement is to lay down the conditions and the order of procedures for accessing the open access rail network, for the use of the rail network, and for the use of basic, supplementary, additional and ancillary services.

The rules laid down in the Network Statement apply equally to the infrastructure managers, the authorised applicants using services which are provided within the framework of the open access to the railway network, and VPE.

An organisation authorised to open access or a non-independent infrastructure managing company may bring a case at the rail regulatory body if it thinks that the Infrastructure Manager or VPE has failed to fulfil any of its obligations set out in the Network Statement.

- the determination of the Charging Methodology and Charging Document, and the determination of the network access charges that must be paid by authorised applicants.

The VPE prepared by 31 August 2008 the Charging Methodology in compliance with Regulation No 83/2007 (X.6) GKM-PM on the frameworks of the network access charging system. VPE determines the concrete network access charges for the given timetable year on the basis of the Charging Methodology and the data from the last closed business year of the infrastructure managers.

Previously the industrial rail infrastructure which connected industrial areas to the main infrastructure network was not owned by the State and as a result VPE could not allocate the capacity. This regulatory environment caused competition concerns, which can be seen in the case Vj-22/2005 of the GVH. The new Railway Act resolved these concerns by providing that connected trains are deemed to be part of the open access railway network regardless of their ownership and the management.<sup>2</sup>

### **2.3 Rail regulatory body**

The independent railway regulatory body (Hungarian Railway Office, hereafter referred to as HRO) was set up in 2006. In 2008 the HRO was terminated and its tasks and responsibilities were transferred to the National Transport Authority (hereafter referred to as NTA). The main regulatory tasks of the NTA are as follows:

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<sup>2</sup> Act CLXXXIII of 2005 on Rail Transport 49 § (4)

***Licensing***

In order to provide freight, passenger or traction services, or to manage the railway infrastructure, an *operation licence* must be obtained from the NTA.

Railway undertakings which are registered in Hungary may only use the railway network if they hold a *safety certificate* that has been issued by the NTA. In order to ensure the safe operation of the railway network such a certificate confirms that the railway company in question has established a safety system that satisfies the requirements set out by the technical specifications of interoperability (TSI) and national safety rules.

***Market monitoring***

The NTA continuously checks whether infrastructure managers, railway undertakings, and the capacity allocation body comply with the railway legislation that is in force. The purpose of these checks is to identify the non-compliant operations. When monitoring the market the NTA also collects data on the railway market and analyses market developments. The NTA participates in the EU-wide data collection of the Rail Market Monitoring Scheme and in the market monitoring activity of the Independent Regulators Group – Rail (IRG-Rail).

The NTA annually issues reports summarizing its activity in market monitoring.<sup>3</sup>

***Market supervision***

As part of its market supervision the NTA ensures that infrastructure managers, railway undertakings and the capacity allocation body comply with the legislation governing the operation of the market. It also oversees non-discriminatory access, the content of the Network Statements and track access contracts and the setting of the charges, in particular regarding the costs of the infrastructure managers.

According to the Railway Act, the railway regulatory body and the GVH shall cooperate in the supervision of the railway market. The Hungarian Railway Office and the GVH concluded a cooperation agreement in 2006 and have maintained their beneficial cooperation over the years. Due to the organisational changes that have taken place within the railway regulatory body, an amendment to the cooperation agreement needs to be made. The conclusion of the amended agreement is currently in progress.

***Enforcement of rail passengers' rights***

The role of the NTA in the area of the enforcement of passengers' rights is to ensure whether the railway undertakings are complying with the national legislation. The NTA is also responsible for investigating complaints lodged by rail passengers. Complaints can be submitted if a complainant is not satisfied with the decision of a railway undertaking.

**3. ECJ judgment in the case C-473/10.**

When evaluating the Hungarian regulatory system it is important to take into consideration a recent judgment of the European Court of Justice (hereafter referred to as ECJ). An action was brought against Hungary before the ECJ by the European Commission (hereafter referred to as Commission) for a failure to fulfil its obligations under Article 258 of the Treaty on the Functioning of the European Union

<sup>3</sup> See: <http://www.nkh.hu/Vasut/tevekenysegek/vasutitarsmuk/piacijelentesek/Lapok/default.aspx>

(hereinafter referred to as TFEU). In the opinion of the Commission Hungary had failed to completely implement Directives 91/440/EEC and 2001/14/EC.

In its first complaint, the Commission criticised Hungarian legislation for entrusting the task of *traffic management* to the two management infrastructure companies, namely to MÁV and the GySEV, and not to VPE, because, in its view, traffic management covers, to an extent, train path allocation, in particular in the event of disruption to the service or danger.

The ECJ found that in Hungary, VPE, as an independent body, solely allocates train paths and infrastructure capacity. The traffic manager has no decision-making powers in this area and has no control over train paths or capacity allocation. Consequently, traffic management includes activities forming part of infrastructure management and consists not in the adoption of decisions concerning the allocation of train paths but in implementing or enforcing such decisions. It was apparent from these considerations that traffic management cannot be regarded as an essential function that must be entrusted to an independent entity. Since according to EU rules for infrastructure management outside essential functions may be entrusted to railway undertakings, traffic management may therefore be assigned to an infrastructure manager which is also a railway undertaking, as is the case in Hungary. As a result, the first complaint relied on by the Commission in support of its action was not accepted by the ECJ.

According to the Commission, the Hungarian legislation conflicted with the provisions of the governing EU Directives in so far as the *detailed invoices* for the charges to be paid for the use of infrastructures *are drawn up* by the infrastructure managers, namely by MÁV and GySEV, which are also railway undertakings. Since, in Hungary, the specific calculation of the amount of the charge that is payable is carried out by the VPE, the Commission's first argument, to the effect that invoicing forms part of the determination of charges, was not accepted by the ECJ.

The Commission also claimed that Hungary had failed to lay down conditions to ensure that the *accounts of infrastructure managers are balanced*, contrary to the requirements of Article 6(1) of Directive 2001/14. It noted that the Railway Act provides that the minister responsible is to undertake, by contractual agreement, to fund all expenditure that is justifiably incurred in the management of the network by the railway undertaking entrusted with infrastructure management. Since the draft contractual agreement was in the process of being prepared at the time, the ECJ found that Hungary had failed to comply with its obligation.

Since then Multi Annual Contracts have been concluded between the Ministry of National Development and the infrastructure managers (MÁV and GySEV) for a period of five years, which contain the rules on the financing of the infrastructure management.

Moreover, the Commission claimed that the Hungarian legislation did not contain any measure which ensured the application of the 'direct costs' principle, contrary to the requirements of EU law. Since it was common ground that Regulation No 83/2007 (X.6) GKM-PM had not introduced any method for calculating charges based on the direct costs principle at the expiry of the period laid down in the reasoned opinion, the complaint raised by the Commission was well founded according to the judgment of the ECJ.

Having regard to the decision of the ECJ it can be concluded that the implementation of Directives 91/440/EEC and 2001/14/EC has been duly performed with the exception of the abovementioned issues. Taking into account the fact that the criticised deficiencies of the Hungarian legislation (lack of a contract between the minister and the infrastructure managers and the application of the direct cost principle) are currently implemented, the railway regulation and organisation system can be considered to be mainly in conformity with EU law.

## 4. The Hungarian railway market

### 4.1 Railway undertakings

Historically there are two incumbent railway companies in Hungary.

**MÁV** is one of the incumbents in Hungary, and with its 20,000 employees, it is one of the country's largest employers. In 2003 MÁV was split into 5 business units (Traction, Passenger Services, Freight Services, Engineering services and Infrastructure management) and the accounts of all the business units of MÁV were separated.

MÁV Cargo Zrt. was founded as a subsidiary of MÁV in 2005, which became the successor of the freight business of MÁV. Two years later MÁV Cargo Zrt was privatised and Rail Cargo Austria purchased its shares in 2008. Since this time MÁV has not provided freight services.

From 2007 MÁV continued their operation as a separate branch of companies. Passenger transport is operated by MÁV-START Zrt., traction services are provided by MÁV-TRAKCIÓ Zrt and vehicle maintenance and servicing is operated by MÁV-GÉPÉSZET Zrt.

**GySEV** is an integrated rail and infrastructure company with its own rail network of 287 km located on the territory of both the Republic of Austria and Hungary. It is active in rail transport of both passengers and freight (GySEV CARGO Zrt.) in Austria and in Hungary, and focuses on rail freight cross-border transport between Austria and Hungary. GySEV is jointly controlled by Hungary (65.6 % of the shares), the Republic of Austria (28.2 % of the shares) and STRABAG SE (6.1 of the shares).

GySEV strongly focuses (over [90-100] % of its overall activity) on cross-border rail freight transport between Austria and Hungary as it was historically founded to facilitate cross-border rail transport in the Dual Monarchy of Austria-Hungary. In Sopron, GySEV operates a logistics centre with a marshalling yard and a handling terminal and offers all logistics services in relation to freight transport (e.g. warehousing, shipment and transshipment from road to rail traffic, customs clearance, and arrangements for transport) primarily from Western to Eastern and South-Eastern Europe.

**GySEV CARGO Zrt.** was established by GySEV based on the decision of the Competition Directorate General of the European Union relating to the acquisition of control over MÁV Cargo Zrt., as well as on the commitment of Hungary and the Republic of Austria as owners of GySEV.

GySEV CARGO Zrt. is a legally independent company engaged in freight transport and has been carrying out the freight transport and logistics activities of GySEV since the beginning of 2011.

**Rail Cargo Hungaria Zrt.** (hereafter referred to as RCH) is the largest company in the railway freight market. Due to the privatisation of MÁV Cargo Zrt in 2008, RCH became the subsidiary of the state-owned Austrian-based railway company ÖBB Holding AG, which is engaged in freight transport as well as freight forwarding. RCH is active, inter alia, in Austria, Germany, Slovenia, Hungary and Slovakia.

**Others:** Until now 37 railway undertakings (out of which 10 companies were founded in EEA countries other than Hungary) have obtained operation licences for nation-wide freight transport services. Immediately after the opening of the market in 2004 four undertakings applied for operation licences: MVM Magyar Magánvasút Zrt., CER Zrt., Floyd Zrt., MÁV-Hajdú Kft. They were all granted licences and have acquired a remarkable market share in the freight market, especially MVM Magyar Magánvasút Zrt. and CER Zrt.. A few years later other companies entered into the market eg. AWT Rail Hu Zrt., Eurocom Rail Cargo Zrt, Train Hungary Kft, DB Schenker Rail Hungária Kft, Swietelsky Vasúttechnika Kft. The first piece of negative news to come from the newly liberalised freight market was the bankruptcy

of Eurocom Rail Cargo Zrt, which highlighted for the competitors the dangers of excessive rebates and favourable paying conditions.

## **4.2. Freight transport services**

### *4.2.1 Market-structure*

#### *Segmentation of the rail freight market*

In Hungary the railway companies provide services under both of the two basic forms of rail freight transportation: transportation by **block trains** and by **single-wagon trains**.<sup>4</sup> The provision of single-wagon services requires a more complex organisational structure than the provision of block train services. It requires specific infrastructure such as marshalling yards in order to allow for the efficient assembly of the individual wagons. In Hungary primarily the incumbents run a comprehensive (nation-wide) single-wagon system for reasons of economies of scale and because the previous entries into the Hungarian market focused to the area of block train services.

#### *Market shares, level of concentration*

The new undertakings that entered into the market acquired remarkable market shares. The joint market share of the two incumbent companies (RCH and GySEV Cargo Zrt.) decreased to about 85%. While this is still a very high market share, in the block train transportation business (which amounts to about 50% of the freight transport market) the decrease of the market share of the incumbents is even higher (about 20-25%), due to the performance of the new entrants.

Based on estimations, the market shares of the companies involved in the rail freight market were the following in 2010: RCH: 73%, GySEV Cargo Zrt 11. 5%, MMV Magyar Magánvasút Zrt: 5%, CER Zrt.: 3.2, others 7% (AWT: 1.6%, Floyd: 1.6%, Train Hungary: 1.3%).

According to a market research study published with the support of the GVH, the results of the liberalisation can be observed primarily in single-wagon transportation. The new private companies are able to increase competition by offering services which are of a higher quality than those which are provided by the incumbents. Although prices also decreased, in the opinion of the new private companies they could acquire clients by focusing primarily on enhancing the quality of their services rather than on price competition. In addition, some of them emphasised that they have new clients which they did not acquire from the incumbents. They did not forecast the significant increases in their market shares as the incumbents are effective at retaining their clients.<sup>5</sup>

The NTA publishes its market report quarterly. In this report it measures the concentration of the rail freight market by calculating the Herfindahl-Hirschmann Index (HHI) thereof. In the first quarter of 2012 the HHI was 4930 with respect to the turnover of the companies, 4674 with regards to the weight of the cargo, and 4762 concerning the performed ton-kilometer. According to this data it can be concluded that the concentration is still high in the freight market but that it is continuing to decrease.

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<sup>4</sup> Block trains are entire trains running from a single point of origin to a single point of destination. Single-wagon trains are assembled in a marshalling yard in the region of origin, transported to a marshalling yard in the region of destination and disassembled into single-wagon loads for transport to their final destination.

<sup>5</sup> Édes Balázs-Gerhardt Erik-Micski Judit [2011.]: Competitive assessment of the first period of the liberalization on the rail freight market, In: Competition and Regulation, Hungarian Academy of Sciences, Budapest.

In order to acquire a picture of the status of the liberalisation process it is useful to take into account the LIB Index<sup>6</sup> performed by IBM Global Business Services.<sup>7</sup> As regards to Hungary, the LIB index of the rail freight market is 780 points, which means that Hungary is in the “On Schedule” group.

### 4.3 *Passenger transport services*

Due to the lack of liberalisation of the domestic passenger transport, i.e. the third EU railway package only liberalised the international passenger traffic, there are still no external railway companies active in that segment in Hungary apart from the incumbents MÁV and GySEV. The domestic routes are used for services provided exclusively under public service contracts. As the public service contracts for passenger transport are still awarded directly, no competition has arisen in that segment.

For this reason the market concentration is incredibly high, the Herfindahl-Hirschmann Index (HHI) of the sector calculated by the NTA is 9229 according to the turnover of the companies concerned. The LIB Index performed by IBM Global Business Services is 592, which means that Hungary belongs to the “Delayed” group.

## 5. Competition Law Enforcement

### 5.1 *Case Vj-22/2005*

The GVH initiated a proceeding in the beginning of 2005 to investigate whether MÁV had abused its dominant position by: (1) causing unreasonable additional costs to its competitors on the freight transport market when it required bank guarantee as a precondition of the conclusion of the 2005 network access agreements; (2) hindering, impeding and delaying access to non public industrial sidetracks; (3) concluding long term transport agreements that contained exclusivity clauses (English clauses) with the most significant bulk-shippers, thereby foreclosing the access of new entrants to a significant part of the freight transport market.

The findings of the GVH regarding the abovementioned three facts were as follows:

#### ***Requiring bank guarantee as a prerequisite for the conclusion of the network access agreements for 2005***

Since VPE’s decision concerning capacity allocation was not sufficient itself for the use of the railway network, the railway companies should conclude network access agreements with the infrastructure managers MÁV and GySEV. In 2005 MÁV prescribed a new condition for the conclusion of network access agreements with the railway undertakings. MÁV requested that each railway undertakings present an unconditional bank guarantee equivalent of 2.5 months’ portion of the annual network usage charge (20 per cent of the annual charge) in order to prove its financial credibility. In Hungary railway undertakings receive their operating licences only if they have fulfilled the conditions of financial capability. During 2004 there had been no payment difficulties and MÁV could not refer to any situation which would have indicated any increasing risk on its side. Since the operating licence was in itself a guarantee of an

<sup>6</sup> The LIB Index analyses and compares the legal and practical market access barriers that exist in the EU member states from the point of view of an external railway company that is seeking and is capable of market entry.

<sup>7</sup> IBM [2011]: Rail Liberalization Index 2011, Market opening: comparison of the rail markets of the Member States of the European Union, Switzerland and Norway. IBM Business Consulting Services, in cooperation with Christian Kirchner, Brussels  
[http://www.deutschebahn.com/site/shared/en/file\\_attachments/position\\_papers/study\\_rail\\_liberalisation\\_index\\_2011\\_complete\\_version.pdf](http://www.deutschebahn.com/site/shared/en/file_attachments/position_papers/study_rail_liberalisation_index_2011_complete_version.pdf)

undertaking's ability to fulfil its financial obligations, there was no reason for MÁV to require any additional guarantees. Consequently, the requirement of a bank guarantee meant that there was an indirect increase of the network usage charge and this which weakened the economic position of new entrants and restricted competition on the rail freight transport markets. As a result, this behaviour qualified as an abuse of a dominant position.

MÁV lodged an appeal against the decision of the GVH before the Metropolitan Court of Budapest. After contradictory court rulings the Hungarian Supreme Court declared in its final decision that the requirement of an unconditional bank guarantee in the case in question was not contrary to competition law.

### ***Hindering, impeding and delaying access to non public industrial sidetracks***

At the time of the investigation industrial and other kinds of side-tracks were not part of the national open access railway networks and the vast majority of them were either owned or managed by MÁV. Thus capacity allocation was not undertaken by VPE but remained under the discretion of MÁV. Consequently, the GVH established the dominant position of MÁV on the market of access services to non public tracks necessary for rail transport.

On the one hand MÁV refused to grant access to the industrial sidetracks, on the other hand it unduly delayed the performance of its competitors by not giving access to the side tracks for loading. MÁV had no reason acceptable under competition law for the refusal. Access cannot be denied by referring to property rights over the industrial side-tracks, since competition law should prevail over ownership rights in the case of essential facilities.

Since MÁV had hindered and made it more difficult for the competitor private railway undertakings to access the industrial train tracks and the belonging infrastructural services, the GVH found that it had abused its dominant position.

With respect to this ground, the decision of the GVH was upheld by the Supreme Court.

### ***Concluding long term agreements containing exclusivity clauses***

MÁV concluded framework agreements for three years with three major customers of the bulk shipping market (BC, MAL, MERT) within six months preceding the opening up of the market, and with a fourth undertaking (MOL) seven months after liberalisation. The quantities concerned in these agreements represent, on average, 30-40 per cent of the annual volume of this market. MÁV also intended to negotiate similar agreements with other further undertakings as well.

The GVH found that the long term agreements had restrictive effects for the following reasons:

- 1) The agreements were concluded with bulk shippers for whom railway is an unavoidable mode of transport; therefore they would obviously consider the offers of new entrants. These shippers would be the prime targets of new entrants as well.
- 2) The framework agreements covered a significant part of the market as they were concluded with the biggest shippers.
- 3) The English clauses worsened the situation of new entrants as they revealed sensitive information belonging to them.

- 4) The framework agreements had a duration of at least 3 years, thereby foreclosing a significant part of the market in a period particularly important for new entrants, namely when they should be establishing themselves on the market.
- 5) Shipping with another company during this period was qualified by MÁV as a quasi breach of agreement.
- 6) The framework agreements could not be terminated in an ordinary manner. Termination of the agreement and breach of agreement were sanctioned seriously, including the withdrawal of fee discounts.

Based on the above mentioned circumstances, the HCA established that the framework agreements had a cumulative effect of foreclosing the rail freight transport market from new entrant, private railway undertakings for 2.5-3 years following the opening up of the market and therefore qualified them as serious restrictions of competition law.

With respect to this ground, the decision of the HCA was upheld by the Supreme Court.

Since MÁV endangered, in an unjustified manner, the opening up of the market and the position of new private railway entrants on the railway freight market, the HCA found that MÁV had abused its dominant position and imposed a fine of 1 billion HUF (approx. 4 EUR million) on MÁV.

## 5.2 *Case Vj-3/2008*

The scope of the investigation of the HCA was: (1) the uniform list prices with regard to the rail freight transport segment applied by GySEV and MÁV concerning the period between 1 May 2004 and 31 December 2005, and applied by GySEV and RCH concerning the period as of 1 January 2006; (2) and the cooperation agreement between GySEV and RCH that was in effect from 1 January 2006 and the parties' conduct related to this agreement. The proceeding aimed to assess whether the above mentioned practices were suitable to restrict competition pursuant to Article 11 of the Hungarian Competition Act and Article 101 of the TFEU.

Before liberalisation took place, the two incumbents integrated railway undertakings (MÁV and GySEV) were providing infrastructure services and rail freight transport services to customers. The incumbents carried their freights within their own infrastructures (their own respective railway networks), and when they reached each other's borderline, they passed the freight to their competitor (without outreaching their "traditional" infrastructures), who was then able to carry it on within its own infrastructure. As a result of the liberalisation process, the use of the public railway network became possible for railway freight transport operators that did not possess their own tracks. For the incumbent railway operators liberalisation made it possible for them to provide rail transport services outside the borders of their respective former infrastructure and service networks.

### *The cooperation agreement and related practices of the parties*

RCH and GySEV concluded a cooperation agreement (in force as of 1 January 2006) that allowed the parties to provide joint services to their customers. In its preamble, the cooperation agreement highlighted that the main aims of the parties were, inter alia, to (i) maintain market shares, and, if possible, to increase them, (ii) stabilise their presence on a regional level, (iii) create and reinforce strategic alliances and partnerships, and (iv) ensure a smooth transition into the era of liberalisation, while reinforcing the already existing co-operation. By this cooperation agreement the parties mutually authorised each other to conclude customer contracts on behalf of each other, which meant that the parties mutually represented each other when making offers or discussing prices with customers. The agreement also contained a



revenue-sharing mechanism which provided that the parties shared their revenues according to the size of “their” infrastructure affected by freight transportation orders jointly performed by the parties.

In addition to the wording of the cooperation agreement, evidence concerning the related practices of the parties showed that they did not (or only exceptionally) carry out freight transportation activities on the “other’s infrastructure. In the proceedings the HCA review was not focused on the cooperation agreement itself, but rather on the overall practice of the parties. Thus the HCA established that a market-sharing agreement existed between RCH and GySEV. According to this market-sharing agreement, RCH and GySEV undertook to refrain from entering each other's market if the transportation affected only the “infrastructure of the other party”. This meant that when a cargo had to be delivered through both the infrastructure of MÁV and GySEV, RCH and GySEV organised the transport so that each party delivered the transported cargo to the border of its service (infrastructure) network, where the other party took over and continued the transportation on the territory of its “own market” (according to the so called system of consecutive transportation).

### ***Uniform price lists***

Between 1 May 2004 and 31 December 2005, GySEV and MÁV, and later between 1 January 2006 and 17 July 2007, GySEV and RCH, issued uniform lists on the calculation of prices for freight transport services. They published and modified their tariff systems at the same time (in general, it occurred on a yearly basis). The price lists were identical, both substantially and formally; moreover the service components, rates and the method of the pricing policy were also determined on a unified basis.

The HCA established that the two most significant players on the rail freight transport market applied uniform list prices based on their agreement. The parties claimed that as a consequence of the rebates provided by them, the list prices were only rarely used in practice. However, this did not eliminate the fact that they used the price lists as a common ground for action and that were still capable of influencing the pricing behaviour of close competitors.

As a result, the HCA established that RCH and GySEV had concluded a ***market-sharing agreement*** which aimed to geographically share the freight transport market among themselves. This agreement was in effect from 1 January 2006 to 25 May 2009. Additionally, the HCA also established that the - hypothetically - competing undertakings had applied ***uniform list prices*** that could be regarded as a restrictive price agreement.

Besides establishing the infringement, the HCA imposed a fine of 300 million HUF (approx 1 million EUR) on GySEV, 100 million HUF (approx 300 thousand EUR) on MÁV and 850 million HUF (approx 2.8 million EUR) on RCH.

## **6. Final remarks**

Due to the liberalisation of the rail freight market new railway undertakings entered into the market. These undertakings acquired a remarkable market share. Although intra-model competition increased in the rail freight transportation, its competitiveness with other modes of transport remained quite low. The share of the rail freight transportation in the entire transportation market was around 19% in 2012 (with the exception of bulk goods, where the role of railway freight transportation is more decisive) which means that there is still large room for improvement regarding intra-model competition.

Moreover, it should be noted that market entries focused on the block trains transportation, which is a much more profitable segment than the single-wagon train transportation conducted primarily by the incumbents. The competitiveness concerning this kind of single transportation is very weak in comparison to road haulage.

The Hungarian Parliament has recently passed a law on introducing an electronic, distance-based toll system for cargo vehicles, which might decrease the negative discrimination existing towards the railway freight transportation. The new system will begin on 1 July 2013.

Besides, it can be mentioned that the Hungarian government decided this year to build a double-track railway, so called V0 railway, which would allow international freight traffic to bypass congested lines in the Budapest area. The main purpose of the V0 would be to divert traffic on Hungary's busiest transit route from Austria towards destinations in the east and the Balkans away from Budapest. If the funds are made available, construction could begin as early as 2017 and the line would take three years to build.

Hopefully, the later changes will contribute to mitigating the competitive disadvantages of the railway freight market regarding intra-modal competition.



## INDONESIA \*

### 1. Introduction

Train as one of modes of transport has various advantages compared to other modes. In addition to the large carrying capacity, train is also more fuel-efficient and environmentally friendly as well as safer than other land vehicles. Train is a choice of mode which may address various current issues related to transportation encountered by Indonesia, namely, among other things, (i) many damaged roads; (ii) traffic jam due to the increasing volume of traffic; and (iii) increase of fuel price leading to the increase of transportation costs. Various advantages of train still make this mode as the favorite mode of transport of the Indonesian society. We can see it from many passengers crowding into commuter line in every rush hour and also lines of people who want to buy train tickets to return to their home town during the religious holidays.

The existence of train in Indonesia was marked by the groundbreaking ceremony of the construction of railway in Kemijen village on Friday, June 17, 1864 by the Governor General of East Indies, Mr. L.A.J Baron Sloet van den Beele. The construction was pioneered by Naamlooze Venootschap Nederlandsch Indische Spoorweg Maatschappij (NV. NISM) chaired by Ir. J.P. de Borders from Kemijen to Tanggung village (26 Km) with the width of track of 1435 mm. This railway was opened for public transportation on Saturday, August 10, 1867. The success of private party, NV. NISM, in constructing the railway between Kemijen – Tanggung, which subsequently on February 10, 1870 could connect the city of Semarang – Surakarta (110 Km), eventually attracted the interest of investors to construct railways in other regions. It is not surprising that the length of railway grew rapidly in the past, and as a result, train has been becoming the main mode of transportation for the society to travel between regions.

### 2. Regulations on Railway in Indonesia

Since 2007, the Government of Indonesia has been enforcing Law No. 23 year 2007 concerning Railways and its implementing regulation, namely Government Regulation No. 72 year 2009 concerning Railway Traffic and Transport. This law is the amendment to Law No. 13 year 1992 concerning Railway and Government Regulation No. 81 year 1998 concerning Railway Transport Traffic.

Under Law No. 23 Year 2007, railways shall be controlled by the State and the development including regulations, control and supervision, shall be conducted by the Government. At the same time, the administration is conducted by business entities. In other words, there is a separation between railway regulators and operators. In addition, this Law has opened the greatest opportunity for private parties and regional governments to fairly involve in railway transport services.

Railway administration is also divided into two types, namely (i) the administration of railway facilities, and (ii) the administration of railway infrastructure. The administration of railway facilities and infrastructure may be conducted by the railway administration business entity. If there is no business entity conducting the administration, such administration can be conducted by the Central Government or Regional Governments.

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\* The submission was prepared by the Research Bureau and Foreign Cooperation Division of KPPU. For further information or clarification, please contact [international@kppu.go.id](mailto:international@kppu.go.id) or visit <http://eng.kppu.go.id/>.

The said rules are inconsistent with the spirit of Law No. 13 year 1992 stating that the Government shall administer railways and the implementation thereof may be conducted by railway administrator in cooperation with other business entities. Under this Law No. 13 year 1992, at that time railways were administered by the Government and its implementation was delegated by the Government to PT Kereta Api Indonesia (State-Owned Enterprise/BUMN).

The rules of Law No. 23 Year 2007 have eliminated monopoly by the Government and/or State-Owned Enterprises, as well as have opened up investment opportunities for Regional Governments and Private Parties to promote competition and improve railway transport services.

### **3. Railway Administration Business Entity and Regulator in Indonesia**

Currently, the railway in Indonesia is administered by PT. Kereta Api Indonesia (PT KAI), a State-Owned Enterprise (BUMN) conducting the administration of railway transport services. The services provided by PT KAI include the transportation of passengers and goods. As previously explained, at the end of March 2007, the Parliament ratified Law No. 23/2007 as the revision of Law No. 13/1992, which expressly states that private investors and regional governments are given the opportunity to manage railway transport services in Indonesia.

The regulator of railway industry in Indonesia is the government, namely the Directorate General of Railway under the Ministry of Transportation. This directorate was established as a result of the implementation of Law no. 23 Year 2007 which expressly separates the regulator from the operator. The Directorate has various functions, namely as follows:

- 1) Preparing the formulation of policies on the development of railway and industries supporting the administration of railways;
- 2) Preparing the implementation of railway guidance and administration in the fields of safety, traffic and railway transport, railway facilities and infrastructures;
- 3) Preparing the formulation of standards, norms, procedures and criteria for the administration of railways;
- 4) Preparing infrastructures, facilities and human resources testing and certification in the field of railway;
- 5) Preparing the implementation of administration within the purview of the Directorate General of Railway.

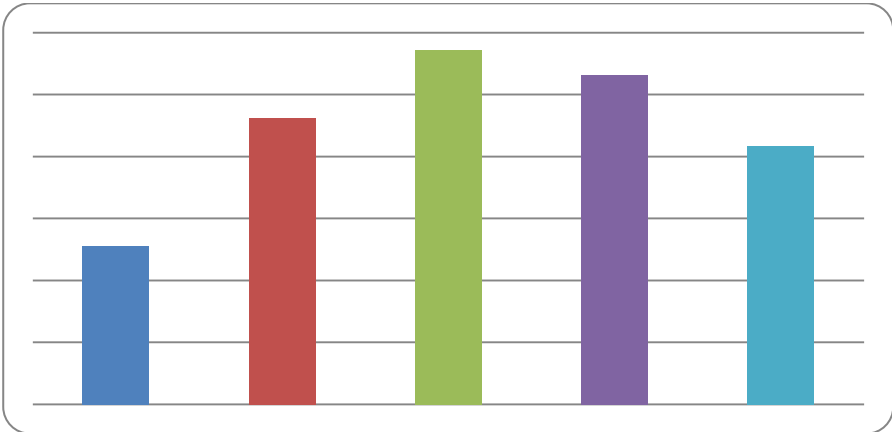
### **4. Current Structure of the Railway Industry in Indonesia**

Although Law No. 23 Year 2007 has opened up opportunities for private business actors and local governments to make investment in this industry, the number of the existing railways has not changed much. The railway infrastructure is still owned by the Government (there has not been new investment by private parties) and trains both for passengers and goods are still operated by PT KAI. Currently, the operations of PT KAI include the field of transportation of people, goods, means/infrastructure/facilities lease including kiosks, warehouses, station spaces and container terminal lease.

The majority of railway network in Indonesia is the inheritance from the Dutch which was built since the late 1800s. The current length of active railways in Indonesia is 6,546 km, which are mainly located on Java Island, and few are located on Sumatra Island. Out of the total length of railways, only 100 km has been electrified, namely for Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek) routes. In 2012,

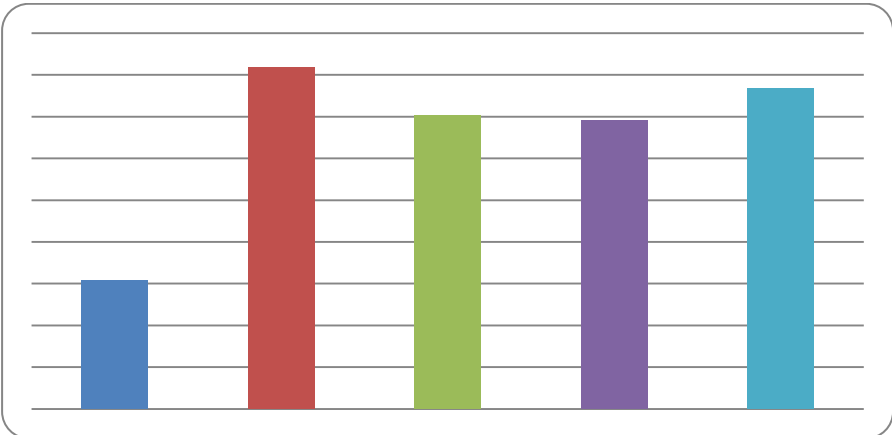
the Government has started to construct double-track system for railways on Java Island. Other islands in Indonesia do not have railway network. However, there has been a plan to develop railways in Kalimantan and MRT in Bali. The development of new railway network is still only the initiative and investment of the Government, especially the Local Government.

**Table 1: Total passengers**



Source: PT. KAI, 2011

**Table 2: Total Goods**



Source: PT. KAI, 2011

There are slight changes in public trains for the Jabodetabek area in which PT. KAI separated the Jabotabek division to be PT Kereta Api Commuter Jabodetabek (PT KCJ) in 2011. PT KJC marks the involvement of private business actor in the railway industry in Indonesia. Nevertheless, considering that PT KCJ is the subsidiary of PT KAI, there is no private company which is completely new in the administration of the existing railways.

**5. Mechanism for Stipulating Train Fares**

Based on the type of load transported, train fares consist of passenger transport fares and goods transport fares. The Government stipulates guidelines on the passenger transport and goods transport fares which will be used for reference in the calculation of fares stipulated by the railway administrator. The

guidelines are stipulated based on the calculation of capital, operating costs, maintenance costs and profits. The Government and Regional Governments have the authority to impose administrative sanctions if the railway administrator does not stipulate fares in accordance with the guidelines stipulated by the Government.

For economy class trains and pioneer transports (*angkutan perintis*), the fares will be stipulated by the Government and Regional Governments. For economy class services, if the transport fares stipulated by the Government or the Regional Government are lower than the fares calculated by the Railway Facilities Administrator based on the guidelines on the stipulation of fares stipulated by the Government, the difference between such fares shall be the responsibility of the Government or Regional Government in the form of public service obligation.

For pioneer transport services, if the costs incurred by the Railway Facilities Administrator to operate the railway facilities are higher than the revenues earned based on the fares stipulated by the Government or Regional Government, the difference between such fares shall be the responsibility of the Government or Regional Government in the form of subsidies for pioneer transport.

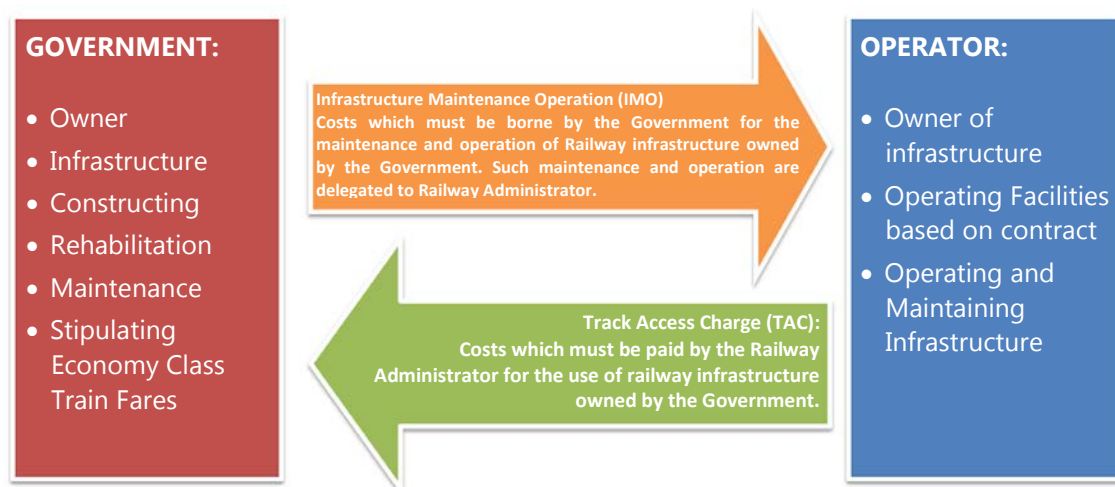
If it is assumed that people cannot afford to pay the fares stipulated by the railway facilities administration agency, the Government or Regional Government shall stipulate fares for economy class service transportation as a form of the implementation of the public service obligations (Public Service Obligation) and pioneer transport.

If the railway facilities administrator is using the railway infrastructure owned or operated by the railway infrastructure administrator, it must pay the costs of using such railway infrastructure. The costs of using railway infrastructure are calculated based on the guidelines on the stipulation of costs of using railway infrastructure stipulated by the Government.

Whereas, goods transport fares are stipulated upon the agreement between service users and the railway facilities administrator based on the guidelines on the stipulation of fares.

## 6. Relationship between the Government and Railway Administration Business Entity

The relationship between PT KAI as the existing operator and the Government as the existing owner of the railway infrastructures in the use of infrastructure and facilities as well as in the stipulation of economy class fares is described in the following diagram:



The Government as the owner of railway infrastructure and facilities, delegates the management and maintenance of infrastructure and facilities to PT KAI as the operator. For the maintenance performed by the operator, the Government pays an amount of budget referred to as the infrastructure maintenance operation. In addition, the Government also pays subsidies for economy class passenger transportation by the operator through the budget for public service obligation. While, for the use of railway infrastructures and facilities owned by the Government, the operator is obligated to pay track access charge.

### **6.1 Public Service Obligation**

PSO is a payment of funds by the Government to PT KAI to subsidize economy class passengers. PSO paid by the Government is calculated based on the applicable fares multiplied by total occupancy (a 90% average in a normal condition) plus non-operating income calculated proportionally for the economic services.

### **6.2 Infrastructure Maintenance Operation**

Maintenance is all work aimed at restoring and/or maintaining the infrastructure in a certain condition based on the stipulated class. Maintenance is carried out in order that the trains can be operated at the service quality level stipulated based on technical standards or technical guidelines for maintenance.

IMO is divided into two groups, namely railway infrastructure maintenance cost and railway infrastructure operating cost. Railway infrastructure maintenance cost is calculated based on the maintenance volume per activity multiplied by unit price. The maintenance volume per activity is calculated based on the type of maintenance activity by using technical standards or technical guidelines for maintenance on a sustainable basis. Meanwhile, the unit price for infrastructure maintenance cost is calculated based on the type of maintenance activity in accordance with the unit price stipulated by the government and/or the applicable laws and regulations. The operating cost of railway infrastructure is calculated based on the standard salaries of employees of the Railway Administrator (PT KAI) which have been approved by the government multiplied by the total number of employees required in accordance with the standard efficient operation of railway infrastructure for all types of railway infrastructure operation activities.

### **6.3 Track Access Charge**

The cost of using railway infrastructure is the cost paid by the Railway Administrator (PT KAI) to the government for using railway infrastructure.

The cost of using train infrastructure is calculated based on maintenance and operating costs multiplied by encumbrance factors determined by the Directorate General of Land Transportation by taking into account the priority for the use of railway infrastructure plus the depreciation of railway infrastructure. Meanwhile, the depreciation of railway infrastructure is calculated annually in accordance with the technical age of railway infrastructure and the acquisition value in the current year.

### **6.4 Business Competition Condition (Intermodal and Intramodal)**

The Train industry had been significantly affected by intermodal competition, particularly with airplane and car/shuttle services. The competition between train and airplane began in 2002 as the aviation industry in Indonesia was deregulated. As a result of such deregulation, airlines in Indonesia may stipulate its own fares without interference from Indonesia airlines association. This gave rise to competition between airlines and became the cause of the existence of low cost carriers in the aviation industry in Indonesia. Low cost carrier in the aviation industry has significantly affected the train industry. Since 2002, PT KAI has been experiencing a decline in the number of executive class passengers by 40%. The



route encountering the toughest challenge is Jakarta-Surabaya route, since it is the favorite route for land and air transport companies. With regard to this route, the number of passengers of executive/business class train declined significantly by 35% from the figures in the previous year. This decline is clearly shown by the decreasing number of passengers in which in the first quarter of 2000, the number of passengers was at 81%, but in the first quarter of 2004, it fell to 40%.

There has also been intermodal competition between train and cars and shuttle services. The route of parahyangan train connecting Jakarta – Bandung was forced to be closed by PT KAI in 2010 as a result of a very sharp decline in the number of passengers since the opening of Cipularang toll road connecting Jakarta – Bandung. The opening of the toll road has shortened the travel time which is previously 4 hours by train and now 2 hours by car. The emergence of shuttle services Jakarta – Bandung through Cipularang toll road operated on an hourly basis also provides a wider range of travel time options for consumers, if compared to train which is only available at particular times.

However, on the other hand, the fierce competition between train and other modes of transports has driven the creation of the following innovations by PT KAI:

a. Ticket Pricing by Day

The strategy related to this price came into effect in April 2004. Unlike the previous years in which the ticket prices were equalized for each day and was only changed when approaching holidays, such as *lebaran*, christmas and new year, since April 2004 the ticket prices have been varied based on particular times, such as during peak season or low season. For peak season (Friday - Sunday) the ticket price will be set higher than the price in low season (Monday - Thursday).

b. Zoning System

Based on zoning system, the passengers pay the ticket price in accordance with their destination. All this time, the passengers still have to pay for the furthest distance in the route, although they get off in a station which is in the middle of the route. With this new system, passengers can make payments in accordance with the price for reaching their destination station.

c. Internet Ticketing

It is one of the breakthroughs in the provision of services. KAI provides information on ticket prices, schedule of departures, reservations and other information useful to potential passengers.

d. Delivery Service Facility.

PT KAI is planning to provide services in the form of ticket delivery service to the customer's house, similar to what has been implemented by several airlines.

e. Short Route

PT KAI has noted that the number of passengers for its short route is not significantly affected by the competition with airlines. Moreover, the number of passengers is likely to increase over time. Therefore, PT KAI continues to add and develop more short routes for executive/business class trains in cooperation with other parties, including regional governments.

f. Improvement of Services

It is conducted by increasing the reliability of online ticketing network system, in cooperation with banks for expanding ticketing service network through banking ATM. With regard to facilities, the fulfillment of minimum service standards is sought in all classes of Train: economy, business and executive.

g. Targeting a new market niche

It focuses on a market niche which was not identified previously. The Director of PT KAI currently starts to target the opportunities in cargo, tourist trains and coal transport which have great potential.

Particularly for intramodal, there has been no significant competition, considering that there is only one train operator for each line.

## 7. Future Railway Industry in Indonesia

In the future, there will be significant changes in the railway industry in Indonesia. The major change is made by the establishment of PT Mass Rapid Transit Jakarta (PT MRT Jakarta), which is a business entity owned by the Regional Government of the Special Capital City Region of Jakarta. The establishment of PT MRT Jakarta is inseparable from the new rules embodied by Law No. 23 Year 2007, which gives opportunities to the Regional Government to invest in the field of railway. The establishment of PT MRT Jakarta aims at unraveling the traffic jam in the Capital City of Jakarta, where if it is not conducted immediately, it is predicted that Jakarta would be totally stuck in traffic jams in 2020.

This project is financed by loans from the Government of Japan as well as the budget of the Central Government and the Regional Government of the Special Capital City Region of Jakarta. To this date, mass rapid transit Jakarta has not been constructed and operated. It is expected that the construction of its facilities and infrastructure may commence in the middle of this 2013. The operator of MRT Jakarta will be PT MRT Jakarta. However, for the development and construction, PT MRT Jakarta conducts various tenders to designate business entities to be involved. The tender includes various phases ranging from consulting services, infrastructure construction, purchase of MRT units up to the appointment of passenger and project insurance.

Currently, the mechanism for determining MRT ticket price is still being studied. However, in general, the Government of the Special Capital City Region of Jakarta will subsidize approximately 50% of the ticket price so that the price will be affordable to the society at large.

Fast train also becomes future concern of the government of Indonesia, considering that railway transportation facilities in Indonesia are still far behind if compared to other countries, including in terms of velocity. In China, the minimum velocity of a train is above 200 kilometers per hour. While in Indonesia, it is only about 100 kilometers per hour. Moreover, if it is compared to the trains made in Japan, where the technology is far beyond Indonesia. It is not surprising that PT KAI prefers to import used trains from Japan rather than buying trains produced by the Railway Industry (*Industri Kereta Api/INKA*).

The news about dream and discourse to present a fast train transportation system in Indonesia had once vanished after its first emergence in 2008. Apparently, the government still has an ambition to realize the dream of having such sophisticated means of transportation. The superfast train development plan is still being studied, and it is expected that it will be able to connect Jakarta - Surabaya as far as 685 km with travel time of 3 hours. The obstacle in the development of this superfast train is financing. It requires a

large amount of funds reaching Rp246 trillion. This amount of funds has diminished PT KAI's move to participate in this project.

## **8. Case Example of Business Competition in the Railway Industry in Indonesia**

There are two authorities of KPPU under Law No. 5 Year 1999, namely the case handling and the provision of advice concerning policies to the Government. With regard to case handling in 2010, KPPU had imposed a fine on PT KAI in relation to discrimination and bid-rigging.

This case started with the procurement of 20 units of train locomotives in a value of more than Rp366 Billion in relation to which PT KAI directly appointed GE Transportation as the provider of such locomotives and did not give the opportunity to other business actors. The action of direct appointment by PT KAI was deemed inconsistent with the procedures and the applicable regulations. The provisions of Article 30 paragraph (5) of Decision of the Board of Directors concerning the Guidelines on the Implementation of Goods/Services Procurement within the purview of PT KAI state that the justification for direct appointment process should not lead to a certain brand/type of goods with the intention of directly appointing a certain provider of goods/services. However, in fact PT KAI made express justification by stating Microprocessor GE Brightster product which is the product of GE Transportation.

The Commission Council punished GE Transportation to pay Rp1.5 Billion which must be paid up to the State treasury. At the same time, PT KAI was fined Rp2 Billion. In addition to the said fine, the Commission Council instructed PT KAI to create the technical specifications for railway operating system including locomotives in more detail which do not only refer to the products of GE Transportation. PT KAI must also hold an open tender for the procurement of locomotives with reference to the technical specifications for operating system as instructed.

## **9. Conclusion**

- 1) Train as a mode of transport has many advantages compared to other modes. These advantages are, among other things, safety and comfort, large carrying capacity, fuel efficiency and timeliness.
- 2) The regulatory instruments of railway in Indonesia have opened the opportunity for business competition in the operation of railway infrastructures and facilities. With the coming into effect of Law No. 23 Year 2007 concerning Railway, currently there is strict separation between the regulator and operator in this industry. Moreover, the monopoly on the administration of railway by PT Kereta Api Indonesia (State-Owned Enterprise/BUMN) has ended. Private companies and Regional Governments have had the opportunity to invest in the railway industry in Indonesia.
- 3) There are not so many changes in the existing train infrastructures and facilities as a result of the coming into effect of Law No. 23 Year 2009. The railway is still operated by PT Kereta Api Indonesia, which manages the infrastructure (railways, stations, signaling) owned by the Government. In consideration of the said cooperation, PT KAI shall pay track access charge to the Government. At the same time, for the management and maintenance by PT KAI to the train infrastructures owned by the Government, the Government pays Infrastructure Maintenance Operation (IMO) to PT KAI.
- 4) The impact of Law No. 23 Year 2009 is deemed to be more significant on the future development of railway, for example, the establishment of PT Mass Rapid Transit Jakarta which is currently in the development phase. PT MRT Jakarta is a form of investment by the Regional Government, which is made possible by Law No. 23 Year 2009.

- 5) The railway industry has experienced relatively fierce competition, particularly intermodal competition with airlines and cars/shuttle services. The impacts of such competition are the decreasing number of train passengers and the discontinuation of train operation for a certain route due to losses. On the other hand, the intermodal competition has encouraged the innovation of PT KAI to grab customers.
- 6) The stipulation of fares in the railway industry in Indonesia is divided into two main categories, namely commercial fares and non-commercial fares. Commercial fares are stipulated by the railway administrator with reference to the Guidelines stipulated by the Government. Meanwhile, non-commercial fares include economy and pioneer fares determined by the Government, and paid to the railway administrator by the Government in the form of subsidies.



## ITALY

### 1. Introduction

Italy has chosen a model of vertical legal separation between the infrastructure rail manager (RFI) and the incumbent transport service provider (Trenitalia), where both of them are under the same State-owned holding company, Ferrovie dello Stato (FS).<sup>1</sup>

Within this framework, intra-modal competition has been foreseen both in the form of competition *in* the market, with regard to freight and high-speed passenger transport, and in the form of competition *for* the market, in regional or local transport under public service obligations (PSOs).

However, with the exception of some entries in freight transport and recently in the high-speed passenger transport, the industry is still vastly unaffected by significant competition developments and the recourse to competitive tendering to allocate services under PSO's is very limited.

Among the explanatory factors of this situation are the following: *i*) the incompleteness of the current regulatory framework, *ii*) the limits of the implemented system of legal unbundling between the network operator and the incumbent services provider; *ii*) the lack of a clear identification of public service obligations.

This contribution is organized as follows: the next section illustrates the most important legal and regulatory developments concerning the liberalization of the industry; section III provides data regarding competition in rail services; section IV, which concerns the ICA's advocacy and enforcement activity in this sector, highlights some of the major obstacles to the development of competition *in* and *for* the market; the final session draws some conclusions on open issues.

### 2. The liberalisation process in the rail industry in Italy

#### 2.1 *The legal framework – some basic features*

Italy has pursued competition *for* the market for regional and local passenger services, while competition *in* the market for freight and for long- and medium-distance passenger transport. In these latter cases the model chosen is a mandated access within a vertical legal separation framework, where the infrastructure operations are assigned to Rete Ferroviaria Italiana Spa (RFI). In particular, RFI is the company responsible for the design, construction, commissioning, management and maintenance of railway infrastructure. It manages the control and safety systems connected with train operations; it contracts with railway companies, and draws up the timetables for the rail network. RFI is also in charge of managing some freight terminals and maintenance infrastructure, granting regulated access to service providers which is important for the market development.

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<sup>1</sup> See Presidential Decree n. 277/1998, which implemented European Directive 91/440/CEE.

Trenitalia is the incumbent service provider both in segments open to competition and under PSOs. In particular, Trenitalia runs the medium and long haul passenger services, metropolitan commuter and regional traffic, as well as freight traffic. RFI and Trenitalia belong to the State owned group FS.

With respect to the degree of liberalization of the different rail services, the legal framework is the following:

- Freight international services are fully liberalized since 2003.<sup>2</sup>;
- Freight domestic services are fully liberalized since 2007.<sup>3</sup>;
- Passenger international services and *cabotage* (i.e. rail services provided to passengers on national sub-routes travelling on an international journey) are open to competition since 2010.<sup>4</sup>;
- Long-distance passenger domestic services (i.e. inter-city transport) are formally open to competition in the market since 1998, except for those services that are not profitable and would hence need to be subsidised. These services (universal transport services) are entrusted to undertakings by the competent public administrations under PSOs and on the basis of Public Service Contracts (PSCs).
- Local and regional passenger domestic services, <sup>5</sup> (i.e. LPT) are awarded by Regions under PSOs, on the basis of PSCs.

According to current legislation, competent administrations may entrust local public transport services through direct awarding; the recourse to competitive tendering, though possible, is not mandatory.

Indeed, at the end of the '90 the legislator had foreseen that, since the beginning of 2004, Regions should have entrusted the said services through tendering procedures.<sup>6</sup> Subsequently, this deadline was postponed three times, to the end of 2005, 2006 and finally 2007, when the competitive tendering obligation was put into question by the enactment of Regulation 1370/2007/CE. According to the EU rules, under some circumstances, competent authorities may award public services contracts directly, provided that this is not prohibited by national law.

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<sup>2</sup> See Legislative Decree n. 188/2003 which transposed the so-called First Railway Package, consisting of Directive 2001/12/EC, [2001] OJ L75/ 1; Directive 2001/13/EC [2001] OJ L75/26 and Directive 2001/14/EC [2001] OJ L 75/29.

<sup>3</sup> See Legislative Decree n. 162/2007 which transposed the Second Railway Package, including Directive 2004/50/EC, [2004] OJ L164/114; Directive 2004/49/EC, [2004] OJ L164/44; Directive 2004/51/EC [2004] OJ L164/164 and Regulation (EC) 881/2004 of the European Parliament and Council Establishing a European Railway Agency, [2004] OJ L164/1).

<sup>4</sup> See Legislative Decree n. 15/2010 which transposed the Third Railway Package, including Directive 2007/58/EC, [2007] OJ L315/44; Directive 2007/59/EC, [2007] OJ L315/51 and Regulation (EC) 1371/2007 on rail passengers' rights and obligations, [2007] OJ L315/14).

<sup>5</sup> Among those are included domestic urban, suburban and regional services.

<sup>6</sup> See Legislative Decree 422/1997.

Therefore, in 2009, the national legislator clarified that competent authorities were not prevented from assigning the service provision through direct awards, as foreseen by Regulation 13790/2007/CE.<sup>7</sup> This made competitive tendering no longer mandatory.

In the same year, it was also established<sup>8</sup> that the duration of the PSCs should have a “minimum term” of no less than six years, renewable for other six. Meanwhile, additional public funds were made available to Regions for the renewal of current PSCs with the state owned incumbent operator Trenitalia<sup>9</sup>.

To some extent, the evolution of the rules affecting competition for the market in the regional rail services concerns also long distance services, since a large part of the latter is subject to PSOs (i.e. long distance universal service), and it is provided by Trenitalia on the basis of a Public Service Contract awarded by the Ministry of Transport and Infrastructures. It is worth pointing out that since there has not been a specific definition of the PSOs to which the service provider should abide, the contract with Trenitalia does not encompass only unprofitable long distance transport but also some services that could be offered in competition.

On the other hand, national legislation explicitly protects providers under PSCs from any competitive pressure. In 2009, in accordance with EU legislation<sup>10</sup>, the national legislator introduced the possibility of prohibiting *cabotage* whenever the public service provider’s financial equilibrium would be compromised by other operators’ activity<sup>11</sup>.

## 2.2 *The regulatory powers and competences*

According to the current regulatory framework, the Ministry of Infrastructure and Transportation is in charge of transport policy and regulation. Specifically, it is responsible of the issuance of railway licenses, the rolling stocks validation, the approval of access charges and tariffs<sup>12</sup>, the surveillance over RFI as regards compliance with principles of transparency, equity and non-discrimination in access conditions<sup>13</sup>.

The Ministry is also responsible for the identification of PSOs and the definition of PSCs with clear binding obligations for the service providers. However to date the criteria for identifying PSOs are still not noticeably set up and contracts are mostly incomplete.

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<sup>7</sup> Cfr Law n. 99/2009.

<sup>8</sup> Law n. 33/2009.

<sup>9</sup> Law n. 2/2009.

<sup>10</sup> Cfr. Directive 2007/58/CE

<sup>11</sup> Cfr. Art 59, Law n. 99/2009. Specifically: “*the development of passenger rail services within the national boundaries [...] may be restricted in the right to pick up passengers at stations located along the service route, where the exercise of this right would compromise the economic equilibrium of a public service contract in terms of profitability for all services covered by such agreement*”.

<sup>12</sup> According to art 17, Legislative Decree n. 188/2003, access charges are determined on the basis of a report by the infrastructure manager (RFI) and subject to the opinion of Comitato Interministeriale della Programmazione Economica.

<sup>13</sup> As regards the rail system safety standards, Legislative Decree n. 162/2007 established a National Agency for Rail Safety, which was entrusted with the powers to set the safety conditions for accessing rail infrastructure, to monitor the application of the safety rules, to authorize systems, subsystems and components, to issue safety certificates to rail operators and to grant safety authorizations for infrastructure managers.



On the other hand, RFI is required to make available an yearly updated, detailed description of the rail network which must take into account the Ministry's indications and prescriptions, if any.<sup>14</sup> This document must contain information concerning, among others, the following aspects: technical characteristics of the network and the access conditions to it; criteria, procedures and mechanisms to calculate access charges.<sup>15</sup>; criteria, timing and procedures for the allocation of network capacity.

In this framework, RFI maintains a certain degree of control and makes operational decisions over the allocation of capacity and over access conditions. So far, the extent of this control has not appeared to be significantly bounded by the Ministry's regulatory activity.

However, an important contribution to the completion of the regulatory system and to the improvement of competition in the sector is expected to come from the entry into force of the national independent regulatory authority for the transport sector.<sup>16</sup>

The new authority will be entrusted with the following tasks:

- regulation of the rail infrastructure access conditions (i.e. definition of the criteria to set access charges and tariffs and to allocate capacity and routes; vigilance on the implementation of fair and non-discriminatory access conditions to the rail infrastructure);
- definition, in accordance with the Ministry and the Regions, of the scope and obligations of PSO's on each route and their financial coverage's (on the basis of efficiency criteria);
- design of service contracts, i.e. bidding requirements in tendering procedures or direct allocation and definition of the criteria to appoint the selection commissions;
- as for monitoring of procedures awarding the local and regional rail services, to ensure they include non-discriminatory access conditions to potential competitors (i.e. to avoid grandfather rules).

In addition, the new authority will have the power to carry out investigations, audits and impose sanctions. It is entitled to address opinions to competent administrations on withdrawal of licences and services contracts. To safeguard competition and consumers interests, the Authority is entitled to take interim measures.

### **3. Some figures on markets developments**

At 2010 figures, the outcome of the liberalization process can be summarized as follows: 65 licenses were issued to railway undertakings (28 for passenger transport and 37 for freight). 36 operators were issued a certificate attesting compliance with safety rules and 27 are actually operating.

In this context, FS is still the dominant player in the Italian railway sector. RFI manages the national rail network in a monopoly position while Trenitalia is the main national railway company holding a position of substantial monopoly in each of the different passenger rail transport services.

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<sup>14</sup> Cfr. art 13, Legislative Decree n. 188/2003.

<sup>15</sup> Charges should be set according to non-discriminatory principles and should be cost oriented.

<sup>16</sup> This Authority was established by article. 36 of Law 27/2012, modifying art. 37 of Law 201/2011.

The market share of new entrants in freight is roughly 15%. To date, the main operators in the freight market are RTC (Rail Traction Company), SBB Cargo Italia, Railion Italia, SNCF Fret Italia, Nord Cargo and Hupac.

For long- and medium-haul passenger traffic, the share of new entrants is negligible, despite the fact that it was possible to operate domestic passenger services in competition with Trenitalia since 2001. Among new entrants in this market, there is a joint venture between OeBB/DB/LeNord, which provides since 2009 some international passenger services between Germany/Austria. Arenaways, which attempted to operate some interregional lines in Northern Italy and in Tuscany, went bankrupt in 2011.

A more promising example of successful liberalisation is given by the entry into the high-speed train segment of the newcomer Nuovo Trasporti Viaggiatori (NTV).<sup>17</sup> At the beginning of 2012, NTV started operating a TGV trains on the Milan-Florence-Rome-Naples route, in competition with Trenitalia. Currently, NTV's train fleet is roughly 10% of Trenitalia's one on that route. To date, there seems to be little price competition between the new entrant and the incumbent.<sup>18</sup>

NTV has started operating on a second route, from Venice-Padua-Bologna-Florence-Rome to Naples, at the end of 2012.

#### **4. The Italian Competition Authority's interventions**

##### **4.1 Entry barriers related to vertical integration**

###### *Advocacy*

The ICA has advocated the potential conflicts of interest inherent in the legal separation solution. According to the ICA, the fact that RFI and Trenitalia are under the same State-owned holding company and that some of the regulatory functions continue to be vested in RFI, may distort competition (both competition "in the market" and "for the market") and curb its development.<sup>19</sup> In fact, in this setting, RFI's has less incentive to allow a non-discriminatory access to the network to all competitors.

Moreover, the ICA has made use of its advocacy power to highlight the potential distortion of competition stemming from the fact that other facilities, such as freight terminals and maintenance infrastructures, are owned directly and/or managed by Trenitalia. Again, it has been argued that while a non-discriminatory access to these infrastructures and to the services there provided is a strategic element for the development of competition, vertical integration may prevent such conditions from occurring.

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<sup>17</sup> 20% of NTV shares are held by SNCF.

<sup>18</sup> According to publicly available data, the basic NTV's fare for a Milano-Roma ticket is 88 euro as compared to 91 euro charged by Trenitalia; while on the shortest route Roma-Firenze the difference is negligible (45 euro Trenitalia and 46 NTV).

Trenitalia's flexible standard tickets from Rome to Milan are in the range of \$107-\$200, whereas flexible standard tickets from Rome to Milan on Italo range from \$110 to \$163.

<sup>19</sup> See ICA (1998) Advocacy Report AS140 on the implementation of Directive 91/440/EC; ICA (2003) Advocacy Report AS 265 on Separation of the management of railway infrastructure and transport services; ICA (2008) Advocacy Report AS453 "Considerations and proposals for a pro-competitive market regulation supporting economic growth".

### Enforcement

Over the years, in the context of its enforcement activity, the ICA has dealt with a number of practices (often taking the form of raising rivals' costs strategies) allegedly carried out by FS, through RFI and Trenitalia, aimed at foreclosing new competitors' entry into the liberalised markets of freight or passenger transport services.

In 2008, the ICA investigated an alleged abuse of dominance by RFI, concerning the economic conditions of access to the rail infrastructure applied to freight service operators.<sup>20</sup> In particular, RFI was alleged to unduly deny the application of a discount on access charges which, under some circumstances, undertakings would have been entitled to.<sup>21</sup> The conduct was likely to put such operators at a competitive disadvantage in the freight market. To address such competition concerns, FS committed to pay a lump sum to every interested rail operator.<sup>22</sup>

In 2009, the ICA carried out an investigation on an RFI's alleged abuse of dominance in the national market for access to maintenance facilities for high-speed railway passenger transport services. In particular, RFI was alleged to put in place a constructive refusal to grant access to maintenance areas and station facilities, in order to foreclose a newcomer, NTV, in the high speed segment. During the proceeding, RFI committed to provide a timely and cost-effective access to the maintenance facility in use by Trenitalia to all interested rail operators. RFI further offered access on fair and non-discriminatory conditions to another appropriate area, were to construct a new maintenance centre.

In 2012, the ICA ascertained an exclusionary abuse of dominant position by the FS group over the years 2008-2011, in the market for domestic passenger transport services.<sup>23</sup> In particular, it was ascertained that FS, through its subsidiaries RFI and Trenitalia, had put in place a complex and unified strategy to keep the first competitor on the passenger market at a regional level, Arenaways, out of a profitable route (the Milan – Turin route). In practice, for over 18 months, RFI, had not processed Arenaways' request for tracks allocation. After this period, RFI had further requested to the Regulator.<sup>24</sup> to assess the economic and financial impact of Arenaways's activity on Trenitalia's services performed on the said route under PSOs. To this end, Trenitalia had provided the Regulator a misleading representation of facts liable to deceive it; the nature of this representation was such to lead the Regulator to take a decision in favour of the incumbent service operator. That is, to deny the competitor's request of *cabotage* between Milan and Turin on the ground that it would have compromised Trenitalia's economic equilibrium in the provision of public services.

The ICA findings showed that the overall strategy was aimed at limiting competition in the liberalised domestic passenger transport services. This conclusion was also based on evidence showing that Trenitalia

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<sup>20</sup> See ICA case A389 “Rail Traction Company/Rete Ferroviaria Italiana-Ferrovie dello Stato” in [www.agcm.it](http://www.agcm.it)

<sup>21</sup> Ministry Decree n. 44/T/2000 had introduced such discount as a provisional measure to compensate rail operators for the supplementary costs they had to incur due to the obsolete technological conditions of the network. The discount had to be granted by RFI, through public funding and upon transparent and non-discriminatory terms.

<sup>22</sup> or to supply/reimburse engineering services.

<sup>23</sup> See ICA case A436 – “Arenaways-Ostacoli all'accesso nel mercato dei servizi di trasporto ferroviario passeggeri” in [www.agcm.it](http://www.agcm.it)

<sup>24</sup> Specifically the Railway Service Regulatory Office (Ufficio per la Regolazione dei Servizi Ferroviari) within the Ministry of Transport and Infrastructures.

had increased and modified routes and frequency of its commercial and PSO's trains, in order for them to overlap to a significant extent with the services that the new entrant was likely to offer.

Finally, on 22 May 2013, the ICA has launched a new investigation concerning an alleged abuse of dominance by FS in the high speed transport market. The proceeding has been initiated following a complain lodged by NTV concerning an alleged margin squeeze as well as unjustified obstacles to access Trenitalia's stations. The completion of the investigation is due by July 2014.

#### **4.2 *Competition distortions due unclear and mis-defined service obligations***

As advocated by the ICA<sup>25</sup>, the absence of a clear definition of PSOs may result in distortions of competition in and for the market.

First, the unclear distinction between market services and PSOs unduly reduce the scope for competition in profitable market segments. In turn, this substantially jeopardize liberalisation and contribute to leave the railway markets structure basically unchanged.

In the ICA's view, competition in the market between the public service provider and other undertakings is often possible.<sup>26</sup> Should competition be proved to have a prejudicial impact on the possibility to meet public service requirements by the public service provider, other market players could be required to contribute to the provision of public services, under pre-determined compensation schemes.

Second, if criteria for identifying market services and PSOs are not clearly established, there is a serious risk of cross-subsidisation between market services and PSOs. This is especially true when substantial transfers are received by the incumbent operator without a binding purpose, particularly under incompleteness of service contracts and lack of effective contract enforcement.

Moreover, the absence of a clear identification of PSOs is likely to limit the success of public tenders for the provision of such services under PSCs: it is widely recognized that an adequate specification of service contracts in terms of services to be provided as well as compensation schemes is a prerequisite for a wider participation in tendering procedures.

#### **4.3 *Other obstacles to participation in tendering procedures for the assignment of public services***

Public services assignment through direct award is still the most frequent choice by the competent administrations in order to ensure the provision of regional transport under PSOs. With the exception of few northern Regions<sup>27</sup>, very often extensions of contracts or concessions have been granted to the incumbent Trenitalia, mostly alone but sometimes also within temporary grouping of companies.

It is interesting to notice that in the few occasions in which Regions opted for tendering procedures to assign services, obstacles to the participation of undertakings (other than Trenitalia) arose due to difficulties to have access to Trenitalia's technical information, rolling stocks, deposits and maintenance facilities.

<sup>25</sup> See ICA (2009), Advocacy Report AS528 – Charges for public service obligations in the rail industry; ICA (2010) Advocacy Report on “Proposals of reforms for the annual law on competition”.

<sup>26</sup> See ICA (2012) Advocacy Report AS901 “Proposal of reforms for the annual law on competition”.

<sup>27</sup> Lombardia, Emilia Romagna and Veneto.

In 2003, the ICA was required by the Lombardia Region to provide its opinion on Trenitalia's refusal to sell or rent its regional rolling stock to the possible winner of the competitive procedure. In general terms, the ICA considered that rolling stocks do not strictly present the features of an essential facility, since they are duplicable, although this may be lengthy and risky, considering also the weakness (not to say absence) of secondary markets for rolling stocks.

Nevertheless, the availability of rolling stocks can indeed constitute a barrier to entry if it is a requirement for participation in tender procedures, especially for smaller competitors.<sup>28</sup>

Therefore the ICA suggested that tendering should foresee a suitable period (24-30 months between the allocation of the service and the operations' starting period) for the assigned railway undertakings to be able to get hold of the required rolling stocks (for example by leasing the rolling stock available, acquiring it or subletting it).

This solution is likely to prevent opportunistic conducts by the owner of the rolling stock (that may have higher incentives to provide low quality rolling stock if forced to do it) and to discourage inefficient entries.

A similar issue was posed in 2010 by the Piemonte Region which asked the ICA whether Trenitalia was under any obligation to provide information concerning the commercial characteristics of the services to be assigned through tendering, as well as data on labour costs (current employment and salaries). The ICA observed that this information should be available to undertakings interested in participating in the tendering procedures in order to avoid any informational asymmetry between the incumbent and its competitors.<sup>29</sup>

## 5. Open issues

In light of the facts described above, the following main issues may be identified.

- **Ownership model and regulatory institutional framework.** Italy has opted for a legal separation rather than an ownership separation. The organizational structure of the incumbent, together with RFI still vested with some regulatory functions, allows the vertically integrated group to exert *de facto* a considerable degree of control over access to infrastructures. According to the ICA's investigations, this context may favour anti-competitive conducts by the infrastructure manager RFI and the transport services operator Trenitalia.

A prompt entering into operation of an independent regulatory body, entrusted with an adequate, wide-ranging set of powers and competencies is necessary to overcome ambiguities and gaps of the present regulatory framework.

Moreover, an appropriate regulation of access to service facilities, such as stations or maintenance facilities, should also alleviate problems due to the ownership of such *grey infrastructures* by the service provider, which may use them to raise barriers to competition.

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<sup>28</sup> See ICA (2003) Advocacy report AS262 "Availability of the rolling stock required in tenders for the provision of regional train services".

<sup>29</sup> See ICA (2010) Advocacy Report AS658 "Piemonte Region's tendering procedures to award regional rail services".

- **PSO's and profitable markets.** The lack of a precise identification of PSOs and incompleteness in PSC obligations may distort incentives for greater efficiency and for an adequate level of investment, leaving room for conducts aimed at preserving dominance in non-regulated markets segments, especially when significant subsidies are granted to the service provider.
- **Allocation methodologies.** The recourse to tendering procedures has been hampered by an unfavourable evolution of the legislation, which has contributed to grant a quasi-monopolistic position to the incumbent.

However, within the limits set by the European legislation and national laws, it is important to re-affirm that, depending on market situations, competent authorities have different possibilities to organize the provision of PSO's services, including competitive tendering, subject to a clear definition of public service obligations and PSCs.

This definition is a prerequisite for a wider participation in tendering procedures.

In this respect, the empowerment of the new regulatory body with competencies on allocation procedures and on the contract award terms and conditions may contribute to improve the degree of competition for the market.



## KOREA

### 1. Structure and Ownership

#### 1.1 Changes in the structure of railway system in Korea

##### 1.1.1 Conventional inter-city rail service

###### *Vertical Structure*

In Korea, prior to 2004, the Korean National Railroad under the Ministry of Construction & Transportation used to manage almost entire business of the railroad industry including facility maintenance and service operation. In 2004-2005, however, the government established two new state-owned corporations – the Korea Rail Network Authority (KR) and the Korea Railroad (Korail) – which replaced the Korean National Railroad to enhance industrial management efficiency.<sup>1</sup> The KR was assigned to deal with railroad facility management and the Korail to operate railway services including passenger and freight transportation services, train maintenance and other operational management. Since this restructuring in 2005, Korea's railroad industry has remained in a vertically separated shape.

###### *Horizontal Structure*

The country's arterial railroad facilities have been exclusively managed by the KR while their operation services have been solely provided by the Korail. Third party participation in the industry has been restricted. For instance, private enterprise engagement is allowed only for new rails or the rails the Korail decided to opt out. The railroad sector of the country, after the simple re-shaping from vertical integration to vertical separation in 2005, has seen no big difference in its monopolistic nature.

##### 1.1.2 Urban Railroad Service

###### *Vertical Structure*

Korea has urban railroad systems in several metropolitan cities including Seoul Metropolis, Busan Metropolitan City and Daegu Metropolitan City. These urban railway facilities and services are managed by local state-owned enterprises each. And unlike the conventional inter-city railway system, most of them are vertically integrated in facility and service provision. As for the recently-established Seoul Metro Line no. 9, Shinbundang Line and Busan-Gimhae Light Rail, whose construction and operation were funded privately, facility maintenance and service operation are separated vertically and managed by two different corporations each.

Such vertical separation is found in some newly-established urban railroad systems. However, vertical separation has not been discussed over any of the existing urban railroad systems.

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<sup>1</sup> The Korea Rail Network Authority was established on January 7, 2004 and the Korea Railroad on January 1, 2005.



### *Horizontal Structure*

In most of the regions in Korea, one state-owned corporation in each region has solely operated urban railroads and such a monopolistic structure has continued even after 2004.

Yet, Seoul has a couple of local corporations operating rails. The Seoul Metro operates line numbers 1 through 4 and the Seoul Metropolitan Rapid Transit operates line numbers 5 through 8.<sup>2</sup> In addition, as the city launches the line no. 9 in 2009, it allowed the privately-funded Seoul Metro Line 9 to provide the service.

Seongnam City near Seoul let a new company run a new line called Shinbundang Line, introduced in addition to the existing Bundang Line that shuttles between Seoul and Seongnam, and changed a perfect monopoly to a duopoly.<sup>3</sup>

## **1.2 Privatization of railway systems**

### *1.2.1 Conventional inter-city rail service*

A private enterprise was invited to operate the high-speed railway line departing from Suseo,<sup>4</sup> which was under construction by the Ministry of Land, Infrastructure and Transport as of 2012, sparking talks on partial privatization of the country's railway operation. However, this provoked disputes over possibilities of large firm-preferring treatments and public interest infringement in railways. Responding to this, the Ministry established a corporation funded by but independent from Korail, to inject competition among public firms in the national arterial railway segment.<sup>5</sup> The Ministry also plans to basically allow private participation in new lines such as Seongnam-Yeosu, and Busan-Ulsan lines while adopting the minimum subsidy bidding scheme for existing lines suffering losses or public service obligation (PSO) lines, etc. to open the doors to the private sectors.

No privatization talks have been made regarding the KR's railroad facilities such as tracks, or stations and Korail's ownership structure.

### *1.2.2 Urban Railroad Services*

There have been no talks or plans to privatize the existing urban railroad corporations. But private sector participation has grown<sup>6</sup> from facility investment to service operation in lines such as Seoul metro

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<sup>2</sup> Seoul's subway line no. 5 began construction in June 1990, opening the second chapter of the city's subway life. Along with this, who should operate the line became an issue. The city surveyed many, organized hearings and requested the Seoul National University's Business Research Institute to study on this issue. As a result, the city decided to set up a public corporation separately from Seoul Metro. In March 1994, the Seoul Metropolitan Rapid Transit Corporation was founded against this backdrop.

<sup>3</sup> The Bundang Line is run by KORAIL and the Shinbundang Line by private-enterprise consortium, Neo Trans Co., Ltd.

<sup>4</sup> There is the Gyeongbu Line linking Suseo to Busan and the Honam Line leading to Mokpo. The section that is completely new in this construction is the Suseo-Pyeongtaek line and sections south to it will share the existing high-speed rails run by Korail.

<sup>5</sup> Refer to VI. 2. For more details.

<sup>6</sup> Refer to III. 3 for specific ways of private-sector participation in the rail industry.

Line 9<sup>7</sup>, Shinbundang Line<sup>8</sup>, Busan-Gimhae Light Rail<sup>9</sup>, and Yongin Everline<sup>10</sup>. Such a private engagement may not be complete privatization in a strict sense but could be viewed similarly to some extent as it introduced competition to the railway sector.

On the contrary, there is a case where privately-run rails transferred to the public sector. The airport railroad connecting between the Seoul Station and Incheon International Airport was initially operated by a private consortium comprising big construction companies. In 2009, it became publicly owned as KORAIL (Korail Airport Railroad Co., Ltd.) took it over. This public sector intervention took place because the actual demand for the airport railroad service was less than 10% of the previously expected level, thus increasing the burden of government subsidy (KRW 14 trillion estimated for 30 years).

Korea, to stimulate private investment in national infrastructures, introduced the Minimum Revenue Guarantee (MRG) scheme where the government promises to give financial support if actual operational profit is less than a previously expected level so that participating enterprises are guaranteed to get the minimum pre-determined profit. And as the airport railroad was constructed based on excessive demand overestimation in the first place, the government's subsidy amount grew huge.<sup>11</sup> It does not change, of course, that the government should still make up for operational deficits for any public corporation as well. Nevertheless, the government's financial burden would be eased if public corporations are involved instead of private firms because it may not have to strictly abide by the minimum revenue if it was set excessively high in the first place.

### 1.3 *Changes in Regulations on Railway Sector*

Korea has strictly regulated the railroad sector through diverse sets of laws and regulations including the Railroad Enterprise Act, Framework Act on Railroad Industry Development and Urban Railroad Act. Arterial rail service rates are strictly controlled under designated ceilings while discounts are set without restraint. Track access charges are determined by contracts with railroad facility managing organizations but only within the limit of government-prescribed guidelines. The country strictly controls events directly affecting rail service users such as market entrance. The Ministry requires license of the Minister for Land, Infrastructure and Transport for market entrance or business transfer and obligates firms to commence transportation on dates designated by the government and to maintain business unless there is some special reasons or permission issued in advance. If these obligations are infringed, operators can face fines, license cancellation, etc.

Changes in the regulatory structure of the railway industry have been minor. So railway regulations have remained almost as they were in terms of structural frame or heaviness.

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<sup>7</sup> Facility management: Seoul Metro Line 9 Co., Ltd. consisted of 7 private enterprises including Hyundai Rotem, POSCO ICT, etc. *Service operation*: Seoul Line 9 Operation Co., Ltd. established by these companies

<sup>8</sup> *Facility management*: DX Line Co., Ltd. – a consortium of 7 private enterprises including Doosan and Daelim *Service operation*: Neo Trans Co., Ltd. set up by the consortium

<sup>9</sup> *Facility management*: BGL Co., Ltd. – a consortium of 6 private enterprises including POSCO and Hyundai *Service operation*: B&G Metro set up by the consortium

<sup>10</sup> Yongin Rapid Transit Corporation set up by Bombardier Transportation of the UK, Hjing Heavy Industries & Construction, and Iljin Electronic

<sup>11</sup> The Minimum Revenue Guarantee was abolished in 2009 for a reason that the government's loss compensation escalated excessively.

As such, the country's rail sector has been under firm control in virtually almost every aspect including market entry/exit, and pricing, in a way that reinforced its monopolistic structure. And there is only little room for competition authority' to intervene.<sup>12</sup> If intra-public sector competition or public-private competition is realized in the railroad as designed by the Ministry, the competition authority would be given more room to intervene in affairs such as unfair joint transportation, and dominant player's market-restrictive attempts.

## **1.4 Form of Competition**

### **1.4.1 Conventional Inter-City Rail Service**

Since Korail is the only provider of conventional inter-city rail services, no intra-modal competition has existed in the country so far. Whether it is freight transportation or passenger transportation, the conventional rail system engages only in inter-modal competition with air, marine, overland and other types of transportation modes.

### **1.4.2 Urban Railroad Service**

As one enterprise monopolizes the operation of inter-city rail services in Korea's most regions, intra-modal competition does not exist and inter-modal competition only has been in place. In the case of Seoul city, more than one company have provided rail services, leaving some space for intra-modal competition. However, these companies hardly compete with each other directly, since their tracks do not overlap. It is because passengers choose lines not by considering which company operates it but by considering their point of departure and destination. Thus, city rail operators compete with other types of transportation service providers in the same region such as bus or tax instead of other city railway operators.

But as for the Shinbundang Line, part of its line is overlapped with the Bundang Line so the two are directly competing with in that section. Far more passengers are using the Shinbundang Line because of its faster service to Seoul than the Bundang Line, though its rate is higher.

## **2. Competition for the Provision of Freight Services**

### **2.1 Introduction and Form of Competition**

Korail has been the only freight transportation service provider in the country and such a monopoly has not changed since 2004. Discussions to bring in competition have been made only over high-speed trains among the passenger trains while none has been going on over freight trains. Korea, in this sense, not only competition "in-the-market" is absent, but also competition "for-the-market" as well in its freight train service segment.

### **2.2 Share of Rail Freight Services<sup>13</sup>**

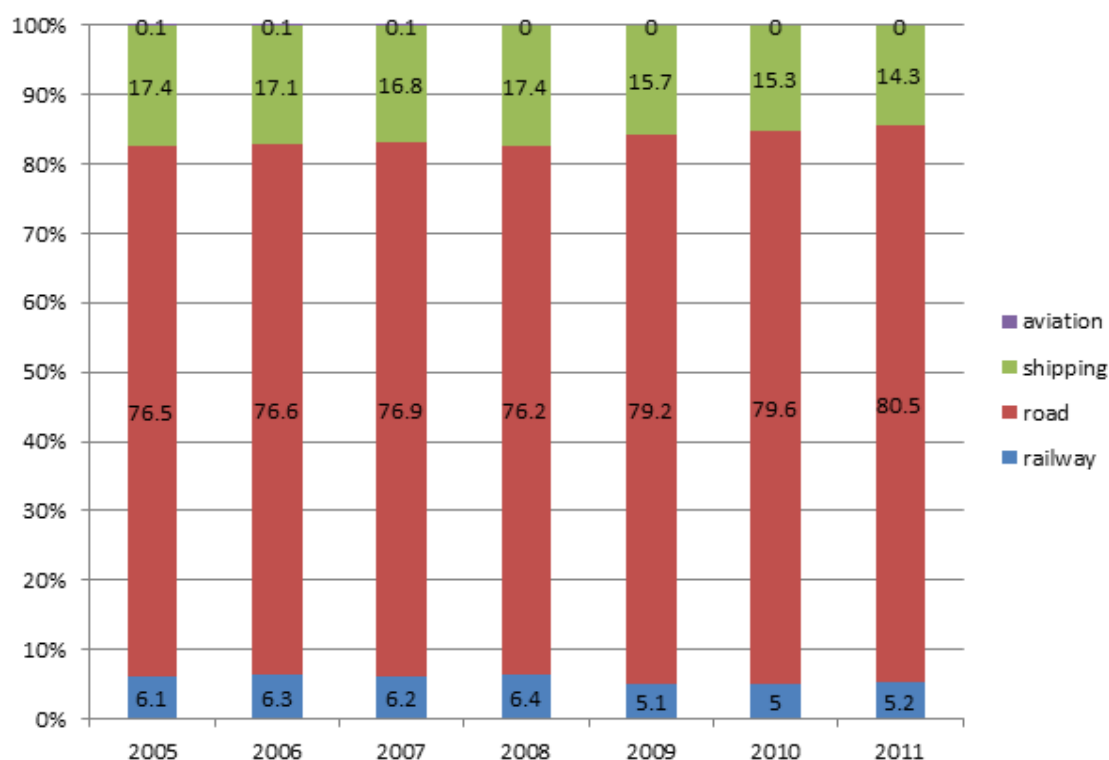
During the stage of economic growth, Korea mostly relied on rails for freight transportation. But as road traffic started to develop from the 1980s, rail traffic dropped to 17% in 1990, and further to 6.1% in 2005. Thereafter, rails have barely maintained about 5~6% transportation volume of the whole.

<sup>12</sup> Article 58 of the Monopoly Regulation and Fair Trade Act of Korea regulates to exclude from its application any behavior of enterprisers in line with other laws.

<sup>13</sup> For its geographic features of a peninsula, Korea cannot use rails for international freight transportation. Thus, only domestic traffic was considered herein. The same applies to passenger transportation as well.

Major items transported by train are coal, oil, steel, etc. and all of which are increasingly carried by other means of transportation. Possible reasons are the lack of railroad capacity and poor connection with other transportation modes, etc. These could be part of the result of monopoly-led inefficiency where a monopolistic freight operator fails to give proactive response against such problems.

Nevertheless, rails still manage to account for 5~6% of whole traffic because of its lower service fees regulated by the government and large-scale transportation capacity and punctuality.



### 3. Competition for the Provision of Passenger Services

#### 3.1 Introduction and form of competition

##### 3.1.1 Conventional inter-city rail service

As it was discussed before, the country's conventional rail has been without competition. But some intra-public sector competition is expected in the main national rail segment as a corporation sponsored by but independent from Korail will be established for a new high-speed rail service departing from Suseo which will open in 2015. Competition is expected to gradually increase too, in not just newly-launched lines but some existing ones running a deficit as well as public service obligation (PSO) lines.

##### 3.1.2 Urban Railroad Service

###### *Competition in-the-market*

Seoul city has already seen competition between two public corporations in its railroad operation. In addition to this, a new market entrance was made in 2009 when the line no. 9 was launched. However, it is not that multiple companies are competing for the same line in the city. Competition 'in-the-market', in

this sense, is hardly anticipated. And increased number of market players does not necessarily indicate competition elevation.

In case of the Shinbundang Line, as its track partially overlaps with the Bundang Line, there is some space for market competition. However, diverse laws have controlled any rate change, price competition is impossible and only service quality competition can go on in reality.

*Competition for-the-market*

Competition for market entry or, in other words, competition ‘for-the-market’ does not seem much lively. As for the line no. 9, only 2 consortiums competed to win its operation and one of the mere two was selected. And only single enterprise bid in for the Shinbundang Line operation.

**3.2 Market Share of Urban Railroad Service**

The Seoul Metro and Seoul Metropolitan Rapid Transit Corp (SMRT) have maintained similar market shares to each other. Such a structure has remained without a big change even after the market entrance of the Seoul Metro Line 9 Corporation (Metro9). This may be because not enough time has passed since its entrance or, unlike the two existing firms that operate 4 lines each, the Seoul Metro Line 9 runs only one single line, thus its absolute size may be already too small to have some remarkable impact on the market share structure.



Moreover, the number of passengers using Seoul Metro and SMRT services has gone up, instead of going down. This indicates that Metro9 did not compete with the existing two for customers. Rather, it attracted new passengers who previously had used other modes than subway because the line had not existed. Therefore, such a market share change can be viewed as a result of new demand creation rather than boosted competition by a new market entrant.

(unit: mil. people)

|                    | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------|------|------|------|------|------|------|------|
| <b>Seoul Metro</b> | 1437 | 1431 | 1432 | 1447 | 1451 | 1475 | 1510 |
| <b>SMRT</b>        | 842  | 838  | 835  | 846  | 842  | 874  | 899  |
| <b>Metro9</b>      | -    | -    | -    | -    | -    | 97   | 110  |

Since the part of the Shinbundang Line in direct competition with the Bundang Line was open in 2012, more data has yet to be accumulated for proper market share identification and competition trend analysis.

### 3.2.3 *Selecting Providers of Passenger Services*<sup>14</sup>

Korea has employed the Build-transfer-Operate (BTO) scheme<sup>15</sup> to invite the private sector in the city rails. The private sector is encouraged to take initiative in their rail engagement in the country. Private companies, rather than the government, are first to present business plans and the government reviews their business feasibility to open public competitions and select competent enterprise for any feasible project. As the Minimum Revenue Guarantee system was shut down in 2009, private firms had to rely on their own businesses to pay for the whole expenses. Accordingly, private sector engagement is limited to some profitable parts of the railway.

Private firms tend to form a consortium to join the rail business because they should, if chosen as a new service provider, bear every cost for labor and track construction and operation. Such a heavy financial burden works as a kind of entry barrier, leaving, in the end, usually only one company that initiated the corresponding business proposal to bid in while shaking the others off.

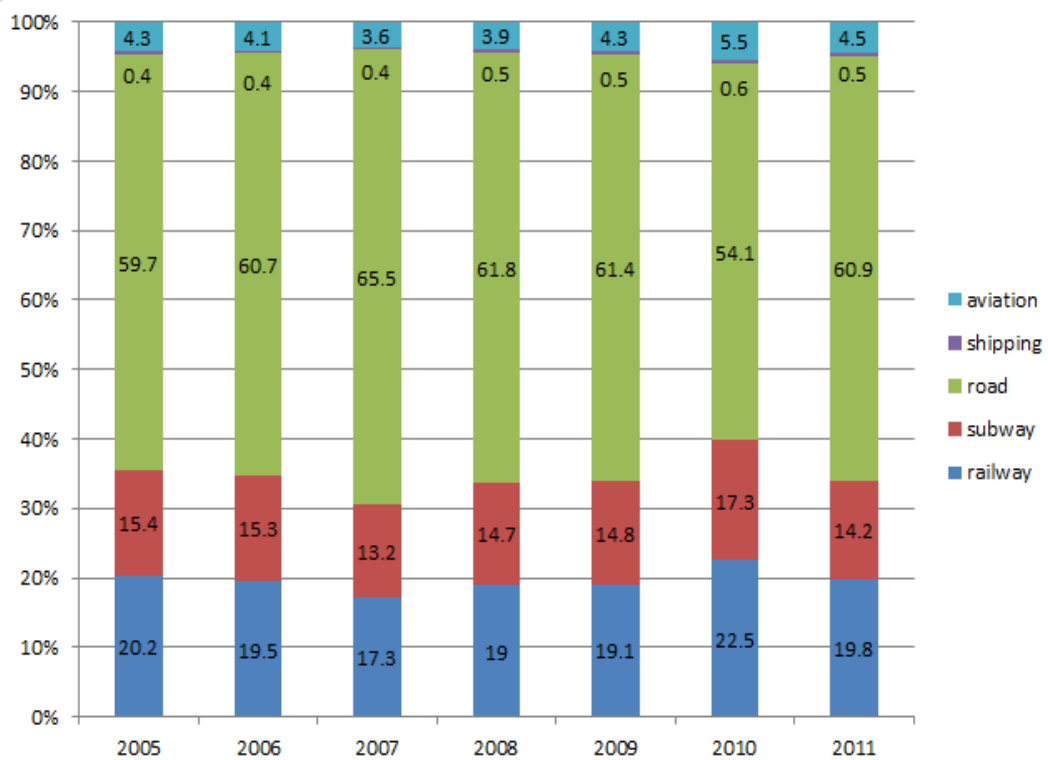
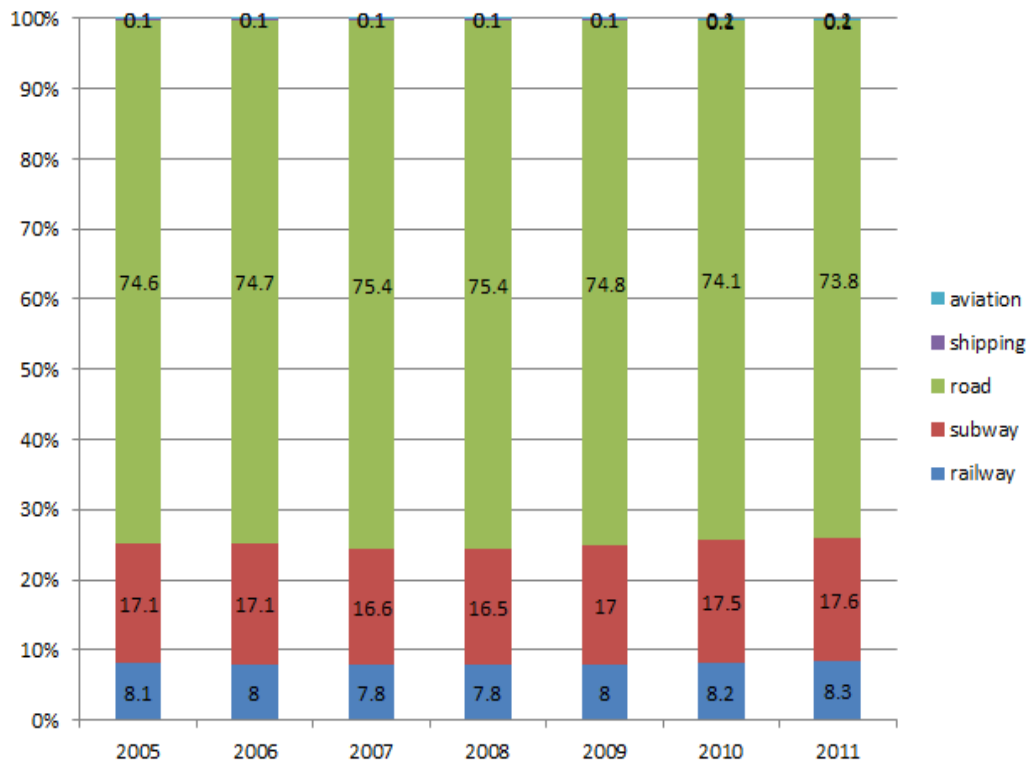
### 3.2.4 *Modal Share Rate*

The country's passenger rails have accounted for a constant share of national traffic since 2004. Prior to 2004, the share also had not changed much excluding a small drop in terms of persons x kilometers during the mid-1990s when the road industry grew rapidly and national automobile penetration surged. In terms of persons, the 2004 launching of high-speed railway increased the passenger-rail transportation share to some extent.

Unlike other transportation modes, railroad, despite its risk of inefficient operation in the absence of competition, has enjoyed such constant demand probably because, first, its rates are controlled by the government at a lower level; and second, rails are free of traffic congestion and arrive on schedule all the time. High-speed rail services, in particular, have largely contributed to attracting long-distance travelers.

<sup>14</sup> Discussion herein is limited to the city rail services since Korea has no record of private enterprise participation in the conventional rail segment.

<sup>15</sup> The Build-Transfer-Operate (BTO) is one of the private investment projects listed in the Act on Public-Private Partnerships in Infrastructure. In the scheme, the ownership of a social infrastructure, upon its construction completion (Building), is transferred to the country or local government (Transfer) and its involved operator is granted with facility operation authority (Operation) for a certain period of time. The BTO was first introduced in Korea in 1999 in efforts to ease the financial burden of the government and local authorities for social infrastructure construction while cultivating creative and efficient facility operation by the private sector. The scheme is practiced in transportation segments profitable enough to cover investment such as road, railroad, ports, etc. It can be led either publicly or privately.



#### 4. Access Charges

Whether it is for freight or passenger, conventional rail operators have to pay to the Korea Rail Network Authority (KR) 70% of track maintenance expense in track access charge. And the remaining 30% is funded by the government to cover maintenance expenses. Track construction is fully funded by the public purse. In other words, the track access charge paid by Korail is not to recoup fixed costs. It was set at a certain rate so that a service provider covers some of the variable costs.

In case of high-speed rails, 31% of the sales turnover earned by providing high-speed railroad services should be paid to the KR as an access charge.<sup>16</sup> High-speed railroad construction is funded by the public purse for about 40~50%, and the remaining 50~60% by KR-issued bonds. Part of the access charge is used to redeem the bonds. To recap, Korea's high-speed rails are operated with the income from access charge that offsets variable costs in full and fixed costs in part.

For the high-speed rail departing from Suseo scheduled to open in 2015, access charge will increase to at least 40% of the sales turnover, higher than the rate paid by Korail.

#### 5. Investments

As regards basic industries such as railway, it is essential to guarantee universal service offering via continuous investment and development. This, however, would be tricky for any private enterprise than government to sustain. Recognizing such a problem, the Ministry of Land, Infrastructure and Transport established basic plans for railroad industry development under the Framework Act on Railroad Industry Development even after the KR took over the whole facility business. By doing so, the Ministry have the KR take responsibility for rail facility investment, construction, maintenance and technology development.

The Ministry has set up diverse plans and laws on the financing for rail facility investment and construction as follows:

| Rail           | Constructor                             |   | Financing   |
|----------------|---|---|---|
| High-speed     | Korea Rail Network Authority(KR)        | Capital area                            | gov. 40% public corp. 60%                                 |
|                |   | other areas                             | gov. 50% public corp. 50%                                 |
| Conventional   | National government (acting for the KR) |   | gov. 100%   |
| Urban          | commuter                                | local gov.                              | Seoul municipal gov. gov. 40% Seoul city 60%              |
|                |   |   | others gov. 60% local gov. 40%                            |
|                | inter-city                              | National government (acting for the KR) | gov. 75% local gov. 25%                                   |
| Private-funded | private operator                        |   | Gov. financing is subject to each corresponding contract. |

<sup>16</sup> Tracks exclusively for high-speed trains have not been constructed for the entire service lines. Therefore, high-speed rail operators also pay conventional rail access charge for any conventional track section.



The national or local government engages in most of the railroad facility investment projects. However, private firms have also increasingly shared the financial burden for privately operated rails (privately funded rails) such as the urban railway. For railroad technological development, the Ministry of Land, Infrastructure and Transport formed a separate organization - the Korea Railroad Research Institute - for professional research.

## **6. High-Speed Rail Services**

### **6.1 High-Speed Rail Operational Status**

Korea's high-speed train KTX was launched in 2004. Four KTX lines – Gyeongju, Gyeongjeon, Honam and Jeolla lines - have been in operation as of now and two more – Gyeongbu line departing from Suseo and Honam line – will launch in 2015. The KR leads the high-speed track construction with funds from public corporations for 50~60% and the national government for 40~50%. Korail exclusively provides service operation. High-speed rail charges, as conventional passenger services', are controlled by the railroad industry act.

### **6.2 Talks on the Possibility of Competition in High-Speed Rail**

In 2012, the Ministry of Land, Infrastructure and Transport suggested ways to engage private enterprises in operating the presently-constructed Suseo rail in efforts to bring competition in the high-speed rail segment for more efficient management and higher service quality. However, criticisms have risen, citing that, given the nature of the rail industry, only large firms would be able to participate and as some deficits are compensated by the government, only large firms would benefit. These concerns over possible large-firm-preferred treatment, amid the greater-than-ever national attention on the so-called economic democratization of the country's new administration, undermined national support for rail industry restructuring. In addition to this, general problems of privatization including possible infringement of public interest in the railway service were also spotlighted. Against this backdrop, the government turned the suggested private engagement in arterial rails into intra-public sector competition while limiting private engagement to lines with deficit to guarantee stable services and improve rail corporations' management status. (May 23, 2013)

The Ministry of Land, Infrastructure and Transport plans to form an organization sponsored by Korail but limit Korail's share at 30%.<sup>17</sup> for the sake of competition. The organization's accounting and business administration will certainly be separated and Korail will be excluded from the business management. The high-speed rail from Suseo will also charge 10% lower fees than that of the existing KTX lines departing from Seoul and Yongsan.

## **7. Conclusion**

Competition has been weak in Korea's railroad industry so far. Its government, to prevent monopolistic harms from the situation, has strictly controlled the industry even at a very detailed level by law. However, relying upon only regulations has its own limitations so the country is trying to infuse competition into the rail industry.

The Ministry of Land, Infrastructure and Transport plans to allow 3rd party engagement in new lines, branch lines, etc. for the long term. Structural reform is also under consideration, for instance, by turning Korail into a holding company and separating into 5 affiliates including those for passenger service, freight transportation and maintenance to achieve more efficient rail operation.

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<sup>17</sup> The remaining share is to be financed by the public pension fund. Private shareholding will not be allowed to avoid privatization controversies. But many also suggested that in the long term the ownership structure should be reformed and involve the private sector.

## LATVIA

### 1. Structure and ownership

In the process of reorganization of the State Joint Stock Company “*Latvijas dzelzceļš*” (historical carrier) in 2005 was established Latvian Railway (LDz) Concern that comprises the holding company – State Joint Stock Company *Latvijas dzelzceļš* and the subsidiary companies, incl. *LDz infrastruktūra* Ltd., JSC *LatRailNet*, *LDz Cargo* Ltd. LDz infrastruktūra Ltd. performs reconstruction and construction works of mainline tracks, as well as rail welding works. AS LatRailNet task is to determine the annual Latvian railway infrastructure charges by train operators, as well as railway infrastructure capacity allocation and approve the appointment of the train operators. LDZ Cargo Ltd. was granted the right to make rail freight. LDZ Cargo was founded in 2005, but active business started in 2007.

LDz or part of it is not privatized and from the public information privatization is not foreseen in the near future.

In case of passenger services there exists competition between rail and road transport, but competition is weakened because of price regulation. Also transport politics is moved more to develop rail passenger services in places where infrastructure is placed. In case of cargo services competition between rail and road transport exists more in domestic transportation and in small freights. Competition exists also between rail cargo operators, but is not developed yet because of presence of the historical cargo operator LDz in the domestic market. Effective competition we have observed between substitutable transit ways in neighboring countries where cargo operators are provide part of transportation in case of international cargo transportation.

### 2. Competition for the provision of freight services

There are 3 rail freight operators in Latvia. LDZ Cargo and 2 an independent private companies which common market share in rail cargo transportation is 20 % in domestic market.

The data of total transported volumes of Latvian freight operators shows that LDZ cargo market share has to tend decrease. During the period 2008.-2010 LDZ Cargo market share decreased from 90 % to 77 % in rail freight market.

The data of total transported volumes in international freight transportation (rail freight and road freight), rail freight constitutes average 86 % during the period from 2007-2010.

CC has examined the possible abuse of dominant position of cargo carrier LDZ Cargo. Period of investigation 07.2010. - 07.2012. CC established LDz as dominant undertaking in market of international rail cargo transportation. CC has evaluated LDz Cargo actions in setting service charges for different clients. Case was closed without an infringement. Nevertheless CC considered that for international cargo transportation is more efficient to use rail freight. Competition from other transport modes exists by road freight transport, if the volume of cargo freight is small - about 60 tons. If the cargo exceeds 60 tons (approximately 1-3 car freight, and appropriate infrastructure is available, is more efficient to use rail freight. Consequently, the competition between modes of transport exists, if there is a small-scale freight.

Competition within the rail mode exists if it is necessary to carry the large amount of freight. Nevertheless LDZ Cargo as subsidiary of historical cargo operator has a biggest market share in domestic market.

### **3. Access charge**

Charge for use of the public railway infrastructure is calculated for the actual train driven kilometer and the use of rail stations infrastructure. Access fee for each driven kilometer is different for providers of passenger and freight services. Access charge is calculated taking into account all of infrastructures managers cost that is necessary for providing relevant amount of infrastructure. Access services include maintenance of infrastructures objects, development of infrastructure, train movement organization and management of infrastructure incl. technical and economical documentation, personal etc.

Since 2011 the access charge is set by *JSC Latvijas Dzelzceļš* subsidiary *LatRailNet*, in accordance with the Railway law and methodology on calculation of access charge approved by Regulator.

### **4. Investments**

JSC "Latvijas dzelzceļš" is responsible for the maintenance and development of public railway infrastructure. Investments in infrastructure are provided from public resources, incl. ES funds.

## NETHERLANDS

### 1. Introduction

This contribution describes recent developments in the Dutch railway sector and the role of the Dutch competition authority (formerly NMa, currently ACM) in monitoring these developments.

The main developments foreseen are:

- Liberalization of the international passenger market (3<sup>rd</sup> package)
- Liberalization of the national passenger market and restructuring the governance of rail infrastructure managers (4<sup>th</sup> package)
- Limiting the dependence of railway undertakings on the incumbent competitor

Over the last decades, the European Commission (EC) has been following a path of liberalization and vertical separation in railway services. The main goal of vertical separation between railway infrastructure and passenger services is creating a level playing field for railway undertakings which benefits consumers in the long run. For this reason it has become a topic of increased interest, specifically among European Union bodies.<sup>1</sup> Following the EC's path, in 2005 the Dutch Railway Act ('Spoorwegwet') came into force, separating responsibilities for infrastructure and transport in the Dutch railway sector. This act has led to partial liberalization and regulation of the market.<sup>2</sup>

The specific structure of the Dutch railway sector was outlined in the 2013 OECD Competition Committee report<sup>3</sup>: The State-owned railway undertaking, Nederlandse Spoorwegen (NS), currently holds the concession to operate all mainline passenger services in the Netherlands until at least 2015. NS pays an annual compensation of 30 million Euros to the Dutch state for this exclusive right of exploitation. Several private operators hold concessions to operate passenger transport services on a number of regional routes (about 10% of the passenger-kilometers in the Netherlands). In accordance with the 2005 Dutch Railway Act, ProRail holds the infrastructure concession to manage the entire rail network until 2015. ProRail is a fully state-owned railway administrator that holds the responsibility for maintenance, construction, capacity allocation and traffic control on the entire network<sup>4</sup>. Contrary to passenger transport, freight rail transport is fully open for competition in the Netherlands.

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<sup>1</sup> See: Drew and Nash (2011): "Vertical separation of railway infrastructure - does it always make sense?"

<sup>2</sup> The 2005 Dutch railway act includes a system of granted concessions in operating passenger services. In practice the largest concession is held by a single operator, NS, thus leaving the majority of the market closed for competition.

<sup>3</sup> See: OECD 2011, "Report on Experiences with Structural Separation," OECD Competition Committee, <http://www.oecd.org/regreform/sectors/50056685.pdf>.

<sup>4</sup> ProRail is for the greater part financed by government subsidies. More information available on [www.prorail.nl](http://www.prorail.nl)

## 2. Role of the Dutch competition authority

Previously, the rail regulator in the Netherlands was the Office of Transport Regulation, which was a division of the Dutch competition authority, NMa. Since its recent organizational restructuring (April 1, 2013), the Authority for Consumers and Markets (ACM) holds a separate division that monitors Telecommunication, Transport and Postal services.<sup>5</sup> Monitoring the national railway industry is outlined as an important element of ACM's work in its 2013 market vision report. ACM's role is – among others – to monitor the relation between administrator (ProRail) and users (mostly NS) of the Dutch railways. Based on European legislation, this task was already in 2005 assigned to the regulator due to concerns from the Dutch government about ProRail's monopoly position in the railway infrastructure.

ACM's regulatory activities mostly originate from international and national guidelines. Its main points in regulation are:

- Division of capacity: checking that ProRail establishes a fair allocation of railway capacity among different transport companies
- Tariffs: checking that ProRail does not engage in discriminatory pricing with respect to users of the railway sector
- Access to services

Furthermore, ACM enforces the Dutch Competition Act, which provides the authority with enforcement powers. The authority has, in the past, undertaken investigations concerning allegations of abuse of power in this sector. These investigations have been successfully concluded with commitments from the relevant parties to alter their behavior, without the requirement of a fine. Additionally, ACM serves as a link between competitors and the market; ACM aims to increase transparency about the railway industry by providing information for and giving guidance to possible new entrants into the market, thus creating a *level playing field*. A level playing field for (new) competitors in the railway market increases opportunities and choices for the consumer, which is in accordance with ACM's mission statement.<sup>6</sup>

### 2.1 4<sup>th</sup> Railway Package

On 30 January 2013 the European Commission published its 4<sup>th</sup> Railway Package.<sup>7</sup> This package mainly addresses the liberalization of domestic railway markets. As a competition authority, ACM supports the proposal for its expected increase in domestic railway competition and benefits for consumers, provided that a level playing field is guaranteed amongst players, both nationally and internationally. This support is reflected in ACM's active contribution to the 4<sup>th</sup> Package position paper through IRG-Rail.<sup>8</sup>

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<sup>5</sup> Since 1 april 2013 the Netherlands Competition Authority (NMa), Independent Post and Telecommunications Authority (OPTA) and Consumer Authority (CA) merged into one organization: the Authority for Consumers and Markets (ACM). The ACM builds on the work of its predecessors in order to reach effective and efficient oversight on well-functioning markets for the purpose of optimizing consumer welfare

<sup>6</sup> See: [www.acm.nl](http://www.acm.nl)

<sup>7</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0025:FIN:EN:PDF>

<sup>8</sup> See: 4<sup>th</sup> package position paper, <http://www.irg-rail.eu/public-documents/2013> IRG-Rail is a group of independent regulators that aims to "...facilitate the creation of a single, competitive, efficient and sustainable internal railways market in Europe"

Currently, ACM provides assistance to the Dutch government in the impact assessment of the 4<sup>th</sup> Package proposal for the domestic railway market. *Achievability-* and *feasibility tests* are performed to see both the effects of implementing this package and whether changes have to be made before the Package can be successfully implemented in the Netherlands. In ACM's view, the following points should be addressed in relation to the 4<sup>th</sup> Package proposal:

- Level playing field within Europe
  - Establishing equal conditions for competition among European countries is important because the optimal size of passenger transport companies will require them to operate past country borders.
- Creation of a market for (second-hand) rolling stock
  - There are various technological and market barriers in the Dutch market for train rolling stock. In the 4<sup>th</sup> Package proposal member states are required to take appropriate measures in order to activate this market. Currently, NS owns train rolling stock with a market share of 90%.
- Integration of information- and ticketing systems
  - There is a potential for discrimination in the current Dutch information- and ticketing systems. This can be detrimental for the creation of a liberalized market. Currently, the systems are owned by NS, which implies that their competitors depend on NS with respect to the rights of ticket sales and provision of travel information. Existing competitors have complained that NS sets too high prices for these rights. With regard to ticketing systems, the 4th Package proposal requires the right for ticket sales to be in hands of an independent party.
- Non-discriminatory access to train stations
  - The 4th Railway Package indicates that access to train stations, their buildings and other services by competing passenger transport services should take place under equal, non-discriminatory and transparent conditions. Currently, NS is the owner of services at railway stations which has led to several informal complaints from regional transporting services about inaccessibility of stations and excessive rental prices. Access to transfer infrastructure like platforms etc. is allocated by ProRail.

### 3. Liberalization of international tracks

Since the introduction of the 3<sup>rd</sup> Railway Package by the European Commission<sup>9</sup>, possibilities to compete on international passenger tracks have emerged. Conditions that have to be satisfied for market entry are that the competing line has as main goal to serve passengers not domestically but internationally, and that the competing line would not compromise the economic equilibrium of the public service contracts between the state and the main operator. Implementation of the 3<sup>rd</sup> Railway Package was aimed at increasing competition on international routes. The EC advocates liberalization of railway because it expects several advantages: consumers will benefit from increased frequency of operations and direct connections, more competition will boost innovations, price levels will abate and new competitors could

<sup>9</sup> [http://ec.europa.eu/transport/modes/rail/packages/2007\\_en.htm](http://ec.europa.eu/transport/modes/rail/packages/2007_en.htm)

enhance competitive pressures on incumbent railway services (as NS in the Netherlands). Moreover, international train lines can become interesting alternatives for low-cost carriers in the airline industry.

However, in reality there have been very few developments in the Dutch railway market following liberalization of the international rail tracks. ACM points out possible causes:

- Capacity constraints; According to a ministerial regulation adopted under the Dutch Railway Act<sup>10</sup>, the NS would receive priority in its operations (in ‘the urbanized part of Western Holland’) over international operators in the case of congestion of the rail network. Knowing that the Dutch railway industry is characterized by a very high network usage intensity<sup>11</sup>, this can form a hurdle for new competitors.
- Entry barriers; several entry barriers commonly exist in the railway sector that inhibit competition. Obtaining permits for rolling stock is sometimes costly and time consuming, materials are expensive and transparency is lacking because of new market guidelines that apply since the 3<sup>rd</sup> railway package. Via its website, ACM provides detailed information on conditions for market entry in order to increase transparency for possible new competitors.<sup>12</sup>

As was mentioned earlier, the 2005 Dutch Railway Act separates responsibility for infrastructure and passenger transport in the Dutch railway industry. The national railway undertaking, NS, was granted the concession by the government to operate all passenger services on the ‘main rail network’, which accounts for a large majority of all railways in the Netherlands. This concession runs until 2015, but the Dutch government is willing to grant new concessions to NS and ProRail for the next 10 years (2015-2025). This would not be in line with the draft European 4<sup>th</sup> Package proposal, which intends to open the national market in 2019 and has a maximum duration for directly awarding concessions until 2023. Because of this concessional system, NS acts as sole provider of mainline passenger transport. As a result, there has been criticism, from passenger organizations for example, that the 2005 Dutch Railway Act does not optimally favor competition.

The Dutch Railway Act in combination with the above mentioned capacity constraints and entry barriers are possible underlying reasons for the fact that the Netherlands has seen few signs of increased competition on international routes after introduction of the 3<sup>rd</sup> Railway Package. Nonetheless, two very recent issues that are currently under investigation by the ACM might signal developments of competition in the Dutch international railway sector; these are discussed below.

### 3.1 *High-speed line “Fyra”*

Fyra is the name of a high-speed rail service, owned and operated by the national Dutch railway operator, NS, in cooperation with the Belgian passenger service NMBS. As of December 9<sup>th</sup> 2012, Fyra became the only (high-speed) line on the border-crossing route Rotterdam-Antwerp, replacing the operating train service at that time. It shares its tracks with the Thalys (in which NS participates), that operates the high-speed links to Paris and beyond. The Fyra differs from the previously running train in several aspects: it is faster and more luxurious. There are also disadvantages: supplements are required for

<sup>10</sup> [http://wetten.overheid.nl/BWBR0017627/geldigheidsdatum\\_29-01-2010/informatie](http://wetten.overheid.nl/BWBR0017627/geldigheidsdatum_29-01-2010/informatie)

<sup>11</sup> See: Annual market monitoring report, <http://www.irg-rail.eu/public-documents/2013>

<sup>12</sup> <https://www.acm.nl/nl/onderwerpen/vervoer/spoor/grensoverschrijdend-personenvervoer-per-spoor-/melding-grensoverschrijdend-personenvervoer-per-spoor/>

ticket purchase, existing discount arrangements are not valid and no bicycles are allowed on board the train. Moreover, Fyra no longer stops at The Hague.<sup>13</sup> and several other cities on its route to Belgium.

NS initially held the concession to operate on the international route Rotterdam-Antwerp. In 2011, the NS-owned High Speed Association (HSA) – operator of Fyra – won the bid for a new concession that granted the right to run this route. The price offered by HSA turned out to be too high, leading to an unprofitable business case. Eventually the Dutch government chose to merge the new concession with the existing concession on operations of the mainline network to avoid bankruptcy of HSA. Fyra now has a monopoly position on the international route Rotterdam-Antwerp, since entrance of new competitors has thus far been absent.

Following the introduction of the Fyra, consumer organizations for passengers complained that the NS was abusing its monopoly position on this route. This has led several organizations to contact ACM with their concerns.<sup>14</sup> The organizations argue that the NS abuses its power by forcing customers to switch from a flexible line with many stops and low prices to an expensive line with less stops and an obligation to make reservations.

The duration of protests was short as the Fyra stumbled into early operational trouble. After the high-speed line was introduced in December 2012, results were disappointing: less than 50% of trains arrived on schedule and a large number of rides was cancelled. In addition, the winter months took their toll as, in addition to numerous technical problems, trains were damaged because of the ice. This series of events led the NS to decide on suspension of the high-speed train service until further notice.<sup>15</sup>

### 3.2 *Competition on international tracks*

Recently, the opportunity to compete on international tracks was recognized by an independent organization in The Hague, The Hague Train (THT). Displeased by the new Fyra, THT decided to introduce its own high-speed rail line, connecting The Hague and Brussels.<sup>16</sup> On 14 February 2013, ACM was officially informed about THT's plan to start an international train line from The Hague to Brussels, which would commence operations in December this year. THT thereby became the first company to officially submit a request at the ACM for a competing international train connection.

As a reaction to the announcement by THT, NS decided to request a *principle purpose-* and *economics equilibrium test* with the ACM.<sup>17</sup> In accordance with the 3<sup>rd</sup> Package guidelines, these tests serve to investigate whether the international line would also have as its goal to transport domestic passengers and whether it would compromise NS's public service contracts with the State. ACM is now investigating the case and will publish the results of both tests this summer. Depending on the outcome, according to national legislation the minister can limit the volume of inland travelers that use this train.

<sup>13</sup> The Hague is the 3<sup>rd</sup> largest city in the Netherlands and seat of the government

<sup>14</sup> [http://www.treinrambus.be/images/stories/klacht\\_rover-ttb\\_inzake\\_treinverbinding\\_nl-be\\_vanaf\\_9-12-2012\\_v2.pdf](http://www.treinrambus.be/images/stories/klacht_rover-ttb_inzake_treinverbinding_nl-be_vanaf_9-12-2012_v2.pdf)

<sup>15</sup> [www.fyra.nl](http://www.fyra.nl)

<sup>16</sup> <http://fd.nl/economie-politiek/528221-1303/den-haag-start-tender-voor-concurrent-fyra>

<sup>17</sup> <http://www.omroepwest.nl/nieuws/05-04-2013/ns-bang-voor-concurrentie-nieuwe-trein-van-den-haag-naar-brussel>



#### **4. ACM's view**

ACM supports new and innovative competitors in the international railway sector. Furthermore, ACM is convinced that implementation of the 4<sup>th</sup> Package proposal will provide opportunities for competition that can benefit the consumer. Currently, an ongoing discussion concerns the trade-off between a potential loss of control and a potential increase in competition in the railway industry if the 4<sup>th</sup> Package were to be implemented. One way in which ACM hopes to contribute to this discussion is by supporting the Dutch government in the impact assessment of the 4<sup>th</sup> Package proposal.

## POLAND

### 1. Introduction

The 2004-2013 period was a time of significant changes for the Polish railway market. Introduction of competition in this market, started with an Act on commercialization, restructuring and privatization of the state enterprise Polish State Railways (2000) duly continued. In 2004, both in passenger and cargo transportation, state-owned companies from the Polish State Railways group (PKP group) enjoyed monopolistic or quasi-monopolistic position. The group was created as a consequence of legal and organizational unbundling of the State Enterprise “Polish State Railways”, whereby, among others, separate infrastructure, passenger and cargo transport companies were created. The PKP group remains in state hands, corporate governance being exercised by the minister responsible for transportation. Despite numerous privatization plans, no passenger or cargo company was privatized in the 2004-2013 period, though some of them were taken over by local governments. The privatization of those companies remains an ultimate goal of the authorities; in the long run only the company managing the railway infrastructure is to remain state-owned.

### 2. Cargo transport

Legal changes that allowed competition in the sector, as well as first entries by new players occurred before 2004. Since then both the number and market share of new railway cargo carriers have continued to increase. Currently railway cargo transport is performed by over 30 undertakings (among them a few capital groups active in this market in other European countries). In the years 2010-2011 15 new carriers started their activities in the Polish railway cargo market. However, the 2011 market share of the PKP group companies – with output measured in tkm – was as high as 69%, suggesting it was still dominant.

Intramodal competition plays the most important part in the railway cargo sector. Cargo carriers are active in the liberalized market, where all entities have equal access to railway lines and entry is subject to non-discriminatory licensing and safety certification requirements. Buyers of transport services are free to choose their preferred supplier, though – as already mentioned – the incumbent still holds a dominant position in this market.

Intermodal competition in cargo transportation holds some significance in niches, where it is feasible for technical or organizational reasons. For railway cargo transportation as a whole, other forms of transportation – in particular road transportation – are not close substitutes and belong to a separate relevant market, as was shown in the 2012 market study prepared by the Polish competition authority (UOKiK). Railway accounts for different cargo than road transport: railway shipments are characterized by higher mass and longer distances. Only negligible fraction of railway cargo transport users declared they would switch significant amount of their business to road transport, were railway prices to go up by 10%.

Comparing railway and road cargo transportation it is worth noting that in the years 2004-2011 the output of railway carriers (in tkm) hardly changed, while that of road carriers surged by 67%. It demonstrates that the increase in demand for cargo services in the last 10 years was absorbed by road transportation. As a consequence, the share of railway in the total cargo services sector declined from 28% in 2004 to 18% in 2011.

### 3. Passenger transport

Structural changes in the passenger transportation sector in the period 2004-2013 were mostly the result of local governments setting up or purchasing their own railway companies. The PKP group's passenger transport monopoly was broken in 2005, when, based on a separate, organized part of the PKP regional passenger transportation company, a regional government company – Masovian Railways (Koleje Mazowieckie S.A.) – was created. The company provides railway passenger transportation in the Mazowieckie voivodship and belongs to the government of this region. Local railway transportation in remaining voivodships was transferred to regional governments in 2008, when the PKP group Regional Transportation (“Przewozy regionalne”) company was taken over by them. Independently, some other regional governments continued to create their own, regional passenger carriers providing services in their respective regions. Moreover, in 2008 a passenger transport license was granted to a non-public-sector company, providing a wide range of passenger transport services. As of November 2011 passenger railway transportation was provided by 11 carriers, of which 7 were the property of regional governments, 2 belonged to the PKP group, while 2 were controlled by the Deutsche Bahn group.

In 2011 50% of the passenger transport (in pkm) was provided by the PKP group companies, 37% by Regional Transportation and 10% by Masovian Railways. That is not to say that there is effective competition in the railway passenger transport sector, though. Relevant markets for those services are regional in scope and usually served by only one carrier.

Railway passenger transportation in Poland is organized along different lines from the cargo market. Most of it is regarded as a public service, organized by the ministry responsible for transportation (for interregional lines) and regional governments (for regional lines). Such transportation is largely considered as inherently loss-making and, consequently, enjoys subsidies from public funds. Railway transportation that is not considered public service may be provided on the basis of a decision granting open access to a given line, issued by the railway regulator (Office of Rail Transportation, UTK), upon application from the carrier and analysis of the economic impact of the new service on the public services already provided on this line. Given such a legal framework, only few lines are served on a commercial (non-subsidized) basis – largely inter-agglomeration ones. The commercial lines mostly overlap with the public service ones.

To a limited extent, there exists competition for the market. Auctions to choose a collective transport, public service carrier are employed rarely, while most of the transport organizers prefer to grant those tasks directly to an undertaking which they own or co-own. Such contracts specify, among others, what lines are to be served, as well as the quality of services provided. There are plans to increase the use of auctions for the purpose of choosing public transport services providers, but still a large number of organizers declare that they are going to entrust those services directly to their internal entities (i.e. transport undertakings they control). In a 2010 report (“Trends in the Development of Competition and Consumer Protection in the Polish Railway Markets”) UOKiK expressed itself strongly in favor of breaking contracts into smaller chunks (allowing smaller providers to compete for them) and making auctions a mandatory route for the selection of public transport services.

In the passenger transport sector railways compete mainly with other modes of transportation. In the 2004-2011 period, railway's share of the output (in pkm) increased from 33% to 36%. In the same period, though, the passenger transport output declined by 10%, railway output decreasing as well. This phenomenon can be ascribed to a declining interest in collective passenger transport, due to significant increase in individual car ownership and use.

#### 4. Railway infrastructure and investments

A large majority (93% of lines in service) of railway infrastructure is managed by the PKP PLK company, belonging to the PKP group. The manager grants access to the infrastructure on a TPA basis and in the period 2004-2013 several regulations were introduced to ensure its operational independence from the PKP group, among others excluding employees of other PKP group companies from being employed in crucial positions (such as those on the board or responsible for allocating routes to railway companies). Privatization of infrastructure is not envisaged. Privatization plans concern only companies managing certain elements of railway infrastructure, such as transmission lines or telecommunication networks.

Railway infrastructure access charges – collected by the infrastructure manager – are calculated as a product of the amount of services provided and the unit rate. The draft price list is submitted to UTK for approval. The latter may refuse to approve the price list, if it finds that the list does not comply with the law. The charges are calculated by the manager on the basis of all costs associated with making infrastructure available to the carrier, also fixed ones. Those costs, however, do not include investments in infrastructure, as they are financed from public funds, including EU funds, central budget, regional budgets and a special fund collecting means for that purpose – the Railway Fund.

#### 5. Regulatory and competition issues

As already mentioned, the railway sector is regulated by the Office of Rail Transportation (UTK), created in 2003. Initially it had limited influence on the functioning of competition in the railway markets. With time, the powers of the regulator grew and currently it is able to promote competition more actively, *inter alia* by issuing opinions on transport plans specifying which services should be considered public and provided on a non-commercial basis, as well as by issuing decisions granting open access to given lines. Thus UTK may influence the number of commercial competitors for public service providers.

All proceedings conducted by UOKiK in the railway sector concerned the cargo market. In the period 2004-2013 there were six decisions finding anticompetitive conduct in this market: five instances of the abuse of dominance and one case of anticompetitive agreement. The latter aimed to restrict access to the shipping market and expansion of competitors, as it stipulated that PKP Cargo – market incumbent – would not provide equally advantageous (or better) rates to entities other than the signatories of the agreement. The abuse of dominance cases concerned:

- preventing or making it harder for customers to switch suppliers,
- discriminatory treatment of customers, impacting their ability to compete in the shipping market,
- preventing customers from competing with the incumbent.

The latter (and most recent) case seems particularly interesting. It concerned the shipping market, where one of the shippers had a long-standing commercial relations with two particular producers of aggregate – a product much in demand, due to large-scale motorway construction – and used PKP Cargo to ship the aggregate. The incumbent refused to provide transport services from the departure stations close to the aggregate producers, which prevented the shipper from being able to extend its contract with the producers (despite their expressed interest in continuing the commercial relationship) and forced them to sign a contract directly with the incumbent. The shipper lost two major customers, as well as quantity rebates that went with shipping large amounts of aggregate, which further undermined its competitiveness.

## **6. Conclusions**

Polish railway market witnessed significant changes in the last decade. Its liberalization was particularly successful in the cargo sector, where competition was introduced and is further developing. Numerous carriers, collectively accounting for 30% of the market, pose a challenge to the incumbent, more and more often forced to compete for customers. In practice, cargo railway transport is provided under market conditions and competition authority's interventions are only a supplementary means of restoring effective competition in this market. Passenger transport, though less open to competition, also underwent important changes. The presence of 11 passenger carriers, even though most of them belong to the public sector, gives hope that competition – in particular competition for the market – will develop in the future, especially in the light of the EU-wide initiatives, such as the IVth Railway Package, aiming at introducing obligatory auctions for railway transport public services, as well as breaking contracts into smaller parts (at least for the largest organizers of public transport).

## ROMANIA

Romania is one of the countries who succeeded in creating freight rail competition out of the old vertically integrated monopoly situation. By pursuing the "vertical separation" reform model, Romania sought to introduce competition among freight train operators through the provision of "open access" to the monopoly infrastructure.

This happened in 1998 when SNCFR (The National Society of Romanian Railways), the old vertically integrated state owned monopoly railway was split into five independently-administered companies: Compania Națională de Căi Ferate "CFR" SA (National Railway Company "CFR" – dealing with infrastructure), CFR Călători (CFR Passenger Services – the operator of passenger trains), CFR Marfă (Freight railway transport company), CFR Gevaro (Services linked with restaurant cars) and SAAF (dealing with excess rolling stock to be sold, leased or scrapped).

This spur to rail reform was triggered to a certain extent by the efforts deployed by Romania in satisfying the criteria for entry into the European Union.

This paper examines therefore the evolution of competition in this sector and the terms under which it is taking place as well as the recent changes that occurred in Romania in the manner in which the sector is regulated. It is important to stress hereby that freight rail sector is one of the sector assessed by RCC in 2012 and included in its Autumn Yearly Report on the evolution of competition in key sectors of the Romanian Economy. Full report is available for consultation <http://www.consiliulconcurentei.ro/en/publications/miscellaneous-reports.html>

### 1. The evolution of the rail freight transport relative to the road transport

The data below collected from National Institute for Statistics and covering the year 2010 and the first three quarters of 2011 reveal that there has been an increase of rail freight market both in terms of the shipped cargo volumes and of the cargo traffic. Nevertheless, there is still a substantial difference between the rail freight and the road transport during the indicated reference period (fostering road transport).

**Table no 1. Carried goods in Romania**

| Year<br>-way of transport      | The shipped cargo volumes – thousands of tones |                 |                  |                 | The cargo traffic – thousands of tones-km |                 |                  |                 |
|--------------------------------|--|-----------------|------------------|-----------------|---|-----------------|------------------|-----------------|
|                                | Ist<br>quarter                                 | IInd<br>quarter | IIIrd<br>quarter | IVth<br>quarter | Ist<br>quart<br>er                        | IInd<br>quarter | IIIrd<br>quarter | IVth<br>quarter |
| <b>2010 (railway)</b>          | 12022  | 12328           | 13881            | 14701           | 3285                                      | 2712            | 2955             | 3423            |
| <b>2011(railway)</b>           | 13267  | 15504           | 16088            | -               | 2948                                      | 3496            | 3581             | -               |
| <b>2011 (road)<sup>1</sup></b> | 28636  | 46257           | 53504            | 46154           | 5379                                      | 6753            | 6924             | 6827            |
| <b>2011 (road)</b>             | 32686  | 47799           | 57624            |                 | 6504                                      | 6597            | 6891             |                 |

Source: INS

<sup>1</sup> This indicator includes county, inter-county and international road transport.

## 2. The evolution of rail freight transport market during 2001-2012

In the context of market liberalization, starting with 2001, an important number of private rail freight operators have appeared. As a result, currently, on Romanian freight transport market, besides the state-owned company **C.F.R. Marfa, there are also 24 private companies.**

As already mentioned, C.F.R. Marfă S.A. was established on October 1, 1998 by dividing SNCFR. The main activity of this company consists in rail freight transport within the local and international traffic with full wagons and intermodal transport units which are all accessory rail freight services.

The company's activity area is represented by the entire Romanian railway network having a territorial organization. The company is organized in 4 branches: Muntenia-Dobrogea, Banat-Oltenia, Transilvania and Moldova, 89 management stations, 8 depots operating locomotives and 12 wagons revisions.

The locomotive fleet inventory of S.N.T.F. C.F.R. Marfă S.A. is composed of 907 locomotives whose average age being of 33, 4 years. At the level of the year 2011, the locomotive operating fleet had 384 locomotives, of which: 172 electric locomotives, 124 Diesel-electric locomotives and 88 Diesel – hydraulic locomotives. The wagons fleet concerns 39281 wagons whose average age being of 30 years. The wagons operating fleet rises up to a total of 22 000 wagons.

In the last few years, C.F.R. Marfă lost ground in front of private companies activating in this sector. In 2000, the state-owned railway company held a market share of 100%, but five years later this market share had fallen up to 79. 9%. The market share held by C.F.R. Marfă at the end of 2011 was about 45%.

C.F.R. Marfă recorded also a major staff restructuring in the last few years. The company registered a decrease by 70% of the number of employees. The main competitors of S.N.T.F. C.F.R. Marfă are: Grup Feroviar Roman (GFR), Servtrans Invest, Cargo Trans Vagon, Unifertrans, DB Schenker Rail Romania, Transferoviar Grup.

## 3. Barriers to entry on rail freight market

Rail freight transport could be carried out by Romanian or foreign railway transport operators that have:

- Rail transport licence;
- Safety certificate;
- Access agreement concluded with the infrastructure manager;
- Trails allocated for rail transport.

The rail transport licence may be obtained by the economic operators, Romanian legal entities proving that they are able to meet cumulative requirements: respectability, financial standing, professional competence and the guarantee of civil responsibilities.

Rail transport licenses granted by OLFR (the Romanian Railway Licensing Body) are also valid in other European Union Member States for equivalent rail freight transport services. At its turn, OLFR recognizes as valid on Romanian railways the rail transport licenses granted by the relevant authority in another EU Member State.

**The safety certificate** is a document stating that a rail freight operator, holding a rail transport license, may carry out a certain type of rail freight service on traffic sections of Romanian railways. The authority responsible for granting safety certification is ASFR (Romanian Railway Safety Authority), an independent body functioning within the Romanian Railway Authority.

In order to have access to the railway infrastructure managed by National Railway Company "CFR", railway transport operators must conclude an infrastructure access contract with "CFR". The access contract establishes the rights and obligations of "CFR" and railway transport operators concerning the infrastructure capacities allocation and utilization. The validity of the access contract usually corresponds to train timetable and it has a standard structure applicable to all railway transport operators for the respective train timetable.

An important element from the perspective of rail freight operators' access on that market is the utilization rate of rail infrastructure (TUI).

The calculation and levying of the **railway infrastructure access charge** (Access Charge – AC) is the responsibility of the infrastructure manager. The AC calculation methodology is based on the following charging elements: distance run by the train, gross train tonnage, traffic type: freight or passenger, traffic route, class of the traffic section and its electrification systems for supplying traction current.

TUI is calculated and applied for each train in traffic, based on the above elements. Nowadays there is a new information operating system (CALIPSO) that calculates the utilization rate of rail infrastructure (TUI) for each train of each OTF, considering trains tonnage and consequently the effective traffic carried out. The situation concerning all trains in traffic is monthly sent to each railway transport operator in order to be checked. After its approval or after the operation of any corrections, the invoices concerning the utilization rate (TUI) are issued. This process is assisted and checked on a day-to-day basis and it is acknowledged for issuing payment obligations related to the infrastructure access.

#### **4. Investments**

Due to insufficient allocations from the state budget concerning the need to repair rail infrastructure elements, the technical parameters of public rail infrastructure have suffered a continuous degradation. This degradation triggered a gradual reduction of the maximum traffic speed on the current and direct lines within the stations and also that of lines length with the corresponding maximum traffic speed.

#### **5. Changes in the manner in which the sector is regulated**

Since 2011, the Railway Supervision Council (RSC)<sup>2</sup> is functioning within the Romanian Competition Council. As a result, the legal action of the European Commission concerning the implementation of the first railway package has been closed.

To fully fulfil the functional independence and decision-making requirements of the RSC<sup>3</sup>, the Regulation of organization and functioning of the RSC was amended by Government decision<sup>4</sup>. The law approving and amending the regulatory act of 2011<sup>5</sup>, which made the RSC part of the Competition Council structure, was also adopted.

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<sup>2</sup> Government Emergency Ordinance no.21/2011 on certain measures for the organisation and functioning of the Railway Supervision Council, approved by Law no.188 of 30.10.2012.

<sup>3</sup> In the context of settlement of the infringement proceedings initiated by the European Commission against Romania – Cause 2008/2108 with respect to the implementation of the directives of the first railway package.

<sup>4</sup> H.G. no. 1012/17.10.2012 amending the Government Decision no. 812/2005 regarding the Regulation for organization and functioning and responsibilities and funding of the Railway Supervision Council.

<sup>5</sup> Law no. 188 of 30.10.2012 approving Government Emergency Ordinance 21/2011 on certain measures regarding the organization and functioning of the Supervision Council.



The main changes brought by the regulatory act are: the elimination of the Government decision approving the Regulation of organization and functioning of the RSC, ensuring that the RSC members are not in conflict of interest in relation to the regulated entities, providing for deterrent penalties that may be applied by RSC and for the power to conduct inspections, introducing the possibility for the regulatory body to act ex-officio and the reduction of the RSC members from 7 to 5.

The mission of RSC is to ensure a transparent and non-discriminatory access to the railway infrastructure. To attain its mission, the RSC assesses and decides on any complaints received from any applicant claiming that it has been unfairly treated, discriminated or is in any other way aggrieved and in particular through decisions adopted by the infrastructure manager or the railway undertaking concerning the network statement, criteria contained within it, the allocation process and its results, the charging scheme, the level or structure of infrastructure fees which it is, or may be, required to pay and safety certificate, enforcement and monitoring of the safety standards and rules.

## **6. Enforcement of competition rules**

RCC has also jurisdiction over competition issues in this sector and yet it issued one decision sanctioning the abuse of a dominant position by the incumbent freight train operator. In this case, RCC found that the National Company for Freight Railway Transport (CFR Marfa) abused its dominant position on the market of ancillary services to freight railway transport by differentiating and increasing the charges applied for its services, depending on their beneficiaries and refusing to deal with certain beneficiaries and to sign new service agreements therewith.

## **7. Conclusions**

A lesson that may be drawn from Romania's experience in opening its freight railway market to competition is that EU membership requirements operated as an engine that triggered the due liberal economic reforms in this area.

Romania has nowadays an important number of private operators managing rail freight transport. Since 2001 the C.F.R. Marfa's market share has registered a decrease from 100% in 2001 up to 45% in 2012. This evolution of rail freight transport indicates that private operators do exercise a significant competitive pressure on the former monopolist and the customers of those services have the opportunity to choose the carrier that provides the best services in terms of quality and price.

The Railway Supervision Council functioning within the Romanian Competition Council has already started to be very active. The Railway Supervision Council signaled last year to the Transport and Infrastructure Ministry that there is a significant risk of harming the competitive environment, due to the fact that C.F.R. Marfa, as a competitor to other rail freight operators, owns and manages infrastructures of related services to rail freight (locomotive depots, terminals trans, bascule bridges, locomotive operating sectors).

In order to prevent competition distortion between rail freight operators and to avoid problems related to the artificial saturation of services infrastructure, the Railway Supervision Council advised on the importance of ensuring non-discriminatory access to the infrastructure services, especially to the services rendered within the depots actually held by C.F.R. Marfa and the freight terminals.

Another recent development in this sector is the on-going part-privatisation of the national freight transport company (CFR Marfa) as per the commitments assumed by Romania under the Stand-by agreement signed with the international financial institutions i.e. International Monetary Fund, World Bank and European Commission. To prevent the existence of any incompatible State aid elements within the privatization process, useful technical consultations have taken place with the EC experts under the umbrella of the pre-consultation mechanism on privatisation (set up at Romanian Competition Council's initiative in 2008) in the case of CFR Marfa.

## RUSSIAN FEDERATION

### 1. Structure and ownership

a) Have there been changes in the structure of your railway system in your country since 2004 (that were not already discussed in the review of the recommendation concerning structural separation in regulated industries)? Are plans to change the structure of your railway system being discussed? Do any significant changes seem imminent?

In 1996, the All-Russian Congress of Railway Workers adopted the “Guidelines for the Development of Railway Transport.” This document has set out an ideology of evolutionary approach to the reform of the railway industry, taking into account the experience, not always being positive, of transformation of railway companies in developed countries.

In 1998, the Russian Government approved the “Concept of the Structural Reform of the Federal Railway Transport” (hereinafter – the “Structural Reform”). The Concept did not specify a particular list of activities and defined only directions of reforms.

In 2001 the Structural Reform was launched and “A Program of Structural Reform of Railway Transport” was adopted by the Russian Government. The Program consisted of three stages. The first stage included creation of Russian Railways, JSC (hereinafter – RZD), development of competition in the railway services, i.e. by creation of freight wagons operators etc. The second stage included creation of RZD’s subsidiaries, phased reduction of cross-subsidy, transition to a free pricing in competitive sectors, mobilization of investments for the development of the railway industry. The third stage required the continuation of investments mobilization for railway industry development by selling of stocks of RZD’s subsidiaries and others state-owned enterprises established in the railway industry.

In 2011, the Target Model of Rail Services Market Till 2015 was adopted. It aimed at achieving the objectives of the Structural Reform of rail freight services and getting positive results in development of the railway industry up to 2015.

Since 2012, within the Common Economic Area there has been creation of the single railway area, as a rule without exceptions and constraints.

At the present time, as a result of the Structural Reform, the structure of the federal railway transport consists of:

- RZD, that is the owner of the railway common use infrastructure and the main rail freight carrier;
- there was a lot of licensed carriers, but in fact freight services are provided only by RZD;
- freight wagons operators, that own wagons and provide shippers with these wagons market freight services (freight wagons operators market is very well developed in Russia, there are more than 1,700 wagons operators and wagons owners);

- carriers specializing in conventional intercity passenger services<sup>1</sup>;
- carriers specializing in commuters services (currently there are 29 such carriers).

Corporatization of non-core activities was also carried out through the creation of subsidiaries. In the Russian railway the following non-core activities were corporatized:

- enterprises specializing in wagons maintenance (including repair depots) and production of spare parts and other products for railway transport, except ones that are monopolists in this sphere.
- civil and construction contract organizations. Contract organizations specialized in bridges, tunnels, alarm systems and communication lines, power assembly, etc., as a rule, remain as a part of RZD;
- enterprises and units of the agriculture sector;
- other enterprises and objects of non-core activities.

The following plans to change the structure of the Russian railway are being discussed:

- competition among independent rail freight carriers, and between them and the major carrier;
- privatization of non-core activities;
- the FAS Russia's initiative to create the commercial infrastructure of the market<sup>2</sup>;
- since 2015, introduction of international competition among rail freight carriers within the Eurasian Economic Union.

b) Have you privatized elements of your railway systems, such as the infrastructure or parts of it, or the provider of passengers and/or freight services since 2004? Or are their plans to do so in the near future?

Before 2004, local industrial railway infrastructure and shunting locomotives were mainly privatized.

Since 2004, the privatized wagons stock has increased from 25% to 80%.

The following non-core activities are still being privatized:

- enterprises specializing in wagons maintenance (including repair depots) and production of spare parts and other products for railway transport, except ones that are monopolists in this sphere.
- civil and construction contract organizations. Contract organizations specialized in bridges, tunnels, alarm systems and communication lines, power assembly, etc., as a rule, remain as a part of RZD;

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<sup>1</sup> The following carriers specialize in conventional intercity passenger services (Federal Passenger Company, JSC (hereinafter – FPC), Grand Express, JSC, TransClassService, CJSC, Passenger Company Sakhalin, JSC, Tver Express LLC).

<sup>2</sup> Commercial infrastructure of the market is an institution for interaction between market participants (wagons operators, carriers, expeditors, shippers) and main governmental institutions within “Market Council” (similar to the one that has been successfully functioning in electroenergetics for several years). Creation of such institution is very important in the changing market conditions. (See, e.g. A. Golomolzin, G. Davydov, Rail freight services market – a step in creation of the commercial infrastructure of the market. M., 2013)

- enterprises and units of the agriculture sector;
- other enterprises and objects of non-core activities.

c) Have you brought back under control of the public sector elements of your railway systems, such as the infrastructure or parts of it, or a major operator? Or are their plans to do so in the near future?

No

d) Have there been major changes in the manner in which the sector is regulated since 2004? For example has a sectoral regulator been set up (if previously there was not one)? Have you introduced, or removed, end-user price regulation for either freight or passenger services? (see below for some specific questions on access charges).

***Before 2004:***

- Traditionally, end-user prices were regulated both in rail passenger and freight services.
- In the course of the Structural Reform, regulation and the phased deregulation of tariffs both in passenger and freight railway services took place.
- the end-use tariffs for rail passenger services in third-class sleepers were regulated;
- rail passenger services in first-class and second-class sleepers as well as express commuters services were deregulated;
- rail freight wagons operators services were also deregulated.

***Since 2004:***

- an access charge for infrastructure was introduced;
- Since 2004, there were approximately 200 licensed entities provided rail freight services (but in fact rail freight services were provided only by RZD).
- Since 2012, a scope of licensing services has been substantially reduced, so, there has been licensing only with respect to dangerous goods services. RZD, as well as freight wagons operators, providing services in the field of oil, gas, etc. transportation are licensed to produce such services.
- Since January 2013, in rail freight services end-users tariffs were set between low and upper levels (the so-called “tariff corridor”) instead of fixed end-users tariffs.

e) What is the form of competition you primarily rely on: competition from other transport modes (i.e., “inter-modal competition”) or competition from other rail operators within the rail mode (i.e., “intra-modal competition”)? Does this differ across rail services (e.g. you rely on intra-modal competition for freight services and for inter-modal competition for passenger services)?

There are both forms of competition in the Russian Federation: “inter-modal competition” and “intra-modal competition”.

The inter-modal competition takes place in freight and passenger services.

In freight services, air, water and road (trucks) transport are alternatives to the use of the railway. In some cases, the competition in the field of the road transport is intensive (the length of such competitive routes can reach up to 1500 km.).

In passenger services, air, water and road (cars, busses, etc.) transport are also alternatives to the use of the railway.

## **To develop competition**

### ***Before 2004:***

In 2000 the former Ministry of Antimonopoly Policy of Russia offered the flexible pricing for passenger conventional intercity services, depending on a season and demand. Passenger railway services in first-class and second-class sleepers were deregulated. At the same time, customers could choose to receive services either in first-class and second-class sleepers, or in third-class sleepers. They also could choose to receive services not only in the railway transportation but also in the road/air transportation.

### ***Since 2004:***

Due to successful experience, flexible pricing in the regulated segment and the deregulated tariff system continued to be applied.

Also, since 2013, a pilot draft of the “dynamic pricing” (initiated by the FAS Russia and FPC) is carried out on a number of routes. The “dynamic pricing” is a tariff setting method widely used in aviation. Within the system of the dynamic pricing, the price of tickets in first-class and second-class sleepers will be changing depending on a season, days of the week, demand and a quantity of sold places.

A program of the dynamic pricing is applied in the deregulated segment of rail passenger services in conventional intercity passenger trains. The pilot project includes more than 100 fast passenger and passenger trains running in 10 directions (routes). Routes were selected according to the level of competition with other modes of transportation. The main directions are: "Moscow - Saint-Petersburg - Moscow", "Moscow - Smolensk - Moscow", "Moscow - Voronezh - Moscow", "Moscow - Nizhny Novgorod - Moscow" etc. In these cases competition in air and road transport in passenger services is intensive (the length of such competitive routes can reach up to 1000 km.).

The “intra-modal competition” in passenger services is introduced as in conventional intercity services, so in commuters services.

In conventional intercity services the main competitors for FPC are RZD and private carriers on a route of Moscow-Saint-Petersburg.

In commuters services there are 29 carriers competing with 6-7 carriers in 5-6 regions.

The “intra-modal competition” in rail freight services between wagons operators (more than 1700 freight wagons operators) is scaled (both countrywide and in individual regions) and very effective.

## **2. Competition for the provision of freight services**

a) Since 2004 has (intra-modal) competition for the provision of freight services been introduced? If you already had (intra-modal) competition in the provision of freight services has this increased since 2004? What has driven this increase?

***Before 2004:***

A rail freight services end-user charge was totally regulated and consisted of three parts: a freight wagons part, an infrastructure part and a locomotive part.

Then the freight wagons part was deregulated. This concerned interaction among approximately 2100 freight wagons operators, wagons owners and shippers.

Since 2004:

According to the Structural Reform there was a phased liberalization of wagons operators' market.

The major part of RZD's wagons was transferred to the possession of two universal operators the First Freight Company, JSC (hereinafter – FFC), the Second Freight Company, JSC (hereinafter – SFC), and several operators specialized in rail container services, rail refrigerator services etc.

The rest of wagons were sold on a competitive basis to the private operators.

FFC and SFC were founded as RZD's subsidiaries. In 2011 FFC was privatized.

As a result of consolidation processes the number of freight wagons operators and wagons owners decreased from 2100 to 1700, but the freight wagons operators services market is still very competitive.

Development of this market allowed attracting investments into the sector, to upgrade wagons.

Since 2004, the total investment reached 600-700 billion Rubles (14-15 billion Euro), more than 300 thousand new freight wagons were constructed.

Since 2004, there were approximately 200 licensed entities providing rail freight services (but in fact rail freight services were provided only by RZD).

Since 2012, a scope of licensing services has been substantially reduced, so, there has been licensing only with respect to dangerous goods services.

RZD, as well as freight wagons operators, providing services in the field of oil, gas, etc. transportation are licensed to produce such services.

According to the Target Model of Rail Freight Services Market in Russia, the competition of carriers competing "in-the-market" (in the route) and competition of carriers competing "for-the-market" (for the route) are postulated.

Some experience of the competitive relationship which is similar to the competition between carriers is accumulated. Such relationship includes:

- provision of freight wagons operators services similar to the provision of freight carriers services (so-called "train formations");
- freight services being rendered from the common use infrastructure to the industrial infrastructure that can be provided either by the industrial infrastructure's owner's locomotive or by the locomotive of RZD.

As the international and the Russian experience shows the transaction costs in terms of new market entrants interaction can increase during the structural reforms entailed by vertical and horizontal separation. To reduce such costs and to get all possible benefits from competition it is necessary to establish a commercial infrastructure of the market<sup>3</sup>.

After 2015, within the framework of establishment of the Eurasian Economic Union, and in accordance with the Agreement on Regulation of Access to Railway Services Including the Basis of the Tariff Policy of 09.12.2010, mutual access to the common use infrastructures of the Russian Federation, the Republic of Belarus and the Republic of Kazakhstan shall be provided to carriers from these countries.

b) Is this competition primarily: for the right to provide a given set of services (i.e., “competitive tendering” or competition “for-the-market”) or between rail companies that are simultaneously active in the market (i.e. competition “in-the-market”)?

The FAS Russia considers the “in-the-market” competition to be more effective and, thus, primary. The “for-the-market” competition should also be developed.

According to the Target Model of Rail Freight Services Market in Russia, the competition of carriers competing “in-the-market” (in the route) and competition of carriers competing “for-the-market” (for the route) are declared.

After 2015, within the framework of establishment of the Eurasian Economic Union, and in accordance with the Agreement on Regulation of Access to Railway Services Including the Basis of the Tariff Policy of 09.12.2010, mutual access to the common use infrastructures of the Russian Federation, the Republic of Belarus and the Republic of Kazakhstan shall be provided to carriers from these countries.

c) How is this competition developing? Do you have data (e.g. on market share of the incumbent and new entrants) that show how this form of competition is performing? Have any competition cases brought to you since 2004?

Before 2004:

A rail freight services end-user charge was totally regulated and consisted of three parts: a freight wagons part, an infrastructure part and a locomotive part.

Then the freight wagons part was deregulated. This concerned interaction among approximately 2100 freight wagons operators, wagons owners and shippers.

Since 2004:

According to the Structural Reform there was a phased liberalization of wagons operators’ market.

The major part of RZD’s wagons was transferred to the possession of two universal operators FFC, SFC, and several operators specialized in rail container services, rail refrigerator services etc.

The rest of wagons was sold on a competitive basis to the private operators.

FFC and SFC were founded as RZD’s subsidiaries. In 2011, FFC was privatized.

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<sup>3</sup> See, e.g. A. Golomolzin, G. Davydov, Rail freight services market – a step in creation of the commercial infrastructure of the market. M., 2013

As a result of consolidation processes the number of freight wagons operators decreased from 2100 to 1700, but the freight wagons operators services market is still very competitive.

Development of this market allowed attracting investments into the sector, to upgrade wagons.

Since 2004, the total investment reached 600-700 billion Rubles (14-15 billion Euro), more than 300 thousand new freight wagons were constructed.

Since 2004, there were approximately 200 licensed entities provided rail freight services (but in fact rail freight services were provided only by RZD).

Since 2012, a scope of licensing services has been substantially reduced, so, there has been licensing only with respect to dangerous goods services.

RZD, as well as freight wagons operators, providing services in the field of oil, gas, etc. transportation are licensed to produce such services.

According to the Target Model of Rail Freight Services Market in Russia, the competition of carriers competing "in-the-market" (in the route) and competition of carriers competing "for-the-market" (for the route) are declared.

In 2011 the main carrier RZD abused its dominant position by refusing to provide freight wagons for rail freight services. More than 40 shippers addressed the FAS Russia complaining at such refusal of RZD. The FAS Russia acknowledged RZD in violating the antimonopoly law. Ruling on imposition of penalty was issued by the FAS Russia with respect to RZD for abusing its dominant position in rail freight services in Russia.

The penalty imposed on RZD has been the largest in the railway industry and has amounted to 2,2 billion rub. (55 million Euro). Currently, RZD is appealing the FAS Russia's resolution in court. Litigation goes with varying success.

d) How has the share of rail freight services changed since 2004 with respect to other modes of transport? What has determined these changes? Do you have recent data on the evolution of this share?

Rail freight services are the main type of the freight transportation (without taking into account the pipeline transportation) in the Russian Federation. Today they start facing competition with road transport (the length of such competitive routes can reach up to 1500 km.). Competition may happen on exact types of goods markets.



Here are the data on the evolution of a share of rail freight services in comparison with other transportation modes since 2004 up to 2012 (without the pipeline transportation).

|                             | 2004      | 2005      | 2006      | 2007      | 2008      | 2009      | 2010      | 2011      | 2012      |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total (%)                   | 100       | 100       | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
| Road                        | 8         | 9         | 9         | 8         | 9         | 8         | 8         | 9         | 10        |
| Air                         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| <b>Railway</b>              | <b>84</b> | <b>84</b> | <b>85</b> | <b>85</b> | <b>85</b> | <b>85</b> | <b>85</b> | <b>85</b> | <b>85</b> |
| Water (sea and inner water) | 7         | 7         | 6         | 6         | 6         | 7         | 7         | 5         | 5         |

Air freight services share is negligible, much less than 1%

Here are the data on the evolution of a share of rail freight services in comparison with other transportation modes since 2004 up to 2012 (with the pipeline transportation).

|                             | 2004      | 2005      | 2006      | 2007      | 2008      | 2009      | 2010      | 2011      | 2012      |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total (%)                   | 100       | 100       | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
| Road                        | 4         | 4         | 4         | 4         | 4         | 4         | 4         | 5         | 5         |
| Air                         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| <b>Railway</b>              | <b>40</b> | <b>40</b> | <b>41</b> | <b>43</b> | <b>43</b> | <b>42</b> | <b>42</b> | <b>43</b> | <b>44</b> |
| Pipeline                    | 53        | 53        | 52        | 50        | 50        | 51        | 50        | 49        | 49        |
| Water (sea and inner water) | 3         | 3         | 3         | 3         | 3         | 3         | 3         | 3         | 2         |

Air freight services share is negligible, much less than 1%

### 3. Competition for the provision of passenger services

a) Since 2004 has (intra-modal) competition for the provision of passenger services been introduced? If so for which services (commuters, regional low-density and conventional intercity passengers and high-speed services)? Is (intra-modal) competition in the provision of passenger services primarily: for the right to provide a given set of services (i.e., “competitive tendering” or competition “for-the-market”) or between rail companies that are simultaneously active in the market (i.e. competition “in-the-market”)?

In Russia competition has been introduced for the provision of conventional intercity passenger services.

#### *Before 2004:*

In 2000, the former Ministry of Antimonopoly Policy of Russia offered the flexible pricing for passenger conventional intercity services, depending on a season and demand.

Passenger railway services in first-class and second-class sleepers were deregulated.

At the same time customers could still choose either to get services in first-class and second-class sleepers or in third-class sleepers.

***Since 2004:***

Conventional intercity passenger services (a few carriers appeared – RZD, FPC, (RZD's subsidiary), Grand Express, CJCC, Tver Express, LLC etc.).

So, the main competitors for the FPC are the RZD and private passenger carriers on a Moscow-Saint-Petersburg route. The competition on this route is “in-the-market”.

Commuters services (25 commuters carriers (shared by RZD and regional governments), 4 passenger express carriers (Interregional Passenger Company, LLC (private enterprise), Perms Express, LLC (state owned), Regional Express, LLC, Aeroexpress, JSC (50% share – RZD).

So, there are 29 carriers providing services in 70 regions. At the same time, the competition (within 6-7 carriers) is in 5-6 regions (more than 70% of total served passengers).

The competition in commuters services “for-the-market” is declared and “in-the market” is applied, but not widely.

Commuters services carriers were established within the framework of vertical and horizontal separation and RZD corporatization. Then, regional authorities and (lightly) private owners acquired a stake in these carriers.

Carriers operate with carriages rented from RZD.

Tenders possibility for exclusive provision of commuters services in individual regions is discussed within a Draft of a law «On regular passengers services». It is also mentioned that for a long time the order will be placed with sole providers from among existing commuters carriers.

Competition “in-the market” takes place between railway transportation and road (car and bus) transportation.

Intra-modal railway competition takes place between commuters services and express commuters services (competition between carriers in 5-6 regions) as well as competition between commuters services and services in day coaches/third-class sleepers (regional low-density passenger services, main carrier is FPC). So, passenger can choose the type of carrier and/or service.

b) If you have introduced or already competition in the market for the provision of passenger services has there been entry by alternative operators since 2004? If so in the provision of which specific services (commuters, regional low-density passengers, conventional intercity passengers and high-speed services)? Have there been antitrust interventions linked to this entry?

***Before 2004:***

In 2000 the former Ministry of Antimonopoly Policy of Russia offered the flexible pricing for passenger conventional intercity services, depending on a season and demand.

Passenger railway services in first-class and second-class sleepers were deregulated.

At the same time, customers could still choose either to get services in first-class and second-class sleepers or in third-class sleepers.

***Since 2004:***

Alternative carriers have been entering the intercity passenger services market.

- 2009 – Tver Express, LLC, 2010 – FPC, 2011 - TransClassService, CJSC, etc.

Since 2004 alternative carriers have been entering the commuters services market.

- 2005 – Aeroexpress, JSC (50% share of RZD), 2010 – Perm Express, LLC, 2011 – Regional Express, LLC, etc.

There have been several FAS Russia antitrust interventions.

In 2011, the FAS Russia acknowledged FPC in violating the Federal Law “On Protection of Competition” while providing the intercity passenger services. FPC abused its dominant position by the economically and technologically unjustified cutting off the provision of services when there was a demand for such a service on the Ekaterinburg-Moscow route. According to the antimonopoly law, a penalty was imposed on FPC. FPC paid it completely without appealing in court.

In 2011, the FAS Russia acknowledged RZD in violating the Federal Law “On Protection of Competition” (abuse of its dominant position and infringement of passengers’ interests by economically and technologically unjustified cutting off the provision of services when there was a demand for such a service). RZD substituted the commuters train with a state regulated rail services charge and a capacity of more than 1000 passengers with an express train (the rail services charge was 2 times higher and the capacity was only 600 passengers). Substitution occurred in the Moscow Region in a morning “rush hour”. The FAS Russia issued a resolution prescribing that a new express train had to be additional to the existing train and would not replace it. The FAS Russia’s resolution was appealed and reversed by court. At the same time, an additional commuters train with a state regulated rail services charge and a capacity of more than 1000 passengers was set into the schedule in the morning “rush hour”. The express train also remained in the schedule.

c) How is this competition developing? Do you have data (e.g. on market share of the incumbent and new entrants) that show how this form of competition is performing? Have any competition cases brought to you since 2004?

***Before 2004:***

At the very beginning of 2000s the provision of conventional intercity passenger services in first-class and second-class sleepers was deregulated. That led to the establishment of several private carriers and to the development of inter-modal and intra-modal competition. At the same time, customers could still choose to receive services either in first-class and second-class sleepers or in third-class sleepers.

***Since 2004:***

The main competitors for FPC are RZD and private carriers on a route of Moscow-Saint-Petersburg. A number of carriers in commuters services (mainly owned by RZD and the state, and seldom by the private sector) has emerged. There are 29 carriers providing services in 70 regions. At the same time, the competition (within 6-7 carriers) is in 5-6 regions (more than 70% of total served passengers). At the

present time, a number of such carriers rendering both convenient intercity passenger services and commuters' services are increasing very slowly.

- In 2009, the FAS Russia acknowledged RZD in abusing its dominant position by imposing passenger coaches operators to sign contracts with RZD-Tour, JSC, to provide passenger services and pay 9% of the total services charge. Other entities faced serious barriers in providing rail tourist services using their own or rented wagons. The courts approved the FAS Russia's resolution.

d) Since 2004 have you been tendering franchises for the provision of passenger services? Or are you planning to introduce them? If so for the provision of which services has it been used (commuters, regional low-density passengers, conventional intercity passengers and high-speed services)?

Since 2004, there have been no such tenders in Russia. The possibility to introduce such tenders is discussed within the Draft of the Law "On Regular Passengers Services":

The FAS Russia considers that the market analysis and all possible potential of competition "for-the-market" and "in-the-market" should be realized.

According to the FAS Russia's opinion, competition "for-the-market" can be effective in the sectors where subsidies are necessary and there are several bidders for service provision. One of the tender criteria may be the minimization of budget expenditures. Detailed requirements for bidders and the terms of contracts signed after tenders should be established.

In the FAS Russia's opinion, the competition "in-the market" can be effective if a market analysis shows necessary conditions for inter-modal and intra-modal competition. If competition is restricted, the tariff regulation should be applied. At the same time, such regulation should elastically reflect all changes in demand and supply. Tariffs should be deregulated when there is competition. Modern pricing methods such as the "dynamic pricing" (widely used in aviation) should be applied. The dynamic pricing should be the benchmarking for the pricing in the state regulated rail services.

The FAS Russia considers that modernization of the legislation should also be aimed at establishment of the transportation services standards, including the minimum social transportation standards.

At the present time, the mechanism of placing an order for the exclusive right to serve the area in conventional intercity passenger and commuters services is discussed. Minimization of budget expenditures is not a criteria when tendering "in-the market" and for a long time the order will still be placed with sole providers from among existing intercity passenger and commuters carriers.

The FAS Russia considers that this mechanism is effective. International experience shows that the greatest effect is reached by saving budget funds.

The FAS Russia also considers that in the regulated segment the tariffs should be set at economically sound level and in the competitive segment at market costs. There should also be provision of budget allocations within the direct subsidizing of certain categories of passengers and/or to objects of common use infrastructure.

The scheme proposed by the FAS Russia will allow to optimize budget spending as well as to provide subsidies to those who need them.

e) Have tenders been used only for the provision of socially supported services (i.e. subsidized services) or have they also been used for the provision of profitable passenger services?

There have been no socially supported services tenders in Russia.

At the same time, since 1999, in other services of the railway industry, according to the Regulation of the Government of the Russian Federation, natural monopoly holders were recommended to carry out procurement of goods (services) for their own consumption in accordance with the procedure provided for the placement of orders for goods, works and services for state needs. This regulation was of a recommendatory nature.

At the present time, tenders in other services of the railway industry are held according to the Federal Law “On Procurement of Goods, Works and Services by Certain Types of Legal Entities”.

The Law obliges natural monopolies to procure goods, works and services required for implementation of regulated activities, through a tender process.

According to this Law, all information on tenders is posted in the Internet. Business entities-natural monopolies have developed the Procurement Regulations, which regulate the procurement activities of the customer and contain requirements for procurement, the conditions of their use, etc.

The FAS Russia considered a number of cases brought against natural monopoly holders in connection with violation of the Law “On Protection of Competition” (antimonopoly requirements for bidding).

In October 2010, the FAS Russia acknowledged RZD in violation of the Law “On Protection of Competition”. The violation of the Law consisted in taking actions (lack of action) during the bidding, that lead or may lead to the prevention, restriction or elimination of competition.

f) How effective has the use of tenders been? Have you regularly had more than two bidders? Have there been cases of collusion?

In the fields of the railway industry where tenders are held, they are held more often than 2 times a year. As a rule, there are more than 2 bidders in such tenders. Tenders could be more effective if open transparent terms of tenders have not been violated.

In October 2012, the FAS Russia acknowledged FPC in violating the Federal Law “On Protection of Competition” while holding an open tender on provision of maintenance services and electric/electronic equipment repair of passenger wagons of all types in 2012-2026. Having informed about the tender, FPC initiated some changes in the tender’s documentation and toughened the qualifying criteria for bidders. One of such changing criteria was an increased experience in provision of maintenance services. The FAS Russia detected that Transport Repair Company, LLC was the only business entity having a sufficient level of experience in provision of maintenance services. Such level of experience was explained by the fact that Transport Repair Company, LLC had been providing the same services to FPC since 2010. The FAS Russia decided to file a lawsuit to invalidate the tender held by FPC and the resulting contract. The FAS Russia appealed the court to break off the contract.

g) Do winners of tenders have to provide their own trains and personnel? If so, has this been a barrier to entry in your experience?

There have been no such tenders in Russia.

In other fields of the railway industry the tenders are held. Carrier can make requirements concerning personnel. At the same time, such requirements are not barriers to entry into the market because according to the Russian legislation a carrier must guarantee provision of services on an economically sound price.

h) What are the main characteristics of these tenders (e.g. length and criteria used for selecting the bids)?

There have been no tenders for passenger services provision in Russia.

The possibility to introduce such tenders is discussed within the Draft of the Law “On Regular Passengers Services”:

The FAS Russia considers that the market analysis and all possible potential of competition “for-the-market” and “in-the-market” should be realized.

According to the FAS Russia's opinion, competition “for-the-market” can be effective in the sectors where subsidies are necessary and there are several bidders for service provision. One of the tender criteria may be the minimization of budget expenditures. Detailed requirements for bidders and the terms of contracts signed after tenders should be established.

In the FAS Russia's opinion, the competition “in-the market” can be effective if a market analysis shows necessary conditions for inter-modal and intra-modal competition. If competition is restricted, the tariff regulation should be applied. At the same time, such regulation should elastically reflect all changes in demand and supply. Tariffs should be deregulated when there is competition. Modern pricing methods such as the “dynamic pricing”(widely used in aviation) should be applied. The dynamic pricing should be the benchmarking for the pricing in the state regulated rail services.

The contracts with tenders' winners should be signed for the period of no less than 5 years.

i) Have you experienced problems in the design and the use of tenders? If so, which? How are you planning to address them?

Since 1999, according to the Regulation of the Government of the Russian Federation, natural monopoly holders were recommended to carry out procurement of goods (services) for their own consumption in accordance with the procedure provided for the placement of orders for goods, works and services for state needs. This Regulation was of a recommendatory nature.

In July 2011, the Federal Law “On Procurement of Goods, Works and Services by Certain Types of Legal Entities” was adopted, that obliges natural monopoly holders to procure goods, works and services required for implementation of regulated activities, through a tender process.

According to this Law, all information about the tenders is posted in the Internet, business entities-natural monopoly holders have developed the Procurement Regulations, which regulate the procurement activities of the customer and contain the requirements for procurement, the conditions of their use, etc.

The FAS Russia considered a number of cases brought against natural monopoly holders in connection with violations of the Law “On Protection of Competition” (antimonopoly requirements to bidding).

In October 2010, the FAS Russia acknowledged RZD in violation of the Law “On Protection of Competition”. The violation of the Law consisted in taking actions (lack of action) during the bidding that lead or may lead to the prevention, restriction or elimination of competition.

In 2009-2010, the Central Directorate for repair of freight wagons (a branch of RZD) held two public tenders for the right to enter into service contracts for maintenance of equipment for wagon repair enterprises. FAS Russia established that, in spite of the fact that the subject matter of these tenders was the

same work, the procedure used by RZD included a different procedure for determining the winner, and both tenders were won by the same entity. Thus, information on the procedure of determining the winner of the tender was not brought to the business entities wishing to take part in the bidding. The FAS Russia appealed the court to break off the contract.

j) If you tender socially supported services (i.e. subsidized services) has the level of subsidies decreased following the introduction of tenders? If so by how much?

There have been no such tenders in Russia.

k) If you do not tender socially supported services how do you determine the amount of subsidies needed to ensure their provision?

The socially supported services tariff is set on a socially solvent level. The state regulator (the FST Russia) also set the economically sound level of tariffs. The difference between the tariffs (the so called dropping-out revenue) gets compensated from the federal budget. Since 2011, in commuters services 99,9 % of payment for infrastructure (access charge) is paid from the state budget. 0,01% of access charge is paid by the carrier itself.

The FAS Russia also considers that in the regulated segment the tariffs should be set at economically sound level and in the competitive segment at market costs. There should also be provision of budget allocations within the direct subsidizing of certain categories of passengers.

The FAS Russia suggests the following arrangements for three categories of routes:

- for passenger routes without alternative types of transportation – 50% of the train coaches should be third-class sleepers, the tariff should be state regulated.
- for passenger routes where the passenger carrier has a market force among all types of transportation – 30-50% of the train coaches should be third-class sleepers, the tariff can be state regulated.
- for the passenger routes with inter-modal competition, 30% of the train coaches should be third-class sleepers, the tariff should be deregulated.

l) How has the share of rail passenger services changed since 2004 with respect to other modes of transport? What has determined these changes? Do you have recent data on the evolution of this share?

The share of rail passenger services remains pretty high in Russia. Nowadays, it sees the rising of competition in the field of road passenger services and especially in air passenger services.

## **To develop competition**

### ***Before 2004:***

In 2000, the former Ministry of Antimonopoly Policy of Russia offered the flexible pricing for passenger conventional intercity services, depending on a season and demand. Passenger railway services in first-class and second-class sleepers were deregulated. At the same time, customers could choose either to get services in first-class and second-class sleepers or in third-class sleepers. They also could choose to receive services not only in the railway transportation but also in the road/air transportation.

**Since 2004:**

Due to successful experience, flexible pricing in the regulated segment and the deregulated tariff system continued to be applied.

Also, since 2013, a pilot draft of the “dynamic pricing” (initiated by the FAS Russia and FPC) is carried out on a number of routes. The “dynamic pricing” is a tariff setting method widely used in aviation. Within the system of the dynamic pricing, the price of tickets in first-class and second-class sleepers will be changing depending on a season, days of the week, demand and quantity of sold places.

A program of dynamic pricing is applied in the deregulated segment of rail passenger services in conventional intercity passenger trains. The pilot project includes more than 100 fast passenger and passenger trains running in 10 directions (routes). Routes were selected according to the level of competition with other modes of transportation. The main directions are: "Moscow - Saint-Petersburg - Moscow", "Moscow - Smolensk - Moscow", "Moscow - Voronezh - Moscow", "Moscow - Nizhny Novgorod - Moscow", etc.

Due to the introduction of the dynamic pricing, in 2013, FPC expects to have increase in the number of passengers up to 4-5% in a deregulated segment of transportations.

The FAS Russia considers that the dynamic pricing should be benchmarking for the pricing in state regulated rail services.

Here are the data on the evolution of the rail passenger services share in comparison with other transportation modes since 2004 up to 2012.

|                             | 2004      | 2005        | 2006        | 2007        | 2008        | 2009        | 2010        | 2011        | 2012        |
|-----------------------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Total (%)                   | 100       | 100         | 100         | 100         | 100         | 100         | 100         | 100         | 100         |
| Road                        | 39,5      | 34          | 31,7        | 29,2        | 27,8        | 28,8        | 32,9        | 31,1        | 28,1        |
| Air                         | 20,2      | 21,9        | 23,5        | 27,5        | 29,6        | 30,3        | 34,4        | 37,4        | 41,3        |
| <b>Railway</b>              | <b>40</b> | <b>43,9</b> | <b>44,5</b> | <b>43,1</b> | <b>42,4</b> | <b>40,7</b> | <b>32,5</b> | <b>31,3</b> | <b>30,5</b> |
| Water (sea and inner water) | 0,3       | 0,3         | 0,2         | 0,3         | 0,2         | 0,2         | 0,2         | 0,2         | 0,1         |

#### 4. Access charges<sup>4</sup>

a) The railway infrastructure has typically high fixed costs and low operating costs. This implies that access charges (when these are necessary) must include a mark-up to allow for the recovery of fixed costs, unless the shortfall is paid for through public funds. If access charges are paid by railway operators in your country how are access charges currently set? Do access charges include a mark-up for fixed costs and, if so, how is this determined? If not, how are fixed costs recovered by the infrastructure manager? Is the mark-up different between providers of passenger and freight services? And if so why? Is the mark-up different depending on the route to which access is given?

<sup>4</sup> When the rail network is run by an entity which is separate from the operator(s) who provide services on it, the latter have to pay a charge to gain access to the network. This charge contributes to the cost of running the network.



In accordance with the Federal Law “On Natural Monopolies” regulated tariffs in Russia should support both operation and development of regulated entities. When making decisions on tariffs, also the measures of state support for the development of infrastructure are primarily taken into account.

In the rail freight services in Russia RZD sets a tariff for shippers. This tariff consists of 3 parts: the freight wagons part, the infrastructure part and the locomotive part. When the shipper uses wagons of the wagons operators or wagons owners the tariff consists of 2 parts: joint infrastructure + locomotive part and the wagons part.

In the rail passenger services carrier sets a tariff for end-users. This tariff consists of 4 parts: the passenger coach part, the infrastructure part, the locomotive part and the railway station part. At the same time, the rail passenger carrier pays RZD (the owner of infrastructure) for the infrastructure and the railway station. So, in the rail passenger services the access charge is the aggregate charge (for the infrastructure and the railway station).

These access charges are averaged for the network. The implementation of differential charges on local routes of the common use infrastructure directed on their development and capacity increase is discussed in the field of rail freight services. Such implementation will help to widen the “bottle-necks” of the infrastructure.

In conventional intercity passenger services the payment for infrastructure and railway station (the access charge) is paid by the carrier to RZD.

Since 2011, in commuters services 99,9 % of the payment for infrastructure and the railway station (the access charge) that is to be paid by carrier to RZD, is covered from the state budget. 0,01% of the access charge is paid by the carrier to RZD. The reduction of such budget coverage is discussed.

b) If there is structural separation in your country has this made access charges easier or harder to design and implement?

In the Russian Federation, there is structural separation both in freight services and passenger services.

The separation in freight services (infrastructure + carrier and wagons operators) differs from one in passenger services (infrastructure, carrier and wagons operators).

The structural separation makes access charges easier. It helps to make access charges more economically sound and transparent.

c) Have you had cases in which discriminatory pricing (through mark-ups for fixed costs) have been a way to disguise an abuse of market power?

As a fixed payment for infrastructure (the access charge) is set by the regulator authority (the FST Russia), there was no discriminatory pricing before 2013.

With that, since 2013, the FST Russia has set price limits (maximum and minimum) for charges on rail freight services for network average conditions; introduction of the discriminatory pricing by RZD is possible.

At the same time, it should be noted that these charges may be reviewed for compliance with antimonopoly law at the request of Russian, Belarusian and Kazakh consumers.

## 5. Investments

a) Railway infrastructure requires constant investments. Who ensures that these investments take place and at an efficient level?

The procedure of making decisions on investments in the railway infrastructure is the following. The railway carrier draws an investment plan. Then the plan is discussed by the Board of Directors, including representatives of the Russian Government. Everyone reviews a plan within their own jurisdiction. The Ministry of Economic Development examines investments issues (macro-economic and micro-economic consequences get assessed), the Ministry of Transportation (achievement of long-term goals of sectoral development), and the FST Russia (checking for validity of tariff proposals).

b) Who undertakes these investments (public sector, private sector or their combination)?

These investments are mostly undertaken by:

- a public sector (the federal budget);
- RZD (investments are made from the Company's profits);
- a private sector (a few infrastructure projects).
- There are projects that will be financed by a combination of public/private investments. One of such projects is the railway Kyzyl-Kuragino. The project is adopted by the Russian Government. Investments will be based on the so-called public/private partnership (public-50%, private-50%).

c) Has this changed since 2004 and, if so, how?

Since 2004, there has been a discussion on making private sector investments more common. In this connection, the necessary legislation is being elaborated in the Russian Federation.

The Road Map "On Development of Competition" prescribes the implementation of a long-term tariff policy on railway services.

The main objectives of the Road Map are the following:

- development of the railway infrastructure and related markets objects;
- forming of sustainable and favorable terms for private investments into the railway industry construction;
- development of the state support mechanisms for the growth of investment attractiveness of infrastructural industries.

The implementation of differential charges on local routes of the common use infrastructure directed on their development and the capacity increase is discussed in rail freight services. Such implementation will help to widen the "bottle-necks" of the infrastructure.

Decisions on freight rail services tariffs will be made through setting:

- reduced tariffs, if private investments are attracted and the cost of borrowed funds invested in the common use railway infrastructure owned by a regulated entity or controlled by it on the basis of other proprietary right is recovered due to reduced tariffs for the rail freight services to an investor;

- increased tariffs, when funding is made by a regulated entity or by private investors and the funds invested into the common use railway infrastructure, including the cost of borrowed funds are recovered through increased tariffs for the rail freight services to non-investors.

## 6. High-Speed Rail Services

a) High-speed rail passenger services are becoming more widespread. Are these provided on the network in your country?

Since the end of 2010 **speed rail passenger services** have been introduced only on two directions in the Russian Federation: Moscow-Saint-Petersburg and Saint-Petersburg-Helsinki.

Moscow-Saint-Petersburg, the highest speed is 250 km/h, the only carrier is RZD.

Saint-Petersburg-Helsinki, the highest speed is 220 km/h, the only carrier is Oy Karelian Trains Ltd.

The infrastructure is primarily used by rail freight and passenger services. There is no specialized, dedicated infrastructure for high-speed services.

b) Do you regulate fares for these services? Or do you plan to do so? If not, do you consider that competition from other modes of transportation is sufficient to constraint them?

No, the tariffs for these services are not regulated.

c) The infrastructure for the provision of high-speed rail services requires considerable investments. Who is funding them (public sector, private sector or a combination)?

The renovation (modernization) of the existed infrastructure was funded by the public sector and RZD.

d) Is the provision of high speed rail services open to competition? Has there been entry and if so when? How is this competition developing? Do you have data (e.g. on market share of the incumbent and new entrants) that show how this form of competition is performing?

The provision of high speed rail services is open to competition, but there are no new operators because of the lack of infrastructure (no specialized infrastructure) and a high cost of wagons.

e) What competition issues have arisen, if any, and are these different from those that would occur with

competition in speed rail services in Russia is “inter-modal” and “intra-modal”. The speed trains compete with airplanes (Moscow-Saint-Petersburg, Saint-Petersburg-Helsinki) (“inter-modal”) and with other carriers (“intra-model”).

because of the absence of specialized rail infrastructure, the speed trains embarrass the freight, convenient intercity and commuters rail services.

Creation of **high-speed passenger rail services** is discussed in the Russian Government. It is included in the Transport Strategy of the Russian Federation up to 2030.

The main idea is that these services will be provided on the respective infrastructure and the highest speed will be up to 350-400 km/h.

According to the Strategy, certain high-speed railroads, i.e. Moscow-Kazan, should be constructed by 2018.

## SPAIN

### 1. Deregulation of the freight railway transport in Spain:

In quantitative terms, the transport sector represents 5% of GDP and 4.8% of the total jobs in the Spanish economy. Further, on a qualitative level, transport is a strategic sector in so far as it is vital if other sectors are to develop. Optimal use of the various modes of transport is, therefore, crucial if the economy as a whole is to be competitive.

Deregulation of the freight railway transport began at European level in 2001, with the approval of the "first railway package". In Spain it resulted on the approval of the Railway Sector Act (*Ley del Sector Ferroviario*) in 2003 and the opening up the market to competition from 2005.

Subsequently, two reports on Draft Bills,<sup>1</sup> issued in 2009 by the Spanish Competition Authority (*Comisión Nacional de la Competencia –CNC-*), have referred to freight railway transport stating that, despite of the opening up of the market, barriers to entry persisted due to administrative burdens that made it difficult to obtain the licence to operate, and to remaining legal privileges that favored the former monopolist, *RENFE*.

In September 2012, right after the approval of Royal Decree-Law 22/2012 (R.D-L), the act designed to implement new measures on infrastructure and railway services in Spain, the CNC issued an opinion on how such act will solve competition problems in the sector. The CNC welcomes the liberalization of the railway sector in Spain aimed at by the R.D-L, although it criticizes the act's content and the way it was enacted.<sup>2</sup> The CNC states that the R.D-L is unsuccessful in fulfilling its purposes because it falls short of what is required and contains inaccuracies. The CNC argues that it is not possible to undertake the objectives merely with the provisions implemented. The following measures are mentioned as not having been addressed: the avoidance of barriers to entry and expansion caused by the current structure of the different fees; reduction of the difficulties to access the market; and the removal of *RENFE*'s advantages over other operators, by virtue of the "grandfather clause", according to which *RENFE* will continue to be able to operate the network capacity that it uses upon liberalization, to the detriment of other operators. In conclusion, the CNC states that the legislative reform has been implemented expeditiously and partially in a sector that needs a thorough transformation.

Eight years after deregulation, new operators have still only penetrated the market to a very limited extent and the railway has lost ground to other modes of goods transport in Spain, and currently represents a much smaller proportion than in other European countries.

Thus, in March 2012 the CNC publicly announced its intention to conduct a study on competition in the transportation of goods by rail, which has recently been published (May, 2013).

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<sup>1</sup> IPN 30/09, Omnibus Royal Decrees. Railway Sector; and IPN 31/09, Omnibus Royal Decrees. ADIF Statute.

<sup>2</sup> The procedure to enact RD-L 22/2012 was based on the celerity and urgency of the measures to be adopted within the framework of the Spanish financial crisis, in particular, to fulfill the budget stability objective set by the government.

In addition to the reporting activity on the freight railway transport, the CNC is nowadays drafting a report on tourist railway transport regulation.

## **2. The CNC's 2013 Report on competition in the railway transportation of goods in Spain<sup>3</sup>:**

Over the investigation period, the CNC held numerous consultations with public and private operators, existing or potential participants in the rail transport market, and checked its preliminary results and findings against some of those operators. The study makes 9 groups of recommendations, divided into a total of 26 detailed recommendations, directed at the Spanish Government as the regulator of the rail transport system on the General Interest Railway Network (*Red Ferroviaria de Interés General –RFIG-*).

Virtually all transportation of goods by rail in Spain takes place on the State-owned network (the RFIG), although there are also networks owned by the regions. The study focuses on the conditions for competition on the RFIG, where the transportation of goods was deregulated in 2005. The RFIG transportation of goods model is based on the separation of infrastructure management from service provision. Administration of the infrastructure is entrusted exclusively to the Railway Infrastructure Administrator (*Administrador de Infraestructuras Ferroviarias –ADIF-*), with the exception of the public interest ports, which are the responsibility of the port authorities, and on the international (UIC) gauge line between France and Spain which is administered by the concession holder TP Ferro. The transportation service must be provided, in competition, by the rail companies, prominent amongst which is RENFE. The Railway Regulation Committee (*Comité de Regulación Ferroviaria*) is the public body responsible for ensuring diversity of supply.

The report identifies and analyses in detail the competition structure of the main markets and activities involved in the transportation of goods by rail: infrastructure, the transportation of goods by rail service, the availability of rolling stock, maintenance and repair of rolling stock and the provision of services at rail terminals. In the market for the provision of services for the transportation of goods by rail, RENFE is the clear dominant, with a market share of almost 85%. This situation is reinforced by the operator's position in related markets, which are necessary to provide transport services: the availability of rolling stock and the services of maintenance and repair of rolling stock. On the other hand, ADIF administers almost the entire infrastructure and directly provides logistical services at RFIG's terminals, where alternative service providers have a very limited presence.

The study also compares the market for the transportation of goods by rail in Spain in relation to other countries. It finds corroboration of the relatively low proportion which railways represents in Spain compared with all other forms of transportation of goods and the relative decline in that proportion in recent years, steeper in Spain than in other European countries. The comparison does not show, however, that this is due to a relative dearth of rail networks. It does highlight, however, the peculiar nature of the Spanish network which, with three different gauges, raises issues of interoperability with the countries of Central Europe. The indicators also show that Spain is trailing other European countries in terms of the degree to which new entrants have penetrated the sector and the level of efficiency of the incumbent operators.

With the whole of the foregoing analysis as its starting point, the report identifies five groups of factors which are holding back competition in the transportation of goods by rail in Spain.

First, the special characteristics of Spanish rail infrastructure play a part in isolating the Spanish market from the markets of Central Europe, by slowing the speed of trains and limiting their length, and

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<sup>3</sup> [http://www.cncompetencia.es/Inicio/GestionDocumental/tabid/76/Default.aspx?EntryId=189526&Command=Core\\_Download&Method=attachment](http://www.cncompetencia.es/Inicio/GestionDocumental/tabid/76/Default.aspx?EntryId=189526&Command=Core_Download&Method=attachment)

reducing the intermodality of rail with maritime transport. The report **recommends** that, in order to reduce those problems, the cost benefit analysis used in planning infrastructure and investment needs to incorporate considerations relating to competition in the markets.

Secondly, the report identifies a series of factors associated with infrastructure administration and management. Amongst the factors which reduce the incentives for new operators to enter and expand in the rail sector it draws attention to the opening of rail terminals and their schedules, the lack of regulation of the additional, complementary and ancillary services provided at terminals, the low priority given to economic criteria in allocating infrastructure capacity and the dual role of ADIF as the single infrastructure administrator and the incumbent provider of those services. It therefore **recommends** improving how those tasks are carried out in order to improve efficiency and to encourage firms to develop and to differentiate the services supplied.

Thirdly, other barriers were identified concerning regulation of access to and the pursuit of railway activities. In order to operate in the sector, a series of permits have to be obtained (rail company licence, safety certificate and approval of rolling stock and drivers) which involve significant costs and are time-consuming, particularly for new rail operators. Added to these are the charges payable for infrastructure use which, as currently configured, impede the entry of new companies. Recommendations are therefore made aimed at ensuring that the requirements for accessing the activity of the transportation of goods by rail in Spain comply with the principles of necessity, proportionality, transparency and non-discrimination. The report also **recommends** making changes to the charging regulations, so that they incentivize efficient use of the networks and foster effective competition, and also indicates that the charges should penalize any strategic practices by companies when reserving capacity.

Fourthly, the report highlights a series of advantages which the system gives to RENFE. These represent the most significant factor influencing effective competition in the market and make its position unassailable by the other rail companies. Those advantages include a number of regulatory advantages, such as the "grandfather clauses" contained in the Railway Sector Act and in the capacity allocation rules. Other advantages derive from the non-replicable resources available to RENFE, such as Iberian gauge rolling stock, the assets for maintaining and repairing that rolling stock and the public funding it receives. There are also advantages relating to access to information and the ability to influence the infrastructure administrator and the system regulator, in so far as both RENFE and ADIF are attached to the Ministry of Infrastructures. That link makes the existence of competition in the market less credible in the eyes of new entrants. The report therefore contains a series of **recommendations** which seek to eliminate or mitigate, as the case may be, the barriers described above, which include giving legal, accounting and functional independence to RENFE's business units and uncoupling it from the Ministry of Infrastructures and the infrastructure administrator.

Lastly, the report notes the relative underdevelopment of the figure of the railway regulator, which currently has no powers to impose penalties and no legal personality, is dependent on the Ministry of Infrastructures for resources and is under-resourced. The report therefore **recommends** taking the opportunity of the changes planned by the Government with creation of the *Comisión Nacional de los Mercados y de la Competencia*.<sup>4</sup> (CNMC) to increase the role of the railway regulator in the market.

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<sup>4</sup> The new single entity which, in a few months, will bring together all the existing network industry regulatory bodies (the railway regulator included) with the Spanish competition authority.



## CHINESE TAIPEI

This report will focus on the developments and competition in the rail industry in western Chinese Taipei. In preparing this report, the Fair Trade Commission (FTC) consulted with the Ministry of Transportation and Communications (MOTC), the competent authority of the railway industry.

### 1. An Overview of the Rail Industry in Chinese Taipei

Pursuant to Article 3 of the Railway Act, the railway systems shall be operated in principle by the state in Chinese Taipei. Any construction, extension, transfer or operation of private railways shall be approved by the MOTC. Currently, the general railway system in Chinese Taipei is operated by the Government. There is no plan to privatize rail transportation and its infrastructure in the near future. As set forth in Article 4 of the Railway Act, the TRA, an agency under the MOTC, is in charge of the administration matters of state-owned railways, including planning for the mid-term and long-term developments as well as construction projects of railway system, and making decisions on important investments, resources allocation, management and marketing strategies, and operation of passenger and freight transportation services. Therefore, the government will budget for the investment proposals by the TRA in general railway infrastructure when the MOTC concluded that the investment proposals meet the current demand.

Due to the high density of population in the western plains, the MOTC started in the 1990s to push for the plan of high-speed rail construction to cope with the intercity transportation. In 1998, the THSR Corporation (THSR) won the bid and signed a contract with the MOTC to obtain the concession of building the high-speed rail system and operating rail service for 35 years. The system will be rendered back to the government when the term is expired. The high-speed rail is the first major BOT (build-operate-transfer) transportation project. The total building cost of the system was around NT\$431.6 billion (US\$14.5 billion), NT\$105.7 billion (about 21%) was funded by the Government and THSR covered the remaining amount. The high speed rail was built since 1999 and has been operated since Jan. 5 2007. To date, there is only one high-speed rail system operated by a single enterprise in Chinese Taipei. Based on the current regional development and transportation environment, there will be no plan to build another high-speed rail system or bring in any new operator in the near future.

The high-speed rail is operated by THSR under the supervision of the MOTC in accordance with the Railway Act, the Regulations for supervising Railways Operated by Local Governments and Private Enterprises and Industrial Rails, the Statute for Encouraging Private Investment in Transportation Construction, and the contract between THSR and the MOTC. The THSR is required to file reports on its operating conditions, profits and losses, passenger loads and improvement plans so that the MOTC could maintain a close watch and take timely corresponding measures at the earliest time when abnormalities are discovered. In other words, the high-speed rail may be a private operator, but its operation is not entirely independent. It is still subject to the supervision of the MOTC.

The pattern of competition in the rail industry in Chinese Taipei is different from passenger transportation and freight transportation, and also varies with the distance between stations. The details are would be illustrated in the following paragraphs.



## 2. Regulations on Railway Fares

Article 26 of the Railway Act states that the TRA sets the fares in accordance with the fare formula established by the MOTC. These proposed fares must be submitted to the Executive Yuan (Cabinet) and then forwarded to the Legislative Yuan (Congress) for ratification. The setting of temporary fares under special circumstances also requires the approval from the MOTC.

Although the high-speed rail is not operated by the government, the fares have to be submitted to the MOTC for approval as set forth in Article 35 of the Railway Act. Furthermore, as stipulated in Article 32 of the Regulations for Supervising Railways Operated by Local Governments and Private Enterprises, and Industrial Railways, the MOTC may command private railway operators to adjust the prices, capacity, frequency, and arrival and departure times if such changes are deemed necessary to safeguard the public interest. According to the contract between THSR and the MOTC, the basic fares may be reviewed and adjusted in line with the fluctuations of consumer price index each year. THSR can raise the approved basic fare by up to 20% after taking into consideration the distances, services or differences between peak and off-peak times but the average fare for general service cannot exceed 120% of the basic fare approved by the MOTC.

## 3. Competition for Intercity Freight Services

As for the MOTC's 2012 Transportation Policy White Paper, intercity freight services are mainly provided via highways, and the ratio of freight services provided by train is rather low<sup>1</sup>. In fact, THSR does not provide freight service and the TRA is the only rail operator of freight in Chinese Taipei. Since 2004, the freight rail service has declined and its market share remains between 2.2% and 3% in freight market. The main reason is that the reach of rail freight is incomparable to that of road freight. On top of this, it has been the policy of the TRA to focus on passenger service and thus the investment in freight service has been relatively small.

The main produces of freight services provided by the TRA are limestone, cement, gravel and coal, which account to 80% of the total amount of freight. This indicates that bulk raw materials are the main types of goods transported by rail. Other types of freight include grains and containers. The rail freight service for grains is gradually being terminated due to the removal of railways inside Kaohsiung and Keelung Harbors in harmony with the urban renewal project. The transport volume of containers, however, went up in 2011 mainly because the China Steel Corporation changed its policy under the instruction of the MOTC to ship the limestone excavated in Hualien on the east coast to the western area by rail instead of roads.

## 4. Competition for Intercity Passenger Services

Before the operation of the high-speed rail in 2007, intercity passengers traveled along the west coast largely occurred by private motor vehicles in Chinese Taipei, followed by railway and highway bus services. Air transport only accounted for a small proportion.

Although official operation of the THSR has led to a certain extent of intra-modal competition with TRA in the intercity passenger services on the west coast, the high-speed rail currently attracts mainly long-distance passengers traveling between the major cities located between the two metropolises, Taipei in the north and Kaohsiung in the south. The THSR's stations are fewer (8 stops at the moment), the

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<sup>1</sup> The 2010 Survey on Freight services by Trucks showed that freight services in Chinese Taipei was mainly provided by highways, accounting for 93.3%, followed by rail and marine, which respectively accounted for 2.2% and 4.2%. The percentage of freight services provided by air was very low.

traveling time is much shorter, and the prices are much higher than those of regular trains and highway buses. The customers are not the same between THSR and TRA. In addition, the TRA operates routes around the island and sets its marketing strategy as “strengthening short and medium distance passenger service, improving east-west coast railways connection; facilitating the transportation of tourists to the east coast, and providing a diversity of services.” The markets between THSR and TRA are segmented, and therefore, the total passenger numbers of the TRA is not affected significantly.

Meanwhile, regarding the inter-modal competition on other competing carriers on the west coast, air transport service has been shrunk significantly as a result of competition from THSR. The highway long distance buses service and the TRA appears to be growing steadily, while the increase in travel using private cars is slowing down (See Table 1 below). In 2007, when reviewing the application of concerted action exemption by Far Eastern Air Transport and TransAsia Airways for airline ticket voucher exchange, the FTC concluded that there was a high substitutability between the high-speed rail and the air transport services for travelers between Taipei and Tainan due to the proximity in traveling time, and then they could be considered competitors in the same market.

**Table 1. Table 1: Changes in Market Share of Different Transportation services in the West corridor after the High-speed Rail Operation**

| Year                                     |               | 2007  | 2008  | 2008  | 2010  | 2011  | 2008-2011            | Remarks         |
|--|---------------|-------|-------|-------|-------|-------|----------------------|-----------------|
|  |               |       |       |       |       |       | annual increase rate |                 |
| Total Trips (Σ1~5)<br>(10,000 trips/day) |               | 515.9 | 513.9 | 532.4 | 542.4 | 549.6 | 2.26%                | steady growth   |
| Market Shares                            | 1 Cars        | 80.6% | 77.8% | 78%   | 77.6% | 75.9% | 1.44%                | slight growth   |
|  | 2 Air         | 0.3%  | 0.1%  | 0.0%  | 0.1%  | 0.1%  | -17.02%              | Negative growth |
|  | 3 THSR        | 1.4%  | 3.3%  | 3.3%  | 3.7%  | 4.2%  | 10.44%               | large growth    |
|  | 4 TRA         | 11.1% | 11.9% | 11.4% | 11.8% | 12.7% | 4.37%                | steady growth   |
|  | 5 Highway Bus | 6.6%  | 6.8%  | 7.2%  | 6.8%  | 7.1%  | 3.86%                | steady growth   |

Note: The high-speed rail began operating in Jan. 2007.

Source: A Study on the Changes in the Western Intercity Transportation Market after the High-speed Rail Operation, Institute of Transportation, MOTC, April 2013.

## **5. Regulations for the Rail Industry in the Fair Trade Act**

When the Fair Trade Act (FTA) took effect in 1992, Article 46, Paragraph 2 of the Act stated: “the acts of a governmental enterprise, public utility or communications and transportation enterprise approved by the Executive Yuan shall not be subject to the application of this Law until the elapse of five years after the promulgation of this Law.” The intention was to allow such businesses that had been operated in accordance with government policies over the years to gradually adapt themselves to market competition. Since 1997, the services and trading practices of such businesses have been governed by the FTA.<sup>2</sup>

As regards the services provided by the government agencies, the FTC made an explanation in 1993 that the FTA applies to government agencies that engage in commercial conducts. This is to say that commercial activities by the TRA could be reviewed under the FTA. Besides this, the operation of the TRA and THSR in accordance with the Railway Act and other related laws still required to comply with the legislative purposes of the FTA, stipulated in Article 46.

## **6. Case Example: The FTC initiated an investigation on THSR’s discount fare marketing strategy.**

In 2008, the FTC received complaints from bus services carriers that THSR might be in violation of FTA by offering discount fares.

The FTC’s investigation showed that THSR made ticket price adjustments for off-peak time slots starting from Nov. 1, 2008, with the best offer being a 35% off regular price. Take Taipei-Kaohsiung tickets for example. The lowest price became only NT\$100 to 200 more than the fares for the freeway bus or the TRA. As a result, these carriers faced more intense competition.

The financial statements of THSR for 2007 and 2008 indicated that the passenger loads might have improved gradually, but business losses remained serious. In this regard, the THSR was justified in adjusting ticket prices according to its revenue and operating costs, market supply and demand, and competition in the hope of increasing passenger loads and revenues to reduce losses. The FTC therefore concluded that THSR’s conduct to get more trading counterparts by offering more favorable prices was not a violation of the FTA.

Moreover, according to the Railway Act and related regulations as well as the contract between THSR and MOTC, the decision regarding the basic rate of transportation cost of the high-speed rail is subject to the MOTC’s supervision and ratification. As mentioned above, the MOTC may order private railway operators to adjust their fares, capacity, frequency, and arrival and departure scheduling if such adjustments are deemed necessary to safeguard the public interest. The MOTC has to make the assessment by taking all factors into consideration and order THSR to make adjustment or rectifications. In brief, if the ticket prices of the high-speed rail is reviewed under the jurisdiction of the MOTC rather than the FTC.

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<sup>2</sup> The provision of Article 46 provides as follow: “where there is any other law governing the conducts of enterprises in respect of competition, such other law shall govern; provided that it does not conflict with the legislative purposes of this Law.”

## UKRAINE

### 1. Structure and ownership

Today in Ukraine the use of railways, dispatching service, railway stations and other infrastructure facilities which provide railway services is defined as a sphere of natural monopolies.

Provision of domestic and international passenger and freight services are defined as markets that are adjacent to natural monopoly markets.

State Administration of Railway Transport of Ukraine (hereinafter - UKRZALIZNYTSIA), together with its subsidiaries (railroads, associations, enterprises, institutions and organizations of railway transport) is a natural monopoly in the national market of railway services.

At present, the rail transport sector is under reform in accordance with State Rail Transport Reforming Program 2010 - 2019 adopted by the Cabinet of Ministers of Ukraine on December 16, 2009 (hereinafter - the State Reforming Program).

In particular, the legislation which regulates the rail transport sector is currently being improved, which is the primary tool for reforming the industry, fulfilling the objectives of the State Reforming Program, and effective functioning of the industry.

Implementation of the State Reforming Program will provide an opportunity:

- to transform UKRZALIZNYTSIA in the Public Company which is structured by activity (freight and passenger transportation services in domestic and international traffic, passenger services in suburban and regional traffic, maintenance and operation of infrastructure, traction services, repair of railway equipment, construction and maintenance of infrastructure), which will keep possession of the railway infrastructure;
- to accelerate the development of competition in the rail transport sector by guaranteeing equal access to markets for the provision of rail services in the competitive and potentially competitive sectors and the related markets (freight transportation, traction services, repair of railway equipment) for business entities regardless of ownership structure.

In addition, the reform in railway sector will provide an opportunity to improve:

- efficiency of operations and will ensure further sustainable development of railway transport;
- competitiveness of rail transport in the domestic and foreign market of transport services;
- level of use of transit potential of Ukraine;
- investment attractiveness of the sector;
- transportation security.

Since the inception of UKRZALIZNYTSIA objects of railway infrastructure and railway transport were in the national ownership. State Reforming Program does not plan the privatization of railway system in the near future.

The Law of Ukraine "On Natural Monopolies" and Decrees of the President of Ukraine provided establishment of an independent regulator - the national commission for the state regulation of transport sector. However, today the power (authority) of the national commission for the state regulation of transport are executed by a central executive body that provides formation and implementation of public policy in the rail transport sector (Ministry of Infrastructure of Ukraine).

At the same time, since 1996 and to date, the rates for passenger services are regulated by the state.

Currently, the Ministry of Infrastructure of Ukraine:

- in agreement with the Ministry of Economic Development and Trade of Ukraine and the Ministry of Finance of Ukraine establishes tariffs for freight services within Ukraine and related services;
- in agreement with the Ministry of Economic Development and Trade of Ukraine establishes tariffs for passenger services in the international and domestic traffic (excluding commutation service, which are set by railroad administration in agreement with local government authorities).

The State Reforming Program provides increased competition, particularly in the markets of passenger and freight services, by ensuring that business entities, regardless of ownership structure, have equal access to railway infrastructure and to ensure the development of competition in the competitive and potentially competitive sectors (passenger and freight transportation, traction, repair services). That, in turn, leads to increased "intra-modal competition".

At the same time, today "intra-modal competition" exists primarily in the markets of additional works and services related to freight and passenger services, including additional services at rail stations, provision of underlinens in trains and more.

## **2. Competition for the provision of the freight and passenger services**

Since 2004 UKRZALIZNYTSIA is the national rail operator for freight and passenger services. However, the State Reforming Program is expected to increase competition, particularly in the freight services market, by guaranteeing to business entities regardless of ownership structure equal access to railway infrastructure and ensuring the development of competition in the competitive and potentially competitive sectors (freight services, traction services, repair services).

Therefore, rapid development of "intra-modal competition" in the competitive and potentially competitive sectors (freight services, traction services, repair services) is expected in the near future.

At the same time, today "intra-modal competition" exists primarily in the markets of additional works and services related to freight services.

At the same time, a significant impetus for the development of "intra-modal competition" was provided by the entry of the State Enterprise "Ukrainian high-speed railway company", which provides transportation by high-speed passenger trains, into the market.

According to official statistics, the share of rail cargo transportation in relation to other modes of transport (road, water, pipeline, air) was:

- 2004 – 55,7 %;
- 2005 – 55,4 %;
- 2006 – 55,5 %;
- 2007 – 56,8 %;
- 2008 – 55,9 %;
- 2009 – 56,2 %;
- 2010 – 57,3 %;
- 2011 – 57,7 %;
- 2012 – 59,2 %;
- January – March 2013 – 57,1 %.

As seen from the above share of rail freight transportation in relation to other modes of transportation from 2004 to 2012 has not changed significantly.

### **3. Access charges**

At present, the tariffs for passenger and freight services in the international and domestic traffic (excluding commuters) and railway transportation within Ukraine and related services are state regulated.

Meanwhile, the Cabinet of Ministers of Ukraine approved the Concept for calculating economically justified tariffs for passenger and freight services and method of their calculation.

One of the principles of competition in the field of rail transport states the necessity of isolating the tariff components that belong to the sphere of natural monopolies (railway infrastructure) from potentially competitive sectors (passenger and freight services, traction services, repair services).

Since 1996 and up to date the rates for passenger and freight services are regulated by the state.

However, according to the results of market research and consideration of business entities' requests, the Antimonopoly Committee of Ukraine found violation of economic competition legislation in the rail sector in the actions of UKRZALIZNYTSIA. The following are examples of cases considered by the Committee on the violation of legislation on economic competition protection:

- 1) The results of the research by the Committee found that UKRZALIZNYTSIA issued telegraphic orders, whereby a separate entity (freight forwarder) was granted unwarranted benefits over others in 2006 - the first half of 2008.

After examination of the case, the Committee decided that UKRZALIZNYTSIA, by charging some business entities higher fees compared to others for the transportation of empty freight wagons and by providing benefits to some business entities for the transportation of rail cars with empty containers, violated the Law of Ukraine "On the Protection of Economic competition", in the form of abuse of its monopoly (dominant) position on the national market of freight services.

Considering the above, Antimonopoly Committee of Ukraine in 2008 imposed penalties on UKRZALIZNYTSIA and ordered it to stop violation of the legislation on the protection of economic competition. The fine was paid to the state budget.

- 2) Following the consideration of the application of one enterprise, the Antimonopoly committee of Ukraine commenced examination of the case on violations of competition legislation by UKRZALIZNYTSIA.

The Committee discovered that the telegraphic orders of UKRZALIZNYTSIA introduced economically unreasonable fees for additional services not covered by the Rules of freight transportation which associated with transportation clearance of import and export cargoes at the request sender (receiver) the transport of goods in international railway-ferry Illichivs'k - Varna - Illichivs'k and Illichivs'k - Poti / Batumi - Illichivs'k, resulting in infringement of the interests of consumers, which would be impossible under conditions of substantial competition in the market. Such actions of UKRZALIZNYTSIA are considered violations of the Law of Ukraine "On the Protection of Economic Competition", in the form of abuse of monopoly (dominant) position on the national market of freight transportation.

Antimonopoly Committee of Ukraine in 2009 imposed penalties on UKRZALIZNYTSIA and ordered it to stop violation of the legislation on the protection of economic competition. Fine was paid to the state budget.

#### **4. Investments**

Currently the maintenance of the railway industry and its development is carried out mainly at the expense of the UKRZALIZNYTSIA.

UKRZALIZNYTSIA is being reformed to increase the investment attractiveness of the railway industry. Thus, the State Reforming Program, in particular, provides increased investment attractiveness of the industry, increased investment in rail transport and the introduction of innovative development model.

#### **5. Regarding High-Speed Rail Services**

In 2012, Ukraine introduced high-speed rail services, which are carried out by the State Enterprise "Ukrainian high-speed railway company", a subsidiary of UKRZALIZNYTSIA.

Since the introduction of high-speed rail services, the tariffs are regulated by the state.

Currently the Ministry of Infrastructure of Ukraine by agreement with the Ministry of Economic Development and Trade of Ukraine establishes, in particular, tariffs for high-speed rail services.

Unfortunately, the competition in the high-speed rail services is nonexistent today. However, the State Reforming Program provides for the development of competition in this market.

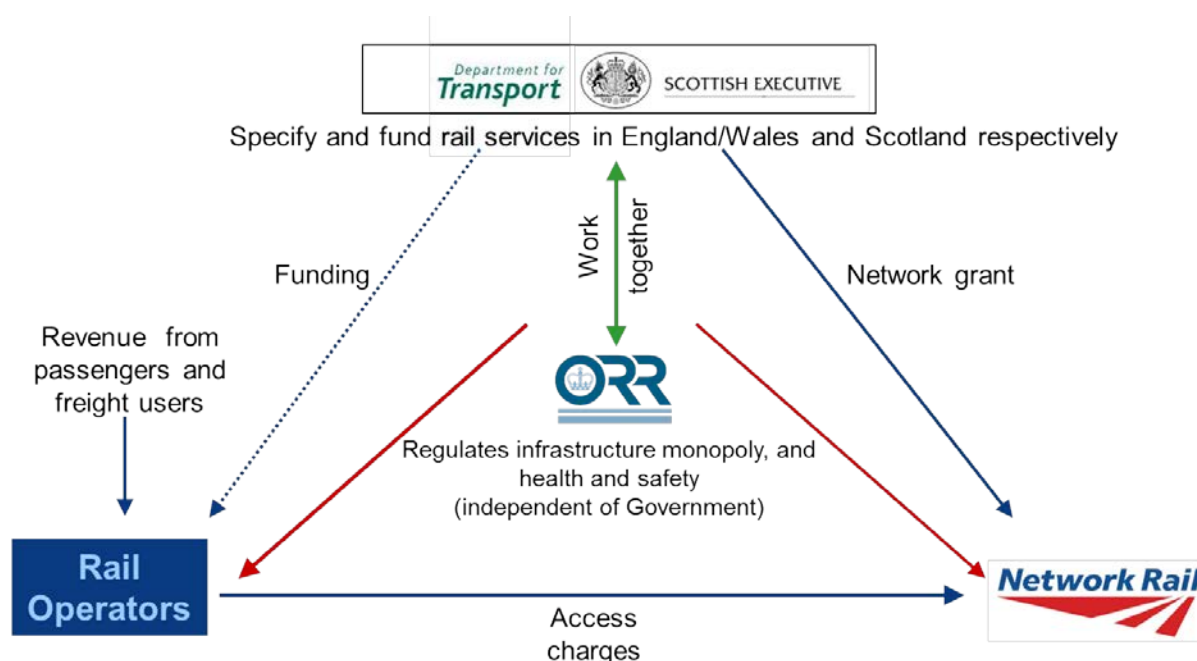
During 2012 - 2013 the Antimonopoly Committee has not considered any cases of violation of the legislation on protection of economic competition in the provision of high-speed rail services.

## UNITED KINGDOM

This paper provides an overview of the developments in the UK rail industry since 2004. It begins by providing some information on the structure of the industry. It then considers the passenger and freight sectors. It also covers the access charging framework, investments and high speed rail.

### 1. Structure and ownership

The rail sector in the UK comprises an infrastructure manager, Network Rail, which is a private sector organisation established as a company limited by guarantee (for profit but not for dividend); an independent economic and safety regulator which is also the sectoral competition and consumer authority<sup>1</sup>, the Office of Rail Regulation (ORR); and private railway undertakings which provide passenger and freight services. Rolling stock companies (ROSCOs) own the trains and lease them to the train operators. Government rail policy is the responsibility of the Department for Transport, with some rail matters devolved to the Scottish Government.



In 2004, the Government published a White Paper – The Future of Rail, which was intended as a blueprint for a new streamlined structure for Britain's railway. The proposals aimed to provide a single point of accountability for the network's performance, allow closer working between track and train and

<sup>1</sup> ORR can investigate abuses of competition law and refer markets where it believes that there are reasonable grounds for suspecting that any feature, or combination of features, of a market in the UK for goods or services prevents, restricts or distorts competition in connection with the supply or acquisition of any goods or services in the UK, and can take action under Part 8 of the Enterprise Act 2002 to enforce consumer law where there is a collective harm to consumers. ORR is also the National Enforcement Body for Regulation 1371/2007 on rail passengers' rights and obligations.



provide for greater devolved decision making. This brought about some structural changes including ORR becoming the joint safety and economic regulator in 2006, with the transfer of responsibility for railway safety from the Health & Safety Executive, and the Strategic Rail Authority (then responsible for providing strategic direction for the rail industry, including awarding and ensuring compliance with passenger rail franchises.<sup>2</sup>) being abolished with the majority of its functions, including all its financial obligations, being transferred to the Department for Transport.

In May 2011, following the rail value for money study carried out at the request of the Government, Sir Roy McNulty published a report on Realising the Potential of GB Rail. The report put forward a wide range of recommendations focused on creating an industry environment which encourages cost reduction, changes which deliver new efficiencies, and mechanisms to drive implementation. The study estimated that implementing these recommendations could deliver savings between £700 million and £1 billion annually by 2019.

One of the recommendations made by the McNulty study was that a leadership body be established to take responsibility for coordinating and leading on cross industry initiatives, including delivery of the other McNulty recommendations. The Rail Delivery Group was established in June 2011 by the major passenger and freight train operator groups and Network Rail to fulfil this role. In 2013 the structure of the group was formalised to ensure that it continued to receive the full commitment of key people and organisations from across the railway industry. This was achieved through the incorporation of a new membership condition into the licences<sup>3</sup> of Network Rail and those passenger and freight operators that operate over the mainline network.

In November 2011, Network Rail devolved the day-to-day running of Britain's railway infrastructure to 10 strategic routes as part of its plans to reduce costs and work more effectively with passenger and freight operators. Each route not only operates as a separate business unit with its own accounts allowing greater benchmarking of financial performance and efficiency sharing best practice between the routes, but also has its own management team to operate, maintain and renew the infrastructure.

In March 2012, Network Rail introduced a new type of framework agreement called an alliance, which is a discrete individual agreement between the infrastructure manager (Network Rail) and a train operator. The agreement commits the companies to working together including on specified projects where there is an opportunity for more integrated working and an opportunity to improve the service to passengers or reduce cost. For example, the alliances may look at how stations can be better managed to provide a better service to passengers, how engineering work can be better planned or how improvements to train punctuality can be delivered.

A different kind of alliance, called a 'deep alliance', is also being developed involving the Wessex route (one of Network Rail's devolved operational regions) and South West Trains. This may see the establishment of a single, senior joint management team formed to look after both train and track on the Wessex route, leading to a more integrated way of working.

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<sup>2</sup> (public service contracts)

<sup>3</sup> Condition 25 of Network Rail's network licence and Condition 28 of train operators' Statement of National Regulatory Provision

All the agreements have some common features including:

- Network Rail and the train operator will remain separate entities
- Employees will continue to have the same employer (with their current terms and conditions)
- Each company continues to be ultimately accountable for their own areas of responsibility
- The interests of other passenger rail companies and freight operators are protected.

## **2. Competition for the provision of freight services**

ORR would characterise the intra-modal competition that takes place in the UK rail freight sector as being competition within the market. Freight customers (e.g. a utility company or a shipping company) choose suppliers for individual contracts based on the price and service offerings of tenders from would-be suppliers. Customers typically send out invitations to tender which attract bids from some or all rail freight companies and, sometimes, operators from other modes. There are currently nine active rail freight hauliers in GB. Whilst some ‘spot’ traffic exists, most rail freight contracts are of fairly long duration (e.g. 2+ years is common).

An alternative characterisation would be to view each individual contract as a discrete market that operators compete for, but ORR, depending upon the circumstances of the traffic, tends to see freight services as distinguishable from franchised passenger services, where government awards long-term (mostly monopoly) contracts (see below).

ORR has had two competition cases in relation to the provision of freight services since 2004, one infringement decision and one non-infringement decision. Both cases were focused on the conduct of the incumbent for bulk rail haulage, EWS/DB Schenker.

Rail’s overall share of the wider freight sector has increased slightly since 2004, amounting for 4-5% of all freight lifted and 8-9% of all freight moved. These modal shares are somewhat lower than the equivalent figures for some other member states, primarily reflecting, in ORR’s view, the geographic characteristic of the UK.

New entrants have made significant headway into freight haulage markets since privatisation and since 2004. A good example of this is the market for coal haulage by rail. The incumbent DB Schenker (formally EWS)’s share of this market<sup>4</sup> was 100% until the end of 2000, had fallen to 77% by the end of 2004, and is now below 50%. ORR believes that the infringement decision referred to above played an important role in this change.

## **3. Competition for the provision of passenger services**

Competition within GB’s passenger rail sector currently takes place principally ‘for the market’ by way of franchise competitions. Franchises are contracts between government and private sector train operators for the provision of passenger rail services in a particular geographical area, or over particular routes.

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<sup>4</sup> Measured on a tonnes carried basis.

Since privatisation there has been a trend towards franchise consolidation, leading to fewer, larger franchises. The Office of Passenger Rail Franchising (OPRAF)<sup>5</sup> initially let 25 initial franchises, but this number has since fallen, and will be reduced to 17 if current plans to merge franchises go ahead<sup>6</sup>. The move towards fewer franchises was initiated by the Strategic Rail Authority (SRA) starting in the early to mid-2000s, with an objective of ensuring a single passenger train operator at key London termini. The trend has continued under the franchising process conducted by the Department for Transport<sup>7</sup> and, combined with the small role of open access (see below), means that most franchised operators face very little on-rail competition on key flows.

The Department for Transport announced a new schedule for rail franchising on 26 March 2013. This set out the full programme of upcoming franchises for the next 8 years, covering all of the above franchises. The details of this announcement can be found at: <https://www.gov.uk/government/speeches/rail-franchising--17>.

The Department for Transport does not distinguish within franchise contracts between social and commercially run services. These commercial services have many social features such as running off-peak services; providing stops at smaller stations; running key services to assist commuter markets.

The extent of on-rail competition 'in the market' between overlapping franchises or between franchised passenger train operators and open access operators is very limited. Open access operators<sup>8</sup> account for less than 1% of all timetabled train kilometres.

The growth of the rail sector since privatisation (traffic has nearly doubled since 1997) has corresponded with an increase in the cost of running the railway in Britain. ORR publishes the overall subsidy per passenger mile on an annual basis, including a breakdown by franchise. Latest figures on this can be found at: <https://www.gov.uk/government/publications/rail-subsidy-per-passenger-mile>.

The Department for Transport's view is that competition for passenger rail services has been fairly vigorous and that there have been no cases of collusion between bidders. There are a growing number of different companies that have and continue to compete for the franchise competitions. This view was supported by a review carried out in 2008 by the UK's National Audit Office (<http://www.nao.org.uk/report/the-department-for-transport-letting-rail-franchises-2005-2007/>).

Following the cancellation of a competition to run GB's InterCity West Coast franchise, the UK government commissioned an independent review of the implications of flaws in the West Coast procurement process for the rest of GB's rail franchising programme. The findings of this report are at <https://www.gov.uk/government/publications/the-brown-review-of-the-rail-franchising-programme>. The head of the review, Richard Brown, said:

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<sup>5</sup> The Office of Passenger Rail Franchising (OPRAF) was responsible for letting and supervising passenger rail franchises between 1993 and 2001, when it was subsumed into the new Strategic Rail Authority (SRA).

<sup>6</sup> Some services are provided via alternative arrangements, for example London Overground and Merseyrail services are let by Transport for London (TfL) and Merseytravel respectively.

<sup>7</sup> The Department for Transport and Transport Scotland are GB's two franchising authorities but this document primarily refers to the Department for Transport given that there has historically been a single Scottish franchise, ScotRail.

<sup>8</sup> Open access operators are those who operate services purely on a commercial basis, i.e. not under either a franchise or a concession agreement. These are companies who identify an opportunity to run a service which is not currently being provided, and they apply to ORR for the necessary track access rights and to Network Rail for train paths in the timetable.

“In carrying out this review I have come to the conclusion that the franchising system is not broken, but rather it has made a major contribution to Britain’s increasingly successful rail network. It is therefore essential for both passengers and the wider rail market that the franchising programme is restarted as soon as possible. To achieve this goal, my review has identified a series of practical proposals and recommendations which, if implemented, will result in a stronger and more effective approach to franchising...”<sup>9</sup>.

The Secretary of State for Transport has a statutory requirement (under the Railways Act 1993) to provide for the continued provision of rail services in the event of the failure of a franchise. This occurred in 2009 when the operator of the East Coast franchise went into default and the publicly owned *Directly Operated Railways* was brought in to maintain the services.

Franchises have ranged from approximately 3 years to 15 years in term. Franchisees are required to run defined train services, achieve specified levels of reliability/ punctuality and recent franchises also contain targets on passenger satisfaction metrics. Train operators lease rolling stock, employ the work force and pay access charges to Network Rail for the use of the Network and stations. Franchisees collect and retain revenue but franchises generally have some form of risk sharing with the Department for Transport in recognition of the fact that revenue is strongly impacted by exogenous factors outside of the operators’ control. Franchise payments, from the operator to Government or vice-versa, are contracted as part of the overall franchise agreement.

Bidders have to provide evidence that they can deliver the specification and they will be excluded if they are assessed as undeliverable. The Department assesses the risk of financial delivery and in past competitions has required capital to mitigate this risk. Award is then made on the basis of price, with provision for other non-financial elements to be considered in the event of two bids being close financially. The role of ‘quality’ (non-financial factors) in awards is currently being considered for future franchise competitions.

The complex nature of franchise contracts means that the Department for Transport constantly identifies areas for improvement. Every franchise competition has included minor changes to make franchise management and the delivery of services more effective. There is no ‘one-size-fits-all’ approach. The last major change was in 2004 when Department for Transport switched to a new franchise contract template.

The majority of staff transfer directly to the new operator at change of franchise. The new operator will employ its own small management team. UK privatisation was designed so that a franchisee can quickly take over a business as a going concern with access to all of the assets necessary to successfully operate that business. Mobilisation of a franchise takes typically 4 months from the date of franchise award.

ORR has not opened any competition cases since 2004 in relation to the provision of passenger services, although it has received a small number of complaints, mostly about fares or car park charges. In response, ORR has published a guidance document<sup>10</sup> which provides information on how these prices are regulated and explains its approach to considering such complaints under competition law.

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<sup>9</sup> <http://pressreleases.dft.gov.uk/Press-Releases/Government-s-rail-strategy-receives-independent-endorsement-685d8.aspx>

<sup>10</sup> Guidance document available from [http://www.rail-reg.gov.uk/upload/pdf/comp-cmplnts\\_rlfrs\\_cpk\\_chrgs.pdf](http://www.rail-reg.gov.uk/upload/pdf/comp-cmplnts_rlfrs_cpk_chrgs.pdf)

#### 4. Access charges

In Great Britain, ORR carries out a periodic review every five years of the access charges paid by train operators for access to the national rail network operated by Network Rail. The process for this is set out in primary legislation<sup>11</sup>. At a high-level this involves:

- ORR formally requesting the two governments in Great Britain (Scotland and England & Wales) to set out the high-level outputs that they each want the railway to achieve in their respective areas during the next 'control period'. The governments do this in a 'high-level output specification' (referred to as 'HLOS'). ORR also requires them to set out how much public money they are prepared to make available to support the achievement of these outputs (they each do this in a 'statement of funds available' – 'SoFA');
- Network Rail, the infrastructure manager, is then required to develop a strategic business plan (SBP) setting out how it would deliver the high-level outputs in both HLOSs and how much it considers this would cost;
- ORR then reviews the SBP to determine whether it represents an efficient way of delivering the high-level outputs and whether there are sufficient funds, alongside other sources of income, in the SoFA; and finally,
- ORR determines the outputs that Network Rail shall deliver in the control period.

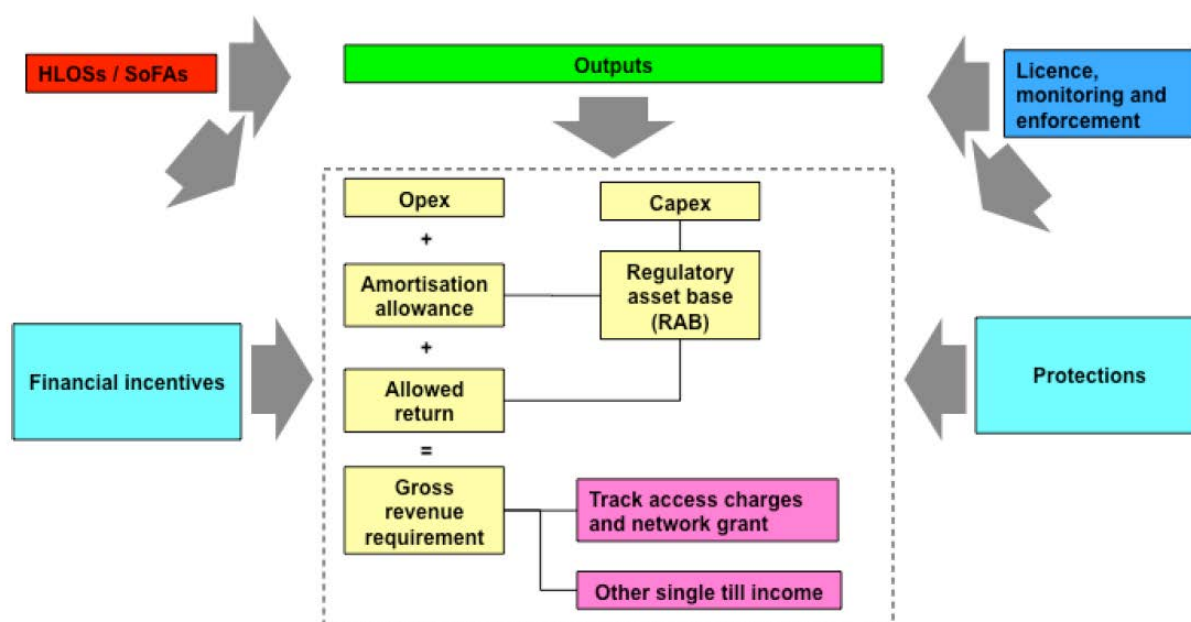
For example, ORR's determination for Network Rail during the current control period, CP4 (2009-2014) is published at <http://www.rail-reg.gov.uk/upload/pdf/383.pdf> and ORR's draft determination for CP5 (the control period from 2014-19) is published on 12 June 2013 for consultation, with the final determination due to be published in October 2013. Other major elements of the review include the establishment of an appropriate incentive framework for Network Rail and train operators and establishing the structure of the access charges to be paid by train operators to Network Rail.

In summary, by means of the periodic review, ORR assesses the efficient level of revenue that Network Rail needs to run its business and deliver the required regulated outputs. This includes an allowed return on its regulatory asset base (RAB). The access charges ORR determines are set at a level that enables Network Rail to recover this revenue requirement, but taking account of any other income that Network Rail receives (such as commercial income from property and direct grants from the government paid in lieu of a proportion of access charges).

ORR's approach to establishing the regulatory framework is based on the standard 'building block' methodology widely used by economic regulators - see Figure 1.

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<sup>11</sup> Schedule 4A to the Railways Act 1993

**Figure 1: Overview of the regulatory framework**

The key features of the building block methodology are:

- ORR assesses what Network Rail needs to spend on operating and maintaining the railway for each year of the control period. Network Rail receives income for this on a ‘pay-as-you-go’ (PAYG) basis. This means that for each pound it needs to spend each year it receives a pound in income;
- ORR assesses what capital expenditure on renewals and enhancements Network Rail needs to undertake in the control period. This expenditure is added to the regulatory asset base (RAB) in the year in which it is incurred. But the income Network Rail receives is not on a PAYG basis. Instead Network Rail receives an amortisation allowance (which covers the depreciation on the assets); and
- the allowed return on the RAB that ORR calculates and allows Network Rail to recover through access charges. This therefore covers, amongst other things, the cost of financing the company’s capital expenditure programme.

Adding up all the income needed by Network Rail to fund these elements produces what is called the ‘gross revenue requirement’.

In the review for CP5 (2014-19), income (which is called ‘other single till income’) that ORR expects Network Rail to earn on activities such as commercial property is deducted from the total costs of the network (i.e. from the gross revenue requirement).<sup>12</sup> This then leaves the ‘net revenue requirement’ which ORR uses to estimate the income that Network Rail will require in access charges to earn an appropriate level of return.

<sup>12</sup> The alternative ‘dual till’ approach would involve a separate price control for Network Rail’s activities in each market that it operates in – effectively treating each of these as a separate business.

With the exception of the fixed track access charges, the regulated track and station access charges paid by train operators to Network Rail are set so as to recover particular costs. Most track access charges are set to reflect the costs that vary with traffic, which is consistent with Directive 2001/14/EC.<sup>13</sup> The regulated station charges recover costs for station maintenance, repair and renewal.

The fixed track access charges, paid only by franchised passenger operators, are set to recover Network Rail's net revenue requirement, i.e. Network Rail's residual revenue requirement after deducting other track access charges and other single till income. The fixed track access charges, therefore, recover the bulk of Network Rail's fixed costs.

During the CP4 (2009-14), more than 80% of Network Rail's revenue.<sup>14</sup> will be earned through a combination of the network grant.<sup>15</sup> (c. 63%) and fixed access charges (c. 17%).

As set out above, Network Rail recovers its costs through track access levied on train operators using its network, network grant and other single till income.

The variable usage charge is designed to recover Network Rail's operating, maintenance and renewals costs that vary with traffic. The variable usage charge paid by franchised and open access passenger operators and freight operators ensures that operators meet at least their costs directly incurred of operating on the network, as required by EU legislation.<sup>16</sup>

Network Rail's fixed costs are the residual of its gross revenue requirement after deduction of income from variable charges and other single till income from its revenue requirement as determined at each periodic review. Up until 2008, Network Rail recovered its fixed cost through a fixed charge levied on franchised passenger operators. Freight and open access operators made no contribution to fixed costs.

EU legislation allows mark-ups to be levied on charges above the level of cost directly incurred to contribute to the recovery of fixed cost, but only on those market assessed as able to bear the cost.

In CP4 (2009-14), ORR introduced a freight only line.<sup>17</sup> (FOL) charge in order that freight operators made a contribution to the fixed cost of freight only lines. The charge was calculated to recover the fixed costs of FOL for the commodities on which it is levied. In legal terms, it represents a mark-up on charges for costs directly incurred on those market segments which ORR determines could bear the mark-up in line with European legislation. In support of this, ORR carried out a market assessment of all freight commodity market segments.

Broadly, ORR commissioned an assessment of which markets would not see a significant shift to other modes, in particular road as a result of higher track access charges i.e. where demand for transport by rail was relatively price inelastic. ORR's assessment determined that coal for the electricity supply industry (ESI) and spent nuclear fuel as commodities able to bear a mark-up. The FOL charge was levied on these commodities as a mark-up on the variable usage charge on a per thousand gross tonne mile (kgtm) flat rate.

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<sup>13</sup> Transposed in UK by the Railways Infrastructure (Access and Management) Regulations 2005

<sup>14</sup> <http://www.rail-reg.gov.uk/pr13/PDF/freight-conclusions-jan-2013.pdf>. Figure 2.2-3

<sup>15</sup> Government currently pays network grant directly to Network Rail in lieu of a significant proportion of access charges.

<sup>16</sup> Directive 2001/14/EC transposed by the Railways Infrastructure (Access and Management) Regulations 2005

<sup>17</sup> Freight only lines are defined as lines that would close if freight services ceased to operate. It includes segments of branch lines used only by freight traffic and terminal lines.

As part of this current periodic review (PR13), following extensive consultation with its stakeholders, ORR concluded, in January 2013, that it would also introduce a new Freight Specific Charge (FSC), for CP5 (2014-19) on top of the FOL charge. The purpose of this charge is to recover infrastructure costs caused by freight operating on the network that are not currently recovered through other freight charges. The introduction of this charge means that rail freight will pay a greater contribution to the costs that it imposes on the network.

The result of a further ORR assessment showed that ESI coal, nuclear spent fuel and iron-ore as market segments able to pay this additional charge. As with the FOL charge, it is levied as a flat rate per commodity, per kgm, as a mark-up on the variable usage charge.

During CP5 (2014-19), ORR intends to carry out a further review of the structure of charges which may include looking at other mark-ups such as a scarcity charge which ORR would consider, this time, introducing on a geographic basis.

ORR has not run any competition cases in which the infrastructure manager was the key issue. Full structural separation makes this a relatively low risk. But ORR is aware of competition issues caused by the control of (and charging for access to) certain key strategic sites by certain freight operators. It has carried out a market study of this issue, leading to the drafting of a Code of Practice for freight operators and measures to increase the transparency of information available to operators competing for traffic which involves use of sites owned by their competitors.

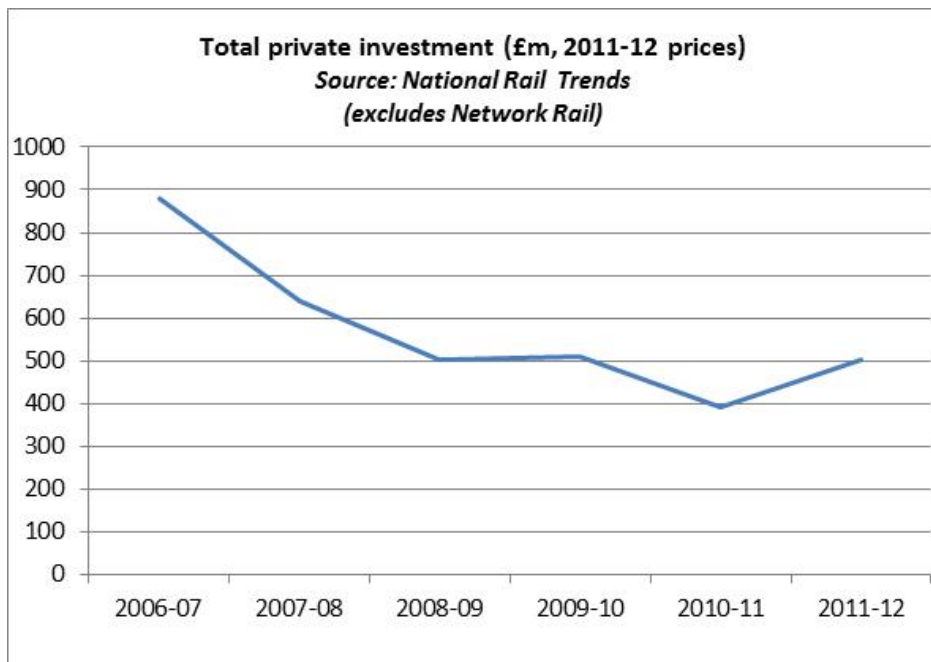
## **5. Investments**

ORR is responsible for monitoring the investments that Network Rail proposes, and this process is carried out as part of the Periodic Review (see above). Areas of industry investment include track and signalling, rolling stock and stations.

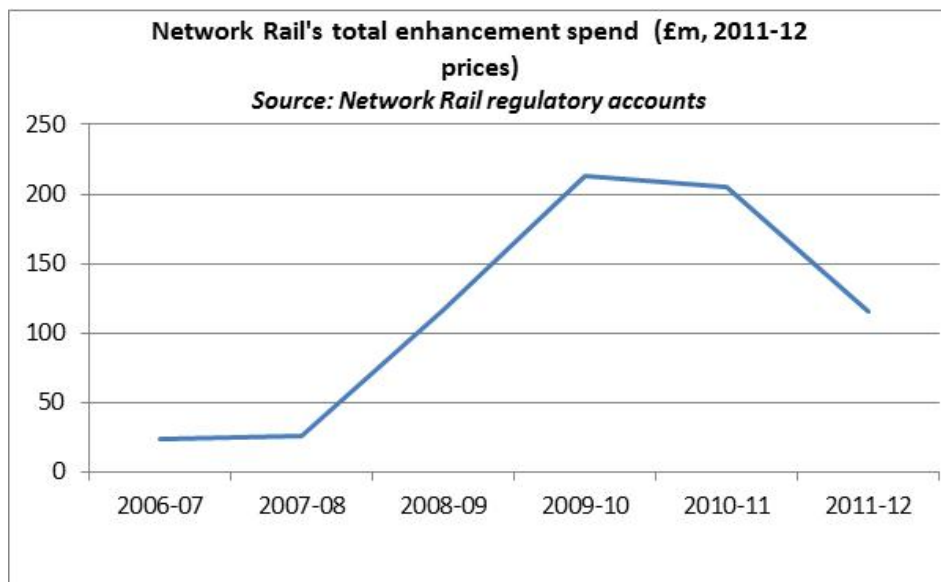
Public sector investments consist of large scale projects such as new infrastructure (HS2, Crossrail) with the budget agreed by Government (HM Treasury). Network Rail are the largest private sector investor, however these investments are supported by government subsidy.

Total private investment (excluding Network Rail) had initially declined since 2006/07. However since 2010/11 this has risen and is expected to rise further in line with demand.





Network Rail’s enhancement spend rose sharply during the first half of CP4 (2009-14), but has declined in the latter part of the control period. Some projects have redefined scope or been deferred because less rolling stock has been introduced than originally planned, resulting in about £2bn.<sup>18</sup> of reduced spend. The Department for Transport has announced further schemes since 2008, such as the electrification programmes on the Great Western Main Line and in the North West. Taking these into account Network Rail is expected to spend close to £9bn.<sup>19</sup> on government funded enhancements in CP4.



<sup>18</sup> Reported in Network Rail’s period 13 finance pack

<sup>19</sup> Reported in Appendix 24 of Network Rail’s Strategic Business Plan databook which updates actual and forecast expenditure for CP4

## 6. High-Speed Rail Services

High-speed rail passenger services (as defined by EU Directive 96/48/EC as those with a minimum speed of 250 kph/155mph) are only provided on the HS1 network, a privately owned and operated 108 km/67 mile stretch of railway between London St Pancras International station and the northern portal of the Channel Tunnel. There are intermediate stations at Stratford, Ebbsfleet and Ashford (Kent). The HS1 network is used by both international and domestic high speed passenger services. No other part of the national network, operated by Network Rail, is rated for high-speed passenger trains.

Domestic passenger services are operated by Southeastern under the terms of its franchise from the Department for Transport. These operate between London and Kent and compete with pre-existing passenger services on the national network (which is operated by Network Rail). Pre-existing passenger services are operated by various other franchised operators and offer lower fares (but slower services) than the high-speed services.

International passenger services, operated by Eurostar, serve London, Paris, Brussels, Lille and other seasonal and/or intermediate destinations. Primary competition to these services comes from short-haul air travel, cross-Channel maritime services and Channel Tunnel Shuttle services. These alternative methods of transport, as well as effective economic regulation (including through five-yearly access charge reviews) of the HS1 network, currently act as a mechanism to constrain fares.

The capital cost of construction of the HS1 network was borne by the UK government, at a cost of c. £6bn. A 30 year concession to run the HS1 network was then sold to privately-owned HS1 Ltd in 2010 for £2.1bn. The network will revert to public ownership upon completion of this concession period. During the concession period, ongoing maintenance, renewal and investment is funded by the access charges paid by passenger and freight train operators using the network. HS1 Ltd also receives income from other, unregulated sources such as car park and retail facilities at its four stations. HS1 is nominally privately funded, but does receive some public money indirectly through access charges paid by Southeastern (as a franchised operator) and through a subsidy for freight operators which is paid by the Department for Transport.

The HS1 network is run on an 'open access' basis. This means that any operator which meets the various legislative and operational requirements could apply to operate services on the network, whether or not they are in fulfilment of a public service contract. Eurostar, as a commercial organisation, currently operates on an 'open access' basis.

In terms of service levels, Southeastern operates approximately 19,000 domestic passenger services between London and Ashford (and some intermediate stations) per year. Eurostar operates approximately 4,000 international passenger services, all of which commence at London St Pancras International, and some of which call at intermediate stations in England along the route. Given that the two passenger operators serve very different markets, it is difficult to provide a meaningful comparison between the two when considering market share. Both passenger operators are slowly increasing the number of their services and, in the case of Eurostar, expanding their number of available destinations.

There have been no recent new entrants, although HS1 Ltd continues to receive representations from interested parties who might wish to access the network.



## UNITED STATES

This paper summarizes some of the developments in the rail transportation sector in the United States since the last WP2 roundtable on this subject in February 2005.<sup>20</sup>

**Passenger:** Beginning with the initial stimulus package of 2009<sup>21</sup> and continuing through the current budget proposal,<sup>22</sup> the Obama administration has supported funding for a network of high-speed intercity passenger rail corridors throughout the United States. The current budget proposal “provides \$40 billion over five years to fund the development of high-speed rail and other passenger rail programs as part of an integrated national transportation strategy. This system will provide 80 percent of Americans with convenient access to a passenger rail system, featuring high-speed service, within 25 years.”<sup>23</sup> One important project, which is pending approval at the U.S. Surface Transportation Board (STB), the government’s rail economic regulator, involves the nation’s first 220 miles per hour high-speed rail network in California.

**Freight:** Since the WP2 roundtable in 2005, the U.S. Government has issued two major studies on the competitiveness of the U.S. freight rail system, which operates in the private sector. In the first, released in 2006, the Government Accountability Office (GAO) addressed the railroad industry’s performance since it was substantially deregulated in 1980. The GAO Report found that changes in the railroad industry since 1980 were generally positive and that rates in many areas declined, but that for some “captive shippers”—shippers of commodities such as coal, bulk chemicals, and grain over which the serving railroad has substantial market power—rates had increased substantially. The report recommended that the STB “undertake a rigorous analysis of competitive markets to identify the state of competition nationwide; in specific markets, determine whether the inappropriate exercise of market power is occurring; and where appropriate, consider the range of actions available to address problems associated with the potential abuse of market power.”<sup>24</sup>

In response to the GAO Report, the STB commissioned a study by an independent team of consultants charged with assessing competitiveness in the U.S. rail industry. That study, commonly known as the “Christensen Report,”<sup>25</sup> was released in 2008 and supplemented in 2010. It found that railroad rates

<sup>20</sup> [DAF/COMP/WP2/WD\(2005\)17](#), Roundtable on Structural Reform of the Rail Industry, Submission of the United States.

<sup>21</sup> The American Recovery and Reinvestment Act of 2009, Pub.L. 111–5, Feb. 17, 2009, 123 Stat. 115.

<sup>22</sup> FY 2014 Budget, Office of Management and Budget, Department of Transportation, available at [www.whitehouse.gov/sites/default/files/omb/budget/fy2014/assets/transportation.pdf](http://www.whitehouse.gov/sites/default/files/omb/budget/fy2014/assets/transportation.pdf).

<sup>23</sup> *Id.*

<sup>24</sup> “Freight Railroads: Industry Health Has Improved, But Concerns About Competition and Capacity Should Be Addressed” (GAO 07-94), Oct. 6, 2006, available at [www.gao.gov/new.items/d0794.pdf](http://www.gao.gov/new.items/d0794.pdf).

<sup>25</sup> “A Study of Competition in the U.S. Freight Railroad Industry and Analysis of Proposals that Might Enhance Competition” (Nov. 3, 2008, supplemented in Jan. 2010), available at [www.stb.dot.gov/stb/docs/CompetitionStudy/Final/January%202010%20Report.pdf](http://www.stb.dot.gov/stb/docs/CompetitionStudy/Final/January%202010%20Report.pdf).

steadily increased since 2004, with a particularly steep increase in 2008. But the Christensen Report found that the rate increases were driven by fluctuating fuel prices and other costs and did not appear to reflect an undue exercise of market power. Overall, the study found a healthy rail industry that, since 2006, has remained largely revenue-sufficient, meaning that railroads are able to cover their operating costs and earn a rate of return that enables them to attract investment capital to pay for more locomotives and railcars and to make other improvements. The Christensen Report also found that the large productivity gains in the 1980s and 1990s—when the railroads shed excess rail lines, reduced crew sizes, and streamlined operations—are no longer strong enough to offset rising operating costs. Since 2002, “increases in the rate of input price growth combined with slower productivity growth have resulted in unit cost increases.” “Economies of density,” the study also reports, “appear to have been exhausted in recent years.”<sup>26</sup>

Subsequently, in response to a proposal made by a group of cargo shippers (the National Industrial Transportation League), the STB instituted a proceeding to consider whether to adopt new rules for mandatory switching, under which a carrier with the ability to carry a captive shipper’s traffic all the way from an origin to a destination could be required under certain conditions to “switch” cargo to a connecting railroad at the direction of the shipper. Railroads operating in Canada are subject to a set of such competitive switching rules.<sup>27</sup>

Legislative: The Rail Safety Improvement Act of 2008 requires large U.S. rail carriers to implement Positive Train Control (PTC) by the end of 2015 on main lines where intercity rail passenger transportation or commuter rail transportation is regularly provided, and on main lines over which hazardous toxic-by-inhalation or poisonous-by-inhalation materials are transported. PTC is an automated system designed to prevent train-to-train collisions, over-speed derailments, incursions into established work zone limits, and the movement of a train through a switch left in the wrong position. To comply with this law, rail carriers will need to make substantial expenditures related to installation and maintenance of PTC, and one regulatory issue will be whether carriers will be able to recover these costs through the rates they charge.

Court Cases: Although some activities of the railroads are subject to the antitrust laws, a number of rail activities, including mergers and many unilateral actions are instead subject to regulation by the STB. Naked price-fixing by the railroads would not be exempt from the antitrust laws. A U.S. federal appeals court is currently reviewing appeals from several large railroads against a district court judge’s decision to allow 30,000 freight shippers to combine their claims against the largest railroads for allegedly conspiring to fix the amount of a fuel surcharge into a class action.<sup>28</sup>

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<sup>26</sup> Id.

<sup>27</sup> “Petition for Rulemaking to Adopt Revised Competitive Switching Rules”, STB Ex Parte No. 711.

<sup>28</sup> In re Rail Freight Fuel Surcharge Antitrust Litigation, 286 F.R.D. 88 (D.D.C. 2012), 2012 WL 2870207; D.C. Cir. No. 12-8085.

**EVES-RAIL - ECONOMIC EFFECTS OF VERTICAL SEPARATION  
IN THE RAILWAY SECTOR**

*Report by D. Van De Velde, C. Nash, A. Smith, F. Mizutani, S. Uranishi,  
M. Lijesen and F. Zschoche*

This document was presented during the meeting under DAF/COMP/WP2(2013)8 and can be accessed at: <http://www.inno-v.nl/projecten/eves-rail-study-quantitative-effects-on-vertical-separation/>

DAF/COMP(2013)24

## BRIEF HISTORY OF RAIL LIBERALISATION AND OTHER (DE)REGULATORY REFORMS IN SWEDEN

*Note By Helène Jarefors*



**PM**

1 (5)

Datum  
2013-06-10

Handläggare  
Helène Jarefors  
Head of unit Regulatory Functions and Market  
Monitoring, Rail and Road Department

### **Brief history of rail liberalisation and other (de)regulatory reforms**

#### **Pre-history**

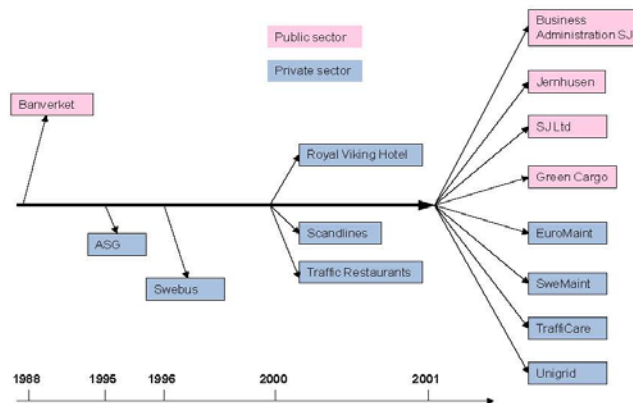
|              |   |
|--------------|---|
| 1960s-1980s: | A period of decline and increasing financial problems for the Swedish State Railways (SJ) <ul style="list-style-type: none"><li>- line closures</li><li>- operating subsidies introduced</li><li>- additional state grants needed</li></ul> |
| 1985:        | New Railway Act: <ul style="list-style-type: none"><li>- the State took additional responsibility for rail infrastructure</li><li>- SJ to separate its accounts</li><li>- track access charges introduced</li></ul>                         |
| 1986:        | SJ in severe financial crisis; need for 1 billion SEK in additional grants  |
| 1988:        | New Transport Policy Act  |



**Evolution of rail liberalisation**

- 1988: Vertical separation of track infrastructure (Banverket) from operations (SJ). Decentralisation of responsibility and resources to regional authorities
- 1990: First tenders for regional services
- 1993: First tenders for interregional services
- 1996: Deregulation of freight services
- 1998: More functions taken over by Banverket
- 2000: Break-through for new entrants in several tenders
- 2001: Separation and corporatisation of SJ's divisions
- 2004: Swedish Rail Agency is established

**Separation and divestment of SJ**



- 2006: Market opening for night trains and chartered trains
- 2009: Market opening for weekend traffic (rest capacity) and for international passenger services (to comply with EU directive).  
The Swedish Rail Agency is merged with Road, Ship and Aviation Agency to form the Swedish Transport Agency.
- 2010: Banverket's construction and maintenance unit is separated and corporatised (Infranord).  
Market opening for domestic passenger services, with full effect from Dec 2011  
Banverket is merged with the Road Administration to form Trafikverket
- 2012: New law on public transport

### Current structure

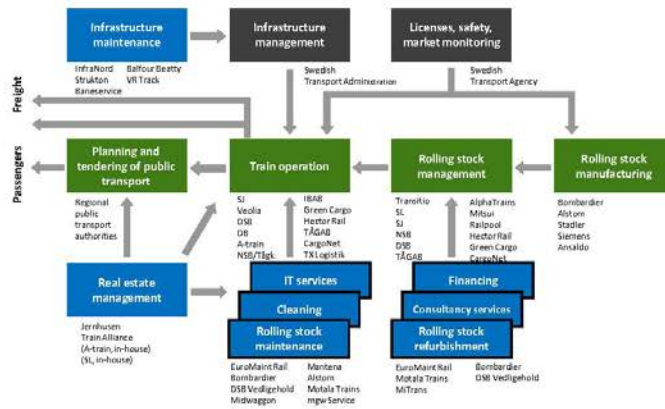
Overview of regulatory structure

| Part of rail transport market   | 1988                                     | 2013   |
|---------------------------------|--|--|
| <i>Passenger services</i>       |  |  |
| Regional (non-profitable)       | SJ holds monopoly and receives subsidies | Procurement by competitive tendering (competition <i>for</i> the tracks); since 1990<br>Open access (competition <i>on</i> the tracks); since 2011 |
| Inter-regional (non-profitable) | SJ holds monopoly and receives subsidies | Procurement by competitive tendering (competition <i>for</i> the tracks); since 1993<br>Open access (competition <i>on</i> the tracks); since 2011 |
| Inter-regional (profitable)     | SJ holds monopoly                        | Open access (competition <i>on</i> the tracks); implemented step-by-step 2009-2011   |
| <i>Freight services</i>         |  |  |
|                                 | SJ holds monopoly                        | Open access on all lines (competition <i>on</i> the tracks); since 1996  |

### Swedish railway market 1988

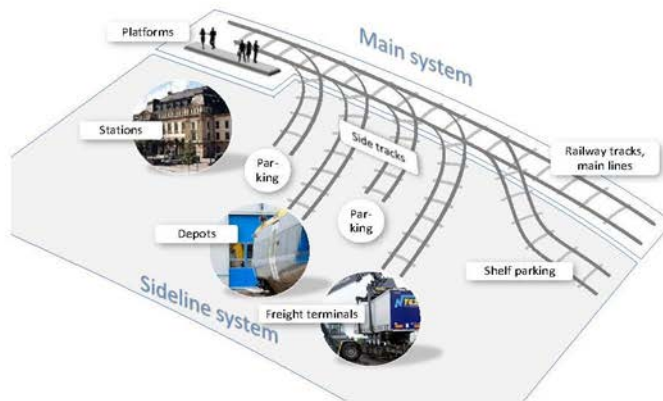


### Swedish railway market 2013



**Additional complexity when comparing  
main system with sideline system**

1  
3





## SUMMARY OF DISCUSSION

*By the Secretariat*

The Chairman, Alberto Heimler, began by noting that this was the third in what was turning out to be an eight-year cycle of OECD roundtables on the rail industry. The first roundtable, in 1997, had been when competition in the rail sector was just being introduced and was accompanied by much hope in what it could deliver. The second, in 2005, had been more realistic and suggested that while efforts had been made to introduce vertical separation, they had not led to significant competition either in freight or in passenger services. Eight years on, he felt that there was now greater confidence in the benefits of competition for rail users, and there were many more countries where competition was playing a role. However, rail was a challenging industry in which to introduce competition, and problems persisted.

The Chairman addressed his first question to the EU delegation. He found it surprising that the EU Commission described its approach to rail competition in the following sequence: vertical separation first, competition second and harmonisation third, since technical, signalling and language harmonisation were still major issues affecting the ability of cross-border entrants to provide rail services in adjacent markets. He asked whether the EU's fourth package for rail liberalisation, published in January 2013, addressed these issues, and in what time frame.

In reply, the delegate from the EU explained that there no such sequence was intended. Rather, the EU tried to pursue all of these pillars at the same time, since they reinforced each other. Interoperability was an essential objective of EU policy towards the rail sector, but it was challenging because there were 27 different systems, which were created before the EU existed and, if anything, were deliberately designed to prevent interoperability. The most important reason why interoperability was a key priority for the EU concerned efficiencies and in particular economies of scope, not only for railway undertakings but for others in the supply chain such as manufacturers of rolling stock and track. A single market would also foster innovation. Some barriers to interoperability, such as differences in track gauge, could not be eliminated, but it was possible to have rolling stock capable of running on different types of gauge, based on common standards. Political and administrative barriers also needed to be brought down, for example by streamlining the many thousands of different rules governing European rail systems.

The delegate then explained what the fourth railway package proposed towards achieving greater interoperability. The goal was a situation where the European Railway Agency (ERA) would be a one-stop shop for vehicle certification, safety authorisation, etc., so that an entity approved by the ERA could operate anywhere in the EU. This would ease entry and reduce risk for railway undertakings. Secondly, the fourth package proposed the creation of a network of infrastructure managers to aid cooperation in running cross-border services in both the freight and the passenger sectors. In addition, the EU's longstanding drive towards technical standardisation for interoperability was continuing under the ERA and was making progress, although perhaps not as fast as might be wished. Finally, a number of projects towards interoperability were being funded either by member states or from the EU budget, such as the Trans-European Transport Network (TEN-T) project, the rail freight corridors and the deployment of the European Rail Traffic Management System (ERTMS), which aimed to resolve signalling and language differences.

The question of timing was opportune since a few days earlier, on 10 June, the Transport Council had agreed the text for the fourth railway package for interoperability to be put to the European Parliament. The delegate believed the timing for the ERA to become a one-stop shop would be pushed back to five years after the entry into force of the directive, because Member States reported that they needed time to make the transition. Assuming the European Parliament approved the text in November 2013, it would thus become effective in 2018. The rest of the package, such as the proposed infrastructure manager network, was still with the Council and the timing was therefore more uncertain.

The Chairman then turned to Denmark. The Danish submission, he observed, appeared to criticise the fourth package as too wide-ranging, yet at the same time endorsed the objective of greater efficiency in rail services and the use of competition to improve efficiency in Denmark. He asked the Danish delegation to clarify.

A delegate from Denmark explained that, as stated in the written submission, the preliminary position of the Danish transport minister was that it was too early to introduce further competition in Danish railway services, and that the focus should be on making the current regulations work and pursuing efficiency through the development of infrastructure. The delegate believed that this position was based on the problematic experience of the UK, a belief that further tendering would reduce economies of scale and increase costs, and the view that signalling and other technical issues needed to be resolved before effective competition could come about. However, the Danish Competition and Consumer Authority, which the delegate represented, supported a faster path towards a more competitive market, while believing that any future regulations should allow flexibility for member states to take into account factors such as economies of scale and infrastructure development when tendering railway services.

The Chairman asked the EU a second question, concerning state aid. Most European countries provided state aid to rail infrastructure managers to finance investments and cover running costs. As noted in the EU's submission, such aid did not distort competition because the rail infrastructure is a monopoly. However, different degrees of state aid could lead to different access charges and hence to different ticket prices for passengers in different countries. State aid was also provided to rail companies to cover universal service obligations, which affected competition more directly. Was aid for universal service actually beneficial, or could the market instead provide universal service without subsidies?

A delegate from the EU confirmed that public transfers to rail infrastructure did not breach EU state aid rules and indeed were not even considered to be state aid. Transfers to railway undertakings that competed to provide services, on the other hand, were considered state aid. However, he pointed out that it was not the role of the EU Commission, as the enforcement agency for state aid of the EU, to decide whether aid was necessary, but whether it was proportionate and whether it would distort competition in the internal market. Member states were free to finance what the EU termed a "service of general economic interest" and the EU Commission would only be likely to object if the definition of the service was grossly out of proportion, for example if a member state decided that the entire railway sector should be publicly funded. Instead the role of the EU Commission was to check whether the sum granted was reasonable, which it did using calculations and common rules that define what constitutes a reasonable return that an undertaking can generate by providing a service of general economic interest.

As to whether aid was necessary for certain routes or certain universal services, it was believed within the EU that many routes were not commercially viable, and would be less well served if they were left entirely to the market. It was entirely up to individual member states to decide which routes they wished to support for reasons such as economic integration or social cohesion. In assessing whether the amount of aid was reasonable, the EU Commission generally faced two possible situations. One case, represented by the UK, was where a franchise contained a mixture of profitable and unprofitable routes, with profitable routes subsidising unprofitable ones so that the overall return on the franchise was attractive to private undertakings. The other one involved financing the operation of a single route directly by identifying how

much it would cost. Especially in the current climate, there was a general desire across Europe to spend public money more efficiently, and the fourth package proposed the introduction of more competitive tendering, on the basis that this would reduce the risk of overcompensation.

The Chairman commented that this highlighted the importance of governments making correct decisions on the use of state aid and also performing a competition impact assessment. He was surprised by the extent of state subsidies to the rail sector in the UK, as described in that country's submission, and by the fact that these were rising over time. He asked the UK delegation to comment on the level of subsidy and to explain how it was determined.

A delegate from the UK replied that the UK rail regulator was concerned with three aspects of the level of state funding. The first was to establish how much rail was actually costing. This sounded simple, but in many EU member states the railways and sometimes the governments, both national and local, were experts at hiding or shifting costs. Secondly, it was extremely important to confirm that the expenditure was efficient, to avoid subsidies being boosted by inefficient spending. Thirdly, the level of subsidy should be predictable; in the past the level of subsidy for the railway sector had come as a shock because the approach taken to asset management within the sector was often very poor. Cost shocks were bad both for operation and for investment. The UK regulator had inherited a legacy, as had other regulators, and some of the increased cost over the last ten years was the result of attempts to recover from aspects of this legacy, such as delays in the renewal of equipment on the network which had enabled a short-term cost saving at the expense of much greater longer-term cost. The level of subsidy for the railway sector in Great Britain was a political matter, the largest funder being the Department for Transport, representing the English and Welsh governments, and with significant funding also being provided by the Scottish government through Transport Scotland. The spending review process, which runs in five-yearly control periods, was designed to identify what these funders wished to procure and what funds they had for that purpose. It was then the sector regulator's job to ensure that these outputs could be bought with the funds available, and that the amounts involved reflected efficient spending.

The Chairman moved the discussion on to the issue of technical harmonisation. One country in Europe, Spain, had a different gauge system, which implied that Spain might remain an isolated market like the geographical islands of Great Britain and Ireland. The Spanish competition authority had recommended certain steps to the Spanish government in order to increase competition in railway services, but these did not appear to include setting up a leasing company that would own the rolling stock and lease it to winners of licences to operate routes, as in the UK. This could help to reduce entry barriers. He asked the Spanish delegation how a potential competitor could obtain rolling stock in the absence of such an arrangement, and also what the prospects were of the Spanish government accepting the competition authority's recommendations.

In response, a delegate from Spain pointed out that the UK example concerned passenger transport and applied to an undertaking winning an auction to serve a specific route, whereas the Spanish report referred to freight transport, a sector in which companies were able to operate on any route provided they complied with procedures. Her agency's proposal to facilitate the access of new entrants to rolling stock was to establish legal, accounting and functional independence for the entity licensed to sell and lease the rolling stock, even though this was part of Renfe Operadora. This would avoid cross subsidies between the owner of the rolling stock and the other business units within Renfe Operadora. Spain's ministry of development had pointed to a need to increase the supply of rolling stock available for new entrants. The 2010 strategic plan for freight rail announced that Renfe Operadora should offer excess rolling stock preferentially to companies presently operating in the sector or that would be doing so in the next few years. The draft 2012 plan stated that the heavy investment devoted in recent years to the acquisition and modernisation of the rolling stock required the development of a management and operational plan adapted to future needs. For now these were simply proposals from the ministry.



The Chairman asked whether that meant that there had been no entry in freight services so far, which the delegate from Spain confirmed. He also asked whether any new investment in high speed rail would require a European compatible track gauge, to which the delegate replied that the Spanish high speed service already had an international and European compatible track gauge.

On the subject of high speed rail, The Chairman turned to the US, whose report mentioned that the Obama administration was funding a US\$40 billion project to create a high speed corridor throughout the US, which would give 80% of US citizens access to the rail system. The US once led the world in railway development, but the early railway system was developed privately. Why was public funding needed this time?

A delegate from the US replied that costs were higher today than a century ago, especially environmental costs. Much of the land on which the railways were originally constructed was Federal land, granted to the railway companies for free. Although the goal of reaching 80% of the population involved passing through high population-density areas rather than the large parts of the US that were sparsely inhabited, which meant covering less land, the cost of the land would now be very high. The first railway operators also gained economies of scope from serving both freight customers and passengers. Today, freight rail in the US was still a profitable business, but passenger services were not able to compete with automobiles and air transport. Passenger service in the US was provided by Amtrak, a heavily subsidised public-private entity established by Congress after all passenger operations in the US went bankrupt in the sixties and seventies. Although the entire Federal interstate highway system was publicly funded, the high speed rail project, which was only a proposal at this stage, remained controversial, with some Republican governors opposing it because they felt it was not economically justified. Nevertheless, in some regions such as parts of Nevada and Florida, companies had come forward willing to spend private money on the project, believing that it could be profitable.

The Chairman had a question regarding high speed rail in the UK, and specifically the High Speed One (HS1) Channel Tunnel link with Continental Europe. He understood from the UK submission that HS1 had been financed by the government at a cost of around £6 billion, then sold in 2010 to a private operator under a 30-year concession for around a third of that amount. This seemed relatively unusual for a public-private partnership (PPP); usually the private investor built the infrastructure and was then allowed to operate it for a much longer period. The Chairman asked why the project had been structured in this way and why, since the government had financed the network, it did not run it.

The delegate from the UK pointed out that construction was the riskiest phase in railway development and most railway ventures failed during construction or soon afterwards either because the cost proved higher than expected or because demand proved insufficient. Public financing of HS1 was thought to be the best way of financing the risk of construction. The British government did not have in mind a particular concession model when construction began. The 30 year period was chosen at the time of the sale because it was deemed to yield the best value for money and to create a value of the concession that could most easily be funded by private sector capital markets. The financial stability of HS1 was likely to be greater than that of the Channel Tunnel itself, which was a traditional 100-year PPP. When the concession expired after 30 years, HS1 would revert to the government, which would be able to sell a further concession and recover still more of the cost of construction.

The Chairman asked the UK why it had no domestic programme for high speed services.

The UK delegate replied that the UK did in fact have such a programme. HS1 was now also being used for domestic services, and the British government was currently putting in place plans for the construction of HS2, which would be a North-South arterial route between London, the North-East and the North-West of England, and potentially further. In Britain, as in the US, railway construction was always highly controversial and required efforts to persuade parliament and business, not least because the

distances between the major centres were relatively small, which reduced the overall benefit of high speed rail.

The Chairman turned to Indonesia, where a 700km high speed link between two major cities, Jakarta and Surabaya, was being contemplated. He asked whether it could be built using a PPP model, as with the Channel Tunnel and the high speed services connecting France and Spain, and whether the competition authority expected to be involved in the design of the tender.

A delegate from Indonesia reported that the Indonesian government hoped to complete its feasibility study in 2015. At present it considered that the project was not commercially viable and therefore intended to use a PPP, but no decision would be taken until the study was concluded. The Indonesian competition agency, the KPPU, was not yet involved but under Indonesian competition law it would supervise the award process to ensure that it was transparent and fair.

The Chairman then introduced the topic of competition in the provision of high speed services. The only country so far in which large-scale competition had been introduced was Italy, where the entrant Italo was operating 25 trains on 49 routes and 12 stations in head-to-head competition with the incumbent Trenitalia on almost all routes served by high speed services. He asked the Italian delegation whether consumers were benefiting from this increased competition and if so by how much. He also asked whether there were unique characteristics explaining the success of the two-player market in Italy or whether it was a model that could be exported.

A delegate from Italy explained that Italo, which is operated by a private company NTV, entered the market in April 2012 operating the route between Naples and Milan, and then added a further route between Naples and Venice in October 2012. However, Italo was still at too early a stage of expansion for a proper competitive assessment to be made. According to NTV, from April to December 2012 it served two million high speed passengers, more than expected, and it planned to serve seven million by 2014. As for the conditions that made this successful entry possible, the first was a liberalising reform enacted in 2000 whereby EU rail operators could access the Italian rail network to provide domestic passenger transport services, which went beyond what was required at European level. Secondly, Italy embarked on a very large investment programme to develop the high speed network in the 1990s, with the result that there was a large market of 25 million high speed passengers in 2011 before Italo's entry. In 2012 the market grew by a further 3.5 million, of which two million were captured by Italo. Thus the market appeared capable of growing and accommodating both the incumbent and the entrant despite the economic crisis. In part this was due to significant numbers of passengers switching from ordinary to high speed services, but between 2009 and 2012 almost three million passengers also switched to high speed rail from air and road transport. There were also two million new customers due to generational demand, i.e. an increase in the frequency of travel. Competition was benefiting consumers in terms of quality because, in order to differentiate its service from that of the incumbent, Italo provided more comfortable trains with, for example, Wi-Fi and satellite TV and a high level of customer care. This had prompted Trenitalia to upgrade the quality of its Frecciarossa trains. The impact on prices was more difficult to assess because the two operators' tariffs were rather similar, and data on average prices since Italo's entry were not publicly available. Limited analysis by consumer associations suggested that Trenitalia's prices had declined, not so much because of a change in tariffs but due to more extensive promotions and discounts. Finally, NTV had recently filed a complaint to the Italian competition authority alleging a price squeeze by Trenitalia, especially on the key route from Rome to Milan. The agency had launched an investigation, which the delegate believed would provide more information on price competition.

The Chairman contrasted the experience of Italy with that of the Netherlands. According to the Dutch submission, a new high speed service, called Fyra, had been introduced in December 2012. It quickly encountered operational trouble, with fewer than 50% of trains arriving on schedule and significant

cancellations, which led to the suspension of the service. He asked what the reasons for this failure had been.

A delegate from the Netherlands explained that Fyra is a high speed service between Amsterdam and Brussels that is owned and operated by the incumbent national operator Dutch Railways (Nederlandse Spoorwegen, NS) and uses new rolling stock. It ran on the dedicated high speed line completed in 2009, which is also used by the international service Thalys, in which NS participates. The failure of Fyra was due to safety issues and problems with the rolling stock and infrastructure. A parliamentary committee was investigating these events, but meanwhile at least one new entrant was looking to provide a high speed service between Amsterdam and Brussels.

The Chairman then introduced the section of the roundtable devoted to competition in freight services. In most countries this was increasing and the market shares of incumbents had declined, sometimes substantially. At the same time, however, the share of freight services in total rail traffic was also declining strongly, with the exception of the transport of bulk goods such as mining products or agricultural grains. This raised the general question of whether rail freight could recover, particularly in view of its advantages in terms of environmental cost.

The Chairman focused first on Australia, where rail freight services were used for the transport of bulk and raw materials, especially from the interior of the continent to the ports for domestic shipping or export. The Australian submission suggested that, in addition to privatisation, one of the major developments in Australia in rail had been to increase competition among rail service providers, but he had been unable to find more detail on this statement in the submission. He referred to the privatisation of Queensland Rail mentioned in the submission, which had created a major supplier for the transportation of coal in Queensland, and asked whether this was an independent supplier of rail services or whether it was owned by the coal mines which it serves. An additional question was why passenger services in Queensland rail had not been privatised.

A delegate from Australia explained that Queensland Rail had been owned by the Queensland state government and was split in 2010 into two parts. One part, QR National (now Aurizon), consisted of freight lines and associated rolling stock, while the other part retained the rest of the freight stock and the passenger network. Aurizon was publicly floated and was now owned 9% by the Queensland government, 34% by retail investors and 57% by institutional investors, including a substantial proportion held by investors other than the mine owners. Aurizon provided an access undertaking setting out the terms under which other providers can operate rolling stock on its network. Currently there was only one significant competitor in Queensland, Pacific National, which was the other major private freight operator in Australia. Aurizon is also operating services on other freight networks in Australia outside Queensland, usually in competition with Pacific National, through similar access undertakings at state level and through an access undertaking lodged with the ACCC at national level by the owner of the interstate network. There was thus competition, and there had been increased investment in freight services and freight stock. The access arrangements generally had not been contested, and those seeking to compete had been able to do so. In a recent case, a mining company, Fortescue, unsuccessfully sought access to a rail line, but a court found that it was economic for Fortescue to build its own railway line. This and other cases had triggered a review into access arrangements, now being carried out by the Productivity Commission, which involved a discussion of whether efficiency meant duplicating infrastructure where economically viable, or more effective use of existing infrastructure. Regarding passenger networks, provinces and state governments had taken some steps towards competition through corporatisation and management structures. Victoria was adopting a franchise model for the provision of new rail infrastructure, and New South Wales was contemplating whether a new Sydney line could be privately owned and operated. However, state governments were driven by concerns about cost and retention of public control.

The Chairman noted that the Australian submission mentioned a body called Infrastructure Australia, whose aim was to enhance the quality and the extent of infrastructure in Australia and promote its better use. He asked whether Infrastructure Australia and the Productivity Commission worked independently or whether they were cooperating with each other and with the Australian Competition and Consumer Commission (ACCC) on the review of access arrangements.

The delegate from Australia replied that the three bodies worked independently but that in the case of the review of access arrangements it would be the normal routine for the Productivity Commission to meet with and seek submissions from interested parties including Infrastructure Australia and the ACCC.

The Chairman commented that in his view Australia had created specialised agencies with specific mandates for considering public policy issues that in many jurisdictions were spread around different government organisations, and that this could be an example to follow.

The Chairman turned next to Latvia, where there were now three companies providing freight services, which had brought the market share of the incumbent down to around 75%, in line with many other jurisdictions. Responding to a comment in the Latvian submission that rail was particularly efficient for international freight, he asked what the destination markets for international freight services in Latvia were and why rail was important to them.

A delegate from Latvia clarified that the remark in the report was based on views expressed by freight customers and referred particularly to the transportation of large cargoes. His authority had not conducted a detailed analysis of the efficiency of rail in respect of particular destinations. The market share figures were calculated up to 2010 based on the total transported volume regardless of destination. His agency's research suggested that the two entrants were not competing effectively for transit cargo and cargo transported through the ports. He supposed that the incumbent operator had increased its market share since 2010 because there had been an increase in transit volumes.

The Chairman turned next to Russia, whose submission suggested that there was some competition in freight services, but primarily involving providers of wagons attached to a locomotive operated by the monopoly service provider. He asked what the barriers were to competition among independent service providers in freight services.

A delegate from Russia explained that Russian Railways had been created in a previous reform and was a monopoly owner of the railway infrastructure and the main rail freight carrier. There were many licensed carriers but in fact freight services were provided only by the former monopolist and by freight wagon operators. The latter sector was very well developed, with more than 1700 wagon operators and wagon owners. Since 2004 the privatised wagon stock had increased from 25% to 80%.

The market structure was strongly dependent on the system of tariffs applied. These had traditionally been set as end-user tariffs. With the introduction of competition, they were divided into two parts: one for wagons and the other for infrastructure and locomotives. Wagon tariffs were then deregulated and a competitive market emerged. As a result of deregulation and competition, since 2004 there had been total investment of 600-700 billion rubles (14-15 billion euros) and more than 300,000 new track wagons had been constructed. Since 2008, the locomotive and infrastructure tariffs had been separated and the market for locomotive services had been opened up to competition. However, operational difficulties had delayed the emergence of competitive freight carriers. Under the Eurasian Economic Union, mutual access to infrastructure in the Russian Federation, the Republic of Belarus and the Republic of Kazakhstan would be granted to carriers from those countries from 2015. Russian and international experience showed that transactions costs could increase following structural reforms allowing the entry of new operators, and a "commercial infrastructure" needed to be established in order to reduce such costs and secure the full benefits of competition. This was provided by a market council involving market participants and

government institutions similar to the one that had been functioning successfully in the electric power industry for several years.

The Chairman then introduced Heléne Jarefors of the Swedish Transport Agency for a presentation entitled 'Competition in rail and freight services in Sweden'. Mrs Jarefors explained that Sweden had had vertical separation since 1988, and operators competed annually for access to the track. There was no regulation of final prices for freight or long-distance passenger services. Her presentation would discuss Sweden's experience of the effects of market opening.

Mrs. Jarefors explained that Government funding for rail infrastructure investment and maintenance, administered by the main infrastructure manager Trafikverket and carried out by the private sector, peaked in the mid-1990s and rose again up to 2010, the latest year shown. Both passenger and freight traffic volumes had grown since 1988, although that was true of transport volumes generally.

In the passenger market, competitive tendering had been in place for local and regional services since 1990 and for long-distance services since December 2011. New operators had entered the long-distance market during 2012, and there were now four operators with services between the main cities of Stockholm, Malmö and Goteborg. Sweden did not have dedicated high speed lines, but high speed services ran on the same tracks as conventional fast trains and freight trains. Between 1994 and 2011, new entrants accounted for all growth in traffic, measured in passenger kilometres, while the volumes of the incumbent passenger operator SJ had remained constant, implying that its market share had progressively decreased.

Competition in the freight sector had existed since 1996 and there were now around 15 operators. About 11% of domestic freight transport was by rail. As in the passenger sector, in the freight sector the incumbent Green Cargo had maintained stable volumes and entrants accounted for the growth in total volumes.

Mrs. Jarefors presented a slide showing the percentage change in subsidies from tenders for regional lines and interregional lines over time. These had fallen. Recalling the comment from the UK delegate regarding the difficulty in measuring costs, she said that Sweden now had a figure for the total cost of procuring local and regional passenger traffic services. In 2011 this was around SEK 32 billion or 3.7 billion euros for the entire country of nine million inhabitants, of which half was covered by fare revenue and half by state funds. In the same year Trafikverket, the infrastructure manager, spent about SEK 800 million, or 92 million euros, on procuring interregional passenger rail services. Long-distance passenger services were profitable and did not require subsidies.

Mrs. Jarefors explained that delays had occurred on some sections because of too many trains using the track simultaneously. She showed a map of the railway lines in Sweden in 2010 showing where capacity constraints existed. Even some areas with double or quadruple track experienced problems. This might suggest that more track was required. Alternatively, however, better designed access charges could ensure more efficient use of the network.

Current access charges were considered to be too low. Freight operators paid only 30% of the marginal cost they caused, which was inconsistent with the law. Access charges were expected to rise significantly in future years. The structure of track access charges would be changed to include booking and cancellation fees to prevent overbooking of capacity, differentiated tariffs according to demand on different lines and at different times of day, and compensation of the costs caused to other operators in the event of a delay.

After 17 years Green Cargo, the former incumbent, remained dominant in the freight market, although a thorough analysis of the causes of this dominance and possible remedies had not been made. In the passenger market there had been substantial entry and the critical issue was the capacity allocation

procedure used by Trafikverket. Operators had to reapply each year for the same routes and the number and similarity of applicants made it difficult for Trafikverket to select licensees. Uncertainty for operators over timescales longer than a year also made it difficult to justify investments. There had been an increase in complaints to the Swedish Transport Agency from operators who had lost routes to a competitor, alleging that Trafikverket did not follow the tender procedures correctly.

Overall, therefore, the effect of market opening was difficult to assess and it was important for the Agency to collect and analyse data over the coming years. The Swedish rail market was expanding, but this could be due either to an effective liberalisation process or to access charges that were too low, as well as potentially to other factors.

## 1. Competitive tendering

Dr. Andrew Smith of the Institute for Transport Studies at the University of Leeds, UK, then gave a presentation entitled 'Rail Franchising: Evidence and Issues', giving a comparative perspective on competitive tendering in rail. He explained that he would talk mainly about Britain, but also try to draw some generalizable findings from experiences elsewhere in Europe.

Dr. Smith began by asking what competitive tendering had achieved. He said that much of the literature suggested that it had had benefits at least in some countries. In Germany and Sweden savings were generally estimated at 20-30%, and competitive tendering and privatisation in other industries in Britain and elsewhere were typically also found to result in savings. The British railway industry, however, was an exception, since unit costs of train operating companies or TOCs (excluding infrastructure access charges) rose by around 14% between 1997 and 2006.

(Dr. Smith added, however, that he was sceptical whether underlying costs had in fact gone down in Germany and Sweden, since the findings related to subsidy reductions, and large state-owned operators still dominated those markets. More evidence was needed to demonstrate that the subsidy reductions corresponded to actual cost reductions, instead of being absorbed elsewhere.)

Differences in industry structure did not seem to explain the difference in cost trends, since Sweden, like Britain, had vertical separation while Germany had a holding model. This mirrored the findings of the EVES Rail project, which suggested that vertical separation could be good or bad in different circumstances. Dr Smith therefore moved on to explore whether differences in the approach to franchising could explain the different experiences of these countries.

The findings for Britain for the period since the start of franchising in 1997 up to 2006 were based on original work by Dr Smith at the University of Leeds with the assistance of the Department of Transport and the Office of Rail Regulation (ORR). Analysis carried out subsequently for a major study of Britain's railways, the Sir Roy McNulty value for money study, showed that over the period 2006-2009 units cost stabilised. Although not comparable, ORR figures suggested to Dr Smith that unit costs may have begun to fall since that time, possibly by around 10% between 2009 and 2011.

There had been many reviews of the British system. The recent Brown Review,<sup>1</sup> which followed problems with the award of the InterCity West Coast (ICWC) franchise in 2012, noted that costs had not come down but claimed that the approach in Britain, where operators assume revenue risk through net-cost contracts, had led to enormous growth in network use. The report gave figures showing that total passenger kilometres grew faster in Britain than in all other major European railways over the period 1995 to 2010: by 84% as compared with, for example, 65% in Sweden and 17% in Germany. However, Professor Mark

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<sup>1</sup> The Brown Review of the Rail Franchising Programme, December 2012.

Wardman of the University of Leeds found that the majority of this growth was due to exogenous factors such as GDP growth, increases in fuel costs for car use, saturation of car ownership and road congestion, rather than to the effect of privatisation.

The Brown Review also noted that the British railway system was very safe despite some high-profile accidents, some of which had been attributed to privatisation, and that the evidence showed it was improving faster since privatisation than before. A recent Rail Safety Standards Board report showed that Britain was now the second safest railway in Europe as measured by passenger and workforce fatalities per train kilometre between 2007 and 2010. Secondly, the Public Performance measure, which was a measure of delays and cancellations, had improved dramatically from a low of 79% in 2002/03 to around 93%. Finally, the review quoted figures showing that customer satisfaction was higher in Britain than in other countries (87% as compared with 52% in Germany and 54% in France), although Dr Smith did not know whether these figures were comparable.

Dr. Smith then summarised some of the issues confronting the British railways system identified in the Brown Review. In addition to the increase in costs following privatisation which he had spoken about, there was a lack of focus on costs in the bidding mechanism, which tended to favour companies who took the most aggressive projections of revenue, as well as a lack of focus on whole-industry costs within franchising. Along with costs, rail fares had risen and passengers' satisfaction with value for money (47%) was much lower than their overall satisfaction score. Next, the Brown Review questioned whether the Department for Transport was well enough equipped to deal with highly sophisticated bidders. A further issue was defaults on licences that had been won on the basis of aggressive revenue projections. Since the first franchising competition in 1997 roughly half of operators ended up having to renegotiate their contract in some way. There was also an ongoing debate about the appropriate franchise length. The McNulty Review argued that longer franchises, perhaps of 15 years or more, were necessary in order to bring costs down and incentivise investment. Finally, quality did not play a major role in bid evaluation.

Dr. Smith then presented the solutions to these issues proposed in the Brown Review, and commented on them in the context of the wider evidence. In order to lower the risk of default, there was a proposal to link the subsidy payment to GDP or employment, so that subsidies would increase if the economy turned down. A clearer system of capital requirements should also be introduced to reduce the likelihood of an operator walking away from a franchise, although these should not be set so high that bidders were deterred. On the issue of franchise length, the Brown Review concluded that even a 15-year franchise was not sufficient to encourage investment in railway access including rolling stock, but on the other hand such a long franchise would create risks. It was therefore inclined towards shorter franchises of 7-10 years, perhaps with the possibility of extension based on quality. The number of franchises had been reduced from 25 to 20, but there was a danger that they were too large. In particular they required significant capital, so that if an operator were to lose a large franchise it might be left with no other franchise, giving it an incentive to bid aggressively. There was also a view that, similarly to Germany and Sweden, more regional procurement bodies should be involved rather than merely the national Department for Transport. There should also be a greater focus on whole-industry costs and greater weight on quality in bid evaluation, although it was not specified how this should be achieved.

Dr. Smith said that, overall, the problem in Britain appeared to be that bidding had become too much about revenue. Introducing a link between subsidy levels and GDP could help eliminate some of the exogenous risk, but there would be a remaining risk that should not be fully insured. A major question was how to achieve a greater focus on operators' costs. There was a major difference in the size of franchises in Britain and other countries. The average franchise was more than 26 million train kilometres in Britain, against 3.3 million in Germany and 2.6 million in Sweden. When a new operator took over a franchise in Germany, for example, it often brought in its own staff and rolling stock. This was not possible in Britain given the size of British franchises. Instead a franchise winner took over an existing company, which made

it very hard to bring costs down. With only 7-10 years in which to make a profit it was unlikely to be worthwhile to take on Britain's very strong trade union in an industrial dispute in an attempt to bring down labour costs, since the new lower cost base might simply be enjoyed by a new franchise winner in the next round.

Gross cost contracts for non-commercial services, combined with smaller franchises, were being considered as a possible solution to the problem of costs as used in Sweden and, to some extent, in Germany. The benefits of smaller franchises needed to be weighed against a potential loss of economies of scale and density, however. Dr. Smith considered that achieving a focus on whole-industry costs was a major challenge. Getting operators to take more interest in infrastructure costs would increase complexity, but there had been some success with alliances between regions of the infrastructure manager Network Rail and train operators. Dr. Smith wondered whether, given some of the problems and challenges in franchising, other structures might be appropriate. For example, Britain had had some success with regulated private local monopolies in the water industry.

Dr. Smith concluded by suggesting that tendering was probably preferable to open access for non-commercial services and that smaller franchises and gross cost contracts appeared to have led to greater cost savings, although he remained uncertain about the quality of the evidence on these savings. He also stated that the solution for the provision of the rolling stock should be reconsidered; Sweden dealt with rolling stock via a government body while Britain, which had large franchises, net cost contracts and privatised rolling stock, seemed to experience greater problems. There was a need for a tailored approach and an understanding of the trade-off between economies of density and risk when determining franchise sizes.

The Chairman commented that many of the issues raised by Dr. Smith were very valid and would be picked up in the contributions that would be discussed next, in particular the distinction between gross and net cost contracts. Gross cost contracts involved companies tendering for the total cost of providing a given service, with the government retaining revenues, while net cost contracts involved companies retaining the revenues and bidding for the additional costs that these do not cover (i.e. for subsidies). In gross cost contracts, therefore, the government bears the revenue risk while in net cost contracts the bidder bears it. The Chairman turned to the Czech Republic, which used net cost contracts in which, if he had understood the submission correctly, 92% of the cost was subsidised.

A delegate from the Czech Republic explained that in fact the figure of 92% was the weight on the subsidy amount in the tender evaluation, the other tender criteria being quality of service and technical requirements. Because bidders had to meet the same technical criteria, and because most of the weight was on the subsidy, the bidder requesting the lowest amount was the one most likely to win. He did not know what the subsidies were as a proportion of total cost but in any case it was certainly far less than 92%. He agreed, however, that gross cost contracts might be better.

The Chairman then turned to Poland where, unlike many countries that had privatised their rail systems, competitive tendering was seldom used to allocate routes to potential suppliers. The Polish submission suggested that transport authorities preferred to grant licences directly to an undertaking which they wholly or partly owned. He wondered whether this practice was consistent with European rules requiring the use of tenders.

A delegate from Poland replied that the most recent ten-year contract to the Polish State Railways (PKP), the incumbent, had been discussed and cleared with the EU Commission and it conformed with EC Regulation No. 1370 of 2007 on public passenger transport services by rail and by road. However, the section of the submission to which the Chairman referred concerned regional rail, operated by a company called Regional Transportation, which had been separated from PKP and was now co-owned by the regional governments. However, the regional governments were not always satisfied with the service



provided by Regional Transportation and were trying to cut costs, to force it to improve its services, and to lower its prices. Some regional governments created their own regional carriers, such as Masovian Railways (Koleje Mazowieckie), to which they then awarded public service contracts, while others were introducing competitive tendering. The first private company to win a competitive tender was Arriva PCC, which went on to win a further competition. He concluded by saying that the Polish submission had wanted to emphasise that, despite regional governments owning their own passenger carriers, some were nevertheless taking a positive approach towards introducing competition in order to improve prices and quality.

The Chairman addressed a question to the delegation from Romania, where the rail regulator had recently been merged with the competition authority (the Romanian Competition Council), as had happened in other jurisdictions. He asked why the rail regulator in particular had been merged with the competition authority, while other sectoral regulators, such as those for energy and telecoms, had not.

A delegate from Romania began by stressing that Romania was among the countries that had succeeded in creating competition in freight rail through the provision of open access to the monopoly infrastructure. It had done so partly in order to satisfy the criteria for entry into the EU. Romania now had around 24 private freight rail operators in addition to the incumbent. As in other countries, the incumbent's market share had decreased, indicating that the private operators exerted significant competitive pressure on it. Until 2011 the infrastructure manager and the incumbent railway undertaking were part of the same entity with internal separation rules. This contravened the requirement in the first EU railway package for a fully independent authority entrusted with strengthened decision-making powers, and triggered an infringement proceeding by the EU Commission against Romania. In order to comply with the requirement, in 2011 the Romanian government assigned regulatory powers in the rail industry to the Romanian Competition Council, which it considered was best placed to take on this role. The delegate also pointed out that the partial privatisation of the national freight transport company had begun, in accordance with a commitment made under the standby agreement with international financial institutions. The Competition Council was taking active measures to ensure that the privatisation process did not involve state aid and that it was based on transparent competitive tendering. It was also engaged in useful consultations with EU Commission experts.

The Chairman turned next to Korea, where a public-private partnership (PPP) had been used to develop a new subway line in Seoul and some other rail services. The model used was build-operate-transfer (BOT), discussed earlier in relation to the UK, whereby the operator finances and builds the infrastructure, operates it in order to gain a return on the investment, and then transfers it back to the government at the end of the concession period. He asked the Korean delegation to explain why a PPP had been used to develop subway lines, and how much competition there had been for the concession.

A delegate from Korea explained that the Korean government had used a PPP in order to overcome the problems of cost inefficiency of the railway industry under direct government control, and to reduce the financial burden of the investment. A PPP was also expected to create competition for the market because private enterprises had to outbid each other to win the contract. However, not all of these benefits had been obtained. There had been cost efficiency gains, but competition for the market had scarcely materialised because the size of investment involved encouraged firms to form bidding consortia, thus reducing considerably the number of bidders.

To conclude the discussion on competitive tendering, the Chairman introduced Dr. Mark Lijesen of VU University Amsterdam, who presented a quantitative assessment of the effects of competition in freight and passenger services entitled 'Regulation, competition and rail modal shares'.

Dr. Lijesen said that there were two reasons for rail industry restructuring. One was to obtain greater productive efficiency, i.e. to decrease costs, and the other was to foster allocative efficiency, i.e. to achieve

lower prices and better catering to the preferences of consumers. The essential measure of success in achieving these goals was the modal market share of rail as compared with other forms of transport, which principally meant road transport. This subject had been very little researched for two reasons: first, causes of different outcomes observed in different countries were difficult to establish; and second, there were issues of measurement and comparability. Dr. Lijesen had managed to partially solve these problems through a framework in which the modal share of rail was explained by regulation and competition (which of course influenced each other) and other factors including spatial factors, the level of infrastructure and economic factors. His econometric analysis was based on a fixed effects approach, which allowed for inter-country differences that were constant over time. For example, Japan had densely populated cities separated by mountains, and this was captured in the constant fixed effect for Japan. He also used economic and infrastructure variables to control for specific developments over time within and between countries. The key relationship of interest was the impact of regulation and competition on the level and the trend of modal shares.

His dataset contained data on 28 countries (essentially the European OECD countries plus Japan) over 17 years from 1994 to 2010. The sources were the UIC, Eurostat and OECD.

Separate models were estimated for international freight, domestic freight and passenger transport. The dependent variable was the modal share of rail over road transport, which therefore excluded air and other means of transport. The controls used were rail length per surface area, the ratio of rail length to motorway length, employment per capita and GDP per capita. Other control variables were tried but did not yield significant results, possibly because they were irrelevant or possibly because of insufficient data quality. Regulatory and competition indicators were based on desk research carried out in the EVES rail study. Regulatory indicators identified countries and years where there was either a separation of essential functions, a holding company or complete vertical separation, relative to the base case of vertical integration. There was also an indicator for horizontal separation relative to a base case of horizontal integration. Competition indicators identified countries and years in which there was open access, some entry occurred, or major entry occurred. These could not be identified for some countries or periods, and the analysis was therefore conducted both with and without these indicators.

In the models without competition indicators, the analysis for international freight showed a positive effect of rail length per surface area on the modal share of rail, but a negative effect on the trend increase. The vertical indicators showed a negative effect on the level of the modal share, but a positive effect on its trend. These effects were significant in the case of the holding company and vertical separation indicators, but insignificant for the separation of essential functions indicator. The signs of the effects of horizontal separation were the opposite of this pattern, but were not significant. In the analysis for national freight, there was a positive effect of the control variable for the ratio of rail length to motorway length. There was no significant impact of any of the regulatory indicators. In the analysis of passenger transport, there was a positive effect of the level of employment on the modal share of rail, presumably related to the volume of commuting. Higher income per capita was associated with a lower rail share, possibly because of the effect on car ownership. Again there was no significant impact of the regulatory indicators.

Dr. Lijesen then presented the results for the models in which the competition indicators were used. In both international and national freight, the effects of the regulatory indicators were similar while those of the competition indicators were statistically insignificant. This did not mean that competition had no effect, but merely that it was not possible to demonstrate the effect given the quality of the data. The model for passenger transport, however, suggested that there was a faster-growing market share of rail following significant entry, and that where vertical separation and open access were combined, the share of rail was higher than in countries and periods where this is not the case.

Dr. Lijesen said that the key finding was the perhaps disappointing one that many of the indicators were insignificant. In the case of both international and national freight there was a one-off negative effect

of vertical separation, but also a higher trend increase which counteracted this effect in subsequent years. Within the study period the net effect of the two was roughly zero, but if one assumed that the positive trend effect would continue after the study period then there would be a positive effect overall. The same held for horizontal separation in the case of passenger rail, and there was a positive effect of major market entry over time. A solid and robust result was that the combination of vertical separation and open access led to an increase in the modal share of passenger rail. Dr. Lijesen pointed out that there was no significant difference between the impact of vertical separation and that of the holding model, but believed that this was mainly to do with the diversity of the holding regimes. If one looked in more detail at the holding regimes in the dataset, they were very diverse, and it was possible that their effects were different.

Dr. Lijesen concluded that measuring the effect of regulation and competition econometrically was problematic. The use of fixed effects to take account of differences between countries that could not be directly measured eliminated differences that might be due to regulatory or competition factors, resulting in many insignificant or ambiguous estimates of the effect of regulatory and competition indicators. Nevertheless, the analysis had yielded some plausible results: the size and direction of the estimated effects of the control variables were plausible, and vertical separation combined with open access had a positive impact on the modal share of rail in the case of passenger transport.

The Chairman moved on to discuss recent antitrust cases in the rail industry. He began with France, where the competition authority had fined the incumbent rail operator, SNCF, for abuse of a dominant position after it made commercial use of information that it had acquired in its infrastructure management role. He asked France whether antitrust enforcement was sufficient to deter abuses of this kind or whether a stricter vertical separation would have been more effective.

A delegate from France noted that the question concerned the separation of network management from the provision of other services, and in particular the nature of such separation. The risk was that, without effective separation, an operator with control of the network could use it to foreclose its competitors. In France the story began in 1997 with the creation of Réseau Ferré de France (RFF) as a public entity responsible for infrastructure management, while the provision of transport services remained with the incumbent operator SNCF. However, as highlighted by the competition authority in several reviews of the railway sector, not all of the technical and human resources necessary for RFF to carry out this role were transferred to it. RFF was therefore forced to delegate to SNCF a number of functions relating to operational network management and in particular the award of so-called “last minute” train paths. The competition authority had repeatedly recommended that, as a minimum, SNCF’s national and regional services specifically tasked with the award of train paths should be transferred to RFF, in order to put an end to this problem. It also argued that vertical separation would be a more effective way of ensuring non-discriminatory access to the network for all operators. Vertical separation would also ensure consistency with the EU directives. The competition authority also highlighted other issues of non-discriminatory access to infrastructure, in particular access to passenger stations, which are still managed by SNCF to this day. As far as the competition authority was aware, this issue had not yet been addressed by European sectoral law, but could be in the future.

Unfortunately the competition authority’s recommendations were not followed, with the result that in 2012 the authority fined SNCF 61 million euros for abuse of a dominant position in the rail freight market, following a complaint by Euro Cargo Rail, a subsidiary of Deutsche Bahn. The practices which the Chairman had alluded to took place between 2006 and 2008 and were established by searches carried out on SNCF premises. As the delegated infrastructure manager for RFF for certain functions, SNCF collected requests for the award of train routes and organised site visits, obtaining confidential information on its competitors’ clients, tenders and transport plans. It then passed this information to its freight division, which used it to target the business of its competitors. The Authority also identified practices designed to

restrict competitors' access to essential infrastructure, including limiting access to freight yards and overbooking train paths and wagons in order to deprive other operators of them.

The French delegate concluded that an adequate ex ante structural framework might have prevented such abuses. He mentioned that a bill was in preparation which would create a single public body responsible for route allocation, pricing, traffic management, and the maintenance and extension of infrastructure. This would have a significant impact on the separation of network and services between RFF and SNCF.

The Chairman turned next to Hungary, whose submission referred to a case of price uniformity between GySEV, MÁV and RCH in 2008. He asked the Hungarian delegation what had been the precise antitrust violation.

A delegate from Hungary began by explaining the historical context of the case. Before Hungary entered the EU and the railway sector was liberalised, two incumbent operators, MÁV and GySEV, operated in the rail freight market with their own infrastructure. When they operated on common routes, one operator would pass the freight over to the other at the border of their networks. After liberalisation, new operators entered the market. The incumbents tried to maintain the status quo by concluding a cooperation agreement not to enter each other's markets. They also applied a uniform price list policy (common tariff system). The investigation established that their pricing was identical both substantially and formally, and an email conversation detected between the two parties showed that they also negotiated the uniform prices. This led the competition authority to conclude that they had entered into a market-sharing as well as a horizontal price fixing agreement.

The Chairman then mentioned a predatory pricing case in Chinese Taipei, where a bus service had complained after a train operator had reduced its prices in off-peak hours. He wondered whether the train operator had been deemed to be dominant in a wider transport market, or whether a special provision had been applied.

A delegate from Chinese Taipei commented that what was interesting about this case was that the launch of Taiwan High Speed Rail (THSR) in 2007 had had not only intra-modal but inter-modal competitive effects. As a result of competition from high speed rail, air transport had declined significantly. In 2008 the Fair Trade Commission received complaints from bus carriers claiming that THSR had violated competition law by offering below-cost discounted fares. The Commission considered the allegation and concluded that THSR's off-peak discounts did not constitute predatory pricing because they were provided only on limited days and times. It also concluded that THSR was not dominant in the relevant market, and that the increase in inter-modal competition had been beneficial. The delegate also noted that the modal share of long-distance highway bus services had in fact continued to grow.

The Chairman turned to a delegate from Germany, who mentioned the recent publication of a report<sup>2</sup> on the German rail sector by the Monopolies Commission. The report gave concrete suggestions on how the German market should be reformed that went further than what the EU Commission or the Bundeskartellamt were proposing.

No questions were asked and the Chairman closed the roundtable.

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<sup>2</sup> 'Bahn 2013: Reform zügig umsetzen!', Monopolkommission, 2013.



## SYNTHÈSE

*Par le Secrétariat<sup>1</sup>*

Plusieurs conclusions se dégagent des débats organisés dans le cadre de la table ronde, des déclarations des délégués et des exposés et documents présentés par les personnalités invitées.

- 1) *L'évolution de la réforme du secteur ferroviaire dans les pays de l'OCDE porte surtout, depuis 2005, sur l'ouverture progressive des services de transport ferroviaire à la concurrence, en particulier en Europe.*

L'objectif du secteur ferroviaire est de garantir un niveau optimal de qualité et de variété (notamment en s'attachant à l'intérêt général), et un degré élevé d'efficacité productive (et, par conséquent, un minimum de subventions, s'il en existe), soumis à une tarification efficace des services ferroviaires pour les utilisateurs finaux (en tenant compte du fait que les services de substitution sont souvent subventionnés). La réforme des services de transport ferroviaire, comme celle d'autres services collectifs, résulte du sentiment des pouvoirs publics qu'il est souvent préférable d'atteindre cet objectif en favorisant la concurrence, lorsqu'elle peut être durable.

La structure économique et le dispositif de gouvernance du secteur ferroviaire variant sensiblement d'un pays à l'autre de l'OCDE, (y compris la différence de pertinence entre les pays des passagers et les services de fret) il faut s'employer à atteindre l'objectif précité dans des contextes différents. La situation géographique, démographique et économique propre à chaque pays influe fortement sur la capacité d'autres modes de transport à limiter un éventuel pouvoir de marché du secteur ferroviaire (concurrence intermodale), et sur la viabilité des différentes formes de concurrence au sein du secteur ferroviaire lui-même (concurrence intramodale). Les différences en termes de nature et de rythme de la réforme rendent également compte de la complexité du défi réglementaire et de l'absence de modèles de réussite avérés.

La réforme du secteur ferroviaire se poursuit dans de nombreux pays de l'OCDE depuis 2005, année de la dernière table ronde sur ce secteur organisée par le Comité de la concurrence de l'OCDE. L'évolution a essentiellement porté sur l'ouverture des services de transport ferroviaire à la concurrence grâce à l'octroi du libre accès aux infrastructures qui faisaient l'objet jusqu'alors d'un monopole, notamment en Europe. Dans l'Union européenne (UE), les marchés du fret ont été ouverts à la concurrence en 2007 et les services de transport de passagers à l'international en 2010. En 2013, la Commission européenne a proposé un quatrième « paquet ferroviaire » qui prévoit l'ouverture à la concurrence de tous les services de transport de voyageurs d'ici 2020, ainsi que de nouvelles mesures pour la séparation effective des gestionnaires d'infrastructure et des prestataires de services de transport, et en faveur d'une plus grande interopérabilité technique des systèmes nationaux.

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<sup>1</sup> Cette Synthèse ne représente pas nécessairement l'opinion unanime du Comité de la concurrence. Par contre, cela reflète les points-clés de la discussion de la table ronde, les soumissions écrites des délégués ainsi que le document de référence du Secrétariat.

En conséquence, la compétition dans les services de fret a augmenté partout, avec l'opérateur historique perdant des parts de marchés parfois de manière conséquente. Il y a eu également des développements en dehors de l'UE, par exemple, l'accroissement important du marché de la concurrence dans les services de fret en Australie et le développement d'une concurrence grandissante dans le secteur des wagons de fret en Russie.

- 2) *Dans les cas où les services ont été libéralisés, les retombées pour le secteur ferroviaire, mesurées en termes de parts du marché intramodal que détiennent les différents opérateurs de services de transport ferroviaire et de part relative du rail par rapport aux autres modes de transport, n'évoluent que progressivement.*

En dépit de nouvelles mesures de libéralisation et du temps écoulé depuis les précédentes réformes, les retombées pour le secteur, mesurées en termes de parts du marché intramodal que détiennent les différents opérateurs de services de transport ferroviaire et de part relative du rail par rapport aux autres modes de transport, n'évoluent que progressivement. L'ouverture officielle à la concurrence du marché du fret ferroviaire, le cas échéant, s'est traduite par l'entrée de nouveaux acteurs, mais les parts de marché de l'opérateur historique n'ont enregistré qu'une érosion lente et modérée. Beaucoup de Membres de l'OCDE indiquent que ces parts de marché se maintiennent dans une fourchette de 70 % à 90 %. Les raisons pour lesquelles les opérateurs historiques sont en mesure de conserver une position aussi solide sur le marché sont multiples. Les opérateurs historiques adoptent une attitude qui limite la capacité des nouveaux entrants à gagner des parts de marché, et des obstacles subsistent en matière d'entrée et de développement, notamment des difficultés à se procurer du matériel roulant, à obtenir l'accès aux gares et à d'autres installations communes, et à modifier la répartition existante des capacités.

D'après les données disponibles, la libéralisation aurait eu certains effets sur la part relative du transport ferroviaire par rapport aux autres modes de transport, mais pas de façon notable. En Grande-Bretagne, par exemple, le nombre de voyageurs-kilomètres a progressé plus rapidement que sur n'importe quel autre grand réseau ferroviaire européen pendant la période 1995-2010, mais après analyse, il semble que cette croissance s'explique avant tout par des facteurs exogènes. Une analyse économétrique présentée dans le cadre de la table ronde n'apporte que peu d'éléments de preuve d'un renforcement, dû à la libéralisation, de la part relative du transport ferroviaire de voyageurs par rapport au transport routier de voyageurs, et aucune preuve d'une telle évolution dans le cas du transport de marchandises, bien qu'il soit très difficile de mesurer avec fiabilité de tels liens de cause à effet.

Dans les pays où une séparation verticale a été instaurée, les décideurs publics et les analystes continuent de débattre quant à savoir comment organiser au mieux la relation verticale entre gestion de l'infrastructure et activité de transport. Le principal problème réside dans le fait qu'une séparation plus stricte peut limiter l'impact des comportements anticoncurrentiels, mais aussi réduire l'efficacité technique. En tous les cas, l'expérience des pays qui ont libéralisé, en particulier ceux qui l'ont fait à travers une séparation verticale, montre l'importance d'un régulateur indépendant pour promouvoir une entrée rentable.

Diverses formes de séparation verticale existent à l'échelle de la zone OCDE, allant d'une simple séparation comptable au sein d'une entité intégrée verticalement à une séparation institutionnelle complète (par exemple au Royaume-Uni et en Suède). Les modèles intermédiaires prennent la forme d'une division structurelle en filiales relevant d'une holding mère (par exemple en Allemagne et en Italie).

Dans un contexte d'intégration verticale, le fournisseur d'infrastructure est autorisé à exploiter des services en concurrence avec d'autres acteurs auxquels il doit donner accès à son infrastructure dans des conditions non discriminatoires soumises à une réglementation. Ce mécanisme préserve la motivation du fournisseur à investir dans son infrastructure, permet de réaliser des économies d'envergure et facilite la coordination des activités de gestion du réseau, d'une part, et du matériel roulant, d'autre part. En même temps, il incite les entreprises intégrées verticalement à exclure les concurrents, ou plus généralement à les désavantager, et à favoriser leur propre filiale de transport, ce qui nuit à la concurrence et oblige les organismes de réglementation et les autorités de la concurrence à prévenir ou rectifier de telles conduites. L'expérience montre que ces formes de discrimination peuvent être difficilement perceptibles et que l'obligation de non-discrimination en matière d'accès ne permet pas de les faire disparaître aisément.

En cas de séparation verticale, le gestionnaire d'infrastructure n'a pas le droit de fournir des services de transport. Cette séparation vise à faire en sorte qu'il ne soit plus tenté de privilégier un prestataire de services de transport auquel il est financièrement lié, la concurrence s'en trouvant améliorée. Néanmoins, ce système peut affaiblir la motivation du gestionnaire d'infrastructure en termes d'investissement et engendrer un déficit d'économies d'envergure et autre manque d'efficacité. On estime que ce manque d'efficacité présente un coût élevé en raison de la complexité des interactions entre les activités de gestion d'infrastructure et de transport, d'où la nécessité de faire converger les incitations auxquelles sont soumis les gestionnaires d'infrastructure et les opérateurs de services de transport ferroviaire. Selon les conclusions d'une étude du secteur du fret aux États-Unis datant de 2004, les coûts d'un système intégré de fret ferroviaire pourraient être inférieurs de 20 % à 40 % à ceux d'un système présentant une séparation verticale (on ne peut nécessairement généraliser ces conclusions, toutefois), tandis qu'il ressort d'une étude de 2012 consacrée à l'UE qu'une séparation verticale augmente les coûts lorsque la circulation est dense et que le fait d'imposer une séparation verticale complète dans l'UE entraînerait une hausse sensible des coûts d'exploitation.

Par conséquent, il existe des preuves mixtes sur les incidences globales du degré de séparation verticale sur la concurrence et sur les retombées finales (notamment les coûts et la qualité). Par exemple, on estime que les coûts associés à la prestation de services de transport ferroviaire de voyageurs (mesurés en fonction du montant des subventions publiques) ont chuté tant en Suède, où une séparation institutionnelle complète est en place, qu'en Allemagne, où l'on suit le modèle de société holding, alors que ces coûts auraient augmenté initialement au Royaume-Uni, où il existe une dissociation totale des structures de propriété (au moins jusqu'en 2006). La preuve en d'autres termes que la séparation verticale, dont l'objectif est de produire des bénéfices, doit être accompagnée de structures institutionnelles et de dispositions réglementaires appropriées.

- 3) *L'exemple des pays ayant eu recours à un appel d'offres pour attribuer des concessions de transport ferroviaire tend à montrer qu'un certain nombre d'arbitrages importants doivent être envisagés. Il s'agit notamment de réfléchir à la répartition des risques entre les pouvoirs publics et les concessionnaires, aux moyens de réduire la probabilité de « hold-up » ou de défaillance, et à la façon de déterminer convenablement la portée et la durée des concessions.*

Certains pays ont recours à des appels d'offres pour l'octroi de concessions de services de transport intérieur de voyageurs, en particulier de services régionaux et locaux dont l'exploitation n'est pas rentable commercialement, cette solution contribuant à limiter l'ampleur des subventions. De nombreux pays n'utilisent toujours pas ce mécanisme d'attribution, qui deviendra néanmoins obligatoire dans l'UE pour l'octroi de concessions de services de transport



intérieur subventionnés une fois que le marché des services de transport ferroviaire de voyageurs sera ouvert à la concurrence dans l'ensemble des États membres.

L'appel d'offres est destiné à rendre le marché concurrentiel, ce qui permet de profiter des avantages potentiellement liés à la concurrence en termes d'abaissement des coûts, de renforcement de l'efficacité, d'amélioration de la qualité et d'innovation. La bonne réalisation de ces objectifs dépend fondamentalement du type de concession et de procédure d'appel d'offres. À en juger par l'exemple des pays qui ont eu recours à des appels d'offres, il convient de réfléchir à plusieurs arbitrages importants.

Un élément essentiel à prendre en considération est la répartition des risques entre l'opérateur et les pouvoirs publics. Les résultats commerciaux des opérateurs de services de transport ferroviaire sont soumis à divers aléas, notamment à des risques exogènes (de nature macroéconomique, par exemple) que ces opérateurs ne sont pas en mesure de gérer et qu'il pourrait être plus opportun de faire supporter aux pouvoirs publics.

L'efficacité de l'appel d'offres repose sur la concurrence entre les soumissions, l'objectif étant de : a) privilégier les entreprises les plus efficaces du point de vue économique (c'est-à-dire celles qui sont le mieux à même de réduire les coûts au minimum et d'optimiser les recettes et qui, de ce fait, exigeront une moindre subvention) ; b) veiller à ce que cette efficacité soit répercutée auprès des pouvoirs publics (la subvention étant ramenée, sous l'effet de la mise en concurrence, à un niveau suffisamment bas pour que le lauréat de l'appel d'offres ne perçoivent pas de bénéfices fortement excédentaires). L'efficacité de ce mécanisme repose sur la possibilité pour les concurrents potentiels d'avoir à leur disposition un roulement de stock et des professionnels qui leur permettent d'entrer rapidement sur le marché. Cela peut demander la création d'une société qui serait propriétaire des wagons et locomotives qui pourraient être loués au vainqueur de l'appel d'offre.

Malgré le fait qu'un appel d'offres soit en général un instrument efficace pour identifier la meilleure entreprise sur le marché, dans le secteur ferroviaire, l'efficacité ex-ante de la concurrence peut être affaiblie. En effet, la possibilité de « hold-up » est assez fréquente et peut provenir de la nature sociale des services ferroviaires, spécialement le service aux passagers qui ne peut être interrompu. Par conséquent, les gouvernements ne permettraient jamais qu'un opérateur de services ferroviaire soit mis en faillite, et par conséquent les opérateurs sont moins disciplinés quant au contrôle des coûts. Au Royaume-Uni, par exemple, la moitié environ des franchises ferroviaires attribuées depuis 1997 ont été renégociées a posteriori, en raison de coûts plus élevés que prévu ou d'une demande inférieure au niveau escompté. Sachant à l'avance que les pouvoirs publics, dans les faits, se porteront partiellement garants de l'entreprise qui aura obtenu la franchise, les soumissionnaires sont encouragés à se montrer plus offensifs que ne le justifie leur structure de coûts ou une prévision raisonnable de la demande, ce qui peut entraîner l'octroi de la franchise au « mauvais » soumissionnaire. L'incitation du franchisé à atteindre la rentabilité économique s'en trouve par ailleurs diminuée.

Lorsqu'un franchisé fait face à des difficultés commerciales et ne peut renégocier ses conditions de franchise, il peut juger moins coûteux de renoncer à l'exécution de ses obligations que de poursuivre son activité. La possibilité de « se retirer » purement et simplement d'une concession suppose donc que les opérateurs peuvent limiter dans une certaine mesure le risque à la baisse auquel ils sont exposés, même en l'absence de hold-up. Les exigences en matière de fonds propres peuvent contribuer à garantir la validité de l'appel d'offres, à réduire la probabilité de défaillance et à donner la mesure du dédommagement auquel peut prétendre la collectivité en cas de défaillance. Néanmoins, le renforcement de ces exigences aura tendance à tirer vers le haut les

marges bénéficiaires (et, partant, le montant des subventions) exigées par les soumissionnaires et pourrait, en particulier dans le cas des concessions d'envergure, réduire le nombre de soumissionnaires désireux ou capables de rivaliser pour une franchise.

La portée et la durée des franchises impliquent aussi des arbitrages. Les autorités doivent mettre en balance les avantages des franchises courtes, qui permettent une mise en concurrence plus régulière pour l'obtention du marché, avec l'effet dissuasif en termes d'investissements et d'initiatives de réduction des coûts que présente un délai de récupération supérieur à la durée du contrat. Les grandes concessions auront tendance à favoriser les économies de densité et d'envergure. Toutefois, lorsque le nombre de franchises disponibles est peu élevé, les soumissionnaires risquent davantage de n'en obtenir aucune et de se retrouver bloqués avec un certain nombre d'actifs, ce qui les incite à présenter des offres plus incisives. En outre, un faible nombre de grandes franchises peut décourager l'entrée de nouveaux acteurs.

Dans l'ensemble, il est clair que les pouvoirs publics doivent prendre des décisions complexes lorsqu'ils recherchent une répartition appropriée des risques entre eux-mêmes et le franchisé tout en préservant les incitations à la performance et à l'investissement. Le débat a abouti à la conclusion selon laquelle les obligations assumées par le franchisé devraient être contraignantes et difficilement renégociables. Les exigences en matière de fonds propres peuvent également favoriser la présentation d'offres viables et prévenir les défaillances, mais ne devraient pas faire peser des charges excessives sur les opérateurs.

- 4) *Il est trop tôt pour établir des conclusions sur les questions de réglementation et de concurrence que pourraient soulever les services de transport ferroviaire à grande vitesse.*

Des services de transport à grande vitesse de voyageurs sont en train d'être mis en place dans de nombreux pays et entre les principales villes européennes. Il est si difficile de réunir les compétences et les ressources nécessaires à l'exploitation des trains à grande vitesse que, jusqu'ici, seuls les consortiums comprenant l'opérateur historique y sont parvenus, en règle générale.

À ce jour, la prestation de services de transport ferroviaire à grande vitesse n'a été ouverte à la concurrence qu'en Italie, où un nouvel opérateur a commencé à exploiter de tels services en concurrence avec l'opérateur historique, sur une grande échelle (25 trains, 49 lignes et 12 stations). Il en a résulté une forte augmentation des niveaux de services, mais il est trop tôt pour émettre un jugement définitif sur les effets de la concurrence dans les services de transport ferroviaire à grande vitesse.



## NOTE DE RÉFLEXION

*Par le Secrétariat*

### 1. Introduction<sup>1</sup>

Le transport ferroviaire est encore en pleine transformation dans beaucoup de pays. Ces transformations ont pour principal objectif, entre autres, de garantir que les prix pour les utilisateurs ont été fixés à un niveau efficient (compte tenu du niveau des coûts et du prix des services de substitution), que la productivité est élevée (et que, donc, les subventions sont faibles), et que l'investissement et l'innovation offrent l'assurance de services de qualité, suffisamment sûrs et variés.<sup>2</sup>

Aucun modèle ne s'est encore clairement imposé pour atteindre cet objectif. La question continue notamment de se poser quant au rôle que devrait jouer la concurrence intramodale et intermodale.<sup>3</sup> Plusieurs facteurs en sont la cause. Premièrement, les frais fixes sont tellement élevés et les coûts marginaux tellement bas que les chemins de fer constituent un des exemples couramment cités de « monopole naturel ». Deuxièmement, les chemins de fer fournissent à la fois des services marchands et des services subventionnés (socialement importants), et on entend régulièrement dire que la concurrence empêche des services rentables de financer de façon indirecte les services sociaux, ce qui élimine la nécessité d'un soutien explicite de l'État. Troisièmement, dans le transport ferroviaire, de multiples services sont assurés au moyen d'une infrastructure commune et d'autres facteurs de production communs, ce qui donne lieu à d'énormes coûts partagés et communs qui doivent être répartis plus ou moins arbitrairement entre les différents services. Quatrièmement, des investissements lourds et réguliers sont indispensables à une infrastructure de qualité et sûre, mais privatisation et concurrence peuvent influencer sur la volonté et la capacité de garantir le niveau d'investissement nécessaire. Cinquièmement, il est important que les différents maillons de la chaîne logistique soient coordonnés pour offrir un réseau sûr, efficient et bien huilé, mais cette coordination est beaucoup plus difficile lorsqu'on sépare l'infrastructure et les activités en aval pour éviter toute discrimination, améliorer la transparence et stimuler la concurrence.

Différents pays ont adopté, avec un succès variable, différentes combinaisons de structures, en cherchant un équilibre entre réglementation et capitaux privés et publics pour atteindre l'objectif évoqué plus haut. Certains s'appuient davantage sur la concurrence intermodale, alors que pour d'autres la concurrence intramodale est essentielle. Le type de concurrence intramodale varie en outre entre les pays. La réglementation est également utilisée de différentes façons pour soutenir ou intégrer la concurrence.

Il est difficile de porter un jugement définitif sur les avantages relatifs des différentes démarches. En effet, toutes les approches adoptées n'ont pas été pleinement mises en œuvre (comme dans plusieurs États

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<sup>1</sup> Le support quantitatif réuni pour l'analyse présentée ici est trop volumineux pour pouvoir être annexé dans sa totalité. Le lecteur pourra se reporter au fichier Excel se trouvant à l'adresse [www.tgaassoc.com](http://www.tgaassoc.com) (Index 139, « Data for OECD Competition Report June 2013 »). L'annexe 1 se compose uniquement de tableaux succincts.

<sup>2</sup> Voir OCDE (2012), page 5, encadré 1.

<sup>3</sup> La concurrence intramodale est la concurrence exercée par les autres opérateurs du rail. La concurrence intermodale est la concurrence venant des autres modes de transport.

membres de l'UE). En outre, les résultats obtenus sont déterminés non seulement par la structure, mode de propriété et la réglementation du système de transport ferroviaire, mais aussi par le réseau installé<sup>4</sup> et la géographie du pays (distances à parcourir, densité de la population, localisation des ports et cours d'eau, etc.), ainsi que par la réglementation et le degré d'intervention de l'État dans les autres modes de transport (tarification routière, taxes sur les carburants, taxes environnementales, etc.). Cependant, un grand nombre de changements et de réformes ont eu lieu depuis 2004, notamment en Europe. Le but du présent document est de décrire certains de ces changements et leur incidence sur le fonctionnement du secteur du transport ferroviaire.

Dans l'analyse qui suit, le sujet est traité en trois parties :

- synthèse des différentes approches ;
- tour d'horizon des évolutions postérieures à 2004 ;
- tour d'horizon des résultats et des problèmes observés au fur et à mesure de la restructuration du transport ferroviaire.

## **2. Description des différentes approches suivies pour établir la structure du transport ferroviaire et réaliser la restructuration**

Les réformes menées dans le transport ferroviaire avant 2004 avaient démontré que la concrétisation effective des objectifs relatifs à la concurrence repose sur une interaction complexe entre la structure, la réglementation et le mode de propriété. Quand ces trois éléments manquent de cohérence entre eux, il est souvent impossible d'atteindre l'objectif d'un secteur du transport ferroviaire compétitif, économiquement efficace, financièrement stable et régi par les lois du marché.

Le tableau A ci-dessous donne un aperçu des interactions entre la structure, la réglementation et le mode de propriété, et de leur effet sur la concurrence.<sup>5</sup>

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<sup>4</sup> Beaucoup de pays ont construit leur réseau en évitant que les infrastructures fassent double emploi, ce qui s'est traduit par l'existence d'une liaison unique entre deux points. Il existe toutefois des exceptions notables à cette règle, notamment aux États-Unis et au Canada, où deux destinations sont reliées par plus d'une ligne.

<sup>5</sup> Dans un monde idéal, la structure et le mode de propriété seraient choisis de manière à produire le degré nécessaire de concurrence intermodale et intramodale, compte tenu de la nature des infrastructures de transport existantes, à la suite de quoi serait élaboré le système de réglementation approprié. Dans la pratique, la structure, la réglementation, la forme de propriété et les règles de concurrence sont fréquemment définies séparément, parfois pour répondre à des objectifs gouvernementaux différents. Le résultat peut s'avérer très décevant.

**Tableau A : Structures du transport ferroviaire et leurs interactions avec la réglementation, le mode de propriété et la concurrence**

| <b>Structure</b>                        | <b>Réglementation</b>   | <b>Mode de propriété</b>                      | <b>Concurrence</b>  | <b>Exemples actuels</b>   |
|---|---|---|---|---|
| <b>Monolithe*</b>                       | Frais finaux pour les utilisateurs  | Infrastructure et opérateur publics           | Intermodale   | Concessions en Chine, en Inde et en Amérique latine                               |
| <b>Locataire</b>                        | Frais finaux pour les utilisateurs et contrôle limité des droits de circulation                     | Infrastructure et opérateur privés ou publics | Intermodale et intramodale (côte à côte, bout à bout, locataires avec locataires et locataires avec propriétaire)   | États-Unis, Canada, Japon   |
| <b>Accès neutre limité</b>              | Frais finaux pour les utilisateurs uniquement, impositions intérieures convenues d'un commun accord | Infrastructure et opérateur privés ou publics | Intermodale et intramodale (les opérateurs jouissant d'un accès se font concurrence dès lors qu'ils fournissent le même service, et ils se disputent la capacité avec les opérateurs de transport de marchandises s'ils transportent des personnes) | Mexico (Ferrovalle), zones d'utilisation commune de Conrail, terminaux portuaires |
| <b>Séparation verticale/accès libre</b> | Conditions d'accès des utilisateurs   | Infrastructure et opérateur privés ou publics | Intermodale et intramodale (locataires avec locataires et locataires avec propriétaire, et franchises exclusives pour les services subventionnés)   | Modèle de l'UE et expérience vécue dans divers États membres                      |

\* Les lignes de chemins de fer privées réservées aux industries extractives n'ont pas été incluses dans cette étude.

## 2.1 Structure

La plupart des réseaux de chemins de fer étaient à l'origine des monolithes, dans lesquels un propriétaire unique avait la main sur la totalité des actifs et assurait tous les services de transport de marchandises et de personnes. Au fil du temps on a vu apparaître des variantes de ce modèle qui reste en vigueur dans certains pays.<sup>6</sup>

Une variante, courante en Amérique du Nord et, jusqu'à un certain point, au Japon,<sup>7</sup> consiste à confier séparément à des opérateurs locataires la fourniture de services sur les lignes du propriétaire. Le contrat de location peut prévoir l'utilisation d'une même infrastructure par des utilisateurs non concurrents, ou l'accès à des conditions concurrentielles pour un transporteur de marchandises ou de personnes aux lignes d'un autre transporteur, ce que l'on appelle habituellement les droits de circulation ou de roulage. Les contrats de location peuvent concerner le transport de fret sur les lignes fret (comme aux États-Unis et

<sup>6</sup> C'est le cas, par exemple, de la Turquie et de l'Inde, comme on le verra plus loin.

<sup>7</sup> Aux États-Unis, Amtrak exploite à titre de locataire près de 40 000 kilomètres de lignes de transport de marchandises et, au Canada, VIA exploite au même titre quelque 10 000 kilomètres de voies appartenant à des opérateurs de fret. Au Japon, la Japan Rail Freight exploite à titre de locataire les voies étroites des transporteurs de voyageurs.

au Mexique pour les droits de circulation), le transport de fret sur les lignes voyageurs (comme à la Japan Rail Freight Company et, aux États-Unis, sur les lignes fret du couloir nord-est d'Amtrak), le transport de voyageurs sur les lignes fret (Amtrak aux États-Unis et VIA au Canada sur les lignes fret) et le transport de voyageurs sur les lignes voyageurs (comme les trains de banlieue le long du couloir nord-est d'Amtrak).

Des droits de circulation sont parfois imposés en compensation de l'autorisation d'une fusion pour éviter que la concurrence côte à côte existante s'affaiblisse,<sup>8</sup> mais sont plus fréquemment négociés entre des compagnies de chemins de fer qui trouvent intérêt à le faire. Des droits de circulation sont également exigés au Mexique sur certains marchés aux termes d'accords de concession. En règle générale, les locataires supportent uniquement les coûts marginaux<sup>9</sup> de leur droit d'occupation, mais il s'y ajoute parfois le coût des investissements correspondant au surcroît de capacité parce qu'on pose généralement pour principe qu'il s'agit d'utilisateurs minoritaires de la capacité offerte. Les locataires jouissent habituellement d'une priorité d'accès moins élevée.<sup>10</sup>

Certains pays, comme les États-Unis, ont opté pour une division verticale du vieux monolithe et un accès libre à l'infrastructure, ce qui fait en réalité de tous les opérateurs des locataires des voies d'un gestionnaire d'infrastructure distinct. La division vertical peut simplement se traduire par l'obligation, pour la société qui gère l'infrastructure, de tenir des comptabilités séparées pour ses activités d'infrastructure et ses opérations en aval, et d'appliquer opérateurs qualifiés un accès et des droits d'accès non discriminatoires. La séparation des comptes doit permettre de vérifier la stabilité financière du gestionnaire de l'infrastructure et de fixer des droits d'accès en rapport avec les frais effectivement encourus. Toutefois, la division verticale peut aller plus loin et impliquer une division institutionnelle, soit avec un gestionnaire d'infrastructure « indépendant » qui supervise le réseau et des opérateurs indépendants pour le transport de marchandises et les services voyageurs interurbains, urbains et régionaux regroupés au sein d'une holding (comme en Allemagne), soit avec une séparation complète entre le gestionnaire du réseau et tous les opérateurs (comme au Royaume-Uni). La division verticale rend difficile l'établissement des péages parce que l'obligation de non-discrimination peut se révéler incompatible avec la nécessité de couvrir les coûts fixes et variables du réseau.<sup>11</sup>

Dans certains réseaux, une partie de l'infrastructure est détenue collectivement par plusieurs sociétés ferroviaires verticalement intégrées, qui jouissent d'un plein droit d'accès en toute neutralité. Les péages sont habituellement fixés après ventilation des coûts d'exploitation et d'entretien entre les utilisateurs sur une base relativement simple, comme les charges par wagon ou train entiers.

## 2.2 *Mode de propriété*

Différentes formes de participation des secteurs privé et public ont été expérimentées, avec des réussites diverses, à travers le monde.

Les monolithes encore en place sont tous la propriété de l'État, comme en Chine, en Inde ou en Turquie. En fait, avec ce genre de structure, les possibilités d'une participation du secteur privé sont limitées parce qu'il n'existe pas de raison évidente de créer un monopole privé à la place du monopole public.

<sup>8</sup> On trouvera plus loin une définition de la concurrence côte à côte dans la section sur la concurrence.

<sup>9</sup> On parle souvent de « coûts variables » ou de « coûts évitables ».

<sup>10</sup> Le transporteur propriétaire prend d'abord en considération la structure de son trafic et ses propres services, puis donne au locataire une priorité d'accès inférieure de telle manière qu'elle n'interfère pas avec ses propres besoins. Aux États-Unis, en vertu de la loi, l'Amtrak est censée bénéficier de la priorité la plus élevée sur les lignes marchandises. Dans les faits, les trains de l'Amtrak sont souvent retardés par le trafic de marchandises.

<sup>11</sup> Lorsque le réseau ferré est exploité par une entité distincte du ou des opérateurs qui l'utilisent, ces derniers doivent acquitter un « péage » pour y avoir accès.

Les systèmes qui fonctionnent sur le principe d'accords de location peuvent être à capitaux publics ou privés. Aux États-Unis, à l'origine, le réseau était principalement détenu et exploité par des intérêts privés, malgré des périodes d'intervention des pouvoirs publics, notamment lors des faillites qui ont frappé de grandes entreprises ferroviaires. Les choses ont changé avec la création d'Amtrak, entreprise publique qui a pris à sa charge les pertes financières essuyées par le transport de voyageurs, mettant ainsi fin au financement transversal des transporteurs de marchandises. Le Canada, à l'inverse, avait une société de chemins de fer publique, le Canadien National, parallèlement à une entreprise privée, le Canadien Pacifique. Le Canadien National a été privatisé en 1995. Comme les États-Unis, le Canada a créé une entreprise publique (VIA) qui transporte des voyageurs aux termes d'accords de location. En conséquence, dans les deux pays, l'infrastructure appartient entièrement à des transporteurs de marchandises privés mais est accessible aux transporteurs de voyageurs publics.

La division verticale de systèmes monolithiques autrefois publics, comme dans des États membres de l'UE, a ouvert la voie à une plus grande implication du secteur privé avec l'octroi de contrats de gestion, de franchises ou de concessions, voire la privatisation de certaines parties du réseau.

### **Encadré 1 : l'expérience du Royaume-Uni**

L'expérience la plus frappante concernant la privatisation de l'infrastructure et l'octroi de franchises à des entreprises privées de transport ferroviaire est celle vécue au Royaume-Uni, porteuse d'enseignements précieux pour d'autres pays, à l'intérieur comme à l'extérieur de l'UE.

Vers la moitié des années 90, le Royaume-Uni a adopté le principe d'une division verticale en le poussant bien plus loin que les recommandations de la Commission européenne. L'ancienne société verticalement intégrée British Railways (BR) a été entièrement démantelée, avec la privatisation de l'infrastructure (Railtrack), l'attribution de 25 franchises commerciales (« à coût net »)<sup>12</sup> et géographiquement exclusives pour le transport de personnes, la vente de la totalité de l'activité marchandises à trois sociétés privées,<sup>13</sup> et la création de trois sociétés privées de location de matériel roulant. Tout cet ensemble devait être supervisé par des services de l'État et de nouveaux organes de réglementation. En réaction à des impératifs politiques, le gouvernement a fait pression pour que tout le processus de division verticale et de privatisation soit programmé et mis en œuvre dans un délai d'environ deux ans.

Sans surprise, les résultats ont été partagés. Railtrack a été déclarée en faillite et est redevenue une société parapublique (Network Rail). Parmi les entreprises franchisées à l'origine pour le transport de voyageurs, bon nombre ont fait faillite, probablement à cause d'invitations à soumissionner irrationnelles ou stratégiques, et ont dû être transformées en franchises à coût brut ou ont fait l'objet de contrats de gestion temporaire. Un grave accident (Hatfield) a déréglé tout le réseau et contraint le Département des transports (DfT) à intervenir plus directement dans la supervision et le financement du réseau, notamment en mettant de l'argent dans l'infrastructure. Parallèlement, la tendance à la baisse de la demande observée depuis la fin des années 40 s'est brutalement inversée, et la demande a finalement atteint des niveaux supérieurs à ceux enregistrés 60 ans plus tôt.<sup>14</sup> L'âge moyen du matériel roulant a baissé de presque la moitié, et les taux d'accidents sur le réseau ont continué de diminuer plus rapidement que du temps de BR. En valeur réelle, les tarifs voyageurs n'ont augmenté que légèrement par rapport à la période des franchises.

Ces dernières années, la tendance à l'accroissement de la demande, à la saturation du réseau et à une forte hausse

<sup>12</sup> Les expressions « coût net » et « coût brut », d'usage courant, ne sont cependant pas définies avec précision. En règle générale, le « coût net » signifie que l'opérateur prend un plus grand risque commercial en matière de tarification, de prévision de la demande et d'investissement, alors que les opérateurs franchisés à « coût brut » fonctionnent davantage comme des chargés de gestion au service du propriétaire.

<sup>13</sup> En revanche, le transporteur de marchandises Deutsche Bahn s'est porté acquéreur de la plus grande société de transport de fret britannique (EWS). La holding Deutsche Bahn demeurant la propriété du gouvernement allemand, le statut d'EWS en tant qu'opérateur privé est sujet à caution.

<sup>14</sup> En fait, depuis la séparation de l'infrastructure et le passage au franchisage, le trafic de voyageurs au Royaume-Uni s'est accru plus rapidement que dans tous les grands pays de l'UE, au point que la saturation du réseau a obligé à investir lourdement dans l'augmentation de la capacité.



des coûts a donné lieu à une suite de nouvelles analyses en profondeur. Dans la première étude, parue en 2011, McNulty et globalement parvenu à la conclusion qu'il convenait de conserver le principe du franchisage mais que le réseau britannique était coûteux, dans une proportion de 20 à 40 %, que des réseaux comparables de l'UE, et qu'il faudrait revenir sur l'idée d'une séparation complète entre l'infrastructure et les opérateurs. Puis l'échec, en novembre 2012, du nouvel appel d'offres lancé pour la franchise d'Inter City West Coast (ICWC), qui avait été annoncé en août 2012, a déclenché deux enquêtes, avec les rapports qui en ont découlé : le « Report of the Laidlaw Inquiry », concernant les causes de cet échec, et le document intitulé « The Brown Review of the Rail Franchising Program », dans lequel le programme de franchisage a été entièrement remis à plat à la lumière des expériences passées et des leçons tirées, dans le rapport Laidlaw, de l'échec essuyé avec la franchise de la société ICWC.

Pour résumer rapidement, il est ressorti de l'enquête Laidlaw que le DfT avait mal préparé son appel d'offres pour l'attribution d'une nouvelle franchise et, en conséquence, s'y était mal pris pour octroyer la franchise. Les dispositions qui définissaient les obligations de la franchise en cas de défaillance n'avaient pas été correctement pensées, ni convenablement jugées lors de l'évaluation de l'offre.<sup>15</sup> L'auteur a recommandé de revoir dans le détail les termes des appels d'offres pour l'attribution des futures franchises, et de doter le DfT des compétences et ressources nécessaires pour une meilleure mise en œuvre du processus à l'avenir.

Les résultats de l'étude Brown sont plus complexes, mais commencent par l'observation selon laquelle le trafic de voyageurs au Royaume-Uni a crû plus rapidement que dans tous les autres pays de l'UE possédant un grand réseau, le réseau britannique s'est hissé au deuxième rang des plus sûrs de l'UE, et il recueille des taux de satisfaction meilleurs que sur la plupart des grands réseaux ferrés de l'UE.<sup>16</sup> La principale conclusion est la suivante : « ... On ne peut concevoir que ces progrès aient pu être accomplis, et les adaptations nécessaires réussies, sans un démantèlement de fonds en comble du système de franchisage ».<sup>17</sup> Suivant ce raisonnement, Brown a émis plusieurs recommandations pour :

1. améliorer le processus d'invitation à soumissionner de manière que les objectifs du gouvernement soient clairs et que le processus ne pêche par une complexité excessive ;
2. permettre au DfT d'être en mesure de mieux formuler et évaluer les propositions de franchise ;
3. assouplir les conditions d'octroi d'une franchise en fonction des impératifs de chacun ;
4. faire supporter les risques aux parties les mieux armées pour ce faire, en évitant notamment de faire peser des risques macroéconomiques importants sur les épaules de soumissionnaires qui n'ont pas la carrure voulue ;
5. permettre au processus d'invitation à soumissionner et aux conditions finales régissant les franchises d'évoluer à la mesure des commentaires reçus et de l'expérience acquise ;
6. renforcer sensiblement la capacité du DfT de contrôler les performances des franchises ; et
7. remettre en marche le processus de franchisage.

Le DfT analyse actuellement les conclusions de ces deux enquêtes.

<sup>15</sup> « Les lecteurs doivent notamment bien comprendre que les entreprises franchisées pour le transport de personnes se veulent des entités à vocation spéciale qui ne peuvent pas beaucoup compter sur les groupes qui les possèdent et qui sont généralement dotés d'un maigre capital. Le DfT est exposé au risque d'une insolvabilité des franchisés, susceptible d'entraîner une dénonciation de la franchise avant terme. Pour répondre à ce risque, le DfT est en train d'examiner, entre autres moyens, s'il devrait (et, si oui, dans quelle mesure) obliger les soumissionnaires à obtenir des engagements des groupes propriétaires pour l'obtention d'une facilité de crédit subordonnée ». Laidlaw (2012), page 4.

<sup>16</sup> Voir le Brown Report (2012), page 18.

<sup>17</sup> Ibid, page 18.

## 2.3 *Concurrence*

Les fournisseurs de services ferroviaires peuvent se faire concurrence entre eux – ce qu'on appelle la concurrence intramodale – mais peuvent aussi faire face à la concurrence d'autres modes de transport – ce qu'on appelle la concurrence intermodale. Dans les deux cas, le degré de concurrence auquel ils ont affaire dépend d'une conjugaison de facteurs, entre le réseau installé et la géographie du pays, en passant par l'importance et la localisation des autres infrastructures de transport en place.

### 2.3.1 *Concurrence intermodale*

Les transports par eau, aérien et routier (camions et voitures) sont autant de substituts possibles au train. Le degré de substituabilité entre ces modes de transport et, donc, le degré de concurrence intermodale auquel les entreprises ferroviaires font face sont déterminés par les caractéristiques géographiques, démographiques et économiques des différents pays et par l'existence ou non de ces différents modes. Ils varient aussi énormément entre le transport de marchandises et le transport de personnes.

Sur les marchés des marchandises, les entreprises ferroviaires transportent par nature de gros volumes, qui vont du wagon de 50 tonnes à un train entier (train-bloc) de 20,000 tonnes nettes ou plus. Le transport de marchandises par le rail est généralement plutôt lent, et les heures d'arrivée sont imprévisibles à cause des opérations de triage et des changements de locomotive et d'équipe. Cela fait du train un bon moyen d'acheminer de grosses quantités de marchandises de faible valeur sur de longues distances et à un prix bas.<sup>18</sup> Par comparaison, les voies navigables intérieures sont valables pour transporter des chargements encore plus importants à une vitesse plus réduite et à des prix encore plus bas ; quant à eux, les camions transportent des chargements égaux, au mieux, à la moitié de la contenance d'un wagon, mais en des temps nettement plus courts, dans des délais plus fiables et à des prix nettement plus élevés. Et les services de fret aérien acheminent des chargements plus petits et pour encore plus cher. Les interfaces concurrentielles entre les modes de transport sont déterminées par la disponibilité de ces solutions (par exemple, le transport par eau est exclu dans les régions sans cours d'eau ni accès à la mer), ainsi que par le coût de la logistique pour l'expéditeur, lui-même déterminé par la valeur des marchandises, le volume minimum expédié, la vitesse moyenne des services de substitution et les tarifs pratiqués.

Les services de transport de personnes peuvent se diviser en gros entre les lignes de banlieue, les lignes régionales à faible densité, les services classiques interurbains et à grande vitesse. Les concurrents sont la voiture, l'autocar et l'avion, chaque mode étant caractérisé par une combinaison différente de fréquence de service, de vitesse, de fiabilité, de confort et de prix. En règle générale, le train offre un service plus rapide et de meilleure qualité sur les marchés suburbains où les routes sont très encombrées et le stationnement à destination coûteux. Les trains à grande vitesse (TGV) occupent un marché naturel qui s'inscrit entre des distances (~150 kilomètres) où leur vitesse leur permet de prendre le pas sur la disponibilité et la souplesse qu'offre la solution de la voiture, et des distances (~800 kilomètres) où la plus grande vitesse de déplacement que permet l'avion finit par l'emporter. En outre, les services ferroviaires peuvent présenter de nombreux avantages pour la société : diminution des encombrements sur les routes et dans les airs, réduction des émissions de polluants et de gaz à effet de serre, augmentation de la densité foncière, accès facilité au centre-ville et baisse des taux d'accidents. En conséquence, parce que, habituellement, les forces du marché n'intègrent pas ces avantages, les pouvoirs publics peuvent intervenir soit en apportant un soutien financier, soit en réglementant pour peser sur l'éventail de services que, sinon, le marché fournirait.

Il importe de souligner que, souvent, les substituts du train – notamment les transporteurs routiers et les compagnies aériennes – ne font pas face à des redevances d'usage et des taxes de capacité efficaces pour plusieurs raisons stratégiques et politiques, ce qui influence la concurrence intermodale et entraîne sa

<sup>18</sup> L'attrait du train pour le transport de marchandises varie selon le type de marchandises.

distorsion. Cette distorsion peut être positive ou négative pour le transport ferroviaire en fonction des circonstances particulières.

### 2.3.2 Concurrence intramodale

La concurrence intramodale est extrêmement importante dès lors que l'on veut restreindre la puissance commerciale de plusieurs acteurs du rail qui jouissent d'avantages propres par rapport à d'autres modes de transport. La concurrence intramodale peut prendre plusieurs formes selon la structure du réseau ferré et la nature de l'infrastructure. Les principales sont les suivantes :

- concurrence côte à côte ;
- concurrence de bout en bout ;
- concurrence entre locataires et propriétaire ou entre locataires ;
- concurrence pour le marché.

La concurrence côte à côte – ou parallèle – est une forme de « concurrence sur le marché » qui naît lorsque des transporteurs ferroviaires concurrents verticalement intégrés possèdent leur propre infrastructure pour servir leur marché particulier. Cette forme de concurrence prévaut en Amérique du Nord, où tous les principaux marchés sont desservis par des transporteurs concurrents, mais est absente de l'Europe.<sup>19</sup>

La concurrence de bout en bout est également une forme de « concurrence sur le marché », qui se produit entre des compagnies ferroviaires verticalement intégrées, mais elle concerne des marchés où leurs réseaux ne se chevauchent pas complètement et où elles se font concurrence sur un tronçon d'un parcours multimodal. Cette forme de concurrence tend à être plus marquée pour les services de marchandises que pour le transport de personnes, les voyageurs tendant à être plus sensibles au temps de parcours.

Une concurrence peut aussi exister sur une même ligne entre différents prestataires de services, soit entre les locataires, soit entre un ou plusieurs locataires et le propriétaire. Ce genre de concurrence peut se produire sur une ligne verticalement intégrée lorsque des locataires arrivent sur un marché où le propriétaire de la voie fournit déjà des services (comme c'est le cas aux États-Unis, où 27 % des kilomètres de voies sont exploités par plus d'un transporteur de marchandises), ou sur des réseaux verticalement séparés lorsque le propriétaire de l'infrastructure n'intervient pas dans la fourniture de services de transport de marchandises et de voyageurs ou est séparé de son exploitant en aval (comme cela arrive dans certains pays de l'UE<sup>20</sup>).

Il peut également exister une concurrence pour le marché, et non sur le marché, lorsque des entreprises ferroviaires soumissionnent afin d'obtenir une franchise exclusive sur une liaison précise. En particulier, les appels d'offres sont monnaie courante quand les services ferroviaires sont subventionnés (comme les lignes de banlieue aux Pays-Bas, en Suède et en Allemagne) parce que, bien conçue et bien gérée, la concurrence entre les soumissionnaires peut réduire sensiblement les aides financières nécessaires.<sup>21</sup>

<sup>19</sup> Voir les cartes des réseaux ferrés américain et canadien (Index 140, "US and Canadian Railway Maps") on [www.tgaassoc.com](http://www.tgaassoc.com)

<sup>20</sup> On estime par exemple qu'il existe un choix d'opérateurs pour environ 10 à 15 % des services britanniques de transport de voyageurs, bien que le principal opérateur se montre généralement supérieur aux autres pour ce qui est de la durée de trajet ou de la fréquence.

<sup>21</sup> L'UE (voir la Communication de 2013 sur le quatrième paquet ferroviaire) a calculé au vu des appels d'offres lancés en Allemagne, en Suède et aux Pays-Bas que ces pays ont pu économiser entre 20 et 30 % sur les fonds publics.

## **Encadré 2. Contrats de gestion, franchises fondées sur le coût brut et franchises fondées sur le coût net**

Les contrats de gestion et les franchises fondées sur le coût brut ou sur le coût net font partie des méthodes qui permettent de développer la concurrence en s'écartant du régime de propriété et de gestion relevant intégralement de l'État, comme le ministère (en Chine) ou l'entreprise publique (c'est le cas de la plupart des chemins de fer de l'UE). Il est également possible de sous-traiter certaines fonctions secondaires, comme le nettoyage des gares et les services de restauration, mais l'impact se limite dans ce cas aux services sous-traités.

Les contrats de gestion. Des gestionnaires privés soumissionnent pour obtenir le droit d'exploiter des actifs publics selon des modalités rigoureusement définies (prévisions de la demande, niveaux de service, qualité du service, etc.). Le gestionnaire retenu a qualité d'agent du propriétaire et n'assume qu'une part limitée du risque lié au coût selon les conditions définies. Étant donné que le propriétaire fournit l'essentiel des actifs, la durée du contrat peut être courte (1 à 3 ans). Le recours à cette formule vise principalement à transférer les tâches de gestion du secteur public vers le secteur privé pour favoriser l'efficacité de l'exploitation. Cette formule peut être notamment utilisée pour la gestion sur une courte période d'une franchise qui est remise en adjudication.

Les franchises fondées sur le coût brut. Le propriétaire conserve le rôle principal en ce qui concerne les prévisions de la demande, le risque recettes et le cahier des charges des services, mais le titulaire de la franchise assume une part plus importante du risque lié au coût d'exploitation et peut avoir un certain rôle à jouer dans la fourniture d'actifs. La durée de ce type de franchise peut être plus longue (3 à 10 ans). Les franchises fondées sur le coût brut sont surtout adaptées aux services publics assortis d'avantages privés limités et qui n'impliquent aucun rôle commercial, mais dans lesquels le recours à un opérateur privé peut permettre d'éviter certaines rigidités et certains coûts attachés à l'exploitation publique. La franchise fondée sur le coût brut est la formule souvent retenue pour les services de transport de banlieue ou les services régionaux assurés dans les zones à faible densité.

Les franchises fondées sur le coût net. Le titulaire de la franchise assume une part des risques liés à la demande et aux recettes ainsi que les risques liés au coût et est rémunéré en fonction du soutien net nécessaire (le cas échéant) plutôt qu'en fonction des seuls coûts. Le risque assumé par l'État se limite à une certaine part du risque lié à la demande ainsi qu'à des risques définis (relations avec les autres acteurs du secteur, réformes, bouleversements économiques majeurs, etc.) que le titulaire de la franchise n'est pas en mesure d'assumer. L'État peut prendre certaines décisions en matière de tarification et conserve un rôle en ce qui concerne le cahier des charges et la réglementation des services, mais le titulaire de la franchise prend souvent des décisions commerciales et tarifaires, par exemple pour la tarification première classe ou la modulation tarifaire sur les périodes de pointe et les périodes creuses. Ce dernier peut investir dans des actifs, comme le matériel roulant, souvent dans le cadre d'un accord de rachat garanti ou de location. Ce type de franchise a en général une durée qui peut aller de 5 ans jusqu'à 30 ans, selon la répartition entre les avantages publics (la durée est plus courte quand la franchise a un caractère politiquement sensible) et les avantages commerciaux (la durée est plus longue). La franchise fondée sur le coût net est souvent la formule retenue pour les services interurbains exploités sur une base commerciale.

D'autres étapes sont possibles. Ainsi, certains pays (l'Argentine et le Brésil) ont expérimenté la formule de concessions commerciales à part entière (la distinction entre franchise et concession n'est pas bien claire), selon laquelle le concessionnaire assume la plus grande part des risques liés à la demande, aux recettes et aux coûts, et mène essentiellement ses activités comme un propriétaire privé pendant la durée (en général plus longue) du contrat. Cette formule est plus répandue pour les services fret que pour les services voyageurs. Il peut également y avoir privatisation partielle (Taiwan HSR) -- le propriétaire privé conserve la propriété des actifs et assume la plus grande part des risques, tandis que l'État conserve ou acquiert une participation minoritaire ; il garde ainsi un droit de regard sur la gestion et continue d'assumer une part des risques. Certains pays ont opté pour la privatisation totale (le Japon) -- l'État a voix au chapitre en ce qui concerne les décisions en matière de réglementation -- tarification ou entrée dans des domaines d'activité importants, par exemple --, mais sans détenir de participation.

## 2.4 Réglementation<sup>22</sup>

La capacité de la concurrence de limiter les prix, de garantir un service de qualité et d'inciter à mieux produire ainsi qu'à investir suffisamment influe énormément sur la nature et le niveau de la réglementation dont on a besoin dans le secteur ferroviaire.

Les monopoles du transport ferroviaire verticalement intégrés font uniquement face à une concurrence intermodale, qui peut ne pas suffire à modérer les prix pour les utilisateurs finals, qu'il s'agisse du transport de marchandises ou de personnes. Lorsque c'est le cas, une certaine réglementation est souhaitable pour limiter l'existence de prix monopolistiques et inciter à une plus grande maîtrise des coûts. Au lancement du processus de mise en concession, la plupart des pays d'Amérique latine n'ont pas jugé nécessaire de réglementer la tarification des services de transport ferroviaire de marchandises ou de transport interurbain de voyageurs à cause de la forte concurrence exercée par d'autres modes, mais les services de banlieue étaient néanmoins encadrés. Par la suite, certaines formes de réglementation des tarifs de transport de marchandises ont été introduites au Brésil et en Argentine.

Lorsque des locataires sont présents, la concurrence intramodale peut constituer une contrainte supplémentaire si les locataires, ou les locataires et le propriétaire, se disputent les mêmes clients. Aux États-Unis, la conjugaison d'une concurrence intermodale et d'une concurrence intramodale efficaces a permis aux mécanismes du marché de fonctionner dans le domaine du transport de marchandises depuis le début des années 80. De même, ni Amtrak ni VIA ne réglementent les tarifs de leurs services voyageurs et, après la déréglementation des compagnies aériennes, le marché du transport interurbain de voyageurs est devenu totalement concurrentiel.<sup>23</sup> S'agissant des droits de circulation, ils doivent être établis aux États-Unis sur la base des coûts évitables et, lorsque Amtrak juge une redevance excessive, elle peut saisir l'organe de réglementation.<sup>24</sup> Au Canada, en revanche, la loi ne précise pas comment les droits de circulation doivent être fixés et ils ont toujours été plus élevés qu'aux États-Unis. Il n'est pas dit clairement si VIA dispose d'un bon moyen de recours.

Globalement, les pays de l'UE n'ont pas jugé nécessaire de réglementer les tarifs du transport ferroviaire de marchandises ou de transport interurbain de voyageurs à cause de la forte concurrence exercée par d'autres modes, mais les services de banlieue sont néanmoins encadrés, et souvent

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<sup>22</sup> Par réglementation, on entend ici uniquement la réglementation économique, même si d'autres formes de réglementation peuvent également modifier le jeu de la concurrence entre les modes de transport et influencer sur la concurrence intermodale. Les types de réglementation les plus importants, outre l'économique, sont la réglementation en matière de sécurité, qui suppose qu'un organisme indépendant définisse les modèles, équipements, éléments d'actif ou méthodes d'exploitation qui amélioreront le travail d'un opérateur au chapitre de la sécurité, et la réglementation environnementale, qui régit les retombées des activités d'un opérateur sur l'environnement (pollution, émissions de CO<sub>2</sub>, bruit, etc.). Voir l'OCDE (2011) pour une analyse complète des diverses significations de la réglementation et du rôle de l'autorité de réglementation.

<sup>23</sup> Tant que l'organe de réglementation américain a pu obliger les transporteurs de marchandises à diluer les déficits du transport de voyageurs dans les bénéfices réalisés avec le transport de fret, la réglementation des droits acquittés par les utilisateurs finals a prévalu. Avec la séparation d'Amtrak et lorsque les déficits sont devenus transparents et ont été épongés par le gouvernement fédéral, le Congrès a déréglementé les tarifs voyageurs et réduit les services (de plus de la moitié par rapport à ce qu'ils étaient avant Amtrak).

<sup>24</sup> Les droits initialement appliqués par Amtrak reposaient sur l'idée que la capacité était amplement suffisante sur les lignes de transport de marchandises. Depuis la création d'Amtrak, le trafic de marchandises a quadruplé et des engorgements se produisent, de sorte que le poids des trains d'Amtrak dans l'infrastructure ne se limite plus à l'entretien mais a aussi d'importantes répercussions en matière d'investissement.

subventionnés. En revanche, la réglementation est principalement centrée sur les redevances d'accès dans un souci de lutte contre la discrimination.<sup>25</sup>

Le système de séparation verticale a été mis en place dans le but de permettre à la concurrence de se développer et de limiter la discrimination, mais il n'a pas toujours réussi à atteindre ces objectifs. Premièrement, faute d'une bonne séparation des institutions, il peut arriver que le gestionnaire de l'infrastructure d'une société sœur ou d'un opérateur national favorise délibérément tel ou tel. Ensuite, il est un problème de discrimination plus grave, qui tient à la nature économique des chemins de fer parce qu'ils ont des coûts d'infrastructure fixes élevés et que leurs coûts d'exploitation marginaux à court terme sont faibles. La méthode de fixation des prix la plus efficace ouvre inéluctablement la voie à diverses formes de discrimination ; elle consiste à permettre aux redevances d'accès de dépasser les coûts marginaux à court terme dans une proportion inverse de l'élasticité de la demande des services fournis. Cette méthode est appelée par les économistes « tarification Ramsey-Boiteux ».

La Commission européenne a essayé de sortir de ce dilemme en recommandant à tous les gestionnaires d'infrastructure d'établir les redevances d'accès sur la base des coûts marginaux à court terme, l'organe public propriétaire étant chargé d'assurer tout le soutien nécessaire pour ce qui est des coûts fixes et des investissements.<sup>26</sup> En même temps, la Commission européenne a admis que certains membres puissent ne pas accepter d'assurer la totalité du soutien financier nécessaire pour des raisons budgétaires et a autorisé les gestionnaires d'infrastructure à majorer leurs tarifs au-dessus de leurs coûts marginaux à court terme de manière que les utilisateurs contribuent à absorber leurs coûts fixes, tant que ces majorations ne s'avèrent pas trop inefficaces ni discriminatoires.<sup>27</sup> Le résultat qui en découle se traduit par un large éventail d'objectifs nationaux s'agissant de la récupération des coûts fixes au moyen de droits d'accès, et par des approches disparates concernant la définition de la structure des droits d'accès et de leur niveau à travers l'UE. Certaines des redevances appliquées ont été jugées illégales parce que délibérément discriminatoires, tandis que d'autres répondent à des objectifs nationaux valables mais restreignent encore le jeu de la concurrence. Quelles que soient leurs raisons, les utilisateurs qui franchissent les frontières des réseaux nationaux sont confrontés à un ensemble hétéroclite de différents systèmes de redevances d'accès qui entrave la concurrence, surtout au niveau international.

### 3. Évolutions récentes

Beaucoup de choses se sont passées dans le transport ferroviaire depuis 2004. Ces transformations sont décrites ci-après par rapport aux différents modèles structurels évoqués plus haut. Les changements survenus dans chaque pays ont été traités par l'OCDE dans le cadre de son étude sur la séparation

<sup>25</sup> De même, dans l'UE, les redevances d'accès sont censées favoriser une bonne exploitation du réseau et une utilisation efficiente de l'infrastructure ; mais cet objectif s'est avéré difficile à définir et à réaliser, notamment parce que les gestionnaires des infrastructures sont tenus de couvrir leurs coûts fixes et ne peuvent appliquer des redevances égales aux coûts marginaux (ce qui représente le niveau optimal).

<sup>26</sup> Voir la Commission européenne (1996), page 24. « Le thème central du Livre vert de la Commission intitulé "Vers une tarification équitable et efficace dans les transports" est que, dans la mesure du possible, les redevances doivent refléter non seulement les coûts marginaux directs, mais aussi les coûts marginaux externes, qu'elles doivent couvrir la totalité de ces coûts et qu'elles doivent être liées aux coûts imputables aux utilisateurs. » [gras ajouté].

<sup>27</sup> Dans la comptabilité du secteur ferroviaire, il est difficile de définir le « coût marginal », que ce soit sur le court ou le long terme. Aux États-Unis, les coûts variables ou évitables ne tiennent habituellement compte que de l'incidence à court terme sur les coûts ; mais ils peuvent, selon les circonstances, offrir une approximation des coûts marginaux de long terme et, donc, une mesure des investissements affectés à une augmentation de la capacité. Dans l'UE, l'absence d'une définition claire donnée par la Commission a permis à chaque pays de produire sa propre définition et ses propres outils de mesure.

structurelle en 2011,<sup>28</sup> <sup>29</sup> de sorte qu'il n'en sera pas question dans le présent rapport. Celui-ci porte sur la situation de pays non couverts par ladite étude (dont des pays non membres de l'OCDE), avant d'aborder les tendances générales observées dans l'UE et en Amérique du Nord. Comme les changements les plus importants survenus depuis 2004 ont probablement eu lieu au sein de l'UE, une grande partie de cette section leur est consacrée en plus de comporter une analyse critique des coûts et avantages de la séparation verticale (modèle structurel préféré de l'UE).

### 3.1 Réseaux ferrés verticalement intégrés

Il ne sera pas inutile de commencer par un examen des changements qui ont touché des réseaux ferrés monolithiques – concessions en Russie, en Chine, en Turquie, en Inde et en Amérique latine – parce qu'ils apportent un éclairage intéressant sur l'origine des réformes, la plupart des réseaux ferrés ayant d'abord été verticalement intégrés, et sur la direction qu'ils peuvent prendre au départ.

En 2002, les chemins de fer russes ont lancé un programme de réforme composé de plusieurs volets :

- le Ministère a été fractionné, avec transfert de la politique des transports et de la planification à une instance spécialisée du ministère des Transports, et attribution des activités ferroviaires à une nouvelle société par actions organisée en holding (OAO RZD) ;
- l'infrastructure devait être séparée de l'exploitation, les frais d'accès pour les marchandises étant liés au mécanisme tarifaire existant axé sur les produits de base ;
- le transporteur de marchandises national devait conserver la propriété des locomotives et le contrôle des mouvements de fret ;
- les wagons de marchandises devaient être vendus à des opérateurs privés,<sup>30</sup> qui s'occuperaient de la commercialisation du fret et de l'organisation des envois ;
- les services voyageurs interurbains seraient transférés à une société distincte (propriété de la holding) comparables aux entreprises nord-américaines Amtrak et VIA ;
- les services de banlieue seraient progressivement transférés aux autorités locales, mais la compagnie de chemins de fer a souhaité conserver les activités d'exploitation aux termes d'un contrat à frais remboursables.<sup>31</sup>

<sup>28</sup> Voir l'OCDE (2011).

<sup>29</sup> Dans son étude, l'OCDE (2011) décrit les expériences vécues par les pays suivants : Allemagne, Australie, Autriche, Canada, Corée, Danemark, Espagne, États-Unis, Finlande, France, Hongrie, Italie, Japon, Mexique, Pays-Bas, Pologne, Portugal, République slovaque, Royaume-Uni, Suède et Suisse. L'étude couvre également les mutations observées dans l'UE, dont certaines sont aussi traitées ici.

<sup>30</sup> Le système russe fait une distinction entre le « transporteur », qui possède les locomotives, tracte les wagons et détient une obligation de transporteur public, et les « opérateurs », qui sont propriétaires des wagons et commercialisent les services de transport de marchandises auprès des expéditeurs. La loi permet à de nouveaux transporteurs d'entrer sur le marché, mais OAO RZD s'oppose à l'idée. Les expéditeurs peuvent être des opérateurs mais pas des transporteurs.

<sup>31</sup> Voir Thompson (2007), Drew et Ludewig (2011) et Pittman (2012) pour une analyse plus détaillée de la restructuration en Russie et de ses résultats.

Ces réformes ont été réalisées plus ou moins comme prévu et dans les délais, même si certains observateurs ont trouvé que le maintien des locomotives aux mains du gestionnaire de l'infrastructure et le contrôle des services de marchandises, parallèlement à une grille tarifaire unique (et relativement simple) pour le fret, ont sensiblement contribué à limiter le développement de la concurrence sur le marché des marchandises, en particulier parce que la concurrence intermodale en Russie est cantonnée essentiellement à la partie européenne du pays. À ce jour, il n'y a eu que peu ou pas d'effet sur la concurrence intramodale, que ce soit dans ou pour le marché, s'agissant des services marchandises.

En Chine, le ministère des Chemins de fer a résisté aux réformes pendant de nombreuses années, globalement au prétexte que les chemins de fer étaient tellement importants pour l'économie et le trafic ferroviaire tellement soutenu<sup>32</sup> que des réformes perturberaient l'économie et pourraient la mettre en danger. En outre, le Ministère a lancé un gigantesque projet de TGV d'une valeur de 220 milliards de dollars, qui exigeait selon lui un gestionnaire public unique. Finalement, le Ministère a vu fondre une partie du soutien dont il bénéficiait, entre autres à cause de soupçons de corruption et d'un abus de position monopolistique de la part de la société de chemins de fer. Au début de 2013, le gouvernement a scindé cette dernière entre les fonctions de direction et de planification, transférées au ministère des Transports, et une compagnie de chemins de fer nationale distincte chargée du réseau ferré. C'est là, certes, une première étape sur la voie des réformes, franchie principalement à des fins politiques, et il reste à voir si les étapes suivantes seront réalisées selon le modèle des structures qui permettent à la concurrence intramodale de s'exercer.

En Turquie, les Chemins de fer d'État sont l'illustration d'une intégration encore plus poussée (à la fois verticale et horizontale dans ce cas), en ce sens que la société de chemins de fer non seulement exerce un monopole sur l'infrastructure ferroviaire et son exploitation mais contrôle aussi le réseau portuaire et utilise les bénéfices dégagés par les ports pour financer les pertes du réseau ferré.<sup>33</sup> Le gouvernement a longtemps envisagé de soustraire les ports à la compagnie ferroviaire et d'opter pour une politique de liberté d'accès, mais aucun véritable changement n'a été engagé.

Les Chemins de fer indiens constituent le dernier exemple vivant de ministère ayant la mainmise sur un réseau ferré monolithique qui exploite tous les services marchandises, toutes les lignes voyageurs interurbaines et la totalité des lignes de banlieue importantes. Il a même construit et il exploite certains métros de grandes villes. Comme les Chemins de fer indiens sont profondément enracinés dans l'économie nationale et jouent un rôle particulièrement important dans le déplacement à bas coût de grandes masses de population (branche financée transversalement par le trafic de marchandises), les principales tentatives de réforme se sont soldées jusqu'à présent par des échecs.

En Amérique latine, les concessions ferroviaires<sup>34</sup> sont, pour la plupart, verticalement intégrées même si, comme on l'a dit, certaines parties du réseau mexicain sont ouvertes à la concurrence (réciprocité des droits de circulation entre concessionnaires) et la région métropolitaine de Mexico (Ferrovalle) possède un réseau ferré caractérisé par une propriété collective et la neutralité d'accès pour les opérateurs du transport de marchandises et des lignes voyageurs suburbaines. De manière générale, en Amérique latine, les concessions pour le transport de marchandises font ressortir une forte augmentation du trafic, une amélioration rapide de la productivité et une baisse des tarifs pour les clients, et les concessions se portent

<sup>32</sup> En Chine, la densité du trafic (unités en circulation par kilomètre) est trois fois plus élevée qu'aux États-Unis.

<sup>33</sup> Voir Thompson (2009). Précisons que l'Afrique du Sud se trouve dans une situation similaire, avec une société d'État qui contrôle le réseau ferré ainsi que les ports et les pipelines.

<sup>34</sup> Thompson et Kohon (2012) font une analyse détaillée de ces réseaux ferrés. Voir aussi Thompson et al (2001), et Drew et Ludewig (2011).



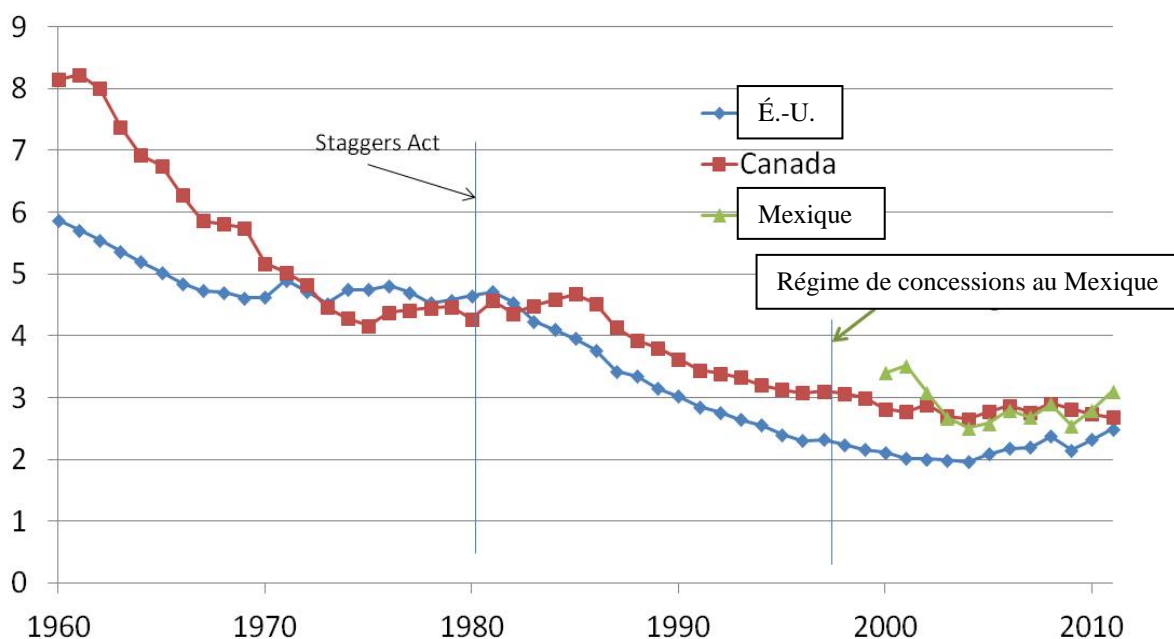
relativement mieux au Brésil et en Bolivie que dans les autres pays (Argentine, Chili, Bolivie, etc.). À Buenos Aires, les concessions attribuées pour les lignes voyageurs suburbaines n'ont pas donné d'aussi bons résultats, principalement à cause des bouleversements politiques et économiques survenus dans le pays. À Rio de Janeiro et Mexico, les concessions de transport suburbain ont relativement bien résisté, quoique la demande n'ait pas atteint les niveaux escomptés.

### 3.2 Réseaux ferrés exploités en location : États-Unis et Canada (et Mexique après le régime de concessions)

Dans les pays où l'intégration verticale est modérée par l'existence de contrats de location, les réformes du transport ferroviaire les plus marquantes ont eu lieu bien avant 2004. Aucun changement important ne s'est produit depuis cette date et le cadre réglementaire est resté stable.

En effet, aux États-Unis, les effets de la Staggers Act semblent avoir atteint un palier en 2004 s'agissant de la baisse des tarifs du transport ferroviaire de marchandises, comme l'indique le graphique 1.

**Graphique 1 : Recettes moyennes du transport de marchandises (en cents de dollar US constant de 2010/tonne-kilomètre)**



Après 2004, les tarifs du transport ferroviaire de marchandises aux États-Unis ont affiché une légère tendance à la hausse (ils ont augmenté de quelque 25 % entre 2004 et 2011, mais restent inférieurs environ de moitié à leur niveau d'avant la déréglementation), tandis qu'au Canada ces tarifs, qui suivent généralement ceux des États-Unis tout en les dépassant légèrement parce que la composition des marchandises transportées est différente,<sup>35</sup> sont demeurés stables. Le graphique fait également apparaître les tarifs moyens pratiqués au Mexique : ils ont été plus ou moins alignés sur ceux des États-Unis et du Canada du fait de l'intégration croissante du réseau mexicain et de son économie à ceux de ces deux pays. Immédiatement avant la mise en concession, près de 60 % des marchandises transportées sur le réseau

<sup>35</sup>

Il se transporte à bas prix sur le réseau ferré plus de charbon aux États-Unis qu'au Canada.

ferré mexicain étaient d'origine uniquement nationale, pourcentage tombé à environ 46 % en 2010, bien que les importations aient augmenté beaucoup plus rapidement que les exportations.

La tendance à la hausse signalée plus haut concernant la proportion de lignes partagées aux États-Unis entre plusieurs opérateurs s'est lentement poursuivie après 2004 (proportion passée de 24 % à un peu plus de 28 % en 2008, avant de retomber légèrement, à 27 %, en 2011). Ce qu'on ignore, c'est l'effet réel de cette multiplicité d'opérateurs sur la concurrence, parce que les droits de circulation sont parfois limités en fonction de tel ou tel produit de base ou de la capacité.

McCullough et Thompson (2012) expliquent que la concurrence favorisée par la Staggers Act a apporté des avantages manifestes aux expéditeurs et aux compagnies ferroviaires des États-Unis ainsi qu'aux expéditeurs canadiens et mexicains grâce à l'interconnexion des réseaux.<sup>36</sup> Malgré ces avancées, il y a toujours des expéditeurs et des groupes d'intérêt pour estimer que la souplesse apportée par la Staggers Act en matière de tarification leur fait du tort, ou pour penser qu'il serait plus bénéfique de s'en remettre à l'organe de réglementation que de négocier directement avec les compagnies de chemins de fer. En outre, les augmentations tarifaires enregistrées depuis 2004, bien que dues essentiellement à l'engorgement du réseau et à la hausse des prix de l'énergie, ont engendré des pressions politiques supplémentaires de la part des partisans d'une modification de la réglementation, y compris d'une intervention renforcée des autorités de réglementation dans la fixation des tarifs.

Objectivement, cependant, les résultats enregistrés aux États-Unis sur les lignes ferroviaires de marchandises.<sup>37</sup> depuis la déréglementation sont clairs :

- les tarifs moyens en valeur réelle ont diminué de plus de la moitié ;
- le secteur est financièrement stable (le plus souvent « financièrement autosuffisant » selon le jargon réglementaire) et capable de financer son expansion pour répondre à la demande du marché ;
- la productivité s'est sensiblement améliorée ;
- les taux d'accidents ont reculé de plus des deux tiers.

Dans une étude récente sur les performances du réseau aux États-Unis, le cabinet Christensen Associates est parvenu à la conclusion suivante : « Parce que l'industrie ferroviaire est restée à peu près financièrement autosuffisante ces dernières années, ... en accordant des baisses de tarif importantes à certains expéditeurs, on risque de devoir augmenter les prix pour les autres expéditeurs ou de mettre en danger la viabilité financière du secteur » (Christensen (2010), page ii). Autrement dit, le secteur du transport ferroviaire de marchandises aux États-Unis a atteint un niveau d'efficacité raisonnable (une sorte d'équilibre à la Ramsey-Boiteux), en accordant toute l'attention voulue à la concurrence intramodale et intermodale.

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<sup>36</sup> Cela se vérifie non seulement pour la moyenne globale mais aussi, apparemment, pour les principaux groupes de produits de base, comme le charbon, où la possibilité donnée par la loi d'établir des tarifs contractuels a eu pour effet de faire fortement augmenter la productivité et baisser les prix.

<sup>37</sup> En 2009, pour être rangées dans la première catégorie, les lignes de transport de fret devaient dégager des recettes supérieures à 380 millions de dollars. Sept lignes remplissaient cette condition. Elles ont produit 93 % des recettes du transport de marchandises. Il s'y ajoutait 556 lignes des catégories II et III, d'où sont provenus les 7 % de recettes restants.

Le Canada possède deux grands réseaux, le Canadien National et le Canadien Pacifique. La loi canadienne comporte plusieurs dispositions qui permettent à une de ces compagnies d'avoir accès aux équipements de l'autre mais, à ce jour, aucune d'entre elles n'a vraiment profité de cette possibilité, peut-être par crainte de représailles.

Au Mexique, les droits de circulation que les concessionnaires étaient censés s'accorder étaient définis dans l'appel d'offres. Les négociations menées entre les concessionnaires pour déterminer les conditions à respecter, y compris les redevances d'accès, se sont prolongées, et rien ne dit clairement si l'octroi d'un accès à la concurrence est devenu une réalité.

### **3.3 Séparation verticale et liberté d'accès : l'approche de l'UE**

Si la direction générale de la restructuration du rail dans l'UE a été tracée dès 1991, sa mise en œuvre a démarré lentement et ne s'est accélérée qu'après 2004.

On trouvera un bon résumé des préoccupations générales et des initiatives de l'UE après 2004 dans la Directive 2012/34/UE « établissant un espace ferroviaire unique européen » et la communication de 2012 de la Commission sur le quatrième paquet ferroviaire. Divers sujets se retrouvent dans ces documents, mais il est possible de les résumer grossièrement en disant que des progrès modestes ont été réalisés pour ce qui est de stabiliser la situation des réseaux ferrés de l'UE sur le marché des transports mais que de nombreux objectifs visés avec la réforme du rail ont été manqués à cause d'une mise en œuvre trop lente ou incomplète.

La Commission européenne préconise maintenant plusieurs changements pour accélérer et approfondir la mise en œuvre, selon les grands axes suivants :

- penser aux institutions et non seulement à la séparation entre l'infrastructure et l'exploitation ;
- ouvrir complètement le marché aux services voyageurs du réseau intérieur ;<sup>38</sup>
- encourager la concurrence sur le marché pour les services qui peuvent être fournis en libre accès et exiger une concurrence pour le marché (par le biais du franchisage) pour les services subventionnés ;
- renforcer davantage l'interopérabilité et le contrôle de la sécurité.

Des pressions s'exercent pour que les réglementations soient mises en application ; témoin les actions en justice engagées par la Commission européenne. En juin 2008, par exemple, elle a adressé sous forme de lettre un avertissement officiel à 24 pays,<sup>39</sup> dont beaucoup l'ont reçu plusieurs fois. Les problèmes soulevés, bien que différents entre les pays, entraînent dans trois grandes catégories :

- 1) le gestionnaire d'infrastructure ne jouissait pas de l'indépendance voulue, rien ne l'incitait à améliorer ses performances, ou il appliquait des redevances sans rapport évident avec ses coûts marginaux ;
- 2) l'organe de réglementation était insuffisamment indépendant ou n'avait pas le pouvoir nécessaire pour faire appliquer les réglementations ;

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<sup>38</sup> Les marchés des services de transport de marchandises étaient déjà complètement ouverts à la concurrence en janvier 2007 et ceux des services de transport de voyageurs internationaux en janvier 2010.

<sup>39</sup> Voir IP/08/1031, 26 juin, 2008.

- 3) l'opérateur attitré n'était pas suffisamment indépendant ou ne publiait pas de comptes de résultats ni de bilans indépendants.

En 2010, la Commission européenne a jugé bon de convoquer 13 États membres devant la Cour de Justice pour des manquements répétés à la mise en œuvre des directives. Douze de ces pays étaient déjà visés par les avertissements de 2008,<sup>40</sup> pays auxquels s'est ajoutée l'Espagne. Les problèmes relevés étaient globalement les mêmes : manque d'indépendance du gestionnaire d'infrastructure et redevances d'accès anormales, manque d'indépendance et autorité insuffisante pour l'organe de réglementation, et absence d'une séparation claire entre les gestionnaires d'infrastructure et les entreprises ferroviaires. Aucune décision n'a encore été rendue pour ces affaires, mais l'avocat général de la Cour de Justice a estimé dans les cinq premiers cas<sup>41</sup> que les directives de l'UE avaient été contournées à plusieurs égards, ce qui avait un effet dommageable sur l'accès aux réseaux et, par conséquent, sur la concurrence. Si la diminution, entre 2008 et 2012, du nombre d'États membres apparemment en infraction (de 24 à 13) peut s'expliquer par les progrès accomplis, il n'en reste pas moins que les 13 États membres restants parmi ceux renvoyés devant la Cour représentent approximativement 70 % du trafic de voyageurs et de marchandises de l'UE. Les conséquences globales pour la concurrence peuvent être encore plus importantes lorsque l'entreprise en infraction (comme en Autriche ou en Allemagne) assure une grande partie du trafic en transit entre deux États en règle.

Les études quantitatives les plus complètes sur le degré de libéralisation des réseaux ferrés dans l'UE ont été réalisées en 2002, 2004, 2007 et 2011 par Kirchner.<sup>42</sup> Pour ces études, Kirchner a mis au point un indice de performance du secteur ferroviaire de chaque pays selon le système juridique (LEX), le niveau d'accès au système réellement possible (ACCESS) et le niveau de concurrence (COM) observé sur le réseau.

La méthode d'analyse de Kirchner est complexe, et ce serait sortir du cadre du présent rapport que d'en donner une description détaillée. En revanche, il n'est pas inutile de décrire de quelle façon ces trois indices ont été élaborés. Pour résumer, l'indice LEX dit dans quelle mesure les directives de l'UE ont été transposées dans le système juridique du pays. Tout pays qui a réécrit ses lois pour y incorporer dans leur totalité les prescriptions de l'UE obtient 1 000 points selon l'indice LEX. L'indice ACCESS sert à mesurer à quel point un membre applique effectivement, par voie de réglementation et par la coercition, les prescriptions de l'UE telles qu'elles sont exprimées dans le droit national. Pour un parcours sans faute, une note de 1,000 est attribuée. Certains pays affichent un très bon score à l'indice LEX et réussissent beaucoup moins bien selon l'indice ACCESS parce que le droit respecte parfaitement les directives mais l'organisme chargé de faire appliquer les nouvelles lois n'a pas encore été créé. Les notes LEX et ACCESS sont ensuite pondérées et fondues en une note globale pour chacun des 25 États membres possédant un réseau ferré,<sup>43</sup> ainsi que pour la Suisse et la Norvège parce que ces deux pays ont organisé leur réseau d'une manière conforme à l'approche de l'UE. Le facteur COM donne une moyenne pondérée du changement de la répartition entre les modes de transport de personnes et de marchandises, du nombre d'opérateurs non attitrés et de la part du marché du transport ferroviaire qui revient aux opérateurs non attitrés. L'indice COM est produit à part.

<sup>40</sup> Il s'agit des pays suivants : Allemagne, Autriche, France, Grèce, Hongrie, Irlande, Italie, Luxembourg, Pologne, Portugal, République tchèque et Slovaquie.

<sup>41</sup> Actions intentées contre la Pologne, la République tchèque, la France, la Slovaquie et le Luxembourg. Voir les dossiers C-512/10, C-545/10, C-625/10, C-627/10 et C-412/11 et le communiqué de presse n°169/12, Luxembourg, 13 décembre 2012.

<sup>42</sup> Index de libéralisation du transport ferroviaire, publié en 2002, 2004, 2007 et 2011.

<sup>43</sup> Bien qu'États membres de l'UE, Chypre et Malte n'ont pas été incluses parce qu'elles ne possèdent pas de réseau ferré.

Les résultats de Kirchner sont résumés au tableau 1 de l'annexe 1, qui présentent les résultats des quatre études<sup>44</sup>. Ces mesures comportent des jugements qualitatifs et sont indéniablement moins précises que les chiffres l'indiquent, mais elles confortent plusieurs observations qui semblent raisonnablement solides. Premièrement, on observe une vraie amélioration à l'indice global : dans presque chaque période, quasiment tous les pays ont fait des progrès ; les moyennes pour l'Europe des 15<sup>45</sup> et l'Europe des dix<sup>46</sup> ont progressé à chaque étude ; et le nombre de pays dits « en avance » n'a cessé de croître, mais le nombre de pays « à l'heure » a légèrement diminué, plusieurs ayant fait machine arrière.<sup>47</sup> Deuxièmement, les progrès apparaissent nettement plus marqués dans la branche du fret que dans les services voyageurs. La raison de cette disparité n'est pas tout à fait claire ; plusieurs facteurs peuvent l'expliquer, dont le fait que les réglementations concernant le transport de voyageurs ont une dimension politique plus importante et qu'elles sont donc par nature plus difficiles et plus longues à changer. Troisièmement, il n'y a pas de différence significative entre l'Europe des 15 et l'Europe des dix s'agissant de l'évaluation globale du niveau de libéralisation, ce qui est contre-intuitif puisque l'Europe des dix avait beaucoup plus de chemin à rattraper au départ. Quatrièmement – et ce qui est peut-être le plus significatif –, les progrès ont été beaucoup plus importants et profonds sous l'aspect des procédures (LEX and ACCESS) que dans l'exercice réel du jeu de la concurrence (COM), déséquilibre typiquement lié à la difficulté de mettre en œuvre les lois et règlements, notamment lorsque le degré de sensibilisation et de soutien du public est faible.

Selon les chiffres de Kirchner, l'indice LEX moyen pour l'Europe des 25 en 2011 s'est établi à 800, ce qui indique que ces pays sont globalement « en avance » dans la mise en œuvre des réformes juridiques. La moyenne au titre de l'indice ACCESS était de 683, bien supérieure au seuil de la classe « à l'heure ». À l'inverse, la moyenne de l'indice COM n'était que de 429, nettement inférieure même à la tranche médiane de la classe « en retard ». Là encore, si l'on admet que ces chiffres sont raisonnablement représentatifs de la réalité, ils conforteraient le sentiment selon lequel l'objectif ultime de la réforme – améliorer la concurrence entre les fournisseurs de services ferroviaires – est loin d'avoir été atteint par rapport aux intentions officiellement affichées.

Le tableau 2 de l'annexe 1 résume les données de Kirchner concernant l'évolution de la concurrence exercée par les opérateurs non attitrés. Il indique :

- le nombre d'opérateurs non attitrés (ceux qui ne sont pas directement détenus par l'entité dont dépend le gestionnaire d'infrastructure) ;
- la part du marché des marchandises qui revient aux opérateurs non attitrés ;

<sup>44</sup> Les chiffres de 2002 n'ont pas été calculés sur la même base que dans les études ultérieures, de sorte que la comparaison ne peut être qu'approximative. Les résultats globaux pour l'Europe des 15, des dix et des 25 sont de simples moyennes linéaires ; là encore, il ne faut y voir que des indications et non des données exactes.

<sup>45</sup> Le groupe de l'Europe des 15 comprend les pays de l'Europe occidentale qui ont adhéré à l'UE entre 1952 et 1995 : Allemagne, Autriche, Belgique, Danemark, Espagne, Finlande, France, Grèce, Irlande, Italie, Luxembourg, Pays-Bas, Portugal, Royaume-Uni et Suède.

<sup>46</sup> Le groupe de l'Europe des dix comprend les pays de l'Europe occidentale qui ont adhéré à l'UE en 2004 et 2007 : Bulgarie, Estonie, Hongrie, Lettonie, Lituanie, Pologne, République tchèque, Roumanie, Slovaquie et Slovénie.

<sup>47</sup> Dans le système d'évaluation de Kirchner, le respect complet des directives dans une catégorie rapporte 1 000 points. Une note de 800 points signifie que le pays est « en avance ». Une note comprise entre 600 et 800 points veut dire que le pays est « à l'heure ». Une note comprise entre 300 et 600 points veut dire que le pays est « en retard », et une note inférieure à 300 points indique que le pays « attend de démarrer ».

- la part du marché des voyageurs qui revient aux opérateurs non attitrés ;
- la part de marché du transport ferroviaire de marchandises dans le pays en 2001 et 2008 ;
- la part de marché du transport ferroviaire de voyageurs dans le pays en 2001 et 2008.

Ces données indiquent clairement que, d'une part, le rôle joué par les opérateurs non attitrés s'est accru, plus fortement dans le secteur des marchandises que dans les services voyageurs, mais que, d'autre part, dans la plupart des pays, ces opérateurs ne sont pas encore des acteurs importants, notamment en ce qui concerne le transport de personnes.

Il convient de souligner que les études de Kirchner sont centrées sur la concurrence dans le transport ferroviaire et ne traitent pas de l'évolution qui a été celle de la concurrence intermodale, concurrence elle aussi importante.<sup>48</sup> Il est toutefois possible de se faire une idée de la position du transport ferroviaire par rapport aux autres modes en utilisant certains chiffres recueillis par la Commission européenne.

La part de marché du rail en voyageurs-kilomètres est restée bloquée à 7 % pour l'Europe des 15 depuis le milieu des années 80, et elle est tombée de plus de 30% au milieu des années 80 à 7 % en 2011 pour l'Europe des dix. Ces résultats doivent être lus avec une certaine prudence vu que le dénominateur – le nombre total de voyageurs, y compris en voiture – n'est, au mieux, qu'une approximation. Ceci étant dit, rien ne permet d'affirmer que la restructuration du transport ferroviaire dans l'UE a accru la part du rail sur le marché du transport de personnes, mais on pourra toujours penser que cette part aurait été encore plus réduite sans une séparation verticale. Ces résultats sont présentés au tableau 3 de l'annexe 1.

Ce que l'on observe concernant la position du rail sur le marché du transport de marchandises mène plus ou moins à la même conclusion. Cette part pour les chemins de fer de l'Europe des 15 n'a cessé de se contracter pour tomber d'environ 25 % dans les années 80 à environ 13 % en 2011. Dans l'Europe des dix, cette part, de quelque 23 %, demeure plus élevée que dans l'Europe des 15, mais le recul a été beaucoup plus marqué puisqu'on est parti, dans ces pays, d'une part supérieure à 70 % dans les années 80. La part du transport de marchandises dans l'Europe des dix s'est maintenue à un niveau un peu plus haut, en partie parce que l'Estonie, la Lettonie, la Lituanie et la Pologne sont encore reliées par des voies à écartement large avec les réseaux russe et Ukrainien. Ces chiffres sont présentés au tableau 4 de l'annexe 1.

Deux autres mesures complètent le tableau : le pourcentage de tonnes transportées par le train lors d'échanges commerciaux internationaux et la longueur moyenne du trajet (tonnes-kilomètres divisées par le tonnage transporté). Le pourcentage de tonnes transportées dans le cadre du commerce international sur les réseaux de l'Europe des 15 a reculé de 51.5 % en 2001 à 42.6 % en 2010, ce qui indique que, du moins pendant cette période, les mouvements de marchandises par le train dans l'Europe des 15 n'ont pas augmenté à la mesure des changements structurels touchant à l'accès de la concurrence. Il y a là un contraste avec l'Europe des dix, où le pourcentage de tonnes transportées au titre du commerce international s'est accru durant la période, mais cette hausse est peut-être trompeuse parce qu'elle s'explique largement par une diminution plus rapide du tonnage du fret intérieur que du tonnage du fret total transporté. Certes, la distance moyenne parcourue s'est allongée dans les deux groupes, mais le

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Plusieurs éléments pourraient être mesurés pour combler cette faille des indicateurs et les rendre plus utiles : mesure de la part de marché revenant au train, mesure du pourcentage de trafic international par opposition au trafic intérieur; et mesure, avec un outil fiable, de la distance parcourue (une augmentation de cet élément pouvant révéler l'existence d'un transport au-delà des frontières nationales et un renforcement de la compétitivité du rail).

changement est mineur, de l'ordre de 260 kilomètres, ce qui est bien inférieur au niveau auquel le train concurrence véritablement le camion pour le transport de marchandises.<sup>49</sup> Voir le tableau 5 de l'annexe 1.

Depuis 2003, Eurostat produit des données à partir desquelles il est possible de composer une matrice origine-destination pour les envois par le train. Malheureusement, les États membres de l'UE n'ont pas tous fourni des données chaque année, de sorte qu'une matrice complète n'a pu être créée. Si l'on remplissait les blancs les plus importants à l'aide d'une interpolation approximative (de l'auteur), les résultats obtenus iraient dans le sens de la conclusion mentionnée plus haut : les mouvements de marchandises internationaux n'ont pas encore augmenté et, à quelques exceptions près, la distance de transport moyenne ne s'est pas accrue et n'a pas atteint la longueur nécessaire pour que le train puisse concurrencer les transports routiers.

À la lumière de toutes ces mesures, on peut raisonnablement dire que le secteur ferroviaire dans l'UE a progressé dans la mise en œuvre des directives de la Commission européenne sous leurs aspects juridiques et procéduraux mais n'ont pas autant avancé s'agissant de développer sensiblement la concurrence sur les réseaux ferrés, notamment pour les services voyageurs. En outre, il ne serait pas justifié de conclure que l'on a atteint l'objectif de fond, qui est de créer un réseau ferré commun où le trafic transfrontière puisse prendre de l'ampleur.

### Encadré 3 : l'expérience suédoise

La Suède est un exemple intéressant de pays qui a opté pour une séparation verticale et s'est donc employé à instaurer une concurrence intramodale pour la plupart des services à fournir.

Après avoir bataillé durant des années pour le financement des services ferroviaires, la Suède a retiré en 1988 son infrastructure ferroviaire à l'opérateur en place (SJ), quatre ans avant que la Commission européenne lance le processus à travers l'UE. Par ce changement, elle voulait d'abord mettre de l'ordre dans les comptes des chemins de fer et séparer des services socialement importants des services à vocation commerciale, de manière que le soutien de l'État puisse se limiter aux objectifs publics. De plus, la séparation permettait à l'État de financer l'infrastructure directement au travers de la société gestionnaire (Banverket), et d'imposer des droits d'accès qui mettraient les chemins de fer sur un pied d'égalité avec les autres modes, notamment en ce qui concernait les incidences environnementales. La concurrence intramodale, sur ou pour les marchés, n'était pas un objectif en soi au départ, et SJ a conservé les fonctions de planification et de régulation sur le réseau.

En 1996, la planification et la gestion des accès ont été transférées de SJ à Banverket, et la liberté d'accès a été instaurée pour le transport de marchandises. SJ a continué d'assurer tous les services voyageurs, et le support nécessaire pour les lignes locales et régionales a été négocié avec les autorités locales. En 1998, celles-ci ont commencé à octroyer des franchises en régime de concurrence pour de plus en plus de lignes locales et, au cours des années qui ont suivi, SJ a perdu de nombreux appels d'offres à cause de ses coûts élevés et de la rigidité de sa gestion, bien que SJ ait parfois été pénalisée pour des soumissions exagérément basses ayant entraîné des pertes. SJ a réussi à conserver un monopole sur les lignes voyageurs interurbaines « rentables ». À partir de 2006, le monopole de SJ sur ces lignes a commencé à s'effriter, d'abord avec la mise en service de trains de nuit et du week-end, puis de trains internationaux, et, en décembre 2011, le réseau a été entièrement ouvert à la concurrence pour le transport de voyageurs.<sup>50</sup>

<sup>49</sup> La distance moyenne parcourue en 2010 par des marchandises sur les réseaux ferrés d'autres pays concernés est la suivante : Chine 840 kilomètres ; Canada 1097 kilomètres ; Russie 1441 kilomètres ; États-Unis 1524 kilomètres.

<sup>50</sup> Il en a été de même en Italie avant la date limite fixée par la Commission européenne à tous les États membres.

En 2011, la Suède a obtenu la meilleure note d'une étude dans laquelle Kirchner (2011) a essayé d'évaluer à l'aide de plusieurs indices le degré de libéralisation de l'industrie ferroviaire dans les États membres de l'UE.<sup>51</sup> Actuellement, l'infrastructure ferroviaire est gérée par l'organisme public (Trafikverket) qui chapeaute toutes les infrastructures de transport. Les droits d'accès pour le transport de marchandises sont bas et simples. L'entreprise d'État (Green Cargo) assure toujours le plus gros du service de marchandises mais fait face à une augmentation de la concurrence, tant intermodale qu'intramodale. Toutes les lignes voyageurs locales et régionales font l'objet d'une course aux franchises à coût brut et les autorités locales s'associent pour fournir les éléments d'actifs nécessaires à tous, comme le matériel roulant. Les liaisons interurbaines non rentables sont généralement des franchises à coût net accordées dans des conditions de concurrence par un organisme public (Rikstrafiken, qui fait maintenant partie de Trafikverket). En revanche, les liaisons interurbaines « rentables » restent, pour la plupart (à environ 90 %), assurées par SJ.

#### Encadré 4 : l'expérience italienne

L'expérience italienne montre que, pour être efficace et porter ses fruits, la mise en oeuvre de la séparation verticale exige énormément de volonté politique.

L'Italie a lentement commencé à réformer le secteur ferroviaire. Jusqu'en 2000, Ferrovie dello Stato (FS) était un monolithe aux mains de l'État. Les directives européennes ont été transposées dans la législation et la réglementation nationales avec beaucoup de retard et leur adoption officielle a pris encore plus de temps.

Mais, autour de l'an 2000, la situation a commencé à changer : Ferrovie dello Stato (FS) a été transformée en une holding comprenant un gestionnaire d'infrastructure (Rete Ferroviaria Italiana) et un opérateur chargé des services marchandises et voyageurs (Trenitalia). Par ailleurs, une loi a été promulguée<sup>52</sup> qui donnait à tous les opérateurs de l'UE un libre accès à l'infrastructure ferroviaire italienne, privant ainsi FS (ou, plutôt, sa filiale Trenitalia) du monopole dont elle jouissait jusque-là sur le transport de marchandises et de personnes. Cette loi allait beaucoup plus loin que les objectifs fixés par la Commission européenne et, en 2013, l'Italie demeure un des rares États membres dont le réseau ferré est complètement ouvert à la concurrence.<sup>53</sup> En 2012, une autre loi a été votée, qui prévoyait la création d'un organe de réglementation des transports indépendant, mais cet organisme n'a pas encore vu le jour.

Malgré ces avancées, Trenitalia continue de dominer largement le transport ferroviaire dans le pays et la concurrence intramodale est extrêmement limitée. La part du marché du fret prise par les nouveaux arrivants s'élève à 15 % et, à ce jour, l'ouverture du marché intérieur du transport de voyageurs a eu un succès limité. Arenaways, premier concurrent sur le marché du transport de voyageurs, a commencé à exploiter en 2008 la ligne rentable qui relie Milan à Turin, avant de tomber en faillite en 2011. AGCM est intervenue et a jugé FS coupable de deux pratiques restrictives à l'encontre du nouveau venu. En conséquence, FS a été condamnée pour abus de position dominante.<sup>54</sup> Les autorités locales continuent de s'opposer à l'utilisation d'appels d'offres pour l'attribution des lignes régionales et de banlieue subventionnées.

Il y a un an, Italo (société détenue par Nuovo Trasporto Viaggiatori) a commencé à transporter des voyageurs sur le premier tronçon en service de la ligne TGV entre Naples et Milan. Italo est le premier des nouveaux acteurs des services TGV dans l'UE. Son arrivée est trop récente pour que l'on puisse tirer des conclusions sur ses effets et son succès. Il convient de signaler que, avant de se lancer dans le transport de voyageurs, la société a intenté une action auprès de l'AGCM contre FS au motif que cette dernière favorisait sa filiale Trenitalia pour l'accès à son infrastructure, mais l'affaire s'est soldée par un non-lieu, aucune preuve d'abus n'ayant été trouvée.

<sup>51</sup> Cette étude est décrite dans le détail un peu plus loin. Les valeurs des indices sont données au tableau 2 de l'annexe 1. La Suède a obtenu la meilleure note globale en 2011 pour le transport de voyageurs comme de marchandises.

<sup>52</sup> Loi 388/2000.

<sup>53</sup> L'UE a demandé aux États membres d'ouvrir le marché du transport de marchandises et des services voyageurs internationaux, mais pas encore les services voyageurs nationaux.

<sup>54</sup> L'amende, toutefois, a été limitée à 300,000 €



### 3.4 Examen critique des effets de la séparation verticale

L'introduction généralisée de la séparation verticale en Europe a déclenché un ensemble de recherches sur l'effet du démantèlement d'un réseau ferré verticalement intégré sur les coûts. Il est utile de les examiner car elles font apparaître divers problèmes auxquels les pays qui suivent cette voie feront face (et font déjà face, pour certains).

Au chapitre de l'efficacité technique, la séparation verticale engendre indubitablement des coûts. Certains d'entre eux, comme les coûts de transaction concernant la négociation et l'application des contrats passés entre les opérateurs et le gestionnaires d'infrastructure, seraient évités avec un réseau ferré verticalement intégré ; d'autres coûts, comme ceux liés au fait que la conception et l'entretien observés aux points de contact entre les roues et les rails laissent à désirer à cause d'un déséquilibre entre les motivations des opérateurs et celles du gestionnaire d'infrastructure, risquent d'être plus élevés avec la séparation. Les études universitaires récentes visant à mesurer ces coûts apportent des indications, mais pas encore de conclusions, ce qui témoigne de la complexité de la question.

Une méthode de mesure de ces coûts conçue par Ivaldi et McCullough (2004) s'est soldée par le constat selon lequel une ligne marchandises intégrée pourrait entraîner une économie de 20 à 40 % par rapport à une ligne verticalement séparée. Ce constat ne vaut cependant que pour la technologie et les conditions d'exploitation existant aux États-Unis.

Avec une autre méthode, employée pour examiner la situation dans l'UE et conçue par van de Velde et al. (2012), on est arrivé à la conclusion que le surcroît de coûts dû à la séparation est minime pour les réseaux ferrés à faible densité et élevé pour les réseaux à forte densité, et que les coûts liés au déséquilibre créé entre les motivations par la séparation verticale sont probablement plus importants que l'augmentation directe des coûts d'exploitation. Les auteurs pensent également qu'une mise en œuvre complète de la séparation verticale à travers toute l'UE pourrait faire grimper les coûts d'exploitation des réseaux de 5.8 milliards d'euros par an « sans contrepartie ». <sup>55</sup> Ils en déduisent que « les pays devraient être libres de retenir l'option structurelle la plus adaptée à leur situation – ce qui permettrait une concurrence entre les différents modèles organisationnels – sous réserve qu'un accès non discriminatoire soit garanti aux concurrents. La possibilité devrait être donnée de passer d'un modèle en place à la séparation verticale, et inversement. » <sup>56</sup> Compte tenu de la tonalité de ce document, les auteurs sous-entendent peut-être que, dans certains cas, la formule de la location pourrait être préférable à une séparation verticale complète, en fonction de la densité de trafic totale et de la concurrence que les exploitants-locataires se livreraient pour obtenir de la capacité et pour fournir les mêmes services.

Au Royaume-Uni, dans une étude (McNulty (2011) qu'on lui avait commandée pour évaluer la rentabilité des chemins de fer britanniques, l'auteur a conclu que Network Rail est moins efficace que beaucoup d'autres gestionnaires d'infrastructure de l'UE dans une proportion de 20 à 40 %, mais ce constat n'était qu'en partie lié au surcroît de coût découlant de la séparation verticale.

S'il ressort de la plupart des études que la séparation verticale entraîne une augmentation des coûts, quelques études moins nombreuses ont été réalisées sur les avantages que procure, ou que pourrait procurer, la séparation. Mais on observe que les coûts engagés par les administrations publiques pour assurer des services régionaux et interrégionaux ont chuté de 20 à 50 % lorsque les marchés ont été attribués par appel d'offres, <sup>57</sup> forme de concurrence qui n'est possible qu'avec la séparation verticale.

<sup>55</sup> Van de Velde et al (2012), page 4.

<sup>56</sup> Van de Velde et al. (2012) page 6.

<sup>57</sup> Voir ECMT (2007).

Cette économie est très largement supérieure à l'augmentation des coûts de 5 % que van de Velde attribue à la séparation (voir ci-dessus).<sup>58</sup>

Un des avantages de la séparation des activités (aux États Unis) et de l'adjudication des services voyageurs subventionnés dans l'UE réside dans une clarification des coûts et des recettes engendrés par les différents services. Cela permet, si besoin est, de cibler, justifier et limiter l'aide publique, tandis que les services commerciaux n'ont plus à supporter le poids d'un financement croisé.<sup>59</sup> Plus globalement, d'aucuns prétendent qu'une séparation entre les services marchandises et les services voyageurs, et la sous-traitance des services voyageurs à des opérateurs privés par voie de franchise, permettent aux opérateurs d'être plus concentrés sur leur tâche et commercialement plus « inspirés » que ce ne serait le cas avec une entité publique verticalement intégrée.

La question relève aussi, dans une certaine mesure, d'un débat sur les avantages du secteur privé par rapport au secteur public concernant la prestation payante de services aux clients plutôt que sur la séparation en soi ; mais, comme on l'a dit, la séparation verticale, du moins en régime de location, constitue un élément clé de tout programme destiné à mettre davantage l'accent sur le marché, en même temps qu'elle entraîne une limitation et un tri des subventions publiques. Il importe également de signaler que la concurrence pour le marché qui a été rendue possible par l'éclatement de vieux réseaux verticalement intégrés a été à la base du succès de la réforme de réseaux ferrés en Amérique latine, entre autres au Mexique.

#### **Encadré 5 : l'expérience française**

L'expérience française illustre certains des problèmes que de nombreux États membres ont rencontrés et rencontrent encore avec la mise en œuvre de la séparation verticale.

La Société nationale des chemins de fer français (SNCF) est la première entreprise ferroviaire de l'UE pour le transport de personnes (en voyageurs-kilomètres) et la troisième au titre des marchandises (en tonnes-kilomètres). Elle n'est surclassée que par le Japon concernant ses lignes voyageurs à grande vitesse et elle se targue, à raison, de faire partie des entreprises du secteur techniquement les plus avancées du monde. Sa réussite technologique est contrebalancée par la résistance des institutions : la France a « presque toujours été un des derniers pays à intégrer les textes communautaires à la législation nationale... et s'est fréquemment battue dans les couloirs de Bruxelles pour en réduire la portée et repousser les dates limites ».<sup>60</sup>

La France a opté pour une démarche unique en son genre en matière de séparation de l'infrastructure avec la création en 1997 d'un organisme spécifique, le Réseau ferré de France (RFF), qui a été chargé de d'organiser et de superviser le réseau, mais aussi contraint de passer un contrat avec la SNCF pour la gestion effective du réseau, y compris la planification et la régulation. RFF a bien tenté d'affirmer son indépendance, mais le déséquilibre des forces (1250 employés pour RFF, 51,000 à la SNCF pour la seule infrastructure et 152,000 au total) a assuré à la SNCF sa domination. La résistance au changement, notamment à une séparation plus nette de RFF, a été mise sur le

<sup>58</sup> Les 5.8 milliards d'euros calculés par van de Velde et al représentent, selon une estimation rapide des auteurs, un peu moins de 5 % des coûts d'exploitation totaux des 25 réseaux ferrés de l'UE, de sorte que l'avantage qu'apporte la concurrence justifie largement le surcroît de coût.

<sup>59</sup> Cet avantage a été souligné par la Commission européenne dans la proposition de Directive 2013/0029 (COD), page 3.

<sup>60</sup> Emile Quinet in Drew et Ludewig (2011), page 81.

compte de l'opposition des syndicats à tout démantèlement de la SNCF qui risquerait de favoriser un renforcement du rôle du secteur privé.<sup>61</sup> L'indépendance de RFF dans les faits a encore été limitée par l'importante dette qu'elle avait héritée (28 milliards d'euros) et par la forte dépendance de RFF à l'égard de l'État s'agissant d'investissements.

À la fin de 2009, une nouvelle Autorité de régulation des activités ferroviaires (ARAF) a été créée, avec pour responsabilité de faciliter l'accès au réseau de RFF et de recommander les modifications à apporter aux droits d'accès appliqués par RFF s'ils sont jugés incompatibles avec le souci d'efficacité économique ou discriminatoires. En 2010, un contrôleur du trafic (DGF) a été institué pour assurer un contrôle parfaitement séparé et indépendant sur l'accès au réseau, qui rend compte à RFF mais relève de la SNCF.

La capacité de RFF et DGF d'agir en toute indépendance a été mise en doute aux termes de la décision rendue par l'Autorité de la concurrence et qui s'est soldée par une amende de 60 millions d'euros à l'encontre de la SNCF accusée de pratiques entravant ou retardant l'arrivée de nouveaux opérateurs sur le marché du transport de marchandises.<sup>62</sup> On a reproché apparemment à RFF de permettre à la SNCF de se procurer des renseignements commerciaux sur ses concurrents potentiels. Ainsi qu'on l'a dit, à la fin de 2012, l'avocat général de l'UE a jugé dans ses recommandations que la France ne respectait pas les réglementations communautaires.

D'ailleurs, la France s'est classée au 21<sup>e</sup> rang selon l'indice COM de Kirchner, avec une note de 334, à peine supérieure à celle obtenue par les pays "en retard". Kirchner en donne l'explication suivante : « ...Le marché national du transport ferroviaire de personnes demeure complètement fermé... [et]... la SNCF se montre discriminatoire envers les opérateurs [non attitrés] extérieurs ». La situation n'est guère meilleure dans les services marchandises, où l'on actuellement quelque 16 opérateurs indépendants pour une part de marché de 17 %.

La SNCF n'a jamais accepté l'indépendance de RFF et a bataillé pour sa réintégration, expliquant que le surcroît de coût dû à la séparation n'était pas justifié. À la fin de 2012, le gouvernement a annoncé la réintégration de l'infrastructure et de l'exploitation, apparemment sous le chapeau d'une holding similaire à celle de la Deutsche Bahn. RFF et les services de la SNCF chargés de l'infrastructure vont fusionner pour donner naissance à un organe de gestion de l'infrastructure unique placé sous l'autorité de la holding avec les activités d'exploitation de la SNCF. L'organe de régulation sera maintenu dans sa fonction et supervisera la nouvelle société, mais le pouvoir qu'il possèdera de faire appliquer ses recommandations n'est pas très bien établi.

## 4. Résumé des résultats

### 4.1 Réseaux ferré monolithiques

Ainsi qu'on l'a vu plus haut, la plupart des vieux monolithes sont en train de changer, mais les effets se font sentir davantage sur la structure que sur le degré de concurrence. Les chemins de fer russes sont aujourd'hui divisés dans le sens horizontal, et le transporteur de voyageurs est locataire des infrastructures de la société mère. Les wagons de marchandises appartiennent en grande partie au secteur privé. Le trafic de marchandises a fortement augmenté, sans toutefois avoir retrouvé ses niveaux de l'ère soviétique. Le trafic de voyageurs s'est stabilisé et croît lentement.

Les changements en Chine ne font encore que commencer et le secteur public continue d'occuper une position dominante bien que, pour les voyageurs comme pour le fret, la concurrence intermodale s'intensifie rapidement. En tout état de cause, les changements programmés n'annoncent pas de concurrence intramodale que ce soit pour le trafic de voyageurs ou de marchandises.

<sup>61</sup> Ibid, page 80.

<sup>62</sup> Voir le communiqué de presse de l'ERFA daté du 19 décembre 2012.

En Inde, sous l'influence d'une croissance économique soutenue en général et d'un manque de routes et d'infrastructure aérienne, le trafic marchandises et voyageurs a sensiblement progressé. L'Inde envisage d'investir dans tous les modes de transport, ce qui aura pour effet de créer une concurrence intermodale pour le train, mais le pays n'a pas prévu d'instaurer une quelconque forme de concurrence intramodale dans le secteur ferroviaire.

En Turquie, le gouvernement a envisagé de fractionner le monolithe d'État existant pour apporter une dose de concurrence, mais à l'heure qu'il est rien n'a été clairement programmé pour engager un tel changement. Le gouvernement a compris que ces réformes devront être mises à exécution pour que la Turquie puisse rejoindre les rangs de l'UE.

#### **4.2 Réseaux ferrés exploités en location**

La conception nord-américaine du transport de marchandises selon laquelle les réseaux ferrés privés font face à une concurrence intermodale et intramodale (côte à côte et pour les droits de circulation) contribue en général à une exploitation plus efficace et à des financements globalement suffisants pour couvrir les coûts, parallèlement à l'application de bas tarifs sans aide significative de l'État. Les performances du système dans la période comprise entre la déréglementation et 2004 et dans les années qui ont suivi ont été très profitables pour les transporteurs, les expéditeurs et le public, bien que l'engorgement croissant du réseau jusqu'en 2008 ait fait comprendre qu'il faudrait augmenter les tarifs pour financer l'accroissement de la capacité, ce qui a suscité les protestations de certains expéditeurs. Le Congrès des États-Unis continue d'étudier les changements de règle qui limiteraient les marges de manœuvre en matière de tarification, même si tout porte à penser que la santé financière du système risquerait d'en pâtir. En même temps, les problèmes que connaissent le budget fédéral et ceux des États jettent le doute sur les anciennes sources de financement des routes, voies navigables et aéroports, et font craindre un nouvel engorgement du système pour tous les modes de transport de marchandises lorsque les économies auront retrouvé le chemin de la croissance.

Les services voyageurs interurbains sont assurés par Amtrak aux États-Unis et par VIA au Canada (il n'y a pas de liaison interurbaine importante au Mexique). Les deux transporteurs sont extrêmement tributaires de l'aide de l'État, dont l'ampleur dépasse largement la place qu'ils prennent effectivement dans le système de transport. En effet, du fait de la grande étendue et de la densité de population relativement faible qui caractérisent les deux pays, le train ne peut facilement concurrencer, en Amérique du Nord, les autres modes de transport en ce qui concerne les voyageurs. Néanmoins, d'aucuns proposent d'investir abondamment dans l'amélioration des services interurbains aux États-Unis, et la Californie a effectivement entamé la construction d'une ligne de TGV entre San Francisco et Los Angeles. La mise en œuvre de ces propositions et l'achèvement du réseau californien demanderont la mise sur pied d'un nouveau programme de financement fédéral dont les chances de voir le jour sont actuellement confuses à cause des contraintes budgétaires.

#### **4.3 Réseaux ferrés à accès neutre**

Les réseaux ferrés à accès neutre apportent des solutions relativement limitées à des problèmes particuliers précisément posés par la fourniture d'un accès commun et neutre à une zone qui génère du trafic de marchandises. La principale application réside dans la création de sociétés de terminal conjointes en Amérique du Nord, y compris à Mexico, mais on trouve des sociétés similaires s'agissant de l'accès à des ports de l'UE. Les informations publiques sur les performances des réseaux ferrés de ce type sont généralement limitées, mais on voit clairement qu'ils ne souffrent d'aucune défaillance apparente, et les activités de la société de terminal de Mexico sont stables, comme les activités fret et voyageurs des concessionnaires qui en sont les propriétaires.

#### 4.4 Séparation verticale et accès libre : exemple de l'UE

Malgré les progrès évidents qui ont été accomplis concernant la formulation et la mise en oeuvre des directives de la Commission européenne visant à créer un marché du rail à accès libre entre les États de l'Union, le système actuel est loin de permettre une véritable concurrence entre les entreprises à finalité commerciale sur les marchés du transport de marchandises nationaux et internationaux et, encore plus, sur les marchés du transport de voyageurs. Il est trop tôt pour savoir si les causes en sont une introduction trop lente et incomplète de la séparation verticale et la présence encore importante de l'État dans le secteur, ou si ce type de structure pose des problèmes difficiles à résoudre, comme la fixation des redevances d'accès. Il est possible de faire quelques observations à ce stade, mais le seul le temps apportera de meilleures réponses.

Ainsi qu'on l'a dit, une des principales difficultés liées à la mise en application de la séparation verticale est de savoir comment parvenir à une récupération complète des coûts, tout en encourageant un bon usage de l'infrastructure et en garantissant un accès non discriminatoire. Différentes approches sont suivies dans l'UE, toutes avec leurs avantages et leurs inconvénients. Certains pays assortissent des objectifs financiers élevés aux redevances d'accès (pour récupérer une part importante des coûts fixes), ce qui leur permet de rentrer dans leurs frais mais limite la compétitivité des opérateurs sur le marché tant intérieur qu'international.<sup>63</sup> Dans d'autres pays, les gestionnaires d'infrastructure reçoivent des fonds publics pour couvrir leurs coûts fixes (comme le recommande la Commission européenne), mais cela signifie que ces entités ne peuvent être vraiment indépendantes ni à l'abri des pressions politiques. Il en résulte un ensemble hétéroclite de régimes de redevances d'accès incohérents et contradictoires qui entrave presque à coup sûr la concurrence internationale.<sup>64</sup>

La séparation verticale permet d'introduire une dose de concurrence sur le marché des services de banlieue ou régionaux subventionnés, mais comme beaucoup d'opérateurs européens attitrés demeurent la propriété de l'État, ils disposent encore d'un énorme pouvoir pour limiter le recours à des appels d'offres ou pour mettre des barrières à l'entrée des concurrents potentiels. Pour cette raison, des appels d'offres ne sont lancés que dans quelques pays, avec un succès variable. Les appels d'offres concernant les réseaux locaux, relativement petits et qui remplissent essentiellement une fonction sociale (comme en Suède et aux Pays-Bas) donnent d'assez bons résultats. Les appels d'offres concernant les services interurbains qui obéissent à des impératifs essentiellement commerciaux, comme au Royaume-Uni, donnent lieu à davantage de problèmes, certaines franchises passant du coût net au coût brut lorsqu'elles commencent à mieux comprendre les objectifs poursuivis et les risques qu'elles courent.

Des lignes à grande vitesse pour les voyageurs s'ouvrent dans de nombreux pays et entre de grandes villes européennes (Paris, Bruxelles, Frankfurt, Londres et Amsterdam). Pour l'instant, l'exploitation des TGV demande des qualifications et des ressources telles que seuls les consortiums, notamment les opérateurs attitrés, en possèdent la capacité, ce qui, là encore, leur confère un avantage qui rend difficile l'émergence de concurrents. En Italie, un opérateur privé a commencé dernièrement à assurer des services de TGV dans le pays (voir l'encadré B), mais il est trop tôt pour dire si c'est une réussite.

Le manque de données transversales et chronologiques complètes et cohérentes sur les chemins de fer de l'UE fait qu'il est difficile d'effectuer une analyse quantitative détaillée de ce secteur, mais il est

<sup>63</sup> Dans l'Europe des dix, par exemple, les redevances d'accès pèsent surtout sur les transporteurs de marchandises, ce qui restreint clairement leur capacité de concurrencer les autres modes de transport, et limite obligatoirement les retombées sur le trafic international.

<sup>64</sup> En outre, les structures tarifaires qui avantagent les mouvements de voyageurs au détriment des mouvements de marchandises faussent également la concurrence sur le marché du transport intérieur de fret, mais cet effet touche la concurrence intermodale et non intramodale.

possible de tirer des données disponibles quelques conclusions qui corroborent certaines des observations faites plus haut. Le tableau 6 de l'annexe 1 consiste en une comparaison rapide des tarifs pratiqués sur différents réseaux, tels qu'ils ont été recensés par l'Union Internationale des Chemins de Fer. Il convient d'interpréter ces chiffres avec une certaine prudence parce que les comparaisons entre des pays de monnaies différentes produisent toujours des résultats approximatifs et parce que les données utilisées ne sont pas forcément toutes préparées selon les mêmes normes d'audit. En outre, rien ne permet de penser que les coûts imputables à la prestation de ces services ont nécessairement un lien avec les recettes qu'ils génèrent, et la moyenne des recettes globales cache naturellement une grande diversité de biens et de services.

La première conclusion que l'on peut tirer de ces chiffres est la suivante : une bonne moitié du trafic sur les réseaux ferrés de l'Europe des 15 (c'est-à-dire de l'ouest de l'UE) se rapporte au transport de personnes, part qui tombe à seulement 25 % environ dans l'Europe des 10 (est de l'UE). Comme il ressort de plusieurs études qu'il est fondamentalement plus coûteux de produire un voyageur-kilomètre qu'une tonne-kilomètre, il est probable que la concurrence portera principalement sur le marché voyageurs dans l'Europe des 15 et davantage sur le marché du fret dans l'Europe des dix. Deuxième conclusion : les compagnies ferroviaires de l'Europe des dix appliquent pour les services voyageurs des tarifs beaucoup moins élevés que dans l'Europe des 15 (ou que dans la plupart des pays extérieurs à l'UE), ce qui indique que les premières enregistrent peut-être des pertes sur ces services et transfèrent les coûts d'infrastructure sur le transport de marchandises. Ce fait et la propension bien connue de ces pays à imposer des redevances d'accès élevées aux transporteurs de fret signifient probablement que ces compagnies limitent la compétitivité des services marchandises pour soutenir les services voyageurs.

Une autre comparaison entre les tarifs marchandises est, elle aussi, révélatrice. Les moyennes enregistrées aux États-Unis (0.017 €/tonne-kilomètre) et au Canada (0.023 €/tonne-kilomètre) sont bien inférieures à celles de l'Europe des dix (0.031 €/tonne-kilomètre) et de l'Europe des 15.<sup>65</sup> (0.047 €/tonne-kilomètre). Ainsi qu'on l'a vu plus haut, toutefois, il se peut fort bien que les différences entre les États-Unis, le Canada, l'Europe des dix et l'Europe des 15 soient attribuables à des facteurs que l'on ne puisse réduire en renforçant la concurrence entre les transporteurs de marchandises (priorité aux services voyageurs dans les plans de circulation, domination du fret sur les services voyageurs, faibles charges par essieu, trains courts, etc.). Une amélioration de leur service ou une accentuation de leur orientation commerciale aiderait évidemment les transporteurs de fret à accroître leur part de marché, mais pour cela il leur faudrait modifier leur structure et régler les problèmes de priorité avec les services voyageurs. Il faudrait sans doute aussi mettre davantage l'accent sur les couloirs internationaux de transport de marchandises favorisés par la Commission européenne pour assurer une cohérence technologique ainsi que pour permettre de charger le plus possible les trains de marchandises, et de simplifier et mieux harmoniser les redevances d'accès.

Les données sur le nombre de voyageurs, les voyageurs-kilomètres et la durée moyenne des trajets (voir le tableau 7 de l'annexe 1) mettent en lumière un autre point. Non seulement les services voyageurs représentent une part importante de l'utilisation qui est faite des réseaux ferrés de l'UE mais les services de banlieue sur de courtes distances prennent une place très significative dans de nombreux systèmes. Par conséquent, la concurrence entre franchisés pour les marchés pourrait autant contribuer à réduire les coûts et à améliorer les services que la concurrence sur le marché pour les services à longue distance.

<sup>65</sup> On ne possède pas de données sur les tarifs du transport de marchandises au Royaume-Uni parce que les opérateurs sont privés et ne rendent pas compte à l'Union Internationale des Chemins de Fer. En l'espèce, il serait plus juste de parler de l'Europe des 14. Il est probable que l'ajout des données du Royaume-Uni, si elles existaient, ne modifierait pas la moyenne et qu'il ne changerait rien au fait que les tarifs marchandises sont nettement plus élevés dans l'Europe des dix et l'Europe des 15 qu'aux États-Unis et au Canada.

## 5. Conclusions

Cette étude met en évidence certains des changements et des réformes survenus dans le secteur des chemins de fer à travers le monde depuis 2004, et décrit brièvement les problèmes rencontrés et leur incidence sur le fonctionnement des services de transport ferroviaire.

Différents pays ont opté pour différentes solutions combinant un type de structure, la recherche d'un équilibre entre capitaux privés et capitaux publics, et des outils de réglementation pour s'assurer que les prix pour l'utilisateur final se situent à un bon niveau, que la productivité est élevée et que les subventions sont faibles, et que l'investissement et l'innovation garantissent un degré satisfaisant de qualité de service, de sécurité et de choix pour le consommateur ou l'expéditeur. Ce document n'a pas pour objet de donner une appréciation des avantages relatifs des différentes approches, mais il est possible de tirer quelques conclusions intéressantes des faits et des données qui y sont traités.

L'approche nord-américaine du transport de marchandises, fondée sur un mélange de concurrence intermodale et intramodale entre des compagnies ferroviaires verticalement intégrées à capitaux privés, donne globalement de bons résultats. Cependant, l'engorgement du réseau allant en s'accroissant, il sera peut-être nécessaire de relever les tarifs pour financer l'augmentation de la capacité. En revanche, les services voyageurs en Amérique du Nord sont principalement assurés par des entreprises publiques : Amtrak aux États-Unis et VIA au Canada. Les services interurbains au Mexique sont insignifiants. À ce jour, les prix pour l'utilisateur final ne sont pas réglementés, mais les deux transporteurs dépendent largement d'un financement public disproportionné par rapport à la place effective qu'ils occupent dans le système de transport de voyageurs (du fait de la grande étendue et de la densité de population relativement faible qui caractérisent les deux pays, le train ne peut facilement concurrencer les autres modes de transport sur les grandes distances et les liaisons interurbaines).

La Turquie, la Chine et l'Inde possèdent toujours des réseaux ferrés d'État verticalement intégrés, et aucune grande réforme n'est envisagée. La Russie, toutefois, a commencé à prendre ses distances avec ce modèle en créant une société par actions organisée en holding pour toutes les activités ferroviaires et en séparant l'infrastructure de l'exploitation, mais on attend de voir les résultats de ces changements.

Dans l'UE, la Commission a poursuivi le mouvement, entamé en 1991, de libéralisation, de séparation verticale entre l'infrastructure et l'exploitation, et de séparation horizontale entre les marchandises, le transport régional de voyageurs et les lignes interurbaines. Chaque pays membre est en train de réaliser les réformes nécessaires et, après un lent démarrage, on enregistre enfin des avancées sur le plan juridique et institutionnel depuis 2004. Cependant, dans les faits, la concurrence intramodale dans les États membres de l'UE peine à progresser. En conséquence, du moins à ce jour, les retombées positives que l'on espérait de la séparation et de la concurrence – accroissement du trafic, augmentation de la part de marché par rapport à d'autres modes de transport, développement des flux transfrontières ou baisse des tarifs pour l'utilisateur final – ne se sont pas vraiment concrétisées (mais le manque de données spécifiques fait qu'il est difficile de mesurer ces retombées avec précision).

La lente progression de la concurrence entre opérateurs, notamment pour les services voyageurs, peut s'expliquer par la séparation encore incomplète qui existe entre les gestionnaires d'infrastructure et les opérateurs et par le maintien d'une forte présence de l'État dans le secteur, qui produit de la discrimination en faveur des entreprises attitrées. Elle peut aussi être due à l'écheveau complexe des redevances d'accès. Néanmoins, les résultats obtenus sont probablement meilleurs qu'ils ne l'auraient été si l'on n'avait pas changé la structure des vieux systèmes.

La course aux franchises exclusives se développe plus nettement pour les lignes de banlieue et les services régionaux à faible densité subventionnés, mais seulement dans quelques pays. La Suède est une

bonne illustration d'appels d'offres relativement fructueux organisés pour l'octroi de petites franchises, tandis que le Royaume-Uni connaît quelques problèmes mais retient la leçon de ses succès et échecs passés. Cependant, les expériences vécues ces dernières années nous enseignent que le franchisage est un processus complexe et que certaines questions, comme le transfert de risques et l'incompatibilité entre la durée des franchises et la vie utile des actifs, demandent une grande attention et appellent une solution.

Le débat se poursuit sur la séparation verticale, les problèmes qu'elle pose, son coût et ses avantages, et de nouvelles études sont toujours réalisées sur le surcroît de coûts lié à ce type d'approche. À ce jour, il semble que l'on ait accordé moins d'attention à l'évaluation des avantages, qui pourraient bien dépasser les coûts, du moins dans certains cas. C'est pourquoi une réponse claire et nette n'a pas encore été trouvée à la question de savoir si une séparation verticale complète vaut mieux que d'autres approches structurelles, du moins dans des pays comme les États membres de l'UE où une concurrence côte à côte ne sera pas possible.

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## ANNEXE 1.

Tableau 1 : Indice de libéralisation du transport ferroviaire dans l'UE

|         | >800                    | Avancé |      | 600 to 800 |      | A l'heure |      | 300 to 600 |      | Retardé |      | <300 | Au départ |      | Absence de données |      |      |      |      |      |
|---------|-------------------------|--------|------|------------|------|-----------|------|------------|------|---------|------|------|-----------|------|--------------------|------|------|------|------|------|
| Pays    | Libéralisation globale* |        |      |            | 2007 |           | 2011 |            | LEX  |         |      |      | ACCESS    |      |                    |      | COM  |      |      |      |
|         | 2002                    | 2004   | 2007 | 2011       | Fret | Voyag.    | Fret | Voyag.     | 2002 | 2004    | 2007 | 2011 | 2002      | 2004 | 2007               | 2011 | 2002 | 2004 | 2007 | 2011 |
| GBR     | 805                     | 781    | 827  | 865        | 848  | 798       | 862  | 852        | 960  | 940     | 969  | 980  | 740       | 715  | 791                | 837  | 780  | 580  | 793  | 866  |
| DEU     | 760                     | 728    | 826  | 842        | 844  | 809       | 875  | 814        | 840  | 750     | 905  | 935  | 840       | 720  | 807                | 819  | 520  | 505  | 555  | 615  |
| SWE     | 760                     | 729    | 825  | 872        | 908  | 742       | 896  | 855        | 800  | 680     | 857  | 960  | 760       | 760  | 817                | 850  | 720  | 510  | 633  | 577  |
| NLD     | 720                     | 695    | 809  | 817        | 887  | 732       | 884  | 779        | 760  | 670     | 865  | 887  | 820       | 710  | 795                | 799  | 460  | 455  | 509  | 680  |
| AUT     | 430                     | 579    | 788  | 806        | 852  | 727       | 873  | 761        | 680  | 530     | 819  | 895  | 410       | 600  | 781                | 784  | 240  | 232  | 349  | 575  |
| DNK     | 720                     | 693    | 788  | 825        | 811  | 757       | 851  | 808        | 860  | 790     | 821  | 925  | 770       | 650  | 780                | 800  | 480  | 390  | 498  | 655  |
| CHE     | 650                     | 677    | 757  | 741        | 848  | 662       | 850  | 680        | 600  | 605     | 670  | 678  | 770       | 710  | 778                | 756  | 440  | 495  | 459  | 509  |
| POL     |                         | 549    | 739  | 737        | 786  | 692       | 826  | 699        |      | 600     | 783  | 803  |           | 530  | 728                | 720  |      | 175  | 490  | 518  |
| CZE     |                         | 549    | 738  | 738        | 798  | 679       | 783  | 705        |      | 530     | 839  | 786  |           | 560  | 713                | 726  |      | 215  | 279  | 422  |
| ROU     |                         |        | 722  | 726        | 797  | 650       | 834  | 650        |      |         | 822  | 783  |           |      | 697                | 711  |      |      | 440  | 487  |
| PRT     | 380                     | 668    | 707  | 737        | 797  | 619       | 847  | 676        | 700  | 820     | 829  | 884  | 290       | 605  | 676                | 701  | 220  | 190  | 200  | 434  |
| SVK     |                         | 458    | 700  | 738        | 756  | 643       | 793  | 702        |      | 535     | 853  | 857  |           | 430  | 662                | 708  |      | 260  | 381  | 381  |
| NOR     | 390                     | 589    | 698  | 729        | 836  | 574       | 861  | 652        | 580  | 570     | 777  | 769  | 410       | 595  | 679                | 719  | 140  | 135  | 274  | 482  |
| EST     |                         | 257    | 691  | 729        | 727  | 667       | 781  | 701        |      | 380     | 728  | 840  |           | 205  | 680                | 702  |      | 245  | 704  | 629  |
| LTU     |                         | 222    | 684  | 592        | 744  | 624       | 703  | 530        |      | 260     | 820  | 730  |           | 210  | 650                | 558  |      | 165  | 184  | 120  |
| ITA     | 560                     | 688    | 676  | 737        | 734  | 617       | 809  | 706        | 660  | 740     | 819  | 795  | 680       | 670  | 640                | 722  | 240  | 225  | 293  | 470  |
| SVN     |                         | 326    | 665  | 672        | 743  | 585       | 799  | 590        |      | 550     | 622  | 655  |           | 230  | 675                | 676  |      | 120  | 153  | 337  |
| BGR     |                         |        | 652  | 718        | 761  | 557       | 806  | 668        |      |         | 722  | 839  |           |      | 635                | 688  |      |      | 241  | 421  |
| LVA     |                         | 516    | 650  | 587        | 733  | 576       | 747  | 500        |      | 580     | 683  | 780  |           | 485  | 642                | 539  |      | 225  | 313  | 411  |
| BEL     | 395                     | 461    | 649  | 753        | 780  | 518       | 881  | 663        | 380  | 425     | 740  | 820  | 500       | 475  | 626                | 737  | 180  | 180  | 201  | 424  |
| HUN     |                         | 366    | 637  | 658        | 740  | 533       | 780  | 592        |      | 485     | 731  | 822  |           | 320  | 613                | 616  |      | 125  | 275  | 522  |
| FIN     | 410                     | 542    | 636  | 672        | 732  | 540       | 753  | 661        | 620  | 640     | 732  | 729  | 440       | 505  | 612                | 657  | 160  | 140  | 145  | 156  |
| ESP     | 195                     | 148    | 630  | 583        | 785  | 486       | 770  | 485        | 300  | 250     | 711  | 701  | 180       | 105  | 610                | 554  | 140  | 110  | 151  | 333  |
| LUX     | 280                     | 467    | 581  | 585        | 688  | 474       | 742  | 508        | 520  | 530     | 551  | 669  | 220       | 440  | 588                | 564  | 152  | 120  | 115  | 104  |
| FRA     | 340                     | 305    | 574  | 612        | 727  | 431       | 772  | 521        | 340  | 360     | 595  | 650  | 430       | 280  | 568                | 602  | 152  | 130  | 178  | 334  |
| GRC     | 210                     | 162    | 559  | 592        | 690  | 429       | 698  | 559        | 260  | 305     | 619  | 859  | 240       | 100  | 544                | 525  | 100  | 100  | 133  | 136  |
| IRL     | 295                     | 149    | 333  | 467        | 458  | 206       | 603  | 399        | 520  | 180     | 332  | 414  | 280       | 130  | 338                | 481  | 100  | 100  | 115  | 120  |
| Exemple | 17                      | 25     | 27   | 27         | 27   | 27        | 27   | 27         | 17   | 25      |      |      | 17        | 27   |                    |      | 17   |      |      |      |
| UE 15   | 484                     | 520    | 681  | 718        | 769  | 592       | 808  | 670        | 613  | 574     | 744  | 807  | 507       | 498  | 665                | 695  | 310  | 264  | 325  | 432  |
| UE 10   | -                       | 405    | 688  | 690        | 759  | 621       | 785  | 634        | 0    | 490     | 760  | 790  | 0         | 371  | 670                | 664  | 0    | 191  | 346  | 425  |
| UE 25   |                         | 480    | 683  | 706        | 765  | 604       | 799  | 655        |      | 545     | 751  | 800  |           | 454  | 667                | 683  |      | 239  | 333  | 429  |

\* L'indice de libéralisation globale est une moyenne pondérée des indices LEX (20) et ACCESS (80).

Source : rapport sur l'indice de libéralisation du transport ferroviaire pour l'année indiquée.

Nota : Les indices de 2002 ont été visuellement estimés à partir de graphiques. Les nombres affichés ont ensuite été calculés en multipliant les nombres d'origine par 4, 2 et 4, respectivement.

**Tableau 2: Résumé des données sur le rôle des entreprises ferroviaires extérieures et la place du train dans les transports nationaux**

| Pays | Nombre d'entreprises ferroviaires extérieures |        |       | Part de marché des entreprises ferroviaires extérieures (%) |          | Part de marché du transport de fret |      | Part de marché du transport de voyageurs |      |
|------|---|--------|-------|---|----------|-------------------------------------|------|--|------|
|      | Fret  | Voyage | Total | Fret*   | Voyage** | 2001                                | 2008 | 2001                                     | 2008 |
| AUT  |   |        | 18    | 17  | 10       | 29.6                                | 27.4 | 9.7                                      | 11.1 |
| BEL  |   |        | 6     | 10  | 0        | 10.4                                | 12.8 | 6.2                                      | 7.2  |
| BGR  | 6   |        | 6     | 29  | 0        | 36.7                                | 20.5 | 6.5                                      | 4.1  |
| CHE  | 7   | 14     | 21    | 32 AVG  |          | 41.5                                | 38.9 | 13.3                                     | 16.0 |
| CZE  | 40  | 6      | 46    | 18  | 1        | 30.1                                | 23.3 | 8.3                                      | 7.1  |
| DEU  |   |        | 247   | 25  | 12       | 18.6                                | 22.2 | 7.6                                      | 8.6  |
| DNK  | 2   | 2      | 4     | 100   | 9        | 8.2                                 | 8.7  | 9.0                                      | 9.4  |
| EST  | 3   | 3      | 6     | 56  | 55.3     | 68.6                                | 44.7 | 1.9                                      | 2.1  |
| ESP  | 5   | 0      | 5     | 5   | 0        | 6.8                                 | 4.1  | 5.1                                      | 5.5  |
| FIN  | 0   | 0      | 0     | 0   | 0        | 24.4                                | 26.5 | 4.8                                      | 5.4  |
| FRA  |   |        | 16    | 16.6  | NA       | 19.0                                | 15.9 | 8.5                                      | 10.1 |
| GBR  | 5   | 23     | 28    | 100   | 100      | 10.6                                | 13.4 | 5.3                                      | 6.8  |
| GRC  | 0   | 0      | 0     | 0   | 0        | 2.3                                 | 2.7  | 1.9                                      | 1.3  |
| HUN  | 0   |        | 20    | 90  | 0        | 13.3                                | 12.3 | 28.1                                     | 20.6 |
| IRL  | 0   | 0      | 0     | 0   | 0        | 4.0                                 | 0.6  | 3.2                                      | 3.4  |
| ITA  | 16  | 14     | 30    | 20  | 0        | 10.6                                | 11.7 | 5.4                                      | 5.7  |
| LTU  | 0   | 0      | 0     | 0   | 0        | 48.3                                | 41.9 | 2.5                                      | 1.0  |
| LUX  | 0   | 0      | 0     | 0   | 0        | 6.5                                 | 2.5  | 5.1                                      | 4.3  |
| LVA  |   |        | 2     | 20  | 0        | 72.6                                | 61.3 | 8.0                                      | 5.3  |
| NLD  | 26  | 5      | 31    | 100   | 12       | 3.4                                 | 4.9  | 9.4                                      | 9.7  |
| NOR  |   |        | 9     | ?   | 13       | 16.0                                | 15.0 | 5.0                                      | 5.1  |
| POL  |   |        | ?     | 30  | 5        |                                     | 30.0 | 6.9                                      | 6.2  |
| PRT  | 1   | 1      | 2     | ?   | 9.3      | 6.7                                 | 6.1  | 4.4                                      | 4.1  |
| ROU  | 20  | 4      | 24    | 50  | 2        | 43.1                                | 19.0 | 15.5                                     | 7.6  |
| SWE  | 4   | 5      | 9     | 56  | 10***    | 38.0                                | 35.3 | 8.0                                      | 9.3  |
| SVN  | 2   | 0      | 2     | 7   | 0        | 27.0                                | 17.8 | 2.9                                      | 2.9  |
| SVK  |   |        | 27    | 4   | 0        | 42.4                                | 23.4 | 8.0                                      | 6.5  |

\*% de tonnes-kilomètres

\*\* % de voyageurs-kilomètres

\*\*\* Transport régional essentiellement. La part du transport interurbain demeure nulle.

Source : Kirchner (2011)

**Tableau 3 : Voyageurs-kilomètres transportés par le train en pourcentage du total de voyageurs-kilomètres des transports de surface**

|                   | 1970 | 1975 | 1980 | 1985 | 1990 | 1995 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>UE15</b>       | 10.4 | 9.5  | 8.5  | 8.2  | 7.1  | 6.7  | 7.0  | 6.9  | 6.8  | 6.7  | 6.8  | 7.1  | 7.4  | 7.4  | 7.8  | 7.6  | 5.9  |
| <b>UE10</b>       | 50.1 | 40.1 | 35.8 | 32.6 | 29.1 | 16.2 | 12.3 | 11.6 | 10.3 | 10.3 | 9.9  | 9.0  | 8.6  | 8.3  | 7.8  | 7.3  | 7.0  |
| <b>UE25</b>       | 14.4 | 13.0 | 11.5 | 11.2 | 9.6  | 7.6  | 7.5  | 7.4  | 7.1  | 7.1  | 7.1  | 7.3  | 7.5  | 7.5  | 7.8  | 7.6  | 6.0  |
| <b>Australie</b>  | 11.1 | 6.6  | 5.5  | 4.8  | 4.6  | 4.2  | 4.3  | 4.5  | 4.4  | 4.3  | 4.1  | 4.1  | 4.3  | 4.5  | 4.8  | 5.1  |      |
| <b>Canada</b>     |      |      |      |      |      | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  |      |
| <b>Suisse</b>     | 17.2 | 14.4 | 13.1 | 12.5 | 13.8 | 12.9 | 13.1 | 13.6 | 14.3 | 14.5 | 14.7 | 15.6 | 15.9 | 16.4 | 16.5 | 17.0 | 17.4 |
| <b>Chine</b>      | 69.7 | 66.5 | 60.6 | 54.5 | 49.9 | 43.5 | 40.5 | 39.8 | 38.9 | 38.4 | 39.5 | 39.5 | 39.5 | 38.5 | 38.4 | 36.8 |      |
| <b>Inde</b>       |      |      |      |      |      |      | 94.3 | 14.8 | 15.5 | 15.0 | 14.2 | 12.6 |      |      |      |      |      |
| <b>Japon</b>      | 50.4 | 47.3 | 42.2 | 40.3 | 31.2 | 30.4 | 28.8 | 28.8 | 28.6 | 28.7 | 28.9 | 29.5 | 30.1 | 30.6 | 30.9 |      |      |
| <b>Corée</b>      |      |      |      |      |      |      |      | 18.1 | 17.5 | 15.5 | 21.5 | 21.4 | 21.5 | 21.4 | 21.2 |      |      |
| <b>Mexique</b>    | 6.6  | 3.8  | 3.3  | 2.8  | 1.9  | 0.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.1  |      |
| <b>Norvège</b>    | 8.1  | 6.9  | 7.2  | 5.8  | 4.9  | 5.2  | 5.7  | 5.5  | 4.9  | 4.8  | 5.0  | 5.2  | 5.3  | 5.4  | 5.5  | 5.4  | 4.6  |
| <b>Russie</b>     | 65.6 | 58.5 | 52.0 | 50.6 | 51.1 | 50.5 | 49.1 | 47.9 | 47.3 | 48.8 | 49.4 | 54.8 | 56.7 | 53.8 | 53.7 | 51.8 | -    |
| <b>Turquie</b>    | 11.9 | 6.5  | 7.6  | 6.6  | 4.5  | 3.6  | 3.0  | 3.2  | 3.1  | 3.5  | 2.9  | 2.7  | 2.7  | 2.6  | 2.4  | 2.5  | 0.7  |
| <b>États-Unis</b> | 0.4  | 0.2  | 0.2  | 0.2  | 0.3  | 0.2  | 0.2  | 0.2  | 0.2  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.2  |      |

Source : Voir l'indice 139 sous Publications à l'adresse [www.tgaassoc.com](http://www.tgaassoc.com).

**Tableau 4 : Tonnes-kilomètres de marchandises transportées par le train en pourcentage  
du total de tonnes-kilomètres des transports de surface**

|                   | 1970 | 1975 | 1980 | 1985 | 1990 | 1995 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>UE15</b>       | 32.0 | 23.4 | 21.5 | 20.4 | 20.2 | 15.4 | 15.6 | 14.9 | 14.4 | 14.4 | 14.3 | 13.7 | 14.3 | 14.2 | 14.2 | 11.6 | 12.8 |
| <b>UE10</b>       | 77.3 | 72.9 | 65.9 | 65.8 | 59.8 | 45.5 | 40.0 | 36.9 | 35.0 | 34.3 | 31.9 | 29.0 | 27.5 | 26.0 | 24.9 | 22.2 | 23.3 |
| <b>UE25</b>       | 46.6 | 40.6 | 36.7 | 35.6 | 30.9 | 21.7 | 20.1 | 19.0 | 18.5 | 18.5 | 18.1 | 17.1 | 17.4 | 17.0 | 16.8 | 14.3 | 15.6 |
| <b>Australie</b>  | 59.6 | 64.8 | 56.2 | 51.3 | 51.9 | 49.7 | 49.7 | 49.6 | 50.7 | 51.4 | 51.7 | 52.4 | 52.2 | 52.9 | 53.5 |      |      |
| <b>Canada</b>     |      |      |      |      |      |      | 73.7 | 75.3 | 75.2 | 75.7 | 71.6 | 74.5 | 75.3 | 77.4 | 71.7 | 68.3 |      |
| <b>Suisse</b>     | 53.0 | 46.6 | 49.0 | 44.2 | 41.2 | 39.6 | 44.3 | 43.4 | 42.0 | 40.8 | 42.2 | 42.0 | 42.7 | 40.8 | 41.0 | 38.2 | 39.4 |
| <b>Chine</b>      | 76.5 | 58.2 | 47.5 | 44.2 | 58.8 | 54.5 | 50.6 | 54.8 | 54.2 | 54.8 | 52.0 | 49.8 | 47.6 | 45.2 | 32.5 | 30.6 |      |
| <b>Inde</b>       |      |      |      |      |      |      | 84.4 | 36.7 | 36.8 | 36.5 | 36.6 | 30.0 | 36.4 |      |      |      |      |
| <b>Japon</b>      | 31.7 | 26.6 | 17.3 | 9.6  | 9.0  | 7.9  | 6.6  | 6.6  | 6.6  | 6.6  | 6.4  | 6.4  | 6.3  | 6.2  | 6.0  | 5.7  | 6.2  |
| <b>Corée</b>      |      |      |      |      |      |      |      | 10.4 | 10.5 | 10.1 | 9.5  | 9.1  | 8.8  | 9.4  | 9.9  |      |      |
| <b>Mexique</b>    | 34.5 | 38.5 | 33.4 | 31.2 | 25.1 | 18.8 | 19.9 | 19.5 | 21.1 | 21.7 | 21.4 | 26.1 | 26.0 | 25.8 | 24.7 | 24.6 | 26.3 |
| <b>Norvège</b>    | 31.2 | 24.8 | 24.0 | 21.6 | 13.7 | 9.9  | 9.7  | 10.2 | 8.9  | 8.1  | 9.3  | 9.7  | 10.4 | 10.7 | 11.1 | 12.3 | 11.7 |
| <b>Russie</b>     | 76.2 | 69.3 | 59.8 | 59.8 | 59.0 | 57.0 | 58.6 | 58.0 | 56.8 | 57.0 | 56.4 | 56.4 | 57.5 | 59.3 | 60.3 | 57.9 | 59.4 |
| <b>Turquie</b>    | 22.5 | 18.0 | 8.9  | 9.1  | 5.7  | 6.8  | 4.3  | 3.7  | 3.5  | 4.8  | 5.2  | 5.0  | 4.9  | 4.8  | 4.6  | 4.4  | 4.7  |
| <b>États-Unis</b> | 39.5 | 36.5 | 38.7 | 36.7 | 37.5 | 40.2 | 41.5 | 42.1 | 41.5 | 42.1 | 43.5 | 43.9 | 45.2 | 45.2 | 44.6 |      |      |

Source : Voir l'indice 139 sous Publications à l'adresse [www.tgaassoc.com](http://www.tgaassoc.com).

Tableau 5 : Évolution du trafic de marchandises sur les réseaux ferrés de l'UE, 2001, 2003 et 2010

| Réseau ferré |             | Pourcentage de trafic international en tonnes |      |      | Longueur moyenne du trajet (km) |       |       |
|--------------|-------------|---|------|------|---------------------------------|-------|-------|
|              |             | 2001  | 2003 | 2010 | 2001                            | 2003  | 2010  |
| <b>AUT</b>   | ÖBB         | 75.4  | 76.3 | 65.0 | 202.9                           | 206.7 | 196.4 |
| <b>BEL</b>   | SNCB/NMBS   | 83.7  | 68.3 | 61.3 | 63.7                            | 130.9 | 148.9 |
| <b>FIN</b>   | VR          | 42.4  | 42.6 | 35.0 | 236.5                           | 231.0 | 272.4 |
| <b>FRA</b>   | SNCF        | 45.1  | 43.2 | 18.7 | 399.1                           | 388.1 | 354.5 |
| <b>DEU</b>   | DB AG       | 34.9  | 36.5 | 36.5 | 268.8                           | 276.0 | 313.4 |
| <b>GRC</b>   | OSE         | 87.2  | 70.6 | 86.4 |                                 | 175.9 | 184.6 |
| <b>ITA</b>   | FS          | 61.7  | 62.6 | 53.8 | 279.4                           | 273.2 | 284.2 |
| <b>LUX</b>   | CFL Cargo   | 89.8  | 84.4 | 75.3 | 34.4                            | 35.5  | 31.4  |
| <b>PRT</b>   | CP CARGA    | 10.4  | 10.4 | 5.1  | 235.2                           |       | 209.5 |
| <b>ESP</b>   | RENFE       | 19.0  | 18.8 | 15.6 | 463.0                           | 447.5 | 461.8 |
| <b>CZE</b>   | CD          | 59.3  | 62.2 | 60.6 | 189.4                           | 183.1 | 180.9 |
| <b>SVK</b>   | ZSSK Cargo  | 78.9  | 83.5 | 88.6 | 203.9                           | 200.2 | 198.6 |
| <b>HUN</b>   | MÁV Rt.     | 62.6  | 69.6 | 74.3 | 170.5                           | 177.3 | 200.2 |
| <b>POL</b>   | PKP         | 41.1  | 46.5 | 36.3 | 287.5                           | 293.0 | 268.1 |
| <b>SVN</b>   | SZ          | 90.6  | 92.0 | 77.4 | 191.7                           | 190.9 | 210.4 |
| <b>BRG</b>   | BDZ         | 14.5  | 20.4 | 30.5 | 254.3                           | 262.7 | 218.2 |
| <b>ROU</b>   | CFR Marfa   | 18.0  | 25.3 | 12.1 | 221.7                           | 213.2 | 182.8 |
| <b>EST</b>   | EVR         | 100.0   | 90.8 | 85.7 |                                 | 218.2 | 211.1 |
| <b>LVA</b>   | LDZ         | 93.1  | 95.2 | 97.4 | 374.3                           | 364.1 | 268.0 |
| <b>LTU</b>   | LG          | 78.3  | 87.5 | 70.6 | 265.3                           | 263.7 | 279.5 |
| <b>CHE</b>   | SBB CFF FFS |   | 58.1 | 53.4 |                                 | 169.7 | 163.3 |
| <b>TUR</b>   | TCDD        | 6.6   | 11.1 | 11.6 |                                 | 549.6 | 470.6 |
| <b>HRV</b>   | HZ          | 78.7  | 68.7 | 83.6 | 191.9                           | 212.1 | 214.5 |
| <b>UE15</b>  |             | 51.6  | 48.2 | 42.6 | 252.7                           | 270.1 | 278.3 |
| <b>UE10</b>  |             | 50.0  | 46.6 | 60.7 | 163.7                           | 201.8 | 232.1 |
| <b>UE25</b>  |             | 50.8  | 47.4 | 50.5 | 208.1                           | 235.9 | 258.1 |

Source : Voir l'indice 139 sous Publications à l'adresse [www.tgaassoc.com](http://www.tgaassoc.com)

Tableau 6 : Comparaisons succinctes des tarifs ferroviaires internationaux (données de 2010)

|     |                       | Recettes voyageurs<br>(000,000 €) | Voyageurs-km   | Rec/voy-km   | Recettes marchandises<br>(000,000€) | Tonne-km       | Rec/tonne-km |
|-----|-----------------------|-----------------------------------|----------------|--------------|-------------------------------------|----------------|--------------|
| AUT | ÖBB                   | 1,629                             | 10,186         | 0.160        | 1,925                               | 26,045         | 0.074        |
| BEL | SNCB/NMBS             | 1,393                             | 10,493         | 0.133        | 267                                 | 6,542          | 0.041        |
| DEU | DB AG*                | 13,357                            | 77,221         | 0.173        | 4,584                               | 105,800        | 0.043        |
| DNK | DSB                   | 1,192                             | 7,405          | 0.161        |                                     |                |              |
| ESP | RENFE                 | 1,705                             | 20,977         | 0.081        | 231                                 | 7,419          | 0.031        |
| FIN | VR                    | 422                               | 3,959          | 0.107        | 331                                 | 9,750          | 0.034        |
| FRA | SNCF                  | 12,513                            | 84,860         | 0.147        | 1,134                               | 22,840         | 0.050        |
| IRL | CIE                   | 164                               | 1,677          | 0.098        | 5                                   | 92             | 0.055        |
| ITA | FS                    | 5,048                             | 43,349         | 0.116        | 892                                 | 13,405         | 0.067        |
| LUX | CFL                   | 203                               | 347            | 0.584        |                                     |                |              |
| NLD | NS                    | 2,835                             | 15,352         | 0.185        |                                     |                |              |
| PRT | CP                    | 210                               | 3,718          | 0.057        |                                     |                |              |
| PRT | CP Carga              |                                   |                |              | 59                                  | 1,932          | 0.030        |
| SWE | GREEN CARGO           |                                   |                |              | 557                                 | 17,100         | 0.033        |
| SWE | SJ                    | 667                               | 6,774          | 0.098        |                                     |                |              |
| GBR | ATOC                  | 7,609                             | 54,100         | 0.141        |                                     |                |              |
|     | <b>Moyenne UE15**</b> | <b>41,337</b>                     | <b>340,418</b> | <b>0.121</b> | <b>9,985</b>                        | <b>210,925</b> | <b>0.047</b> |
| BGR | BDZ                   | 41                                | 2,105          | 0.020        | 74                                  | 2,352          | 0.032        |
| BGR | BRC                   |                                   |                |              | 14                                  | 630            | 0.022        |
| CZE | CD                    | 262                               | 6,553          | 0.040        | 558                                 | 13,564         | 0.041        |
| EST | EVR                   |                                   |                |              | 44                                  | 6,261          | 0.007        |
| HUN | FLOYD                 |                                   |                |              | 5                                   | 102            | 0.049        |
| HUN | GySEV/RÖEE            | 16                                | 186            | 0.089        | 43                                  | 740            | 0.057        |
| HUN | MAV                   | 246                               | 5,259          | 0.047        |                                     |                |              |
| LTU | LG                    | 22                                | 373            | 0.060        | 346                                 | 13,431         | 0.026        |
| LVA | LDZ                   | 15                                | 83             | 0.182        | 250                                 | 13,175         | 0.019        |
| POL | PKP                   | 656                               | 15,715         | 0.042        | 1,164                               | 34,327         | 0.034        |
| ROU | CFR Calatori          | 466                               | 5,248          | 0.089        |                                     |                |              |
| ROU | CFR Marfa             |                                   |                |              | 237                                 | 5,611          | 0.042        |
| ROU | CTV                   |                                   |                |              | 13                                  | 614            | 0.022        |
| ROU | GFR                   |                                   |                |              | 124                                 | 2,984          | 0.041        |
| ROU | TFG                   |                                   |                |              | 14                                  | 319            | 0.044        |
| ROU | SERVIRANS             |                                   |                |              | 35                                  | 1,152          | 0.030        |
| SVN | SZ                    | 79                                | 813            | 0.097        | 118                                 | 3,617          | 0.033        |
| SVK | ZSSK                  | 85                                | 2,291          | 0.037        |                                     |                |              |
| SVK | ZSSK Cargo            |                                   |                |              | 328                                 | 8,180          | 0.040        |
|     | <b>Moyenne UE10</b>   | <b>1,890</b>                      | <b>38,626</b>  | <b>0.049</b> | <b>3,364</b>                        | <b>107,059</b> | <b>0.031</b> |
| CHE | BLS                   | 129                               | 834            | 0.154        |                                     |                |              |
| CHE | BLS Cargo             | -                                 |                |              | 126                                 | 952            | 0.132        |
| CHE | SBB CFF FFS           | 2,321                             | 16,868         | 0.138        | 652                                 | 7,778          | 0.084        |
| NOR | NSB                   | 526                               | 2,750          | 0.191        |                                     |                |              |
| RUS | RZD                   | 1,066                             |                |              | 23,277                              | 2,011,308      | 0.012        |
| TUR | TCDD                  | 99                                | 5,491          | 0.018        | 230                                 | 11,300         | 0.020        |
| CA  | Total Canada          | 207                               |                |              | 6,905                               | 299,731        | 0.023        |
| USA | AAR Class I           | -                                 |                |              | 42,637                              | 2,468,738      | 0.017        |
| USA | AMTRAK                | 1,303                             | 10,197         | 0.128        |                                     |                |              |
| JPN | CJRC                  | 9,529                             | 52,742         | 0.181        |                                     |                |              |
| JPN | EJR                   | 13,960                            | 125,532        | 0.111        |                                     |                |              |
| JPN | HRC                   | 588                               | 4,249          | 0.138        |                                     |                |              |
| JPN | JFRC                  |                                   |                |              | 999                                 | 20,255         | 0.049        |
| JPN | ShRC                  | 198                               | 1,379          | 0.143        |                                     |                |              |
| JPN | KRC                   | 1,014                             | 8,075          | 0.126        |                                     |                |              |
| JPN | WJRC                  | 6,316                             | 53,655         | 0.118        |                                     |                |              |
| KOR | KORAIL                | 1,056                             | 33,012         | 0.032        | 215                                 |                |              |

\* Données tirées du rapport annuel de DB pour le transport ferroviaire de marchandises uniquement (à l'exclusion du transport routier).

\*\* Absence de données pour la Grèce et pas de données sur le transport de marchandises pour le Royaume-Uni.

Source : Statistiques ferroviaires internationales de l'UIC, 2010, tableaux 51, 61 et 72

Tableau 7: Trafic voyageurs commercial sur le territoire national

|     | Compagnie ferroviaire | VOYAGEURS (000) |                       |                     |           |                      | Voyageurs-kilomètres (000,000) |                       |                     |         |                      | Longueur moyenne du trajet (Km) |                       |                     |       |
|-----|-----------------------|-----------------|-----------------------|---------------------|-----------|----------------------|--------------------------------|-----------------------|---------------------|---------|----------------------|---------------------------------|-----------------------|---------------------|-------|
|     |                       | Banlieue        | Interurbain internat. | Interurbain nation. | Total     | Pourcentage banlieue | Banlieue                       | Interurbain internat. | Interurbain nation. | Total   | Pourcentage banlieue | Banlieue                        | Interurbain internat. | Interurbain nation. | Total |
| BEL | SNCB/NMBS             | 144,334         | 15,949                | 60,096              | 220,379   | 65.5                 | 5,684                          | 1,488                 | 3,321               | 10,493  | 54.2                 | 39.4                            | 93.3                  | 55.3                | 47.6  |
| DEU | DB AG                 | 1,226,432       | 13,910                | 656,235             | 1,896,577 | 64.7                 | 17,916                         | 4,931                 | 54,374              | 77,221  | 23.2                 | 14.6                            | 354.5                 | 82.9                | 40.7  |
| DNK | DSB                   |                 | 35,355                | 162,880             | 198,234   |                      |                                | 1,512                 | 5,893               | 7,405   | -                    |                                 | 42.8                  | 36.2                | 37.4  |
| ESP | RENFE                 |                 | 712                   | 453,035             | 453,747   |                      |                                | 557                   | 20,420              | 20,977  | -                    |                                 | 782.3                 | 45.1                | 46.2  |
| FIN | VR                    |                 | 346                   | 68,604              | 68,950    |                      |                                | 90                    | 3,869               | 3,959   | -                    |                                 | 260.1                 | 56.4                | 57.4  |
| FRA | SNCF                  | 690,081         | 21,690                | 365,657             | 1,077,429 | 64.0                 | 14,631                         | 6,805                 | 63,424              | 84,860  | 17.2                 | 21.2                            | 313.7                 | 173.5               | 78.8  |
| GBR | ATOC                  | 586,294         |                       | 744,887             | 1,331,180 | 44.0                 | 15,067                         | ...                   | 38,249              | 53,316  | 28.3                 | 25.7                            |                       | 51.3                | 40.1  |
| IRL | CIE                   |                 |                       | 38,226              | 38,226    |                      |                                |                       | 1,677               | 1,677   | -                    |                                 |                       | 43.9                | 43.9  |
| NLD | NS                    | ...             | ...                   | ...                 | 324,005   |                      | 1,890                          | 176                   | 13,286              | 15,352  | 12.3                 |                                 |                       |                     | 47.4  |
| PRT | CP                    | 79,837          | 140                   | 50,105              | 130,082   | 61.4                 | 1,291                          | 103                   | 2,325               | 3,718   | 34.7                 | 16.2                            | 737.1                 | 46.4                | 28.6  |
| BGR | BDZ                   | -               | 446                   | 29,670              | 30,116    | -                    | -                              | 60                    | 2,045               | 2,105   | -                    |                                 | 135.0                 | 68.9                | 69.9  |
| CZE | CD                    | 76,375          | 2,338                 | 83,977              | 162,690   | 46.9                 | 2,172                          | 326                   | 4,055               | 6,553   | 33.1                 | 28.4                            | 139.4                 | 48.3                | 40.3  |
| EST | EVR                   |                 | 98                    | 4,707               | 4,805     |                      |                                | 18                    | 230                 | 248     | -                    |                                 | 183.7                 | 48.9                | 51.6  |
| HUN | MAV                   | 56,377          | 1,988                 | 46,388              | 104,753   | 53.8                 | 1,547                          | 338                   | 3,374               | 5,259   | 29.4                 | 27.4                            | 170.0                 | 72.7                | 50.2  |
| LTU | LG                    | 844             | 881                   | 2,638               | 4,363     | 19.3                 | 23                             | 147                   | 203                 | 373     | 6.2                  | 27.3                            | 166.9                 | 77.0                | 85.5  |
| LUX | CFL                   | -               | 5,374                 | 12,621              | 17,995    |                      |                                | 101                   | 246                 | 347     | -                    |                                 | 18.8                  | 19.5                | 19.3  |
| LVA | LDZ                   | -               | 320                   | 18                  | 338       |                      |                                | 79                    | 4                   | 83      | -                    |                                 | 246.9                 | 222.2               | 245.6 |
| POL | PKP                   | 94,135          | 1,695                 | 92,852              | 188,682   | 49.9                 | 4,818                          | 516                   | 10,381              | 15,715  | 30.7                 | 51.2                            | 304.4                 | 111.8               | 83.3  |
| ROU | CFR Calatori          | 20,710          | 442                   | 36,518              | 57,670    | 35.9                 | 602                            | 129                   | 4,517               | 5,248   | 11.5                 | 29.1                            | 291.9                 | 123.7               | 91.0  |
| SVN | SZ                    | 6,574           | 926                   | 8,720               | 16,220    | 40.5                 | 196                            | 134                   | 483                 | 813     | 24.1                 | 29.9                            | 144.5                 | 55.4                | 50.1  |
| SVK | ZSSK                  |                 | 2,858                 | 42,146              | 45,004    |                      |                                | 188                   | 2,104               | 2,291   | -                    |                                 | 65.7                  | 49.9                | 50.9  |
| NOR | NSB                   |                 |                       |                     | 50,476    |                      |                                | 72                    | 2,678               | 2,750   | -                    |                                 |                       |                     | 54.5  |
| JPN | CJRC                  | 266,035         |                       | 249,030             | 515,065   | 51.7                 | 6,851                          | -                     | 45,891              | 52,742  | 13.0                 | 25.8                            |                       | 184.3               | 102.4 |
| JPN | EJR                   | 3,794,950       |                       | 2,260,612           | 6,055,562 | 62.7                 | 73,737                         | -                     | 51,795              | 125,532 | 58.7                 | 19.4                            |                       | 22.9                | 20.7  |
| JPN | HRC                   | 74,308          |                       | 52,669              | 126,977   | 58.5                 | 1,426                          | -                     | 2,823               | 4,249   | 33.6                 | 19.2                            |                       | 53.6                | 33.5  |
| JPN | KRC                   | 196,514         |                       | 101,340             | 297,854   | 66.0                 | 3,937                          | -                     | 4,138               | 8,075   | 48.8                 | 20.0                            |                       | 40.8                | 27.1  |
| JPN | ShRC                  | 28,641          |                       | 16,469              | 45,110    | 63.5                 | 598                            | -                     | 781                 | 1,379   | 43.4                 | 20.9                            |                       | 47.4                | 30.6  |
| JPN | WJRC                  | 1,133,071       |                       | 645,345             | 1,778,416 | 63.7                 | 23,411                         | -                     | 29,203              | 52,614  | 44.5                 | 20.7                            |                       | 45.3                | 29.6  |
| KOR | KORAIL                | 9,887           |                       | 1,051,054           | 1,060,941 | 0.9                  | 603                            | -                     | 32,409              | 33,012  | 1.8                  | 61.0                            |                       | 30.8                | 31.1  |

Source : Statistiques ferroviaires internationales de l'UIC, 2010, tableau 51.





## COMPTE RENDU DE LA DISCUSSION

*Par le Secrétariat*

Le Président, M. Alberto Heimler, ouvre la table ronde en faisant remarquer que cette discussion est la troisième de ce qui s'est avéré être un cycle de tables rondes consacrées par l'OCDE au transport ferroviaire, dont la dernière remonte à huit ans. La première d'entre elles, qui a eu lieu en 1997, avait été organisée alors que la concurrence venait tout juste d'être introduite dans le secteur ferroviaire, une évolution qui s'était accompagné de grandes espérances sur les avantages qui pourraient en résulter. La deuxième table ronde, tenue en 2005, avait eu une tonalité plus réaliste, donnant à penser que si des mesures avaient bien été prises en vue d'opérer une séparation verticale dans le secteur, elles n'avaient cependant pas abouti à une concurrence importante dans les services de transport de marchandises ou de voyageurs. Huit ans après, selon le Président, la conviction s'est désormais plus largement imposée que la concurrence a des retombées bénéfiques pour les usagers du rail et le nombre de pays dans laquelle elle s'exerce aujourd'hui dans ce secteur s'est considérablement accru. Cela étant, il s'agit d'un secteur dans lequel l'introduction de la concurrence ne s'est pas fait sans mal et certains problèmes persistent.

Le Président adresse sa première question à la délégation de l'UE. Il trouve surprenante la séquence retenue par la Commission européenne pour injecter de la concurrence dans le secteur ferroviaire : d'abord séparation verticale, puis concurrence entre les opérateurs et enfin harmonisation, du fait que l'harmonisation technique, celle de la signalisation et de la terminologie constituent encore des problèmes majeurs ayant une incidence sur la capacité des nouveaux concurrents transfrontaliers à proposer des services de transport ferroviaire sur les marchés adjacents. Il demande si le 4<sup>e</sup> paquet de l'UE visant la libéralisation du transport ferroviaire, publié en janvier 2013, s'attaque à ces questions et quel en est le calendrier.

En réponse, le délégué de l'UE explique qu'aucune séquence de cette nature n'a été prévue et que l'UE a plutôt tenté de mettre en place simultanément ces trois piliers, car ils se renforcent mutuellement. L'interopérabilité est un objectif essentiel de la politique de l'Union concernant le secteur ferroviaire, mais cet objectif est difficile à atteindre en raison de la coexistence de 27 systèmes différents créés avant la formation de l'UE qui, précisément, avait été délibérément conçus pour éviter toute interopérabilité. La principale raison pour laquelle cet objectif est une priorité essentielle pour l'UE concerne les gains d'efficacité et en particulier les économies d'envergure pour les compagnies de chemins de fer, mais aussi pour d'autres intervenants de la chaîne d'approvisionnement comme les fabricants de matériel roulant et de voies ferrées. En outre, un marché unique stimule l'innovation. Certains obstacles à l'interopérabilité, comme les différences d'écartement des rails, ne peuvent être supprimés, mais il est possible, en appliquant des normes communes, de se doter d'un matériel roulant capable de circuler sur différents types de voies. Il convient en outre de lever les obstacles politiques et administratifs, par exemple en rationalisant les milliers de règles différentes régissant les systèmes ferroviaires européens.

Le délégué expose ensuite ce que propose le 4<sup>e</sup> paquet ferroviaire pour parvenir à une plus grande interopérabilité. L'objectif est de créer un cadre au sein duquel l'Agence ferroviaire européenne (AFE) fera office de guichet unique d'homologation du matériel roulant et de délivrance des certificats de sécurité, etc., de sorte qu'une entité agréée par l'AFE pourra exercer son activité dans n'importe quel pays de l'UE. Ce dispositif facilitera l'arrivée de nouveaux concurrents tout en réduisant les risques pour les sociétés ferroviaires. Deuxièmement, le 4<sup>e</sup> paquet ferroviaire propose la mise en place d'un réseau de gestionnaires

d'infrastructure pour permettre une coopération lors de l'exploitation de services internationaux de transport de marchandises comme de voyageurs. En outre, l'objectif de normalisation technique fixé de longue date par l'UE en vue de parvenir à une interopérabilité des systèmes est maintenu dans le cadre de l'AFE et sa réalisation progresse, même si ces avancées ne sont parfois pas aussi rapides qu'on le souhaiterait. Enfin, un certain nombre de projets menés en vue de parvenir à l'interopérabilité ont été financés soit par les États membres de l'UE soit sur le budget de l'Union. On peut notamment citer le projet du réseau transeuropéen de transport (RTE-T), les couloirs de fret ferroviaire et le déploiement du système européen de surveillance du trafic ferroviaire (en abrégé ERTMS, pour European Rail Traffic Management System), qui visent à venir à bout des différences de signalisation et de terminologie.

La question du calendrier est opportune puisqu'il y a quelques jours, le 10 juin dernier, le Conseil des ministres européens des Transports de l'UE a accepté que le texte du 4<sup>e</sup> paquet ferroviaire visant l'interopérabilité des systèmes soit présenté au parlement européen. Selon le délégué, le délai imparti pour que l'AFE devienne un guichet unique sera porté à cinq ans après l'entrée en vigueur de la directive, les États membres ayant fait savoir qu'ils ont besoin de temps pour mener à bien la transition. À supposer que le parlement européen approuve ce texte en novembre 2013, il prendrait donc effet en 2018. Le reste des mesures prévues, comme la proposition de mettre en place un réseau de gestionnaires d'infrastructure, en est encore au stade de l'examen par le Conseil et le calendrier s'y rapportant est donc plus incertain.

Le Président donne ensuite la parole au Danemark. La contribution de ce pays, fait-il remarquer, semble critiquer le 4<sup>e</sup> paquet, jugé trop volumineux, tout en approuvant l'objectif de réalisation de gains d'efficacité dans les services de transport ferroviaire et le recours à la concurrence pour améliorer l'efficacité au Danemark. Le Président prie la délégation danoise d'apporter des éclaircissements sur ces questions.

Un délégué du Danemark explique que, comme le précise la contribution écrite, le ministre des Transports danois a tout d'abord été d'avis qu'il était trop tôt pour introduire encore une nouvelle dose de concurrence dans les services de transport ferroviaire de son pays et que l'accent devait être mis sur le bon fonctionnement des règles en vigueur et la recherche de gains d'efficacité au moyen du développement des infrastructures. Le délégué estime que cette opinion se fondait sur l'expérience problématique du Royaume-Uni, la conviction que de nouveaux appels d'offres auraient pour effet de réduire les économies d'échelle et d'augmenter les coûts, et l'idée qu'il convenait de résoudre d'abord les problèmes liés à la signalisation et d'autres problèmes techniques avant qu'une réelle concurrence ne puisse s'instaurer. Cela étant, l'autorité danoise de la concurrence et de la protection des consommateurs, que ce délégué représente, est favorable à une accélération du renforcement de la concurrence sur ce marché tout en estimant que les futures règles doivent laisser suffisamment de latitude aux États membres pour pouvoir prendre en compte des facteurs comme les économies d'échelle et le développement des infrastructures lors du lancement d'appels d'offres concernant les services de transport ferroviaire.

Le Président pose à la délégation de l'UE une deuxième question, ayant trait aux aides publiques. La plupart des pays européens accordent des aides publiques aux gestionnaires d'infrastructures ferroviaires pour les aider à financer leurs investissements et à couvrir leurs frais d'exploitation. Comme le fait remarquer la contribution de l'UE, ces aides publiques ne faussent pas la concurrence dans la mesure où l'infrastructure ferroviaire est un monopole. Cela étant, les différents niveaux d'aides publiques peuvent donner lieu à une tarification différenciée de l'accès au réseau et donc à des différences de prix des billets pour les voyageurs dans les différents pays. Des aides publiques sont également versées aux compagnies de chemins de fer pour couvrir leurs obligations de service universel, ce qui a un impact plus direct sur la concurrence. Ces aides sont-elles bénéfiques ou, au contraire, le marché pourrait-il s'en dispenser et remplir tout de même les obligations de service universel ?

Un délégué de l'UE confirme que les transferts publics aux infrastructures ferroviaires ne sont contraires à aucune règle européenne relative aux aides publiques et ne sont, dans les faits, même pas

considérés comme telles. En revanche, les transferts en faveur des compagnies de chemins de fer se livrant concurrence dans le domaine des services sont considérés comme des aides. Cela étant, il souligne qu'il n'appartient pas à la Commission européenne, en tant qu'autorité de contrôle des aides publiques dans l'UE, de décider si ces aides sont nécessaires, mais plutôt si elles sont proportionnées et si elles risquent de fausser la concurrence sur le marché intérieur. Les États membres sont libres de financer ce que l'UE appelle un « service d'intérêt économique général » et la Commission européenne ne s'y opposera sans doute que si la définition du service en question est par trop disproportionnée, ce qui serait le cas par exemple si un État membre décidait que le secteur ferroviaire dans son ensemble devait bénéficier de financements publics. En réalité, le rôle de la Commission européenne est de vérifier que les sommes octroyées sont raisonnables, ce qu'elle fait à l'aide de calculs et en se servant de règles communes définissant ce qui constitue le rendement raisonnable qu'une compagnie peut dégager en fournissant un service d'intérêt économique général.

En ce qui concerne la question de savoir si les aides sont nécessaires pour certains itinéraires ou certains services universels, l'opinion prévaut au sein de l'UE que certaines lignes ne sont pas commercialement viables et seraient moins bien desservies si leur exploitation étaient entièrement laissée entre les mains du marché. Chaque État membre de l'UE a entière latitude pour décider quelles lignes il souhaite subventionner pour des raisons d'intégration économique ou de cohésion sociale par exemple. Pour évaluer si le montant de l'aide est raisonnable, la Commission se trouve en général face à deux situations. Dans un cas de figure, représenté par le Royaume-Uni, la franchise ferroviaire couvre à la fois des lignes rentables et des lignes qui ne le sont pas, les premières subventionnant les deuxièmes de sorte que le rendement global de la franchise est attrayant pour les investisseurs privés. Un deuxième cas de figure est celui où le financement d'une ligne donnée se fonde sur le coût estimé de son exploitation. Dans le climat actuel tout particulièrement, il existe dans toute l'Europe un désir général de dépenser de manière plus efficiente les deniers publics et le 4<sup>e</sup> paquet ferroviaire propose de recourir à un plus grand nombre d'appels d'offres, au motif que cela réduirait le risque de compensation de service public excessive.

Le Président exprime l'avis que cet exposé souligne à quel point il importe que les pouvoirs publics prennent des décisions avisées concernant le recours aux aides publiques et procèdent en outre à une évaluation de l'impact sur la concurrence. Il est surpris par l'ampleur des aides publiques accordées au secteur ferroviaire au Royaume-Uni, décrites dans la contribution de ce pays, et par le fait que ces aides ne cessent d'augmenter au fil du temps. Il demande à la délégation britannique de s'exprimer sur le niveau de ces aides et d'expliquer comment il est déterminé.

Un délégué du Royaume-Uni répond que, concernant le niveau des financements publics, l'autorité britannique de régulation du secteur ferroviaire se préoccupe de trois aspects. Le premier consiste à déterminer le coût réel du transport ferroviaire. Cet exercice a l'air simple mais dans de nombreux pays de l'UE, les compagnies de chemins de fer et parfois aussi les pouvoirs publics, nationaux ou locaux, sont passés maîtres dans l'art de dissimuler ou de transférer les coûts. Deuxièmement, il est extrêmement important de s'assurer que la dépense effectuée est efficiente, pour éviter un gonflement des subventions destinées à compenser l'inefficience de certaines activités. Troisièmement, le niveau des subventions doit être prévisible ; dans le passé, le niveau des subventions accordées au secteur ferroviaire a causé un choc dû au fait que le mode de gestion des actifs retenu pour ce secteur est en général très peu satisfaisant. Ces chocs de coûts sont préjudiciables à la fois pour l'exploitation et pour l'investissement. À l'instar de certains de ses homologues, le régulateur britannique a hérité d'une situation donnée et une partie de l'augmentation des coûts survenue ces dix dernières années est imputable aux tentatives menées pour remédier à certains aspects de cet héritage, comme le retard pris en matière de renouvellement des équipements du réseau, qui a permis d'économiser des coûts à court terme en alourdissant largement les coûts à plus long terme. Le niveau des subventions octroyées au secteur ferroviaire en Grande-Bretagne est une question politique, le principal bailleur de fonds étant le ministère des Transports, qui représente le gouvernement anglais et gallois, Transport Scotland apportant aussi, pour le compte du gouvernement

écossais, une part importante des financements. La procédure de contrôle des dépenses, qui couvre une période de cinq ans, est conçue pour déterminer ce que les bailleurs de fonds souhaitent obtenir et quels financements ils ont accordés à cette fin. Il appartient ensuite au régulateur du secteur ferroviaire de veiller à ce que les résultats obtenus cadrent avec les financements mis à disposition et à ce que les montants en question débouchent sur des dépenses efficaces.

Le Président en vient ensuite à la question de l'harmonisation technique. Dans un pays d'Europe, l'Espagne, l'écartement des voies n'est pas le même que dans les autres. L'Espagne pourrait de ce fait rester un marché isolé, à l'instar des îles que sont la Grande-Bretagne et l'Irlande. L'autorité de la concurrence espagnole a recommandé au gouvernement du pays d'adopter certaines mesures en vue de renforcer la concurrence dans les services de transport ferroviaire, mesures qui ne semblent toutefois pas inclure la création d'une entreprise de location qui serait propriétaire de matériel roulant qu'elle louerait aux concessionnaires exploitant les lignes, comme c'est le cas au Royaume-Uni. Ce système permettrait de réduire les obstacles à l'entrée. Le Président demande à la délégation espagnole de quelle manière un concurrent potentiel peut se procurer le matériel roulant si un tel dispositif n'existe pas et aussi s'il est probable ou non que le gouvernement espagnol accepte les recommandations que l'autorité de la concurrence lui a adressées.

En réponse, une déléguée d'Espagne fait observer que l'exemple britannique concerne le transport de voyageurs et s'applique au concessionnaire ayant remporté une adjudication et desservant de ce fait une ligne donnée, alors que la contribution de l'Espagne fait référence au transport de marchandises, secteur dans lequel les entreprises sont en mesure d'exploiter n'importe quelle ligne à condition de respecter les procédures. La proposition faite par l'autorité de la concurrence de son pays en vue de faciliter l'accès de nouveaux entrants au matériel roulant vise à instaurer une indépendance juridique, comptable et fonctionnelle à l'entité concessionnaire qui vend et loue le matériel roulant même si cette entité fait partie de Renfe Operadora. Ce système permet d'éviter les subventions croisées entre le propriétaire du matériel roulant et les autres unités de Renfe Operadora. Le ministère espagnol du Développement a démontré qu'il était nécessaire d'augmenter l'offre de matériel roulant à la disposition des nouveaux entrants. Le plan stratégique de 2010 pour le transport ferroviaire de marchandises annonce que Renfe Operadora doit de préférence proposer le matériel roulant excédentaire aux entreprises déjà présentes dans le secteur ou qui s'y implanteront dans les quelques prochaines années. Le projet de plan pour 2012 précisait que les lourds investissements consacrés, ces dernières années, à l'acquisition de matériel roulant et à sa modernisation nécessitaient d'élaborer un plan de gestion et d'exploitation adapté aux futurs besoins. Il ne s'agit pour l'heure que de simples propositions du ministère.

Le Président demande si cela signifie qu'aucun nouvel opérateur de fret ferroviaire n'est venu s'implanter en Espagne à ce jour, ce que confirme le délégué espagnol. Il demande aussi si de nouveaux investissements dans les lignes à grande vitesse exigeraient une compatibilité de l'écartement des voies avec les normes européennes, ce à quoi le délégué répond que les lignes à grande vitesse sont déjà dotées d'un système compatible avec les normes internationales et européennes.

Concernant la grande vitesse ferroviaire, le Président s'adresse ensuite aux États-Unis dont la contribution mentionne que l'administration Obama finance un projet d'une valeur de 40 milliards USD pour créer un réseau à grande vitesse sur tout le territoire des États-Unis, ce qui donnerait accès au rail à 80 % de la population. Les États-Unis ont été, à une époque, les pionniers dans le domaine de la construction de voies ferrées, mais le premier réseau ferroviaire américain avait été construit grâce à des financements privés. Dès lors, pourquoi des financements publics sont-ils aujourd'hui indispensables ?

Un délégué des États-Unis répond que les coûts, notamment environnementaux, sont plus élevés aujourd'hui qu'il y a un siècle. Une grande partie des terres sur lesquelles les premières voies ferrées ont été posées appartenaient à l'État fédéral et avaient été attribuées aux compagnies de chemins de fer sans contrepartie financière. Même si l'objectif de donner à 80 % de la population accès au train suppose de

traverser des régions très densément peuplées plutôt que les vastes étendues du territoire américain à faible densité de population, ce qui signifie qu'un moins grand nombre de terres seront concernées, le coût des terrains sera de nos jours très élevé. Les premiers opérateurs de services de transport ferroviaire avaient en outre réalisé des économies de gamme en assurant à la fois les services de transport de marchandises et de voyageurs. De nos jours, le fret ferroviaire est encore une activité rentable alors que le transport de voyageurs par le rail n'a pu résister à la concurrence de l'automobile et du transport aérien. Aux États-Unis le trafic voyageurs est assuré par Amtrak, entité publique-privée lourdement subventionnée qui a été créée par le Congrès après la faillite, dans les années 60 et 70, de tous les transporteurs américains opérant sur ce marché. Même si le réseau d'autoroutes inter-États a été intégralement financé par des fonds publics, le projet de train à grande vitesse, qui n'est encore qu'une proposition à ce stade, reste controversé, certains gouverneurs républicains s'y opposant car il ne répond, selon eux, à aucune justification économique. Néanmoins, dans certaines régions – certaines parties du Nevada ou de Floride par exemple – des entreprises privées disposées à investir des fonds dans ce projet sur la foi de sa rentabilité se sont fait connaître.

Le Président pose une question concernant le train à grande vitesse au Royaume-Uni et plus précisément la ligne High Speed One (HS1) qui assure la liaison avec l'Europe continentale par le tunnel sous la Manche. Il sait, grâce à la contribution britannique, que la HS1 a été financée par l'État pour un coût de quelque 6 milliards GBP, puis cédée en 2010 à un opérateur privé, pour environ un tiers de ce montant, dans le cadre d'une concession de 30 ans. Cela semble plutôt inhabituel pour un partenariat public-privé (PPP) ; généralement, c'est l'investisseur privé qui construit l'infrastructure qu'il est ensuite autorisé à exploiter pour une durée bien plus longue. Le Président demande pourquoi le projet a été structuré de cette manière et pour quelle raison, puisqu'il a financé le réseau, l'État ne l'exploite pas.

Le délégué du Royaume-Uni fait observer que la construction représente la phase la plus risquée du développement du réseau ferroviaire et que c'est à ce stade ou peu de temps après que la plupart des compagnies de chemins de fer font faillite soit parce que le coût s'avère plus élevé que prévu, soit parce que la demande est insuffisante. Le financement de la HS1 par l'État a été considéré comme le meilleur moyen de financer les risques liés à la construction. L'État britannique n'avait pas à l'esprit un modèle de concession particulier lorsque la construction a commencé. La durée de 30 ans a été retenue à l'époque de la cession car elle était censée procurer la meilleure rentabilité possible des investissements et conférer à la concession une valeur qui pouvait facilement être financée par le secteur privé sur les marchés de capitaux. On a jugé alors que la stabilité financière de la HS1 serait probablement supérieure à celle du tunnel sous la Manche lui-même, qui est un PPP classique d'une durée de 100 ans. À l'expiration de la concession au bout de 30 ans, la HS1 reviendra dans le giron de l'État, qui pourra alors la concéder une nouvelle fois et recouvrer ainsi une fraction encore plus importante des coûts de construction.

Le Président demande au Royaume-Uni pourquoi il ne s'est pas doté d'un programme national de services de transport ferroviaire à grande vitesse.

Le délégué du Royaume-Uni répond que son pays est en fait doté d'un tel programme. La HS1 est désormais également utilisée pour les liaisons intérieures et le gouvernement britannique est en train d'élaborer des plans pour la construction de la HS2, qui sera un axe principal Nord-Sud entre Londres, le Nord-Est et le Nord-Ouest de l'Angleterre, voire au-delà. En Grande-Bretagne comme aux États-Unis, la construction ferroviaire a toujours été très controversée et il a fallu déployer beaucoup d'énergie à convaincre le parlement et les entreprises, principalement du fait que les distances entre les grands centres urbains sont relativement courtes, ce qui réduit l'avantage d'ensemble de la grande vitesse.

Le Président s'adresse à l'Indonésie qui envisage la construction d'une ligne à grande vitesse de 700 km entre deux grandes villes du pays, Djakarta et Surabaya. Il demande si l'Indonésie pourra recourir pour cela au modèle du PPP, comme ce fut le cas pour le tunnel sous la Manche et les dessertes à grande

vitesse entre la France et l'Espagne et si l'autorité de la concurrence s'attend à être associée à la conception de l'appel d'offres.

Selon un délégué de l'Indonésie, les pouvoirs publics indonésiens espèrent achever l'étude de faisabilité en 2015. Pour l'heure, ils considèrent que le projet n'est pas commercialement viable et ont donc l'intention de recourir à un PPP, mais aucune décision ne sera prise tant que l'étude n'aura pas été terminée. L'autorité de la concurrence, la KPPU, n'a pas encore été associée au projet mais, en vertu du droit indonésien de la concurrence, elle supervisera le processus d'adjudication pour en garantir la transparence et l'équité.

Le Président en vient ensuite au thème de la concurrence sur le marché des services de transport ferroviaire à grande vitesse. À ce jour, le seul pays où une concurrence de grande ampleur a été introduite dans ce domaine est l'Italie où Italo, le nouvel opérateur exploite 25 trains et 12 gares sur 49 lignes, livrant une concurrence frontale à Trenitalia, l'opérateur historique, sur la quasi-totalité des lignes à grande vitesse. Il demande à la délégation italienne si les consommateurs tirent avantage de cette intensification de la concurrence et, le cas échéant, dans quelle mesure. Il demande par ailleurs si le succès de ce marché à deux acteurs s'explique par certaines spécificités propres à l'Italie ou si, au contraire, ce modèle est exportable.

Un délégué de l'Italie explique qu'Italo, exploité par la société privée NTV, s'est implanté sur le marché en avril 2012 en assurant la liaison Naples-Milan, à laquelle s'est ajoutée ensuite la liaison Naples-Venise en octobre 2012. Cela étant, Italo en est encore à un stade de développement trop précoce pour que l'on puisse d'ores et déjà procéder à une évaluation d'impact sur la concurrence une bonne et due forme. Selon NTV, d'avril à décembre 2012, Italo a transporté deux millions de voyageurs sur ses lignes à grande vitesse, un chiffre supérieur aux prévisions, et prévoit d'atteindre les sept millions de voyageurs en 2014. Pour ce qui est des conditions qui ont assuré le succès de cette entrée sur le marché, la première a été la réforme relative à la libéralisation adoptée en 2000, en vertu de laquelle des transporteurs de l'UE peuvent accéder au réseau ferré italien pour assurer le trafic voyageurs intérieur, réforme qui est allée au-delà des exigences de l'Union européenne. Deuxièmement, l'Italie a lancé un très important programme d'investissements pour mettre en place un réseau à grande vitesse dans les années 90, à la suite de quoi il existait en 2011, avant l'arrivée d'Italo, un vaste marché de 25 millions de voyageurs. En 2012, le marché a encore progressé avec 3.5 millions de voyageurs supplémentaires, dont deux millions ont été captés par Italo. Le marché a donc démontré sa capacité à croître et à permettre la coexistence de l'opérateur historique et du nouveau venu en dépit de la crise économique. Cela tient en partie au fait qu'un grand nombre de voyageurs a basculé vers la grande vitesse, sachant toutefois que, de 2009 à 2012, près de trois millions de voyageurs y ont renoncé au profit du transport aérien ou routier. Sous l'impulsion de la demande générationnelle, qui s'est traduite par une augmentation de la fréquence des déplacements, le marché s'est accru de deux nouveaux millions de voyageurs. La concurrence bénéficie aux consommateurs en termes qualitatifs, du fait que le nouveau venu cherche à se démarquer de l'opérateur historique par les services qu'il offre. Italo propose des trains plus confortables offrant par exemple une connexion Wi-Fi et la télévision par satellite, et se différencie aussi par un souci plus marqué des attentes du client. Cette offre a incité Trenitalia à améliorer la qualité de ses trains Frecciarossa. L'impact sur les prix est plus difficile à évaluer du fait que les deux transporteurs pratiquent des tarifs assez similaires et que les données sur les prix moyens appliqués depuis l'arrivée d'Italo sur ce marché ne sont pas publiquement disponibles. Les analyses limitées qu'ont effectuées des associations de consommateurs donnent à penser que les prix de Trenitalia ont baissé, non pas tant en raison d'une refonte de la grille tarifaire que du recours plus important aux promotions et aux rabais. Enfin, NTV a récemment adressé une plainte à l'autorité italienne de la concurrence, accusant Trenitalia d'écraser ses marges, notamment sur la desserte principale que constitue la liaison Rome-Milan. L'autorité a ouvert une enquête, qui devrait, selon le délégué, fournir davantage d'informations au sujet de la concurrence sur les prix.

Le Président oppose l'expérience de l'Italie à celle des Pays-Bas. Selon la contribution néerlandaise, un nouveau service à grande vitesse, portant le nom de Fyra, a été lancé en décembre 2012. Il s'est rapidement heurté à des problèmes d'exploitation du fait que moins de la moitié des trains arrivait à l'heure et que le nombre d'annulations était important, ce qui a abouti à la suspension du service. Il s'enquiert des raisons de cet échec.

Un délégué des Pays-Bas explique que Fyra est un service à grande vitesse entre Amsterdam et Bruxelles, détenu et exploité par l'opérateur historique néerlandais Nederlandse Spoorwegen (NS), qui utilise du matériel roulant neuf. Les trains circulent sur une ligne à grande vitesse achevée en 2009, qui est également utilisée pour le service international à grande vitesse Thalys, auquel NS participe. L'échec de Fyra est dû à des problèmes de sécurité et à des problèmes avec le matériel roulant et l'infrastructure. Une commission parlementaire mène une enquête sur ces deux aspects mais, dans l'intervalle, au moins un nouvel opérateur a envisagé de proposer lui aussi une desserte à grande vitesse entre Amsterdam et Bruxelles.

Le Président introduit ensuite la partie de la table ronde consacrée à la concurrence dans les services de transport de marchandises. Dans la plupart des pays, cette concurrence s'est accrue et les parts de marché des opérateurs historiques ont reculé. Parallèlement toutefois, la part des services de fret dans le trafic ferroviaire total a aussi fortement baissé, à l'exception du transport de marchandises en vrac, comme les produits miniers ou les semences agricoles. Cette évolution pose la question générale de savoir si le fret ferroviaire peut se redresser, en particulier en raison des avantages qu'il offre en termes de coûts environnementaux.

Le Président porte d'abord son attention sur l'Australie, où les services de fret sont utilisés pour le transport de marchandises en vrac et de matières premières, en particulier de l'intérieur du pays vers les ports pour des expéditions à destination de l'Australie ou des marchés d'exportation. La contribution australienne laisse supposer qu'outre la privatisation, l'une des principales évolutions survenues en Australie dans le secteur ferroviaire a été l'intensification de la concurrence entre les opérateurs de services de transport ferroviaire mais le Président n'a pu trouver plus de précisions confortant cette assertion dans la contribution. Il mentionne la privatisation de Queensland Rail dont il est question dans la contribution, qui a donné naissance à un opérateur majeur dans le domaine du transport du charbon au Queensland, et demande s'il s'agit d'un transporteur indépendant ou si cet opérateur est détenu par les entreprises qui exploitent les mines de charbon qu'il dessert. Le Président demande par ailleurs si le service de transport de voyageurs du Queensland a été privatisé ou non.

Un délégué d'Australie explique que Queensland Rail était détenue par l'État du Queensland et a été scindé en deux entités distinctes en 2010. L'une d'elles, QR National (devenue Aurizon) exploite des lignes de transport de marchandises et le matériel roulant qui y circule tandis que l'autre a conservé le reste du matériel roulant de transport de marchandises et le réseau de transport de voyageurs. Aurizon a été introduite en bourse, son actionnariat se répartissant désormais comme suit : l'État du Queensland en détient 9 %, les investisseurs individuels 34 % et les investisseurs institutionnels 57 %. Pour une large part, ces investisseurs ne sont pas des sociétés d'exploitation minière. Aurizon a mis en place un accord d'accès définissant les conditions auxquelles d'autres opérateurs peuvent exploiter du matériel roulant sur son réseau. À l'heure actuelle, Aurizon ne compte qu'un seul concurrent important au Queensland, Pacific National, qui est l'autre grand opérateur privé de fret en Australie. Aurizon exploite en outre des services sur d'autres réseaux de transport de marchandises en Australie, en dehors du Queensland, généralement en concurrence avec Pacific National, par le biais d'accords d'accès analogues passés au niveau étatique et grâce à un accord d'accès au niveau fédéral enregistré auprès de l'ACCC par le propriétaire du réseau inter-États. La concurrence s'exerce donc bien et il y a eu une progression des investissements réalisés dans les services de fret et dans le matériel roulant de transport de marchandises. Les accords d'accès ne font généralement l'objet d'aucune contestation et les concurrents qui veulent s'implanter peuvent



généralement le faire. Dans une affaire récente, une société d'exploitation minière, Fortescue, a tenté sans succès d'avoir accès à une ligne de chemins de fer, mais un tribunal a conclu qu'il était plus économique pour elle de construire sa propre ligne. Cette affaire et d'autres ont entraîné un examen des accords d'accès, qui est désormais effectué par la Productivity Commission, ce qui a donné lieu à une discussion pour savoir si l'efficacité signifie qu'il faut dupliquer les infrastructures lorsque cela est économiquement viable, ou s'il ne vaut pas mieux utiliser plus efficacement les infrastructures en place. S'agissant des réseaux de transport de voyageurs, les pouvoirs publics des provinces et des États ont pris certaines mesures pour stimuler la concurrence par la transformation d'entités publiques en sociétés commerciales et de leur structure de gestion. L'État du Victoria a ainsi adopté un modèle de franchise ferroviaire en vue de la fourniture d'une nouvelle infrastructure tandis les autorités de la Nouvelle Galle du Sud envisagent d'autoriser un opérateur privé à détenir et à exploiter une nouvelle ligne. Cela étant, les mesures prises par les gouvernements des différents États sont principalement dictées par des préoccupations relatives aux coûts et au maintien d'un contrôle public.

Le Président fait remarquer que la contribution australienne fait état d'une instance publique appelée Infrastructure Australia, dont l'objet est d'améliorer la qualité des infrastructures en Australie, ainsi que de les développer et d'en promouvoir une meilleure utilisation. Il demande si cette instance et la Productivity Commission agissent indépendamment l'une de l'autre ou si elles coopèrent entre elles et avec l'Australian Competition and Consumer Commission (ACCC) pour mener à bien l'examen des accords d'accès.

Le délégué de l'Australie répond que ces trois instances travaillent indépendamment les unes des autres mais que dans le cas de l'examen des accords d'accès, il est d'usage que la Productivity Commission rencontre les parties intéressées, notamment Infrastructure Australia et l'ACCC, et leur demande de lui soumettre une contribution.

Le Président fait savoir qu'à son avis, l'Australie a mis en place des instances spécialisées, chacune chargée de missions précises, pour étudier certaines questions relevant de l'action publique alors que, dans beaucoup de pays, ces missions sont dispersées auprès de différents organismes publics et qu'il pourrait s'agir là d'un exemple à suivre.

Le Président s'adresse ensuite à la Lettonie, où coexistent désormais trois opérateurs de services de transport de marchandises, ce qui a ramené la part de marché de l'opérateur historique à 75% environ, comme dans beaucoup d'autres pays. Répondant à une observation formulée dans la contribution de la Lettonie selon laquelle le transport ferroviaire est particulièrement efficace pour le fret international, il s'enquiert des marchés de destination des services de transport de marchandises internationaux de la Lettonie et demande pourquoi le transport ferroviaire est si important pour ces marchés.

Un délégué de la Lettonie précise que la remarque formulée dans la contribution fait suite à des opinions exprimées par des clients des services de fret et fait en particulier référence au transport de grosses cargaisons. L'autorité de la concurrence lettone qu'il représente n'a pas mené à bien d'analyse détaillée sur l'efficacité du transport ferroviaire pour telle ou telle destination. Les parts de marché ont été calculées jusqu'en 2010 à partir du volume transporté total, quelle que soit la destination. Les études menées par l'autorité de la concurrence donnent à penser que les deux nouveaux opérateurs ne livrent pas réellement concurrence sur le créneau des marchandises transitant par les ports. Il suppose par conséquent que l'opérateur historique a augmenté sa part de marché depuis 2010 du fait du gonflement des volumes de marchandises en transit.

Le Président s'adresse ensuite à la Russie, dont la contribution donne à penser que s'y exerce une certaine concurrence dans les services de transport de marchandises, mais avant tout entre les fournisseurs de wagons de marchandises attelés à une locomotive, l'ensemble étant exploité par le prestataire de services de transport ferroviaire qui est, lui, en position de monopole. Il s'enquiert des obstacles à la concurrence entre opérateurs indépendants de services de transport de marchandises.

Un délégué de la Russie explique que la compagnie des chemins de fer russe, créée dans le cadre d'une précédente réforme, est la seule propriétaire de l'infrastructure ferroviaire – occupant par conséquent une position de monopole – et le principal opérateur de fret ferroviaire. Il existe nombre d'autres opérateurs de fret agréés mais dans les faits, les services de transport de marchandises ne sont assurés que par la compagnie naguère monopolistique et par des gestionnaires de parcs de wagons de marchandises. Ce dernier secteur s'est très bien développé, avec plus de 1 700 gestionnaires ou propriétaires de parc de wagons. Depuis 2004, la part du parc de wagons qui a été privatisée a été portée 25 % à 80 %.

La structure du marché dépend fortement de la grille tarifaire appliquée. La tarification était traditionnellement fixée en fonction des utilisateurs finaux. Avec l'introduction de la concurrence, elle a été scindée en deux, une partie de la grille étant applicable aux wagons et l'autre aux infrastructures et aux locomotives. Les tarifs pratiqués pour les wagons ont ensuite été déréglementés et un marché concurrentiel a vu le jour. La déréglementation et la concurrence se sont traduites, depuis 2004, par des investissements se chiffrant au total à 600-700 milliards RUB (14-15 milliards EUR) et plus de 300 000 nouveaux wagons ont été construits. Depuis 2008, la grille tarifaire appliquée aux locomotives et à l'infrastructure a été scindée et le marché des services de traction a été ouvert à la concurrence. Cela étant, des difficultés d'exploitation ont retardé l'émergence d'une concurrence entre opérateurs de fret. Dans le cadre de l'Union économique eurasiatique, l'accès mutuel aux infrastructures de la Fédération de Russie, de la République de Biélorusse et de la République du Kazakhstan sera accordé aux opérateurs de ces pays à compter de 2015. L'expérience russe et celle d'autres pays montrent que les coûts de transaction peuvent augmenter à la suite des réformes structurelles autorisant l'entrée de nouveaux opérateurs et qu'il est alors nécessaire de mettre en place une « infrastructure commerciale » pour réduire ces coûts et tirer pleinement profit des avantages de la concurrence. C'est ce qu'a prévu un conseil du marché se composant de participants au marché et d'institutions publiques, analogue à celui qui exerce son action avec succès dans le secteur de l'électricité depuis plusieurs années.

Le Président présente ensuite Mme Heléne Jarefors de l'agence suédoise du transport qui a préparé un exposé intitulé 'Concurrence dans les services de transport ferroviaire et les services de transport de marchandises en Suède'. Mme Jarefors explique que la Suède opère une séparation verticale dans ce secteur depuis 1988, et que les transporteurs sont chaque année mis en concurrence pour avoir accès aux voies. Aucune réglementation ne régit les prix finaux pratiqués pour les services de fret ou de transport de voyageurs longue distance. Son exposé a pour objet de rendre compte des effets de l'ouverture du marché en Suède.

Mme Jarefors explique que les financements publics accordés pour soutenir les investissements dans les infrastructures ferroviaires et leur entretien, administrés par le principal gestionnaire d'infrastructure Trafikverket et réalisés par le secteur privé ont culminé au milieu des années 90 pour augmenter encore jusqu'en 2010, la dernière année considérée. Les volumes du trafic ferroviaire de voyageurs et de marchandises progressent depuis 1988, même si ce constat vaut aussi pour les volumes de transport en général.

Sur le marché du trafic voyageurs, des appels à la concurrence sont organisés pour les services locaux et régionaux depuis 1990 et, pour les services grande distance, depuis décembre 2011. De nouveaux opérateurs se sont implantés sur le marché de la longue distance en 2012, et quatre opérateurs assurent désormais des dessertes entre les principales villes du pays (Stockholm, Malmö et Göteborg). La Suède n'est pas dotée de lignes réservées à la grande vitesse, mais les trains à grande vitesse circulent sur les mêmes voies que les trains express classiques et les trains de marchandises. De 1994 à 2011, les nouveaux entrants ont été à l'origine de toute la croissance du trafic, mesurée en voyageurs-kilomètres, alors que les volumes de trafic de SJ, l'opérateur historique de services de transport de voyageurs, sont restés constants, ce qui donne à penser que sa part de marché a progressivement reculé.

La concurrence sur le marché du fret s'exerce depuis 1996 et ce secteur compte désormais une quinzaine d'opérateurs. Quelque 11 % du transport intérieur de marchandises s'effectue par rail. Comme pour le transport de voyageurs, dans le secteur du fret, les volumes de l'opérateur historique Green Cargo sont restés stables, les nouveaux venus étant à l'origine de la croissance des volumes totaux.

Mme Jarefors présente une diapositive faisant apparaître l'évolution en pourcentage des aides publiques au fil des ans, liée aux appels d'offres lancés pour la desserte des lignes régionales et interrégionales. Le montant de ces aides a baissé. Revenant sur le commentaire du délégué britannique sur la difficulté de mesurer les coûts, elle précise que la Suède dispose désormais d'un chiffre pour le coût total de fourniture de services locaux et régionaux de transport de voyageurs. En 2011, ce coût s'élevait approximativement à 32 milliards SEK, soit 3.7 milliards EUR, pour l'ensemble du pays qui compte neuf millions d'habitants, une moitié étant couverte par les recettes de billetterie et l'autre par les aides publiques. La même année Trafikverket, le gestionnaire d'infrastructure, a dépensé quelque 800 millions SEK, soit 92 millions EUR, pour assurer des services interrégionaux de transport de voyageurs. Les services longue distance de transport de voyageurs sont rentables et ne nécessitent donc pas l'octroi d'aides publiques.

Mme Jarefors explique que certains retards se produisent sur certains tronçons du fait qu'un trop grand nombre de trains circulent sur les mêmes voies au même moment. Elle présente une carte des lignes ferroviaires suédoises en 2010 montrant où se situent les contraintes de capacité. Même dans certaines zones à doubles ou quadruples voies, des problèmes existent. Cela peut laisser penser que de nouvelles voies sont nécessaires ou bien au contraire qu'une meilleure conception de la tarification de l'accès au réseau peut en permettre une utilisation plus efficiente.

Les frais d'accès actuellement en vigueur sont en effet jugés trop peu élevés. Les opérateurs de fret ne paient que 30 % du coût marginal qu'ils occasionnent, ce qui n'est pas conforme à la loi. Ces frais devraient nettement augmenter dans les prochaines années. La tarification de l'accès aux voies sera modifiée pour inclure des frais de réservation et d'annulation destinés à empêcher une surréservation des capacités et pour permettre une différenciation des tarifs en fonction de la demande sur différentes lignes et à différentes heures de la journée et la compensation des coûts encourus par les autres opérateurs en cas de retard.

Après 17 ans, Green Cargo, l'opérateur historique, a conservé sa position dominante sur le marché du fret, même si une analyse détaillée des raisons pour lesquelles cette position perdure et des mesures qu'il faudrait prendre pour y mettre fin n'a pas été effectuée. Sur le marché du transport de voyageurs, un nombre assez important de nouveaux concurrents sont arrivés et le problème essentiel qui se pose est celui de la procédure de répartition des capacités utilisée par Trafikverket. Les opérateurs doivent redéposer chaque année une demande pour les mêmes lignes et, en raison du nombre et de la similarité des candidats, Trafikverket a du mal à procéder à la sélection des concessionnaires. En raison de l'incertitude des opérateurs concernant leurs échéances à plus d'un an, il est en outre difficile de justifier des investissements. Le nombre de plaintes déposées auprès de l'agence suédoise du transport par des opérateurs dont les lignes qu'ils exploitaient ont été concédées à un concurrent augmente, ces opérateurs accusant Trafikverket de ne pas observer comme il convient les procédures d'appels d'offres.

Dans l'ensemble, il est par conséquent difficile d'évaluer l'effet de l'ouverture du marché, et il importe que l'autorité suédoise recueille et analyse des données à ce sujet au cours des années à venir. Le marché ferroviaire suédois se développe sans que l'on sache si cela est dû à l'efficacité du processus de libéralisation, au niveau trop faible des frais d'accès ou à d'autres facteurs encore.

## 1. Appels d'offres

M. Andrew Smith, de l'Institute for Transport Studies de l'université de Leeds au Royaume-Uni, fait ensuite un exposé intitulé « Franchises ferroviaires : constatations et problèmes », au cours duquel il examine sous l'angle comparatif les procédures d'appel d'offres dans le secteur des ferroviaire. Il explique qu'il traitera principalement de la Grande-Bretagne, mais tentera aussi de tirer, à partir des expériences d'autres pays d'Europe, certaines conclusions généralisables.

M. Smith commence par poser la question de ce qu'a apporté le recours aux appels d'offres. Il dit qu'une bonne partie des études consacrées à cette question semble indiquer que cette évolution a été bénéfique, du moins dans certains pays. En Allemagne et en Suisse, on estime généralement qu'elle a permis de réaliser des économies de 20 % à 30 %, et on a généralement constaté que les appels d'offres et la privatisation ont aussi entraîné des économies dans d'autres secteurs en Grande-Bretagne et dans d'autres pays. Cela étant, le secteur ferroviaire britannique fait exception : le coût unitaire des compagnies de chemins de fer (en excluant les frais d'accès à l'infrastructure) a augmenté d'environ 14 % de 1997 à 2006.

(M. Smith ajoute toutefois qu'il doute que les coûts sous-jacents aient effectivement diminué en Allemagne et en Suède, dans la mesure où les conclusions sont liées à une diminution des subventions et où les grands opérateurs publics continuent de dominer ces marchés. Davantage d'éléments sont nécessaires pour démontrer que la diminution des subventions a pour corollaire une diminution réelle des coûts et n'est pas absorbée ailleurs.)

Les différentes structures selon lesquelles ce secteur est organisé ne semblent pas expliquer la disparité des coûts tendanciels. En effet, la Suède, comme la Grande-Bretagne, se caractérise par une séparation verticale, alors qu'en Allemagne, la structure du secteur repose sur un modèle de société holding. Cet état de fait correspond aux conclusions du projet EVES Rail, qui donnent à penser que la séparation verticale peut être bonne ou mauvaise selon les circonstances. M. Smith poursuit dès lors en examinant si les différences qui existent concernant le recours aux franchises ferroviaires peuvent expliquer la disparité des expériences entre ces pays.

Les conclusions pour la Grande-Bretagne pour la période de 1997 – qui marque le début du recours aux franchises ferroviaires – à 2006 sont basées sur les travaux originaux réalisés par M. Smith de l'université de Leeds avec l'aide du Ministère des transports et de l'Office of rail regulation (ORR), l'instance britannique de réglementation ferroviaire. L'analyse effectuée par la suite pour une grande étude portant sur les chemins de fer britanniques, à savoir l'étude menée par M. Roy McNulty sur la rentabilité des investissements, a montré que le coût unitaire s'est stabilisé au cours de la période 2006-09. Bien qu'ils ne soient pas comparables, les chiffres de l'ORR permettent à M. Smith de penser que le coût unitaire peut avoir commencé à baisser depuis de 10 % environ entre 2009 et 2011, le cas échéant.

Le système britannique a fait l'objet de nombreuses études. La récente étude Brown<sup>1</sup>, commanditée suite aux problèmes suscités par l'octroi de la franchise InterCity West Coast (ICWC) en 2012, note que les coûts n'ont pas diminué mais soutient que l'approche adoptée en Grande-Bretagne, où les opérateurs assument le risque lié aux recettes grâce à des contrats à contribution financière forfaitaire, a entraîné une croissance considérable de l'utilisation du réseau. La contribution britannique fournit des chiffres montrant que le total des kilomètres-voyageurs a augmenté plus rapidement en Grande-Bretagne que dans tous les autres grands réseaux ferroviaires d'Europe entre 1995 et 2011. Cette augmentation a été de 84 %, contre 65 % en Suède et 17 % en Allemagne par exemple. Pour sa part, M. Mark Wardman, professeur à l'université de Leeds, a cependant conclu que la majeure partie de cette croissance était due à des facteurs

<sup>1</sup> *The Brown Review of the Rail Franchising Programme*, décembre 2012.

exogènes comme la croissance du PIB, l'augmentation du coût des carburants automobiles, la saturation du parc automobile et la congestion du trafic routier, plutôt qu'aux retombées de la privatisation.

L'étude Brown note également que le système ferroviaire britannique est très sûr, malgré certains accidents qui ont fait grand bruit, dont certains ont été attribués à la privatisation, et que certains éléments indiquent qu'il s'améliore plus rapidement depuis la privatisation qu'avant. Un rapport récent du Rail Safety Standards Board, la commission chargée des normes sécurité ferroviaire, montre que le réseau britannique est le deuxième le plus sûr d'Europe, en nombre d'accidents mortels subis, de 2007 à 2010, par des voyageurs ou des membres du personnel par kilomètre parcouru. De plus, l'indicateur de la performance publique, qui mesure les retards et les annulations, s'est fortement amélioré, passant de 79 % en 2002-03 à environ 93 %. Enfin, cette étude mentionne des chiffres qui montrent que la satisfaction des clients est plus élevée en Grande-Bretagne que dans d'autres pays (87 % contre 52 % en Allemagne et 54 % en France), même si M. Smith ignore si ces chiffres sont comparables.

M. Smith présente ensuite succinctement certains problèmes, mis en évidence dans l'étude Brown, auxquels le système ferroviaire britannique est confronté. Outre l'augmentation des coûts après la privatisation dont il a parlé, le mécanisme d'appel d'offres n'est pas centré sur les coûts, ce qui tend à favoriser les entreprises qui présentent les projections de recettes les plus optimistes. De même, ce mécanisme accorde trop peu d'importance aux coûts encourus dans le cadre des franchises par l'ensemble du secteur. Parallèlement aux coûts, le prix du billet a augmenté et la satisfaction des voyageurs en termes de rapport qualité/prix (47 %) est beaucoup plus faible que leur note de satisfaction globale. Les auteurs de l'étude Brown se demandent ensuite si le ministère des Transports est suffisamment équipé pour traiter avec des soumissionnaires présentant des offres très complexes. Un autre problème est celui de l'inexécution des franchises adjudgées en se fondant sur des projections de recettes par trop optimistes. Depuis le premier appel d'offres visant l'attribution d'une franchise en 1997, la moitié environ des opérateurs ont finalement dû renégocier leur contrat d'une manière ou d'une autre. La durée appropriée de la franchise a aussi été constamment remise en cause. L'étude McNulty soutient que des durées plus longues, de 15 années ou plus, sont nécessaires pour faire baisser les coûts et encourager l'investissement. Enfin, le critère de la qualité n'a pas joué un rôle majeur dans l'évaluation des offres.

M. Smith présente ensuite les solutions à ces problèmes, proposées dans l'étude Brown, et les commente dans un contexte de factuel plus général. Pour réduire le risque d'inexécution, les auteurs de l'étude proposent de lier le paiement de la subvention au PIB ou à l'emploi, de sorte que les subventions augmenteraient en cas de ralentissement de l'économie. Un système plus clair d'exigences de fonds propres devrait aussi être mis en place afin de réduire le risque de voir un opérateur renoncer à une franchise, étant entendu que ces exigences ne devraient pas être rigoureuses au point de dissuader les soumissionnaires. S'agissant de la durée de la franchise, l'étude Brown conclut que même une durée de 15 années ne suffirait pas à encourager la réalisation des investissements – y compris dans le matériel roulant – qui seraient nécessaires pour assurer l'accès au rail. En revanche, une franchise aussi longue créerait des risques. Les auteurs penchent dès lors en faveur de franchises plus courtes, d'une durée de 7 à 10 ans, qui pourraient être prolongées si la qualité est au rendez-vous. Le nombre de franchises a été ramené de 25 à 20, mais le risque existe dès lors qu'elles soient trop importantes. Ces franchises requièrent, en particulier, des fonds propres élevés, de sorte que, si un opérateur devait perdre une franchise importante, il pourrait se retrouver les mains vides, ce qui l'inciterait à déposer une offre assortie de conditions par trop optimistes. Les auteurs de l'étude estiment qu'à l'instar de ce qui se fait en Allemagne et en Suède, il convient d'impliquer un plus grand nombre d'organismes régionaux de passation des marchés publics, plutôt que le seul ministère britannique des Transports. L'accent devrait aussi davantage être placé sur les coûts encourus par l'ensemble du secteur et le critère de la qualité devrait avoir plus de poids lors de l'évaluation des offres, sans que l'étude précise toutefois comment y parvenir.

M. Smith déclare que, globalement, le problème en Grande-Bretagne semble être que lors des appels d'offres, une importance trop grande est désormais accordée aux recettes. L'établissement d'un lien entre le niveau des subventions et le PIB pourrait contribuer à supprimer en partie le risque exogène. Un risque subsisterait quoi qu'il en soit, qui ne saurait être intégralement pris en charge. Une grande question se pose : comment faire en sorte que les coûts des opérateurs soient davantage pris en compte ? Il existe une différence importante entre la taille des franchises ferroviaires en Grande-Bretagne et celle des concessions adjudgées dans les autres pays. En Grande-Bretagne, la franchise moyenne est supérieure à 26 millions de kilomètres-train, contre 3.3 millions en Allemagne et 2.6 millions en Suède. Lorsqu'un nouvel opérateur reprend une concession en Allemagne, par exemple, il fait souvent appel à son propre personnel et à son propre matériel roulant. Cela n'est pas possible en Grande-Bretagne, vu la taille des franchises qui y sont attribuées. L'adjudicataire d'une franchise reprend pour sa part une compagnie existante, ce qui rend très difficile toute réduction des coûts. Quand un opérateur ne dispose que de 7 à 10 ans pour dégager des bénéfices, cela ne vaut sans doute pas la peine pour lui de risquer de déclencher un conflit social avec un syndicat britannique très puissant en tentant de réduire les coûts de main-d'œuvre, dans la mesure où la réduction des coûts qu'il obtiendrait pourrait tout simplement profiter à un nouveau franchisé lors du cycle suivant d'adjudication.

La conclusion de contrats à prix forfaitaire pour les services non commerciaux, conjuguée à une réduction de la taille des franchises, comme cela se fait en Suède et, dans une certaine mesure, en Allemagne, est actuellement envisagée comme solution possible au problème des coûts. Il est toutefois nécessaire de mettre en balance les avantages découlant d'une réduction de la taille des franchises et la perte d'économies d'échelle et de densité qui pourrait s'ensuivre. M. Smith estime que le fait de se concentrer sur les coûts encourus par l'ensemble du secteur constitue un enjeu majeur. Faire en sorte que les opérateurs s'intéressent davantage aux coûts d'infrastructure rendrait la situation plus complexe, même si certains succès ont été remportés dans ce domaine grâce à des alliances conclues entre les régions couvertes par le gestionnaire d'infrastructure Network Rail et les opérateurs ferroviaires. M. Smith se demande si, au vu de certains problèmes et difficultés que pose le recours aux franchises, d'autres solutions ne pourraient pas convenir. La Grande-Bretagne a ainsi connu certains succès en recourant à des monopoles locaux privés réglementés dans le secteur de l'eau.

M. Smith conclut en laissant entendre que le recours aux appels d'offres est probablement préférable à un libre accès au marché pour les services non commerciaux et que les franchises plus petites et les contrats à prix forfaitaires semblent avoir permis de réaliser de plus grandes économies de coûts, même s'il conserve des doutes concernant la qualité des éléments corroborant la réalité de ces économies. Il indique par ailleurs qu'il convient de réfléchir de nouveau à une solution au problème de la mise à disposition du matériel roulant. La Suède traite cette question par l'intermédiaire d'un organisme public, alors que la Grande-Bretagne, qui se caractérise par des franchises de grande taille, des contrats à contribution financière forfaitaire et un matériel roulant privatisé, semble connaître des problèmes plus importants. Pour déterminer la taille des franchises, il est nécessaire d'adopter une approche spécialement adaptée et de comprendre l'arbitrage à opérer entre les économies de densité et les risques.

Le Président indique que nombre de questions soulevées par M. Smith sont extrêmement judicieuses et seront reprises lors de l'examen des contributions suivantes, en particulier la distinction entre les contrats à prix forfaitaire et les contrats à contribution financière forfaitaire. Les premiers impliquent que les entreprises concernées assument le coût total de l'exécution d'un service donné et que l'État conserve les recettes, tandis que les seconds impliquent que les entreprises conservent les recettes et assument les coûts supplémentaires que les recettes ne couvrent pas (moyennant subventions). Dans le cas des contrats à prix forfaitaire, c'est donc l'État qui assume le risque lié aux recettes, alors que le concessionnaire les assume dans le cas des contrats à contribution financière forfaitaire. Le Président donne ensuite la parole à la République tchèque, qui a recours à des contrats à contribution financière forfaitaire dans le cadre desquels, s'il a bien compris la contribution de ce pays, les coûts sont subventionnés à hauteur de 92 %.

Un délégué de la République tchèque explique qu'en réalité, le chiffre de 92 % est lié au fait que le critère que représente la subvention « pèse » 92 % lors de l'évaluation, les autres critères retenus étant la qualité du service et les exigences techniques. Dès lors que les soumissionnaires doivent satisfaire aux mêmes critères techniques et que le critère ayant le plus de poids est celui de la subvention, c'est le soumissionnaire le moins exigeant de ce point de vue qui aura le plus de chances de l'emporter. Le délégué ignore la part des subventions en proportion du coût total, mais ce pourcentage est assurément très inférieur à 92 %. Il admet toutefois que les contrats à prix forfaitaire peuvent être préférables.

Le Président se tourne ensuite vers la Pologne où, contrairement à beaucoup de pays qui ont privatisé leurs systèmes ferroviaires, les pouvoirs publics recourent rarement aux appels d'offres pour attribuer des lignes à des opérateurs potentiels. La contribution de la Pologne semble indiquer que les autorités chargées des transports préfèrent attribuer directement les concessions à une entreprise qu'elles détiennent en tout ou partie. Le Président se demande si cette pratique est conforme aux règles européennes, qui imposent le recours aux appels d'offres.

Un délégué de la Pologne répond que la plupart des contrats de dix ans récemment attribués aux chemins de fer publics polonais, l'opérateur historique, ont été examinés et approuvés de concert avec la Commission européenne et sont conformes au Règlement (CE) n° 1370/2007 relatif aux services publics de transport de voyageurs par rail et par route. Toutefois, le passage de la contribution à laquelle le président fait allusion concerne le réseau régional, exploité par une compagnie appelée Société des transports régionaux, qui a été scindée de l'opérateur historique et est actuellement la copropriété des pouvoirs publics régionaux. Ceux-ci n'ont toutefois pas toujours été satisfaits du service fourni par la Société des transports régionaux et s'efforcent actuellement de réduire les coûts, de la contraindre à améliorer ses services et à baisser ses prix. Certaines administrations publiques régionales ont créé leurs propres sociétés régionales de transport, notamment Koleje Mazowieckie, à laquelle ils ont ensuite attribué des contrats de service public, tandis que d'autres ont opté pour les appels d'offres. La première entreprise privée à remporter un appel d'offres a été Arriva PCC, qui en a ensuite remporté un autre. Il conclut en indiquant que la contribution a voulu mettre l'accent sur le fait que, même si les administrations publiques régionales sont propriétaires de leurs propres compagnies de transport de voyageurs, certaines voient toutefois d'un bon œil l'idée d'introduire de la concurrence afin d'améliorer les prix et la qualité.

Le Président adresse une question à la délégation de la Roumanie, pays où l'instance de réglementation ferroviaire a été récemment fusionnée avec l'autorité de la concurrence (le Conseil roumain de la concurrence), comme cela s'est produit dans d'autres pays. Il demande pourquoi cette instance de réglementation, en particulier, a été fusionnée avec l'autorité de la concurrence, alors que d'autres régulateurs sectoriels, comme ceux de l'énergie et des télécommunications, ne l'ont pas été.

Un délégué de la Roumanie souligne tout d'abord que la Roumanie compte au nombre des pays qui ont réussi à injecter de la concurrence dans le secteur du transport ferroviaire de marchandises en assurant un accès libre à l'infrastructure monopolistique. Elle l'a fait en partie pour se conformer aux critères d'adhésion à l'Union européenne. La Roumanie compte actuellement quelque 24 opérateurs privés de fret ferroviaire, sans compter l'opérateur historique. Comme dans d'autres pays, la part de marché de celui-ci a diminué, ce qui indique que les opérateurs privés exercent sur lui une forte pression concurrentielle. Jusqu'en 2011, le gestionnaire de l'infrastructure et l'opérateur historique faisaient partie de la même entité régie par des règles de séparation internes. Cette configuration était contraire aux prescriptions du 1<sup>er</sup> paquet ferroviaire, qui prévoit l'existence d'une autorité totalement indépendante dotée de pouvoirs décisionnels renforcés et a été à l'origine d'une procédure d'infraction intentée par la Commission européenne à la Roumanie. Afin de se conformer à cette exigence, le gouvernement roumain a, en 2011, doté le Conseil roumain de la concurrence de pouvoirs de réglementation du secteur ferroviaire, le Conseil étant considéré comme la meilleure instance pour assumer ce rôle. Le délégué indique par ailleurs que la privatisation partielle de la compagnie nationale de transport ferroviaire de marchandises a commencé,

conformément à l'engagement pris au titre de l'accord de confirmation conclu avec les institutions financières internationales. À l'heure actuelle, le Conseil de la concurrence prend activement des mesures pour assurer que le processus de privatisation ne s'accompagne pas d'aides publiques et qu'il s'appuie sur une procédure d'appels d'offres transparente. Il a également entamé des consultations utiles avec les experts de la Commission européenne.

Le Président passe ensuite à la Corée, où les pouvoirs publics ont eu recours à un partenariat public-privé (« PPP ») pour construire une nouvelle ligne de métro à Séoul ainsi que certains autres services de transport ferroviaire. Le modèle utilisé était le modèle construction-exploitation-transfert dont il a déjà été question concernant le Royaume-Uni, dans le cadre duquel l'opérateur finance et construit l'infrastructure, l'exploite pour obtenir un retour sur investissement, puis la transfère à l'État au terme de la concession. Il demande à la délégation coréenne d'expliquer pourquoi un PPP a été utilisé pour la construction de lignes de métro et dans quelle mesure il y a eu concurrence lors de l'attribution de la concession.

Un délégué de la Corée explique que les pouvoirs publics coréens ont eu recours à un PPP pour surmonter les problèmes de dérive des coûts du secteur ferroviaire sous contrôle direct de l'État et pour alléger la charge financière de l'investissement. Ils escomptaient en outre qu'un PPP injecterait une dose de concurrence sur le marché, les entreprises privées en lice devant se démarquer par des offres plus intéressantes que les autres pour décrocher le contrat. Toutes ces retombées positives ne se sont pas produites. Il y a eu des gains d'efficacité, mais il n'y a guère eu de concurrence pour remporter ce marché, l'importance des investissements à réaliser ayant incité les entreprises à former des consortiums pour présenter une offre commune, ce qui a réduit sensiblement le nombre de soumissionnaires.

Pour conclure la discussion sur les appels d'offres, le Président présente M. Mark Lijesen, de l'université libre d'Amsterdam, qui présente une évaluation quantitative des effets de la concurrence dans les services de transport de marchandises et de voyageurs, intitulée « Réglementation, concurrence et part du rail par rapport aux autres modes de transport ».

M. Lijesen explique que deux raisons justifient la restructuration du secteur ferroviaire. L'une est le fait d'obtenir une plus grande efficacité productive, autrement dit, de diminuer les coûts, et l'autre, de favoriser l'efficacité allocative, c'est-à-dire de faire baisser les prix et de mieux répondre aux préférences des consommateurs. La part de marché du rail par rapport aux autres modes de transport, le transport routier essentiellement, est le principal indicateur de réalisation de ces objectifs. Très peu d'études ont été menées sur ce sujet, pour deux raisons : premièrement, il est difficile d'établir les causes des différences de résultats observées entre différents pays ; et, deuxièmement, des problèmes de mesure et de comparabilité des données se posent. M. Lijesen est parvenu à résoudre partiellement ces problèmes à l'aide d'une grille d'analyse expliquant la part du rail par rapport aux autres modes de transport sous l'angle de la réglementation et de la concurrence (qui, à l'évidence, s'influencent réciproquement) et d'autres facteurs, notamment des facteurs spatiaux, le niveau de l'infrastructure, et des facteurs économiques. Son analyse économétrique repose sur une approche fondée sur les effets fixes, qui permet de constater des différences constantes dans le temps entre les pays. Par exemple, le Japon a des villes densément peuplées qui sont séparées par des montagnes, et cet état de fait a été retenu en tant qu'effet fixe pour le Japon. Il a aussi eu recours à des variables économiques et d'infrastructure pour contrôler les évolutions spécifiques dans le temps dans et entre les pays. La principale corrélation présentant un intérêt est l'incidence de la réglementation et de la concurrence sur le niveau et l'évolution de la part de chaque mode de transports par rapport aux autres.

L'ensemble de données qu'il a utilisé couvre 28 pays (essentiellement les pays européens de l'OCDE et le Japon) sur 17 années – de 1994 à 2010. Les données dont il s'est servi proviennent de l'UIC, d'Eurostat et de l'OCDE.



Des modèles distincts ont été estimés pour le transport international et intérieur de marchandises et le transport de voyageurs. La variable dépendante était la part du rail par rapport au transport routier, ce qui exclut notamment le transport aérien. Les variables de contrôle utilisées étaient la longueur du réseau ferroviaire par rapport à la superficie, le ratio longueur du réseau ferroviaire/longueur des autoroutes, l'emploi par habitant et le PIB par habitant. D'autres variables de contrôle ont été testées mais n'ont pas produit de résultats significatifs, sans doute faute de pertinence ou en raison de la qualité insuffisante des données. Les indicateurs de réglementation et de concurrence ont été construits en se fondant sur une recherche documentaire effectuée dans le cadre de l'étude EVES\_Rail. Les indicateurs de réglementation ont permis de repérer les pays et les années se caractérisant par une séparation des fonctions essentielles, la présence d'une société holding, ou une séparation verticale complète par opposition au cas de référence de l'intégration verticale. Un indicateur de séparation horizontale a également été utilisé par opposition au cas de référence de l'intégration horizontale. Les indicateurs de concurrence ont fait apparaître les pays et les années caractérisés par un accès libre au réseau, l'entrée de quelques concurrents ou une entrée majeure sur le marché. Pour certains pays ou certaines périodes, ces éléments n'ont pu être mis en évidence, et l'analyse a dès lors été menée à la fois à l'aide de ces indicateurs et sans eux.

Dans les modèles établis sans indicateurs de concurrence, l'analyse du transport international de marchandises a fait ressortir un effet positif sur la part relative du rail de la longueur du réseau ferroviaire rapportée à la superficie, mais un effet négatif sur son augmentation tendancielle. Les indicateurs de séparation verticale ont révélé un effet négatif sur la part relative du rail, mais un effet positif sur son évolution tendancielle. Ces effets étaient significatifs dans le cas de l'indicateur permettant de repérer la présence d'une société holding et une séparation verticale, mais négligeables pour l'indicateur de séparation des fonctions essentielles. Les signes des effets de la séparation horizontale étaient à l'opposé de cette configuration, mais n'étaient pas significatifs. L'analyse du transport national de marchandises a fait ressortir un effet positif de la variable de contrôle sur le ratio longueur du réseau ferroviaire/longueur des autoroutes. Aucun des indicateurs de réglementation n'a eu d'effet significatif. Dans l'analyse se rapportant au transport de voyageurs, un effet positif du niveau d'emploi sur la part relative du rail, probablement lié au volume des migrations journalières, a été observé. Un revenu plus élevé par habitant a été associé à une part plus faible du transport ferroviaire, le niveau de revenu ayant peut-être un effet sur le fait de posséder ou non une voiture. Là encore, aucun effet significatif des indicateurs de réglementation n'a été observé.

M. Lijesen présente ensuite les résultats pour les modèles dans lesquels des indicateurs de concurrence ont été utilisés. Dans le transport de marchandises international et national, les effets des indicateurs de réglementation étaient similaires, tandis que ceux des indicateurs de concurrence étaient statistiquement non significatifs. Cela ne signifie pas que la concurrence est sans effet, mais uniquement qu'il n'a pas été possible de démontrer cet effet en raison de la qualité des données. Toutefois, le modèle pour le transport de voyageurs semble indiquer une accélération de croissance de la part du rail après une entrée majeure sur le marché et que, lorsqu'il y a, à la fois, séparation verticale et libre accès au marché, la part du rail est plus élevée que dans les pays et pour les périodes où tel n'est pas le cas.

M. Lijesen explique que la conclusion essentielle est celle, décevante peut-être, qu'un grand nombre d'indicateurs ne sont pas significatifs. Dans le cas du transport de marchandises, tant international que national, on observe une incidence négative ponctuelle de la séparation verticale, mais aussi une hausse tendancielle plus importante qui contrebalance cet effet les années suivantes. Au cours de la période ayant fait l'objet de l'étude, l'impact net de ces deux effets était grosso modo nul, mais si l'on postule que l'effet tendanciel positif se poursuivra après la période étudiée, l'effet serait globalement positif. Il en va de même pour la séparation horizontale dans le cas du transport ferroviaire de voyageurs sur lequel on constate un effet positif, sur la durée, d'une entrée importante sur le marché. Un résultat solide et robuste a été que la combinaison de la séparation verticale et de l'accès libre au marché entraîne une augmentation de la part relative du transport ferroviaire de voyageurs. M. Lijesen souligne l'absence de différence significative

entre l'effet de la séparation verticale et celui du modèle de la société holding, mais estime que cela est principalement lié à la diversité des régimes des sociétés holding. Si l'on examine plus en détail ces régimes dans l'ensemble de données, on constate que ceux-ci étant très divers il est possible que leurs effets soient dissemblables.

M. Lijesen conclut qu'il est difficile de mesurer, par des moyens économétriques, l'effet de la réglementation et de la concurrence. Le recours aux effets fixes pour tenir compte des différences entre pays qui ne peuvent être mesurées directement élimine des différences qui pourraient être dues aux facteurs que sont la réglementation ou la concurrence et produit de nombreuses estimations non significatives ou ambiguës de l'effet des indicateurs de réglementation et de la concurrence. L'analyse a toutefois produit certains résultats plausibles : l'importance et le sens des effets estimés des variables de contrôle sont plausibles, et la séparation verticale conjuguée à un accès libre au marché a un effet positif sur la part relative du rail sur le marché du transport de voyageurs.

Le Président passe ensuite à l'examen de cas récents d'infractions au droit de la concurrence dans le secteur ferroviaire. Il commence par la France, où l'autorité de la concurrence a infligé une amende à la SNCF, l'opérateur ferroviaire historique, pour abus de position dominante après que celui-ci a fait un usage commercial d'informations qu'elle avait obtenues dans le cadre de son rôle de gestionnaire d'infrastructure. Il demande à la France si l'application du droit de la concurrence suffit à décourager les abus de ce type ou si une séparation verticale stricte aurait été plus efficace.

Un délégué de la France note que la question concerne la séparation de la gestion du réseau et l'offre d'autres services et, en particulier, la nature de cette séparation. Le risque existe, qu'en l'absence de séparation effective, un opérateur ayant le contrôle du réseau ne l'utilise pour évincer ses concurrents. En France, l'histoire a débuté en 1997 avec la création de Réseau ferré de France (RFF), entité publique chargée de la gestion de l'infrastructure, tandis que l'offre de services de transport restait aux mains de la SNCF, l'opérateur historique. Toutefois, comme l'a mis en évidence l'autorité de la concurrence dans plusieurs études consacrées au secteur ferroviaire, toutes les ressources techniques et humaines dont RFF aurait besoin pour remplir sa mission ne lui ont pas été transférées. RFF a dès lors été contraint de déléguer à la SNCF un certain nombre de fonctions liées à la gestion opérationnelle du réseau, en particulier l'attribution de sillons « à la dernière minute ». L'autorité de la concurrence avait déjà recommandé à plusieurs reprises qu'à tout le moins, les services nationaux et régionaux de la SNCF chargés spécifiquement de l'attribution de sillons ferroviaires soient transférés à RFF afin de mettre un terme à ce problème. Elle a aussi fait valoir que la séparation verticale serait un moyen plus efficace de garantir à tous les opérateurs un accès non discriminatoire au réseau. Cette séparation serait par ailleurs conforme aux directives de l'Union européenne. L'autorité de la concurrence a aussi mis en évidence d'autres problèmes liés à l'accès non discriminatoire à l'infrastructure – en particulier l'accès aux gares de voyageurs – qui, à ce jour encore, est géré par la SNCF. À sa connaissance, cette question n'a pas encore été traitée par le droit ferroviaire européen, mais elle pourrait l'être à l'avenir.

Malheureusement, les recommandations de l'autorité de la concurrence n'ont pas été suivies, avec pour conséquence qu'en 2012, l'autorité a infligé à la SNCF une amende de 61 millions EUR pour abus de position dominante sur le marché du transport ferroviaire de marchandises, suite à une plainte introduite par Euro Cargo Rail, une filiale de la Deutsche Bahn. Les pratiques évoquées par le Président se sont produites entre 2006 et 2008 et ont été établies grâce à des perquisitions menées dans les locaux de la SNCF. En tant que gestionnaire délégué de l'infrastructure de RFF pour certaines fonctions, la SNCF recevait les demandes d'attribution d'itinéraires et organisait des visites sur place, obtenant ainsi des informations confidentielles concernant les clients, les soumissions et les plans de transport de ses concurrents. Elle transmettait ensuite ces informations à sa branche fret, qui les utilisait pour cibler les activités de ses concurrents. L'autorité de la concurrence a également relevé des pratiques destinées à limiter l'accès des concurrents à des infrastructures essentielles, en pratiquant notamment des restrictions

d'accès aux gares de marchandises et des surréservations de sillons ferroviaires et de wagons en vue d'en priver d'autres opérateurs.

Le délégué français conclut qu'un cadre structurel approprié mis en place ex ante aurait pu empêcher ces abus. Il mentionne qu'un projet de loi est en préparation qui créerait une instance publique unique chargée de l'attribution des itinéraires, de la tarification, de la gestion du trafic et de l'entretien et l'extension de l'infrastructure. La mise en place de cette instance aurait une incidence importante sur la répartition du réseau et des services entre RFF et la SNCF.

Le Président se tourne ensuite vers la Hongrie, dont la contribution concerne un cas d'uniformité des prix entre GySEV, MÁV et RCH en 2008. Il demande à la délégation hongroise quelle a été précisément l'infraction au droit de la concurrence.

Un délégué de la Hongrie situe tout d'abord l'affaire dans son contexte historique. Avant l'adhésion de la Hongrie à l'Union européenne et la libéralisation du secteur ferroviaire, deux opérateurs historiques, MÁV et GySEV, exploitaient le marché du transport de marchandises par le rail au moyen de leur infrastructure propre. Lorsqu'ils opéraient sur des itinéraires communs, l'un des opérateurs transférait les marchandises à l'autre à la frontière de leurs réseaux respectifs. Après la libéralisation, de nouveaux opérateurs ont accédé au marché. Les opérateurs historiques ont tenté de préserver le statu quo en concluant un accord de coopération aux termes duquel ils s'engageaient à ne pas empiéter sur leurs marchés respectifs. Ils ont en outre appliqué une politique de liste de prix uniforme (grille tarifaire commune). L'enquête a établi que leurs prix étaient identiques tant sur le fond que sur la forme, et un échange de courriels détecté entre les deux parties a montré qu'ils négociaient aussi le maintien d'une uniformité des prix. Ces éléments ont amené l'autorité de la concurrence à considérer qu'ils avaient conclu un accord de partage du marché et formé une entente horizontale sur les prix.

Le Président mentionne ensuite un cas de pratique de prix d'éviction au Taipei chinois, où une compagnie d'autocars s'était plainte après qu'un opérateur ferroviaire avait réduit ses prix aux heures creuses. Il se demande s'il avait été jugé que l'opérateur en question occupait une position dominante sur le marché du transport au sens large, ou si une disposition spéciale avait été appliquée.

Selon un délégué du Taipei chinois, ce qui est intéressant dans cette affaire, c'est que le lancement du Taiwan High Speed Rail (« THSR ») en 2007 a eu des effets concurrentiels intra-, mais aussi intermodaux. Suite à la concurrence des trains à grande vitesse, le transport aérien a fortement régressé. En 2008, l'autorité de la concurrence (la Fair Trade Commission ou FTC) a enregistré des plaintes de compagnies d'autocars accusant THSR d'avoir enfreint le droit de la concurrence en vendant des billets à perte. La FTC a examiné la plainte et a conclu que les réductions de prix proposées par THSR en dehors des heures de pointe n'étaient pas des prix d'éviction, dans la mesure où cette offre n'était proposée que certains jours et à certaines heures. Elle a aussi conclu que THSR n'occupait pas une position dominante sur le marché en cause et que l'intensification de la concurrence entre modes de transport avait été bénéfique. Le délégué note également que la part relative du service d'autocars autoroutiers longue distance a, en réalité, continué d'augmenter.

Le Président s'adresse à un délégué de l'Allemagne, qui a mentionné la publication récente d'une étude consacrée<sup>2</sup> au secteur ferroviaire allemand par la Commission des monopoles. Cette étude formule des propositions concrètes de réforme du marché allemand, allant au-delà de celles de la Commission européenne ou du Bundeskartellamt.

Aucune question n'est posée et le Président déclare la table ronde close.

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<sup>2</sup> « Bahn 2013: Reform zügig umsetzen! », Monopolkommission, 2013.

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