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## EUROPEAN TRANSPORT REGULATION OBSERVER

### *Competition in Passenger Railways in Europe*

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#### Highlights

Introducing competition to the railway market is a long and difficult process and it is still ongoing. The fourth railway package has been adopted making market opening in passenger railways mandatory in the upcoming years.

Therefore the debate is now evolving from a theoretical conversation to a very concrete debate on how to put a railway system based on competition into practice.

The Florence Railway Executive Seminar brought together the commissions' Directorate General for Mobility (DG MOVE) as well as the Directorate General for Competition (DG COMP) to discuss with academics and sector representatives. Experts in competition law and experts in sector specific regulation brought forward many different ideas of how competition regulation in railways might actually look like.



*This European Transport Regulation Observer reflects upon the discussions at the Florence Executive Seminar “Competition in Passenger Railways in Europe” that took place in Florence on 15/06/2017.*

## Competition in Passenger Railways in Europe

*A Comment by Matthias Finger*

The European Commission still considers increased competition as the main tool to make railways more competitive and foster the modal shift from road to rail in both passenger and freight. Neither modal shift nor competition in railways has happened on a significant scale, even though both are not necessarily directly related. Indeed, modal shift (and in particular the reduction of the use of the private car) depends on many other things as well, including oil prices, the internalisation of environmental externalities on road transport, emerging intermodal competition with bus transport and new forms of sharing mobility.

On the other hand, fostering competition in passenger rail transport – while still being a worthwhile goal, even though not necessarily the most effective weapon against the above trends – turns out to be more complicated than originally anticipated, owing in particular to the technological nature of railways with its heavy implications on both operations and financing. Let me finally mention that this discussion about furthering competition in railways comes after the adoption of the 4th Railway Package, following a lengthy process which has strained most involved parties. The uncontested success of this 4th Railway Package is its technical pillar aiming at harmonizing technical standards and thus at fostering technical interoperability without which no competition in railways is ever going to take place in Europe.

Enter DG Competition, and this is the real novelty for railways and railway operators, for the European Commission itself and for railway regulation more generally. Indeed, the real novelty consists of no longer looking at railways from a purely sectoral regulatory perspective (i.e., the railways’ perspective) but also from a competition regulatory perspective.

While historically so-called access competition has already been approached from a sectoral regulatory perspective (and led to the creation of sector specific rail regulators), other competition relevant dimensions – such as tendering of PSO (Public Services Obligation) contracts, anti-trust considerations and state aid issues – were more difficult to approach from a purely sectoral point of view, as they are by their very nature transversal.

There is indeed a solid theory and a long-lasting practice of regulating tendering (of contracts), state aid and anti-trust among academics and competition regulators at global, EU and national levels, and this theory and practice should now also come to bear on the railways, as railways are gradually entering competition, not the least because of growing technical interoperability.

Yet, our Florence Executive Seminar clearly showed that applying competition regulation to railways and especially integrating competition regulation and railway sector specific regulation is more easily said than done. Most of the Seminar was therefore spent on trying to understand what competition regulation in railways would actually mean and entail, not in theory, but in practice.

And rail specificities abound; let me highlight here the four most important ones:

- There is first the **technological** specificity of railways, characterised mainly by difficult and costly interoperability between rail infrastructures (namely tracks) and train operations (mainly locomotives and wagons). Such interoperability makes not only access competition difficult but it also adds complexity to tendering, inasmuch as investments in rail infrastructure and train operations have different time horizons.
- There is secondly the fact that railways are never self-financing. A significant portion of any railway system will always be **subsidized**, in EU on average for approx. 50% of its costs. Furthermore, public subsidies are paid both for a portion of the infrastructure, as well as for a portion of train operations, thus creating problems for tendering, as well as potential market distortions, not to mention potential state aid problems.



- On top of this comes the fact that many infrastructure managers or integrated companies are **indebted**, thus distorting the level playing field even further, as well as raising issues with regard to state aid rules.
- The fourth specificity, while having existed for a long time, has recently been much exacerbated by digitalisation, namely **intermodal competition**. Indeed, increasingly questions of and decisions about anti-trust in railways will have to take into account the evolution in adjacent markets, especially in the long-distance bus and the long-distance car-sharing markets.

It must be made clear that rail transport and modal shift to rail will always remain a public policy goal connected to growing road congestion and pressing CO<sup>2</sup> emissions reduction goals. In other words, neither the member states nor the European Commission can afford for railways to decline. Therefore, whatever will be done in terms of fostering railway competition in Europe and with member states it will only be politically acceptable if it strengthens railways as a transport mode vis-à-vis the other transport modes, or if it fosters intermodality, both in passenger and freight.



## Executive Seminar on Competition in Passenger Railways in Europe – an Overview of the Most Important Arguments

by Dr Gunnar Alexandersson, Stockholm School of Economics

### A Summary of the Discussions

This Executive Seminar brought together sector representatives, railway and competition regulators, and academics. The aim was to discuss the current state and future of competition in the passenger railway market, in particular against the background of the adoption of the 4th Railway Package.

A strong presence from the European Commission made it possible to raise a valuable discussion on a number of issues in terms of both appropriate regulations and the underlying intentions, even if the adopted framework does deviate quite a bit from the original proposal. A few specific topics from the discussion are highlighted below.

**The meaning and importance of coordination** was discussed from several different viewpoints. Some speakers stressed the need to avoid misaligned incentives between an increasing number of (unbundled) actors such as infrastructure managers and railway undertakings, in order to ensure coordinated investments and actions to promote the overall competitiveness of rail. Examples on coordination were also presented in the form of cooperation between railway undertakings seeking to offer better international services. Representatives from the Commission highlighted the need to promote good coordination (seeking to achieve better services) while avoiding bad coordination (such as cooperating to collude). This may not be so easy in practice, but one important pre-requisite for good coordination could be to make the needs and priorities of all actors as transparent as possible.

Another important topic discussed was the role and possibilities for **open access competition and competitive PSO tendering**. The 4th Railway Package aims at opening up the EU's railway market by means of promoting both types of competition, sometimes

referred to as competition in the market vs. competition for the market. One particular problem to be handled is the fact that these two types sometimes come into conflict. The regulator in Great Britain, Office of Rail and Road, has developed a sophisticated way of ensuring that new open access operators are not merely cherry-picking against franchised services, the so-called Not Primarily Abstractive (NPA) test. The implementation of the 4th Railway Package foresees the development of an (optional) Economic Equilibrium Test, checking open access services against the need to uphold financial stability in tendered networks which may include both commercially viable and non-viable lines. One problem with this is that it removes the competitive pressure and fostering effects that may come from the threat of cherry-picking. Moreover, open access passenger operators may also have to face special levy charges. Several participants at the seminar criticised this idea and it was suggested that it might be better to, for example, have all actors pay a fair contribution to the fixed infrastructure costs. Finding a good balance between open access competition and competitively tendered services is an important one, and should also take into account the general difficulty for commercial operators to compete against services that are subsidised in one way or the other.

**The role and future of the incumbents** got some attention during the seminar. With the exception of Great Britain, where the incumbent British Rail was dismantled entirely as part of railway reform more than 20 years ago, there are a number of incumbent railway undertakings in the EU Member States, and most of them are still state-owned. The Commission was quick to point out that the intention is not to push incumbents out of the market. While incumbents may sometimes still be in control of essential facilities and have other advantages, they may also carry heavy burdens of debt and difficulties when it comes to improving efficiency by means of laying off staff, for example. Several examples were given on incumbents that had been able to transform themselves under increased competitive pressure, but the question was raised that if entrants are still more efficient, can we accept the exit of incumbents? If competition is to work properly we want a level playing field, but at the same time we cannot have every firm be exactly the same as all the others, since that would stifle innovation and make efficiency gains meaningless. One solution might be to adapt the role of the state in terms of responsibilities.



Towards the end, the seminar touched upon the **difference between sector-specific (ex ante) regulation vs more general (ex post) competition policy**. For a long time the EU railway sector has been increasingly subject to sector-specific regulations. While these can be more powerful and faster, they can also be too intrusive and ultimately fail in achieving the underlying intentions.

Most Member States are now busy contemplating how to implement the 4th Railway Package, some opting for increasing competition as much as possible, while others take a more cautious and transitional approach. It will be interesting to follow the outcomes both at the national levels and the EU level, and what we may learn for the future development of EU railway policy.

## Italy's Successful Story of Open Access Entry

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In the European Union, achieving a full liberalisation of domestic rail passenger markets is clearly one of the most important future challenges. A rigorous enforcement of competition law is instrumental to ensuring that the objective is met. However, several antitrust issues are currently affecting the sector in the majority of Member States: rail markets in the EU remain largely dominated by incumbents, which are very frequently vertically integrated into infrastructure. This is particularly true with reference to train paths. New entrants are usually deterred by some significant advantages held by state-owned operators: there exist high entry barriers related to access to key installations, such as rail infrastructure, including stations, rail-related service facilities, and access to rolling stock. As a result, open access operations have been limited to niche markets so far. Finally, State Aid, restructuring aid and other contributions often are not consistent with the market investor principle nor justified by public service obligations: in the EU region, the amount of state subsidies is estimated to be of €18 to €20 billion per year, excluding infrastructure investment.

Experiences of on-track competition in the passenger railway sector therefore appear limited. However, in the last few years, a wave of open access entry has occurred in some countries, with private operators gaining 20-30% of market share in long-distance corridors (Casullo, 2016). One successful story comes from Italy where the entrance of a new competitor, Nuovo Trasporto Viaggiatori ('NTV'), in the high-speed rail

('HSR') market, significantly improved the overall mobility of the system and brought several advantages to consumers, such as more supply and capacity, more frequency and connections, more differentiated services at lower prices and the possibility to choose between providers. This situation has been favoured by the attitude of the newcomer, who accepted the investment risk linked to its entrance and developed an innovative business model. It has been estimated that in 2013, NTV operated 12.5 billion train-km, equivalent to a market share of 20-25% on the high-speed network (Bergantino et al. 2013) and an overall 2.5% share nationally. Another key role has been played by the Government who financed the HSR dedicated network and made competition feasible by solving the major capacity constraints affecting the largest business routes. Furthermore, the regulatory pattern followed by the national regulator made it possible to decrease the level of access charges; in turn, this enlarged the scope for profitable entry of new operators.

While it is true that some aspects are specific to the Italian market structure, one should also recognise that some lessons to be learned can be drawn from this model. Open access competition seems to have facilitated a 'win-win' game between the actors involved in the HSR sector, with several positive effects for the whole system (Crocco and Violi, 2013). The incumbent's response to the competitive pressure resulted in a cut of the operational costs and improvement of the services (Desmaris, 2016). Even the infrastructure manager benefitted from a greater utilisation of the rail network.

Similar examples come from the Czech Republic and Austria. Each of them provides great support to the European liberalisation policy endorsed by the 4<sup>th</sup> railway package. As stated by the European Commission, competition in the sector should be able to enhance the attractiveness of rail while making the sector more responsive to customers' needs, as well as allowing rail operators to compete with other modes. It remains to be seen to what extent the process will be impacted by external factors, such as the current European economic crisis.



## Competition in the Rail Passenger Market – Prospects and Issues

*Chris Nash, Institute for Transport Studies, University of Leeds, Masaryk University, Brno and CERRE*

With the fourth railway package, the rail passenger market should finally become open to competition, for the market via competitive tendering for public service contracts in 2023 and via open access for commercial services in 2019. But there remain many reasons why market opening may not be complete.

Firstly, the legislation itself contains loopholes. Regarding public service contracts, direct awards will still be permitted if this can be justified to an appropriate independent body such as the rail regulator. Regarding open access competition, this may still be restricted (or subject to a PSO levy) if it disturbs the financial equilibrium of public service contracts. It is widely expected that some countries will use these loopholes to try to prevent competitive entry, although in some including France – long opposed to competitive entry – domestic pressure for reform now seems so strong that some movement towards competition seems inevitable.

But secondly, new entrants will have to contend with strong state owned incumbents who possess many advantages, including in many cases control of passenger stations, ticketing and information systems, maintenance depots and cleaning and refuelling facilities. Although legislation is in place which should ensure access to such facilities on fair terms, in some countries this may prove a struggle.

Moreover, it is likely that the move towards competitive entry will be gradual, with public sector incumbents retaining a dominant position. This may open the possibility of various uncompetitive practices, such as cross subsidy of services where competition is strong by those where monopoly power remains and predatory pricing. Dealing with these will stretch the capabilities of the competition authorities in this area.

Regarding competitive tendering for public service contracts, there remain many issues – geographical size, length of contract, degree of control over prices and services – where it is unclear what works best. There appear to be broadly two successful models. Where an appropriate regional authority can take the lead on planning and marketing services, including pricing and timetables, then tightly specified short gross cost contracts make sense. Where the task of developing

and marketing services is entrusted to the operator, much longer net cost contracts will give more appropriate incentives.

But open access competition for commercial services is a more complex issue. On the one hand, wherever such competition exists, benefits for consumers - lower fares and better services - have resulted. But in every case except Britain this has been in competition with public sector incumbents who were previously monopolists, so this says nothing about whether open access competition or competitive tendering is superior for commercial services. In Britain, estimating the net benefits of open access entry is complicated by the fact that open access entrants do not pay towards the fixed costs of the infrastructure, or a premium to government to help pay for non commercial services, whereas franchisees do, so the benefits to consumers of open access entry are partly at least paid for by the taxpayer.

But there are other complications. Firstly, which services are commercial at all is heavily influenced by the approach of the country towards track access charges. If the government is willing to pay most of the fixed costs of the infrastructure, as in Sweden, then low track access charges may make services commercial and attract entry. But if the government expects users to pay a large share of the costs of the infrastructure, high track access charges will render most services in need of subsidy and greatly limit the scope for commercial entry.

Whatever approach to competition is adopted, two issues are likely to be critical. Firstly is access to rolling stock. If governments continue to buy rolling stock for incumbents which is not made available to new entrants and which is cut up rather than being sold when it is no longer needed, that will be a considerable barrier to entry. Secondly is the issue of what to do with existing staff. Where new entry has been a gradual process, it has been possible to leave entrants to recruit their own staff at their own wages and conditions, with existing staff free to choose whether to move or to stay with the incumbent. With an ageing workforce, the resulting need to transfer staff to new duties has been manageable. But if countries now starting on the reform process want a fast pace of change, then the issue of whether staff should transfer to new operators and on what terms and conditions becomes key. No doubt this is an area with major potential for disputes as the fourth package is implemented.

For further discussion of these issues see:

Nash Chris, Crozet, Yves, Link services, H, Nilsson, J.E. and Smith A.S.J. (2016) Liberalisation of rail passenger. Brussels: CERRE. available on line at [www.cerre.eu/rail](http://www.cerre.eu/rail)



## Further Readings

*Finger, M., Kupfer, D., Montero, J., 2016, 'Competition in the railway passenger market'. Florence: European University Institute doi:10.2870/279285*

In recent years new developments in the railway market have brought about several new insights about the effects of competition in the sector. In the context of a workshop in Madrid organised by the UNED University in the realm of the research project REGUTRAIN, some practical cases in Europe were discussed. New entrants that offer competitive passenger rail services have brought down prices and increased frequencies significantly in several instances. Yet, the debate showed that whether these developments are beneficial for the system on the whole remains an open question.

*Montero, J., Ramos, R., Giuricin, A. 2016, 'Open with Care: The Duopoly Model for the Transition to Competition in Long-Distance Passenger Railway Transportation'. Competition and Regulation in Network Industries, Vol 17 (2016), No. 3–4*

Railways present specific obstacles for the introduction of competition. The duopoly model for the transition to competition makes it possible to overcome some of these obstacles. The granting of a second license allows governments to control the process and exclude opportunistic market entry limited to high-volume routes with high margins. Temporary exclusion of contestability allows the newcomer to achieve the necessary economies of density and scale. Finally, more limited competition allows the incumbent adapting to the new market structure by reducing costs and putting an end to internal cross-subsidies.

*Nash, C., Crozet, Y., Link, H., Nilsson, H., and Smith, A.S.J., 2016, 'Liberalisation of rail passenger' Brussels: CERRE*

Where it has occurred, liberalisation of passenger rail services in Europe has largely been successful, with improved services, increased traffic and reduced support from public finances. This offers lessons for markets that are yet to be liberalised. It also points to a number

of key questions and difficult issues that policy-makers will have to address. In markets that have yet to undergo liberalisation, the report identifies a number of trade-offs to be faced by policy-makers. Those include: choosing a path to liberalisation – through competitive tendering for public service contracts, or open access for the operation of commercial services, or some combination of the two; deciding which levels of government should be responsible for competitive tendering: devolving this to regional administrations or maintaining central coordination; determining the optimal size and duration of franchises to maximise economies of scale and density; allocating risk-sharing between private operators and the state; dealing with the political and social implications of potentially transferring large numbers of public-sector staff to private companies.

*Benedetto, V., Smith, A.S.J., Nash, C. A., 2017, 'Evaluating the roles and powers of rail regulatory bodies in Europe: A survey-based approach', in Transport Policy, Vol. 59, pp. 116-123*

European railways have been shaped by multiple reforms since the mid-1990s, covering industry structure, market opening and economic regulation. However, the literature has given little attention to the latter; namely the evolution and impacts of regulatory reforms amongst Europe's railways. This paper fills this gap by providing an up-to-date, bottom-up assessment of current rail regulatory practice in Europe. The results show that European rail regulators, in general, exhibit many of the features of ideal regulation; in particular around key features such as independence, resourcing, longevity and expertise, transparency and in turn stability and predictability. However, the article finds that rail regulatory bodies could take a more proactive role in shaping track access charges, given their importance in respect of efficient use of the network and maintaining non-discriminatory access. Importantly, there is also scope for regulators to play a greater role in regulating the efficiency and quality of infrastructure managers, and potentially becoming more involved in the designing stages of passenger market opening as it emerges; and these changes could deliver substantial beneficial impacts for rail users and funders across Europe.



CNMC, 2014, 'Discussion paper on the process for liberalizing rail passenger transport', 25/06/2014, PRO/DTSP/0001/14

In Spain, the rail passenger transport market is largely closed to competition, except for the so-called services operated on their mainly tourist value, which were liberalised in 2013. The opening-up of the railway market has been gradual, driven by the railway packages passed at the Community level<sup>1</sup>. In 2003, Act 39/2003 of 17 November on the Railway Sector was passed in Spain, leading to the liberalisation of freight services by rail in 2005. Subsequently, in 2010, the opening-up of international passenger transport took place. (...) By summarising the knowledge gathered by the Competence and Regulation Authorities in the processes of liberalising the network industries, and in order to promote a suitable framework for the liberalisation of rail passenger transport, the CNMC wishes to contribute to the process with this document.

Casullo, L., 2016, 'The Efficiency Impact of Open Access Competition in Rail Markets - The Case of Domestic Passenger Services in Europe', *International Transport Forum Discussion Paper 2016/07*

On-track competition in passenger services has traditionally been limited in European railways, with private operators offering marginal services in selected corridors in the UK, Sweden and Germany only. In recent years, a larger scale and more stable wave of open access market entry has occurred in Austria, the Czech Republic and Italy, where open access operators have gained market shares of 20-30% in long-distance corridors. Economic theory suggests that competition can result in productive efficiencies, although theories of competition are potentially outweighed by market characteristics which make monopoly a more efficient market structure when applied to the rail sector. The contestability of rail markets is further hampered by the presence of several barriers to entry as well as expansion. The literature on the efficiency effect of rail policy changes is vast, but the focus to date has been on industry structure and competitive tendering, with non-conclusive results highlighting the importance of tailoring rail policies to the specific characteristics of each network. Studies have not yet attempted to measure the industry efficiency impact of passenger open access

operations, neither specifically nor systematically – which is the goal of this paper.

Perennes, P., 2017, 'Open Access for Rail Passenger Services in Europe: Lesson Learnt from Forerunner Countries', *Transportation Research Procedia*, Vol. 25, 2017, pp. 358-367

The fourth railway package –still discussed today by the European institutions - plans to open the whole rail transport market to competition in 2022. Currently, only freight transportation and international passenger services are open to competition. According to the fourth package, the market for regional transportation should be organised around franchises and therefore competition “for” the market. On the contrary, competition for long distance services - at least for profitable services – should be “open access”. This paper evaluates the potential consequences of this open access competition at the European level based on the consequences of open access competition in the seven forerunner countries that have already allowed for some form of open access competition. These experiences may give us some clues regarding the impact of open access in Europe. It inventories all the open access services that exist/have existed across Europe. Based on this database, the paper constructs standard profiles and strategies of new entrants. It finds that it takes several years for open access competition to settle after legal opening of passenger transportation market. For most of the new entrants, the financial strategy is to minimize risk. Wide-scale entries with brand new rolling stock are extremely uncommon. Bankruptcy (or service interruption) are common. Therefore, it is unlikely that the fourth package implementation leads to a dramatic change in the functioning of the rail passenger transportation market.

Tomeš, Z., Kvizda, M., Jandová, M., Rederer, V., 2016, 'Open access passenger rail competition in the Czech Republic', *Transport Policy*, Vol. 47, 203-211

This paper analyses open access passenger railway competition in the Czech Republic between 2011 and 2014. This competition emerged when the major railway connection between Prague and Ostrava, which was operated only by the incumbent, was entered by two private operators, RegioJet in September 2011 and LEO Express in January 2013. Theoretical studies



and experience from other countries suggest that this competition should lead to a price war, intensive market dynamics and product differentiation. The findings from the market development on the Prague–Ostrava route are broadly consistent with these predictions. The open access competition has led to an intensive price war with second class tariff declines reaching 46%. Innovative marketing and selling strategies have significantly increased the spread of prices, and price discrimination and yield management techniques are used extensively.

All operators has been unprofitable on the line, leading to financial stress and accusations of predatory pricing on the part of the incumbent. The quality of service on the line has increased substantially with standardisation, new on-board services and higher frequency. The average number of seats per train has declined significantly, and new operators have been able to win 55% market share from the incumbent. Service frequency is higher but is strongly concentrated during rush hours.

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