KAPITTEL 8

Market opening and entry in the European passenger railway market

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ABSTRACT

A series of rail reforms at the European and national levels have been undertaken since the early 90s in order to improve the competitiveness of the sector through market opening. The reforms at the European level focused initially on rail freight, but starting with the 3rd Railway Package, provisions for opening of the international passenger market were included. This was taken further with the 4th Railway Package where market opening for domestic rail services was also included through open access (starting in December 2020) and competitive tendering (starting in December 2023) provisions. Given the magnitude and significance of these changes, the aim of this Chapter is to outline the main railway reform elements and what has happened to date in selected countries. In particular, this Chapter provides an overview of the market opening measures and sets out brief country overviews in terms of market entry (focusing on the passenger railway market). Moreover, the Chapter discusses the possible implications of the additional provisions in the 4th Railway Package in terms of increased likelihood of new market entry either through open access providers or through contract award to non-incumbent railway companies.

8.1 INTRODUCTION

The railway sector in Europe has experienced substantial changes over the past decades. These changes concern both how the historic incumbent railway company is organized as well as the emergence of new players either as alternative transport service providers, entities responsible for upstream services previously provided by the incumbent, regulatory authorities and other institutions. As such these changes have been introduced in order to allow a more customer-oriented and cost-efficient sector to develop that could contribute towards an enhanced position of rail in the transport market. In turn, this is clearly linked to the policy of moving towards a more sustainable transport system and addressing climate change as put forward in the EU Transport White Papers, European Commission, (2001) and (2011). The underpinning logic would be that if regulatory reform contributes towards railways becoming more competitive in the transport market, then this would support a shift in demand from other modes towards railways. Since railways in general have a lower environmental unit cost, such a shift could lead to lower environmental costs (incl. those linked to CO_2 emissions) imposed by the transport system as a whole (CE Delft, 2019).

It should be mentioned that railways across the World have undergone reforms in recent years albeit not sharing all features of the European approach.

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Furthermore, this reform agenda is not specific to the railway sector but has also been introduced for other network industries such as aviation, electricity, telecommunications and postal sectors.

The aim of this Chapter is to consider how the railway sector has been influenced by the legislative initiatives. In particular, the Chapter will focus on the experiences in passenger rail transport in terms of the policy of market opening and the results in terms of market entry triggered to date across Europe. Furthermore, an outlook to the future in terms of market entry and competition in the passenger market will be provided taking into account the additional measures for market opening introduced in 2016 (domestic rail services) through EU legislation.

The Chapter is structured as follows. Section 1 provides an introduction to the background of market opening reforms in Europe. This is followed by a review of the market opening reforms in Section 2. In Section 3, short country reviews of market entry cases are set out together with considerations for the importance of non-incumbent providers. Section 4 will discuss the possible future outlook of rail passenger market competition (distinguishing between on-track and off-track situations).

8.2 MARKET OPENING REFORMS FOR EUROPEAN PASSENGER RAILWAYS

8.2.1 EUROPEAN LEGISLATION

The EU reform initiatives directed towards the railway sector over the past 2–3 decades starting with the Directive 91/440 have focused on the following core elements: (1) commercialization and managerial independence of railway companies, (2) unbundling (particularly provisions for some degree of separation between railway operations and infrastructure), (3) market opening (including promotion of independent regulatory bodies) with a particular focus on freight and a limited focus on passenger transport until 2016, and (4) technical harmonization. In this Chapter, the focus is specifically on market opening for the passenger rail sector. The EU legislative initiatives have provided for market opening by extending access rights to the railway infrastructure for non-incumbent entities as well as to essential service facilities (e.g. terminals and maintenance depots). These started in 1991 (Directive 91/440) by defining access rights to rail infrastructure in one Member State in the cases of

operators[1] in other Member States wishing to provide international combined (freight) services and associations of railway operators offering international (passenger) services between the countries in which they are established. Over the following years, European-led market opening legislative measures focused on rail freight services whereas no further progress towards the passenger rail market opening was initiated until 2007. The Third Railway Package from 2007 (Directive 2007/58/EC) provided for opening of the market for international passenger rail services by 3rd December 2009 including cabotage.[2] However, a number of exemptions were introduced in the directive; in particular, it is possible to limit access rights if routes concerned are covered by public service contracts. The more recent Fourth Railway Package (from December 2016) addressed the domestic passenger rail market for which no European legislative initiative regarding access rights for non-incumbent operators had been provided until that point. In particular, from December 2023, public service rail contracts should be provided mainly through competitive tenders open to all EU railway operators, except in specific cases where direct award is permitted. Moreover, an enhanced possibility for open access operation across Europe will be available from December 2020. However, restrictions on open access may be allowed to ensure the continuation of subsidized services provided these are determined according to objective assessment by regulators. Besides these legislative measures, some EU countries decided to promote rail passenger market opening beyond European requirements, e.g. the case of Germany, Great Britain and Sweden.

8.2.2 OVERVIEW OF MARKET OPENING AND ENTRY IN EUROPE

Market opening and entry in Europe is influenced both by national legislation (see the three countries mentioned above) and European initiatives along with other elements. In this section, an overview of the progress regarding market opening and entry in Europe will be provided. This will consider two key dimensions: a) market segment involved (notably international, domestic long distance and domestic regional rail services, and b) form of competition (that is competition in the market linked to open access providers and

1 In this chapter we refer to railway operators as the entities responsible for producing rail services (passenger and freight), which are more frequently used in practice, rather than railway undertakings, which are used in EU legislation.

2 Cabotage is the transport of goods or passengers between two points in the same country. Cabotage is commonly used as part of the term "cabotage rights", the right of a company from one country to trade in another country.

competition for the market linked to bidders competing for public service contracts). Typically, the form of competition will also be linked to the type of service in question distinguishing between commercial services and PSO[3] services. From a European level there have been two main steps towards market opening of passenger rail:

- 3rd Railway Package from 2007 with market opening of international services from 3/12/2009
- 4th Railway Package from 2016 with market opening of domestic services from 14th December 2020 (open access rights) and 25th December 2023 (competitive tendering for public service contracts for PSO rail passenger services)

On this basis any legal liberalization for international services that took place before 2010 or to date for domestic services would have gone beyond the EU requirements and be the result of national initiatives. Below, the progress on rail passenger market opening will be examined with reference to the timing of legal liberalization and the issue of first license/appearance of the first competitors.

Figure 8.1 displays the situation by country with respect to the international passenger market. A few countries liberalized these services much in advance of the European legislation and also saw entry through the issue of licenses soon afterwards (notably UK and Germany). In the case of the UK, the first license was issued after one year and for Germany after four years. Other countries also opened this market albeit without issuing any licenses at all (e.g. Romania and Portugal) or only after an extended period (e.g. Italy and Latvia). In the case of Italy, the first license was issued after more than eleven years and for Latvia after eight years. For a number of countries these services were only liberalized in connection with the transposition of the EU legislation, i.e. the end of 2009/beginning of 2010 (e.g. the case of Norway and Poland) or later (Denmark and Greece). Most of these countries have yet to issue the first license in this market segment; exceptions include Belgium, France and Slovakia.

3 PSO refers to Public Service Obligations determined by government authorities (typically at the national and regional level) in order to ensure public passenger transport, mobility and cohesion. The PSOs are set out in a Passenger Service Contract (PSC), which also defines the financial compensation between the railway operator and the authority. A key issue here is whether the PSC is directly awarded or subject to competitive tendering.

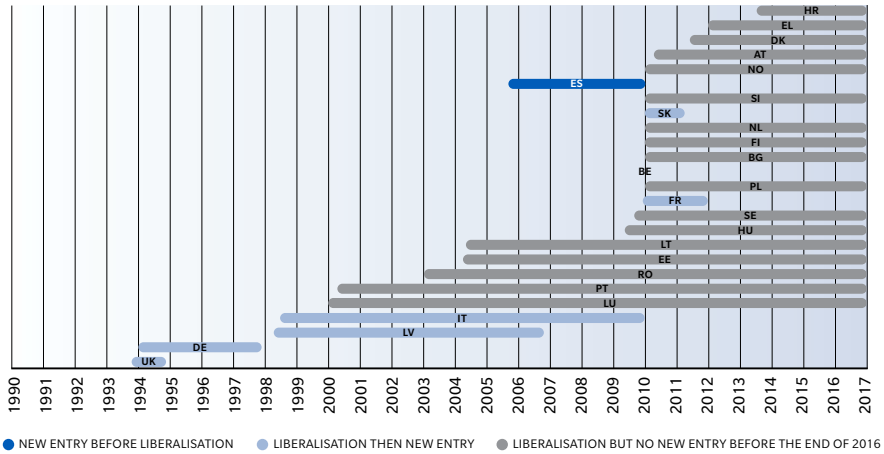

FIGURE 8.1[4] Timing of legal liberalization and first license in the international passenger market

Source: European Commission (2019), p. 91
Note: No data for CZ and IE

In the case of the domestic long-distance passenger market, a number of countries have already liberalized in advance of European requirements introduced in the 4th Railway Package, see Figure 8.2. However, in most cases this has not resulted in any licenses being issued. According to the figure, liberalization was followed quickly by the first license in Germany, UK and Sweden. However, it should be noted that the data are not complete; for 13 countries no data were provided. Moreover, in the case of at least two countries in the figure entry has occurred, Italy with NTV in the high-speed segment and Austria with Westbahn.

The situation for the domestic regional passenger market is set out in Figure 8.3. For this market, the information concerns timing of liberalization and the appearance of the first competitors. The data available are more comprehensive compared to the long-distance market with 9 countries not

4 For the countries considered in Figures 1 to 6 the following two-letter country codes have been used: Belgium (BE), Bulgaria (BG), Czechia (CZ), Denmark (DK), Germany (DE), Estonia (EE), Ireland (IE), Greece (EL), Spain (ES), France (FR), Croatia (HR), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE), Norway (NO), United Kingdom (UK). Further information available from this link: https://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Country_codes

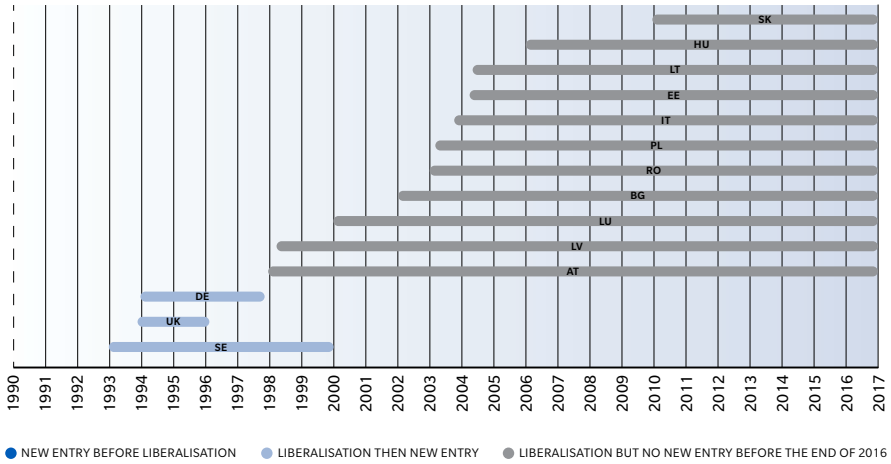

FIGURE 8.2 Timing of legal liberalization and first license in the domestic long-distance passenger market

Source: European Commission (2019), p. 93

Note: No data for BE, DK, EL, ES, FR, HR, NL, PT, SI, FI, NO, CZ, IE

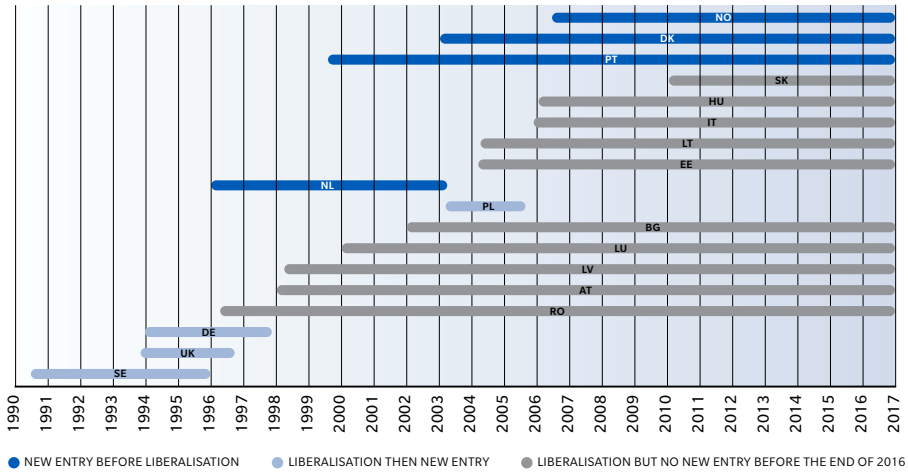

FIGURE 8.3 Legal liberalization and first competitors in the domestic regional passenger market

Source: European Commission (2019), p. 94

Note: No data for BE, EL, ES, FR, HR, SI, FI, CZ and IE

included. Three countries were liberalized early in the 90s (Sweden, UK and Germany), followed by the entry of the first competitors. Normally entry would take the form of being awarded Passenger Service Contracts (PSCs) following competitive tendering of regional services (see also Fotnote no. 3 for additional information about the concept of PSCs). Another group of countries (the Netherlands, Portugal, Denmark and Norway) saw new entry albeit before liberalization. In most cases these would be companies winning PSCs as a result of competitive tendering. The final group of countries consists of those in which liberalization has been introduced but to date not resulted in entry.

Figure 8.4 provides an overview of the outcome to date of the liberalization measures of the domestic passenger market distinguishing between PSO and commercial services. In particular, the figure (based on 2016 data) shows the number of active railway undertakings for the PSO and commercial passenger markets. A number of countries still have only a single operator (typically this would be the same entity in both market segments). However, more than half of the countries have more than one operator present. It should be noted that this may be the result of new entry during the reform period, but also the existence of operators that have been providing services for a lengthy period without having recently entered the market. For example, in Germany there exists historically a high number of railway operators providing distinct services without being in competition with the incumbent, e.g. services on regional branch lines. Ten countries have three or more active railway operators providing commercial

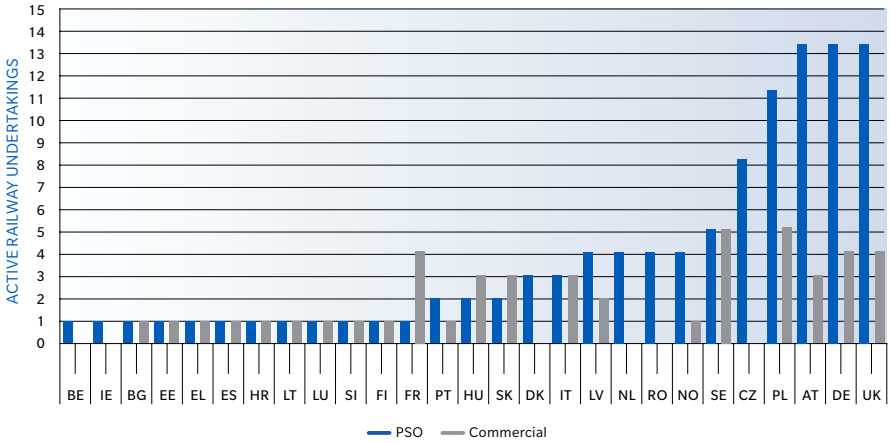

FIGURE 8.4 Active railway undertakings in the PSO and commercial passenger market by country, 2016

Source: European Commission (2019), p. 98

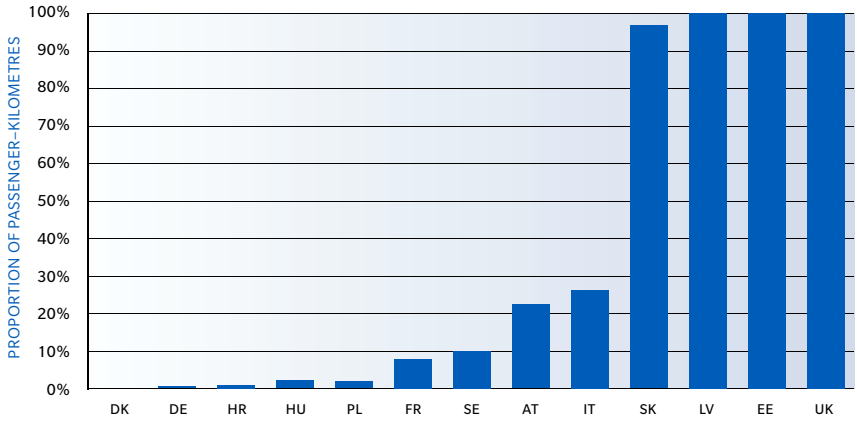

FIGURE 8.5 Competitors in the commercial passenger market, market share, 2016

Source: European Commission (2019), p. 98

Note: No data for BE, CZ, IE, NL and RO

services. In the case of PSO services there are twelve countries with three or more operators. The countries with the highest number of PSO railway operators are: Sweden (5), Czech Republic (8), Poland (11), Austria (13), Germany (13) and the UK (13). For the commercial passenger market, the countries with the highest railway operators are: Germany (4), UK (4), France (4), Poland (5) and Sweden (5).

The market share for competitors (not held by the incumbent) in the commercial passenger market is shown in Figure 8.5 with 2016 data. In the case of the UK,[5] Latvia and Estonia, competitors have 100% of the market without an incumbent present in this market. In Slovakia, competitors hold 97% of the market. For a number of other countries, competitors hold significant market shares, notably Italy (26%), Austria (22%) and Sweden (10%). Competitors in France hold a market share of 8%. For the remaining countries for which data are provided, the market share is below 3%. Among the countries for which data are not provided the Czech Republic should be mentioned since entry occurred in the market (Leo Express and Regiojet). Although, it should be noted that these percentages will be influenced by the definition of PSO and

5 It should be noted that the regulatory arrangements for railways in Northern Ireland are distinctly different from those in Great Britain. In particular, whereas market opening was introduced in Great Britain since the mid-90s, the same did not occur in Northern Ireland. As a result, the incumbent operator still provides all passenger services in Northern Ireland (with the exception of the connection Belfast-Dublin, which is operated jointly with Irish Rail).

non-PSO services and the extent to which there are commercial services among PSO services. Furthermore, it should be noted that the majority of passenger rail services are provided as PSO services, according to IRG (2019) 65% of passenger kilometers in Europe were provided with PSO services. Overall, the available data suggest that some market entry has occurred but with significant variation between countries such that in a few countries there is no incumbent provider while in a number of countries the incumbent is still responsible for all passenger services.

An overview of recent examples of market entry is provided in Table 8.1.

TABLE 8.1 Market entry by domestic open access operators

Country	Open access operator	Service	Begun	Ended
AT	Westbahn	Long distance	Dec-11	
CZ	RegioJet	Long distance	Sep-11	
	Leo Express	Long distance	Dec-12	
DE	HKX	Long distance	Jul-12	
	InterConnex	Long distance	Dec-01	Dec-14
IT	NTV	High speed	Apr-12	
	Arenaways	Long distance	Nov-10	Feb-12
SE	BlåTåget	Long distance	Nov-11	
	Öresundståg (Veolia)	Long distance	Dec-11	
	MTR express	Long distance	Mar-15	
SK	RegioJet	Long distance	Dec-14	
UK	Grand Central	Long distance	Dec-07	
	First Hull Trains	Long distance	Sep-00	
	Wrexham Shropshire & Marylebone	Long distance	Jan-08	Jan-11

Source: European Commission (2016) (p. 85) originally included in Steer Davies Gleave (2016)
Note: Excluding cabotage by high speed international services and airport-only operators

Turning to the PSO passenger market, Figure 8.6 provides an overview of the market shares held in 2016 by non-incumbents. The Figure shows that in about half of the EU countries (plus Norway) non-incumbents have gained a part of the market. In the case of the other countries, the incumbent is still responsible for the provision of all PSO passenger services. The market share of non-incumbents varies significantly between the countries, from 100% (Portugal) to around 0.1% (Latvia). For the majority of these countries, competitors to the incumbent have a market share of around 10% or less. In six countries,

non-incumbent operators have a market share of 20% or more: Italy (24%), Germany (26%), Poland (52%), Sweden (60%), UK (87%), Portugal (100%). It should be noted that the 100% for Portugal is due to that the only PSO contract was with Fertagus, a non-incumbent operator, whereas all other services are classified as commercial (according to European Commission, 2019).

Overall, the following countries have used competitive tendering for awarding passenger service contracts (Ranghetti, 2018):

- Czech Republic (partially both long-distance and regional)
- Denmark (partially regional)
- Germany (partially regional)
- Italy (partially regional, awarded to incumbent)
- Netherlands (partially regional)
- Norway (ongoing to become complete regional and long-distance)
- Poland (partially regional)
- Portugal (partially regional)
- Slovakia (partially regional and not implemented)
- Sweden (complete regional and long-distance)
- UK (complete regional and long-distance)

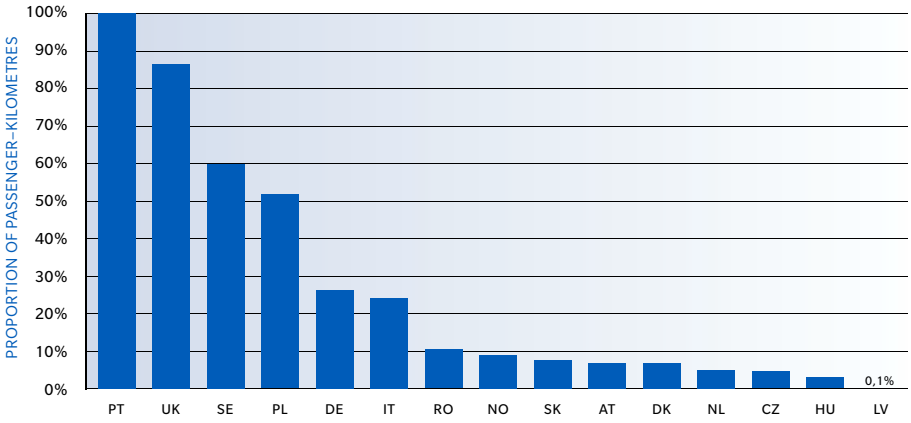

FIGURE 8.6 Competitors in PSO passenger market, market share, 2016

Source: European Commission (2019), p. 100

Note: All other Member States reported a single operator

8.3 REVIEWS OF MARKET ENTRY: SELECTED COUNTRIES

This section will provide more detailed information about market entry for selected countries. In particular, the following countries will be reviewed: Austria, Czech Republic, Germany, Italy, Norway, Sweden and the United Kingdom. In all these countries, market opening has occurred and instances of significant market entry followed/is underway. The country cases cover new entry through open access, competitive tendering or both. Table 8.2 provides an overview of the rationale for including each country in the review.

TABLE 8.2 Country selection

Country	Open access	Award of passenger service contract to non-incumbent
Austria	Yes (significant – Westbahn)	No
Czech Republic	Yes (significant – Leo Express and RegioJet)	Yes
Germany	Yes (but limited)	Yes (significant for regional services)
Italy	Yes (significant, entry in High-speed segment NTV)	No
Norway	No	Yes (significant)
Sweden	Yes (significant)	Yes (significant)
United Kingdom (Great Britain)	Yes (significant)	Yes (significant)

Among the EU countries not considered in this section there are several that have seen market entry, albeit at a more limited scale, e.g. Denmark, Estonia, France, Netherlands, Poland, Romania and Slovakia. For other countries not included, to date there have not been any significant passenger market entry from non-incumbent companies through open access or winning tendered passenger service contracts.

8.3.1 AUSTRIA

In Austria the chosen model for restructuring the incumbent, ÖBB, was the so-called holding model (similar to the approach adopted in Germany and other countries) implemented in 2004. Market liberalization of the rail passenger market already took place in January 1998, allowing for third party access for running commercial rail services. The first example of entry occurred in December 2003 (IRG-Rail, 2019). However, until 2011 the presence of non-incumbent passenger railway operators was largely operating on their

own networks without being in direct competition with ÖBB. However, this changed significantly in December 2011 when Westbahn started running open access services between Vienna and Salzburg. This corridor is the busiest in the country and Westbahn has managed to capture a market share of approximately 20–25%. To date, competition for the market competitive tendering has not been used. Passenger service contracts for both regional and long-distance transport have been directly awarded to the incumbent.

8.3.2 CZECH REPUBLIC

Separation of infrastructure and operations is in place in the Czech Republic since 2003 albeit with ČD retaining certain roles linked to maintenance and traffic management. Rail liberalization in the Czech Republic was introduced in the mid-90s (1994) leading private companies to take over several local lines in the Sudets and Ore Mountains from the incumbent ČD (Taczanowski, 2015). Current operators in this market segment include GTW Train Regio and Arriva Morava. As such, this entry is relatively limited in scope since these lines (incl. narrow gauge lines) account for approximately 3% of the total Czech rail network. More significant market entry occurred in the long-distance segment with RegioJet in September 2011 commencing open access services between Prague and Ostrava in competition with ČD, with the service extending into Slovakia (Žilina, Košice & Humenné). Soon after, in December 2012, Leo Express entered this market on the same corridor (with train services on a limited scale also running into Slovakia and Poland). Together new entrants on the Prague-Ostrava corridor have been able to reach a +50% market share (Tomeš, 2016). RegioJet has expanded further with services in Slovakia (through being awarded a regional concession) as well as running services from Prague to Bratislava and Prague to Vienna. Leo Express has also plans to start services beyond the Czech Republic and Slovakia.

Direct award and competitive tendering are used for awarding passenger service contracts for both regional and long-distance services. In particular, a recent tender (2016) concerning long-distance services between Plzeň and Most was awarded to a non-ČD company, GW Train Regio. This company started operations in December 2016. This tender was the first one in the long-distance market.

8.3.3 GERMANY

In 1994, a new framework for the railway system in Germany came into effect. DB became Deutsche Bahn Aktiengesellschaft (DBAG), and was restructured as

a joint-stock company, with the government owning all shares. One of the main aims of this restructuring was to force DB to operate profitably. As with other nationalized rail companies, DB had been structured like an administrative body and subject to public service obligations. The reform, which was brought into legislation in December 1993, allowed DBAG to behave like a commercial entity. Market opening of passenger rail services was introduced at the same time for both long distance and regional transport. For regional transport services the responsibility was transferred from the federal level to the different states (länder) in 1996 getting the authority to contract with operators for these services. Tendering could be used as an awarding procedure, although this was not mandatory. Shortly after contracts were awarded to non-incumbent companies following tenders (the first one happened in 1997–98 in Saxony where Vogtlandbahn GmbH – 1997 was awarded a passenger service contract). Gradually the market share for non-incumbent companies has grown with increased use of competitive tendering to award passenger service contracts. Currently, non-incumbent companies have a market share of the regional services of around 30%. As such some of these passenger service contracts are awarded to incumbent companies or their subsidiaries from other countries. The German experience with competitive tendering suggests that for the first round of tendering, significant cost savings have been achieved (measured in terms of unit costs) in the order of magnitude of 26 percent (Link, 2016). Moreover, as for public subsidies, these have also decreased as measured by operation subsidies per output unit over the period 1996-2010. Apart from reduced costs and subsidies, it is also noted that the use of tendering in Germany has in general resulted in better targeted services.

In the case of long-distance rail services, entry from non-incumbent operators has occurred since 2000 albeit at a relative limited scale. The first example was in 2000 (Georg Verkehrsorganisation (GVG)) soon followed by Interconnex in 2001. Currently, the main open access operators are Hamburg-Koln-Express (HKX) starting services in 2012 and Locomore entering the market in 2016. However, these operators only account for a small proportion of the long-distance market with DB having a market share of 99%.

8.3.4 ITALY

Italy chose to follow the holding company model where separate divisions for infrastructure (RFI) and operations (Trenitalia) within the holding group, Ferrovie dello Stato, S.p.A. were set up in 2000–2001. These divisions should though be autonomous within the FS Holding according to the legislative measure. As for the organization of passenger and freight services, these are only separate

in accounting terms (within Trenitalia) and are not required to publish separate accounts. Access rights for the national network were introduced in 2000 albeit with restrictions (principally for foreign operators where the access was dependent on reciprocity). Full open access was available in 2003 for international freight, while for domestic freight services this was achieved in 2007 (in accordance with the 1st Railway Package). Open access is also available for passenger (commercial) services, although in the case of foreign operators this is limited to cross-border services (and these may be restricted if there is adverse effect on the economic equilibrium of passenger services provided under public service contract). Until 2010, Trenitalia had a near monopoly on providing passenger services with non-incumbent providers having a market share of around 1% in 2009. In November 2010, market entry occurred when Arenaways started running services between Milan and Turin. However, this company ceased operations in February 2012. The first example in Europe of open access competition in the high-speed market segment occurred in Italy with the entry of NTV[6] (Nuovo Trasporto Viaggiatori) providing services on routes connecting major Italian cities (e.g. Turin–Salerno and Venice–Salerno both serving Bologna, Florence, Rome and Naples). Operations commenced in April 2012 and NTV has managed to capture a significant share of the high-speed rail market of over 20%, (Desmaris, 2016).

To date there has been limited use of competitive tendering. Italian local railways should have been tendered in 2004 according to earlier reforms (1997), but only three regions (Veneto, Liguria and Lombardy) did so, and in all three cases the incumbent (Trenitalia) maintained market control (Stanta & Galli, 2005).

8.3.5 NORWAY

Until relative recently, there was limited liberalization of the rail passenger market in Norway. Complete separation between infrastructure and operations as well as separation between passenger and freight operations was put in place in the mid-90s as part of reorganizing the incumbent NSB. In particular, a separate publicly owned infrastructure manager, Jernbaneverket, was established. On the other hand, there were restrictions on open access until international rail services were liberalized in 2010. For domestic services, NSB had exclusive rights under passenger service contracts awarded directly with a few exceptions: 1) NSB Gjøvikbanen AS (a subsidiary of NSB) won a tender for services between

6 SNCF has a 20 percent ownership stake in NTV.

Oslo and Gjøvik; 2) Flygtoget AS (100% state owned) provided rail services between Drammen and Oslo Airport under a directly awarded contract; 3) SJ AB ran passenger services on the Ofotline (incl. services between Narvik and Stockholm) as well as between Oslo and Stockholm, 4) Keolis Norge AS won a tender for light rail services in the Bergen area (Bybanen). However, this framework has been under rapid change following approval of the railway reforms in the Norwegian parliament in 2015 (Smith, 2017). The original infrastructure manager has ceased to exist and instead 2 new entities were established: 1) Bane Nor as a new infrastructure manager solely responsible for building, developing and maintaining the infrastructure, and 2) the Railway Directorate (Jernbanedirektoratet) as a strategic coordinator responsible for investment planning and tendering of packages of railway services across the network. The plan was to tender in a series of packages (7) the main passenger services in Norway starting in 2016 and finishing in 2026. Already, tenders for two service packages (South and North) have been completed resulting in both cases of the contracts being awarded to non-incumbent companies. Go Ahead AS won the South Package and commenced operations in December 2019. The North Package was won by SJ Norge in June 2019 with operations planned to start one year later. Recently, the West Package was being tendered, resulting in contract award (December 2019) to Vy Tog (formerly Norwegian State Railways, NSB). In September 2019, the details for the Fourth Package were published by the Railway Directorate. This service package covers Østfold and Gjøvik lines as well as part of the suburban rail network in Oslo. It is expected that tendering will commence in the Autumn 2020 with bids due by February 2021 and the award being decided in the Autumn 2021 and operations to start in 2022.

8.3.6 SWEDEN

In many aspects Sweden can be seen as forerunner of railway reform in a European context. The main starting point for the reform process was the Transport Policy Act of 1988 transferring local and regional rail lines from SJ to the County Public Transport authorities (CPTAs) with the possibility of using competitive tendering for contract award. The 1988 Transport Policy Act also included other elements such as the separation of service provision and infrastructure. The first tenders in 1989 already resulted in contract awards to non-incumbent companies (notably BK Tåg). In 1993, non-profitable interregional lines could also be put out to tender by the Swedish state. It should be noted that it was not until 1998 that an operator (Sydvästen) other than SJ was successful in winning a tender for interregional services. From 1996, extension to the powers of the CPTAs was granted, making it possible to procure services which operate on

the national network within their counties. In 2000, the Swedish Parliament decided to strengthen the position of alternative operators such that SJ could not automatically regain exclusive rights to services lost in competitive tendering by claiming that SJ can provide the services on a commercial basis. Further market opening was introduced in the period 2009–11, gradually allowing open access providers for the interregional profitable services and in 2011 also for the regional and interregional non-profitable services.

Non-incumbent operators hold now a share of the PSO market of some 60% as a result of mainly winning tendered contracts for regional and interregional services in competition with the incumbent SJ. Following the final step of market opening with open access some entry has occurred, especially in the intercity segment where non-incumbent operators hold a market share of 10%. For example, MTR Express in 2015 started open access operations between Stockholm and Gothenburg in competition with SJ.

Overall, the experience with competitive tendering in Sweden suggests significant scope for cost savings of some 20 percent due to the use of competitive tendering rather than direct award (Alexandersson, 2009). These savings were achieved in the first round of tendering in the early 1990s without the contract going to a non-incumbent operator. Once non-incumbent operators started winning contracts, further savings were achieved.

8.3.7 UNITED KINGDOM

Railway reform in Great Britain began in the early 1980s when there was a shift in focus of British Rail, the national rail provider, from production to commercial objectives. Restructuring was motivated primarily by the desire to gradually eliminate the subsidy, but also by the objectives of using private borrowing to finance investment and of improving the efficiency of the industry. Legislation was introduced in 1993 that provided for the privatization of British Rail as well as splitting up/unbundling of the different sectors of the company. In particular, this involved the (vertical) separation of infrastructure ownership and management (initially a privately owned infrastructure company, Railtrack)[7] from operation of transport services, competitive tendering (franchising) for all passenger services (as well as limited scope for open access), and open access

7 The role of infrastructure manager was in 2002 taken over by a not-for-dividend company, Network Rail.

for freight as well as an independent rail regulatory authority (Office of the Rail Regulator)[8] with substantial powers.

Great Britain adopted the most drastic approach to competitive tendering by including essentially all passenger services as part of the restructuring and privatization of British Rail in the mid 1990s. In contrast to the experience elsewhere in Europe (see above for Sweden and Germany as well as confirmed by findings in Denmark and the Netherlands), costs savings have to date not materialized, instead there have been cost increases; unit costs increased by 14 percent between 1997 and 2006 (Smith, 2016). As for the possible reasons for this unusual result, several aspects can be put forward including problems of incentives for the company being awarded the franchise linked to the relative short duration of the contract as well as the size of the franchise (significantly bigger than the ones elsewhere in Europe), which increases complexity as well as not facilitating significant organizational changes in the existing company responsible for the operations. Smith (2016) also highlighted that besides the negative effects on costs, there have been successful aspects linked to demand, fares and quality.

The regulatory framework in Great Britain has allowed over the past two decades for non-franchised companies to operate as open access providers alongside the franchised (tendered) services. However, this is subject to regulatory considerations particularly with regards to available capacity and moderation of competition between open access operators and operators providing services under passenger service contracts in order to protect the economic viability of franchises. So far, there have been only a few examples of entry on the Great Britain rail network through open access passenger operators. In particular, open access passenger operators account for less than 1% of passenger kilometers (ORR, 2018). Currently, there are only two open access passenger operators running services on the network: Hull Trains and Grand Central. Hull Trains started services between Hull and London in September 2000, while Grand Central entered the market in December 2007. Grand Central operates services between Sunderland and London (since December 2007), and since May 2010 also between Bradford and London. This company has further plans for running services between Blackpool and London starting in 2020.

8 The Office of the Rail Regulator was changed in 2004 to the Office of Rail Regulation and then in 2015 to the Office of Rail and Road.

8.4 FUTURE OUTLOOK OF RAIL PASSENGER MARKET COMPETITION

This Chapter has demonstrated that significant changes are underway in the European passenger rail market. In particular, there is a gradual move away from the traditional model with a single integrated state-owned company responsible for almost all passenger services even though these companies still retain an important position in many countries. From a European perspective, there were until recently (2016) limited provisions for market opening of rail passenger services (only international services from 2010), but national initiatives in a number of countries have already facilitated actual entry of new companies providing services. The overview provided in this chapter has also shown that there are significant country differences: 1) a few countries have opened the entire market to competition (notably Sweden, Great Britain and recently Norway); 2) a number of countries have adopted more partial approaches to competition, e.g. limited to (some) regional services (e.g. the Netherlands and Poland); 3) a number of countries have not yet opened the passenger market to competition beyond the requirements for international services (e.g. Spain and Slovenia). Moreover, country differences also exist in terms of whether the focus is on competition in the market (open access), e.g. in Austria and Italy, competition for the market (award of passenger service contracts based on competitive tendering), e.g. Norway and Germany or both (in Sweden and Great Britain). Other differences among the countries concern the extent to which market opening has been followed by actual entry and the length of time involved. Cases with limited or no entry despite market opening would indicate that pure regulatory and legislative provisions may not be sufficient to remove all barriers to entry (e.g. information, administrative or operating barriers, see e.g. IBM, 2011). As the 4th Railway Package from 2016 included provisions for market opening for domestic passenger services in terms of open access across the EU as well as competitive tendering for awarding passenger service contracts, the scene is set for potentially accelerated entry into the passenger market in all EU countries in the coming years. This was emphasized in a recent analysis of passenger railway liberalization in Europe where a positive future outlook was provided in terms of additional offerings and better services for customers along with market growth for railway operators (McKinsey, 2019). Below, brief reflections on the current status regarding open access and competitive tendering are put forward as pointers towards the future outlook.

8.4.1 OPEN ACCESS

After a relatively modest start in terms of open access service provision, a number of prominent examples have emerged during the 2010s. Typically, market entry takes place in the non-HSR long distance segment (rather than regional/local segments), although there is one case so far in the HSR segment (Italy). As such, any market entry would by default concern commercial services without the need for subsidy from government authorities. So far, open access operators have managed to capture significant market shares in Austria, the Czech Republic, Italy, Slovakia and Sweden on those corridors where they operate, whereas in other countries the role of open access operations is more limited. It is likely that from December 2020 this may significantly change with the provisions from the 4th Railway Package on access rights for operating domestic passenger services across the EU becoming applicable. In particular, Directive (EU) 2016/2370 specifies that Article 10.2 of Directive 2012/34/EU should be adjusted as follows "…railway undertakings shall be granted, under equitable, non-discriminatory and transparent conditions, the right of access to railway infrastructure in all Member States for the purpose of operating rail passenger services. Railway undertakings shall have the right to pick up passengers at any station and set them down at another." Although, there are certain provisions in Directive 2016/2370 that permit Member States to restrict these access rights (notably in cases where open access could influence the economic equilibrium of passenger service contracts), Article 10.2 would clearly facilitate full EU-wide market opening for domestic passenger services mirroring the provisions already introduced for the rail freight market in 2007. Judging from the evolution in freight following market opening, this could prove significant for triggering actual new entry – currently the average market share held by non-incumbent rail freight operators is 39% up from approximately 10% before market opening (European Commission, 2019). In the domestic passenger market, the share of non-incumbent railway operators stands at 25% covering both commercial and PSO services (European Commission, 2019). New entry through open access can be expected in the wake of an EU-wide market opening from December 2020, but this would be dependent on clear business cases for operating commercial services often in direct competition with existing services. As such, it is necessary to distinguish between open access in a "de jure" sense and in a "de facto" sense. This would imply that despite formal access rights potential entrants may be deterred due to other barriers to entry (e.g. administrative or operational barriers). These elements may also provide possible explanations for existing country differences regarding the extent and timing of market entry. Moreover, entry possibilities may be constrained by PSO services provided under contract with authorities (with or without subsidy

payments). Beyond December 2020, a specific issue to be watched for by the regulatory bodies would be the risk of so-called "cream-skimming", whereby open access providers focus solely on the profitable services (e.g. services in the peak hours) leaving existing PSO operators with the less profitable services. These aspects highlight the importance of accompanying open access provisions with sufficient regulatory measures in order to ensure efficiency of open access competition (Casullo, 2016).

8.4.2 COMPETITIVE TENDERING

Comparatively, there is to date more experience available about rail passenger market entry via competitive tendering than entry via open access. A number of countries started using competitive tendering for contract awards (notably, Sweden, Germany and the UK) already in the 90s. In particular, Sweden and the UK are in principle organizing all passenger services (incl. long distance and regional services) through the systematic use of competitive tendering. Currently, Norway is in the process of comprehensive tendering for awarding passenger service contracts in several packages. In other countries, the focus has been on using competitive tendering for (some) regional and local rail services. Overall, most cases to date have pointed towards significant scope for cost savings along with possible improvements in customer satisfaction (although this has not been the case in the UK, where unit costs have increased, see Section 3). On the basis of the provisions in the 4th Railway Package, the use of competitive tendering for awarding passenger service contracts will become the rule (albeit with certain exemptions) from December 2023 in accordance with Regulation (EU) 2016/2338 amending Regulation (EC) No 1370/2007. In particular, Regulation 2016/2338 specifies that Article 5.3 in 1370/2007 should be changed to: "Any competent authority which has recourse to a third party other than an internal operator, shall award public service contracts on the basis of a competitive tendering procedure, except in the cases specified in paragraphs… The procedure adopted for competitive tendering shall be open to all operators, shall be fair and shall observe the principles of transparency and non-discrimination."

This provision should ensure, over time, that competitive tendering is consistently used as the award mechanism for domestic passenger transport services across Europe. It is worth noting that the extent of progress could be limited over the short-term due to existing passenger service contracts covering in some cases relative lengthy periods. Key issues of importance for optimizing the positive impacts of competitive tendering over time would concern: 1) the number of potential bidders available over time in order to prevent the emer-

gence of dominant companies; 2) the clear information for bidders about the contracted services (to avoid the Winner's Curse[9]), 3) the appropriate allocation of risks between service provider and public authority (e.g. full cost contracts, net cost contracts or management contracts); and 4) optimal contract length (too long contracts would prevent alternative providers from participating, while too short contracts may not be economically viable from the bidder's perspective, especially if there is also rolling stock investment involved). Particular importance should also be given to the role of the incumbent in terms of participation in bidding for new passenger service contracts as well as the possibility that state-owned incumbents from other countries may submit bids. In this case, regulatory measures are required to ensure a level playing field. Further elaboration on how best to approach competitive tendering is set out in Nash (2016). From a current policy perspective linked to addressing climate change, it is relevant to highlight that tendering could play a role with respect to promoting the use of rolling stock with a lower carbon footprint and stimulating bidders to propose services that can attract customers from other modes. In combination with provisions for infrastructure charges, which could be specified such that different charges apply depending on the level of CO_2 emissions (drawing on the parallel with noise differentiated track access charges), this could contribute to ensure that the railway sector would be minimizing CO_2 emissions.

The coming years will be very interesting for European rail passenger transport. As the different parts of the regulatory framework gradually are coming into place, the scope for market entry will be enhanced. Over the next few years the more permanent effects of the on-going rail restructuring and revitalizing should have contributed towards a more customer-oriented and efficient sector. This could be critical in the ongoing efforts to decarbonize transport and tackle challenges of climate change.

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9 The Winner's Curse refers to the tendency in auctions for the winning bid for an item to exceed its actual value. This can be due to several factors, incl. information asymmetries.

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