



# Regulation of the Railway Industry

vol. 21 | n°1 | 2019

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## Network Industries Quarterly, Vol. 21, issue 1, 2019 (March) “Regulation of the Railway Industry”

Across the world, railways are poised to face new challenges, as all transport modes are transformed by technological innovations, liberalisation, competition with other modes of transport and most recently by digitalisation. Consequently, the railway industry is required to increase efficiency while ensuring security and safety, as it has to address multimodality, such as buses, as well as compete with new transport modes, such as car-sharing. Regulation of the railway industry and its various dimensions, not the least competition, is central factor in the process of its transformation and will ultimately decide whether railways will or will not increase their modal share.

This issue of the Network Industries Quarterly (NIQ) is dedicated to some of the best papers presented at the Florence Conference on the Regulation of Railways, which took place on November 16 and 17, 2018. Selected academics and practitioners were invited to Florence to discuss the latest developments in the field of railway regulation, such as competition in the market, role of regulatory agencies and economic perspectives.

**Vicente Mampel** assesses the content of lease agreements concluded by the state-owned rolling stock operating company in compliance with the sectoral legislation.

**Herfurth** presents a brief result of a cross-sectional analysis of the full population of the 28 public transport authorities in charge of short-distance rail services in Germany.

**Quinet and Brunel** look at the role of climate change in the traditional cost - benefit analysis in France, and analyse the impact of the shadow price of carbon on the socioeconomic evaluation of rail projects.

**Schmotz** presents a research project that is to explore the shortcomings of cross-border passenger rail from an institutionalist perspective.

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# How does liberalisation affect cross-border passenger rail in Central Europe?

Anja Schmotz\*

*This paper presents a research project that is to explore the shortcomings of cross-border passenger rail from an institutionalist perspective. As a first insight, the different national interpretations of the “Public Service Obligation Regulation” are considered as potentially problematic.*

Among the European Union’s main objectives is the idea of territorial cohesion and the abolition of separating effects of state borders. When it comes to passenger rail, the quantity and quality of cross-border services are mostly poor compared to the same kind of services within most nation states. As Lüttmerding and Gather (2013) have shown, the quality of rail transport connecting metropolises in two different countries displays several shortcomings compared to inland services. In many cases, the number of regular daily connections across borders was inferior to internal traffic between metropolises. The average speed often was lower, and, to a certain extent, the number of necessary changes of trains was higher when a state border was crossed on a trip between European metropolises.

A recent working paper directed by the directorate-general for regional policy confirmed that “in most border areas stations across the border are less well connected and trips to these stations tend to be less frequent and slower” (COM 2017: 2). On average, only “44 % of the population of all border areas has access to rail services”, not necessarily including cross-border services (COM 2017: 3).

The full picture is more heterogeneous: there are also examples of efficient and frequent cross-border transport services, for instance between Denmark and Sweden or generally in more densely populated regions (cf. COM 2017). However, notably in the Central Eastern and Southern European Member States, rail connections depict “very low frequencies”, making them “hardly usable for regular cross-border travelling” (COM 2017: 7).

## Accessibility of regional centres and metropolises in Central Europe

This paper focuses on cross-border passenger rail in Central Europe, choosing German–Polish as well as German–Czech rail connections as regional case studies. Since the fall of the Iron Curtain, long-distance cross-border rail in

these two case regions has gradually been cut down, even though both Poland and the Czech Republic joined the EU in 2004. During the last few decades, regional centres such as Plzeň, Wrocław, Poznań, Szczecin, Dresden and the capital cities of Prague and Berlin have grown, giving rise to cross-border flows not only of tourists but also business travellers and work commuters (cf. Knippschild, Schmotz and Wätzig 2014). Nevertheless, the direct rail connection between Nuremberg and Prague was first shifted from long-distance to regional trains on the German side in 2006 and then cancelled in 2012. The trip now requires at least one change of trains. The EuroCity Wawel linking Berlin and Wrocław was withdrawn in December 2014 and the direct regional train from Dresden to Wrocław was temporarily cancelled in 2015 for nine months. Most of the currently existing cross-border connections between larger regional centres that were traditionally served by long-distance rail are now served by regional trains only. The regional replacement services mostly do not provide adequate rolling stock and services often suffer from both low frequencies and average travel speed.

## Research on cross-border rail

For several years, little scientific research was conducted on the specific challenges of cross-border railway services. A recent study on ‘missing links’ concerning cross-border railway connections was commissioned by the European Commission. One of its major findings was that “[g]aps in the cross-border passenger rail network are not necessarily caused by missing elements of infrastructure: In many cases, even on operational railway infrastructure there is a lack of cross-border passenger services” (COM 2018: 6). While the state of the infrastructure and the availability of rolling stock may play an important role, this finding showed that there is a scope for action within the landscape of actors (public authorities, regulatory bodies, and rail operators) to improve the level of services.

However, there have still not been any scientific studies

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showing how these different barriers, institutional structures, and technical aspects interact, contributing to the low quality of cross-border passenger rail services. This underway thesis will provide such a study, analysing the current offer in cross-border rail services as a product of the multi-level governance regime created by the EU Single (Railway) Market policy and national railway reforms. The focus is on German–Polish and German–Czech passenger rail, allowing for an in-depth, qualitative analysis.

### Approach and methodology

The main research questions of this ongoing project are:

- Which mechanisms can explain the current shortcomings regarding the quality and quantity of cross-border passenger rail offers?
- To what extent can this be attributed to European and national rules introduced during the process of railway liberalisation?

The project aims (a) to show if and which mismatches have grown out of the specific national ways to implement European railway regulation, and (b) to clarify if there is a need to adapt the national and the European regulatory regimes to provide suitable policy instruments to foster cross-border rail services.

Existing work displays an effect of the state of the infrastructure, the availability of adequate rolling stock, as well as the competition with street and air transport on the provision of passenger rail services. Research needs to be done, not merely on the relevance of single variables, but the causal mechanisms linking these variables.

Within this project, institutional analyses of the German, Czech, and Polish railway systems are realised, followed by case studies of cross-border railway connections. At the current stage of research, three groups of connections between metropolises and regional centres can be distinguished:

- 1) Present-day long-distance services that expose a continuity of offers and are situated on the main TEN-T corridors (such as Berlin–Warsaw and Berlin–Prague).
- 2) Train connections between important regional centres that have previously been operated as long-distance services, but, after experiencing a retreat of the leading long-distance operators in the region, are now being served as regional transport only (“potential long-distance services” such as Berlin–Wrocław,

Dresden–Wrocław, Berlin–Szczecin, Nuremberg–Prague, and Munich–Prague).

- 3) Cross-border connections linking smaller centres (such as Görlitz–Jelenia Góra) clearly defined as regional services and recompensed as public service obligations.

The second group of cases is particularly interesting because it shows most clearly the effects of liberalisation and railway reforms on cross-border connections. These connections are at the centre of the different national interpretations of what a public service obligation comprises and how and by whom it can be organised and financed. Thus, the focus of the case studies will be on this group, while the others are used for comparison purposes.

For the chosen cases of potential long-distance connections, I will study whether comparable arrangements lead to a similar outcome for both German–Polish and German–Czech rail connections and if common denominators can be found. There is evidence of German–Czech connections performing slightly better than German–Polish services from the same group, especially regarding the number of pairs of trains per day, features of the rolling stock, and the organisation of through connections. If this can be confirmed during the data analysis, a case study will check which variables and mechanisms make the difference.

The gathering of data for the institutional analysis is based on pieces of European, national and regional legislation. If necessary, additional expert interviews will be conducted. In the second phase, the case study is mainly built on interviews with actors and experts. The development of cross-border connections over time is treated in a separate analysis based on timetables and statistical data. The following sections present insight into the institutional analysis.

### Liberalisation transforming the field of actors and rules of the game

The EU’s market opening policy had a profound impact on the rail sector. The so-called ‘unbundling’, starting with the Directive 91/440/EEC, strongly changed the landscape of actors, but it still allowed for a broad range of structures to be implemented in the Member States.

Further essential steps for creating a Single European Railway Area were taken from 2001 on, when the first of currently four ‘railway packages’ was adopted. New actors entered the stage with the establishment of regulatory bodies monitoring market and safety issues. Access rights of

railway operators to the infrastructure were subsequently extended, from open access in international passenger transport, including cabotage, effective since 2010, to national passenger transport entering into force in 2019/20.

For cross-border public transport services, Regulation (EC) 1370/2007 is particularly relevant. This so-called “Public Service Obligation (PSO) Regulation” sets the framework for the provision of public transport services of general interest. It requires public service contracts to be concluded by a competent authority when an operator is granted an exclusive right and/or compensation for the discharge of public service obligations (Art. 3). Amended by Regulation (EU) 2016/2338, the PSO Regulation now foresees, as a general rule, that public service contracts in transport shall be awarded by competitive tendering, in case they are not to be concluded with an internal operator. This regulation shall apply to public passenger rail services from December 2019 onwards, given a transition period until 2023. In sum, this regulation defines important procedural rules for the provision of a part of passenger rail services that each Member State must follow. However, it leaves a major scope of action, as will be illustrated in the next section.

### **Adapting national law to the PSO Regulation in Germany, Poland, and the Czech Republic**

Concerning the definition of public service obligations, there is a significant difference between Germany on one side and Poland and the Czech Republic on the other. The two latter countries consider regional, interregional, and long-distance transport to be of general interest. The Polish Act on Public Transport, effective since March 2011, provides that the ministry in charge of transport is responsible for interregional and international public transport lines (Art. 7.1 (6)). To date, the ministry awards PSO contracts directly “to the operator of its choice, i.e. PKP Intercity” (CER 2017: 111), the long-distance branch of the state-owned holding *Polskie Koleje Państwowe*.

In the Czech Republic, the Act on Public Service in Passenger Transport 194/2010 and amendments of other Acts adopted in April 2010 provide an assignment of tasks comparable to that in Poland, with the Ministry of Transport being directly responsible for determining the scope of long-distance and interregional public transport.

In contrast, current German legislation draws a line between the category of long-distance transport being a purely commercial service and (inter)regional passenger rail services. The Constitution (*Grundgesetz*) stipulates in Art. 87e(4) that the Federal State guarantees that the public

good will be considered concerning rail transport services provided by the state-run railway companies, not pertaining to local or regional traffic. As of yet there is no legal act specifying the role of long-distance transport. Only the Federal Act on the Regionalisation of Local and Regional Passenger Transport, effective since 1996, postulates that “guaranteeing a sufficient service of local and regional public transport to the public is a task of general interest (*Da-seinsvorsorge*)” (§ 1 (1), own translation). Public local and regional transport is defined as regular, universally accessible passenger transport “predominantly intended to satisfy the demand in urban, suburban and regional transport.” As a point of reference, the law specifies a maximum distance of 50 km or travel time of no longer than one hour. (Cf. § 2) According to this act, the competent authorities are to be designated by the law of the federal states (*Länder*).

Therefore, the provision of long-distance rail services in Germany is a genuinely commercial decision of each operator. Given the current market structure, mainly the incumbent *Deutsche Bahn Fernverkehr* determines if service on a long-distance connection is profitable and therefore worth being provided. On the other hand, in Poland and the Czech Republic, the respective ministries responsible for transport decide which long-distance services shall be provided as public services, mainly taking the form of direct awards to the state-owned railway companies PKP and ČD. Still, these awards allow for additional commercial services to be delivered by railway operators within open access procedures (such as LEO Express and RegioJet in the Czech Republic). In Germany, the governance mode market prevails, but the incumbent is confronted with little competition; in the other two cases, both market and hierarchical modes play a role in long-distance rail services, with a somehow more vivid competition in the Czech Republic than in Poland.

For regional passenger rail, the variance is not only found on the national level, but also between regions. In Germany, the Länder adjacent to Poland and the Czech Republic chose different models. For instance, Bavaria, as well as a union of Berlin and Brandenburg, each established a single regional authority covering the whole territory, whereas Saxony has delegated the competence to order regional rail passenger services to five distinct dedicated associations (*Zweckverbände*) in the hands of the rural districts (*Landkreise*). The procedure applied in nearly all cases is a competitive tendering of public services.

In the Czech Republic, the competence for local and regional public transport lies with the regions (*kraje*). Some of the regions established distinct bodies, for instance, to

coordinate timetables. PSO contracts are concluded by either direct award or competitive tendering.

In Poland, according to the Act on Railway Transport and the Act on Public Transport, the competent contracting authorities for regional public transport services are the self-governments of the voivodeships (*województwa*). The voivodeships either apply competitive tendering or opt for direct negotiations with a single operator to award PSO contracts. A particularity of the Polish system is that most railway undertakings operating regional services are owned by the voivodeships themselves.

### Conclusion and future work

Member States make use of the scope provided by the PSO Regulation in different ways, and the structures, procedures, and definitions of what can be counted as public service vary greatly from one country to another. The confrontation of different governance modes that do not necessarily fit one another is likely to provoke deficiencies in service provision. Mainly German long-distance passenger rail services are operated at the economic risk of the operating railway company. This operation without subsidies bears the risk of neglecting connections on which passenger demand is too low to be profitable. Future work within this PhD project includes the investigation of what deters Polish and Czech state-owned long-distance operators or other railway undertakings from offering such cross-border services on their own, and if there is a need to provide specific policy tools to foster long-distance services.

Concerning regional public rail services, it will be examined whether the different awarding procedures prevailing in each region tend to be compatible or incompatible with each other. Between Germany and, respectively, the Czech Republic and Poland, joint procedures for competitive tendering currently are rarely applied. Studies should examine how the dissimilarity of regional institutional structures impacts on the cooperation of the competent authorities. Notably, the differences regarding territorial coverage of the dedicated associations in Saxony compared to those in Bavaria and Berlin/ Brandenburg might have effects on their ability to negotiate with partners from the neighbouring country.

This paper only provides a rough outline of the governance regime concerning cross-border railways between Germany and its Eastern neighbours. When completed, the study will allow answers to the question if the policy instruments currently provided by the EU and its Member States are suitable to improve cross-border rail transport.

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