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Liberalisation of passenger rail services

Case Study - Germany

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1. Introduction

The German passenger rail market is dominated by the state-owned (as of 2016) national rail company Deutsche Bahn AG (DB). However, a considerable number of rail companies, either subsidiaries of internationally operating private companies, foreign national rail companies or smaller German rail companies, compete with the incumbent in the regional passenger rail market and in the freight market. Germany has introduced a franchising system for unprofitable and subsidised regional passenger rail services (PSOs). Other (long-distance) rail services are operated on a commercial basis and are not subject to franchising schemes. DB Regio and other DB companies are part of the DB Holding Company, together with the infrastructure providers DB Netz (operating 89% of the total German rail network¹) and DB Station & Service.

Data on the financial volume, the type of contracts and further specifications is not publicly available in Germany. Even general data such as the overall financial volume spent on subsidies in regional passenger rail transport, train-km etc. differ between sources. This paper is mainly based on a database on contracts in regional passenger rail transport collected at the author's institute. It also uses secondary statistical sources such as publications of BAG SPNV (the association of German PTAs) and the (survey-based) market reports of the rail regulator Bundesnetzagentur.

¹ See BMVI (2016). Figures are reported in a 5 years cycle and most recent figures are for 2010. The figures refer to the operated network length for all public rail companies.

2. Franchising of regional passenger rail services

Since 1996, the federal states have been responsible for procuring subsidised regional passenger rail services (RRPS)² from rail companies, and for financing them within franchise contracts (so-called regionalisation). Financially, the franchising system is based on transfers from the federal budget to the federal states at an annual level of about €7 billion³ (so-called regionalisation funds – Regionalisierungsmittel) which can be regarded as a stable and sound public financing for PSOs. The aim of this so-called “regionalisation” approach was twofold. Firstly, it aimed to achieve a clear distinction between cost-covering (or even profitable) services (commercial services), and subsidised services operated as Public Service Obligations (PSOs). Secondly, it aimed to achieve a decent level of PSOs at a lowest possible subsidy.

The federal states have the freedom to organise this process institutionally. For example, the states of Hamburg and Bremen preferred a central responsibility for procuring RRPS without a separate PTA. Other states (for example Bavaria, Thuringia, Saxony-Anhaltine, Berlin, Brandenburg) have founded one central PTA, which is responsible for all RRP in the state. A few states have delegated responsibility to some type of municipal or regionally defined PTAs (for example Hesse, Baden-Wurttemberg). While the procedures for awarding contracts (directly awarded or tendered), and contract controlling, as well as all other day-to-day management tasks are under the responsibility of the PTAs, the federal states maintain other responsibilities. These include deciding on the general strategy (intensity and pace of tendering, financial aids for rolling stock), the allocation of funds to the PTAs, and whether to spend additional money from the federal states general budgets for regional passenger rail transport. They also have some freedom to decide how the regionalisation subsidies (Regionalisierungsmittel) from the Federal Government are split between operating subsidies granted to TOCs, and investments or – to some extent – other public transport.

² The term regional rail services might be slightly misleading because it does not refer necessarily on the length of lines. Regional trains often operate over long distances.

³ In 2014, the final year for most of the results presented in this paper, regionalisation funds were €7.3 billion. In 2015 the funds amounted at €7.4 billion and for 2016 around €8 billion were available with an agreed increase of 1.8% p.a. in subsequent years.

3. Organisation of the tendering process

Currently, there are 27 regional authorities (PTAs) responsible for procuring regional passenger rail services. These PTAs are characterised by considerable differences regarding the area to be served, and there are also differences in the number of PTAs within the federal states. The legal framework gives – within the requirements of EU legislation - significant freedom to PTAs, allowing them to award service contracts using i) open tenders; ii) non-open tenders; and iii) negotiations. Service contracts have different contractual forms and different degrees of service specifications, varying contract durations, and refer to different network sizes (ranging from single lines up to large comprehensive regional network bundles). In general, all regional rail services are awarded as public service contracts on a non-exclusive basis. The decentralised institutional set-up implies a lack of a general standard for regional rail service contracts. PTAs rather adapt contract features to regional conditions and experience.

3.1 Contract duration

Contract duration varies considerably and ranges between 2 and 20 years, with a mean of 10.6 during the period from 1996 to 2014 (new figures based on an extension of the database used in Link, 2016). Meanwhile, several PTAs prefer contracts between 10-15 years in order to match the leasing contracts for new rolling stock for the procured services.

3.2 Service Specification

Service specifications and requirements for vehicles follow a rather detailed definition by PTAs, although with differences between PTAs. Examples of this include requests for synchronised and coordinated timetables, requests for service frequency, operating hours (first and last train), through-ticketing and acceptance of the DB tariff or the tariff of a so-called Verkehrsverbund. Based on a sample of 43 contracts during the period of 2001-2006, Peter (2008) reports that in almost three quarters of cases, minimum standards were to be met. In 29% of cases, exact specifications, for example, regarding types of rolling stock, were set by authorities. It should be noted that this figure might include inherited, older DB contracts which were granted without tendering and where no specifications regarding rolling stock were made. Therefore, it can safely be assumed that contracts which are currently operated are almost all based on formalised standards for vehicles. The German franchising model can thus be characterised as rather planning-based whereby planning is seen as the task of regional authorities.

3.3 Risk allocation

PTAs can use both net and gross contracts. The majority of regional rail service contracts in 2014 (approximately 72%) are on a net basis, i.e. the revenue risk must be borne by the operator.

There is a tendency of a declining percentage of net contracts with 98% in 1996 to 95% in 2003 and 72% in 2014. As a consequence, larger operators usually operate a mixed portfolio of contracts. However, within the federal states and PTAs, there appears to be a strong tendency to use only one type of contract. Furthermore, while there was an initial preference of PTAs for net contracts, a trend toward gross contracts (with strong incentive components which, for example, define shares of additional revenues to be received by the operator) is emerging. Using gross contracts has two advantages: First, market entry for new entrants is easier because in most cases only the incumbent has knowledge of profit/revenue expectations that are essential for an economically viable bid. Second, the fact that PTAs receive all the revenue eases the revenue sharing schemes within the so-called Verkehrsverbünde (large PTAs) which is important for services crossing more than one federal state or PTA.

As of 2014, most of the existing contracts, as well as all recently awarded contracts, contain a bonus-malus regime. Net contracts appear to be more often combined with pure malus regimes, whilst gross cost contracts usually contain full bonus-malus regimes. Contractual penalties are usually treated separately from malus payments. Most RRPS contracts include clauses that allow adjustments whenever changes in fuel prices or collective agreements with unions result in unexpected and unmanageable cost increases. Hence, risks often lie with the PTAs. While contracts during the first years of regionalisation included global adjustment mechanisms (for example, pre-defined growth rates for cost items) newer contracts specify these adjustments more specifically (for example for energy costs, staff costs etc.). Contracts often include clauses when regionalisation funding available to PTAs is, for any reason, reduced (PTAs can cancel 10% of the traffic). In general, all contracts contain a clause specifying that both contract partners are supposed to negotiate whenever the contract becomes financially unbearable for either party. Contract adjustments are usually possible as long as they are in the interest of the passengers (e.g. bus replacements whilst lines are upgraded etc.). Another issue of risk allocation is the treatment of increases in infrastructure charges. Within the large contracts agreed around 2000 with DB operators, the contracts defined that the risk of access charge development has to be borne by the operator. In other contracts, the risk of price increases for infrastructure use is usually borne by PTAs.

3.4 Transfer of staff

EU directive 1370/2007 enables staff from former rail operators to request their take-over by the new operator. In addition, German law gave employees the right to be transferred to a new rail operator in cases where the new operator took over vehicles from the former operator. The recently (as of July 2016) adopted revision of German competition law contains – also as a result of trade unions initiatives - the rules that a new operator shall take over the staff from the previous one. Against the background of a serious shortage in rail staff (in particular drivers) usually the winner of contract has a strong interest in taking over staff. This, however, also depends on job offers of the former operator to his own staff for continuing employment on



other lines etc. A number of problems which can arise for the new operator from taking over staff has been addressed by the revised competition law. For example, the abuse of collective wage agreements of the former operators at the expense of a new operator is not permitted, entitlements to pension schemes of the former operator are not transferred, and it is possible to transfer only staff in rail operation to the new operator, and not extensive overheads.

4. Rolling stock provision

Most contracts oblige the rail companies to provide rolling stock, usually with minimum requirements on age, type and furnishing of trains. The majority of tenders require the use of new rolling stock due to technical and/or quality considerations⁴. Even though 40% of newly tendered services which are planned to start operation between 2015 and 2020 allow the use of second-hand vehicles (BAGSPNV, 2016), the requirement of new trains remains the major case. This implies the risk of financing rolling stock for rail operators since contract durations are usually shorter than the lifetime of rolling stock. This risk is more serious for the – usually smaller - new entrants than for DB Regio. In particular, since the financial crisis in 2007/2008 this has been seen as a major obstacle in attracting a sufficient number of bidders for tendered contracts. In some cases, federal states provide financial support to finance rolling stock and then reduce their franchise payments for train operation accordingly, a procedure which applies both to DB and non-DB operators. Meanwhile, a set of instruments has been developed by PTAs in order to deal with the rolling stock problems such as:

- Leasing models: The rolling stock which has been purchased by the train operator is transferred into the ownership of the PTA and leased back to the train operator (examples are the PTAs in Baden-Württemberg and the VRR in Northrhine-Westphalia).
- Train pools of PTAs: PTAs purchase vehicles and rent them to train operators after awarding a tendered contract (examples include the LNVG and the PTA Braunschweig in Lower Saxony and the ZVMS in Saxony) .
- Guarantees to allow the use of trains purchased for a specific contract for subsequent contracts of the same service/network,
- Guarantees to take over capital costs in case of a train operator's bankruptcy.
- Guarantees for taking over rolling stock after contract termination,
- Guarantees of compensation for the residual value of rolling stock.

There is no official source on the volume of financial aids by PTAs for rolling stock covering all RRPS contracts (both directly awarded and tendered). However, BAGSPNV (2016) reports that for around half of the newly tendered services which are planned to start operation between 2015 and 2020 such instruments are used by PTAs with 21% opting for capital cost guarantees, 14% for the lease-back model, and about 10% each for vehicle pools and guarantees for allowing vehicles to be used in subsequent tenders. Currently, a further instrument, the so-called life-cycle model – has been introduced in North Rhine-Westphalia and has been controversially discussed. Here, the PTAs finance vehicles with local authority loans and award a contract to produce and maintain vehicles over their life-cycle to a vehicle producer, while operating the

⁴ For example, there is a problem of coupling old and new rolling stock on the same lines, partly there are network-specific technical requirements and often the contracts foresee quality improvements such as air condition, low entries for handicapped persons etc.



trains within the RPS contract is awarded to the train operator. While the economic impacts of this separation between vehicle maintenance and operation are not obvious yet, this instrument has attracted the desired number of bidders for the tendered RRPS services (the Rhein-Ruhr-Express in North Rhine-Westphalia).

The most obvious quality improvement achieved within the franchising approach for RRPS is the substantial amount of new rolling stock. For example, between 1994 and 2004 DB reduced the age of its rolling stock by 17.3 years down to 7.5 years. SCI (2012) reports an average age of 10 years for electric vehicles and 12 years for diesel vehicles. Due to the obligation to use new vehicles in tendered contracts, non-DB operators (which almost never operate “old” non-tendered contracts) generally need to use new rolling stock.

5. Infrastructure charges, network access and relation with infrastructure manager

Since 1994, both passenger and freight companies have complete open access to DB tracks within an approach of negotiated access, i.e. all train operating companies (TOCs) have to negotiate track access with DB Netz. Germany follows a symmetric approach of network access regulation, i.e. the open access rules refer to all companies possessing rail infrastructure. Germany's track access charges are based on a full cost recovery regime and consist currently of three elements: (1) base charges differentiated by track category and track utilisation, (2) so-called product charges which reflect prioritisation in time tabling, (3) several multiplicative or additive surcharges for higher weights, special trains etc. Until a decision by Bundesnetzagentur in May 2010, so-called regional surcharges were raised specifically for regional passenger trains (see Link, 2004 for more details).

Track access for companies operating subsidised and contracted RRPS is reportedly not a major concern, as the PTAs back the operators in negotiations with DB Netz. The most serious problem is the level, and in particular the steady increase, of access charges above the development of CPI or producer prices. Meanwhile, infrastructure charges⁵ make up around half of the operation subsidies paid to TOCs. While so far PTAs were able to make up these charge increases by achieving efficiency gains, this potential has naturally reached its limits.

With the recently adopted new railway law, the Federal government has responded both to these problems and to the requirements of EU directive 2012/34. The series of measures in this law contains an incentive regulation for track access charges and a stronger role for the regulator Bundesnetzagentur, which is now entitled to verify and permit access charges before they are introduced. Most importantly for regional passenger rail services, the infrastructure provider must only increase access charges at the growth rate of regionalisation funds (currently 1.8% p.a., which compares to access charge growth of 2.5% in the past). Furthermore, DB has announced a new access charge scheme to be introduced in 2018 in order to respond to the requirements of the EU directive 2012/34. The new scheme is planned to consist of two major components: i) the direct costs of train operation which are assumed to make up 30% of total costs, and ii) a Ramsey-based mark-up for full cost recovery which will be differentiated by day/night time and traffic within conurbation centres versus outer conurbation areas. There are various open issues and problems around the planned new access charging scheme, such as the quantification of Ramsey mark-ups in conurbations with joint tariffs for all public transport (so-called *Verbundtarif*) where fare revenues cannot be allocated to a single transport mode. A discussion of these issues is beyond the scope of this paper.

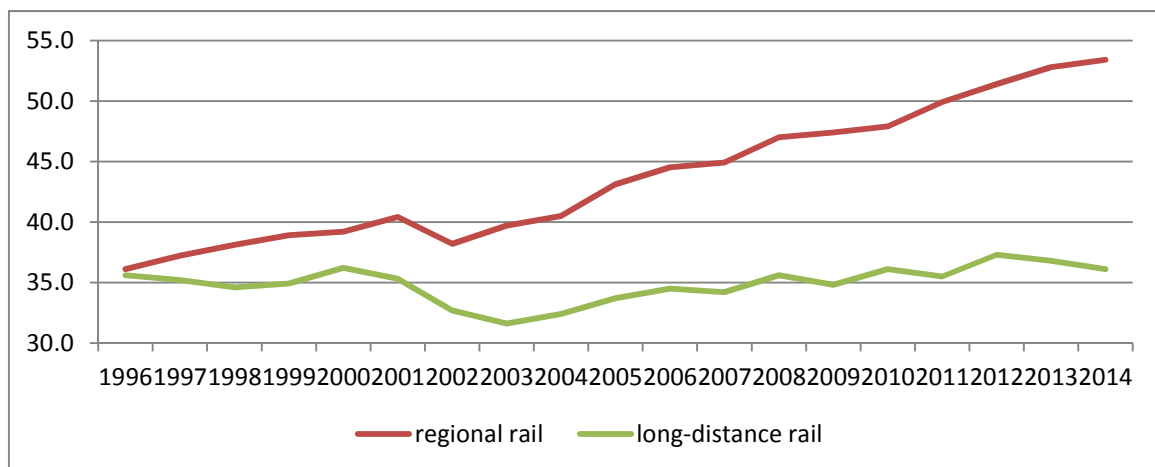
⁵ Apart from track access charges which have been at the forefront of the discussion, it is often overlooked that a second element of infrastructure charges refer to station charges which, according to DB's business reports, make up around 20% of DB's total revenue from infrastructure charges.

6. Open access competition and long-distance passenger rail transport

Although the non-exclusive public service contracts leave some scope for additional on-track competition, in practice no commercial operator makes use of the opportunity to compete with the operators of public service contracts on their routes. In commercial long-distance services, DB has been operating 99% of services. There were only a few attempts of competitors to enter the market. One example involves the line Leipzig-Berlin-Rostock operated by Veolia between 2002 and 2014. HKX runs trains between Berlin and Cologne, and Locomore plans to operate trains between Berlin and Stuttgart. These examples, however, are restricted to not more than two train pairs per day since the risk of commercial services has obviously so far hampered competitors to offer services with higher train frequencies.

The most obvious problem of the regionalisation approach is the distinction between commercial long-distance and subsidised regional services. The subsidisation of regional services has generated incentives for DB to abolish the so-called Interregio-trains (starting in 2000) which was a commercial long-distance service, and to negotiate with the federal states to bring these services into their portfolio of subsidised regional rail services (an effect which can be seen in figure 1).

Figure 1: Transport performance in regional and long-distance passenger rail transport in Germany 1996-2014, bill. Pass-km



Source: BMVI/DIW: Transport in figures, various volumes.



7. Performance

7.1 Transport performance

As of 2014, 659 million train-km⁶ and 53.4 billion passenger-km are operated per year under franchise contracts. Compared with 1996, when the regionalisation approach began, service delivery in terms of train-km has increased by almost 20%. This is not necessarily a result of competition but rather an outcome of the sound financing of RPSs, which led to an increase in services ordered and funded by regional authorities. Nevertheless, given that the funding remained stable (and even declined between 2006 and 2009), and with a 48% increase of passenger-km, regionalisation appears to be a success.

⁶ It should be noted that the database on contracts in regional rail passenger transport used for the analysis in this paper gives a slightly lower figure of 650m train-km.

Table 1: Transport performance in regional passenger rail transport

Year	Train-km (m)			Pass-km (m)	Share of DB (%)
	Train-km total (m)	Operated by DB	Operated by non-DB companies		
1996	544	n.a.	n.a.	36,1	98.1
1997	588	n.a.	n.a.	37,2	97.9
1998	563	538	25	38,1	97.9
1999	581	549	32	38,9	97.6
2000	591	553	38	39,2	97.4
2001	599	550	49	40,4	96.8
2002	604	552	52	38,2	96.1
2003	619	558	61	39,7	95.5
2004	628	553	75	40,5	94.0
2005	633	549	84	43,1	90.3
2006	637	540	97	44,5	90.6
2007	633	530	103	44,9	90.4
2008	630	514	116	47,0	90.0
2009	630	503	127	47,4	88.8
2010	636	498	138	47,9	86.4
2011	641	487	154	49,9	84.8
2012	642	480	162	51,4	84.4
2013	644	473	171	52,8	82.6
2014	651	473	178	53,4	81.7

Source: Mofair 2009, 2014; figures for pass-km taken from Peter 2008, sources quoted there: 1994-2002 Prograns 2005, figures for pass-km 2003-20014: DB AG

The share of RRPSs awarded to non-DB companies, mostly by means of competitive procurement/tendering procedures, was 4% in 1998 and has increased continuously since then. Overall, in 2014 the market share of non-DB companies made up 27% of train-km but only about 18% of passenger-km.

7.2 Number of bidders

Apparently, competitive tenders attract a sufficient number of bidders. Beck (2011) reports a range of bids per tenders between one and eight (with one tender that received no bids), based on an analysis of 30 tenders during 1997 and 2010.

7.3 Market Structure

The non-DB companies operating RRPSs in Germany can be grouped into three types:

- Internationally operating (usually bus and train) companies. Most of them are listed at the stock exchange (Veolia,) or have at least a remarkable share of private investors (Keolis with 30%, BeNEX with 49%).
- Rail companies of federal states or municipalities (for example Hessische Landesbahn).
- Foreign national rail companies (for example SBB, NedRailways, Ferrovie dello Stato, SNCF) often by holding shares in other companies.

Figure 2: Development of train-km by German and international competitors of DB in regional passenger rail transport in mill. Train-km



Source: Author's database

The most obvious trend is the internationalisation of the German passenger rail market (see figure 2) which is due to its comfortable financial support. In 2015, about 45% of all train-km operated by non-DB companies were run by internationally operating companies and foreign national rail carriers⁷ (see table 2), a development towards internationalisation which can to some extent also be found in the British and Swedish rail market, as well as in bus transport (see van de Velde 2003).

⁷ Rail operators were classified based on majority of ownership (also for parent companies).

Table 2: Market structure for RPSs by type of company in 2015 (train-km)

Company ¹⁾	Type	Train-km (mill.)	Market share (%)
DB Regio	German National rail company	433	72.3
Transdev	Internationally operating rail company	44	7.4
Ferrovie dello Stato	Foreign national rail company	29	4.1
Hamburger Hochbahn	Municipal/federal state rail company	11	1.8
Hessische Landesbahn	Municipal/federal state rail company	9	1.5
Keolis S.A.	Internationally operating rail company	8	1.4
Erfurter Bahn	Municipal/federal state rail company	7	1.1
Others ²⁾		55	9.3

1) Rail companies are allocated to parent company when the share of parent company is above 50%. -
2) Includes various companies with a market share below 1% each.

Source: Author's database.

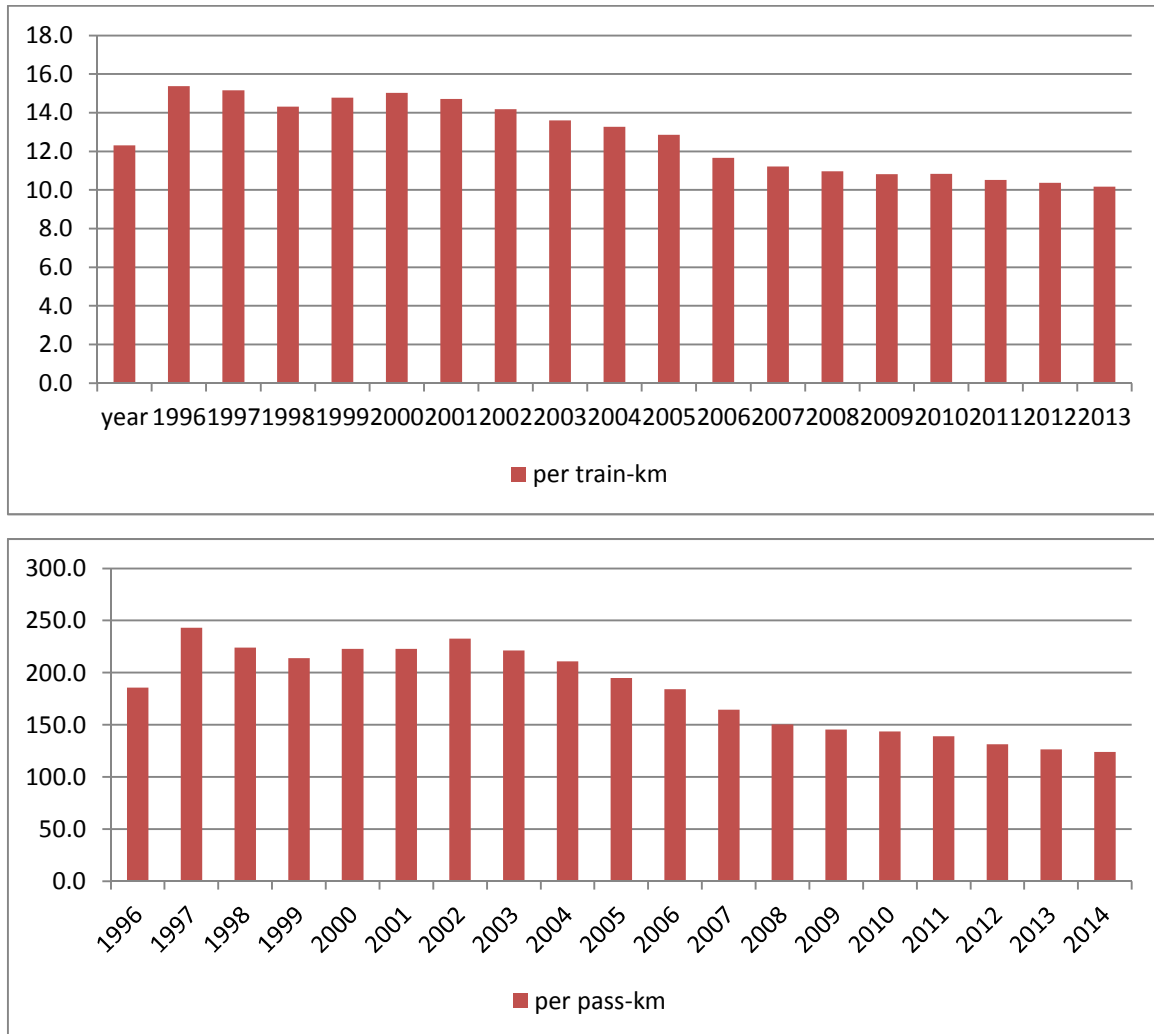
Source: Author's database

7.4 Cost savings and improvements in efficiency

Data on the financial volume of RPS contracts at the contract level is not publicly available⁸. Therefore, this section reports evidence from three sources: first, global figures for the development of regionalisation funds in relation to transport performance; second, findings from other studies (although these cannot be verified due to the lack of access to the underlying data); third, results from an efficiency analysis based on data at the level of federal states for the period 1996-2010 (Link, 2016).

⁸ For tendered RPS services there is information on the expected financial volume from the tender documents. However, these are usually ballpark figures with considerable deviations from the finally negotiated contract volume and can therefore not be used for a quantitative analysis

Figure 3: Regionalisation subsidies in Euro per transport unit at 2010 prices)



Source: Regionalisation law, BMVI Transport in figures (various volumes), author’s database and author’s calculations.

Starting with overall figures, two major developments can be identified (figure 3). First, the overall financial volume spent for RPSs decreased both in relation to train-km and passenger-km. This indicates a more efficient use of funds, which is driven by the provision of RRPS by non-DB companies at lower production costs and by increased productivity of DB as a result of competitive pressure. Second, the fall in cost per passenger-km is significantly larger than the fall in cost per train-km, suggesting not only a more efficient use in terms of provided services but also a better use of services by passengers. While the first effect is a result of competitive pressure, the second effect can be attributed to the regionalisation approach where decentralised competence in regional authorities succeeded in bringing service provision more in line with transport demand.

Mofair (2009) reports average cost savings of 26% compared with the pre-regionalisation unit cost of DB⁹ based on an analysis of 118 RRPS contracts awarded within competitive tendering procedures for the first time (60% of all first-round tendered contracts between 2002 and 2004). This is also confirmed by results from interviews reported in Merkert and Link (2011). For example, the federal state of Rheinland-Pfalz reported average cost savings of 15-20% which resulted in smaller subsidies or in more awarded train-km for the same disposable funding. The magnitude of cost savings is closely related to the type of networks and lines. Mofair (2009) reports systems cost savings of 23% for S-Bahn, savings of 15% for Regional Bahn (RB) services, and 33% for Regional Express/Regional Bahn (RE/RB) services, and as much as 47% for Regional Express (RE) services. This is also supported by case study evidence (see Beck and Kühl 2007).

Apart from the findings in Mofair (2009) which refer to first-round tendering procedures, there is no other available source on cost savings at the contract level. It is therefore not possible to compare first- and second-round (re-tendering and new batches) cost savings. A distinction between first- and second-round tendering would also be difficult due to the fact that in many cases lines or parts of networks from first-round tendering procedures are bundled together with networks which are tendered for the first time. However, given the evidence in other countries, it can be expected that second-round cost savings will be substantially lower than those achieved in the first round of tendering.

While the overall level of subsidy per unit of output has declined over time, the subsidy per output-unit shows a considerable range between the federal states (see VZBV, 2010, Link, 2016). An efficiency analysis based on data at the federal state's level for the period 1996-2010 has analysed these differences and the factors impacting on them. While there are differences which are due to exogenous factors such as population density, employment levels etc., the analysis has also identified that competition strategies and contract design are factors explaining the differences. It concludes that those federal states which spent their funds more efficiently than others:

- Used more competitive tendering for contract procurement,
- Awarded a higher share of train-km under gross contracts,
- Awarded contracts of a longer duration and a lower size (expressed in train-km p.a.).

The efficiency-enhancing effect of gross contracts seems to be counterintuitive given that net contracts give incentives to the operator to increase patronage. However, the net contract framework involves potential information asymmetries between operators and PTAs, if the operators possess information on the demand and revenue of the respective lines. Potential new entrants without this information might even be discouraged from market entry (see also Beck, 2011 for a similar result). A further explanation can also be found in the special German situation, in particular during the first half of the observation period, where the majority of

⁹ These are the costs necessary to sustain service supply at the level of 1993/1994 and were estimated and adjusted by WIBERA in 1995 and 2002.

train-km was operated by DB. During this period, by far the largest share of train-km was awarded within direct negotiations without competitive pressure¹⁰, and net contracts were the dominant contract type. These overlapping effects might have led to a situation where operators under net contracts (and here mostly DB) were able to receive rather high net subsidies. PTAs had ultimately to spend more public money for net contracts than for gross contracts, for which the fare revenues collected by the PTA reduce the subsidy level - even though the net subsidy per train-km is by definition lower than the gross subsidy when not considering fare revenues.

The efficiency-enhancing effect of longer contract duration is in line with the on-going critiques of rail operators which are not able to amortise rolling stock within shorter contract periods and which have consequently to negotiate a higher subsidy. The positive effect of smaller contracts seems to be counter-intuitive. However, it might reflect the existence of a considerable number of very large contracts granted to the incumbent DB during the period of analysis, in particular for reasons of practicability at the beginning of the regionalisation (lack of new entrants with sufficient capability to operate large contracts), but also in 2003 where the federal states awarded large service contracts with DB in a second round without competitive tendering. In combination with the direct awarding and the aforementioned problem of information asymmetries in net contracts, these large contracts might have negatively affected the efficient use of public money. However, it should be noted that these findings have to be interpreted within the range of contract duration and contract size in German contracts during 1996-2010 (mean contract duration: 9.6 years, mean contract size: 5.3 mill. train-km per annum) and do not imply that a continuous increase of contract duration and decrease of contract size would continuously increase efficiency.

¹⁰ During 1996-2002 where tendering was not compulsory but optional, between 6 and 19 million train-km were tendered p.a. This translates into a share between 1% and 3% of all regional passenger rail services in Germany (Link, 2004).



8. Conclusion

Franchising of regional passenger rail services has proven to be a success in Germany. Operation subsidies per output unit have been declining, and the regionalisation approach which leaves considerable freedom to federal states and to PTAs has not only led to lower public support but also to better targeted services. However, there are also considerable regional differences in the efficiency of spending the available regionalisation funds.

The distinction between subsidised regional passenger services and commercial long-distance services has set disincentives: With the abolition of the so-called Interregio-trains, DB has shifted commercial long-distance services (which were often not commercially viable) to subsidise regional rail services. This raises the question of whether commercial long-distance passenger services should also be franchised.

A further problem of the regionalisation approach in Germany is the level and the increase of infrastructure charges which have eaten up a large and growing share of operation subsidies. The new rail regulation law limits the increase of infrastructure charges borne by the federal states and the PTAs. However, the given full-cost principle implies higher increases of infrastructure charges for freight transport.



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