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Best Practice in Competitive Tendering of Regional Rail Service

Introduction

Regional passenger railway services require significant funding from public sources. The main challenge is to get the best value for a given amount of public money spent on public services. The degree of liberalisation of the railway market in Europe has reached different levels – as has the procurement of services considered to be public obligations. However, two of the most successful countries in Europe in introducing competition into the regional rail service industry are the UK and Germany. Their success can be measured in the increasing use of their services. In Germany for example, the passenger-km on short to medium distance rail services grew between 2002 and 2007 at an average of 3% from 38 billion in 2002 to 45 billion in 2007. During the same time, the scheduled train-km grew by less than 1%. The growth in the UK was even more tremendous with an annual growth of passenger journeys of 6.7% in 2006 and 7.8% in 2007. The two systems have developed differently and each has distinct advantages and disadvantages, but both have achieved a significant growth in passenger numbers and have led to reduced subsidy levels per passenger-km and train-km. The purpose of this article is to identify the best practices in each of the systems, to highlight the strengths and weaknesses of each system and to illustrate the lessons learnt.

In 1994, Britain's railways were privatised, following the passing of the 1993 Railways Act. The railways were split into two main segments: infrastructure and operations. The British system has consequently implemented the idea of the European Commission to split infrastructure and operations. Despite serious teething problems we see today a well -functioning, competitive passenger railway service industry with 27 private train operating companies and a non-profit Infrastructure Manager named Network Rail. The Department for Transport (DfT) is assigned to secure appropriate rail passenger services at an acceptable price through effective specification and procurement. The local needs are assessed by passenger transport executives (PTEs), which are local government bodies responsible for public transport within large urban areas. However, the procurement process is centrally managed.

Germany decided to move further than the EU Directive 1991/69 required and shifted the political responsibility for local rail services from Federal Government to State level. The States are responsible for the licensing and supervision of non-federal TOC activities. They decide at a local level which institutions procure and supervise the services. The responsible bodies for local transport are obliged to prepare local transport master plans for their regions (similar to the local transport plans prepared by local governments in the UK). The State then coordinates the financing issues on the basis of these master plans. The advantage compared with the UK system is, that the planning and funding takes place on a local level in a regulated environment. Local authorities are therefore more powerful in regulatory and financial terms. Furthermore, many States established even more powerful organisations, the so called "Verkehrsverbund", responsible for:

- ordering services (rail and bus),
- subsidising services (rail and bus),
- coordinating services (rail and bus),
- through ticketing (price setting and fare allocation), and
- infrastructure planning.

The Verkehrsverbund licenses all services requiring subsidies (bus, train, and tram). Non-licensed private operations are theoretically possible. Tendering routes for pre-defined periods of time can achieve competition on licensed lines.

The two approaches applied in the UK and in Germany have led to various best practice examples:

Rolling Stock

The UK immediately implemented a well-functioning rolling stock leasing market by transferring the former British Rail (BR) assets to a number of rolling stock leasing companies (ROSCOS). This eased the tendering process significantly. In Germany, Deutsche Bahn (DB) was the only rolling stock owner after liberalisation. Some States have thus started to build up a vehicle pool to attract competitors to DB in participating in tenders. When the competition was still at an earlier stage, it was assumed that vehicle pools would foster competition. And indeed, the number of competitors in those regions where a vehicle pool existed was significantly bigger than in those areas without. These are good arguments for the creation of vehicle pools by the responsible bodies, which are an easier way to force competition and create the potential of the cheaper availability of vehicles since public bodies may have a better credit rating for financing or leasing investment goods than the railway undertakings might have.

However, there are significant drawbacks as well. Vehicles are an important differentiating factor. If this factor is fixed, the cost optimisation is basically reduced to labour costs and administrative overheads since all other components are determined by the tender specifications. In Niedersachsen for example, where a vehicle pool exists, the exclusive rights for it to provide vehicles for tenders on new lines has increased competition in the beginning but slowed down competition when the industry reached a more mature state. Even DB did not bid for new lines since it could not use its own fleet of wagons and locomotives which is – for these specific lines – completely equal to the public owned vehicles.

The Verkehrsverbund Rhein-Ruhr (VRR) applied a new approach in vehicle financing in its tender for the Wuppertal HBF – Solingen line commencing in 2012. The tender will be augmented by the section "competitive vehicles financing". The model foresees that the future operator procures the vehicles, and sells the rolling stock to VRR after the contract expires. The VRR takes over the financing and leases the rolling stock to the successor. Alternatively, the interested parties may offer classical financing in their application documents.

Short distance vs. long distance

The UK doesn't distinguish between short and long distance services, but defines service packages. One example is the New Cross Country rail franchise won by Arriva plc in 2007.

It combines the majority of the existing Cross Country franchise services formerly operated by Virgin Cross Country (classical long distance) and the Nottingham - Cardiff and Birmingham - Stansted Airport services formerly operated by Central Trains (short- to medium distance services).

Germany distinguishes between long distance and regional services. Long distance services have to be self-sustainable. This led to two unfavourable effects. DB Fernverkehr, the long distance operator, reduced its network significantly. The consequence was that either PTAs redefined the services as local and started to fund these services (timetables often remained more or less the same) or they ceased to exist. Additionally, the regional approach aggravates inter-regional planning and services. Some services terminate at the border of the States, although through trains might be more

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efficient and attractive. Last but not least, this clear segregation of self-sustainable and funded services does not allow minimising tax-payer expenditures by tendering packages consisting of profitable and loss making lines.

Compensation model

The funding of operations in Germany is organised in two different ways, depending on the decisions made on the State level:

Commercial model (net contract): the Train Operating Companies (TOCs) can keep all fare revenues; furthermore they receive a previously negotiated subsidy, which remains constant for the length of the contract or evolves according to a predefined scheme. Thus, the commercial risk is on the side of the TOCs; if they deliver poor quality and passenger numbers decrease, a deficit has to be borne by the TOCs alone.

One-customer-model (gross contract): the TOCs are paid on the level of the presumed operational costs, such as stipulated in the transport contract. In return, the TOCs have to pass on revenues from ticket sales to the Regional Transport Authority.

Concerning the compensation of transport services, the various Public Transport Authorities (PTAs) are not consistent in Germany. Bayerische Eisenbahngesellschaft mbH (BEG) for example, is fully committed to net contracts, where the TOC has the full economic risk. Similar approaches can be found in Baden-Württemberg and Rheinland-Pfalz. On the contrary, Hessen and Brandenburg are fully committed to gross contracts, where all fare revenues are transferred to the PTAs, which compensate the RUs with a fixed amount of money. In the latter case, a sophisticated bonus - malus mechanism was introduced to ensure good performance. In some states, like Nordrhein-Westfalen a combination of net and gross contracts can be found. The contract itself is a gross contract, but with more extensive incentive systems.

Since many railway lines are covered by tariff co-operations (Verkehrsverbund) imposed by the PTAs or by the regional transport laws, few TOCs have the possibility to set tariffs by themselves. In most cases, they first have to negotiate the funding allocation with the local authorities. The most difficult aspect of those negotiations

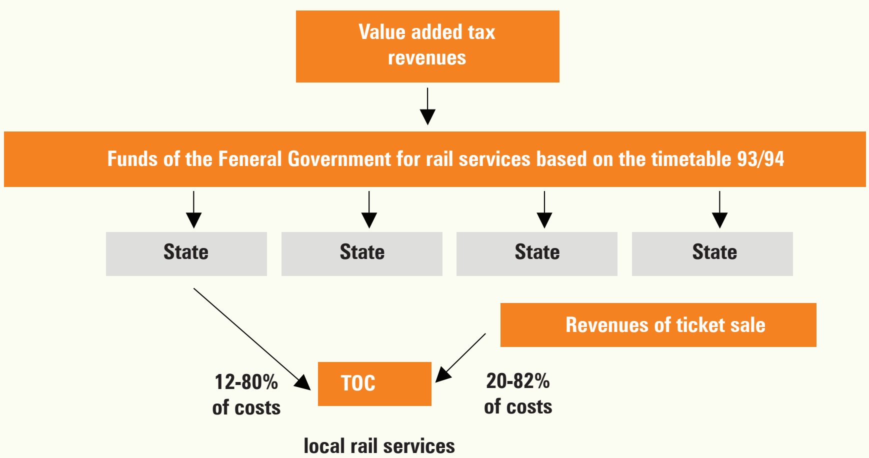

Figure 1 Funding Principles Germany

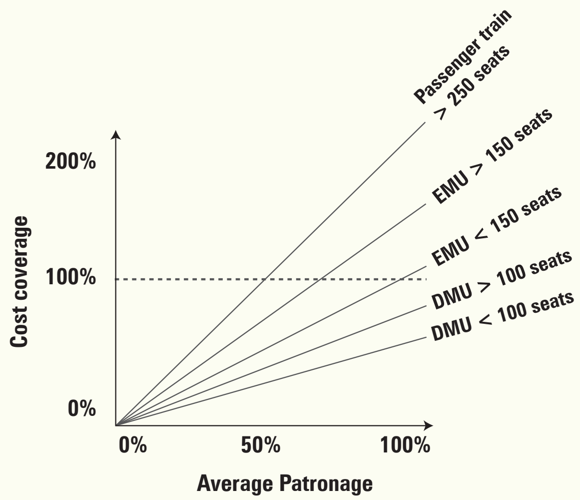

Figure 2 Cost Coverage

is the distribution of revenues from ticket sales between the partners. Close monitoring of patronage levels is often used as the base for revenue allocation, therefore incentivising the TOC to increase patronage and efficiency.

In the UK, most deals are all based on net contracts. For the Cross Country rail franchise for example DfT will pay a subsidy of more than GBP 1 billion to Arriva. The Government continues to limit annual rises of regulated fares in line with national policy, which is currently inflation +1%. As with all franchises, unregulated fares will be the responsibility of the operator. Arriva have indicated that they may wish to raise unregulated fares by an average of 3.4% above inflation each year. Revenue share arrangements are as follows: if actual revenue out-turns between 102% and 106% of target revenue, then 50% of the excess between 102% and 106% will be shared with DfT. If it out-turns above 106%, then 80% of the further excess will be shared with DfT. Revenue support arrangements are as follows: if actual revenue out-turns between 94% and 98% of target revenue, then the DfT will provide support equivalent to 50% of the shortfall between 98% and 94%. If it out-turns below 94%, then DfT will provide support equivalent to 80% of the further shortfall. Revenue support arrangements only apply after the first four years of the franchise.

Breaking the power of the incumbent operator

In the UK there is no incumbent operator because of the consequent implementation of the EU directives. The situation is different in Germany, where DB has still a major share in regional transport. Today the market share of non-DB operators is about 16% and will increase to approx. 30% by 2015. In order to achieve this target, some Verkehrsverbünde group their lines to "tender packages" explicitly stating that the various packages may not be won by one single operator. Verkehrsverbund Berlin-Brandenburg (VBB) for example currently tenders major parts of its regional rail services. Total volumes are 22.9 million train-km with an order value of EUR 1.3 billion. In 2002, DB was awarded the contract directly, without public tendering. The European Commission currently assesses whether DB has received too much funding for this service.[1]

Now VBB tenders 16 lines in four packages. Each bidder may at most apply for two of the four packages. This will surely break the monopoly of DB. Another advantage is that customers can directly compare the service of the different operators and the Verkehrsverbund can benchmark the operating performance against each of the others.

Other States are less rigorous in challenging DB. This has to do with the Holding structure of DB. Even so, DB Regio is officially an independent public company; other public companies under the DB Holding may pay back insubordinate States. This can be the reduction or withdrawal of long distance services, cutting back service quality at stations, decreasing the maintenance of rail infrastructure or closing down maintenance facilities (an important employer, especially in structurally lagging regions).

Specifications

Each franchise contract contains a number of specifications which directly lead to financial implications for the operator and the transport authority. The specifications relate to rolling stock specifications as well as service and quality specifications.

With respect to rolling stock functionality, specifications describing what is needed by the user of the system as well as properties of outputs required should be used. It is important to leave space for the creativity of the future operators and to ensure that more than one manufacturer / model meets the specifications in order to avoid bias.

Regarding performance and quality parameters, past experience has shown that increasing the number of parameters and establishing more and more sophisticated quality measurement procedures does not necessarily improve the experience for the passengers, but definitely pushes up the administrative labour costs on the operators as well as on the Transport Authority's side. Furthermore the increased complexity of the performance parameters opens up grey areas which lawyers and advocates happily litigate about. In the case of performance parameters "less is more".

Duration

The past has shown that the contracting period for rail services must not be too short. Typical franchise agreements last at least for 10 to 15 years. The relatively short duration of older franchises did tend to see most investment and improvements occurring early on as a TOC can rarely make a business case when there are only a few years left on which to make a return. For the previously mentioned Wuppertal – Solingen service, a contract duration of 20 years is planned. The duration of the franchise contracts in the UK is typically shorter than in Germany. The new CrossCountry rail franchise has a time span of little more than 9 years. This has mainly to do with the very mature rolling stock leasing market in the UK, where TOCs typically never own rolling stock.

Financing

Both, the UK and the German systems, are characterised by a long term funding approach. Taking into account the long term investment in rolling stock, the success of a competitive regional rail service industry critically depends on secure funding mechanisms.

According to the Regionalisation Law in Germany, the resources for local services are composed of a fixed amount, which is stable and based on the 1995 volume, and a variable amount, which is linked to the development of the value-added tax revenues. The original financial values are based on the subsidies required by DB before the regionalisation took place. For each State, the law indicates which fixed

[1] The investigation was triggered by the Transport Minister of Brandenburger Hartmut Meyer (socialist party) who changed his career and became in-house Consultant of DB shortly after.

Best Practice Germany	Best Practice UK
Local responsibility for defining service requirements, for procuring and funding the services and for monitoring the performance	Integration of short- and long distance services to optimise service integration for the users
Eases the establishment of integrated fare zones (Verkehrsverbund)	Breaking up the power of an incumbent operator
Allows small operators to participate in bids	Creation of a functioning rail industry by consequently establishing all commercial (e.g. RUs, IMs, ROSCOs) and administrative bodies
Transparent and open tendering procedures	
Stable and predictable funding of services	

amount and which percentage of the variable amount is allocated each year. In 2005, seven billion Euros were allocated to regional services. This amount was decreased to 6.6 billion in 2008 and will from now on grow by 1.5% p.a.

Depending on the patronage figures each service can cover its costs to a different degree. Figure 2 illustrates the cost coverage of different types of trains. For small capacity trains the achievable maximum fare revenues cannot cover their total costs. The reasons are high fixed costs and the relatively inelastic cost structure. The access fees for infrastructure for example do not differentiate between low capacity and high capacity trains.

In the UK, most of the franchises are geographically clustered, which means that high capacity services, which typically cover a higher degree of their operating costs, and low capacity services are grouped in one franchise package. The consequence is that public funding can be minimised by cross-subsidisation of low capacity services by high capacity services.

In Germany, in the first few years after the liberalisation, only secondary, low capacity lines were tendered. This approach allowed, on the one hand, the slow introduction of competition by allowing small operators to bid, but on the other hand subsidies per train-km were disproportionally high because of the high fixed costs of the service and the low fare revenues. With growing competition, Germany started to follow the UK example and today the tendering packages of high and low capacity services is very common.

Conclusion

Local input for procurement of rail services under public service contracts is essential for its success. The UK system has made a move towards that direction by The Railways Act 2005 which gives significant flexibility for PTEs to procure 'extras', e.g. more frequent services, increased train capacity, and higher quality standards.

The supremacy of the incumbent operator needs to be superseded. In the UK, this was achieved by the revolutionary approach in splitting up British Rail. In Germany, the PTAs have developed various means to challenge the incumbent; such as vehicle pools or forming tender packages which cannot be won by one single operator.

Each tender or package has to take into account local particularities. The size and complexity determines the attractiveness of tenders and thus the competition. A good example is the tender for S-Bahn Stuttgart where only DB remained as a bidder. The reasons for the drop out of competitors are among other things; the uncertainty concerning the potential rebuilding of Stuttgart main station and the restricted access to DB facilities required for operations. DB Regio AG will run the S-Bahn service until 2028 but has the contractual obligation to act as a subcontractor for up to three years after the concession and has to offer maintenance services if a new operator takes over after 2028. This unique legal framework will ensure severe competition for the franchise commencing in 2028.