

CONTRACTED RAIL SERVICES IN WESTERN EUROPE.

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1. BACKGROUND

During the post-war decades more and more passenger rail services have been deficit making. Economic support for these services has often been provided as a blanket subsidy from the central government with little specification of the services concerned. The support is substantial, at least MECU 7 000 per annum in the European Union (EU) Member States alone. Gradually, however, contracting, tendering and franchising schemes are introduced. At the same time there is a tendency towards regionalisation and decentralisation of powers.

The services concerned can be of a very different character. They can be suburban high-frequency, high-density, high capacity services - these services are often the only realistic means to manage the extremely high volumes of traffic in for instance Paris, London or München. They can be long-distance cross-country services in the more sparsely populated regions of Europe where traffic volumes are too low to make operations on a fully commercial basis possible. Finally, they can be truly rural services where perhaps a bus would have sufficed for the volume of traffic concerned but where traditions and local opinion often prevent this change of transport mode.

Various schemes now emerge. Britain may be said to lead the franchising (and privatisation) league but other countries such as Germany and Sweden are further ahead in the regionalisation field.

2. METHODOLOGY

The author has used a varied range of written sources, including annual reports from Passenger Transport Authorities (PTA) and Railways. The written material has been complemented with interviews with PTA and Railway staff. Draft minutes have been circulated to the parties involved for comments and suggestions. Because of the limited space available only an abbreviated list of references is presented in Section 12. A complete list is available from the author.

The author wishes to express his warmest thanks to all parties involved for their positive and fruitful co-operation. The conclusions, suggestions and views are entirely the author's own

and are not necessarily shared by the Swedish National Road and Transport Research Institute.

3. REGULATORY FRAMEWORK

EC Regulation 1893/91 (amending Regulation 1191/69) concerns the obligations inherent in the concept of a public service in transport by rail, road and inland waterway. Although binding in its entirety and directly applicable in all Member States, Regulation 1893/91 leaves a lot of scope for interpretation and implementation. The Member States may conclude public service contracts with a transport undertaking but they are not obliged to. If they choose to do so a contract may cover i. a. transport services satisfying fixed standards of continuity, regularity, capacity and quality. Furthermore, the Regulation permits both Net- and Gross-cost contracts.

Various countries have proceeded towards new contracted, franchised or regionalised railways in various manners. Great Britain has privatised and franchised the entire business, Germany has decentralised power and money to the federal states and Sweden has decentralised power but no money to the regional authorities.

The following EC Regulations and Directives may also be remembered in this context;

Directive 91/440	on the development of the Community's railways
Directive 95/18	on the licensing of railway undertakings
Directive 95/19	on the allocation of infrastructure capacity etc.
Regulation 1107/70	on the granting of aids for transport by rail etc.
COM(96) 421, 29. 7. 1996	EU White Paper on Railways, on the Revitalisation of etc.

4 Germany

The German Railway Reform in 1994 entailed that the organisation was divided up into an Infrastructure Manager and an operator with a political ambition to increase the number of operators on the infrastructure that was to continue being state-owned. In contrast to the situation in Great Britain, the state railway, Deutsche Bahn AG (DB) has not been dissolved, although there may be an eventual introduction onto the stock exchange at a later date. DB was organised into three divisions; Infrastructure, Passenger Traffic and Goods Traffic.

Through the Regionalisation Reform of 1st January 1996, the federal states were given the responsibility for commissioning regional railway traffic, and consequently they may now use those resources which previously were transferred directly from the Ministry of Transport to DB for the coverage of losses. During the fiscal years of 1996-1997, the federal states have had MSEK 39 000 per year at their disposal, and in 1998 this amount will be increased to MSEK 54 000 per year. In order to gain experience, all the federal states have entered into agreements with DB to continue operating traffic in almost unaltered form for another 2 to 3 years.

In some of the federal states there are Passenger Transport Authorities (PTAs) which cover a part of a federal state. In certain cases, these authorities have been granted the contractual responsibility for the regional passenger traffic by their respective federal states. However,

these PTAs do not have nation-wide coverage as they do in Sweden. A few PTAs are now in the process of purchasing traffic services starting in 1998. See below for further details.

In contrast to other European countries, Germany also has a large number of "private railways", so called Nichtbundeseigene Eisenbahnen, NE. The NEs that operate passenger traffic are often owned by local governments, administrative county districts and the federal states. The NEs normally have a lower level of costs than the DB, the reasons for which are many; second-hand stock, lower wages, a more flexible labour organisation but also a lower level of requirements when it comes to technology and safety in accordance with legislation. As a rule, the NEs operate on their own railway tracks, but the Verein Deutscher Verkehrsunternehmen (German Public Transport Association) think it plausible that in the future, these will operate on the state infrastructure to an increasing extent. There have also been cases where the NEs have been permitted to purchase an entire railway line from DB for a symbolic amount. When a railway line is transferred to an NE, considerably lower levels of demands are made on safety etc. and the NEs feel that after minor rationalisations they are able to operate traffic far more cheaply than DB. In one case, the French-owned CGEA have bought their way into an NE (See Section 8), presumably to facilitate an introduction onto the German market.

A few examples of agreements:

In the short term, in agreements between the federal states and DB the following items are regulated:

- The number of trains per route
- A regular interval timetable (in Germany there is a weakness for regular interval timetables, even when traffic frequency is as low as one train every two hours).
- The type of vehicle and the number of seats.
- Opening times for ticket offices and ticket machines.
- Cleaning services.

However, there is no agreement about punctuality.

The PTA in the Köln-Bonn region, Verkehrsverbund Rhein-Sieg (VRS) has recently purchased traffic on three regional railways. VRS have requested the following from bidders:

- A 10 year contractual period with the possibility of an extension to 15 years.
- Regular interval timetables for a frequency of both 60 and 30 minutes with the possibility of a 20 minute frequency after infrastructure improvements.
- A minimum number of seats and a maximum percentage of standing passengers.
- A fixed price for basic services and additional charges/reductions for changes in capacity which have to be reported two weeks in advance.
- The bidder must be able to provide vehicles that, at a minimum, comply with (rather general) VRS requirements. Vehicle costs can be financed to more than 50% by state subsidies.
- The bidder shall refer to net costs. This is somewhat surprising when considering the fact that the VRS determines both tariffs and the service to be offered. Revenues from season tickets are determined via passenger surveys.

- The bidder is solely responsible for contacts with DB's Infrastructure Division regarding access to tracks and stations. VRS imposes stringent demands where punctuality is concerned. 95% of the trains shall be < 1 minute late when arriving in Köln and < 2 minutes late in the opposite direction.
- DB's Infrastructure Division has different tariffs for lines, sidings and stations which all the operators, DB and all others, must pay.

VRS was unwilling to divulge the names of bidders during the evaluation process, but did announce that it did not receive as many tenders as was expected. Nevertheless, they have notified that the board has elected to propose to the shareholders' general meeting that DB be nominated as contractor. The contract will finally be decided in June 1997.

The contracts described above are net cost contracts. See Section 11 for a more detailed discussion.

5. Denmark

The railway services in the Copenhagen region (S-togtrafikken) Danske Statsbaner (DSB) comprise about 1 200 million passenger kilometres, approximately one quarter of all passenger traffic in Denmark. A special law for the Capital City Region's communal passenger traffic regulates the conditions of responsibility between state, regions, local governments, the Capital City PTA (Hovedstadsområdet's Trafikselskab, HT) and the operators. This law proscribes that all bus traffic shall be tendered out by July 1, 2002. There is, however, no corresponding regulation for train traffic.

DSB, HT, Denmark's Infrastructure Manager (Banestyrelsen) and the five municipally-owned "private railways" in the Capital City Region decide on an integrated plan for public transport. HT determines tariffs within the HT region. However, this is not a question of purchasing operators, since at present no operator other than DSB is being considered. It is the state and not HT that remunerates DSB for the difference between ticket receipts and costs. Thus, this is a net cost contract.

DSB revenues come from sales of tickets/cards sold via the railway's sales outlets plus receipts from season tickets and multi journey tickets, the level of which is based on passenger surveys. These revenues only cover the operational costs of the S-tog Division, i.e. they do not include capital costs for rolling stock, buildings and infrastructure. At present, DSB transfers profits from the S-tog Division to other divisions, but vice versa is also conceivable.

DSB thinks that it is unlikely that the S-tog traffic will be put out on tender. On the other hand, this may very well be the case with traffic in the region's periphery. There are several private lines with limited regional traffic assignments and these have shown an interest in expanding their operations.

6 THE NETHERLANDS

The Netherlands covers an area of 41,000 km² but has a population of almost 15 million. Consequently railway passenger traffic has a markedly regional character and for this reason it is not unreasonable with an overall state responsibility. The state even balances the entire deficit for local communal traffic.

The Netherlands appears to maintain a cautious but positive standpoint towards deregulation, but does not intend to split up Nederlandse Spoorwegen, NS. Nonetheless, during the summer of 1996 a private operator ran passenger traffic between Amsterdam and a coastal resort. The traffic was operated using second-hand, 1st class Belgian carriages and diesel locomotives. This can be regarded as a mere curiosity, but did in fact constitute the first incidence of passenger traffic outside the domain of NS during this century.

After the year 2000, NS will be following a directive to only operate passenger traffic that has full costs coverage. For this reason, NS has compiled and sent to the Ministry of Transport a list containing the names of 30 lines for which they do not think this is possible. The Ministry now intends to put this traffic out to tender and NS will have to compete with all the other bidders. It is likely that the Ministry will determine timetables and tariffs, but other than that, several issues remain to be solved, e.g. the grouping of the 30 lines into a number of 'packages', the length of the contractual period and accessibility to vehicles. The Ministry anticipates that bus operators will be interested in operating train traffic, but since the process has only recently begun, the outcome is still uncertain.

7 SWITZERLAND

In Switzerland SBB (Schweizerische Bundesbahnen) do not have the same dominant position as state railways have in other European countries since there are approximately 60 private railways with primarily regional traffic assignments. To a large extent, the private railways and SBB operate traffic on the same tracks. There are also incidences when SBB engages a private railway as contractor for a specific line and even vice versa. Both SBB and the private railways have a pragmatic approach towards co-operation.

The Cantons do not have the same responsibility for regional traffic as the German federal states and a general purchasing of services via tenders does not seem to be an issue at present. Nevertheless, a number of solutions do warrant mentioning: The private Mittel-Thurgau Bahn operates regional traffic between Weinfelden in Switzerland and Engen in Germany, a solution that would be impossible without the German deregulation. Likewise, private Süd-Ost Bahn will be taking over SBB's Bodenseebahn in Eastern Switzerland.

The Regional Railway (S-Bahn) Traffic in Zürich comprises almost 1 200 million passenger kilometres, i.e. the same amount as the Copenhagen S-tog system. In addition to the traffic operated by SBB, there are also two lines operated as private railways, one of which is a metre gauge line.

The Zürich PTA determines a general plan for public transport where the traffic offered is measured as trains per hour. The PTA also determines tariffs. SBB revenues consist of receipts from tickets/cards sold via the company's sales outlets and from season tickets and multi journey tickets the level of which is decided via passenger surveys. The Confederation, the Cantons and the local governments reimburse SBB for the difference between ticket receipts and costs. Thus, this is once again a question of a net price contract. However, it is not a case of purchasing operator services, because any operator other than SBB is not being considered at the present time. SBB does not think it likely that the PTA will place all S-Bahn traffic in the hands of contractors. This is a more likely outcome for the peripheral railways in the Zürich region.

8 **FRANCE**

France is the only EU member state to say no to the White Book on "the Revitalisation of the Community's Railways" in which some degree of competition is singled out as constituting a means to revitalisation. Regionally, however, there is dissatisfaction with the current central administration of regional traffic. A model of buyer - provider is gradually being introduced, but with the exception of the Compagnie Général d'Entreprise Automobile, CGEA, operators other than SNCF have not been considered and there is absolutely no competitive tendering of services.

CGEA operates primarily within the urban public transport sector (including tram traffic) in which there frequently exist net cost contracts valid up to 25 years. CGEA also operates a mixture of train traffic; transports for SNCF's Permanent way Department, (now Réseau Ferré de France) shunting for large industries on their own tracks, a certain amount of contractual traffic for SNCF and regional passenger traffic on branch lines outside of the SNCF network, e.g. Nice - Digne.

Nevertheless, CGEA's rail passenger traffic volumes are limited - only 1,2 million journeys per year, and they see limited possibilities of expanding in France in the light of present attitudes held by the Government and SNCF. Nonetheless, CGEA's powerful expansion in Great Britain has even aroused great attention in France.

9 **GREAT BRITAIN**

The United Kingdom leads the process of privatising the railways. All passenger traffic has been franchised to private operators through the Office of Passenger Rail Franchising, OPRAF.

The franchising process entails that OPRAF has divided Great Britain's passenger traffic into 25 franchises and invited operators to submit tenders for these. In a so called Pre-qualification Document, OPRAF has presented a broad outline of traffic production, journeys and revenues for the last few years. Bidders have the opportunity of notifying OPRAF of their interest and this body then invites those companies it judges to have sufficient financial strength to submit tenders. For each TOC, and where appropriate after consultation with the PTA, a Passenger

Service Requirement, PSR is issued. Among other things, this document contains requirements about the following:

- The first and last train per day for Monday to Friday, Saturday and Sunday.
- The minimum number of trains per day.
- The maximum time interval between trains.
- The longest travelling time.
- Stations served by a given number of trains.
- The minimum number of seats.
- The maximum percentage of standing passengers - no standing passengers are permitted on journeys exceeding 20 minutes in duration.

The bidders are then expected to submit a tender based on the lowest level of state subsidy for a 7, 10 or 15 year contractual period. According to information available, OPRAF has approved those tenders that have demanded the lowest level of state subsidy seen over the whole contractual period. In addition to state subsidies, the bidders can also expect revenues from the PTAs. These, however, have a much weaker standing than in Germany and Sweden and are not widespread over the whole of Great Britain. Thus, we are dealing with a net cost contract.

In the final contract, the points mentioned above and even punctuality, cleaning services and information are carefully regulated. After the franchise agreement has been initiated, OPRAF requires the operator to continuously submit a comprehensive monthly, quarterly and annual report on finances and traffic data. Examples of such data are:

- Traffic production - train km (miles), wagon km, seat km. Targets and actual results.
- Vehicle accessibility.
- Statistics of journeys - numbers of travellers and person kilometres.
- Specification of expenditure.
- Punctuality.
- Other specific quality indicators measured via customer interviews.
- Balance sheet, profit-and-loss account.

Two or three years ago there were misgivings among researchers and the specialist press that privatisation would not attract enough bidders for OPRAF to be able to make a real choice. However, this was not the case and OPRAF have had a least 3-4 serious bidder for each franchise and the majority of those who have been granted a franchise have had some kind of connection with the passenger traffic sector.

The author has interviewed three operators and these maintain that OPRAF's PSR is almost impossible to influence during the tender stage and that OPRAF has primarily been interested in low tenders, i.e. demands for low state subsidies. Changes in the availability of traffic and tariffs must be initiated when traffic has got started properly. They stressed in rather general terms the following methods for rendering operations more effective:

- A more effective utilisation of vehicles, especially since vehicle costs are difficult to influence.

- Better employment conditions for staff, primarily mobile staff, e.g. drivers have had a small amount of fixed time and a lot of overtime. 64 hours a week has been mentioned as an extreme case.
- A more effective utilisation of staff, e.g. an increase in the proportion of timetable time/working time to 50% or 60%.
- Better exploitation of "latent" markets, e.g. journeys during low traffic periods.
- A flatter organisation, more rapid responses from management to signals from the front line.

What can happen during a contractual period? A few examples: French-owned (CGEA) Connex South Eastern operating commuter traffic to the south east of London reckons on being able to turn today's deficit of MSEK 1 380 per year to a small profit after 15 years, while at the same time they have undertaken to replace a larger part of the rolling stock. The British specialist press regards such prognoses as unrealistic. The costs are difficult to influence and increases in revenues of the size stated are also judged as being unrealistic. This applies especially to commuter traffic to London which is unlikely to increase since the number of people employed in Central London is expected to decrease slightly. Virgin-owned CrossCountry and West Coast with inter-regional traffic comprising almost 5 billion passenger kilometres per year has promised even larger revenue increases (about 8% per year) and new rolling stock.

Through their commitment to OPRAF, the Franchise operators have thus taken upon themselves substantial business risks. The contracts, however, do provide certain renegotiation clauses that can be evoked by either party if actual developments digress to much from those covered by the contract. The detailed content of these clauses has not been made public. OPRAF has also pointed out that it has the final responsibility for ensuring that traffic is maintained in accordance with the PSR; and that in extreme cases it may see itself compelled to change operators.

10 SWEDEN

Each of the 23 counties has a PTA owned (as a rule) by the local authorities and the county councils. The PTAs decide the scale of services, timetables and fares for all modes of regional public transport - bus, rail and sometimes also ferry services. Generally, all PTA traffic, bus, rail or ferry, is tendered out to operators owned by the state, local authorities or the private sector. In regard to railways, Swedish State Railways (SJ), Linjebuss and BK-Tåg are the contracted operators as will be described later. A few schemes are described below.

The regional train services in the **Malmöhus** area in southernmost Sweden are contracted out by the PTA to SJ, Eight million passengers annually travel about 200 M pass. km. PTA costs were MSEK 189 and fares covered 59% of the costs in 1996. Regional train travel has increased by 5 - 10% during the nineties. It may even be claimed that the popularity of the trains has urged the PTA to introduce Express Bus services with train-like comfort to certain towns outside the rail network.

The general PTA/SJ contract to operate these services expires in 2007. As a gross-cost contract SJ has nothing to do with the revenue side. In addition to the general contract there is a special quality contract which merits special attention. This contract focuses on four areas, punctuality, staff, rolling stock and information. The punctuality targets are as follows;

Agreed minimum percentages

	Peak	Off-peak
on time or < 1 min late	93	90
< 3 min late	96	93
< 10 min late	99	99
< 20 min late	100	100
cancelled and not substituted	0	0

Punctuality is recorded and fines or bonuses are paid if the actual punctuality is below or above the agreed levels. However, it is a well-known fact that customers' *opinion* of punctuality etc. may differ from the real thing! If customers have a low opinion of punctuality and other quality issues, they are less likely to travel by train.

Customer opinion is therefore measured by opinion polls carried out by an independent market research institute twice a year. Customers are asked 17 questions concerning i. a. perceived punctuality, driver behaviour, information and rolling stock standards. They are asked to state on a 1 - 10 scale what they wish for instance toilet cleaning to *be* and what they think it actually *is* like. For the time being, the customers' wishes are set as a target. If they think that toilet cleaning is better than they wish it to be, SJ will receive a bonus and vice versa. The author is not at liberty to reveal the actual bonus/fine amounts, however, compared with the total train operating costs they are very small. The quality contract is fairly new and will be continuously reviewed by the parties. For the time being, the customer sets the targets but this may not be a permanent solution.

Apart from the gross-cost schemes described above there is a variety of other agreements between the State, PTAs and SJ - a few examples;

Inter-Regional Services that SJ cannot operate on commercial grounds (breaking even) are reported to a Government Purchasing Committee, which in turn invites tenders for a similar group of services. This business has attracted up to four bidders, but until now all contracts have been won by SJ. Through competitive tendering (introduced in 1992) costs have, however, been reduced by 20 - 30% with roughly the same volume of traffic. Initially, contracts were let for only one year. This hardly allowed any scope for improvements of rolling stock etc., but with the introduction of longer term contracts the situation has improved. Today, five of the nine services purchased have contracts for five years, with new rolling stock and more trains per day.

The nine service groups purchased may be summarised as follows;

- The services range from the overnight trains to Northern Sweden to the Göteborg - Karlskrona/Kalmar line in southern Sweden
- Net cost principles are used - SJ's losses are covered
- The contract specifies the number of trains to be run and the vehicles to be used

- SJ's normal fares apply

The Committee pays about MSEK 330 annually for the nine services, representing about 1 600 million pass. km. Due to the long journeys the overnight services to the North make up about 1 000 million pass. km. This means a net cost of about SEK 0,20 per pass. km. Instead of just covering the operator's losses, the Committee made it possible to introduce new trains by covering the rolling stock capital costs and thereafter letting SJ operate the service with no further support. There is also a sell-back clause - if the Committee chooses another operator after the five-year period, the stock becomes Committee property. The Committee also investigated renting stock from SJ and leasing it to the new entrants. This was seen as rather difficult and rolling stock remains one of the barriers to entering the rail market. (See Section 11).

The PTAs of Blekinge and Kristianstad are responsible for the *Kustpilen*, "Coastal Arrow", service between Karlskrona and Kristianstad. They receive a state grant of about MSEK 23 per annum until 2000, corresponding to previous SJ losses. The PTAs have used their state grant mainly to buy rolling stock. Relieved of rolling stock capital costs, SJ has agreed to operate the service without any further subsidy. SJ is however paid for allowing travel by PTA season tickets. Under this agreement, 12 trains per day now run between Karlskrona and Malmö/Helsingborg, four of the trains continue by ferry to Köbenhavn. The *Kustpilen* service has become a tremendous success, with passengers quadrupling in four years. A full description can be found in various railway magazines.

The **Nässjö-Jönköping-Falköping-Skövde** service is one of the Inter-Regional services described above. SJ operates eight return trips a day according to a contract with the Government Purchasing Committee. In addition to this, the PTAs of Jönköping and Skaraborg have contracted SJ to run seven additional return trips and to accept PTA tickets on all trains. SJ also operates one X2000 service a day over parts of the line.

11 **DISCUSSION**

In the sections above, the author has attempted to describe some of the franchising or contractual arrangements in rail passenger transport in Western Europe. All contract systems have their advantages and disadvantages;

The Net cost system is an incentive for the operator to cut his costs. Net cost systems generally allow the operator to set his fares, leaving scope for commercial developments. If, however, a system has no revenue-sharing arrangements it may be disadvantageous for the buyer. If the operator manages to cut his costs he also retains the surplus. The German and Danish net cost systems seem to constrain the operator rather a lot. With no influence over fares or services there seems to be few ways for the operator to improve his position.

The operators interviewed by the author claim that the major advantage of a Gross cost system is to have revenue contracted, often index linked, for a period of several years ahead. It is then up to the operator to increase his profit by running the service as cheaply as possible. Operators claim, however, there are few ways of influencing revenue, apart from minor bonus

systems. With PTA control of timetables, fares, sales channels etc. there are several pitfalls. For instance, a journey to work may start with a 2 km bus trip, the passenger buying his ticket or pass from the bus driver. Later he changes to a 40 km train journey and finishes with a short tram trip. Trial schemes with revenue sharing are, however, under way in several counties (starting with bus services).

With today's smart card systems there seems to be few technical barriers to new mixes of net cost, gross cost and revenue-sharing systems where perhaps the individual operator may be permitted to set his own fares even though the ticketing is common for a whole PTA. Transparency, reasonably easy management and customer acceptance must be remembered, however.

In wide circles, from the European Commission to the PTAs, there is general belief that the railway sector would benefit from more competition. The author agrees, adding that contracted services seem to be a suitable starting point. The author wishes to finish by mentioning a few points for further studies:

- How should new entrants be encouraged?
- How should new entrants be assured of a non-discriminatory treatment?
- How should the present national railways be treated? Should they be completely broken up (Britain) or continue to compete with new entrants (Germany, Sweden)?
- How should rolling stock be provided? Operator, PTA, Joint stock companies, Industry?

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