Franchised Rail Services in Sweden

Bertil Hylén

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Information

This Paper will also be presented at the meeting of the UITP, International Union of Public Transport, Sub-committee for Rail Transport 10th Dec. 1996 in Rome, Italy.

Erratum

Page 4 - above the last paragraph;
For "The advantages include" read "The disadvantages include".
Introduction

This Paper has been presented at the following conferences;

PTRC European Transport Forum - Session F 21
Uxbridge, UK, 5th September 1996

Council for European Municipalities and Regions
Liverpool, UK, 18th October 1996

Regional Rail '96 - Re-inventing the regional railway
Manchester, UK, 20th November 1996

A German version of the paper will appear in Der Nahverkehr, the official publication of the Verband Deutscher Verkehrsunternehmen.

The author naturally welcomes any comments and suggestions.

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Cover photo by the author -

Some of the newly rebuilt Malmöhus regional trains (Section 5.2) such as this Ystad - Malmö service also carry express parcels.
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FRANCHISED RAIL SERVICES IN SWEDEN

Bertil Hylén
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1. SUMMARY

Sweden is divided into 24 counties with 284 local authorities. Each county has a County Public Transport Authority, PTA, responsible for the provision of adequate public transport. The PTAs decide the scale of services, timetables and fares for all modes of public transport, bus, rail and sometimes also ferries. Generally, all PTA traffic, bus, rail or ferry, is tendered out to publicly or privately owned operators.

This paper deals with Net cost, Gross cost and Co—operation schemes for rail traffic. The author has used a varied range of written sources complemented with interviews. Draft sections of the paper have been circulated to the parties involved for comments and suggestions.

Inter-regional services that the Swedish State Railways, SJ, cannot operate on commercial grounds 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, costs have however been reduced by 20 - 30% with roughly the same volume of traffic. Net cost principles are applied, whereby the Committee covers the operator’s losses.

Regional service contracts, ranging from 1000 million to 4 million passenger-km annually are often on a Gross cost basis, the operator being paid per train or vehicle km. Several performance and quality incentives have recently been added to existing contracts. These include not only punctuality but also information, cleaning, staff behaviour and in particular how customers perceive these matters.

Various co-operation schemes exist. 1) Several PTAs have contracts with SJ to allow travel on InterCity and other inter-regional trains with season tickets and sometimes also other pre-paid tickets. 2) Two neighbouring PTAs have used a state grant mainly to buy rolling stock, SJ has then agreed to operate the service without any further subsidy. 3) On the Nässjö-Skövde, line SJ operates eight return trips a day according to a contract with the Government. In addition to this, two neighbouring PTAs have contracted SJ to run seven more return trips and to accept PTA tickets.

All contract systems have their advantages and disadvantages. Net cost systems may have greater incentives for the operator to cut costs whereas Gross cost systems are easy to define and guarantee the operator a certain income. The major operator, SJ, claims that the various co-operation schemes allow more room for initiatives and development.
2. REGULATORY FRAMEWORK

Sweden covers about 450 000 sq. km and has a population of slightly less than 9 million. 80% live in the southernmost third of the country, but even in these areas the population density is below that of continental Europe.

Sweden is divided into 24 counties. The main responsibility of the county councils is health care with certain educational services and public transport making up the rest. Furthermore, there are 284 local authorities responsible for physical planning, social services, cultural activities, education and - together with the county councils - public transport.

The national government, the county councils and the local authorities all have taxation powers. The major source of income for counties and local authorities is income tax in the range 28-34%. The national government levies several types of taxes, including income and property tax, VAT and various sales taxes.

An Act of Parliament requires each county to have an authority responsible for the provision of adequate public transport. In most counties, this responsibility is managed through the formation of joint companies, County Public Transport Authorities (PTAs). As a rule, 50% of the shares in these companies are owned by the local authorities and 50% by the county councils. The PTAs decide the scale of services, timetables and fares for all modes of 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), BK-Tåg and Sydtåg are the current operators as will be described later.

In this context, certain railway elements of the 1988 Transport Reform should be mentioned;

- The railway infrastructure became the responsibility of the Swedish National Rail Administration (Banverket).
- Operators pay access fees for infrastructure use.
- SJ became purely a train operator working according to commercial principles.
- Deregulation of passenger services on the regional lines was introduced. Further deregulation was envisaged.
- Certain PTAs were given a state grant of about MSEK 165 annually (until 2000), this support may be used for train or bus services according to the PTA’s own choice. (The three services described in Section 5 do not, however, receive any such grants.)

As a first deregulatory step, the PTAs were able to contract other train operators than SJ for services on the regional lines. This freedom has now been extended and the PTAs are able to choose between different operators for regional services also on the main lines.
3. METHODOLOGY

The attitude among PTAs towards rail traffic varies. This also applies to the degree of openness concerning costs, traffic volumes, contract conditions etc. Some PTAs publish costs per vehicle km or seat km for bus and rail because they consider the public has a right to know, while others claim that because of competitive tendering they ought to disclose as little as possible. As the major operator SJ claims that because of competition not only from other rail operators but also from interregional buses it is unable to disclose economic data or passenger volumes on a line-by-line basis. Furthermore, the franchises or contracts vary greatly in size and scope, and it would therefore be useless to call them x, y, z as any person with a basic knowledge of Swedish railways would be able identify them.

Therefore, the author has used a varied range of written sources, including the PTA and SJ annual reports complemented with interviews with PTA and operator staff. Draft sections of the paper have been circulated to the parties involved for comments and suggestions (see References).

Partly because of the above mentioned conditions and restraints and partly because of his personal interests and long established contacts, the author has chosen to deal more in detail with the Net cost scheme for Inter-regional services, three of the Gross cost Regional schemes, and some of the Co-operation schemes.

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.

4. INTER-REGIONAL SERVICES

With the changes in the railway regulatory framework, especially with the State bearing most of the infrastructure costs, SJ was basically assumed to be able to operate inter-regional services on a commercial basis. However, it was not expected that this would be entirely possible because of factors such as the low population density in certain parts of Sweden and the way the Swedish railway network was designed in the 19th century. A state purchasing organisation was therefore set up. After various organisational changes, these matters are now managed by an independent Committee with administrative support from Banverket. The Committee consists of just a chairman and a secretary, both working part-time on these matters.

Services that SJ cannot operate on commercial grounds (breaking even) are reported to the 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. Before the tendering process, the Committee is instructed by the Ministry of Transport and Communications concerning financial limits and other objectives. After the tendering process, the Committee reports to the Ministry and the final decision is made by Government and Parliament.
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.

Instead of just covering the operator’s losses, the Committee made it possible to introduce new trains (X2-2, an X2000 derivative) 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 nine services 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
- Co-operation with PTAs is essential

The Committee pays about MSEK 330 annually for the nine services, representing about 1 600 M Passenger-km (pkm). Due to the long journeys the overnight services to the North make up about 1000 Billion pkm. This means a net cost of about 0.20 SEK/pkm (about two GB Pence/pkm).

As major advantages of this purchasing process, the author wishes to mention;

- The small and easy administration of the purchasing system, requiring less than one person-year.
- The improved services, both in terms of quantity and quality. Similar services in other countries are often the step-child of the railway.
- The fairly low support levels, especially considering that overnight services represent a large share of the traffic.
- The Net cost system is an incentive for the operator to cut his costs.

The advantages include:

- Having the sole rights to inter-regional passenger train traffic in Sweden, SJ has to be trusted when it claims that the service between A and B cannot be operated commercially. This is a drawback but the author, knowing the Swedish rail market well, hardly believes that SJ exaggerates.
- The Net cost system has no revenue-sharing components and therefore may be disadvantageous for the buyer. If the operator manages to cut his costs he also retains the surplus.
- As mentioned earlier, there were several bidders for the services and the new entrants saw the provision of rolling stock as one of the main barriers to entry. The Committee 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 major barriers to entering the rail market.
5 REGIONAL SERVICES

5.1 Greater Stockholm area

The County of Stockholm has 1.7 million inhabitants, of whom about 1.2 million live in the conurbation of Stockholm itself. Public transport is the responsibility of the Greater Stockholm PTA - Storstockholms Lokaltrafik (SL).

The commuter services (Pendeltågen) are operated by SJ as contractor to SL over 186 km of Banverket lines with 47 stations. About 60 million passengers annually travel about 1 000 M pkm. 145 X1/X10 Electric Multiple Units (EMU) in two vehicle Bo-Bo+2'2' configuration with 180-190 seats each are used for these services. Maximum train size is eight vehicles. Unlike, for instance, the Malmöhus services described in the following section, all trains have two staff onboard and most stations are also staffed. Season ticket travel is predominant, a monthly pass for the whole county costing SEK 355. For SL generally about 46% of costs are covered by fares but SL unable to state any particular figure for the commuter services.

Apart from these services, SJ operates long-distance commuter services on a fully commercial basis from Stockholm to Uppsala, Enköping-Västerås, Flen-Katrineholm and Nyköping. SL subsidiaries operate other rail services on SL-owned infrastructure - the 106 km, 100 station Metro network, the Roslagsbanan (891 mm gauge) and Saltsjöbanan suburban lines and two minor suburban tramways.

The commuter services started in 1968 and a long term SL/SJ contract was later agreed for 1985-2010. At this time no other operator was legally possible and SL was therefore concerned about a really long-term contract to “tie up” SJ. Deregulation progressed, however, with a free PTA choice of operator in mind and SL subsequently wished to loosen its ties to SJ. The duration of the present contract is 1995-1999.

The present contract has two main sections concerning Quantity and Quality;

The Quantity section deals with the number of trains to be run over different sections. For 1996, SJ is required to run 6 M train-km, 35 M vehicle-km and 3 350 seat-km according to the annual timetable made up jointly by SL, SJ’s various business divisions, the Traffic control organisation and Banverket. It should be emphasised that capacity constraints are serious in the Stockholm area and that commuter services have to compete with other rail traffic. So far, there is no actual bidding for train paths, which are allocated instead through an administrative or negotiative process.

According to the contract, SJ has to run 99,7% of the trains in the annual timetable in 1996 rising to 99,8% in 1999. Failure to do so will result in specified fines per train-km and per vehicle-km.

The Quality section deals mainly with punctuality, information and cleaning. The following punctuality targets have been contracted;

<table>
<thead>
<tr>
<th>Lateness</th>
<th>&lt; 3 min</th>
<th>3-10 min</th>
<th>&gt; 10 min</th>
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<tbody>
<tr>
<td>1996</td>
<td>91,0%</td>
<td>7,2%</td>
<td>1,8%</td>
</tr>
<tr>
<td>1999</td>
<td>93,0%</td>
<td>6,0%</td>
<td>1,0%</td>
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</tbody>
</table>
If punctuality is recorded as being above or below the targets bonuses or fines per train must be paid. If bonuses are paid part of the money will be distributed among SJ staff involved in the commuter services, there are however no salary deductions when fines are to be paid.

If passengers are not informed of delays by loudspeaker announcements, a fine of 5000 SEK must be paid each time this happens. The cleaning clauses state that vehicles in traffic shall be graffiti-free and that station graffiti shall be removed within 48 hours. No fines are imposed in this area, however.

SL and SJ finally agree that further incentives must be developed during the contract period.

SL pays about MSEK 1200 per annum for the commuter train services. When considering whether this is good value for money, the author wishes to make a few personal points;

- The railway is still a personnel intensive business and staffing principles should be constantly questioned. Ticketing staff at stations and train guards with little customer contact can hardly add any value to the services. A new ticketing system may change this, SL is also making increasing use of train guards to patrol trains in off-peak hours.
- The rolling stock is hardly up to date, resembling the Metro stock of past decades. A series of improvement measures are under way, however.

The Greater Stockholm commuter services are important, representing about on sixth of all rail pkm in Sweden. There should still be room for improvements.

5.2 Malmöhus area

The County of Malmöhus has 820 000 inhabitants. Unlike Stockholm and Göteborg the area is rather polycentric, Malmö has 246 000, Helsingborg 110 000 and the university town of Lund some 80 000 inhabitants. Public transport is the responsibility of the County of Malmöhus PTA - Länstrafiken Malmöhus.

The regional train services (Pågatågen) are contracted out to SJ, operating over 208 km of Banverket lines with 29 stations. In 1995, 20 X11 EMUs (two vehicle Bo-Bo+2'2' configuration) with 180 seats each and 10 Y1 diesel railcars with 65 seats were used for these services. The EMUs units have recently had a mid-life complete rebuild including entirely new seating, toilets and air conditioning. Maximum train size is four vehicles and all trains are one-person operated. Eight million passengers annually travel about 200 M pkm. PTA costs are MSEK 186 and fares cover 56% of the costs. Season ticket travel represents 37% of income. Fares are considerably higher than in Greater Stockholm and a monthly pass for the whole county costs SEK 825-925.

Regional train travel has increased by 30% over the last five years. 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. 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;

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<tr>
<th></th>
<th>Peak</th>
<th>Off-peak</th>
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<tr>
<td>on time or &lt; 1 min late</td>
<td>93</td>
<td>90</td>
</tr>
<tr>
<td>&lt; 3 min late</td>
<td>96</td>
<td>93</td>
</tr>
<tr>
<td>&lt; 10 min late</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>&lt; 20 min late</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>cancelled and not substituted</td>
<td>0</td>
<td>0</td>
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</table>

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

- Perceived punctuality
- Driver treatment of passengers - behaviour in general and the way he/she drives
- Information - loudspeaker announcements and station information boards
- Rolling stock - internal/external cleaning and ventilation

Customers 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 to 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.

The Malmöhus regional train services show a healthy growth rate. Fares are higher than in other counties but customers seem prepared to pay for quality. The author feels that future development should bear in mind that the car ownership ratio is higher than in Greater Stockholm and there is less road congestion.

As far as the author knows, there are few similar quality contracts in the railway sector. The scheme is certainly ambitious and far-reaching, but the author wishes to point out that only present customers are interviewed, not potential ones. This is a common and difficult problem but it must not be overlooked.
5.3 Simrishamn-Ystad

This line runs from Simrishamn with 18 000 inhabitants, through Tomelilla with 10 000, to Ystad with 23 000 inhabitants. This is a sparsely populated area - even for Sweden. The line is 50 km long with 10 stations. At the Ystad end it connects with the recently electrified Ystad - Malmö line. As most of the line is within the County of Kristianstad, their PTA, Kristianstads Läns Trafik AB, manages the line in cooperation with the adjacent Malmöhus PTA. There are several complementary bus services in the area including express services to the county capital of Kristianstad and the University town of Lund.

The service was contracted out to SJ for several years but in a new round of tenders the private operator Sydtåg was contracted for 1995-1998. The main reason for choosing Sydtåg’s bid was certainly their lower price, but the PTA has also mentioned that they were not quite content with SJ’s quality of operations. A new brand name, Österlenaren, was also chosen in 1995 alluding to the area served by the line.

At present, two Y1 diesel railcars owned by the PTA run 6 return trips a day achieving 4 million pkm per annum. Sydtåg has 23 staff, four of whom have volunteered to operate the passenger services only. There are no conductors or station ticketing staff. Apart from Österlenaren, Sydtåg operates various short-line freight services on lines in southern Sweden, including Simrishamn-Ystad. Sydtåg has acquired a former locomotive shed and rebuilt this for maintenance and minor repairs. Larger repair jobs are let to TGOJ, an SJ subsidiary. If one of the railcars has to be taken out of service a similar vehicle is rented from SJ or from Inlandsbanan, the privately operated railway in northern Sweden.

As usual, the PTA decides timetables, fares etc., and the operator’s influence is limited in these areas. Sydtåg’s drivers do sell tickets and passes, and they have managed to increase revenue by 35% in one year, somewhat remarkable as there are no sales commissions or other direct incentives. Sydtåg’s director has explained that the drivers are very keen on "selling" the Österlenaren and on doing a good job in general. This may be the best way of ensuring a new contract and prolonged employment after 1999.

The overall economics of operating a small scale railway service such as Österlenaren are outside the scope of this paper. The author feels that even a train protagonist like himself must admit that modern bus services would serve as well, the decision to run trains is finally up to the politicians on the PTA Board. Looking at the operations, despite having freight services on the same line, Sydtåg has chosen to detail a group to run only the passenger services. Operating a passenger service, even a very limited one, with only four staff must be considered a remarkable feat.
6 OTHER AGREEMENTS

There is a variety of other agreements between PTAs and SJ and this section will describe a few of them.

6.1 Season ticket validity

Several PTAs have contracts with SJ to allow travel on InterCity and other inter-regional trains with season tickets and sometimes also other pre-paid tickets. These arrangements have existed for 15-20 years with various mixes of fixed and variable fees to be paid by the PTA to SJ. Today, these arrangements are being phased out. InterCity trains are being replaced by X2000 with compulsory reservations and some PTAs are introducing their own dedicated or branded train systems.

6.2 Kustpilen

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. They now own 13 diesel sets of the Danish IC3 type. Relieved of rolling stock capital costs, SJ has agreed to operate the service without any further subsidy. The PTAs however pay SJ for season ticket validity as described in 6.1. 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.

6.3 PTA buying more services

Since the Nässjö-Jönköping-Falköping-Skövde service passes beside lake Vättern, the service has been branded *Vättertåg*, "Vätter trains". As one of the Inter-Regional services described in Section 4, 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 more return trips and to accept PTA tickets on all trains. SJ also operates one X2000 service a day over parts of the line.

7 CONCLUSIONS AND SUGGESTIONS

In the sections above, the author has attempted to describe some of the franchising or contractual arrangements in rail passenger transport in Sweden. Today there are about 45 of them.

The advantages and disadvantages of the net cost agreement have been outlined in Section 4, whereas the services described in Section 5 and many others are Gross cost. The operators interviewed by the author claim that the major advantage of a gross contract 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. However, with PTAs setting the standards, the
operators feel somewhat constrained or tied up lacking the full powers of running a railway.

Furthermore, operators claim that there are few ways of influencing revenue, apart from the bonus systems described in Section 5. Trials with revenue sharing are, however, under way in several counties (starting with bus services) but with PTA control of fares and sales channels 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, sometimes without any ticket registration or inspection at all. These matters certainly merit further studies.

SJ claims that co-operation agreements whereby SJ takes a certain commercial risk leave more scope for operator initiatives and action and that these schemes will probably increase. The future will tell.

Finally, SJ remains the dominant operator in the passenger field and the Transport Act of 1988 has never foreseen a sell-off or split-up of SJ as a means of encouraging competition. This may not even be desirable, in many respects SJ’s performance is outstanding and has also improved significantly since 1988. The barriers to entry in the rail business remain a crucial matter, however. As mentioned above, many PTA own the vehicles, seeing this as a way of choosing the operator they wish. This is another matter meriting further studies, especially in the European perspective where various deregulation and regionalisation schemes are likely to be launched in the near future.

REFERENCES


Swedish State Railways, Memorandum concerning tendered and contracted services, April 1996.


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<td>Stockholm</td>
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<td>Sydtåg</td>
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