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Introduction

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Competitive Tendering is currently viewed by many as a *panacea* for the economic problems of public transportation services. Competitive tendering is believed to reduce costs, increase productivity, decrease subsidies, induce better quality, stimulate innovation, and to further the modal share of public transport. The European Commission advocates competitive tendering as a means to stimulate competition in public transport and as an important additional step towards the goal of an internal European market for transportation services.

The present special issue of European Transport assembles five articles which review the experience of those European countries that have the greatest experience with competitive tendering so far, namely the UK, Sweden, Norway, and Italy. To these European countries the overseas perspective of Australia has been added, because the failure of the public tender in Melbourne has received widespread interest among experts.

Basically the papers show that no easy answers and – what is even more important – no *standard* answers emerge. Competitive tendering will not deliver economic gains *per se*. Context and history matter. Moreover, there are some serious inherent pitfalls in competitive tendering that have to be avoided. Finally, it is not clear, in how far competitive tendering can replace regulation (as contended in Demsetz classical article of 1968) or whether there must still be constant monitoring of the winning bidder. It is also unclear whether improved regulatory mechanisms could achieve the same efficiency results as competitive tendering, but perhaps at less transaction cost.

Concerning the role of context Boitani/Cambini point out the importance of the political framework conditions. The two authors present new original data from which they conclude that the Italian experience with the tendering of bus services has been disappointing so far. The number of participants in the tendering processes has been very low in most cases and the incumbent won the tender almost everywhere. There has been no convergence of cost levels (as should be expected with a well known production technology like in bus transport) and the cost savings that have been achieved have been

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small. The authors conclude that for the development of cost levels past cost levels seem to be more decisive rather than competitive tendering.

The authors emphasize the importance of the “political economy context” for the tendering procedure to be successful. Legal and political uncertainties create disincentives for potential market entrants to participate. Such uncertainties may arise when there is suspicion of favoritism on the part of the tendering authorities, for instance, when their own transport enterprises are involved or when tenders seem to be tailor-made for the incumbents.

Regulations are another key element of the political context. In Italy there exist social clauses which stipulate that the winner of an auction has to re-employ the staff of the former incumbent. Considering that labor costs amount to approximately 2/3 of total operating cost this is a very important factor for the efficiency gains that can be achieved via a tender.

Boitani and Cambini believe that public tendering can only be successful when the following three preconditions can be met: (1) there must be credible commitment on the part of the franchisor to let franchisees go bankrupt, (2) the authorities must be able to guarantee fair tenders, possibly by an independent agency, and (3) there must be free choice of the factors of production. The authors argue that if these requirements are not achievable in the policy process other mechanisms like subsidy capping or yardstick competition will be preferable.

The importance of history and the political context is also apparent from the paper on Norwegian bus services tendering by Bekken et al. The authors show that in Norway the efficiency gains that have been achieved by competitive tendering are primarily a function of previous contractual arrangements. The authors carry out an econometric analysis to study the effect of competitive tendering on costs, subsidies, and vehicle kilometers. The cost savings amount to approximately 10 %, which is less than in other countries, even other Scandinavian countries like Denmark and Sweden. The paper explains these low efficiency gains by the fact, that in Norway private involvement has already been substantial previous to the opening up of this market to competitive tendering. In Norway a great share of bus services has traditionally been provided through negotiated net cost contracts with private firms. Public operation was limited to major cities. As a result cost savings in Norway were already in the order of 6-20% before competitive tendering was introduced. This raises the question, of course, what gave the private firms the incentives to achieve these gains, given that they had a *de facto* monopoly position. Bekken et al. attribute this to the fact that these firms were operating under the constant threat of competitive tendering.

Bekken et al. report that the Norwegian counties have preferred to cash in the efficiency gains of competitive tendering in the form of reduced subsidies rather than in the form of increased service quality, apparently without great loss in patronage. A further interesting result achieved in the paper is that counties with a mixed regime (partly tendering, partly negotiated contracts) have fared less well in terms of cost reduction and output than counties which exclusively have kept to negotiated contracts or exclusively moved to competitive tendering. The authors conjecture that this can be explained by the fact that the threat of competitive tendering breaks the trust relationship established with the operating firm and the purchaser. As the prolongation of the existing contract becomes less likely firm behave more according to the actual length of the contract. The horizon of investments will be shortened and risk aversion increases.

The paper by Stanley fits rather well to the main result by Bekken et al. In Melbourne too, large efficiency gains had been achieved before the city decided to put out its public rail services to tender. As a result it could have been predicted by the bidders and the franchisors alike that the potential for further gains was low. The opposite occurred however and rather optimistic bids were made and accepted by the authorities.

In August 1999 Melbourne split its rail services into four parts, two heavy and two light rail (tram) operations which were to be put out to tender. (There was also one regional passenger service which was tendered too) The idea behind this construction was to allow yard-stick competition between different transportation firms. National Express Group (NEX), the British Bus Operator, won the franchise to operate one of the two metropolitan train services and one of the two metropolitan tram services. The other metropolitan train service was awarded to Connex and the other tram service to Yarra Trams. The contract length was set at 12 years for the tram services and at 15 years for the train services. Already in early 2002, after only three years of operation, all franchisees reported financial problems. The government responded with substantial short term funding. Nevertheless, a few months later National Express stopped operations. After interim arrangements with the two remaining companies in the market Connex finally took over the whole train network and Yarra Trams the entire tram network in 2004. The contract lengths were shortened from 15 to 5 years.

Stanley attributes the failure of the Melbourne tender to several factors. Among these are overoptimism of the bidders, as mentioned above. The bidders were influenced in their expectations by the substantial growth rates in the British transport sector and did not realize that in Melbourne further cost cutting would be difficult. But Stanley also mentions other problems like the poor performance of the existing ticketing system and unsatisfactory security around rail stations. Stanley conjectures, however, that these factors are only part of the explanation. In his view the real causes lie deeper and point to a major problem in competitive tendering in general. Invoking ideas from the so called Capture Theory of the Positive Theory of Economic Regulation Stanley claims that the bidders were quite conscious of the fact that their bids were unrealistic. Their market entry was aimed at “getting a foot in the door” and “creating facts” for the regulatory authorities who would find it politically difficult to let the bidders go bankrupt. Instead of incurring the political troubles connected with service disruptions the authorities would rather grant fare increases to the troubled companies. This hypothesis raises the objection, of course, why reputation effects do not counteract such strategic behaviour. Moreover, as Stanley himself recognizes, competent regulators should immediately recognize unrealistic bids and see through the strategic intentions of the bidders.¹ Stanley claims, however, that in the Melbourne case due to a mixture of ignorance and ideological preconception the responsible decision-makers were not able to assess the bids in a realistic fashion. He concludes his paper by spelling out key-elements of what he terms a “trusting partnership” between the State and private operators in transport service planning and delivery.

The two remaining papers in this special issue of *European Transport* deal with Sweden and Great Britain, respectively, the two countries that have certainly accumulated the greatest experience in competition in public transport services so far.

Alexandersson and Hulten give an overview over the experience in the UK, the Netherlands, Germany and Sweden. Their focus is on railway services. Since the

¹ A very good discussion of these problems of strategic behaviour can be found in Kain 2006

Transport Policy Act in 1988 the Swedish railway sector has a vertically separated structure, where investments and maintenance of railway infrastructure are the responsibility of Banverket, a public enterprise. At the level of train operation the former state railway operator SJ competes with new entrants, like Connex, Citypendeln and Tagkompaniet. The County Public Transport Authorities (CPTAs) act as responsible agencies for regional services and are compensated by the state for deficit making services.

New entry was slow in Sweden at first. From 1989 to 1995 there was only one single competitor to SJ, BK Tag. The break-through did not occur before 2000. Alexandersson and Hulten attribute the break-through to the increased transparency that had gradually improved after more and more functions like allocation of track access rights (slots) and train traffic control had been moved from SJ to Banverket, the network operator. This created safety for investors and new entrants, like Connex, Citypendeln and Tagkompaniet which are now strong competitors of SJ.

Alexandersson and Hulten report that competitive tendering of railway services in Sweden has led to subsidy reductions in the order of 20% in the first round and an additional 28% in the second round of tendering by CPTAs. There has also been an increase of 32% in patronage - on short distances even of 70%! This means stronger growth than for all other modes and can probably not be attributed to tendering alone. Alexandersson and Hulten mention better integration with bus-services by the CPTAs as a major success factor.

Compared to these successes of public tendering in Sweden there are some negative aspects too. The average number of bidders has been rather low. It amounted to 1-2 bidders for net cost contracts (which are mainly used for the regional services tendered by the CPTAs) and 2-3 bidders for gross cost contracts (which are mainly used for interregional services tendered by the state). There were also several cases of non-fulfilment of contracts due to too optimistic bids, the best known case being the problems with Stockholm's commuter services in 2000.

Great Britain has certainly been the country that has gained the most publicity for its far reaching experiments with competition in public transport. Concerning the railways most observers agree that after some initial reductions in the subsidies to the TOCS, subsidies now are almost back to the initial level before the reform. Alexandersson and Hulten even speak of a "cost explosion" in Great Britain's railroad sector, not only with respect to train operations (the level of the TOCS) but also with respect to infrastructure and rolling stock. Many of the TOCS seem to be in serious financial trouble. The big success of the British rail reform undoubtedly lies in the substantial increase in patronage that has occurred.

Britain has employed both competition in the market (open access) and competition for the market. Indeed this distinction was coined in Great Britain already in the middle of the 19th century by Chadwick, long before 1968 when Demsetz published his classic article "Why Regulate Utilities?" on which the modern philosophy of public tendering is based. (It is very little known, by the way, that the concept of competition for the market was developed even earlier than Chadwick by the German railway politician Hansemann in 1831) The paper by White contends that the intensity of competition is stronger in tendered services than in services which are characterized by "on the road or on the track" competition" White attributes this to the many potential alternative providers which are waiting in the wings to replace an unsatisfactory incumbent. With the large experience gained in the tendering of bus and rail services in Britain there is a

large supply of potential and knowledgeable market entrants with ensuing competitive pressure on incumbents. In contrast, it may be far more difficult to replace an incumbent by “on the road-competition” who may have developed a monopoly position over long years of operation.

In his general conclusions White also casts an aside on the Melbourne case mentioned above. White conjectures that the failure may be due to an inherent deficiency of using net cost contracts. In his view net cost contracts run the danger of doubling the “winners curse” problem of auctions. This is because overoptimism can not only occur with respect to costs but with respect to revenues too. It may therefore be advisable to use gross cost contracts rather than net cost contracts. As British examples he cites the two Virgin rail franchises which too were based on very optimistic forecasts of large ridership and revenue growth. He admits, however, that in growing markets, the effect of doubling the winners’ curse may be less important. In growing markets bidders may be able to spread the risk over larger networks rather than single routes. But even in this case there may be a point for gross contracts. Gross contracts may help to increase the number of bidders because there is less risk to be taken by the bidders. Thus more small enterprises may be encouraged to participate in the tender. White also shows that price competition in long distance markets has been more effective than in local markets.

In conclusion it seems safe to say that uncritical optimism with respect to tendering of public transport services has given way to a more realistic assessment. It has become clear that “one size fits all” solutions are no longer appropriate. Success or failure in this area depend very much on history and on political circumstances which require careful and thorough *ex ante* analysis. The role of experience and learning by both authorities and bidders can hardly be underestimated. In addition, many theoretical issues still seem to be underresearched. This applies in particular to the strategic aspects of the bidding process and concerns perhaps more the institutional and political economy aspects of the matter than, for example, deficits in pure auction theory (see also Kain, 2006).

On the empirical side I can possibly do no better than to cite the last sentences in the Alexandersson/Hulten paper:

“We see at least two major possibilities for future empirical research. Firstly, a comparative European study directed towards measuring the effects of competitive tendering and testing the relative contribution of different factors, such as network size, number of bidders, contract length, how many times the services have been tendered, type of contract (net or gross cost), upstream competitive markets or vertical monopoly, and so on. Secondly, research projects including both statistical and qualitative data, comparing railway systems using competitive tendering to railway systems using either negotiated contracts or a monopoly regime. Such a study could shed some light on the relative merits of the different regimes after nearly two decades of experimentation with railway deregulation in Europe.”

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Competitive tenders in passenger railway services: Looking into the theory and practice of different approaches in Europe

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Abstract

During the past 15 years competitive tenders have become a common procedure to procure and organise passenger railway services in European Union member countries. Different models have been developed in different countries, spanning from the British radical privatisation and franchising of the railway services to the more incremental processes in countries like Sweden, the Netherlands and Germany. The variety of tendering models has occurred for a number of reasons. For example, EU legislation permits different models of organising tenders, member countries have had different goals with the introduction of tenders and other reforms, and within countries we find trial-and-error processes aiming at reducing earlier flaws. In this article we will describe the dominating tendering procedures, look into their theoretical rationale and discuss their possible pitfalls and advantages, drawing from the experiences of several countries. It is evident that the different tendering regimes suffer from different types of problems. In the Swedish tenders there have often been very few competing firms, in Britain the long time span of the first round of franchised contracts resulted in difficulties in making correct estimates of future developments etc. The article concludes with an overall appraisal of the different models and explores the possibilities for learning across the tendering regimes.

Keywords: Railways; Competitive tendering; Privatisation.

Introduction

The process of “Europeanisation”, the creation of European institutions and markets, of the former national economies in Europe, has increasingly affected the competition policy in the union’s member states (see e.g. Vickers, 2001, Morgan, 2001, and Dabbah, 2003). Public procurement by competitive tendering is an important part of these policies. It is supposed to increase competition, save taxpayers’ money and safeguard

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equal treatment for competing firms, regardless of nationality (European Commission 1996). The European transportation industry, not least the railway sector, has been particularly affected by this development, implying important structural changes in several countries. The European Directive 91/440 on the separation of accounts for infrastructure from operations has commonly functioned as a starting point for railway reforms, although specific problems and events at the national level have also played an important role. An overview and interpretation of how far rail liberalisation has progressed in the countries of the European Union is provided in reports of the so-called rail liberalisation index (Kirchner, 2004).

This article begins with a broad look at some of the theories related to the introduction of regulatory reforms such as tendering in the railway sector. We then turn to the evolution of railway policies at the European Union (EU) level, followed by a closer look at the development in four EU member states: Sweden, Great Britain, Germany and the Netherlands. For each country, we look into the rationale and reasons behind the reforms, the process and history of the reforms, and the structure of the reforms (vertical and/or horizontal disintegration, use of tendering and contracts, types of contracts and their lengths etc). We also consider the experience in terms of the number of bidders, new entry, transparency, positive effects and particular problems, and how problems have been solved. In an analysing section we make an overall appraisal of the different models and explore the possibilities for learning across the tendering regimes. The paper ends with our conclusions and a look at possible ways forward.

Theoretical approaches to railway reforms

Theories on public and private ownership and PPP

Privatisation refers to the transfer of public ownership and management to the private sector. Since privatisations are often the effect of a market transition that originates in a deregulation, the words deregulation and privatisation are sometimes mistakenly used as synonyms. According to Vickers and Yarrow (1991) privatisation of former public enterprises and services can take three forms:

1. Privatisation of competitive firms – the transfer to the private sector of state-owned enterprises operating in competitive markets.
2. Privatisation of monopolies – transfer to the private sector of state-owned enterprises with substantial market power. These firms can either be natural monopolies (like electricity transmission) or “artificial” monopolies, where competition from foreign or domestic firms could exist.
3. Contracting out of publicly financed services, previously performed by public sector organisations.

The economic motives for privatising a public monopoly compared to replacing a public monopoly with competition are quite different. There is a widespread agreement that the replacement of a public or publicly guaranteed private monopoly with competition between competing firms results in improved efficiency. The efficiency gains are less clear for the transfer of a public monopoly to private ownership. In this case, it seems that the regulatory policy is crucial for preventing negative effects of monopoly power (Vickers and Yarrow, 1991; Alexandersson et al, 1998). One must

also consider the distinction between *productive* and *allocative* efficiency. Competition generally fosters gains in productive efficiency, for example through increased labour productivity, while a transition to a state of better allocation of resources and optimum output may be less straightforward and take longer time (see e.g. Preston, 1996).

Some monopolised markets may be better suited to the introduction of competition for the market (for example by means of tendering), rather than competition in the market. In theory, this is advantageous when some resources of production are fixed or otherwise limited in terms of capacity, making them difficult to be used by more than one firm at a time (for example a time slot in a railway time table), when there is a need for coordinated planning of production in order to make use of network effects, and when many competing companies would create a fragmented and possibly irregular supply over time – making it difficult for consumers to get the necessary information.

The special circumstances related to contracting out and the selection of a winning bid entail some specific problems that are rarely observed on ordinary markets. The procuring entity has a strong position as a buyer, sometimes close to a monopsonist. It determines the range and limits of the actual market. A supplier that wins a tendered contract enjoys a monopoly-like position during the contract period, but its actual powers are often very restricted, e.g. in terms of its possibilities to influence prices and supply. The end consumers are bound to use the supplier chosen by the procuring entity.

The contracting out of public passenger railway services may lead to a large variety of contracts, ranging from relatively simple and short-term management contracts to complex and long-term concession agreements. At a general level, they all imply the introduction of one form of public-private partnership. Public-private partnerships and their regulation is one of the recurring policy themes in the history of the transport industries (Estache and Serebrisky, 2004). In the European railway sector, tendered service contracts span from one to fifteen years, while the contracts of some Build-Operate-Transfer (BOT) projects may run for 50 years and sometimes even longer. This means that actual competition between firms for a specific part of the market only takes place at discreet points in time, affecting the continuity of the seller structure, and thereby competition, over time. Even if other public tenders, concerning other parts of the market, may happen during these years, a loss in a tender that represents a major part in a firm's business may lead to the dismantling of the firm altogether. It may be argued that firms that are efficient in the long run would always have the alternative to borrow money. However, this option does not seem to be realistic in situations when firms need to survive long periods of no or much reduced business activity, with only a chance (not certainty) to win a future tender.

According to Bennett et al (1999) service contracts are generally the most competitive form of "privatisation". They provide a relatively low risk option for expanding the role of the private sector, and the awarding procedure can help governments gain a more complete understanding of their infrastructure systems. Service contracts have potential to provide better system operation, allowing the government to obtain improvements in performance and efficiency through technology transfer and the acquisition of technical and/or managerial capacity. Since the contracts are reissued rather frequently, contractors should be under continuous pressure to keep costs low. Also, because service contracts are limited in scope, the barriers to entry should be fairly low.

The disadvantages of service contracts are that they do not involve significant infusions of private capital, nor do they necessarily create a base from which to optimise entire infrastructure systems. In consequence, the contractor's effectiveness in

improving the service performance is limited by the government's ability to provide the necessary capital investments and direction. Another potential disadvantage is that service contracts leave the government in charge of many of the most explosive political issues and do little to separate the operator from political intervention.

Long-term contracts like BOT projects can be an effective way to bring private money into the construction of new infrastructure facilities or into the substantial renewal of existing ones. BOT agreements tend to reduce market and credit risks for the private sector because the government is the only customer, reducing the risks associated with insufficient demand and ability to pay. Private actors will avoid BOT projects if the government is unwilling to provide assurances that the private sector investment will be paid back (Bennett et al, 1999).

Scale economies, natural monopolies and contestable markets

In the railway industry, presupposed scale economies in production, marketing, purchasing and co-ordination, for a long time implied that the provision of vertically integrated railway services was by definition viewed as a "natural" monopoly (see for example Beesley and Littlechild, 1992). Today, it is primarily the rail infrastructure that continues to be viewed as having characteristics of being a natural monopoly, forming the basis for vertical separation of infrastructure from operations as applied in several European countries. However, there is a persistent debate concerning the merits of vertical separation versus integration. Preston (1996) shows that the economic evidence for vertical separation is not entirely convincing. For example, there may be economies of scope related to vertically integrated planning of infrastructure and operations. It is possible that some scale economies in the European railway sector, which might have been possible to exploit before, are no longer available due to asset stripping and separation of previously integrated businesses and lines. Some researchers have therefore argued that vertical separation should never have been applied at all (see e.g. Bruzelius, 1998).

In addition to the discussion on the pros and cons of vertical separation, there has also been a long-lived debate concerning the importance of various types of scale economies in railway operations. Empirical evidence from the U.S. suggests that there are constant returns to scale, but increasing returns to density in the railway sector. In other words, a railway company may only gain from running more trains on its existing network of lines, rather than both increasing the number of trains and expanding the network. Studies performed in Europe provide a more complex picture. According to Preston (1996), there are important economies of scale in network operation, but there is probably also an optimal size above which diseconomies set in. The smallest operators in Europe are affected by increasing returns to scale, the medium-sized operators experience constant returns and the largest appear to be affected by decreasing returns to scale. However, almost all railway companies, regardless of size, exhibit increasing returns to density (Preston, 1996). There are several possible sources to these economies, for example, increased amounts of services may lead to better use of terminal facilities, rolling stock and labour. But in the end, these economies may reach a point where they get exhausted and diseconomies of scale start to become apparent. This may be due to increased *agency costs* as companies become very large and possibly more difficult to manage and control.

It is important to note that this discussion on scale economies is limited to the effect of size upon variable costs. If demand-side complementarities are weighted in, such as co-ordinated timetables and marketing, the case for large railway companies probably gets stronger. However, very large firms may also have greater difficulties than small to respond quickly to shifts in customer needs.

While most U.S. railroads are focussed on freight, European railways have traditionally been involved in both passenger and freight operations. This raises the question of economies of scope between passenger and freight operations. Although empirical findings are not entirely consistent, there is evidence of diseconomies of scope from studies on European as well as Japanese railways, suggesting that passenger and freight services may gain from being separated (Preston, 1996).

The existence of scale economies in railway operations has sometimes been used to defend a regulatory framework that maintains a close-to-monopoly position of national operators in some European countries. But it has also been argued that scale economies are not automatically being advantageous to these operators. Rather, they need to be exploited, and firms may very well differ in their skills to do that. Large incumbents, lacking intra-modal competition for a very long time, may previously have experienced a rather limited pressure to rationalise their operations, especially if it was easy to get additional subsidies from the Government or other public authorities (Alexandersson et al, 2000). In theory, the introduction of a more open and competitive market should reveal the true economies of scale, enabling the most efficient firms to grow to their optimal size.

To some extent related to the discussion on scale economies, we find an important theory development regarding how competition influences markets. With studies of the preconditions for when monopoly firms may actually be good for society, Baumol and other researchers came to formulate a theory on a new type of idealised market, the *contestable market*. Such a market is characterised by possibilities for easy and fast entry and exit of firms, which should all be affected by the same regulatory framework and have equal access to market knowledge and technology. Scale or scope economies may exist, but this is not a necessary condition. *Sunk costs*, rather than scale economies, make up the barrier to entry that gives a monopolist harmful power. The implications are that an industry may be efficient even in the case of a monopoly or oligopoly, provided that the *threat* from future competition is considered to be real. Regulations should therefore aim at facilitating entry and exit (Baumol et al, 1982). Shires *et al* (1994) have studied the British railway industry from a contestable market approach, finding some conditions to be fulfilled, but easy and fast entry and exit is still limited by several types of barriers, categorised as innocent, strategic or predatory.

Transaction cost theory

The costs to carry out transactions depend on the frequency of the transaction, uncertainty, the degree of specificity in the investments, and the perceived need to insure against opportunistic behaviour in markets with few actors. As can be understood from these factors, any change in a market structure may result in opposite forces as regards the transaction costs. A reduced uncertainty in the price level when using the market can be off-set by co-dependence between buyers and sellers if there is a high degree of investment specificity.

When the former railway monopolies were dismantled in countries like Great Britain and Sweden, transactions that used to be managed internally were moved to a market with sellers and buyers. This type of shift has been interpreted in two contrasting ways by researchers. One group claims that the horizontal and vertical disintegration resulted in lower transaction costs because the transactions were made visible and exposed to market mechanisms. One of the architects behind the privatisation of British Rail claimed that the separation of large vertically integrated firms into smaller specialised units lead to positive effects in terms of increased specialist knowledge of these firms (Foster, 1994). This division implied that a number of new contracts between the units had to be set up. Although the number of transactions in the system may have increased, the argument from this interpretation of transaction cost theory was that this does not necessarily imply higher transaction costs. In addition to the argument that transparency makes the transactions efficient, it has also been claimed that modern methods of management and control, auditing and computerisation decrease the costs of every transaction and make it easier to formulate the division of responsibility in contracts. Therefore, a clear separation of businesses into separate firms is necessary.

It is important to note that one precondition of this line of reasoning is the exposure to market mechanisms, which is not always easy to achieve, and has even been forgotten in some regulatory reforms involving disintegration. When splitting large railway companies into smaller units, some of them may become monopoly firms (such as providers of railway stations). Moreover, it can be argued that learning and efficiency gains are also linked to having several customers with partly different needs. If the companies of the new system are only serving the very same divisions as before – and perhaps only one each – the gains from separation could turn out to be minor at best. Another potential concern is that if the monopoly is broken up into many sub-markets for inputs as well as for operations, the post-deregulation industry may contain so many firms in each market that transaction costs will inevitably increase. For example, the British railway industry was broken up into more than 80 firms. To reduce the potential risks associated with breaking up a monopoly one may consider to increase the size of the average tendered business operation and to construct upstream markets that are not so specialised – for example by merging different activities into one market.

Some of those that oppose the idea of lowered transaction costs highlight the high asset specificity in the railway sector. They suggest that there is no such thing as an optimal way of organising competition in industries that have to rely on (monopoly) network facilities, and there is now a growing concern that the wrong design of the industry's basic structural framework may have been chosen in the early days of the European regulatory reforms (Hultkrantz et al, 2005). One possible source for increasing transaction costs that may be more important than gains from competition is the misalignment of the mode of organisation. Misalignment refers to an arrangement in which the characteristics of the mode of organisation do not fit the attributes of the transaction it has to organise. This problem can occur in any new market constructed after the deregulation of a former monopoly (Yvrande-Billon and Ménard, 2005).

Auction theory

In a competitive tender in the European passenger railway market, a firm or a consortium may make promises about supplying a service at a defined quality level for

either a subsidy or against payment. Therefore, using competitive tendering when contracting out public services is similar to performing common value auctions with a sealed-bid procedure. However, the price of the bidders may not be the only factor (although often the most important) to take into account. The procuring public authority typically evaluates the competing bids regarding both price and quality once the bidding process has ended. Hence, competitive tenders combine traits, advantages, disadvantages and risks, of both auctions and beauty contests. Hultkrantz and Nilsson (2001) claim that a pure auction is better than a beauty contest because it offers a more market-oriented, objective and transparent method for awarding licences. Their strongest argument in favour of auctions is that firms in the auction process, by means of offering more and more money, reveal information about their estimation of the value of the good. Hultkrantz and Nilsson (2001) point out several disadvantages with beauty contests: 1) the process is slow and cumbersome, in particular if the final decision is challenged in court, 2) it is difficult to achieve transparency, and 3) many criteria are not objective or difficult to quantify. They further suggest that, even when social concerns are important, an auction is a better alternative since it can also include minimum requirements and can allow both positive bids in attractive regions and negative bids in unattractive regions.

Auctions also present some notable risks and potential disadvantages. In many auctions, as well as in many competitive tenders, firms have made unrealistically optimistic forecasts about future revenues and costs. In auction theory, the concept of *winner's curse* is used to explain why winning bids may be based upon judgmental failures. In particular, *common value auctions* – in which the participating bidders value items differently based upon their judgment of uncertain prospects – tend to be won by the bidder with the most optimistic estimate of the item's value (see e.g. Kagel and Levin, 1986). Adnett (1998) discusses winner's curse in relation to such tendering procedures. He argues that a low number of bidders, and in particular if they are inexperienced as in the first round of tendering in a certain business, will increase the importance of winner's curse in competitive tenders. One way to limit the problem of winner's curse is to alter the auctioning procedure. An open English auction, in which the bidders continuously follow the bids of their rivals, may stimulate aggressive bidding but yet decrease the risk of too optimistic bids and the related winner's curse (Milgrom and Weber 1982). However, there is an increased risk of collusion in open auctions (see e.g. Robinson 1985). It should also be noted that winner's curse in tenders of public services may also be related to the bidders' attitude towards risk, for example their view of whether the government will be willing to bail them out or renegotiate the contract if they fail.

The development of a common European Union railway policy

The European Directive 91/440, on the separation of accounts for infrastructure from operations, was one of the earliest initiatives of the European Community regarding reforms in the railway sector. This directive has sometimes functioned as a starting point for railway reforms in the Community member states. In countries where tendering of railway services have been introduced, general EU directives on public procurement and European competition law have also played an important role.

Gradually, the European Union has developed a political agenda to promote the advancement of the railways.

The current overall objectives of the European Union railway policy are (Lundström, 2004; European Commission, 2001, 2002):

1. Create a common market for railway transportation services.
2. Achieve operational compatibility in order to overcome the different technical standards of the member states.
3. Create a common market for railway material and equipment.
4. Create equal conditions for competition between different modes of transportation.
5. Support a sustainable development by means of stimulating modes of transportation that have less (negative) environmental impact (such as railway and sea transportation).

In recent years, the European Commission has increased the efforts to make these goals more tangible, expressed by its work on several “railway packages”. The first railway package was accepted in 2001 following three years of negotiations. It included the decision to open up international freight services on a specified network of lines or corridors in 2008. Also, it would no longer suffice to separate infrastructure from operations only on the accounting level. The second railway package was agreed upon in the spring of 2004. In order to hurry on with liberalisation of the international freight services within EU, this part of the market was to be opened for entry on January 1, 2006 (instead of 2008). In 2004, the European Commission also presented its proposal on a third railway package. An important part of this package is that the international passenger services within the European Union are to be opened up to competition no later than January 1, 2010. All companies that fulfil safety regulations and several other demands will then have open access to the railway infrastructure. This also includes the possibility of cabotage, i.e. that the market of one country is open for actors based in another member state.

In parallel to the development of the railway packages, there has been a long on-going process to reform the old Community regulation 1191/69, aiming at providing a coherent framework for when and how passenger services may be subsidised or given exclusive rights. The current regulation (latest revised in 1991 by regulation 1893/91) says nothing on market opening or how to award public service contracts. The development in several European countries during the 1990’s, with the introduction of competitively tendered rail services and the rise of international railway operators, has highlighted the need for a new regulation. For several years, such a regulation has been in the pipeline (see van de Velde, 2005b, for an extensive review). In 2005, the European Commission presented its third proposal. In this, it is established that all exclusive rights or compensations for any public service obligations must be established within a framework of a public service contract, defining clearly the obligations and geographical areas concerned and the parameters for calculating the compensation (European Commission, 2005). While previous proposals have been favouring almost compulsive competitive tendering for the award of public service contracts, the latest one takes a much less dogmatic view. There is now a possibility for authorities to provide public services by themselves, or to award them directly to an internal operator. Specifically, all regional and long-distance rail services are exempted from any obligation to be tendered, i.e. they may also be awarded directly. However, the possibility to award contracts directly comes with a limiting reciprocity rule, implying that the operator must not engage in other passenger transport activities outside the awarded territory.

In all, the current proposal for a new regulation on the award of public service contracts is not exactly in line with the efforts to further liberalise the European railway sector as proposed by the Commission's third railway package. Existing public service contracts in one country may limit the possibility of cabotage, and, if used deliberately as a national policy, may even close off countries entirely from rail competition. It remains to be seen if the reciprocity rule (that may dampen this effect) will really be enforced. Moreover, there seems to be an uncertainty about the exact border between the applicability of the new regulation versus the directives on public procurement, being dependant on whether certain procured services are to be viewed as "concessions" or "service contracts".

In yet another line of development, the European Commission has also taken a closer look at the development of different forms of Public-Private Partnerships in the member states. In 2004, a Green Paper was published, in order to stimulate a discussion on how to apply EU regulations to PPP projects, specifically concerning the choice of private partners (European Commission, 2004). One conclusion was that there is no proper definition of PPP at the EU level and no common legislative framework, giving member states a rather large degree of freedom as long as the Treaty's principles of transparency and non-discrimination are followed. The feedback following from the Green Paper will probably lead to suggestions from the European commission on new regulations, at least concerning the award of PPP concessions.

The railway reforms of four countries

Great Britain

Origin and process. British Rail (BR) started to be criticised in the 1970's for low productivity, inefficient management and ever increasing subsidies (Pryke & Dodgson, 1975). In the early 1980's BR experienced a severe financial crisis, forming the background to the work of the so-called Serpell committee. In its report, it was argued that major closures were necessary to reduce the need for subsidies (Serpell, 1982). Partly due to political concerns, BR was instead reorganised into several commercially oriented business sectors. This seems to have led to a remarkable improvement in BR's productivity during the 1980's. Nevertheless, from 1983 and onwards, several academics and right-wing thinkers argued for rail privatisation. In 1988, the politician John Redwood presented an overview of four alternative models for railway deregulation/privatisation being under consideration: 1) Privatisation of BR as a single unit, 2) Splitting of BR into several regional independent units, 3) Splitting of BR based upon its main business sectors, and 4) Separation of railway infrastructure from operations. Providing the advocates of rail privatisation with useful arguments, was the research on contestable markets, transaction cost economics, and the deregulation of the US railways sector. Other important influences were the EC directives aiming at opening up the railways to competing operators and Sweden's vertical separation of infrastructure from operations and introduction of competitive tendering on regional lines (Alexandersson et al, 1997).

When BR's financial situation once again deteriorated in the early 1990's, the search for an appropriate form of privatisation was intensified (Nash and Preston, 1993). In

July 1992, the Conservative Government presented a White Paper that set out six policy intentions to be achieved by April 1997 at the latest: 1) To sell British Rail Freight and Parcels to the private sector; 2) To establish a Franchising Authority and to franchise a substantial number of passenger services; 3) To restructure British Rail to own and operate track and infrastructure separately from operations; 4) To establish rights of access for new operators to the rail network; 5) To establish an independent Regulator; and 6) To provide opportunities for the sale or leasing of stations.

The stated aims behind the railway privatisation reform was to make “better use of the railways, [to ensure] greater responsiveness to the customer, [to achieve] a higher quality of service and better value for money for the public who travel by rail” (OPRAF, 1995, p. 29). The economic rationale was developed in more detail by the special adviser on rail privatisation, Sir Christopher Foster (Foster, 1994). He took the principal view that rail privatisation would achieve greater economic efficiency due to the superior incentives provided by the private sector.

The White Paper was followed by a number of more specific documents from the Department of Transport and finally resulted in the passing of the Railways Act in November 1993. The Act laid the ground rules for the privatisation of British Rail, setting out the regulatory and statutory conditions under which this process, beginning in April 1994, could be undertaken. The company Railtrack was created by the Act, having as its key purpose to own, maintain and develop Britain’s mainline rail infrastructure. The decision to have a single rail infrastructure owner was based upon the belief that this part of the railway business bears the characteristics of a natural monopoly. In November 1994 the Government announced its decision to privatise Railtrack. The sale was completed in 1996 when the shares were floated on the stock market.

The rolling stock was divided between three separate Rolling Stock Companies (ROSCOs), which were subsequently sold to the private sector in 1995-96. BR’s freight business was privatised and open access for freight operators was introduced. BR’s passenger rail operations were reorganised into 25 separate units, then transformed into Train Operating Companies (TOC). One or two at a time, these companies were subsequently franchised by means of a tendering procedure, with interested parties placing bids on the grounds of required subsidies. The tenders were organised by the newly created body Office of Passenger Rail Franchising (OPRAF) and the process was completed in late March 1997.

Including the sales of the supporting businesses, BR was divided into more than 80 separate companies, the intention being to create competition in as many parts of the sector as possible (Nash, 1997). A number of new regulations were also designed with the purpose to encourage competition and guard the passengers’ interests concerning prices and coordination of rail services. The overall responsibility for making sure that the different actors followed these rules was placed in the hands of the Office of the Rail Regulator (ORR).

The whole reform was completed in April 1997, not long before the Parliamentary Election in which the Conservative Party’s 18-year reign was brought to an end. The winning Labour Party decided not to reverse rail privatisation (as it had promised), but to expand investments and strengthen the regulatory body. OPRAF was transformed into the new Strategic Rail Authority, established in 2001. The new authority set out to re-franchise the operations of the TOCs and introduce longer agreements (20 years instead of 7 years) in return for TOC involvement in infrastructure investment. Railtrack

was perceived as lacking the ability to invest enough on its own, and the new idea was to finance major infrastructure improvements from a variety of sources (SRA grants and private capital), while Railtrack would buy the assets once they had been completed (Nash & Smith, 2006). However, for a number of reasons, the ambitious plans did not materialise. The Hatfield accident in the year 2000 set off a series of events that eventually lead to the collapse of Railtrack, being re-placed by a non-profit company, Network Rail. Also, several TOC's turned out to have problems to fulfil their obligations (see further below). Therefore, several franchises were re-negotiated to temporary cost-plus contracts in order to later be re-franchised with the old contract length of 7 years. Infrastructure investment did increase, but the funds were directed to maintain and renew the existing network rather than to perform major upgrades.

Experience to date. Although the response from the private sector to TOC franchising was lukewarm in the beginning, the original bidding process in 1995-97 was very competitive, with 5-10 serious bids for each franchise. Including the limited number of management-buy-outs, a total of 11 separate organisations entered the UK passenger train industry by means of winning franchises in tenders. Companies related to the bus industry (such as Stagecoach, National Express and First Bus) were very successful. National Express won more franchises (five) than anyone else, while French conglomerate Connex grabbed the biggest market share (16% of ticket revenues) (Alexandersson et al, 1997).

Since privatisation started, there has been a substantial concentration in terms of the owners behind different franchisees; National Express is now the owner of 11 TOCs. When re-franchised, competition has generally continued to be strong. On one occasion a tender was stopped prematurely since too few (only two) operators were pre-qualified. (Nash & Smith, 2006). It has generally been difficult for the incumbents to defend their franchise in tenders.

The TOCs were to be paid annual subsidies according to net cost agreements, typically to be reduced over the contract period. In some cases it was even envisaged that the TOCs would be able to make enough profits to be able to pay back money towards the end of the contract period. However, in several cases, these subsidy levels turned out not to be sufficient and in a couple of cases the winning bidders were clearly too optimistic. For this reason, some franchises had to be renegotiated or re-franchised early, for example leading to the exit of Connex altogether in 2003 (Nash & Smith, 2006).

After some initial reductions in the subsidies to train operators, they are now considerably higher than projected – almost back to the level at the beginning – and are expected to rise further when track access charges are increased to account for the revised costs of Network Rail. Since the collapse of Railtrack, there has actually been nothing less than a cost explosion in the British rail industry, affecting not only infrastructure but also train operations and rolling stock investments (Nash & Smith, 2006).

In terms of demand, the British experience is much more positive. It is clear that passenger demand and revenue have increased substantially since privatisation, although it is difficult to establish the relative importance of the possible multiple reasons behind this development.

Sweden

Origin and process. Regulatory changes in the Swedish railway sector have often emanated from a wish to come to terms with the recurrent financial difficulties of Swedish State Railways (SJ). The Transport Policy Act of 1988, with its split of railway infrastructure from operations, is commonly considered the starting point for the transformation of the Swedish railway system, from a vertically and horizontally integrated monopoly to a market characterised by decentralisation and intra-modal competition.

The Act had the objective to make the conditions for the railways more similar to those for the roads. The state took the full responsibility for railway infrastructure investments and maintenance by means of a new authority – Banverket, while SJ would be transformed into a train operating company, paying charges for using the tracks (based upon marginal costs for maintenance). The Act also marked a general policy step in the direction of extending the responsibility of the County Public Transport Authorities (CPTAs) into the unprofitable regional railway services. In return, the CPTAs were compensated by state subsidies equalling SJ's operating deficits on these lines, and they also received the corresponding rolling stock.

A deregulation of the railways in terms of increased intra-modal competition was not explicitly mentioned in the Act. Nevertheless, the vertical separation of infrastructure from operations, combined with the decentralised responsibility for regional railway services to regional authorities (along with the necessary money and rolling stock), made public procurement by competitive tendering of these lines possible. Some CPTAs had already tried tendering procedures for their bus services, as a result of previous reforms in that sector (Alexandersson, Hultén and Fölster, 1998). This made it natural to use competitive tendering also of regional railway lines. The outcome was the first new entrant, *BK Tåg*, in 1990.

In the beginning of 1991, the Ministry of Transport expressed the view that more operators would stimulate the railway industry to make use of its resources in a more efficient way. After a shift in power in Parliament the same year, a new centre-right-wing government declared its objective to open the railways to more competition. The first step was to subject more railway traffic to tendering. When SJ got rid of the responsibility for track infrastructure, it had been directed only to perform *profitable* train services under its own account. While large parts of the *unprofitable* services were run on the regional lines and therefore under the responsibility of the CPTAs, many services of the inter-regional main line network were also unprofitable. Since 1988, the state had been procuring these services by means of annual negotiations with SJ, but in 1992 a competitive tendering process was used for the first time.

In 1994, the first case of a BOT tender was completed, leading to a long-term contract to build and operate the new Arlanda Airport Link. The same year, a bill on a far-reaching deregulation was passed in Parliament, but when the Social Democrats regained power in Parliament through the election later the same year, the deregulation of the railways was quickly postponed. Instead, a less radical reform was suggested, coming into effect in 1996. The functions of allocation of track capacity and train traffic control were transferred from SJ to Banverket, while other common facilities were to be available for other train operators under commercial but non-discriminating terms. The CPTAs' rights were extended, making it easier for them to replace reductions in SJ's supply of inter-regional trains with regional CPTA-managed services. Consequently, the

practice of competitive tendering became available for more parts of the railway network. For the freight services, open access on the whole network was introduced.

A new Transport Policy Bill was passed in 1998. In an effort to achieve more equal terms for competing modes of transportation, in particular concerning freight, the track access fees were lowered. In order to make entry easier for freight operators competing with SJ, some fringe railway lines that had remained in SJ's hands were transferred to Banverket. Moreover, a new national authority, Rikstrafiken, became responsible for competitive tendering of unprofitable inter-regional services (including all modes of public transportation).

Following the inflow of new operators in 2000, a new Bill had the objective to facilitate for SJ to compete under the new circumstances and to ensure equal access to functions and services for all operators. SJ's organisational structure as a business administration was therefore replaced in 2001 by several state-owned companies concentrating on specified parts of the railway businesses. The passenger division formed one company (SJ Ltd), the freight division another (Green Cargo), and so on for real estate, maintenance and other businesses. Two divisions, comprising cleaning services and computer information systems, respectively, were fully privatised.

Since the Bill of 2000, it has often been suggested that the remaining monopoly of SJ Ltd concerning the profitable inter-regional lines should be abolished, possibly opening up for at least competitive tendering on these lines. So far, the Social Democrat government has been unwilling to take this step, motivated by a perceived need for more time to evaluate the previous reforms, and the risk of creating new losses for SJ. The most recent reforms have focussed on modernising laws and regulations to achieve a regulatory framework in line with European Union directives and the recent railway packages. For example, a new Swedish Rail Agency was established in 2004.

Experience to date. The past 15 years of railway reforms in Sweden have seen an important shift towards major investments in new and renewed infrastructure in a way that seemed impossible before the vertical separation of operations from rail infrastructure. The state has gone from spending 1 billion SEK annually on infrastructure investments in 1990 to about 3 billion SEK annually during the recession of the early 1990s, and now seems set to invest approximately 10 billion SEK (€1.1 billion) per annum in the years to come. (All these figures are in nominal values).

The introduction of competitive tendering of regional passenger railway lines in 1989 immediately led to the entry of BK Tåg in 1990. For a couple of years this remained the only new entrant and true competitor to SJ. It was not until 1995 that another small operator entered this part of the market. In the market for inter-regional services, the break-through for competing operators did not happen until the year 2000, after transparency had gradually been improved as more and more functions and resources had been handed over from SJ to Banverket. Currently, about 20 train operating companies use the Swedish state's rail infrastructure, most of them being very small. On the passenger side, the state-owned company *SJ Ltd* is still the dominant operator, but private firms like *Connex*, *Keolis* and *Tågkompaniet* are important competitors. *Arriva* is set to enter in 2007. In terms of passenger kilometres, SJ Ltd had a 74% share of all railway services in 2004, with an 88% share of the long-distance (more than 100 kilometres) and a 54% share of the short-distance (less than 100 kilometres) railway services. *Green Cargo*, formed out of the former freight division of SJ, is the largest rail

freight operator, with a 74% market share in rail freight transportation in 2004 (Banverket, 2005).

Data on subsidy reductions caused by the tenders carried out by the CPTAs is somewhat scarce, partly due to difficulties when comparing subsidy levels under different conditions. Typically, there have been subsidy reductions in the magnitude of 20% in the first round of tendering. For the services procured by the state, substantial reductions were accomplished during the first two years of tendering, despite the lack of actual new entry. After that a period of tenders implying stable subsidies followed. When several new firms finally were able to win these tenders in 1999, additional large subsidy reductions (28%) were achieved (Alexandersson et al, 2000).

The decentralised responsibility of regional passenger rail lines, making them organised by the same authorities as are responsible for public bus services, appears to have brought about better co-ordination of regional train services with bus services. Combined with the high level of ambition among many CPTAs to develop the regional train services, this has probably played an important role in the positive development of railway travel. Passenger train transportation has since 1995 experienced a stronger growth than all other modes in terms of passenger kilometres. Behind this increase of 32%, we find that the growth in short-distance regional transportation has been particularly strong (up more than 70%), while long-distance travelling (more than 100 km) increased by 15% (SIKA, 2005).

In conjunction with the corporatisation of SJ and the creation of the separate maintenance company Euromaint, it became evident that maintenance and security check-ups of had been lagging behind in the integrated firm. The new organisation with separate entities facilitated a rapid solution to these safety issues before any fatal accident had occurred.

The number of bidders taking part in Swedish passenger rail tenders has been rather low. On average, the CPTAs' tenders for gross cost contracts – in which the operator bears no ticket revenue risk – have attracted more bidders (2-3) than the state's tenders for net cost contracts (1-2) – where the operator gets the revenues from fares. A recurrent problem has also been the non-fulfilment of tendered contracts. In all these cases the railway passengers have been put at a disadvantage by disruption of the services, fewer trains or trains being replaced by buses.

Contract costs show signs of being on the increase. Both big and small firms have placed unreasonably low bids that have resulted in economic problems for the firms. Citypendeln (Keolis) had enormous problems in early 2000 when taking over the commuter services in Stockholm from SJ. In early 2005, Connex aborted some train departures of its railway services to northern Sweden after re-negotiations with Rikstrafiken. Loss-creating contracts have ultimately lead to bankruptcies on two occasions in Sweden – Sydvästen in the year 2000 and BK Tåg in 2005. After having placed several too optimistic bids SJ Ltd came close to bankruptcy in 2002-2003, and was saved mainly because the state stepped in with an additional capital of €200 million. Litigation is also increasingly being used. In the year 2000, SJ was sentenced to a fine and paid substantial damages to BK Tåg after losing a court case on under-pricing fought against the Swedish Competition Authority. In 2002 Tågkompaniet unsuccessfully tried to stop Connex from taking over the trains to northern Sweden. Rikstrafiken was drawn into a potentially costly law-suit that it avoided by admitting to have made errors in the procurement of the services. In 2006 many different firms

unsuccessfully tried to stop the winning bid for the commuter trains in the Stockholm region.

Germany

Origin and process. Beginning in the 1960's, rising deficits lead to several attempts to reform the German railway sector. Most of these attempts failed, due to opposing interest groups such as the states and the employees, and the lack of a broad political consensus on suggested reforms. The deficits of the national railway operator in Western Germany, Deutsche Bundesbahn (DB), increasingly became a major fiscal burden for the federal budget, reaching a record level of about €7.5 billion in 1990. From 1960 to 1990, the rail's market share compared to road transportation also declined from 37.3% to 20.6%. When the re-unification of Germany in 1990 also added the problems of Deutsche Reichsbahn (DR), it became clear that fundamental reforms were absolutely necessary in the German railway sector (Kirchner, 2005).

Three consecutive Commissions (of 1989, 1990 and 1991) suggested the restructuring, liberalisation and deregulation of the German railway sector, although differing in their view on how far liberalisation and deregulation should go (Lehmann, 1999). The Government Commission of 1991 proposed a far-reaching structural reform by means of the creation of a new holding company that initially would be owned by the federal government but later on privatised (limited to the freight traffic and passenger divisions only). The debts should be transferred to an external institution, and in order to reduce the burden of the many privileged civil servants of the workforce, an external institution would take over the staff. The new holding company would then be able to renegotiate terms and re-hire each employee individually, paying market salaries rather than civil servants' salaries. The services on the unprofitable lines were to be made the responsibility of the states (in a step towards regionalisation), albeit following negotiations on necessary subsidies taken from the federal budget. In order to stimulate intra-modal competition, the Commission also proposed non-discriminatory open access for other operators to the entire network of the new holding company (Kirchner, 2005).

The suggested reforms were put forward as national solutions to national problems, but were also influenced by the current work on the European Community level which led to the Council Directive 91/440/EEC.

In 1993, the two national operators DB and DR were merged into BEV, forming a special federal government railway asset. Deutsche Bahn AG (DB AG) was then spun off from BEV's assets, forming a new private stock corporation in January 1994, with subsidiaries for long-distance passenger services, regional passenger services, freight services, railway services and the track network. Cross-subsidisation between these entities was prohibited. DB AG was supposed to operate on commercial terms with full responsibility for costs and revenues, and the separation into different units was supposed to improve transparency and enable the units to work as profit-centres close to the market (Lehmann, 1999). The separation of long-distance from regional passenger services was linked to the regionalisation (see below) and a fear among the states that DB AG would otherwise cross-subsidise the long-distance services at the expense of regional services.

DB AG was kept under federal government ownership, but changes in the constitution were made to make it possible to sell stocks to the public later on, with the exception of such railway undertakings that functioned as infrastructure managers.

Open access on non-discriminatory terms was introduced for all German railway companies and also for EU member states companies. A new federal regulatory body was set up. BEV relieved the former national operators of debts and other financial burdens, amounting to a massive €63 billion (Kirchner, 2005).

Another important element of the reforms was the regionalisation of regional passenger services. In 1996, the German states (Länder) became responsible for the regional passenger services, receiving subsidies from the federal government to keep socially important public train services. Some states have chosen to put these services out to tendering, while others have chosen only to close contracts with DB Regio (a subsidiary to Deutsche Bahn AG) (Kirchner, 2005).

In 1999, the reform process took another step, transforming the five operative divisions of Deutsche Bahn AG (now a holding company) into independent corporations. One of these is DB Netz, the track infrastructure provider. This model of “less than complete” vertical separation of infrastructure from operations has been the subject of much debate and criticism, since some politicians and researchers have claimed that it is not sufficient to exclude discrimination of other operators (despite additional measures such as a regulatory body and specific regulations). Others have defended the model as a way to keep some of the benefits of integration, such as lower transaction costs and possibilities for track-wheel innovations (Lehmann, 1999; Kirchner, 2005).

Experience to date. Initial regional tenders performed by the states attracted only a few bidders. Rather commonly, local publicly-owned organisations or DB Regio won the tenders. For several years no new company entered the long-distance passenger market, despite the open access (Lehmann, 1999).

In recent years, the number of new entrants has increased. A total of 286 railway companies are now present, most of them operating in the freight sector. Although it is growing, the combined market share of the new operators is still low: about 5% in rail passenger transportation and about 7% in freight transportation (Kirchner, 2005). In particular, French firms (such as Connex, Transdev and Keolis) are very active in Germany (Deutsche Bahn, 2004). In 2004, British Arriva entered in a major way by means of several acquisitions (Deutsche Bahn, 2005).

Between 2001 and 2004, a total of 39 tenders were carried out, with contract lengths from 3-15 years (Brenck et al, 2005). Although contracts are commonly used in local and regional passenger services, they are not always awarded through tendering, and there are still some obstacles related to access pricing, rolling stock approval, administration and information (Kirchner, 2005). The practice of direct awards in some areas, rather than tendering, is being challenged on the EU level. There have been cases of very low bids in regional tenders, and also too optimistic efforts to start new long-distance passenger services, leading to the exit of some firms (Deutsche Bahn, 2004, 2005).

Passenger rail services have increased their market shares between 1993 and 2003 compared to other modes, while the share of freight services by rail has decreased during the same period (although it has been rising in recent years) (Kirchner, 2005). There is some research indicating that competitively procured lines grow faster (in terms of frequency) than other lines (Lalive and Schmutzler, 2005).

The heavy investments needed in Eastern Germany have had a large impact on public spending on infrastructure and rolling stock. Consequently, the federal expenditures

since the beginning of the reform process have been very large, but nevertheless lower than expected, and substantially lower than what was to be expected if no reforms had been made (Kirchner, 2005).

The Netherlands

Origin and process. The railway reform process in the Netherlands was initiated in 1991 by means of the recommendations of a committee appointed by the Ministry of Transport, stating the need to make the national railway company Nederlandse Spoorwegen (NS) independent of subsidies. The first actual reforms were implemented in 1995 with the reorganisation of NS into several subsidiaries and subdivisions. The subsidiary NS Groep included those divisions that were supposed to work under market principles (including passenger services, stations, and real estate) and was supposed to become privatised in the future. Infrastructure and related issues were to be handled by three task organisations within NS, although directly financed by the Ministry. The reforms of 1995 included an agreement to set the infrastructure access charges to zero until the year 2000, in return for a reduction in state subsidies from €130 million in 1995 to zero in 2000 for a defined network that was supposed to be able to cover its operational costs (excluding infrastructure costs). A special contract agreement on continuous subsidies was reached for a set of other loss-making lines with socially desirable services (van de Velde, 2005a).

The original committee had not proposed the introduction of competition in passenger services. Nevertheless, the reforms of 1995 made competition a possible option. An experiment with on-the-track competition came into effect after a private company had asked for permission to add services on some lines already operated by NS. The initiative lasted from 1996 to 1999 (when the new entrant went bankrupt). During this period, the Government also actively sought information and experiences from the introduction of railway competition in other countries.

In 1999, a new administration issued a policy document that broke both with the on-the-track experiment and a British franchising model for the national network as had been suggested by the former liberal administration. Instead, it suggested that NS should be given a 10-year concession to run the profitable part of the national network in accordance with a performance contract, including a number of obligations, incentives and targets. On the other hand, loss making regional services would increasingly be subjected to competitive tendering. While the new performance contract became delayed several years due to political opposition and NS' problems to fulfil the targets in a transitional contract, a new transport law came into effect in 2000. It introduced the principle of "authority initiative" rather than "market initiative". Under this principle, competitive tendering was to be used in all public transportation, mainly affecting the regional bus and train services. New regional transport authorities were created, and some tenders of regional lines were performed, but more commonly the threat of tendering was used in order to stimulate the creation of integrated bus and rail networks. A special government approach was used in 2001 for the new high-speed line Amsterdam-Rotterdam-Brussels, with a tender for a concession to run the services for 15 years, while the construction and maintenance of the infrastructure was in part organised as a Public-Private Partnership with a contract length of 30 years (van de Velde, 2005a).

In 2002 a full separation of infrastructure management from operations was implemented and a new state-owned rail infrastructure organisation, ProRail, was created in 2003. A new monitoring and regulatory body, Office of Transport Regulation, was established in 2004 as a part of the National Competition Authority.

In 2004, the 10-year concession and performance contract for the trunk rail network was finally settled, coming into effect in 2005. NS was granted this exclusive concession, which includes a number of performance clauses on gradual improvements but no payment from the state to NS. An evaluation in 2008 may result in a competitive tender, but NS is no longer set to be privatised. This concession was only one part of a new long-term regime for the railways, aiming at achieving a reliable railway system. Another 10-year concession was granted to ProRail for the management of infrastructure. Also, several measures were taken to improve cooperation and coordination between infrastructure management and the train operators.

In December 2005, the central government decided that the process of decentralisation and competitive tendering of regional lines will continue, in order to include more lines (van Dijk, 2006).

Experience to date. The introduction of contract agreements and (threats of) competitive tendering generally seems to have put a pressure on NS to keep costs down, thereby making reduced subsidies possible. For example, the initial contract for the non-profitable lines reduced subsidies by 50%. However, NS has had a hard time reaching the envisioned targets and it seems as if excessive focus on rationalisations lead to a low reliability of both infrastructure and vehicles. Political uncertainty on how to proceed with reforms (regarding e.g. competition and privatisation), lack of governmental supervision of the task organisations, and too much focus on new infrastructure investment projects rather than infrastructure maintenance, created an unstable environment for the railways. This may have contributed to the reduced performance and a related drop in patronage after 2000 back to 1995 levels (van de Velde, 2005a).

Competitive tendering has gradually been tried by more and more regional authorities, but has so far only affected about 6% of the Dutch network (van Dijk, 2006). Partly depending upon the conditions in the tenders, the resulting contracts have implied either a gain in quality, quantity or rolling stock, or substantially lower subsidies (20-50%) for the same level of supply. This may be compared to some directly awarded contracts that have only implied gains up to 10%. Contract periods have varied from 5-6 years to 10-15 years (the latter involving investments in new rolling stock).

A couple of new entrants have appeared. Apart from the case of Lovers Rail entering in on-the-track competition with NS, entry has occurred through the competitive tendering of regional lines, with companies like Arriva and Connexxion taking the lead (van Dijk, 2006). In addition to this, the demand for coordinated bus and railway services has initiated the creation of some new constellations of firms of different origin, such as NS and Arriva and NS and Keolis. The brief history of Lovers Rail showed that even if the new operator did not actually enter into some parts of the network that it had been granted permission to, the mere threat made NS expand and improve its services in these areas. The bankruptcy of Lovers Rail was ultimately caused by a lack of integrated ticketing with NS (van de Velde, 2005a).

The punctuality problem in the early 2000's caused something of a crisis in the Netherlands. When NS failed to meet the contracted performance target of 88%, the Ministry in mid 2001 initially reduced the required level to 80%. Later the same year,

when it became clear that NS would only reach 79.9%, the complete Board and two managers had to resign, a rather unique event from a European railway sector perspective.

Analysis

The regulatory reforms of the railway sector in the EU member states have been driven by different types of economic, institutional and legal concerns. We will start this section by examining these differences in more detail.

In Great Britain, the pursuit of a conservative market liberalisation agenda was an important initiator, although the problems of British Rail also played a role. In the design of the reforms, two theoretical approaches seem to have dominated. First and foremost, the belief that private ownership and management is superior to public ownership, since private firms will make sure that the needs of the market will be met in order to reach maximum profits. For example, this explains why even the track infrastructure was privatised. Second, the belief that transaction costs were generally low, clearly lead to a very large degree of both vertical and horizontal disintegration. It also influenced the limits put on TOC mergers, as it was apparently believed that keeping the number of competitors high would benefit the market more than any possible gains from re-integrated services (although TOC ownership was much less restricted).

In Sweden, the primary driver for reforms has been the recurrent problems to make SJ profitable. This has generated reforms for several decades. Since SJ's problems have often been viewed as linked to heavy competition from other modes of transportation, several reforms have been designed to improve the possibilities for railways to meet inter-modal competition. This was one of the most important aims with the vertical separation of infrastructure from operations in 1988, making the conditions more similar to those for the roads. The importance of keeping unprofitable lines running for social concerns has been another important factor. Coupled with the idea to decentralise the responsibility to the level where this mattered most (the regional level) this became the starting point for the introduction of contracts and tendering in the Swedish railway sector. It was not foreseen that this would lead to intra-modal competition, but once it did with positive results, it became a part of the political agenda and competitive tendering spread to more and more railway lines. The process of reforms in Sweden has been incremental compared to the more radical approach of Great Britain. A more radical approach was tried once (in 1994) but was reversed by a new political majority even before it was implemented. Although some actors have advocated more general steps towards deregulation and privatisation, the impact upon overall railway transportation policy has been rather limited. One exception is the deregulation of freight services in 1996. The only instant when private sector capital has actively been sought after was in the BOT tender of the new Arlanda airport link.

In Germany, reforms were clearly borne out of necessity, following many years of financial problems and deteriorated market shares, culminating at the time of the German re-unification in 1990. The reforms focussed upon relieving the railways of debts and costly rules of employment to make a fresh start, initially with the intention of a future privatisation of passenger and freight operations. Regionalisation opened up for competitive tendering of local lines and networks, but several regions have chosen not

to make use of tendering. Overall, there has not been a general policy to promote efficiency by means of intra-modal competition, although the introduction of open access for long-distance passenger services was a step in that direction. To make the railways more efficient to meet inter-modal competition seems to have been more important. Also, Germany has been very reluctant to go all the way in terms of vertical separation of infrastructure from operations, based upon a firm belief in the benefits of integration.

The Netherlands has spent several years seeking for appropriate reforms to implement, that to a considerable extent draw on the experiences of other countries. The policy has varied over time depending upon circumstances, also making room for experiments with on-the-track competition. Initially, the growing subsidies played an important role as initiator to the reforms, and privatisation of NS operations was envisaged as preferable and possible. Regionalisation has been carried out, while the approach to competitive tendering at first was ambivalent but now looks set to continue. A common principle has been to use the threat of competitive tendering as a way to promote performance improvement. Railway performance, seen from the end user perspective, has been very important (more so than financial concerns). Much effort has been put into the creation of contracts focussing on performance measures and targets. Recurrent failures to meet performance have also created situations of crisis. Privatisation of NS passenger operations is no longer seen as an option – following the mixed British experience and experiences from other sectors.

The parallel development of a common European Union policy for the railways has played a role in the reform process of individual member states, but the extent and impact vary among countries. The vertical separation in Sweden preceded the EU initiative (Sweden did not join the EU until seven years after this reform). It may actually be argued that EU policy to some extent was influenced by Sweden's reforms. During the second half of the 1990's, Sweden was mostly prompted to implement minor revisions in the regulatory framework in order to comply with EU policy. In recent years, the influence has become bigger and the impact will most certainly be pronounced if the liberalisation of international passenger services actually happens in 2010. In Great Britain, EU policy may not have played a role as an initiator, but possibly influenced the design (vertical separation). The radical reforms of Great Britain, and their effects, have been a source of inspiration in most European Union member states, but sometimes also used as warning examples in order to oppose reforms where privatisation would be an important element. In Germany and the Netherlands, EU policy has played a role for the timing of reforms, but both countries have sought to find national solutions that avoided a full separation of infrastructure from operations. In the Netherlands, this is no longer the case, while Germany has persisted in keeping some vertical integration.

It is evident that the different tendering regimes suffer from different types of problems. In the Swedish tenders there have often been very few competing firms. In Britain the relatively long time span of the first round of franchised contracts resulted in difficulties in making correct estimates of the future behaviour of the markets and market actors. In Germany, tenders are mostly used in the local and regional markets and they have not significantly helped to diminish the deficits in the railway sector. The Netherlands has recently started with competitive tenders and their effects are so far rather limited, but problems related to NS performance have been exposed. Sweden, Germany and Great Britain have all experienced problems with winning bids that turned

out to be too optimistic, leading to service interruptions, re-negotiations and bankruptcies.

Concluding remarks

The introduction of competitive tendering has been theoretically motivated by a general belief that the private sector is more effective than the public sector and that competition fosters efficiency. Advocates of PPP solutions typically state that long-term private sector involvement like BOT arrangements offer more advantages than e.g. short-term service or management contracts. Their basic argument is that the bundling of activities in a BOT enables a private firm or consortium to optimise the total project. This is not really reflected in the policies and actions of the European Union member states and public authorities. In the case of passenger railway services, it is evident that they have been more interested in using competition either as a threat or as a mean to increase efficiency in the railway market. The number of BOT projects is very limited.

Before the reforms and deregulation of the European railway services took off, there was a widespread belief in important economies of scale in railway operations. After more than fifteen years of competitive tendering, we can note that more and more public agencies purchasing railway passenger services act as if the gains from competition are greater than any potential resulting losses of economies of scale, scope or density. There may be multiple reasons for this, such as agency costs and problems for the political system to supervise the activities of a monopoly, but also a belief that competition between several firms will still allow for economies of scale to be exploited where appropriate.

A possible increase in transaction costs has not been seen as a major obstacle for the introduction of competitive tendering or the vertical separation of the former national railway monopolies. Generally speaking, there has been a clear trend towards the use of more and more contracts to formalise the obligations of different actors in the European railway industry. However, recent research suggests that transaction costs may be higher than expected. The evidence is both theoretical and empirical. Asset specificity may have produced problems when designing the contracts in the British case. A lack of bidders (the small numbers problem) has been apparent in some countries. Contract costs seem to be inherent in the competitive tenders, in auctions as well as beauty contests. Many winning bids have been too optimistic, the combined evaluation of price and quality has often resulted in legal processes, and renegotiations have turned out to be necessary when costs and revenues didn't develop according to plans.

We see at least two major possibilities for future empirical research. Firstly, a comparative European study directed towards measuring the effects of competitive tendering and testing the relative contribution of different factors, such as network size, number of bidders, contract length, how many times the services have been tendered, type of contract (net or gross cost), upstream competitive markets or vertical monopoly, and so on. Secondly, research projects including both statistical and qualitative data, comparing railway systems using competitive tendering to railway systems using either negotiated contracts or a monopoly regime. Such a study could shed some light on the relative merits of the different regimes after nearly two decades of experimentation with railway deregulation in Europe.

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Norwegian experiences with tendered buss services

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Abstract

Competitive tendering of local public transport services has been allowed in Norway since 1994. By 2005, 28 percent of all route production in Norway was procured on the basis of tendered contracts, covering around 40 percent of all passengers. The majority of the tendered contracts were gross cost contracts, whereas historically, most Norwegian contracts have been net cost contracts. This article analyses the effect of competitive tendering on operating cost and subsidies paid. It is found that competitive tendering reduces costs by 10 percent and that most of the cost reduction has been used to reduce subsidies for public transport by local authorities. The effects of competitive tendering in Norway are smaller compared to other countries. This can be attributed to the fact that the industry had improved efficiency over a long period before competitive tendering was introduced.

Keywords: Competitive tendering; Public transport; Contract; Procurement.

Introduction

Competitive tendering is now a well-established practice for procurement of public transport (PT) services in several European countries, and is continuously spreading to further areas. Its popularity is partly related to its success to deliver cost-efficient production, even though later developments cast doubts on whether these efficiency gains are sustainable in the longer run. Moreover, the efficiency gains provided through the first-time tendering process seem highly dependent on variations in previous contractual arrangements and whether or not there has been a public, in-house production unit. Explanations of efficiency gains from competitive tendering in different areas must take into account the context in which the tendering process has taken place. In that respect, the level of efficiency before tendering is introduced to a large extent limits the potential gain from actually introducing tendering.

This article examines the effects of competitive tendering in Norway on cost and subsidy levels. In Norway, local public transport lies under the jurisdiction of 19 county

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councils. Until 1986, a part of the framework-funding scheme for local authorities was earmarked for PT services. In 1986, such earmarking was removed, allowing local authorities to freely prioritise between PT and other services under their jurisdiction. This created a strong focus on the costs of PT operation.

PT service production has traditionally been procured through negotiated net cost contracts with private or semi-private (publicly owned) operators. Public in-house production has been limited to the major cities. Due to this, a majority of the Norwegian bus industry has been fully or partly on private hands, to a large extent combined with the market initiative of net-cost agreements. This implies that there was a great deal of private interests in the bus industry even prior to the 1994-directive, which permitted the use of tendering by law. The 1994-directive, together with reduced state funds for transport and communication purposes within the framework-funding scheme, brought about a rising use of competitive tendering during the late 1990s. In 2005, 28 percent of all route production in Norway was procured on the basis of tendered contracts, covering around 40 percent of all passengers. Nevertheless, negotiated contracts still constitute the majority of all local bus contracts in Norway.

The main question this article sets out to answer is; what are the cost savings of competitive tendering for Norwegian procuring authorities? The analysis is based on a recent evaluation of competitive tendering in Norwegian local bus transport, where analysis of quantitative data over a 15 year period are combined with a qualitative assessment of different contractual arrangements both for tendered services and for services not tendered as a control group (Bekken et al 2006). The analysis presented in this article is primarily based on the quantitative data set, even though the results are interpreted by using the qualitatively obtained information.

Background and hypothesis

Competitive tendering refers to a situation where the state allows other legal entities to compete for the right to carry out a task that the state traditionally has carried out itself or purchased directly by means of negotiated contracts (Longva et al 2005). Hence, competitive tendering differs significantly from free competition and does not necessarily imply privatisation of the businesses. Both Denmark (Copenhagen) and Sweden were quick off the mark with competitive tendering for local bus services and created the basis for what is often referred to as the Scandinavian model in such contexts (van de Velde 2005 and 2004). This means that the authorities are responsible for drawing up the public transport service, which is then purchased from private/public legal companies through a tendering process. Even though Norwegian authorities show a growing interest in implementing incentive contracts within the tendering regime, the "Scandinavian model" is still the dominant form in Norway as well (Longva et al 2005).

Evidence from the Scandinavian countries supports the general view that competitive tendering is associated with cost savings for the procuring body, at least on a short-term basis. In Sweden, competitive tendering was introduced in 1989. Previously, most service production was run by public companies, either on the basis of in-house production or procured through negotiated gross cost contracts. However, in 2001 95 percent of services had been subject to competitive tendering at least once, and now private operators dominated the market (Alexandersson and Pyddoke 2003). National data for the period 1987-1993 indicated unit cost reductions due to competitive

tendering of around 13 percent, later re-estimated to an isolated effect of 6-7 percent (Alexandersson et al 1998). Figures from Stockholm and Helsingborg indicate even greater unit cost reductions on a short-time basis, in the range of 20-30 percent (Nilsson et al 2005, Nilsson et al 2003, Jansson 2002 and Reiter 2002).

In the longer run, however, the efficiency gains seem to have halted in Sweden. Recent data show little further reduction in unit costs since the mid-1990s. Moreover, data from larger urban areas even indicate rising cost levels in the third and fourth round of tendering (Nilsson et al 2005, Jansson 2002). The costs are nevertheless still below their initial levels, even though they encompass much higher service standards. Alexandersson and Pyddoke (2003) largely confirm this picture on a nationwide basis. They have updated the data set initially presented in Alexandersson et al (1998). The period of rising share of tendered services (1989 to 2001) coincides with steadily falling cost levels, at least until 1999. In the years 2000 and 2001 costs were increasing, but still way below the level of 1989. Consequently, the isolated cost saving effect of tendering is a bit smaller than in their initial study, but still significant.

In Denmark a 1990-legislation imposed a requirement for competitive tendering on all bus services, which was gradually implemented in the period up to 2002. Private operators replaced the previous market dominance of public operators. In Copenhagen, unit costs were reduced by about 24 percent in the period 1990-1997 (HUR 2001). As in Sweden, however, later rounds of tendering have shown increasing costs, partly due to rising service standards. Similar developments are also found in England (ATCO, 2004). Nevertheless, unit costs are still below the pre-tendering levels (HUR 2005).

These Scandinavian experiences mirror Wallis and Hensher's (2005) conclusion from investigations of tendering-effects in urban bus services from 10 developed countries, covering more than 20 cities. Based on evidence from research conducted in Great Britain, Scandinavia, USA, Australia and New Zealand, the authors conclude that short-run cost savings from competitive tendering vary from 5 to 50 percent. As a crude "rule of thumb" the authors suggest indicative cost savings of 30 percent from competitive tendering on a short-run basis. These cost-savings find further support in a review of European experiences in Longva et al (2005). They argue that such cost effects occur from competition irrespective of the tendering procedures and contractual clauses actually chosen.

As pinpointed in the studies referred to above, numerous factors will influence the differences in results between the different countries and areas. One main factor seems to be that of the pre-competitive tendering situation, defined by historical contractual clauses and ownership structure. As opposed to their Scandinavian partners, previously dominated by public operators running on negotiated gross cost contracts, Norway has a tradition for granting the subsidies on a net cost basis to operators operating on long-termed concessions given for an area or a single route, except for the capital area of Oslo, the operators were all private right incorporated companies, often with private shareholders only (Johansen 1999). This Norwegian combination of net cost contracts and private operators is rather unique in international terms (Johansen et al 2000). Consequently, the supposed effect of privatisation per se seems less prominent in Norway.

Over the period 1986-96 unit costs for the Norwegian bus industry as a whole were estimated to have reduced at the range 6-20 percent, whilst tendering contracts still only attributed to around 2 percent of the service production (Johansen 1999). Much cost saving was in other words already achieved before competitive tendering became an

influential force in Norway. These cost reductions seem more attributable to the threat of competitive tendering and the change from an earmarked funding scheme to a more free funding scheme rather than the use of competitive tendering itself. It must also be mentioned that so-called “normalised cost contracts” with “efficiency agreements” has been widely used. Such contracts require the operator to improve efficiency by a certain percent by deducting this from the general price increase of the “normalised costs contracts”. Such contracts are still influential in Norway, as only 28 percent of the services were procured on the basis of competitive tendering in 2005 (Bekken et al 2006). The cost reductions prior to the rising share of competitive tendering leads us to an expectation of lower cost saving potential in Norway than elsewhere. Nevertheless, some cost savings for the procuring authorities should be expected, at least when it comes to unit costs, partly as a result of competition itself and partly as a result of the move from net cost contracts to gross cost contracts.

The procuring authorities introduced gross cost contracts at the same time as competitive tendering was introduced. While net cost contracts constituted 90 percent of all services that were procured on a negotiated basis in Norway in 2005, gross cost contracts constituted 96 percent of the tendered ones (Bekken et al 2006). Even though Norwegian authorities show growing interest in implementing financial incentives within the gross cost framework, the corresponding higher risks endured by the operator are rarely compensated with greater freedom of design (Bekken et al 2006). Hence, the growing use of incentive contracts does not alter the fact that competitive tendering in Norway has brought about a shift in market responsibility from the operator to the authorities, mirroring the move from a net cost to a gross cost subsidy regime. Service and quality levels previously approved by local authorities on the basis of the operators’ initiative, are now increasingly being pre-defined by the authorities as part of the procurement process. Costs in terms of route planning, quality assessments, market research and market risk are thus being transferred as well. Parts of the cost-saving effects from first round of tendering may therefore be attributed to transfer of costs and risk rather than efficiency improvements.

To summarise, the following findings for Norway will be expected from competitive tendering: (i) The higher share of competitive tendering, the lower costs for the procuring authorities, (ii) The initial cost reductions will however be lower in Norway than experienced elsewhere (as in Sweden and Denmark), and (iii) The move from negotiated net cost contracts to gross cost tendering leads to subsidy reductions rather than service improvements and increased service levels.

Data sources and model specifications

The data used for the analyses consists of pooled time series of key indicators for public transport from each of the 19 Norwegian counties. The data set covers the period from 1986 to 2005 (forecast), although the time series are fairly complete only from 1992 to 2005. That is from 3 years before the first tendered buss service in Norway. Because some of the time series are incomplete for individual data and counties, some ratios (like subsidy as proportion of costs) are only obtainable from a few counties in the last five years.

The data set has been quality assured in two ways. First, each of the counties has had the opportunity to comment, explain and update their data. Second, we have checked the

data for large or inexplicable variations from year to year, and removed data, which are obviously erroneous. In some cases incorrect data have been replaced with interpolated values. There will inevitably still be some errors in the data set, which relate in particular to some of the older data. However, the database is the best available historic data for local public transport in Norway. Table 1 summarises key figures in the data set for 1991 and 2004.

Table 1: Key figures of the data set. Monetary values in fixed 2004 NOKs (€1≈NOK8).

	1991			2004		
	Lowest	Mean	Highest	Lowest	Mean	Highest
Proportion tendered services*	0 %	0 %	0 %	0 %	20 %	100 %
Subsidy as proportion of costs**	30 %	41 %	80 %	18 %	37 %	60 %
Cost/veh.km, NOK	14,2	20,5	42,3	16,0	19,1	23,1
Average fare, NOK***	8,2	13,0	16,2	10,1	14,3	18,2

* Proportion of produced kilometres subjected to competitive tendering

** Year 2000 data used instead of 2004

*** One county with exceptionally high fare levels has been excluded

Three econometric models are specified in order to isolate the effect of competitive tendering on total costs, cost per vehicle kilometre and total subsidy, respectively. OLS regression is used to correct for the influence of other variables that affect costs and subsidy levels. OLS is a sufficiently appropriate approach for the purpose of isolating the effects of tendering from the effects of other factors when we have pooled time series data. OLS estimation is a simple estimation procedure, which also provides simple interpretation of parameters. Further, it also facilitates comparison with the Swedish study of Alexandersson et al. (1998), who used OLS. The limitations of OLS models concern in particular the inability to estimate models that are intrinsically nonlinear in their parameters – an issue beyond the scope of this study – and problems with truncated variables. It is unlikely, however, that the choice of estimation procedure will affect the overall findings of the study, although it may produce different estimates especially of the extreme cases.

Whereas Alexandersson et al. (1998) in a similar study specified models with extensive use of variables representing changes in lagged, lead and current levels of tendering, which neither produced many significant parameters nor readily interpretable estimates, we have kept the models simple, the number of explanatory variables low and focused on those model specifications that produce robust estimates.

The following model specifications will be used. They are the result of several model runs where different specifications were tested:

1. $K = \beta_0 + \beta_1 * VKM + \beta_2 * PAX + \beta_3 * D_{diesel} + \beta_4 * Tender$
2. $VK = \beta_0 + \beta_1 * VKM + \beta_2 * PAX + \beta_3 * D_{diesel} + \beta_4 * Tender$
3. $T = \beta_0 + \beta_1 * VKM + \beta_2 * PAX + \beta_3 * D_{diesel} + \beta_4 * Tender + \beta_5 * POP$

Where:

K is total cost *

VK is cost per vehicle kilometre *

T is subsidy paid by the County *

VKM is vehicle kilometres produced *

PAX is the number of passengers per year*

D_{diesel} is a dummy for diesel duty, which was introduced in 1999
 Tender is the proportion of route production is subjected to competitive tendering
 POP is population density *
 β are the parameters to be estimated (β_0 is the constant term in the equation)

All monetary values are transformed to 2004 prices, using the retail price index. Variables marked with an asterisk (*) are log-transformed using the natural logarithm. Their parameter estimates are therefore readily interpretable as (constant) elasticities. The variable "Tender" is not log-transformed. The interpretation of the effect of competitive tendering is therefore that one unit (percentage point) increase in the route production subject to competitive tendering increases K, VK and T with a factor of β_4 .

Our a priori expectations are 1) that β_1 has a positive sign in model 1 and 3, i.e. increased route production increases cost and subsidy levels. In case of scale economies β_1 will be negative in equation 2; 2) that β_2 and β_3 are positive; and 3) that β_3 is negative, i.e. competitive tendering reduces costs and subsidies.

An important structural difference between the counties is the degree of urbanisation. While some counties are largely rural, others – notably Oslo – are predominantly urban. The variable POP is included to correct for this.

Empirical findings

Figure 1 shows the developments in operating costs and subsidies paid by county councils to public transport operators. The figure also indicates the timing of key events that have influenced cost and subsidy levels.

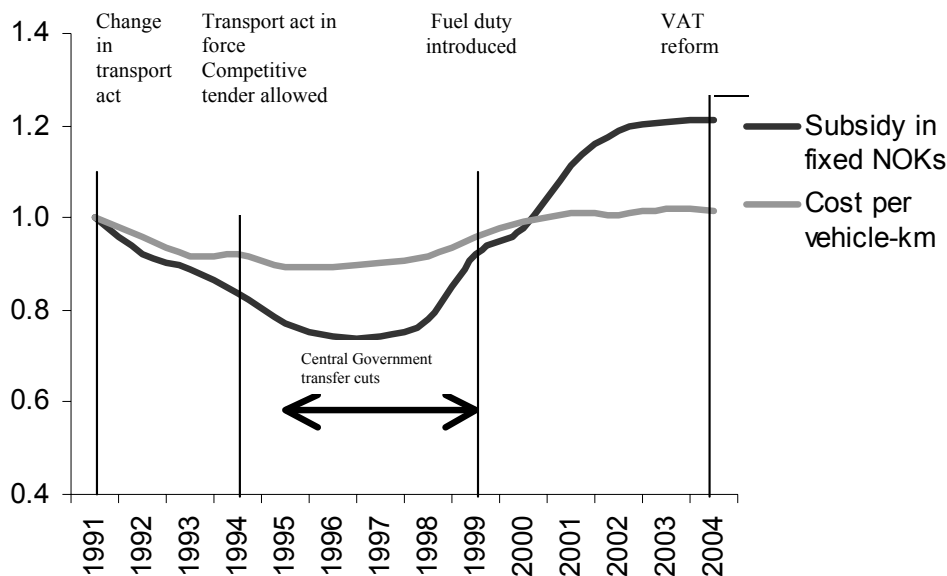


Figure 1: Developments in average cost per vehicle-kilometre and subsidies. Index 1991=1.00. Fixed prices.

Cost and subsidy levels fell in the 1990s up until about 1997/98. From 1997/98 onwards, costs and in particular subsidy levels increased dramatically till around 2000

when the curves flatten off. It is evident that the developments in subsidy payments follow the developments in costs. However, the fluctuations in subsidy payments are significantly larger than the variation in costs. This is partly due to the fact that subsidies typically are about 30 percent of costs, making changes in subsidies related to changes in costs by a factor of three.

The cost and subsidy reductions started before the Transport Act was set in force in 1994. Several explanations can be offered. The change of financing scheme of the county councils from earmarked to framework funding in 1986, implied that the counties had to prioritise between public transport and policy areas like health and education. Moreover, it has been argued that the cost reductions were a result of operators preparing themselves for the competitive tendering regime that was to come (Carlquist and Fearnley, 2001). Central government transfers to county councils were then reduced every year from 1995 to 1999 due to the expected efficiency gains in local public transport that would arise from competitive tendering.

Prior to 1999, bus services were exempted from the diesel duty. From 1999 this exemption was replaced by a reimbursement scheme. On average the compensation has been somewhere around 95% of the diesel duty. Our analyses do not exclude costs and subsidies that relate to this tax. It is therefore evident from figure 1 that costs and subsidies increased in 1999.

In 2004, a VAT reform was set in force. This reform subjected local public transport in Norway to value added tax (VAT). The VAT was set at 6 percent, but with full deduction of input VAT at 24 percent. In reality this was therefore an indirect way of state subsidies to local public transport services, which was also the expressed purpose.

Do half-way solutions result in poorer performance?

As an initial attempt to identify possible effects of competitive tendering in the data material, we have grouped the 19 Norwegian counties according to their use, or determination to introduce, competitive tendering. Three categories are identified:

1. Predominantly tendered contracts: Counties with more than 50 percent competitively tendered bus mileage and/or decision to increase use of competitive tendering (4 counties).

2. Mixture: Less than 50 percent competitively tendered bus mileage or use of negotiated contracts with explicit threat of tendering or decision to introduce tendering (7 counties).

3. Predominantly pre-negotiated contracts: No tendering and no intention to introduce competitive tender (7 counties).

By comparing these three groups of counties we get a first impression of their relative performance (table 2).

Table 2: Change between 1991 and 2005 in counties with predominantly tendered services, a mixture of tendered and pre-negotiated contracts and predominantly pre-negotiated contracts, respectively.

	<i>Predominantly tendered contracts</i>	<i>Mixture</i>	<i>Predominantly pre-negotiated contracts</i>
Trips/capita	+18%	-7%	+18%
Route production	+4 %	-17 %	+13 %
Cost/veh. km	-18%	+15%	+1%
Subsidy/cost	+12%	+26%	+10%
Average fare	+8%	+1%	+5%

This preliminary comparison clearly shows that counties, which have chosen a regime with a mixture of tenders and pre-negotiated contracts, have performed poorly relative to those, which to a greater extent have chosen one or the other. We see from table 2 that route production has been reduced substantially despite large subsidy increases in the "mixture" group. Operating costs per vehicle-kilometre have also increased considerably in this group. The result is loss of passengers, quite opposite the achievements in the two other groups of counties.

The comparison can also be interpreted in terms of market orientation. Typically, passengers place more emphasis on improved service levels than on fare reductions (Carlquist and Fearnley, 2001). While the "mixture" group has kept fare levels more or less unchanged at the expense of reduced service levels and higher subsidy requirements, the two other groups have increased fares in order to finance service improvements. The latter approach is therefore more market oriented, and, as opposed to the "mixture" group, has resulted in increased patronage.

The threat of tendering, which should be most present in the "mixture" group, seems not to have had any dampening effect on costs or subsidies. Rather, this preliminary presentation of the data suggests a less straightforward pattern of relationship between competitive tendering and threat of competitive tendering on the one hand, and cost performance on the other.

Obviously, our division of county types is somewhat arbitrary, and hides other structural differences between the groups. For example, counties in the first group have larger populations, more passengers and higher operating cost than the others. In the next section, therefore, we enhance the analytical approach by isolating the effects of competitive tendering from other factors that influence performance.

Tenders have reduced costs and subsidies

We have estimated models for total costs, costs per bus kilometre and subsidies, as described above. Competitive tendering is among the explanatory variables in each model. The chosen model specifications are the results of several model runs in which different explanatory variables have been tested. In addition to sign, size and significance level of parameter estimates, we have preferred simple models rather than models with large numbers of explanatory variables as long as the overall performance of the models is maintained. For example, population density was found to replace 18 county dummies relatively well, and thus preferred. Table 3 summarises the model outputs.

Table 3: Model summaries

<i>Variable</i>	<i>Total cost model</i>	<i>Cost per bus kilometre model</i>	<i>Total subsidy model</i>
Vehicle kilometre	0.90 **	-0.10 **	0.80 **
Passenger number	0.17 **	0.17 **	0.10 *
Diesel duty	7.1 % **	6.1 % **	26 % **
Population density			-0.07 **
Percent competitive tendering	-0.1 % *	-0.1 % *	-0.7 % **
Adj R ² = 0.94	0.94	0.50	0.62

* Significant 10 % level

** Significant 5 % level

The effect of competitive tendering is stable in all models. Competitive tendering contributes to a reduction in both costs and subsidies. Our calculations show that a 1 per cent increase in route production open to competition reduces costs by 0.1 per cent. In other words, competitive tendering reduces costs by approximately a tenth. A move from no competitive tendering to full competitive tendering will provide cost savings of approximately 10 percent.

According to our model estimate, one percentage point increase in the use of competitive tendering reduces the need for subsidies by 0.7 per cent. Given the fact that subsidies only cover a fraction of the costs (typically a third) and that the county councils have good opportunities to reap the majority of the cost saving in connection with tenders, tenders have a greater effect on the level of subsidises than on costs. In addition, as we have shown in table 2 above, fare levels have increased faster in counties with competitive tendering, contributing to further reductions in subsidy requirements.

This means both that tenders have resulted in more cost-effective production and that the savings have to a large extent been taken out in the form reduced subsidies rather than improved service levels.

Conclusion and discussion

The main aim of this article has been to analyse the effect of competitive tendering on operating cost and subsidies. The article has put forward two important conclusions. First, exposure to competition has up to now contributed to cost effectiveness, which in turn has made it possible to reduce subsidies. At the same time, reduced subsidies have also been a driving force behind the use of competitive tendering. Second, counties that have chosen a regime with a mixture of tenders and negotiated contracts appear to have experienced a less favourable development than those that to a larger extent have chosen one over the other.

Tenders have reduced costs and subsidies, but less than in other countries

As mentioned, we have found that tenders contribute to a reduction in both costs and subsidies. Our calculations show that competitive tendering reduces operating costs by 10 percent. A 1 per cent increase in production open to competition reduces the need for

subsidies by 0.7 per cent. In other words, tenders have resulted in more cost effective production, and the savings have been taken out in the form of reduced subsidies, rather than enhanced level of service.

Compared with international experiences, the cost saving effect from competitive tendering in Norway is on the lower scale. This is not to say that competitive tendering has been less successful in Norway compared to other places. The result is due to the fact that the industry had improved the effectiveness substantially already before competitive tendering was introduced. Thus, one should consider the context in depth before jumping to conclusions on the success of competitive tendering.

There are, however, also reasons to cast a critical glance at our a priori hypothesis of massive cost transfers occurring as a consequence of the shift from net cost to gross cost contracts. A closer examination of previous net cost contracts reveals that actual passenger incentives and income risks are smaller than initially assumed. As shown in Bekken et al (2006) the negotiated net cost contracts in Norway often encompass clauses that allow for renegotiation of the contract if the passenger revenue is significantly higher or lower than the revenue from the previous year. Moreover, the subsidy level is negotiated on a year-to-year basis, putting even further limits to the effect on passenger incentives inherent in the net cost contracts. When the new tender contracts are increasingly supplemented with patronage incentives and associated risks, while being of a significantly longer duration, the differences in the actual income, risk and investment structures – and thus the transfer of costs from the operator to the authority – become less. This is further strengthened by the fact that increasing use of incentive contracting in Norway is rarely accompanied with increasing room for design manoeuvring for the operator, restricting his options when it comes to risk diversification.

At the same time, effects and challenges experienced by the counties in the transition from a direct purchase regime to competitive tendering will vary from one county to another - from one context to another. This is partly due to the fact that the forms of competition and contracts which are introduced under the new regime will vary between counties according to the degree of exposure to competition and also because the form of the contracts which they are giving up will vary from county to county. Altogether, this calls for further nuances when it comes to how large (or small) effects can be expected from the introduction of tenders in each individual county. In many ways, the national level appears to be too broad.

Does tendering have any adverse effects?

One of our main findings were that counties that have chosen a regime with a mixture of tenders and negotiated contracts appear to have experienced a less favourable development than counties that to a larger extent have chosen one over the other. One explanation for this striking difference in performance can be related to the fact that the introduction of competitive tendering reduces the reliability of dialogue in pre-negotiated contracts, so that the operators adapt to a competitive situation even though their contract is not immediately exposed to competition. Additionally, it is the case that areas with the greatest potential for cost reductions are first put out to tender.

The threat of competitive tenders may thus have two rather opposite effects, depending on the context in which they are implemented. On the one hand, the threat

creates pressures to make the business more efficient. This was clearly apparent in Norway through the effectiveness agreements prior to competitive tendering. On the other hand, however, threats of tendering may weaken the long-lasting trust relationship between one particular operator and the purchaser. This is of particular importance in those cases where previous production was sustained by so-called high-trust relationships and incomplete contracts (Longva and Osland 2005). The introduction of competitive tendering in one part of the county may thus create unclear operator-purchaser relationships in the remaining parts that still rely on negotiated net cost contracts with heavy risk bearing and market responsibility for the operator. The mere existence of a threat of tendering will inevitably make the prolongation of the contract less likely, leading the operator to keep more in terms with the actual length of the contract as described by its formal clauses. Consequently, the operator's horizon of investments will be shortened, and with annual negotiations this results in a very shortsighted focus on costs, and discourages long-term investments and other long-term commitments.

All of this suggests that there is a danger inherent in the threat of competition which over time can make the threat less useful when it comes to cost reduction. New contractual clauses and role diversification are therefore necessary in the non-tendered parts of the county as well, making them more in line with their new relational context, even on a negotiated basis.

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To bid or not to bid, this is the question: the Italian experience in competitive tendering for local bus services

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Abstract

Competitive tendering is a popular mechanism for the provision of local bus services when a major objective is subsidy savings. Despite uncertainties in the legal framework some competitive tendering was implemented in Italy since 1998. The evidence so far is that participants were limited in number, the incumbents were almost everywhere able to gain the franchise, whilst subsidy savings were in many cases negligible. If some “political” conditions favouring more effective tendering procedures are not fulfilled, other regimes should be considered in order to obtain substantial subsidy savings.

Keywords: Local bus services; Tendering.

1. Introduction

In the last century many local bus companies in Italy (as in many European countries) enjoyed monopoly protection by means of non-tendered concessions or public ownership. The financial performance of these firms has deteriorated for more than thirty years. Financial distress is only partly explained by declining patronage (lower shares in the private – public transport split) and fares permanently lower than average costs. An important role is also played by low and stagnant productivity, due to weak incentives for efficiency. Weak incentives, in turn, are not surprisingly related to cost-plus contracts, based on individual negotiations between local governments and the (local) monopoly firm. Incentives are even weaker when the firm is publicly owned and the local government can not credibly commit to let the firm go bankrupt in the presence of high and/or increasing deficits (Boycko, Shleifer and Vishny, 1996).

Competitive tendering is held to be the most effective instrument to create competitive pressure in a market in which an open competition among firms is not

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feasible or uneconomic (Demsetz, 1968). In Europe competitive tendering of transport services has been implemented in France, in Great Britain and in the Scandinavian countries. As summarised by Hensher and Wallis (2005), in fifteen years competitive tendering brought about a 50-55% reduction in real unit costs in London, whilst in Scandinavia there were savings ranging from 5 to 34%, but most in the range of 20-30%¹.

The appraisal of the French experience casts some doubts on the efficiency enhancing properties of competitive tendering. It has been said that “competition has not been fostered and the performance indicators are still mediocre, not to mention the fact that collusion still exists” (Yvrande-Billon, 2005, p. 19). The French Competition Commission, in 2005 denounced the existence of a cartel between the three leading operators, who were alleged for explicit bidding coordination, leading to higher prices “than those that would have resulted from a competitive functioning of the market” (Yvrande-Billon, 2005, p. 15).

In order to improve the allocative and productive efficiency of the local bus industry, the Italian government introduced a reform (D.lgs. 422/97 and 400/99) whose main purpose was to create a more market-oriented industry, enhance competition and reduce the huge amount of subsidies to the unprofitable local bus companies. In particular, the bill stated that non-tendered concessions were to be banned as of January 2004. By that date all subsidised local transport services (rail services included) would have been tendered off. Later legislative interventions changed the institutional framework, introducing normative uncertainty and leaving discretion to local governments whether tendering out concessions or making use of *in house provision*. Despite all these fluctuations in the legal rules, in some regions tenders did actually take place.

The purpose of this paper is to assess the competitive tendering procedures in Italy and to point out the main difficulties that have so far hindered the process. The structure of the paper is as follows. In section 2 the most important issues that competitive tendering in the local bus industry rises are briefly examined. In section 3 a summary of the results of competitive tendering is presented - making use of the information we gathered and organised over the years – followed by a tentative assessment of those results. Section 4 concludes that, if some “political” conditions favouring more effective tendering procedures are not fulfilled, other regimes should be considered in order to obtain substantial subsidy savings.

2. Relevant issues for competitive tendering

As suggested by the recent economic literature (Klemperer, 2004), an efficient outcome of an award procedure depends on several factors, in particular on the number of participants, on the absence of barriers to entry and on the existence of widespread knowledge about the best production technologies. The implementation of a competitive tendering process in the bus industry is even more complex, as not only economic but also technical aspects of the services must be taken into account². First, the local

¹ See also Alexandersson, Folster, Hultén (1998); Kennedy (1998); Ramella (2001); Toner (2001); London Transport (2002); Alexandersson, Pyddoke (2003); Boitani, Cambini (2004a).

² Notice that, since local transport services are unprofitable at the present Italian level of fares and costs, the price that comes out of a competitive tendering normally consists of the remuneration that the winning

authority has to define the type of contract to be offered to the winning bidders. Following the analysis of Isotope (1997), there are two different types of on-going risks that a supplier of transport services has to face: the *production risk*, associated with the production cost of the services' provision; and the *revenue (or commercial) risk*, associated with the sale of transport services. The allocation of these risks defines a set of different types of contracts that could be tendered:

- *Gross Cost Contract*: the transport firm bears only the production risk while the revenue risk is born by the tendering authority. The firm receives a unit transfer related to an anticipated unit cost. Revenues accrue only to the tendering authority.
- *Net Cost Contract*: both risks are born by the transport firm. It receives a transfer determined in the tendering process, equal to the difference between anticipated total costs and traffic revenues.

There is a variety of incentive contracts between local authorities and the transport firm - such as gross cost contracts with revenue incentive, or net cost contracts with shared revenue risk - in which the revenue risk is split between actors. Different types of contract entail different incentives to minimize costs and/or to control revenues. Whatever type of contract has to be clearly specified *ex ante* when designing the tendering procedure.

The size of the service-area is the second element that local governments should define in a tendering procedure. *Ex ante* costs and benefits of different alternatives are as follows (Cambini, Filippini, 2003):

- *Route-by-route tendering* guarantees an efficient production of transport services, as the number of potential bidders can be expected to be high and competition can thus be expected to be fierce. However, route-by-route tendering could increase the planning-costs of urban transport, since the local authority must coordinate a large set of services provided by different operators in order to have a well integrated network. This tendering procedure could more successfully be used to assign inter-city routes than urban ones.
- *Network tendering*: implies that all services in an urban or even regional area are bunched together and tendered out. Although this method maintains the integrity of the network, it presents some disadvantages. The complexity of the services to be provided increases the organizational costs of the tendering procedure. Moreover, if one applies this procedure to allocate transport services in a large city or a metropolitan area, the potential number of bidders would be low. The lower the number of bidders the lower the potential benefits from the auction.
- *Sub-set tendering*: the service-area to be tendered is divided into sub-set. Each sub-set is made of a bunch of routes to be served by the winning bidder. By reducing the area to be served one can expect that the number of potential bidders increases, hence that the competitive pressure also increases. In addition, the possibility of tendering small units, without loss of integration, permits the local authority to compare operators' performance simultaneously (yardstick competition). The main difficulty with route bunching is defining the single units to be awarded and their size in order to exploit the economies of scale or density and to coordinate and correctly plan the services in the whole area.

bidder *requires* to run the services and not a price to *pay* to get the rights to run the services. For a discussion on this issue see also Isotope (1997), Toner (2001) and Boitani, Cambini (2002).

Summing up, on the one hand, the definition of a small service area to be assigned, for instance a bus line, can guarantee a high level of competition because many operators will be able to participate in the tendering process. On the other hand, a small service area cannot guarantee the optimal scale of production³.

There are other relevant aspects in the design of a tendering procedure. First, local Authorities should decide either to accurately design *ex ante* the assigned area (i.e. to implement a *rigid tender*) or to leave some degrees of freedom to the franchisee in designing the services, in terms of fares, frequencies of buses, bus routes, quality of buses, etc. (*non rigid tender*). In order to avoid a quality reduction in the provision of transport services, local authorities usually set penalties in case of unjustified reduction in quality provision. Third, the introduction of quality features in a tender procedure generates difficulties in evaluating the overall level of each bid. In this context, the selection criteria (i.e. the scoring system) must take into account both the economic and technical issues of service provision. While the economic elements can easily be quantified, problems of evaluation emerge in assessing quality. The possibility of assigning arbitrary weights to different elements of the bid could alter significantly the final result of the award process.

Finally, it is extremely important how the ownership of buses, deposits and other equipment is allocated among competitors. The use of infrastructure represents a consistent barrier to entry that could prevent new operators from entering the market. If the tendering authority owns the infrastructure, then these barriers can be eliminated. Otherwise, the tendering authority must oblige the incumbent to transfer the entire infrastructure to the potential new operator, but it has to define how to evaluate the financial value of these capital goods. This last task is extremely complex due to the information asymmetry between the incumbent and the local authority.

3. The Italian competitive bidding experience in the local bus industry: an overview

In the last two decades of the twentieth century the Italian local public transport sector has been characterized by increasing costs, sky-rocketing deficits and a declining market share. Especially labour costs, which represent 2/3 of the total operating costs, have increased over years, while traffic revenues have remained stationary due to a combination of low fares (due to distributive concerns) and a consistent shift from public to private transport. Although fares have increased substantially since 1992, in 2004 traffic revenues covered on average only 30% of total operating costs while the remaining costs were covered by public subsidies. A few economic indicators of the local bus industry in selected European countries can be found in Table 1. It can be seen that the Italian local bus industry has the second-highest unit cost (behind Germany), the highest unit labour cost and the second lowest labour productivity (behind Belgium). Although traffic revenues per km in Italy are not the lowest in Europe, the Italian local bus industry turns out to be the most heavily subsidised.

³ See for example Cambini, Filippini (2003) and Cambini, Piacenza, Vannoni (2006).

Table 1: Performance indicators of the local bus industry (average values 2002-2004).

	<i>Italy</i>	<i>UK</i>	<i>Germany</i>	<i>France</i>	<i>Sweden</i>	<i>The Netherlands</i>	<i>Belgium</i>	Average (excluding Italy)	Average (including Italy)
Public subsidies per km (€)	2,2	0,6	1,5	1,9	0,9	1,5	2,0	1,4	1,51
Traffic revenues per km (€)	1,08	1,49	2,39	1,14	1,07	0,98	1,00	1,34	1,30
Operating costs per km (€)	3,5	1,8	4,0	2,9	1,9	2,4	3,0	2,7	2,78
Revenue/cost ratio %	30,7	84,2	60,5	39,2	55,4	40,0	33,1	52,1	49
Standard ticket fare (€)	0,84	1,53	1,89	1,26	1,95	1,60	1,40	1,60	1,50
1 hour ticket in capital cities (€)	0,80	1,13	0,97	1,32	1,76	1,44	1,33	1,33	1,25
Monthly pass (€)	30,00	41,33	51,19	45,80	44,02	47,20	32,54	43,68	41,72
Labour cost per km (€)	2,3	0,8	2,1	1,6	1,1	1,7	2,0	1,6	1,66
Average product (Vehicle-km) per employee	17060	20592	17761	20506	23423	18275	10018	19763	18233

Source: Earchimede (2005).

In some Italian regions competitive tendering procedures were planned in order to improve the poor cost performance of local bus companies and reduce public subsidies. Table 2 summarises the available information on the Italian tendering procedures, as of December 2005. In particular, Table 2 contains information on the contractual form, duration of the contracts, the size of the service area and the size of the area tendered, as a percentage of the total.

Only four regions have tendered out more than 50% of total bus-km of the service-area (Valle d'Aosta, Friuli Venezia Giulia, Lombardia and Toscana), while in Emilia Romagna only 34% of the total area was actually tendered out, but competitive tendering is still taking place in the residual area (Table 2). In Lombardia all the service-area has been tendered out, except for the metropolitan area of Milan, that accounts for about bus-km 120 mln. In some southern regions (Sicily, Apulia, Sardinia and Calabria) competitive tendering of local bus service did not even start, whilst in other southern and central regions (Campania, Basilicata, Marche, Umbria) competitive tendering is slowly starting. In some northern regions, like Piemonte and Veneto, competitive tendering didn't take place, except for a few isolated experiences. In all these areas, the normative uncertainty mentioned above and a good deal of political opportunism lead many local authorities to prefer the *in house provision*.

Table 2: Quantitative Analysis of the competitive tendering procedures in Italy (1998-2005).

<i>Regions</i>	<i>Contractual Form</i>	<i>Contract duration</i>	<i>Total Bus-km in regions (a)</i>	<i>Bus-km in competition through bidding (b)</i>	<i>% (b)/(a)</i>	<i>Bus-km auctioned (c)</i>	<i>% Total Bus-km (c)/(a)</i>	<i>% Vehicles-km in competition (c)/(b)</i>
<i>Valle d'Aosta</i>	Net cost	6+3 years	6.545.500	6.545.500	100%	6.545.500	100%	100%
<i>Liguria</i>	Net cost	6 +3 years	69.000.000	53.962.700	78%	14.962.700	22%	28%
<i>Piemonte</i>	Net cost	6 years	120.000.000	2.748.065	0,02%	2.748.065	0,02%	100%
<i>Lombardia</i>	Net cost	7 years	275.379.176	145.884.290	53%	139.307.896	50%	95%
<i>Veneto</i>	n.a.	n.a.	131.549.005	252.000*	0,19%	n.a.	n.a.	n.a.
<i>Friuli Venezia Giulia</i>	Net cost	10 years	41.596.000	41.596.000	100%	41.596.000	100%	100%
<i>Emilia Romagna</i>	Gross and Net cost	From 2 to 8 years	108.000.000	112.006.557	103%	37.181.176	34%	33%
<i>Toscana</i>	Net cost	5 years	117.000.000	120.965.842	103%	120.965.842	100%	100%
<i>Umbria</i>	Net cost	6 years	30.274.724	30.274.724	100%	n.a.	n.a.	n.a.
<i>Marche</i>	n.a.	n.a.	51.800.000	43.000.000	83%	n.a.	n.a.	n.a.
<i>Lazio</i>	Gross cost	3 years	n.a.	22.500.000	<i>Additional services</i>	22.500.000	n.a.	100%
<i>Campania</i>	n.a.	n.a.	158.000.000	2.490.642	1,57%	2.490.642	1,57%	100%
<i>Puglia</i>	n.a.	n.a.	n.a.	33.072.549	n.a.	9.681.678	n.a.	29%
<i>Basilicata</i>	Net cost	5 years	n.a.	28.000.000	n.a.	1.900.000	n.a.	6,79%

*It refers to the urban area of Vicenza. No one had participated in the bidding procedure. The service is still offered by the incumbent.

As for the contractual features of tendered services, it seems that net cost contracts are predominant, whilst the contract duration varies in different regions. Regarding the definition of the service-area, one can observe that a homogeneous criterion to define the size of the bus service area does not exist. In particular, the regional authorities normally choose the size of the service area by using the province or municipal jurisdictional boundaries, aggregating sometimes urban and inter-cities transport services, disregarding potential economies of scale and density. The design of competitive tendering procedures so far does not seem to give correct incentives to mergers of transport operators or at least to efficiently aggregate bunches of routes in nearby areas. Indeed, the Italian local transport market is still composed of a great number of small or even very small operators, contrary to what is going on in many EU countries, like Sweden and the UK.

Tendering procedures in Italy do not generally regard single lines but large or small networks. In some cases, especially in small and medium-sized Italian provinces, urban and inter-city routes are bundled for tender, in order to let the winning firm cross-subsidize the unprofitable urban services with the more profitable intercity services and thus reduce the subsidy to be given to the winning bidder⁴.

In all the above-mentioned experiences, local governments maintain the ownership of infrastructures and buses. Typically, these capital goods are given for free to the winning bidder but have to be returned to the local authority when the franchise expires. Finally, the competitive tendering was won almost everywhere by the incumbent operator, sometimes in joint venture with other local transport operators, with very limited savings with respect to the reserve price: 4% reduction on average in Val d'Aosta, and

⁴ The winner of the competitive tendering procedure is typically the company ready to offer a pre-defined transport service asking for the least amount of public subsidies.

3% in Friuli, while in other regions, like Lombardia, the reduction was even lower (1% on average) (Table 3). A special case is Tuscany. Here, the bidding procedures were designed with the objective of increasing the supply of transport services, and so the total bus-kilometers to be provided by the winning bidder. If the additional services offered in the tender by the winning bidders are taken into account, the average reduction in Tuscany reaches 4,3%.

Table 3: Selected results of competitive bidding in Italy.

<i>Regions</i>	Average reduction for winning bids	Ex post presence of Incumbent
<i>Valle d'Aosta</i>	4%	100%
<i>Friuli Venezia Giulia</i>	3%	100%
<i>Liguria</i>	n.d	75%*
<i>Lombardia</i>	1%	- <u>urban areas</u> : 90%* - <u>suburban areas</u> : 95,5%
<i>Emilia Romagna</i>	0,5%**	100%
<i>Toscana</i>	0,01%	100%

*The bidding procedures in Como and Albenga, both won by new entrants, were revoked by the Regional Administrative Tribunal (TAR).

** Only for the area for which official data are available

Source: Boitani, Cambini (2004a); Cambini, Galleano (2005)

The tendering procedures in Lazio deserve further explanations. These procedures actually refer to the case of Rome only, since no tendering procedures took place in other towns or provinces within that region. The early competitive tendering procedures organised in Rome were limited to *additional transport services*, consisting of new lines for the 2000 Jubilee (J routes) and of 15 additional million bus-km divided in two sets (8 and 7,5 million bus-km, respectively). A complete picture of the competitive tendering in Rome can be drawn from Table 4. These new routes integrate bus-km 115 million provided, with a non-tendered concession, by the incumbent operator, the publicly owned Trambus. A joint venture - lead by Sita (owned by the national railways operator, Ferrovie dello Stato), with some local operators (Arpa - Chieti, Apm - Perugia) and the French company Transdev - was able to win all of the three early franchises.

In the first and second tenders the incumbent operator, Trambus, was not allowed to make an offer in order to favour the entry of new transport operators. As can be seen in Table 4, this decreased the competitive pressure in the bid, leading to a reduction of approximately 8% of the reserve price. In the third tender, however, Trambus's bid was admitted but the offer of the new entrant was better. In this last case, the reduction was 25%, the highest reduction ever seen in Italy for whatever transport tendering procedure.

The fourth tender contained a bundle of the previous additional services, plus some additional ones, for a total of 26,5 mln bus-km per year. Trambus was not admitted to the tender won by a new consortium of transport operators called "Tevere S.p.A", once again led by Sita. The French operator Transdev didn't take part in the consortium. The reserve price was € 2,37 per bus-km (gross cost), which was the actual transfer given in 2005 (after allowing for RPI-indexation) to the previous operator and the winning bid was € 2,36 per bus-km: a tiny 0,42% reduction.

Table 4: Competitive tendering in Rome (additional services).

<i>Service area</i>	<i>Bus-km per year (million)</i>	<i>Annual value (Euro million)</i>	<i>Compensation per bus-km (Euro)</i>	<i>Contract duration</i>	<i>Contract form</i>	<i>Reduction</i>	<i>Winning operator</i>
Set 1: Jubilee lines (1999)	7	13.05	2,14	3 years	Gross cost	8,0%	New entrant in ATI: Sita, Atm Perugia, CIPAR
Set 2: additional services (2000)	8	17.04	2,13	3 years	Gross cost	8,23%	ATI: Sita, Apm, Arpa, Transdev, Star, Cotri
Set 3: additional services (2000)	7.5	14.98	1,74	3 years	Gross cost	25%	ATI: Sita, Apm, Arpa, Transdev, Star, Cotri
Set 4: additional services (2005)	26.5	62.54	2,36	3 years	Gross cost	0,42%	ATI: Sita, Apm, Arpa, Star, Cotri

Source: Boitani, Cambini (2002); Atac (unpublished data).

Figure 1 shows the compensation paid per bus-km varies widely across tendered areas. Such a variance is partly due to the fact that some contracts are gross cost (Lazio and some in Emilia Romagna) whilst most of them are net cost (hence compensations are equal to subsidies). The variance may also be due to the service-mix effect and to many other differences in the type of service provided. However an average compensation of € 1,78 per bus-km in tendered services is more than 19% lower than the average compensation for both tendered and non tendered services (€ 2,2) reported in Table 1.

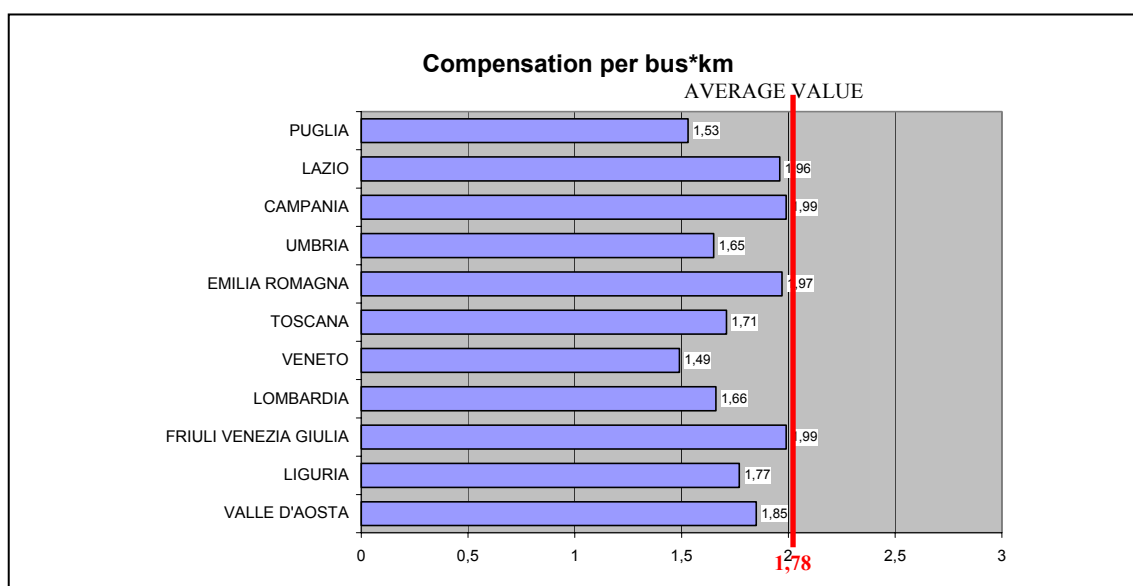


Figure 1: Average compensation per bus*km (urban + inter cities services)
Source: Cambini, Galleano (2005)

The compensations per bus-km in selected tendered areas of different regions are depicted in Figures 2 and 3. It turns out that the average compensation for urban services is higher than the one for intercity services due to the higher cost of urban transport (lower speed and higher traffic congestion). Comparing the data for some regions we can observe that the average compensation value in Lombardia for urban services is equal to € 1,91 per km, while it is equal to € 1,44 per km for inter-city services. The average for urban and inter-city services is equal to € 1,77 per bus-km, while in Toscana it is equal to € 1,71 and in Emilia Romagna € 1,97. Note that the value in Emilia is higher than the other ones because of the fact that in some areas of Emilia gross cost contracts are in place, while in the other regions (except Lazio) only net cost contracts are used.

As for strictly urban services, Figure 2 shows a high variance in compensations, ranging from € 1,43 in Varese to € 2,60 in Crema. Whilst the high compensation in Sondrio may be explained by taking into account the high share of mountain-routes in the service-area, the same explanation does not fit for the case of Crema. The altimetry of the service-area may also serve as an explanation for the high compensations paid in Aosta 2 and Aosta 3 (which both encompass services in the mountain valleys of that area). However, the case of Naples stands out without any satisfactory explanation (Figure 3).

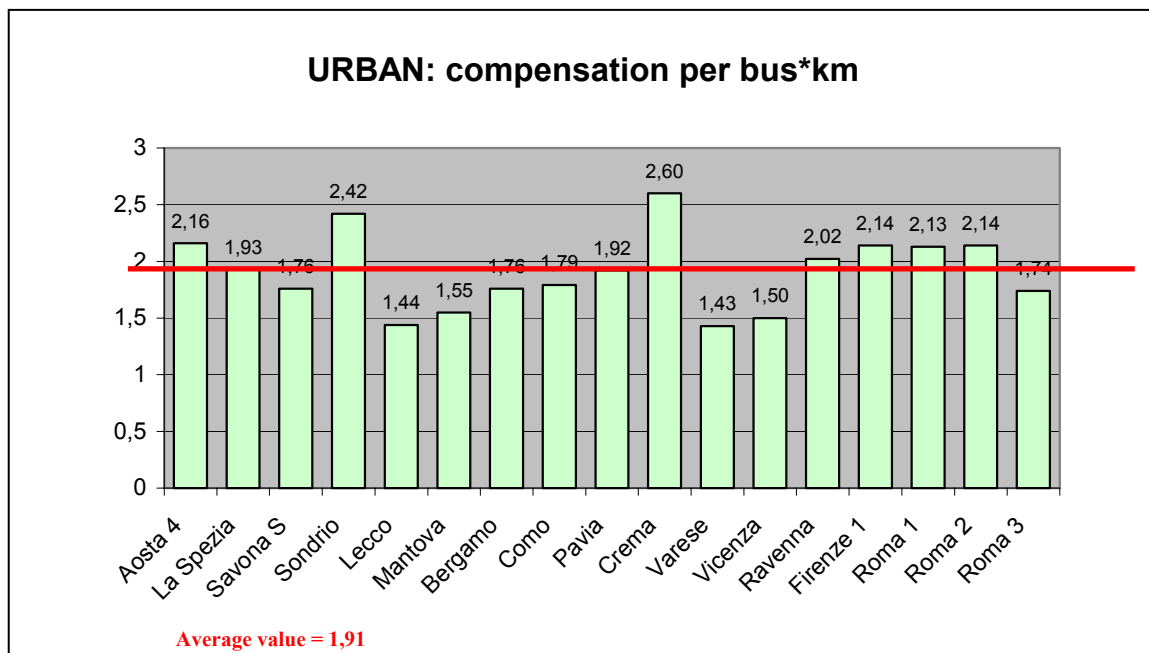


Figure 2: Compensation for urban services in selected towns and cities.

Note: Rome 1,2,3, gross cost contracts.

Source: Cambini, Galleano (2005).

It is fair to say that no definite pattern emerges from the available data. Competition through franchise bidding hasn't lead yet to a convergence of the cost of local bus services towards some common value. The actual compensations paid by local authorities to the franchisees seem to be determined more by the past level of costs than by the levelling effect of competition.

When commenting on these results it should be considered that regional regulations require that, if an old operator is substituted by a new entrant, all the employees of the incumbent automatically become employees of the new franchisee on the same terms and conditions. Such “social clauses” may be justified because of the absence of any unemployment benefit for laid off workers in the Italian local transport industry. Nonetheless, it is difficult for a potential entrant to make a truly competitive bid when more than 60% of its cost (i.e. labour cost) is bound to be exactly the same as that of the incumbent and productivity is also bound to be close to the one of the incumbent. The Italian Competition Commission denounced the anti-competitive nature of these “social clauses” and the results of the early tenders in Rome - where no “social clause” was imposed as the new entrants did not bite in the services of the incumbent – showed that competitive tendering tends to be more effective when less constraints are imposed on the participants.

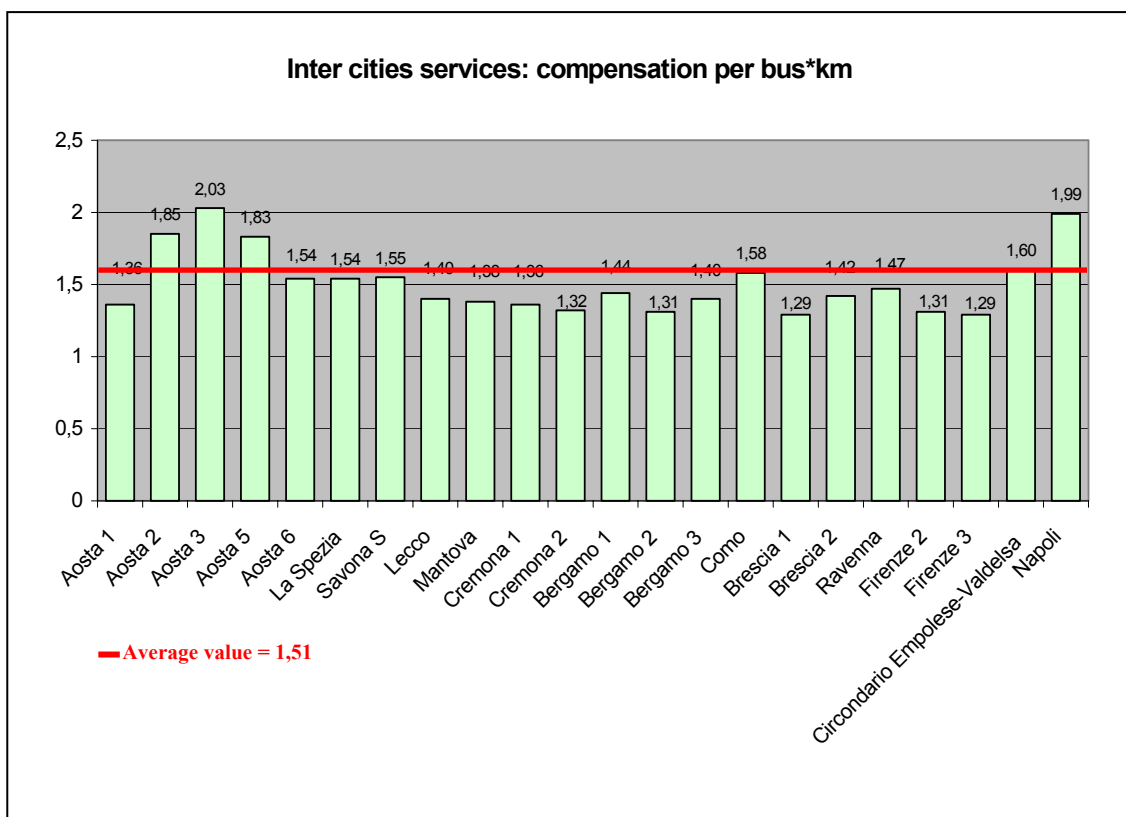


Figura 3: Compensation for inter-cities services in selected areas.
Source: Cambini, Galleano (2005).

It should also be observed that, in many cases, local governments failed to define precisely the service to be provided by the franchisee and retained large discretion as to the re-definition of the service to be provided⁵. The expected uncertainties may have discouraged some potential bidders and, due to the limited number of bidders, it is not surprising that the outcomes of competition are rather weak. Incumbent operators – mainly owned by local governments – not only had better information on the actual

⁵ This seems to be a feature shared with the unsatisfactory French experience mentioned above (Yvrande-Billon, 2005).

state of the network and of the fleet but also had a lower “political risk” (Williamson, 1976) as they could be confident that their shareholders would not let them go bankrupt in any unforeseen and unfavourable state of the world. Moreover, it has been observed (Boitani, Cambini, 2004a) that many tenders were “tailor-made” for the incumbents, i.e. that many local authorities designed the auctions in such a way as to put their own enterprises in an advantageous position.

As a consequence of the above mentioned features of the awarding procedures, no foreign competitor dared to enter the market, except the French company Transdev, which joined other Italian operators in the early tenders in Rome. Recently Transdev decided not to participate in the new bidding procedure for services in Rome and bought a controlling share of Genova’s bus company. The British company Arriva chose to take over a private operator (Sab-Bergamo) in order to get hold of the market and institutional information of an Italian incumbent and, by doing so, to reduce its future bidding risks. Another consequence of the fact that the winners of the tendering procedures were almost everywhere the old local public operators is that no new Italian “player” grew up in the market so as to be able to take full advantage of scale and scope economies and to compete in Italy and abroad.

4. Conclusions

The definition of appropriate regulatory policies for unprofitable public utilities is a difficult task. As argued by Segal (1998), the incentive for unprofitable monopolistic firms, like a local public transport operator, to reduce its cost and increase revenue is low, particularly when the regulator has a reputation for bail out. In other words, if the regulator is benevolent, the firm tends to under-invest (i.e. reduce its effort) in order to become unprofitable and extract higher public subsidies. This is, in a nutshell, the *soft budget constraint disease*, the welfare losses of which are typically higher than the dead-weight cost of monopoly.

Since Demsetz (1968) competitive tendering is viewed as a tool that local governments can use to benefit from the incentives towards efficiency entailed by *ex ante* competition. However Williamson (1976) and Goldberg (1976) warned that franchise bidding may be difficult to implement in practice and that potential gains from competition may be overcome by the burden of transaction costs that characterise inevitably incomplete contracts (Crocker, Masten, 1996). Many European local public transport services are now subject to competitive tendering. Some experiences (Sweden, Finland, UK) show that competitive tendering leads to lower costs and better service-quality. The French experience turns out to be less positive.

The Italian tendering experience in the bus industry is limited and does not allow to reach a definite conclusion; however in the previous sections it was argued that the results might have been far more encouraging if the tenders were organised in another way. We agree with Yvrande-Billon (2005, p. 20) when she points out that a disappointing experience “does not mean that this mechanism of coordination could not yield positive results and has to be abandoned” and that “competitive tendering cannot be beneficial if certain conditions are not respected”.

With regard to the Italian experience the conditions to be fulfilled to have truly beneficial competitive tendering may be summarised as follows. The first and hardest condition is the willingness of local authorities to see their own firms thrown out of the

market if less efficient than potential entrants. This in turns depends on the willingness to give up political rents accruing from the ownership of local public enterprises. The national government may strengthen the “propensity to competition” of local authorities by setting appropriate financial sticks and carrots (Boitani, Tocci, 2005). The second condition is the extension of unemployment benefits to local transport workers, in order to drop those “social clauses” that are burdening all the Italian awarding procedures (Scarpa, Boitani, *et al.*, 2005). The third condition is guaranteeing fair tenders, which implies that local authorities are not in charge of the procedure whenever their own company is allowed to make a bid. In such a case an independent agency should take up the task (Scarpa, Boitani, *et al.*, 2005). This agency might also help local authorities in the definition of many technical aspects of the service, thus reducing post-contractual uncertainty and making bidding less risky. However the very existence of such an agency might not be popular with the local authorities, as some power would be taken away from them and transferred to the agency.

If it were too hard to fulfil these conditions it seems reasonable to revert – at least as an *interim* measure - to a different route to strengthen the incentives of unprofitable local public buses, that is introducing a mechanism aimed at reducing the real value of subsidies over time: for short a *subsidy cap* (SC)⁶. Such a mechanism is indeed one of the provisions of the Italian 1997 reform, according to which public subsidies should not exceed 65% of operating costs and should decline over time in force of a cap explicitly aimed at increasing the *X*-efficiency of the industry. Despite the law, only few Italian local governments appear to have reverted to the SC. The same mechanism was introduced in Norway in a “menu” where also yardstick competition and competitive tendering were listed as alternatives to replace individual cost-plus negotiations. As documented by Dalen and Gómez-Lobo (2003) SC contracts rapidly outnumbered cost-plus contracts and yardstick competition contracts and were able to deliver a yearly percentage cost reduction greater than the one delivered by yardstick competition and cost plus contracts.

Performance based contracts advocated by Hensher and Houghton (2004) as an alternative to tendering in order to maximise some measure of the social surplus are more sophisticated than SC but also require well informed regulators and are difficult to implement. If the top ranking objective is subsidy savings, a SC contract may be regarded as a reasonable second best.

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⁶ The efficiency properties of a subsidy cap contract for local buses are examined in Boitani, Cambini (2004b).

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Franchising of Melbourne's rail services: assessment after six years*

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Abstract

This article reviews the recent experience of franchising metropolitan public transport services in Melbourne, Australia, to assess the extent to which the declared objectives of the franchising have been achieved. The failure of the initial franchise process is argued to be attributable, in significant part, to shortcomings in the Government's understanding of what was achievable from a public-private initiative of this nature, given the Melbourne context. Developments associated with the re-franchising process are summarised, the emphasis shifting towards a strong partnership relationship between purchaser and provider, with a more realistic risk allocation between the two.

Keywords: Competitive tendering; Franchising; public-private partnership.

Context

There have been significant changes in the delivery of many public transport services over the past two decades. From public monopolies functioning as both regulator and service provider, it is now increasingly common to see the service delivery role passed to the private sector. More recently, the public sector's role in system design has also come into question, with suggestions that that role too should pass to the private sector. This change process has been driven by expectations of lower costs to government, from more efficient service delivery by the private sector, and better service delivery outcomes, from a service provider more attuned to meeting customer needs.

Melbourne, a city of about 3.5 million people in the state of Victoria, is the only Australian city to have franchised both its passenger train and tram networks. The franchising occurred in August, 1999, as part of a much wider privatisation push by the

* This paper draws partly on earlier work by the current author (Stanley and Hensher 2004; Stanley, Betts and Lucas 2005). It has also benefited from the comments of an anonymous referee.

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Victorian (and other Australian Governments) at the time. In late 2002, just three years into the franchise period (of 12 years for tram services, 15 for train and 10 for country passenger services), the major franchisee failed. In 2004, the re-franchising of all metropolitan train and tram services was completed, confirming the failure of the initial franchising process.

This paper reviews Melbourne's experience with rail franchising and subsequent re-franchising, to assess what lessons might be learnt for the delivery of efficient and effective public transport services in a privatised operating environment. It begins with a review of some significant developments in public transport service provision in Melbourne prior to the initial franchising. The developments in that period were significant in terms of the subsequent franchising outcomes. Those outcomes are then discussed and reasons for the failure of the franchising process are suggested. This is followed by discussion of how some lessons from the initial franchising have informed the re-franchising process. The re-franchising demonstrates a major shift in approach: from a competitively tendered arm's length relationship to a partnership, founded on trust and mutual understanding, with the expectation that this change will deliver a more sustainable outcome and better goal achievement.

Corporatisation and the goals of franchising Melbourne's rail services

In the early 1990s, Melbourne undertook a major public transport reform program. This program involved the creation of a state-owned Public Transport Commission and the corporatisation, as five separate entities, of two metropolitan tram services, two metropolitan train services, and one regional train/bus service (the latter service is outside the scope of this paper).

In 1998, shortly prior to the move to franchising, the Victorian Auditor-General (1998) reported that these reforms had achieved substantial recurrent cost savings (about \$250 million annually), mainly through labour shedding. The Auditor General concluded that the transport reform program had produced a number of benefits: it had reduced the call of public transport on the Victorian taxpayer; improved service reliability, with the notable exception of the peak period reliability of the suburban train fleet, and its aged rolling stock; improved punctuality, but not to world class standards; reversed declining patronage trends; and, improved service availability. However, he also noted that (VAG 1998: 8):

After 6 years of cost-cutting and rationalisation of operations, there appears to be limited scope for further large savings to be achieved in an environment where a substantial proportion of existing rolling stock will need replacement over the next few years.

This warning was lost in the subsequent franchising process.

The Victorian State Government's primary motivation in franchising the five corporatised services was to further reduce the public transport call on the public purse. There were, however, five declared goals. These involved a balance between financial and service delivery outcomes (DOI 2004: 6):

1. to secure a progressive improvement in the quality of services available to public transport users in the State;
2. to secure a substantial and sustained increase in the number of passengers using the system;
3. to minimise long term costs of public transport to the taxpayer;
4. to transfer risk to the private sector; and,
5. to ensure achievement of the highest safety standards.

Based on the successful bids, the franchised operations were expected to produce a progressive improvement in service quality available to public transport users, with service delays reduced by about 40% over 10 years, a planned 11% increase in services over 10 years, \$1.5 billion investment by the private sector in new/upgraded rolling stock and \$0.8 billion invested to renew existing infrastructure, leading to a substantial and sustained total increase in public transport patronage of 71% over 15 years. At the same time, the highest safety standards would be achieved and maintained.

These outcomes were to be achieved at much reduced long term costs of public transport for the taxpayer, with cost savings of more than \$1.8 billion in real terms predicted over 15 years, or about \$160 million annually in constant prices and present value terms (DTF 2000: 143). Because the franchisees would assume revenue, operating and legal risk, except in limited circumstances, risk transfer to the private sector would be achieved.

The initial franchises

The National Express Group (NEX) won the franchise to provide one of the two metropolitan train services, one of the two metropolitan tram services and the regional passenger service. The franchises for the remaining metropolitan train service and remaining metropolitan tram service went to Connex and Metrolink Victoria Pty Ltd respectively, the latter operating as Yarra Trams.³

The franchises commenced late in 1999 but, within two years, franchisees had advised the government of financial difficulties. In early 2002, the state government committed an additional \$105 million to the franchisees. Part of the payment was described as “settling outstanding contractual disputes from the time of franchising,” but the full amount was widely interpreted in local media at the time as a bailout.

In late 2002, NEX ceased operations, a receiver was appointed, and interim operating arrangements were agreed with Connex and Yarra Trams. These interim arrangements subsequently led to re-franchising, with Connex to operate the entire train network and Yarra the entire tram network. The new agreements commenced in April 2004. In essence, the initial four metropolitan franchise agreements were replaced with two shorter five year management contracts with the remaining incumbents.

³ Connex was owned by the French firm Veolia Environnement; Metrolink was a joint venture between French Company Transdev and Transfield.

Financial outcome of the franchising/re-franchising

The primary motive for franchising was to reduce the call on the public purse from subsidisation of public transport services. Figure 1 shows projected payments to franchisees over the period to 2009. It shows aggregate fixed operating payments from government declining to zero by 2009 and franchisee remuneration increasingly depending on incentive payments, related to patronage increase (revenue gain) and operational performance, plus payments for capital programs (essentially reimbursements, though with the franchisee carrying cost risk).

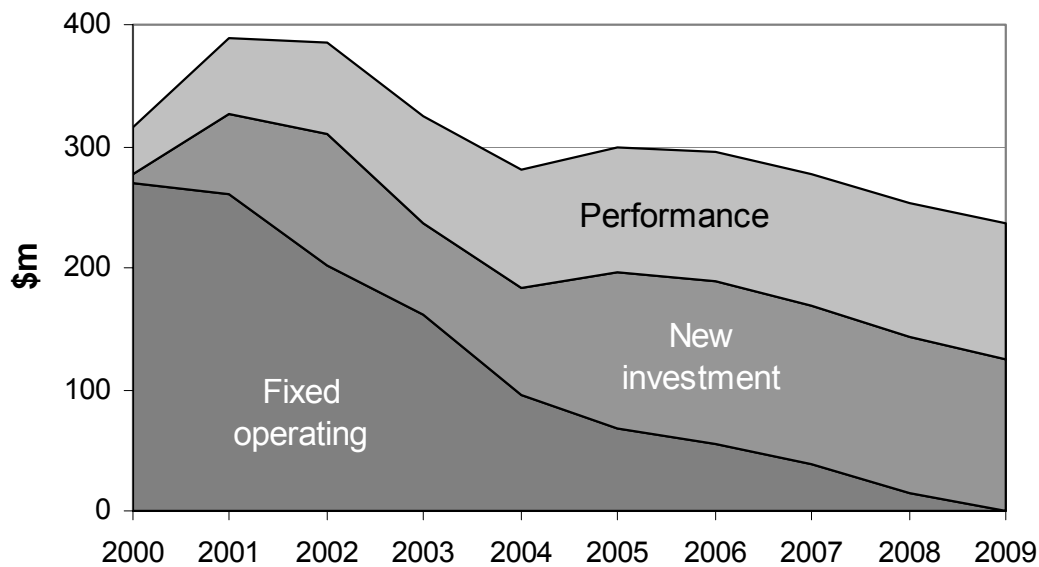


Figure 1: Expected Periodic Payments to Melbourne Public Transport Franchisees - 2000 to 2009 (1999 prices).

Source: DTF (2000).

At the time it announced the re-franchising, the State Government indicated an increased cost to Government of an expected \$200 million annually, compared to the franchise bids. Once allowance is made for inflation, the additional \$200 million compares reasonably closely with the \$160 million or so annual savings projected through the lives of the franchises.

In September, 2005, the Victorian Auditor General reviewed the re-franchising process (VAG, 2005). That review found that the cost of operating Melbourne's train and tram services has remained largely stable following franchising and re-franchising and is expected to stay at about the same levels, with the exception of the cost of new rolling stock. Payments to both franchisees increased by \$330 million in 2004-05, and were expected to stay at about this level above the initial franchise projections, most of this being needed to secure the franchisees' operations, with the government taking on additional risks. The initial estimate of a \$200 million annual shortfall thus appears to be low.

The Auditor General's report also points out that the franchise review and re-franchising team cost Victorian taxpayers some \$38 million (VAG 2005: 27), including both consultants and in-house staff. Earlier advice to government from the Franchise Review Task Force had estimated the costs of re-tendering or renegotiating at \$20 million. Had the re-franchising involved a new open tender round, it is reasonable to conclude that the incurred costs of \$38 million would have been higher still. Transaction costs were thus very significant sums in the re-franchising process.

The initial franchising process delivered financial savings in the three years to 2002, largely courtesy of the shareholders of the franchisees and, in the case of NEX, its creditors. However, the savings projected by the successful franchisees were unsustainable long term. Expectations have now been adjusted to more realistic levels. Most of the financial gains to be achieved from the reform of Melbourne's public transport system were delivered prior to franchising. The objective of reducing the call on the public purse from franchising has not been met and, in reality, was never likely to be met.

If the move to franchised services has not reduced the long term costs of public transport for the taxpayer, to what extent has it achieved the other declared goals of franchising? These goals were: a progressive improvement in the quality of services available to public transport users; a substantial and sustained increase in the number of passengers using the system; achievement of the highest safety standards; and, risk transfer to the private sector.

Improvement in quality of services

The Victorian Department of Infrastructure reports several service quality indicators that allow some conclusions on trends in service quality to be drawn (DOI, various issues). Figure 2 reports overall train and tram on-time running outcomes for the period before and after franchising, including both the initial and re-franchising period performance under the "franchise" data series.⁴ Not surprisingly, train on-time running performance exceeds that by tram, since Melbourne's extensive tram system primarily operates in mixed traffic flows, unlike the trains. The Figure suggests that train performance initially improved, as it had been doing pre-franchising, but that performance has deteriorated over the past two years.

Some key reasons for this deterioration in train on-time running in recent times are unrelated to the franchising/re-franchising process. The Victorian rail system has suffered from a lack of infrastructure investment for many years, with growing track congestion a consequence. In such circumstances, delays to one train can contribute to delays to others, particularly in the peak. Also, over the past year, Melbourne rail patronage has grown considerably, driven by high and rising fuel prices. This has increased train dwell times and had flow-on network delay consequences.

Figure 2 shows that tram on-time running performance has generally tended to decline, that decline being marked in the period after the NEX collapse but with a suggestion of some recent recovery. The remaining tram operator, Yarra Trams,

⁴ Based on averaging the outcomes for the two train and tram operators, when separate companies existed.

attributes much of deterioration to increasing levels of traffic congestion. For example, over the most recent five years, average tram operating speeds have declined by 8% (to 15.5 kph). The tram operator has agreed a major program with the State Government (called Think Tram), aimed at providing increased operating priority, to deal with the growing congestion problem. This program has a target of 25% improvement in average end-to-end journey time. The more recent improvements are likely to be due to better operating practices and the improved rolling stock.

On the available evidence, then, it seems that the franchised and re-franchised operations have not achieved much in terms of improving service punctuality but that some key reasons for these outcomes may be attributable to factors outside the control of franchisees. It can certainly be argued, however, that franchisees should have better understood these influences on the operating environment in which they were to be working and made more sanguine forecasts of what would be achieved under their system management. The same comment applies to those managing the initial franchising. These comments suggest a failure in the franchising process.

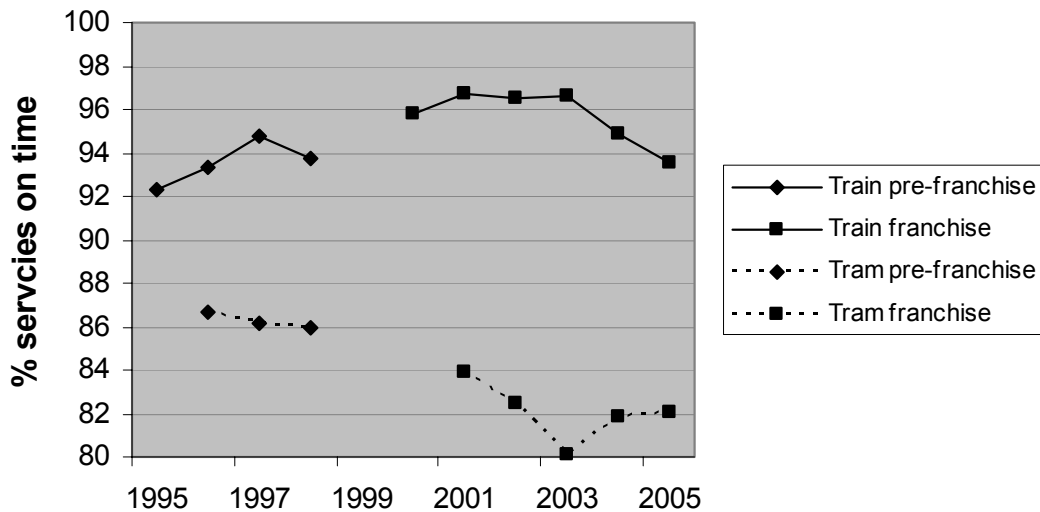


Figure 2: On-time Running Performance: Melbourne's Trains and Trams.
Source: Derived from DOI, various issues; 2005 data is to the September Quarter.

Figure 3 reports service cancellations on metropolitan train and tram services, as an indicator of reliability. The data suggest early improvement for train and then a substantial fall-off in performance, into the re-franchise period. Tram has shown a small deterioration.

The train result is most likely related to issues such as a shortage of drivers and deferred maintenance, suggesting that financially-pressured franchisees under-invested in training and maintenance as they struggled to survive. The position is compounded by the long lead times on driver recruitment and training, with a 78 week period being the norm in Victoria to achieve a fully trained driver. A future measure of the success of the re-franchise process will be how quickly service cancellations are reduced, as the train driver shortage is overcome.

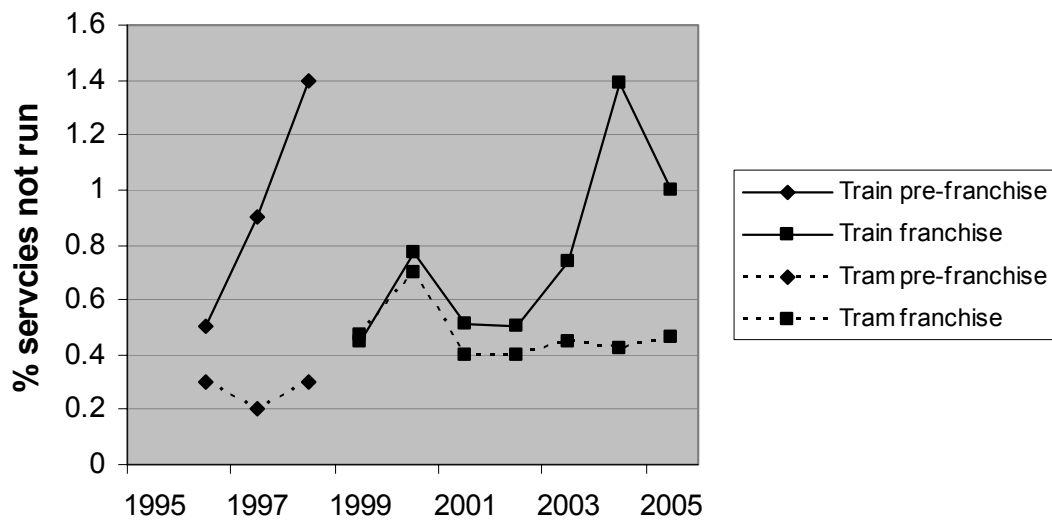


Figure 3: Service Cancellations: Melbourne's Trains and Trams.

Source: Derived from DOI, various issues; 2005 data is to the September Quarter.

Service quality improvements were expected from rolling stock upgrades and these, in turn, were expected to improve patronage. The upgrading of the tram fleet is probably the most visible outcome of the privatisation process. Upgrading the train fleet has been slower. Overall, the rolling stock upgrade program appears to have been delivered on-time and on-budget, with few operational performance problems. It is likely that the new vehicles would not have been introduced had it not been for the prospect of substantial cost savings from franchising.

A negative aspect of the rolling stock upgrade program was the decisions by the train and tram franchisees', respectively, to acquire their own types of rolling stock from their own preferred suppliers. For example, on the tram network Yarra Trams and NEX (M-Tram) purchased new low floor vehicles for their respective networks from separate suppliers. Floor heights were different, resulting in the creation of two sets of platform heights and limiting network integration under the re-franchised arrangements. This is an example of some of the problems that arose from the idea of comparator competition (two train and two tram operators competing by comparison), problems that led to re-franchising of whole train and tram networks, not separate parts of each.

Increased services were expected to involve increased operating kilometres. In the three years from 1999/2000 to 2002/03, State Budget papers reveal that total kilometres operated by trains and trams on the Melbourne metropolitan network increased by almost 5%. This rate of increase was lower than that achieved over the period immediately prior to franchising but was in line with the franchise expectation that services would increase by about 11% over 10 years. However, because of the importance of service frequency and coverage in generating patronage increases on Melbourne's public transport services, an 11% projected increase in service kilometres was never going to support patronage increases of the projected 71%, particularly given the high loading rates on many peak rail services.

Victorian public transport services have a long history of regular measurement and reporting of customer satisfaction. These surveys suggest that customer satisfaction has increased for tram but not for train (Fig. 4). Both tram operators achieved increased customer satisfaction levels during their initial franchises, most likely associated with

fleet upgrading. Tram customer satisfaction levels have stabilised more recently under the single franchise, at levels above those of the pre-franchise period. Customer satisfaction levels increased for both train operators for several years but have fallen noticeably over the past two years, as service cancellations have increased and on-time running has worsened.

Market research conducted for the franchisees suggests that dissatisfaction with the ticketing system (an issue on trams in particular) and concerns about perceived security around rail stations, both of which are beyond the scope of the franchise agreements, may partly explain why customer satisfaction levels have not increased to any extent. Franchisees report increased marketing efforts in an attempt to communicate improvements in these areas to their customers. Overall, however, there appears to be a hangover from the failed initial franchises that is still exerting an influence, especially in relation to train service quality and the problems flowing from driver shortages.

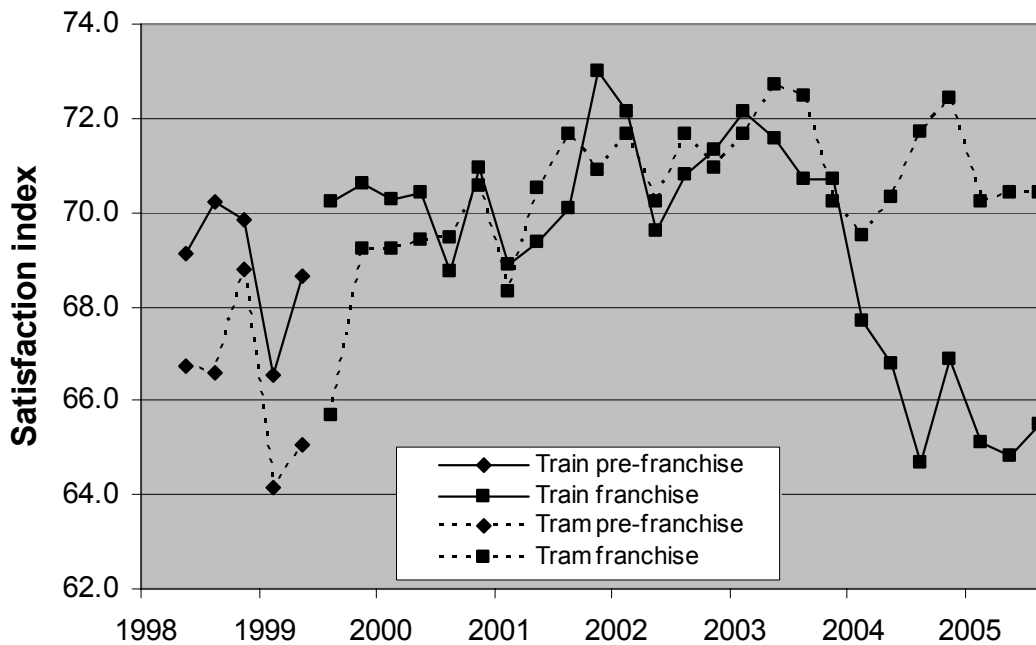


Figure 4: Customer Satisfaction with Melbourne's Trains and Trams.
Source: DOI, various issues; 2005 data is to the September Quarter.

Patronage

Solid patronage increases have been achieved. For example, total patronage increased by 5.3% over the two years to 2002/03, under the initial franchises. This was a good result, by comparison with the preceding period, but was still about one percentage point per annum less than was expected from the franchise bids. This shortfall in patronage was very significant in the financial problems of franchisees, because their revenue streams were closely linked to their patronage forecasts.

Over the six years to 2004/05, total train and tram patronage increased by 21.5%. This was faster than the rate of growth in metropolitan car use over the same period but was still below what the franchisees had forecast in their initial franchise bids. However, 2004/05 growth was in line with expectations under the re-franchising arrangements, which were more modest.

High oil prices in more recent times have helped to lift the rate of patronage increase, particularly on train. This has led to crush loading on some peak services, with adverse consequences for customer satisfaction. This outcome clearly reflects the dissonance in franchise bids between the forecast low increases in service kilometres and high increases in patronage levels. The capital equipment of the rail system, in particular, could not sustain large patronage increases with only very small increases in service kilometres, except if there was a very dramatic (and implausible) shift away from peak to off-peak and shoulder loadings.

Safety outcomes

Although safety improvements were an objective of the franchising process, no data is published to allow assessment of such factors. Some franchisees claim significant improvements but anecdotal evidence is mixed.

Risk transfer

The financial events of the past few years suggest that any risk transfer that was achieved from the initial franchising was temporary. Additional payments were made to franchisees, one franchisee failed financially and State payments have been increased to sustain services. The main beneficiaries seem to be the surviving train and tram operators, who are seeing their franchises expanded in spatial coverage, albeit with a shortened time span.

Some benefits from the initial franchising

While the Melbourne initial rail franchising process did not deliver against its major aims of cutting the cost of train and tram services to the public purse and shifting risk to the private sector, there were a number of benefits that deserve mention (apart from the short term cost savings, fleet upgrade, small increase in service kilometres and some improvements in service quality noted above).

The performance monitoring system established during the franchise process, and which has generated most of the performance indicators cited in this paper, is a useful advance in public accountability and provides good benchmarking information. The franchising process itself was complex but met high probity standards, as did the subsequent re-franchising process (VAG 2005). To the credit of the Victorian

Government, when financial failure was imminent, it was prepared to allow this to happen and deal with the politically tough issues this raised.⁵

Why did franchising fail to deliver?

In its review of the initial franchise process, the Department of Infrastructure concluded that there were four main reasons for the failure (DOI 2004: 9). These reasons were:

- unrealistic assumptions by the bidders in relation to patronage growth and cost reduction (by far the most significant influencing factor in DOI's view);
- flaws in, and disputes over, the contractual arrangements (e.g. over revenue sharing arrangements, where disputation was common and distracting, partly due to problems with the methodology used to distribute revenue between franchisees);
- poor performance of the ticketing system (which led to revenue loss); and,
- the introduction of the Commonwealth Government's Goods and Services Tax (which contributed to patronage and revenue loss for which the operators were not fully compensated).

DOI (2004: 9) comments that bidders were strongly influenced by buoyant growth rates in the UK public transport sector, that an intensely competitive bid process led to "bid fever" and that bidders failed to take account of the very different conditions in Victoria (compared to the UK).

These factors are obviously important but they do not appear to be a complete explanation. A seasoned transport planner looking at the bidders' projections prior to the franchise operation proceeding would almost certainly conclude that the anticipated gains and improvements simply did not add up. With the franchise operations being introduced following a period of significant cost-cutting, it was difficult to see that further major cost savings could be achieved. Also, the forecasts of patronage growth were inconsistent with the planned growth in service kilometres, suggesting a likely revenue shortfall, even allowing for operators being possibly able to make some inroads into the high level of fare evasion on the Melbourne system. In short, the bids were never going to be sustainable!

This raises several questions about both the franchisees and the overall franchising process. First, given that the franchisees were experienced international operators, the possibility of "winner's curse" (or bid fever) due to carelessness or ignorance seems difficult to accept in full. One possible suggestion is that the franchisees were simply buying market share, with a view to subsequent upwards contract price adjustments achieved by playing "capture the regulator", a game noted by other observers of franchising processes (see, for example, Alexanderson and Hulten (2003) who analysed

⁵ This situation was helped by the fact that the Government that was faced with dealing with the franchise failure was not the one in office when the initial franchising occurred. Interestingly, the failure does not seem to have increased the political probability of the decision to privatise service delivery being reversed.

competitive tenders in Swedish public transport). Arguably, it is easier for a government to increase payments to an existing financially troubled franchisee and continue services than it is to face the political odium of major service disruptions. The widespread perception of bailout payments in early 2002 gives some credence to this possibility. However, the more important questions should be directed at the franchising process and those conducting it, questions that were not addressed in the report of the DOI franchise review (DOI 2004) or in the recent Auditor General's review of the re-franchising process (VAG 2005).

Macario (2001) emphasises the importance of an integrated system-wide approach to policy, planning and service delivery in public transport. The long term franchising of any individual components of the system will have the greatest chance of achieving a government's intended outcomes from the franchising process if the policy (strategic) level and system-wide planning/development (tactical) levels are in place to bind government policy outcome goals with service delivery (at the operational level).

The Melbourne franchising process was undertaken without an integrated view of how the public transport system as a whole would develop. 10-15 year service delivery contracts will always struggle when there are no intact system-wide planning/delivery frameworks within which they are located. Arguably, the Victorian Government of the late 1990s lost sight of its public transport system, focusing instead on franchising separate services. Ironically, the language of the time sought to shift the emphasis in public transport operations from a "system" to a "service". This reflected a desire to change the culture in operations from a "supply side" driven public enterprise culture to a "demand side" driven private sector activity. However, it appears that the critical importance of the overall system, and how its parts work together, got lost in the process. Operators compounded this by working in their own "silos", with little attempt at presenting a system-front, possibly understandable in view of their financial difficulties.

The franchising process was run by a group located within State Treasury, firmly committed to competitive tendering but with significant gaps in understanding of what was feasible in terms of patronage/service quality/cost outcomes in the Melbourne setting. Some of those involved had experience of the British privatisation but the prior arrangements and operational circumstances in that setting were vastly different to Melbourne. Had those managing the initial franchising process understood influences like the state of rail infrastructure, the limited capacity that was available to accommodate rail patronage growth, the degree of rail track congestion and the pervasive influence of traffic congestion on tram operation, they would have been more likely to conclude that the initial bids that were accepted were not going to be sustainable.

Stanley and Hensher (2004: 49) conclude that:

The ideology of competitive tendering appeared to win out over the professional expertise required to assess what is feasible in terms of service delivery and service costs.

Lessons from the initial franchising failure

The Victorian franchising experience suggests that a competitive tendering process may encourage excessively optimistic forecasts of both revenues and costs, which are essentially undeliverable. The recent compelling evidence by Flyvbjerg et al (2003) that the large infrastructure projects in all sectors investigated (predominantly transportation) exhibited substantial cost overruns supports this proposition on the cost side.⁶ This is not necessarily an argument against competitive tendering per se but it is a warning against holding unrealistic outcome expectations from such a process and in favour of applying solid professional understanding of what might actually be possible when undertaking the bid evaluation processes.

Lessons from the initial experiment in franchising have had a significant impact on the re-franchising process and on more recent public transport system thinking in Melbourne. The State Government's reasons for re-franchising, rather than going to the market afresh, are explained as follows (DOI 2004, p. 16):

The alternative to re-tendering was to negotiate with the franchisees...Negotiations could achieve the Government's "one train, one tram" objective, retain existing system knowledge and experience, and maintain the stability of the public transport system...The challenge in renegotiating the franchise contracts with the existing franchisees was the need to demonstrate that any resulting deal constituted good value for money for the State.

The government was also concerned about a shortage of prospective bidders and recognised that the first round competitive tendering process had delivered a financially unsustainable result. Pragmatism was more important the second time round, but with careful attention to probity and ensuring value for money (e.g. through use of a public sector comparator assessment). The Auditor General's recent review of the re-franchising process was complimentary about that process and concluded that good value for money had been achieved (VAG 2005).

While the re-franchise contracts have essentially become management contracts (with incentives), the negotiation process that underpinned the contracts, together with the subsequent operational environment, have emphasised a partnership relationship, as distinct from the purely commercial relationship embodied in the initial franchise. Under the new arrangements, several elements reinforce a partnership focus:

- an agreed basis has been established for sharing of risks between government and the franchisees, in line with the principle that risk should be allocated to the party best able to manage it. This matter is discussed further below, because of its centrality to a sustainable partnership;
- revenues are being shared between service providers in fixed proportions, to encourage working together to grow system patronage and fare revenue;

⁶ Although the levels varied widely, the great majority of cost overruns were in the 10-40% band but some notable exceptions are well above this range, such as Boston's artery/tunnel project (196%), the Humber Bridge (UK) (175%), the Shinkansen Joetsu rail line (100%), the Channel tunnel (80%), the Paris-Auber-Nanterre rail line (60%) to name but a few examples.

- a new private company (Metlink) has been established, owned by the train and tram franchisees but with close contractual links with the State's Director of Public Transport and Board level involvement by the bus industry, to handle system-wide issues such as system marketing, revenue protection processes, complaint handling procedures (i.e. system-wide customer-oriented functions) and system advocacy⁷;
- there is provision for franchisees to contribute to development of long term strategic plans and major projects.

Risks are now allocated to the party thought likely to be best able to manage them. In Victoria's passenger rail franchises, the franchisee bears almost all cost risks, while the State carries responsibility for the long term development of the network. Revenue risk, however, is effectively shared through a mechanism which provides for the State to provide additional funding to the franchisee when revenue falls below certain defined thresholds. Similarly, insurance risks are shared: the franchisee self-insures up to a defined "deductible", whilst the State procures commercial insurance above the threshold level and pays the relevant premium.

Open-book accounting and benchmarking processes are being used to maintain transparency and accountability in moving from competitive tendering to a negotiated outcome with remaining operators. The process is also now being informed by stronger input from people well versed in public transport operations and economics, all providing confidence of a more sustainable outcome.

A clearly enunciated view of the tactical level remains missing but much needed groundwork has been done. The Strategic framework against which services and system development takes place is now set out in two State Government documents, a metropolitan development strategy and supporting transport plan.

Stanley, Betts and Lucas (2005) and (Duncan 2005) describe key elements of effective partnerships in public transport service planning and delivery. Key elements include common objectives tied to public policy purposes, shared governance arrangements (with emphasis on forging and managing a partnership relationship in the pre-contractual phase and sustaining it during the course of the contract), written agreements on governance and financing (including risk sharing), and mutual trust between the partners.

Factors likely to encourage trust include confidence in a partner's capacity to deliver, demonstrated good faith in making and keeping arrangements, agreed governance arrangements and accountability/transparency arrangements (Stanley, Betts and Lucas 2005: 11). The current Victorian arrangements are seeking to embody these dimensions. The accountability/transparency element, inter alia, serves the valuable purpose of protecting the community against any risk that a "trusting partnership" might degenerate into a "regulator captured by the provider" relationship.

In the case of Victoria's rail franchises, an atmosphere of mutual recrimination, following the near-collapse of the original franchise deals, has given way to one of genuine partnership. None of the parties wishes to revisit the turbulence of the past. Both the State and the private operators have taken "ownership" of the outcomes of re-franchising, having worked in partnership to forge the contracts and, through that process, gained a strong understanding of each other's aspirations and fears. While some service quality indicators cited earlier in the paper have not been moving in the

⁷ The current author is a director of Metlink.

right direction under the re-franchised operation, the partnership relationship has helped to facilitate an examination of the reasons behind the trends noted and a willingness to work through solutions, some of which have been noted above to be beyond the control of current franchisees (e.g. infrastructure condition).

The re-franchised arrangements operate under management contracts with incentives on revenue, operational performance and service quality. The length of contract (5 years with the possibility of a short extension) is probably too short to encourage operator initiative in some areas. Given the origins of re-franchising, however, the current short contract length is understandable. The re-franchisees have been, in effect, given a new opportunity to show their credentials. Longer contracts are likely to be on the agenda for the next round.

In Victoria, similar partnership-based principles are also beginning to emerge as the basis for new relationships between the State and the bus industry. Representatives of the bus industry have committed time and energy to important State-led initiatives, such as planning for the Commonwealth Games, for a new smartcard-based ticketing system and for improved passenger information services across Melbourne. In return the State has endeavoured to mould its own policy positions to accommodate those of the industry and has acknowledged the opportunity cost of the operators' time, through additional financial support, affirming a willingness to engage in a genuine partnering process.

Conclusion

The Melbourne process of rail franchising and re-franchising demonstrates a major shift in approach by the Victorian State Government, from a competitively tendered arm's length relationship (which failed to achieve its goals) to a partnership, founded on trust and mutual understanding, with the expectation that this change will deliver a more sustainable outcome and better goal achievement. It is still early days in the re-franchised arrangements. While some key service indicators are yet to turn around, it is acknowledged that this is substantially attributable to factors beyond the control of the re-franchisees. The possibility of a contract roll-over at the end of the current arrangements, rather than re-tendering, should be a strong incentive for franchisees to be co-operative and effective partners and to deliver on those matters that are under their control. The Victorian partnership approach is searching for a balance between the flexibility needed to respond to change and encourage innovation and the contractual obligation needed to assure delivery against goals. The outcome of this experiment in relationship-based contracting should add to understanding of what is possible in terms of purchaser-provider arrangements in public transport service provision.

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Competition in public transport in Great Britain

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Abstract

Britain offers a case in which much greater experience of competition in the public transport sector can be seen than in other European countries. Examples are drawn from this experience, showing that outcomes differ between the long-distance and local markets, price competition functioning much more effectively in the former. In many respects, the competitive bidding process may be seen as more important and extensive than direct ‘on the road’ inter-operator competition within the same mode over the same routes. Experiences from competitive tendering and franchising are reviewed. Contradictions between competition policy and wider transport policies remain to be resolved.

Keywords: Competition; Tendering; Franchising.

Introduction

The public transport system of Great Britain has experienced a greater degree of privatisation and deregulation than any other in Europe, commencing with the Transport Act of 1980, which deregulated the express coach market. Such competition has occurred both within modes (for example, between bus operators over the same route), and between modes (for example, between express coach and rail, and between public and private modes). The most obvious form of such competition from the passengers’ point of view is that where competing operators offer services over the same route, sometimes referred to as ‘on the road competition’, or ‘competition in the market’ in the road transport sector. However, the extent of this is not particularly great, and has tended to diminish. The other form, which has closer parallels with that found elsewhere in Europe, is that ‘for the market’ or ‘off road’ competition, in which a single operator is given a contract to run a service, but a competitive bidding process takes place. The principal example is the bus network in Greater London. Such bids are usually invited at the level of individual routes in the bus sector, but at the level of substantial networks in the rail franchising process.

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The main sequence of events

Until the late 1970s public transport in Britain was provided largely by publicly-owned operators, especially in terms of the scheduled service network. The national rail system was operated by British Rail (BR), a nationalised industry. Most urban bus services were provided by operators owned and controlled directly by their local authorities (the 'municipals'), with most rural and regional services provided by subsidiaries of state-owned holding companies - the National Bus Company (NBC) in England and Wales, and Scottish Bus Group (SBG) in Scotland. London Transport directly controlled and owned the underground (metro) system and bus services within Greater London.

In many respects the situation was similar to that found elsewhere in Europe at that time (and to some extent still today). There were, however, some differences: no significant use was made of sub-contracting services to private operators within a state-owned network (which was well-established in the regional bus networks of Belgium, for example). While most long-distance express coaches were run by NBC and SBG subsidiaries, and very few all-year-round services by smaller private companies, there was substantial competition between coach and rail on many routes, unlike the situation in most other European countries even today. Within the non-scheduled market (for example, contracts for transport of schoolchildren awarded by local authorities) strong competition has existed for many years, and small private operators played a major role.

During the 1970s increased levels of financial support were paid to public transport operators to ensure continuation of services in low-density areas, to fund capital spending, and in some urban areas to finance substantially lower levels of fares and higher levels of service than would be justified commercially (notably the South Yorkshire conurbation). Concessionary fares (i.e. fares specified for certain categories of person at a level lower than operators would charge commercially, in some cases permitting free off-peak travel) had become important, especially for pensioners. However, there were concerns that large sums were being paid to incumbent operators with little influence over their operating efficiency. Innovations in types of service were also limited. A shift to a deregulated and privatised market was therefore seen by some as a means of offsetting these dangers.

Coach and Bus Deregulation

Following the election of a Conservative party government in 1979 a marked shift in policy took place. The Transport Act 1980 deregulated the express coach and tourist sector, removing the need for route licences or authorisation of fares to be charged. However little privatisation initially took place in the public transport services as such: for example, the dominant express coach operator, National Express, was not privatised until 1988 – the early 1980s period of intensive competition between it and British Rail was thus a case of competition between operators both still within the public sector.

Control of London Transport was transferred in 1984 from the then Greater London Council to a state-appointed board. While bus services were not deregulated, a policy of private sector tendering for all services was introduced.

A more radical change emerged through the Transport Act 1985, which deregulated local bus services (other than in London and Northern Ireland), removing both fares and

service controls. Network-wide financial support was removed, although operators were compensated on more consistent basis than before for revenue loss due to concessionary fares. It was accepted that not all services would be operated commercially, even if sharp reductions in costs occurred, and a system of competitive tendering was introduced for those services (for example, in low-density rural areas). Privatisation of NBC companies took place in the period 1985-1988, followed by that of the SBG subsidiaries. The process was more gradual in the 'municipal' sector, and about fifteen such operators remain today.

Rail privatisation

The Railways Act 1993 introduced a complex system of privatisation for the national rail network. The infrastructure was placed under a separate company, Railtrack plc (succeeded from 2002 by Network Rail, a semi-public organisation). Freight operations were sold directly to private sector businesses, together with the passenger rolling stock under rolling stock leasing companies (ROSCOs). The passenger rail services were placed under twenty-five area franchises, for which private sector operators were invited to make bids. While some of the changes (notably separation of infrastructure and operations) could be seen as requirements imposed by EU policy, Britain went much further than any other European country in placing both under private sector ownership. As mentioned above, a distinction should be made between privatisation and deregulation – in the rail case, it could be argued that *greater* regulation was introduced at the time of privatisation - for example, in control of some fare categories, and detailed specification of service levels for passenger operators - than had been the case previously, under BR control. Apart from some services in the Passenger Transport Executive areas (major cities outside London), revenue risk in rail franchising is taken by the franchise operator

Change since 1997

The election of the 'New Labour' government under Mr Blair in 1997 did not see a significant reversal of these policies. Privatised companies have not been returned to public ownership and some further small-scale privatisation has taken place in the municipal bus sector. A greater emphasis has been placed on integration of services, but a striking conflict is found between this aim and the stringent competition policy applied in the economy as a whole, which has yet to be satisfactorily resolved.

Under the Transport Act 2000 rail franchising was transferred to the Strategic Rail Authority (SRA), and powers were introduced to permit 'Quality Contracts' (QCs) and statutory 'Quality Partnerships' (SQPs) to be set up, under which some elements of re-regulation of bus services would be reintroduced. QCs enable arrangements similar to those in London to be established in other parts of Britain, while SQPs would enable formal quality partnerships to be set up between bus operators and local authorities. So far, no QCs have been set up although considerable interest has been expressed in their potential by the Passenger Transport Executives. Only one SQP has been set up, in Scotland, but informal quality partnerships play a useful role in many areas. The SRA has itself been abolished under subsequent legislation, and franchising is now handled

directly by the Department for Transport (DfT). Changes under the 2000 Act have in practice had relatively little effect, representing a change of emphasis rather than substance to changes introduced in the previous two decades.

A policy of greater significance enacted by the New Labour government has been that of devolving powers to elected bodies in certain regions of Britain – the Scottish Parliament, the Welsh Assembly and the Greater London Assembly. The directly-elected Mayor of Greater London also has extensive transport powers. In London, a much higher level of financial support for public transport has been introduced, enabling lower real fares and higher service levels to be offered to users, and the congestion charge introduced in 2003 has also assisted public transport. However, the principle of competitive contracting of bus services to private operators has been retained.

Urban Railways

The London Underground system remains under public ownership, but subsequently under Labour a ‘Public Private Partnership’ (PPP) was introduced in 2003, under which thirty-year contracts have been made with two private consortia for maintenance and renewal of infrastructure and rolling stock, while direct operations remain under public control – in effect, the opposite of the policy adopted in Stockholm for the metro (the ‘Tunnelbana’) in which competitive franchising has been introduced for service operations, but the infrastructure remains under public ownership and control (White and Ball 2003). Some small urban rail networks in Tyne & Wear and Glasgow remain wholly under public sector control. New light rail systems have been introduced in several cities, all operated by private sector companies, with various arrangements for funding (most ultimately from the public sector) and duration of franchises. The latter may conflict with current European Commission proposals, notably the Croydon Tramlink in London, which has a franchise running to 99 years

The long-distance market

The role of competition in the long-distance market differs radically from that in the local market, generally with more scope for commercially-viable operation. Most of the express coach, and domestic air, networks are operated commercially with little need for public tendering or franchising except in some very low density areas. Inter-modal competition is a striking feature, with rail, air, and coach serving the major trunk routes, while rail and coach compete for many lower-density flows. In addition to this, price competition appears to function much more effectively than in the intra-urban and local markets, associated with a high short-run price elasticity (in the order of -1.0) and a greater tendency by users to pre-plan their journeys.

A partial exception can be seen in the case of long-distance rail services. Under the BR structure, the inter-city sector was marginally profitable, on the basis of costing system then used (even though it was allocated the great majority of infrastructure costs on those routes it shared with regional and freight traffic, on the ‘prime user’ principle). However, the separation of infrastructure and rolling stock provision under the

framework of rail privatisation (see above) resulted in greatly increased costs, as result of which the five principal long-distance franchises all required financial support from the state at their inception in 1996/97. An exception to this was the 'Gatwick Express' service between central London and Gatwick Airport (which had been part of the 'Inter City' sector under BR ownership, but is now classified with London & South East regional franchise operators), which operated commercially from the outset, and has paid a premium back to the state (Strategic Rail Authority 2002).

Express coach deregulation

The outcome of express coach deregulation in the early 1980s illustrates the rapid change that can occur in the long-distance market, especially in price levels. The main incumbent operator, National Express (NE, a subsidiary of NBC) faced competition from many smaller operators entering the market from October 1980. However, it in turn was able to make immediate changes in services and fare levels as a result of deregulation, both in response to newcomers in the coach sector, and the railways.

In contrast, the experience of smaller operator entering the coach market was very mixed. Many of their new services did not survive beyond a 2-3 period year after deregulation in 1980. While offering low operating costs, and in some cases innovations in service quality, they faced difficulty in advertising their product. At that time, much coach travel was sold through traditional travel agents, and many new operators did not establish such sales outlets from the start of operations. In some cases, a period of loss-making operation might be necessary in order to build up demand. Even when NE increased its fares substantially in the late 1980s, resulting in a substantial loss of traffic broadly consistent with the -1.0 elasticity mentioned above, very little new independent competition emerged. Subsequent real fares reductions by NE stimulated a recovery in its total passenger volume (White 1999).

While almost all coach services are operated commercially, this sector nonetheless offers an interesting example of competitive tendering within the private sector. National Express (in England and Wales) and the similar Scottish Citylink network are largely operated by vehicles and drivers contracted in from other operators, while offering to the public common brand name, through ticketing and an integrated network. Contracting operators include regional subsidiaries of major bus groups such as Stagecoach, but also smaller independent firms. Hence, advantages may be obtained through use of locally-based operators, and competitive bidding to control cost levels and stimulate service quality. Revenue risk is taken by the network operator, but contractors are appraised on service quality provided as well as costs. Conversely, in the local bus market very little of this type of operation is found, contracting occurring at the initiative of public sector bodies where commercially-viable services are not registered by bus operators.

Rail privatisation in the long-distance market

At privatisation, the five major service groups in this sector were franchised separately, becoming known by the names of the successful bidders as Great North Eastern (GNER), Midland Main Line (MML), Virgin West Coast, Virgin Cross Country

and First Great Western (FGW). Aggregate ridership and financial data for this group is broadly comparable in definition with that for the intercity sector under BR (apart from Gatwick Express as mentioned above). In addition, some other regional franchised train operating companies offer long-distance services (for example, Scotrail between major Scottish cities). Direct competition between the five major long-distance franchises is very limited, although in some cases regional franchises offer competition from parallel routes, notably Chiltern Railways between London and Birmingham with Virgin West Coast.

All franchises were awarded as a result of a competitive bidding process, primarily geared to offering year-on-year reductions vis a vis the level of financial support offered to the corresponding businesses at the time of privatisation. All five long-distance franchises required net financial support from the state when they began (although the intercity sector had earlier been profitable) as a result of much higher access charges (paid to Railtrack) and rolling stock leasing charges than the equivalent costs within the integrated BR structure. However, benefiting from substantial ridership and revenue growth, GNER and MML were paying a surplus ('premium') back to the state by 2001-02. FGW also greatly reduced the net support required (Strategic Rail Authority 2002). All three businesses have been profitable to their owners, after allowing for the net effects of franchise payments and premia. By and large existing infrastructure and rolling stock has been used, with some additional high-speed trains delivered to MML and FGW, and minor infrastructure improvements. New franchises recently awarded to GNER and FGW involve substantial and premia being paid over the next ten years, clearly assuming large revenue growth, especially in the former.

A much more mixed pattern has been found in respect of the two Virgin companies, whose bidding strategy was based on assumptions of very large ridership and revenue growth. These in turn depended on successful implementation of major changes in infrastructure and rolling stock to permit much more frequent and faster high speed services. Especially in the case of Virgin West Coast, this process was much slower than expected, resulting in severe shortfalls in ridership and net revenue vis a vis forecast. In 2002 both franchises were re-negotiated with the SRA, with a fixed profit margin for the operator (Transit 2006a, 2006b).

Table 1 shows trends in total rail use for the long-distance services and other sectors. Note that growth in the long-distance sector has been lower than in others, especially in terms of passenger-km, in part due to strong domestic airline competition. However, the higher proportion of costs already covered at the time of privatisation enabled the revenue growth to be sufficient to bring some of them into profitability during this period.

In aggregate, ridership on the five main long-distance franchises grew strongly between 1997 and 2000, but was then seriously affected by the consequences of a major accident at Hatfield (on the GNER route about 30 km north of London). This was caused by a failure to maintain track adequately, and resulted in an emergency programme of track renewal over much of the network, which severely disrupted long-distance services. Growth subsequently resumed. Total passenger-km on the five franchises rose from 10,100m in 1994/95 to 13,400m in 2004/05 (by 33%). Journeys rose somewhat more, from 54m to 84m (i.e. by 55%), indicating a reduction in average journey length from about 187 to 160 km, probably associated with a shift for longer journeys to air. Further comment on the franchise process as such is made later in this paper.

Table 1: Trends in Rail Ridership in Britain 1994-95 to 2004-05.

Year	Sector		All operators	
	Long-distance			
	Passenger trips (m)	Passenger kilometres ('000 m)	Passenger trips (m)	Passenger kilometres ('000m)
1994-95	54	10.1	735	28.7
1999-2000	72	13.2	931	38.5
2004-2005	84	13.4	1088	42.4
% change				
94/95 – 04/05	+55%	+33%	+48%	+47%

Source : SRA National Trends 2004-04, Tables 1.1b and 1.2b

'Open access' rail competition

There is also an element of direct competition permitted within the privatised rail sector, through the possibility of 'open access' operators gaining new services. These are train operating companies introducing new services, as distinct from franchises based on existing areas of operations, with which they tend to compete. The principal example to date is Hull Trains (now a subsidiary of First Group), which introduced a through service between Hull and London via the East Coast Main Line (ECML) in 2000 (Perren 2006). It serves a large regional city otherwise offered only a very limited through frequency by GNER, or reliant on connecting services. It has become successfully established, enhancing its original frequency and buying new 200 kph trains. A further open access operator hoping to start service shortly is Grand Central, offering services from Sunderland in North East England, also using the ECML.

However, a major problem arises in the use of track capacity when such operations are introduced. The ECML south of Doncaster (junction for Hull) has limited track capacity, used mainly by GNER. Additional operators limit the number of train paths available for GNER to expand services, or for freight operations. The issue of track cost allocation also arises – franchises bear the existing track costs for routes they serve, while open access operators pay a much smaller variable charge (in effect, a lower average charge per train-km than the franchised operator). This raises questions of 'fair' competition – in contrast to Germany, for example, there is no generally-published tariff of track access charges in Britain. Additional trains on a congested route also impose an 'opportunity cost' by displacing other trains, as well as direct costs in terms of track maintenance, etc. (Nash et al 2004).

A particular issue in the EMCL case is that GNER has recently won a new franchise for a ten-year period, based on assumptions of strong revenue and volume growth, linked with additional trains between London and Leeds which will use the London - Doncaster section. It is uncertain whether capacity will exist for these, given a decision by the Office of Rail Regulation to propose permitting operations by Grand Central. A conflict clearly exists in that Network Rail has disputed whether sufficient capacity exists on ECML for operations additional to those already planned by GNER, and GNER's own franchise bid was accepted by the government on a basis on additional

Leeds services being feasible over the infrastructure available. Different public agencies appear to be acting inconsistently in this respect.

Competition in the local transport market

The local transport market is taken here as that within urban areas, and from surrounding regions into urban centres. It contrasts with the longer-distance, or interurban, market in several respects. Within public transport modes in particular, relatively inelastic journey purposes (such as work, and education, etc.) tend to dominate, resulting in low overall short-run price elasticity of around -0.4 (Balcombe et al 2004). Hence, unless there is very much higher price cross-elasticity between operators, overall real fare reductions are unlikely to sustain aggregate revenue levels. While demand certainly responds to lower real price levels, this may require substantial increases in public expenditure to provide the necessary financial support, as can be seen in London since 1999.

In contrast to long-distance journeys, there is much less tendency by the user to plan ahead, although some journeys may display habitual patterns (such as the timing of the home to work trip). Given the high frequencies offered on many urban services, the rational user will arrive at stops or stations independently of the scheduled timetable, since the 'search time' taken to compare timetables or other information may be high relative to waiting time thereby saved. Where bus services run around 5 times per hour or more, this appears to be the general pattern (White, Turner and Mbara 1992). Taking a typical revenue per trip of 80 pence (an average allowing for child and off-bus tickets) a 25% reduction would bring the average revenue down to 60p, i.e. by 20 pence. Although bus users have low values of time, there is strong evidence that a greater weighting is attached to walk and wait time. For example, given an in-vehicle value of time of £3 per hour (approx Euros 4.50) and a walk/wait time weighting of 1.7 (Balcombe et al 2004, tables 7.1 and 7.14), wait time would be valued at about £5 per hour (Euros 7.50), or about 8 pence per minute. Hence, it would be only worthwhile for a user to wait an additional 3 minutes to catch the lower-fare bus.

A parallel may be drawn in this respect with taxi services, in which price competition for services hailed on street or at ranks appears to be similarly limited by the search time offsetting price benefits.

There are severe practical limits to the complexity of pricing policy, especially where fare collection on the vehicles results in high boarding times, thus affecting service speed. In many respects simplified fare structures may stimulate higher ridership by improving convenience to the user, although scope certainly exists for peak/off-peak differential pricing to spread demand, and for price discrimination by user group (such as lower fares for those aged 16-19).

Local bus deregulation in Britain

The Transport Act of 1985 introduced a system of 'deregulation' from October 1986, except in Northern Ireland and Greater London. Instead of the incumbent operator receiving direct financial support from local authorities, operators were encouraged to register services as 'commercial', i.e. at a fare level set by the operator itself, all costs

would be covered, without the need for specific financial support. It should be stressed that where compensation is paid in respect of revenue foregone due to concessionary fares, this is regarded (quite reasonably) as commercial income by the operator, rather than a 'subsidy'. Also, in the British case, bus operators pay a low net rate of fuel duty (20% of that applied to other road transport), which effectively reduces total costs by around 10%.

In addition to removing any control of fares for 'commercial' services, the Act also introduced a simple registration procedure (at the time, requiring 42 days' notice) whereby an operator registers the intended route and timetable, without other operators being able to raise objections. Hence, competition was permitted in that more than one operator could register a service over the same route, and by the ability of operators to specify their own fares.

It was accepted that not all services could be operated commercially. Where a local authority wishes to see services offered that are not registered commercially, it is free to specify the service required. Where only a small expenditure is involved, *de minimis* rules apply, i.e. a contract can be negotiated without the need for competitive tendering (this might cover, for example, diversion of a rural service via a village off the main route). However, in the early years of deregulation in particular, this was a very low figure, and the greater majority of tendered services are the subject of a competitive bidding process, typically generating around three bids per contract (ATCO 2005). There is no compulsion on local authorities to provide a level of service additional to those run commercially, except for the obligation to provide free travel between home and school for children living above certain distances (3 miles, or 4.8 km, in the case of those aged 8 upward).

In practice, many rural services are secured through a competitive tendering process (in some cases combining the school journeys with other services in a single contract). The tendering process also applied to some urban services, notably at times of low demand (evening and Sundays). Hence, the same route may be operated commercially for part of the week, but as a tendered service (and not necessarily by the same operator) at other times.

Overall, about 84% of registered local bus vehicle-km outside London were operated commercially, the remaining 16% as contracted services. This proportion remained stable for about fifteen years, although it has now risen to about 22% as a result of additional rural services being introduced and 'deregistrations' of commercial services no longer considered viable by their operators. Table 2 indicates trends.

Table 2: Trends in commercial and contracted bus kilometres, Great Britain outside London

<i>Year</i>	<i>Bus-kilometres</i>		<i>Percentage of total</i>	
	Commercial	Contracted	Commercial	Contracted
	(m)			
1990-91	1803	340	84.1	15.9
1994-95	1937	357	84.4	15.6
1999-2000	1934	373	83.8	16.2
2004-05	1689	456	78.3	21.7

Source: Derived from Transport Statistics Bulletin SB(05)31 'Public Transport Statistics Bulletin GB: 2005 Edition' Department for Transport, London, September 2006, Annex A, table 3.

While the extent of direct 'on the road' competition between bus operators is limited, and absent in most areas, it can be argued that the threat of competition, and the stimulus to register services as 'commercial' certainly helped to stimulate a radical reduction in operating costs, which fell by over 40% in real terms per bus-kilometre by the late 1990s (an average for the whole network, both commercial and tendered), although rising since then (White 2005).

The London case

As mentioned above, London is an exception in that bus operations were not 'deregulated' under the 1985 Act, but a system of competitive contracting for services was introduced from about the same time. Initially, most bus operations remained under public ownership, but subsequently the bus companies owned by London Transport were privatised in the early 1990s, competing with each other and with newcomers for service contracts. The process of extending competitive contracting over the whole network was relatively slow, in contrast to the abrupt changes introduced outside London in October 1986. However, almost all services now operate on this basis. The only public sector operation remaining is a small company owned directly by Transport for London, 'East Thames Buses', which can bid competitively with the private sector operators and also serves as operator of last resort where private sector operators are unwilling to bid, or failed operators have to be replaced at short notice.

Unlike the deregulated areas, there is no separation of 'commercial' and 'tendered' services, the whole service on each route being the subject of a single contract. Fares policy is determined for the network as a whole, enabling a very high proportion of off-bus ticketing, notably through the use of the 'Oyster' smartcard with stored value capacity. Very comprehensive passenger information on services is provided by TfL.

The London system can thus be seen as having parallels with National Express in offering a single integrated network to the user, while enabling a system of competitive bidding to control costs and raise service quality. In the early years, the over-riding objective was to minimise costs, but more recently a greater emphasis has been placed on improved service quality (especially reliability) through the use of 'Quality Incentive Contracts' (QICs). A recent review by a scrutiny committee of the London Assembly has endorsed this approach (London Assembly 2006). About three bids for each contract are now attracted on average, but in some cases competition has been more limited.

A limitation on the degree of competition in London has resulted from the sale of existing operating depots with incumbent companies when the London Buses subsidiary companies were privatised. Given high property values and difficulties in obtaining planning consent, it may be difficult for newcomers to set up new operating centres on a substantial scale. In some cases, existing coach operators with operating bases in London were well-placed to expand into bus operations (such as Armchair in West London). In some cases, TfL has retained ownership of depots, which has assisted incoming operators in setting up operations.

Rail franchising in regional and London and South East region services

The rail franchising process described above in respect of long-distance operators applied in similar form to services in the London & South East region, and in other regions. The former comprise franchises based on segments of the radial commuter network into London which also operate local services in their areas (such as South West Trains, covering routes from the regions south west of London into Waterloo terminal), together with one cross-London route, Thameslink, recently incorporated into the 'First Capital Connect' franchise. The latter comprises networks of services in regions outside London, generally serving much lower-density markets even when operations in major cities outside London are included (such as Central Trains, covering the West Midlands conurbation and a very large rural region in central England).

The first round of franchises let in 1996/97 was generally based on accepting the bids involving the lowest network costs to the government, either in terms of reducing subsidy payments, and/or ability to provide premia. Within the London & South East region, this approach was generally successful, since services already covered a high proportion of costs and substantial ridership growth (associated with increased employment and economic activity in London, as well as initiatives by operators) provided similar growth in real revenue. Some franchises were able to move into paying premia back to the state : Thameslink, and First Great Eastern (SRA 2002). Only in one case, Connex South East, did substantial financial problems develop, resulting in services reverting to a state-owned operation until being refranchised in 2006 to a new private sector operator.

Conversely, the regional franchises outside London and the trunk routes ran into substantial difficulties, and eventually all had to be rescued by the state within the first franchise period as a result of optimistic bids. While substantial revenue growth did occur, the lower proportion of total costs covered by fares revenue meant that only modest reductions in subsidy payments were possible. For example, in the case of a London & South East franchise covering 80% of costs from passenger revenue in its first year, revenue growth of 25% would enable it to cover all costs. A regional franchise covering only 30% of its total costs in the first year would only cover 37.5% of its total costs given corresponding revenue growth, and would thus remain highly dependent on subsidy. While some cost reductions were possible in franchised operations, these were far less dramatic than in the case of bus operations, given that the great majority of costs were incurred through access payment to Railtrack, and rolling stock leasing, and most changes in financial performance have come about through revenue growth.

Under the second round of franchising, the boundaries of some franchise areas have been changed, mainly to enable greater operational integration. For example, three operators serving the East Anglia region were merged into a single franchise, now operated by the 'one' company. The generally strong financial performance of the long-distance and London & South East operators, especially given further projected revenue growth in these sectors, has highlighted the poor financial performance of the regional franchises. They now represent the majority of all state financial support to franchised operators, but only small share total of passenger-km on rail.

Some observations on tendering, franchising and competition policy

In many respects, there is more competition within the public transport industry in Britain for the right to operate services than ‘on the road’ (or rail) between operators. This applies to almost all bus services in London, the franchising process for national rail services and most of the 22% of bus-kilometres in deregulated areas run on contract to local authorities (plus the very large school contract market).

Under such conditions, it may also be easier to displace an operator whose performance has proved unsatisfactory through termination of contract and seeking an alternative provider, than may be the case in deregulated markets where one operator is clearly dominant in an area but is providing a poor service. While in theory other operators could then enter the market, in practice doing so on substantial scale may be difficult.

In bidding for a contract (generally applicable to individual routes) or a franchise (generally applicable to entire rail networks) a prospective operator needs to make a realistic estimate of costs. This would include allowance for possible operating efficiency gains, and likely input costs levels (for example, in labour costs), although in some cases elements are indexed in contract agreements, such as fuel (ATCO 2005). Where only the ‘cost risk’ is being taken, and revenue is treated separately, then the contract is generally referred to as a ‘gross cost’ contract, i.e. the operator is paid the total operating costs for a specified service, while revenue (if applicable) is received by the contracting authority. A long-established example is contracting for school bus services, on which passengers are carried free of charge and hence no direct revenue is received. This may also be applicable to many other forms of competitive contracting, such as road maintenance or refuse disposal.

In such cases the operator clearly needs to make a sensible estimate of the costs involved. Where too low an estimate enables a contract to be obtained, yet costs cannot be covered from the anticipated payments, the “winner’s curse” may be said to exist, in which the successful bidder ultimately may have to withdraw from provision of the service, even where contractual penalties are incurred as result.

In many cases, the bidding process also involves the ‘revenue risk’ being taken by the bidder, i.e. a ‘net cost’ bid is made for the sum required to make up the difference between costs and revenues. In theory, this incentivises the operator to maximise revenue once a contract has been awarded (for example, through greater attention to service quality and marketing), since the revenue gain is received directly. However, imposition of greater risk may accentuate the “winner’s curse” effect where over-optimism has occurred in both cost and revenue calculations – regional rail franchises are one example, and the decision by National Express to pull out of a franchise for part of the tramway network in Melbourne is another (see Stanley, 2006). In some cases, an authority seeking to secure bids may obtain better value for money by using gross cost rather than net cost methods, since the former imposes less risk on operators and hence smaller firms (often with lower operating costs) may be more inclined to bid (White and Tough 1995).

In the case of rail franchising, bidding has generally been on a ‘net cost’ basis, i.e. revenue risk is borne by the operator, except for some urban rail franchises in the first round after privatisation. However, this is in the context of a growing market, and the ability to spread revenue risk over a substantial network rather than a single route, which may be the case with bus service contracts.

A further issue arising in the British case has been the role of competition policy. The Transport Act of 1985 removed previous exemptions from competition policy as it then existed. Subsequent further Acts have greatly strengthened the powers of bodies involved in the implementation and enforcement of this policy, notably the Office of Fair Trading (OFT) and the Competition Commission. Collusive behaviour (such as price-fixing or market sharing) is deterred by strong penalties. Which arguments may exist for such policies in the economy as a whole to stimulate competition and hence efficiency, it is debatable whether their strict application to the public passenger transport sector is necessarily appropriate, given the limited scale of 'on the road' competition in practice. Many critics have pointed out the contradiction between the strict enforcement of competition policy in Britain with transport policies per se, notably those directed to greater co-ordination and of integration of services. Some changes have been introduced, notably the 'Block Exemption' of the OFT for certain types of ticketing, which enables operators to offer interavailable return tickets and travelcards, but it remains difficult for operators to co-ordinate services over common sections of route.

A particularly curious feature of the implementation of competition policy has been its application to cases of rail franchising after franchises have been allocated, as noted by Finney (2006). For example, in the case of recent franchise awards to National Express for services throughout East Anglia, and to First for services in Scotland, subsequent investigations were mounted by competition authorities into the implications for competition within the areas concerned (for example, in respect of National Express Group controlling both rail and express coach services in the same region, and First running many bus services as well as the rail network in Scotland). At the very least, it would seem appropriate for such enquiries to be conducted in advance of, or in parallel with, the process of franchise allocation.

Conclusions

Britain offers a case in which much greater experience of competition in the public transport sector can be seen than in other European countries. This applies in different ways in the long-distance and local markets, price competition functioning much more effectively in the former. In many respects, the competitive bidding process may be seen as more important and extensive than direct inter-operator competition within the same mode over the same routes. The degree of risk taken by bidders may be important in determining the number of bids received, and the ability to operate for the whole duration of a contract. Contradictions between competition policy and wider transport policies remain to be resolved.

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