

Deregulation, Franchising, Outsourcing and Corporatisation in Local Public Transport

International Experience

10

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Abstract

This paper explores the experience of developed countries that have introduced greater private sector involvement to traditionally government owned and run urban public transport industries. Such reforms have generally been driven by a desire to reduce taxpayer costs and to improve services for travellers. Reform options of full open competition, alternative tendering models and negotiated performance based contracting are considered. Just as the possible models for reform are diverse, so too have been the outcomes from reforms across different contexts. Case studies from bus reforms in the UK and rail and tram reforms in Melbourne, Australia provide several lessons for other jurisdictions considering reforms in urban public transport. In particular, the evidence suggests that cost savings and service improvements are achievable through corporatisation of public agencies and the introduction of service tendering, though savings tend to be once-off and are subject to excessive optimism. Caution is also urged in the introduction of open competition in markets that are not commercially viable. Performance based contracts that involve arm's length cooperation between the government and operator, when combined with the threat of competition, can achieve a good balance between the desire for quality and network flexibility from government with the commercial imperatives of the operator.

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Introduction

The onset of what is now commonly referred to as the Global Financial Crisis has acted to generate much interest in refocusing the public transport industry around ‘market oriented’ reforms which seek to improve the financial and productive efficiency of the industry. Public transport in western economies generally follows a regulatory model of public ownership and control. However financial pressures and a desire for improved market performance have acted to renew interest in alternative ownership models.

The exploration of alternative regulatory models for public transport is not new. Indeed it is reasonably common for issues of public and private ownership to be re-examined whenever difficult economic conditions prevail. Hence there is much previous research on the performance of regulatory models in public transport. However a major problem in exploring these issues is the lack of objective evidence on performance and the preponderance of ‘ideologically’ inspired views with little objective assessment of evidence. It is common for example for socialist based ideologies of the left to believe strongly in public control while right wing based ideologies promote the virtues of the ‘laissez-faire’ and private ownership. Unfortunately it is difficult to separate fact from ideology when the performance of alternative regulatory models is being assessed.

This paper provides an overview of evidence on the performance of alternative regulatory models for reforming conventional urban public transit systems which have traditionally involved public ownership and control. This subject has been the focus of an international series of conferences called the ‘International Conference of Competition and Ownership in Land Passenger Transport’ or ‘Thredbo’ conference series¹ and much of this review uses evidence from this source. The paper includes some commentary on the performance of public transport planning under different regulatory models using some of the author’s experience in public transport studies and research in different contexts.

An important proviso of this paper is its focus on urban public transport and also systems where there is no profitable operation of public transport via farebox revenues. To this author’s experience this tends to cover almost all cities in the western world, however there are a few, usually bespoke, services which have proven profitable. Clearly the case for private sector involvement in profitable services is much stronger. However this paper focusses on the vast majority of western and developing world cities where substantial subsidies are required to operate urban public transport systems.

The paper commences with an overview of the context for the examination of competition and ownership issues in public transport. This considers the historical context, the motivations for change, evidence on impacts and factors which are said to influence outcomes. This is followed by a discussion of alternative regulatory reform models. Three separate case studies are then discussed. Firstly, bus competition models with specific reference to the UK. Secondly, general experience with competitive tendering worldwide. And thirdly, a case study of rail franchising experience in Melbourne, Australia. The paper concludes with a discussion of the key findings including the identification of lessons learned for those seeking reforms elsewhere.

History, motivations and mechanisms

The history of urban public transport has always involved friction between private operation and public purpose. While many transit systems have had their genesis in private initiative, over time systems were nationalised as the benefits of a coordinated planned system to the health of the urban economy was recognised by government. The rate of increase in government control increased during the mid-20th century as competition from the motor car acted to reduce the financial viability of transit. This proved particularly problematic during the late 20th century as the costs of transit systems escalated driving government subsidies for urban transport higher.

These escalating subsidies have driven many governments to reconsider private operation of transit systems in order to encourage greater market competition. Productive efficiency involves using the least amount of resources to produce a given good or service. In effect output is being produced at the lowest possible unit cost. The rationale for encouraging competition in public transport is that public ownership is often considered to create higher cost operations which are considered less efficient from a productive efficiency view.

Part of the reason for the inefficiency of public operation is a lack of autonomy. Giannopoulos (1989) notes that “public operators tend to experience a greater degree of intervention from theirGovernment ‘owners’” than a private business would. This can affect:

- Long term as well as day to day management and policy making. In this case management’s freedom to act can be constrained by wider political concerns;
- Relations with the labour force – particularly when Governments are sympathetic to the concerns of trade unions; and
- General attitudes and productivity of personnel.

Cameron (1982) listed a number of cultural and attitude issues in public authorities which can affect productivity:

- diminished authority at the board level
- a self-perpetuating senior management whose influence exceeds that of the board
- depressed initiative amongst the majority of middle and junior personnel
- a diminished sense of accountability for individual contributions to business objectives
- greater interest in professional achievement than in business performance
- a tendency for the number of professional functions to grow
- a tendency for the number of planners and engineers to grow
- an increasing centralisation of authority and decision making
- ponderous decision making shared in committees

- an increase in bureaucratic processes for the protection of managers from criticism
- business objectives confused by conflicting social, economic and political aims.

These issues have led a number for government authorities to follow a path where there is a greater degree of independence of transit operations from government.

Other governments have sought to directly introduce competition in the provision of public transport. There is much evidence that the unit costs of public transport have been reduced as a result of increased competition in transit. In Australia, Wallis (2003) reports a reduction in bus costs resulting from competitive tendering of Government bus services of some 38% in Adelaide and 22% in Perth. Across over 50 US cities, Cox (2002) finds an average saving of 39.1% in cost per vehicle hour from competitive tendering of government transit operations. And in the UK, costs of various forms of deregulation of urban bus services are reported to have reduced unit operating costs by 41 to 44% (Cox et al. 1997).

However, importantly, these results are not consistent and vary according to circumstances. While the tendering of previously government operated service has generally been seen to reduce unit costs this is not always the case with tenders of privately operated services. Cox et al (1997) contrasts two types of competitive approaches within UK bus deregulation (between 1986 and 1995):

- In London, which had a model of competitive tendering, unit costs reduced by 41.4% while patronage increased by 1.4%
- In the rest of the UK, which had a full deregulation of services unit costs decreased by 44.7% whilst patronage declined by 27.5%.

Clearly there is much variation in outcomes. Cost reduction outcomes can be achieved but at the cost of reduced patronage in many cases. Overall trade-offs in outcomes need to be considered when assessing approaches to regulation in public transport. Similarly, the magnitude of cost reductions will depend on how and why competitive influences operate in a given context.

‘Threat’ is an important element in the process of reducing costs. An often quoted rationale for keener cost competitiveness in the private sector is that private organisations ‘risk’ bankruptcy if they don’t win the market. This is why models encouraging competitive influences in transit try to transfer risks from government to operators. Risk and threats also act indirectly to assist in reducing costs. Cox et al (1997) distinguishes two ways to generate cost savings from reforming public transport:

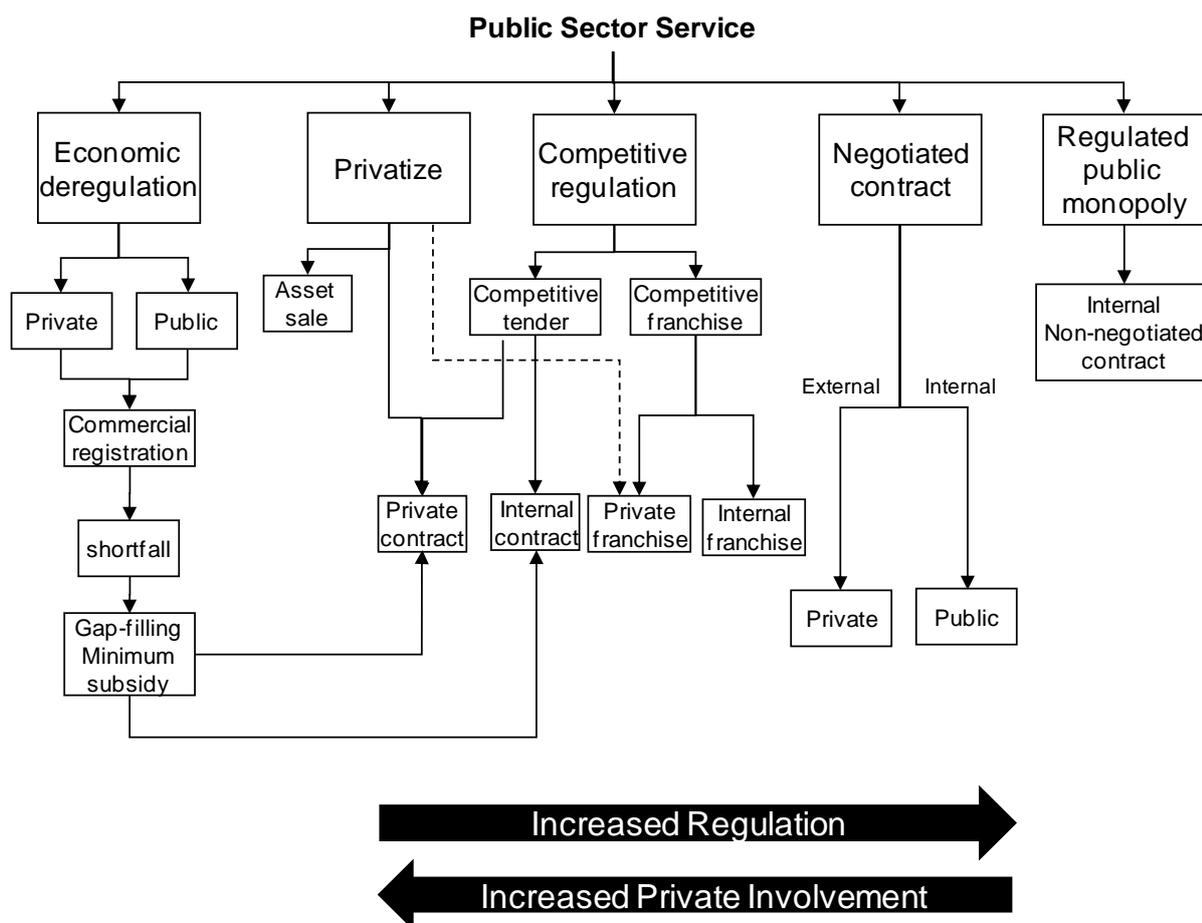
1. **Direct savings:** the difference between the non-competitive cost of operating a service and the market based cost established through competitive tendering.
2. **Indirect savings:** those savings occurring in remaining non-competitive services in response to competition or the genuinely perceived threat of competition. There are two broad categories – the "run-up" savings and "ripple effect" savings
 - a. "Run-up" savings: Anticipation of competition produces substantial savings in non-competitive services over a short period of time as public transport agencies improve their cost effectiveness during the "run-up" period preceding a short term conversion to competitive tendering. At the end of the "run-up" period, public agency costs must be at market rates for it to successfully compete for contracts. "Run-up" savings typically occur in conversions taking five years or less.

- b. "Ripple effect" savings: The "ripple effect" produces more moderate savings in more gradual conversions as public transport agencies reduce the cost of their non-competitive services in response to competition. The "ripple effect" drives public agency costs toward market rates, a level that must be achieved by the end of the conversion period for the agency to compete successfully.

Regulatory models

Figure 1 presents a typology for the range of models which can be adopted to introduce competitive influences in public transport when moving from a public sector operated service model.

Figure 1. Models of ownership and competition in public transport



The different models include:

- **Economic Deregulation** – where all government control is removed and full private sector freedom to trade in the market is available. This has similarities with privatisation but the degree to which regulation is divested varies. In public transport, the UK and NZ bus deregulation approach are examples. Expressions of interest for privately run services are requested. Government then identifies any gaps in service and fills these through contracted services.
- **Privatisation** – involves the full transfer of asset ownership to the private sector. In this case it may still be necessary for the government to contract with the private sector for some services e.g. unprofitable but socially worthwhile services. The terms privatisation and deregulation are often blurred and often refer to the same thing. However the key difference with privatisation is the sale of government assets to the private sector.
- **Competitive Regulation** – where in general minimum service requirements (often termed ‘community service obligations’) are defined as part of the tendering or franchising of service contracts. These can be either offered for service as competitive tenders or franchised. A franchise involves more involvement and control from the franchisee in service design and development as a right granted by the government.
- **Negotiated contracts** – which can be with the incumbent internal or external operators. Negotiation is a practical strategy when the parameters of the service to be supplied are unclear. There may be important political considerations (such as labour relations sensitivity) which might preclude a full tender. Negotiations are also useful when it is possible that there will be no tenders (no contestability for contracts). In this circumstance there is a danger that only high priced tenders are received and must be accepted. In all negotiation processes it is important to use objective benchmarks for determining reasonable costs. All government authorities must also be concerned that the contractor does not ‘capture the regulator’ i.e. where an incumbent operator can press for their own terms with government authorities.
- **Regulated public monopoly** – where a public operation is corporatized such that ties with government are at ‘arm’s length’ and expected outcomes are clearly defined and addressed by a separate board.

An important consideration in encouraging competitive influences is the degree to which competition should be ‘in the market’ (i.e. competing with other operators on the same route) or ‘for the market’ (i.e. tendering for the right to provide services as a monopoly on routes). Fully privatised operators can have the right to operate where and when they wish including, for bus services, the ability to compete for services ‘on routes’.

‘On route competition’ has been widely criticised as wasteful and occasionally dangerous e.g. where bus drivers have competed to arrive first in a queue of buses to attract the bulk of those passengers waiting for buses². In general ‘on route’ competition is rare except where services are fully profitable, i.e. where the farebox can fully support costs. On route competition also pre-supposes the free availability of roadspace which each competitive entrant can utilise. This assumption is not the case for rail services which must share fixed track infrastructure to compete for the market. This makes competition for the market complex and difficult to structure since responsibilities and planning between rail operators and track operators often conflict. The UK model for inter-city rail competition tried to solve this by creating ‘vertical separation’ of track management and operations management through the creation of ‘Railtrack’

and separate Train Operating Companies' (TOC's) who vied for paths to compete with each other on these tracks. It is fair to say that this model has proved problematic (as has similar models for the development of busways associated with multiple private operators involved in on-route competition).

Where competition is for a contract or franchise that provides a monopoly right to provide a particular service, there is no on-route competition. This situation is often termed a 'natural monopoly' by economists if it is considered there is a cost advantage from having a single provider rather than multiple suppliers (e.g. due to high fixed costs from depots).

To examine regulatory models further, three case studies are explored in more detail in the following sections. This includes:

- Bus competition in the UK – Where both economic deregulation, or competition 'in the market', has been implemented (outside London) and economic regulation using competitive tendering or competition 'for the market' has been implemented (in London) with some interesting contrasts between performance.
- Competitive tendering experience – which explores types of contracting models, their outcomes and current thinking on how these models should be developed into the future.
- Melbourne rail franchising experience – which explores an economic regulation model using a franchising approach. This section explores outcomes from a range of types of structures tried over time and the lessons learned by government undertaking this process.

Bus competition in the UK

This case study contrasts the performance of economic deregulation (outside London) with competitive regulation and contracting (inside London).

Prior to 1980, buses in the UK were strongly regulated and mostly run by government operators. A route service licence was required to operate services which identified the fares, timetable and exact route alignment. In general this acted to protect the incumbent operator from competition since a new entrant requesting a licence would tend to be refused on the basis of impacts on the incumbent.

The first move towards deregulation was removal of quantity and price controls on inter-city long distance coach services. Local bus service deregulation occurred in 1985. There were two distinctly separate models within and outside London:

1. Outside London full deregulation of all price and quantity controls occurred. Competition on route (or in the market) was permitted. In the urban areas, all previously publicly operated bus companies were privatised. Government involvement was limited to supporting important non-profitable services which 'gap filled' the network where required.
2. In the London case, control of services was transferred to the Department of Transport. The operating assets were then privatised, however regulatory control and centralised planning

remained in public hands. Here a planned network was offered for private operation through a series of competitive tenders ‘for the market’.

The following medium term outcomes in the first decade or so after reform were identified by White (2000):

- Unit costs fell considerably (over 40%) in both London and outside London models
- Public spending, which acted to support lower fares and higher service levels, fell. In the metropolitan areas outside London, subsidies declined considerably (-69%) with a 59% reduction nationally.
- Overall service levels increased by about 25-30%, but ridership dropped by 29% outside London. This resulted in a fall in service effectiveness (ridership per service), which almost completely offset the effect of cost savings on profitability.
- In London ridership grew modestly while boardings per km remained broadly stable. Fares increased (by 29%) which meant there was a real growth in revenues. Net public expenditure fell by 81%.

So to what extent can good and bad outcomes be attributed to the introduction of competition? White (2000) points out that most of the decline in patronage outside London was due to rising car ownership. It may be therefore that patronage falls would have happened anyway. Pickup et al (1991) however provide some wider comment on the earlier phases of deregulation outside London:

- There were some initial examples of on-route competition³ but smaller operators avoided this as they were quickly ‘swamped’ by the bigger players
- An initial spurt of small bus companies eventually reformed into a small number of larger players
- There was a trend towards increases in off-peak (interpeak and weekend) service levels but not at peak times, since the latter had high costs and offered low returns
- Rapid changes in services proved difficult for passengers to follow. Information coordination was a major flaw of the deregulation model. Indeed the extent to which the public transport network could be run as an integrated whole was a major concern
- Fares rose rapidly much more than inflation acting to reduce ridership and negatively affect low income groups
- Government authorities in metropolitan areas have found they are restricted in providing large scale bus improvements because of laws forbidding government competition with private commercial (or profitable) services.

In London government subsidies reduced in per unit terms (due to competitive tendering) and the savings were allocated to delivering a higher service level. Cost reductions came about because of greater labour productivity. Staff numbers fell substantially (despite increases in service levels being offered and a decline in wage rates).

It is easy to conclude from this evidence that complete deregulation of urban transit markets can save money but at a considerable cost to ridership and service quality. The more positive outcomes in London provide a stark contrast to the deregulated model and strongly suggest that competition ‘for the market’ approaches provide a better balance between competitive pressures and the need to protect ridership and service quality concerns. A study of wider European experience of competition models provides additional support to this (ICLEI 2003):

- Patronage growth is highest with competition models based on competition ‘for the market’ at 1.8% p.a.
- Patronage growth was on average negative in cities without any competition (-0.7% p.a.).
- Patronage growth was negative and poorest in cities in deregulated environments (-3.1% p.a.).

Before concluding this section a short digression is made to discuss an example that illustrates how regulatory structures can potentially influence planning and infrastructure development. The example concerns the author’s experience in conferences of public transport planners and practitioners engaged in discussing the development of Bus Rapid Transit (BRT) systems. BRT is widely recognised worldwide as a means of cost effectively upgrading and re-inventing urban transit as is evidenced by its considerably popularity in international development (Levinson et al. 2003; Currie 2006). The author has presented papers about BRT to audiences in both the US and the UK and the audience discussion and debate differed remarkably between these conferences.

In the US, where transit is generally public sector regulated, the discussion focussed around the development and implementation of new systems, design features to improve performance and best practice in operations. In the UK where buses are generally deregulated, discussion almost entirely focused on whether it was possible to implement large BRT infrastructure such as busways without affecting commercially operated private bus services. In this context deregulated commercial bus routes dominated the focus of all planning and hence it is generally seen as untenable to develop a new transit system if a commercial operator is negatively affected. The other topic of discussion was how infrastructure could be funded when there is the potential for private commercial operators to both gain or be harmed by infrastructure. Unsurprisingly, the UK has had almost zero development of BRT (until very recently) whereas the US has numerous systems.

These are remarkably differing perspectives to take on the same technology/system development opportunity. What this illustrates is that full deregulation will act to remove or at least significantly limit opportunities for significant public transport system development. While it can be argued that the private sector might take over development of these opportunities, in practice this almost never occurs due to costs and political risks involved in these developments.

Overall these findings suggest a strong preference for increasing competitive pressures in urban transit but using competitive regulation models based around competitive tendering and franchising rather than deregulation. Further experience of competitive tendering and franchising is considered in the next two sections.

Competitive tendering experience

This case study explores types of contracting models, their outcomes and current thinking on how these models should be developed into the future.

Different tendering models

If a tendering model is preferred by government it is necessary to determine how the contracting system will work. There are a number of distinctions that can be made regarding bus contract types. The most common is between gross and net costs. *Gross cost contracts* are those where an operator is paid a fee for running a prescribed service. Revenues resulting from this (farebox) are retained by the government. *Net cost contracts* are those where the operator retains an element of revenue to act as an incentive to perform better.

The two contracts differ in terms of their administrative complexity and risk allocation. Gross cost contracts are easier to manage and operate. Net cost contracts require auditing mechanisms to ensure incentives are correctly monitored.

In terms of risk allocation, the government retains the risk that patronage and revenue will fall (i.e. demand risk). If this occurs, the government subsidies for the service will increase unexpectedly. Clearly in this case there is little incentive for operators to do well if they receive no benefit from increased patronage. To address this, net cost contracts seek to provide a better balance between incentive and risk between the government and the contractor.

However, bus operators are not necessarily well placed to take on demand risk, in part because they cannot always affect the ridership outcome. For example, service reliability is a major concern of passengers, but this is impacted by road traffic congestion which is not in the control of private contractors. Further, increases in fuel prices have driven higher public transport patronage worldwide over the last few decades, which are also beyond the influence of operators (Currie and Phung 2007; 2008). Indeed, it has been suggested that in general most factors affecting urban transit ridership are out of the control of operators. Because of this lack of control, governments can pay premium prices when they transfer demand risk to contractors under net cost contracts. This has led some regulators to decide on gross cost contracts where incentives are based on input quality such as service availability performance (bus service supplied vs scheduled) rather than ridership outputs (Wallis 2003).

In practice, the degree to which revenues cover costs influences the extent to which revenue can be used as a basis for incentives. If revenues cover only a small fraction of operating costs, then increasing revenue through better service will only represent a small incentive. Even if revenue represented 100% of costs, operators tend to avoid increasing service levels in the peak since it generally requires the purchase of additional vehicles that would lay idle in the off-peak. This explains why service levels in the UK (outside London) have not changed much in the peak but have grown in off peak times.

Another critical distinction in contract types for bus services is:

- Area based contracts (or franchises) – where an area is allocated for the specific operation of a single operator. The government tenders for the area franchise and the lowest cost operator has freedom to provide service within the area subject to minimum service levels

- Route based contracting – where a specific alignment and associated service level are determined and contracted out.

Area based franchises give the operator some freedom to plan a network of services. However there can often be issues regarding which operator runs services at the borders of area franchises and how a cross franchise route is operated. Route based contracts don't necessarily avoid this problem since routes can cross the alignment of a route franchise run by another operator. This can cause disputes over who has 'rights' to pick up and set down of passengers. This is often the source of 'wasteful' and seemingly illogical restrictions on passenger set down and pick ups.

Cost reduction experience from competitive tendering

Wallis and Hensher (2007) undertook a meta study of experience in competitive tendering in urban public transport (mainly bus) covering 10 countries and 20 separate tender programs. Outcomes were measured in changes to gross unit costs normalised for changes in service levels and other cost comparison issues. They found that the first round of tenders reduced costs by an average of:

- 50-55% UK
- 20-30% Scandanavia
- 30-46% USA
- 22% and 38% Australia (Perth/Adelaide – both ex-public operators)
- 40% New Zealand (ex-public operators)
- 5% New Zealand (tendering private sector operators).

This evidence suggests the scale of savings largely depends on the competitive pressures evident in the service being contracted; tendering of public sector based operations yields greater savings than private sector based services.

Evidence from bus contracting in the US is more mixed. Scholl (2006) summarises published evidence and found that:

- Early studies identified cost savings from contracting of 10-40% (generally consistent with findings of first round tenders noted above in Wallis and Hensher (2007)).
- Early studies were criticised for not considering cost normalisation issues (i.e. adjusting results for variation in contexts, time and operating issues such as running speed, which affects resource productivity). More recent studies of tendering, including methodological adjustments for cost normalisation, found that contracting savings were in the range of 15-19% and other studies lower at 5%.
- Some findings suggest cost savings can come at the expense of reduced service quality, safety and lower bus driver compensation.

An important finding in more recent research on transit contracting is that post first tender results may be very different from the initial tender outcomes. Wallis and Hensher (2007) found that second

round tenders had significant cost increases compared to the first. This was thought to be caused by a number of factors including:

- More informed bidding – initial tenders often involve low experience on the part of both the tenderers and, significantly, the tender authority. Errors in bids can act to reduce bid prices considerably. However these are not sustainable, a situation known as ‘winner’s curse’.
- Fewer bidders – There is some evidence that the number of bidders declines in later tender rounds (e.g. London, 1995 (6 bidders), then in 1997 (just 2-3); New Zealand Auckland/Wellington only had one bidder in second round tenders).
- Long term costing – it is easier for bidders to avoid long-term asset replacement costs in initial (first) tender rounds. However in future rounds the pressures for asset replacement becomes greater hence costs must be reconsidered.

These findings demonstrate that many competitive tendering processes fail to identify sustainable cost savings into the future. Rather, initial savings in round 1 are made (notably where public to private tenders are offered). Often these savings are reduced in round 2 and, from thereon, costs are stable (in real terms) (Stanley 2007). In Adelaide, for example, round 3 tenders for bus services were found to have no substantive savings compared to earlier tender results or differences in tender prices between bidders (Wallis and Hensher 2007).

In addition to the one-off nature of cost-savings, competitive tendering also presents the following shortcomings:

- Difficulty in dealing with complex operations
- Inability to change *ex ante* specifications of contracts when unexpected events occur (e.g. significant changes in ridership, disasters, higher input costs such as fuel).
- Inability to provide effective public transport system planning. Two issues are common here: firstly the fact that the contract and system design experience of bidders is commonly ignored since an adversarial situation between contract agent and bidders often prevails. The second problem is that multiple contracts and contractors present barriers to cross-service and intermodal integration
- The short term nature of the contract agreement limits ongoing planning through the term of the contract
- The high costs of tendering processes and the uncertainty it can create for service planning and operations.

More recently, debate in contracting has suggested that ‘trusting partnerships’ through negotiated performance based contracting might be a more reasonable model for urban transit contracting as it overcomes many of these shortcomings.

Negotiated performance based contracting (NPBC)

NPBC aims to achieve a mutually agreeable outcome for a performance based contract between an experienced and valued contractor and a contracting agency (Hensher and Stanley 2010). Benchmarking

and performance based contracting during the full life of the contract is a key part of this arrangement as are close and ‘trusting relationships’ between contractor and operator.

A major barrier to effective NPBCs is ‘capturing the regulator’, where close relationships between regulator and commercial private sector contract holders permit exploitation of the situation to the benefit of contractors. It is important to recognise that this can happen and regulators need to be keenly aware of this. As Professor Graham Hodge, an internationally regarded regulatory expert at Monash University, has pointed out to the author⁴, governments engaged in outsourcing should be careful to not “outsource their brains!”. Private contractors are often very experienced at contracting and in dealing with government regulators whereas regulators are commonly new to contracting and generally have little experience in dealing with the private sector. Indeed one of the major conclusions of the Thredbo conference series is that a major barrier to progress in bringing competitive influences into urban public transport is the need to educate regulators about good practices in tendering and franchising.

Processes to avoid “capturing the regulator” have been suggested (Hensher and Stanley 2010) including:

- Independently verified performance benchmarking
- ‘Open book’ approaches to contractor costs and accounts
- Use of probity auditors
- Public disclosure of contract arrangements and performance outcomes.

TPBC have been promoted through the Dutch experience in transit contracting (Bakker and van de Velde 2009; Dijkstra and Verheijdt 2009), in France (Yvrande-Billon 2006) and Australia (Hensher and Stanley 2010). An approach to achieving successful trusting partnerships has been suggested (Stanley and Longva 2010) including adoption of ‘The 5 C’s’ to support contract clarity (before signing the contract), and clarity of obligations once the contract is signed:

1. **common** core objectives tied to public policy purposes;
2. **consistency** of behaviour and direction;
3. **confidence** in a partner’s capacity to deliver;
4. respect for each other’s **competencies**; and,
5. demonstrated **commitment** to good faith in making and keeping arrangements and in principled behaviour.

From the author’s perspective NPBCs are a good ideal to strive for but require careful work on all sides to achieve. It is difficult to find fault in the concept of a ‘trusting partnership’ however in practice it is hard to achieve an effective outcome for all parties because there are often conflicting objectives in profit maximisation (operators) and cost minimisation (regulator). From the public perspective an effective NPBC relationship will always require a competitive tendering process to derive initial cost savings and continued understanding of what competitive costs are. The threat of competition is an important part of making a ‘trusting partnership’ work. The other side is an effective performance incentive mechanism where outcomes are easily monitored and good/bad performance suitably rewarded/punished.

Another perspective is the need for ‘common sense’ when operations are complex and unexpected events occur which require immediate actions. Both regulators and contractors need to find solutions in these conditions. Progress is rarely achieved if either player cites restrictive contract conditions or seeks

solutions via legal action. In such situations a ‘trusting partnership’ is essential for all parties. However ‘trusting partnerships’ do not always mean that the government should always accept poor performance and always fund cost over-runs. To some extent NPBCs are a means of making performance contracts work and might be separated from procurement mechanisms which set up a competitive tender. However without the threat of competitive tendering there is a danger that the ‘partnership’ is a long way from ‘trusting’ for the regulator.

Melbourne rail franchising experience

The next and final case study concerns the rail franchising experience in Melbourne, Australia which is an example of an evolving performance based contracting franchise model. Lessons learned in the Melbourne model are instructive since initial models were overly ambitious and there is evidence of ‘capture the regulator’ in at least some elements of the Melbourne experience. This case is also illustrative of the practical outcomes that can occur when franchising theory is applied in the real world and should be useful practical lesson for those considering engaging in a franchising model. Later models evolved into a form of NPBC although all have retained a competitive tendering basis for procurement.

The first franchising model

In 1999 the Liberal (right wing) State Government of Victoria franchised its metropolitan railway and tram services from public operation to private franchise. This followed a broadly ten year period during which corporate reforms had resulted in considerable efficiency improvements. Staff levels were halved and reliability and punctuality improved (Williams et al. 2005). Full franchising resulted mainly due to a prominent strike which convinced the government that it could reduce its exposure to financial and other risks.

The model involved the following (Williams et al. 2005):

- Vertical integration – with track maintenance and operations within the same company. This is a contrast to the UK rail model and was based on the idea that in high frequency urban operations, it was important to manage tracks and operations together. To do this and retain some competitive pressures, the rail and tram networks were split into separate spatial groups with clearly defined track sections.
- Yardstick (or peer) competition – The metropolitan railway was divided into two parts as was the metropolitan tramway.
- Rollingstock – successful bidders were required to lease existing rollingstock and to purchase new stock.
- Franchises were for 15 years (which is relatively long due to the substantial rollingstock investment included in the arrangement).

- A condition index was developed to measure the standard for infrastructure (particularly near the end of the franchise so that a hand over of adequate quality infrastructure was made).
- An operation performance regime was instigated to penalise bad performance and reward good. This covered punctuality and reliability.
- All risks were assigned to the operator other than sovereign (policy) risks and latent defects in infrastructure.
- Existing fare structures were retained and updated using the consumer price index.
- Levels of service (the volume of vehicle kms supplied) were maintained.

The outcomes of the competitive tendering process for the first franchises were very impressive:

- Costs savings of some AUD 1.8 billion (1999) were announced, including substantial reduction in annual government operating subsidies to almost zero by the end of the franchise period.
- Average costs were 24% lower than under public sector operation (Greig 2002).
- Ridership growth of 40–84% over 10–15 years was expected.

As one author puts it: “in short the government made a financial gain, shed most of the operating cost, revenue and investment risks and provided for better services” (Greig 2002, p8).

UK based National Express Group won a rail and a tram franchise while Connex and TransDev won the remaining rail and tram operations respectively.

In 2002 a financial crisis emerged (Currie 2009). This was caused by:

- Overly optimistic revenue growth and cost cutting expectations: bidders didn’t seem to have fully appreciated the extent of the historical reductions in costs already made since 1992. In addition Melbourne is a low density, car dependent city and bidders seem to have expected European style ridership growth.
- Contractual flaws: while some innovative contract measures worked, others were difficult to implement in practice, e.g. the infrastructure maintenance regime; and
- Revenue sharing: the formula for splitting fare box revenue among the franchisees was complex and prone to disputes. Delays in the introduction of a planned magnetic swipe ticketing system compounded this problem.

At this time a new Labor (left wing) government had just been elected and had previously been opposed to privatisation. A review of the franchising process and new interim operating arrangements were therefore undertaken. The major result of the franchising review was the settlement of some disputes, including an additional AUD 110 million of payments to operators (Greig 2002). At the same time, the government commenced negotiation for new interim operating arrangements with a view to create stability until a review of next steps could be undertaken. The government sought an increase in operator performance bonds as well as the operator’s consent to participate in the review.

In December 2002 National Express did not agree to the reviewed conditions and withdrew from its contracts. This led to a forfeiture of its performance bonds to the value of AUD 135 million (Department of Infrastructure 2005) and a financial write-off for National Express estimated at AUD 300 million. A new franchising model was required.

The second franchising model

The second franchising model, introduced in 2004, included:

- Reformation of the 2 trams/2 train contracts into a single tram and a single train franchise with operations transferred to the remaining franchisees, TransDev and Connex.
- Revenue sharing was a fixed proportion between both parties to ensure revenue stability.
- A single agency, Metlink, coordinated the functions of revenue collection and apportionment, ticketing and marketing for the operators and the government.
- Maintenance contracts and investment in new infrastructure were based on a collaborative approach where plans and costs were agreed with the government (a form of NPBC).
- In general all the other elements of the first franchising model were retained including vertical integration and the fixed, variable and performance incentive/penalty form of the contract payments.

Assessing franchise models 1 and 2

While the first franchise model lacked financial sustainability, there were some positive outcomes from the first and second franchise models overall (Department of Infrastructure 2005):

- Rail punctuality/reliability improved by an average 35%;
- Service levels (volume of vehicle kms operated) increased by about 10% but this is said by some to be less than in the period prior to franchising (Stanley and Hensher 2003);
- There were no strikes while industrial action prior to franchising was reasonably common⁵;
- AUD 1.1 billion of new and AUD 143 million of refurbished rolling stock was delivered on time and budget;
- Overall the customer satisfaction improved (index increased from 61% to 68%); and
- Patronage growth of 3% p.a. was achieved (about twice that during public operation).

The first franchising model has been given a “supplementary pass” due to its limited success against expectations and its lack of financial sustainability by some commentators (Stanley and Hensher 2003).

The ‘peer competition’ aspect of the model has been seen as wasteful and misguided by some of the franchisees⁶. Certainly a larger administration, planning and maintenance support role is required when there are two operations compared to one. It has also been suggested the players did not spend much time comparing themselves with their peer competitor, although peer competition proved a useful benchmark for regulators. Franchise operators did however find labour relations benefits in peer competition since negotiations were undertaken with a smaller and more manageable workforce and it was common for new productivity agreements to be rolled over to the peer competitor. There was also the potential for any strike action to be contained within only one peer however this was not tested since there was no industrial unrest.

It has also been suggested that bidders in the first franchising model used a strategy associated with “regulatory capture” when bids were submitted. This involves use of artificially low cost bids to win the tender which is then later renegotiated under threats of service disruption. Governments will be politically sensitive to disruption and might pay to avoid them, a tactic more often attributed to unionised labour when seeking higher rates of pay. No solid evidence is available confirming or disproving regulator capture in this case. However, the additional AUD 110 million payment in 2002 made by the Government to operators certainly wasn’t envisaged in the original agreements and must at least be evidence that agreed models were financially unsustainable.

The independent Victorian Auditor General undertook a review of the processes used in generating the second franchising model (Auditor General Victoria 2005) and found that it represented “reasonable value for money”. A range of other authors claim a “break even” outcome (Allsop 2007) or “modest” cost reductions (Williams et al. 2005).

In June 2008 the performance of the Connex second rail franchise operation was benchmarked against CityRail, the government run railway in the Sydney metropolitan area (LEK 2008). This identified considerable relative cost efficiencies in the Connex operation:

- annual rolling stock costs were 40% less;
- crewing costs which were some 17–29% lower;
- operating costs per station were 43% lower;
- overhead costs per employee were less than half of CityRail’s; and
- employees per service kilometre (2006/7) were less than half of CityRail’s.

Clearly Melbourne’s franchising rail services has realised substantial cost efficiencies compared to Sydney’s government-run railway. However this may also be a result of the efficiencies gained during the pre-franchising corporatisation activities as well as any impacts on franchising.

A limited performance review of the second franchising model relative to the first franchise model (Williams et al. 2005) found:

- An increase in rail service cancellations and a decline in punctuality;
- A decline in passenger satisfaction index from 80% to 75% (however the author’s data shows much variability and they state they do not hold much confidence in this as a measure of performance due to changing expectations in the market);
- Continued patronage growth and overcrowding;

- Minimal industrial disputes; and
- Delivery of several infrastructure projects on time and budget.

Williams et al. (2005) viewed franchising as a whole as a “qualified success” while Allsop (2007) rated it a “reasonable success”. While there is still a strong left wing lobby for a return to government control, this is very unlikely since the main political parties support the current model. Patronage growth and overcrowding have been seen as “problems of success” (Allsop 2007). It is difficult to associate any of these factors directly with rail franchising. Tram reliability has been impacted by increasing traffic congestion (Melbourne trams operate in mixed traffic, Currie and Shalaby (2007)) while increased dwell times have affected time performance of all rail lines. Indeed, ridership growth, while considerable, is largely influenced by population growth, increases in fuel prices and traffic congestion. None of these factors is related to franchising.

The third franchise model

The terms of the second franchise agreements ended in 2009 and a new tendering round for a third franchise contract was offered. This included:

- The same one train and one tram model of the second franchise
- A contract period of 8 years with rollovers possible based on good performance for up to an additional 7 years
- Maintenance responsibilities were brought back under the control of the operator but a generally open book and ‘partnership’ model continued
- A wider range and form of performance measures with rewards and penalties were developed for the third franchise model.

In the tender for the third franchise, both incumbent operators, Connex (Veolia – rail) and TransDev (tram) lost to new bidders. For rail, Metro Trains Melbourne; MTM (a consortium of Hong Kong's MTR Corporation and Australia's John Holland Group and UGL Rail, a division of United Group Limited) won the third franchise and for tram, Keolis Downer EDI (KDR) Victoria (a partnership of the internationally operator Keolis and Australia's Downer EDI Rail). A major factor in the rail result is the perceived poor performance of Connex in managing rail reliability; the reliability performance of MTR corporation was highly promoted by Government during the refranchising announcement. Interestingly cost savings were not noted in the third refranchising announcement where emphasis was placed on improved performance.

In the 5 years after the MTR based franchise (MTM) took over the following changes in performance occurred:

- On time performance (arriving within 4:59 mins/secs of schedule) has increased from 86.5% (2009) to 92.8% (2013); a considerable improvement
- Train cancellation performance was largely unchanged
- Overall customer satisfaction rating of train services was largely unchanged.

Ridership growth has continued under the MTM franchise however it is considerably below the booming growth occurring prior to this franchise; a 3% net increase in rail ridership occurred in the four

years between 2009/10 and 2012/13). However overloading, already a concern when the franchise started was a major policy thrust of the early years. Between 2009/10 and 2013/14 rail kms operated increased by 16% largely driven by government investment in new trains to increase peak capacity. Given on-going overloading problems and the problems of fitting new trains into an already congested and ageing rail network, the MTM performance data shown above can be seen to quite a positive outcome.

More recently (May 2014), MTM and partners presented an ‘unsolicited’ proposal to introduce higher capacity trains including advanced (in-cab) signalling and a series of rail crossing grade separations to the Dandenong and Pakenham lines as a commercially based package to further increase rail capacity. This package was accepted and is thought to be valued at around AUD 2.0-2.5 billion. This presents some evidence on continued commercialisation of rail planning as well as operations. However local media have been concerned that the full details of the ‘commercial’ package are not being made available to the public; hence there is concern that the public interest is not being protected and distrust of secret board room deals not made in public.

The current MTM franchise is due for review in November 2017. If this proves satisfactory a further 7 year extension is possible. It remains to be seen how performance changes in the years leading up to the 2017 review and if the franchise extension occurs.

Discussion and conclusions

This discussion and conclusion aims to highlight key lessons for authorities considering more private sector involvement in urban transit. Comments are arranged using a series of good practice headings.

Increasing competitive influences makes sense, but be careful about quality impacts

A simple starting point is that this increased commercialisation (i.e. private sector involvement) and/or increased competitive influences in transit are good ideas but importantly it needs to be done in a considered and careful manner. Cost savings in particular are likely, particularly with large publicly run operations in first tender contexts. The biggest concern however is the degree to which service quality and ridership can be negatively impacted.

The worst outcomes from these experiences in urban transit is where cost savings have dominated actions and where ridership/quality and the wider objectives of transit in reducing congestion, environmental impacts and providing social equity have been disregarded.

Contracting of public operations achieves good savings but only once

Evidence shows tenders of public based services achieve high savings *but* that these are rarely achievable more than once. Authorities examining contracting options should take a long term view and recognise the need for alternative models in the medium to long term.

Market-oriented reform won't always generate 'market outcomes'

The focus of the ITF study which has generated this paper is market-oriented reforms. An important observation based on the discussion above, and the author's experience, is that private sector involvement and contracting in public transport rarely act to significantly improve market outcomes. As has been seen, many examples show significant market decline and service quality deterioration. This is not market orientation.

It has however been suggested that competitive pressures can improve customer service and improve service responsiveness to market demands. This is possible but it's not a significantly important outcome in my experience. Rather the hard facts of low cost recovery, high costs in the peak, and lack of resources makes real enhancements of service quantity in an urban transit context unlikely. A good example of this is deregulated commercial bus operators in the UK and their experience of commercially viable service changes. The most common strategies employed are service simplification approaches and marketing. Real increases in service frequency are virtually impossible due to the high cost and low relative revenue returns. This is despite strong evidence that the market wants more frequency of service, and that marketing and service simplification has only minor impacts on ridership (Currie and Wallis 2008).

The Dutch have had some of the most comprehensive experience in using competitive tendering as a basis to general greater market orientation in public transport outcomes. A review of experience in the Netherlands up to 2010 (Eerdmans et al. 2010) identified a lack of progress in this area due to difficulties in balancing market potential and contract design. Three key factors were identified as barriers to progress in market orientation using contracting:

1. there is freedom for the operator, but the contract is bad;
2. there is freedom for the operator, there is a good contract, but there is no market; and
3. there is freedom for the operator, but the operator is not able to use it.

As a general rule increased private sector and competitive pressures in urban public transport should be acknowledged as a means to reduce unit costs, not as a means to drive market orientation. Experience has shown that some market benefits can be achieved but they are rarely important. The 'perfect' mixture of contract design, incentive, market potential and operator 'buy in' to achieve excellent market orientation outcomes is yet to emerge. However it is likely to involve:

- contracting and the use of competitive pressures for retendering
- a contract length balancing competitive pressures with the need for stability and risk acceptance when large infrastructure investments are required
- ridership growth, user satisfaction and performance incentives requiring subsidy beyond the limited capacity of farebox revenue
- a partnership approach between regulator and operators which acknowledges the need for government control of integrated planning for the public interest.

Avoid deregulation: retain control for the public interest

The discussion of negative outcomes from the UK deregulation experience should hopefully discourage commercialisation of urban public transport using this approach. As a general rule the evidence strongly supports models of competition 'for the market' rather than 'in the market'. Public authorities should retain control of planning to ensure the wider community of the benefits that urban

transit (congestion relief, environmental benefits and social equity) achieve. However the evidence is also supportive of a cooperative approach between regulators, government and operators when it comes to planning. This is supportive of a case for ‘trusting partnerships’ and the NPBC as an ideal to be aimed for.

An important reason for retaining control of planning is the likelihood that the urban transport situation in the future will be highly volatile and uncertain. Energy security risks, the global financial crisis, emerging technologies, growing congestion and environmental concerns all act to suggest an uncertain planning future for cities. With these uncertainties, it is highly inappropriate for authorities to give away control of urban public transport planning and development.

Regulators beware capture by private interests

As noted earlier, governments outsourcing transport services should make sure they don’t ‘outsource their brains’. Private interests have much experience and are good at furthering their commercial interests. While trusting and cooperative models of commercialisation in transit have been seen as positive, regulators need to be aware of the risks associated with ‘regulatory capture’. They should adopt the processes to avoid this noted earlier.

Keep expectations realistic

There are many examples of overly optimistic approaches to increased private sector involvement in urban transit. The clear facts are that almost all urban public transport in developed and emerging economies requires significant public subsidies. Since the rise of the car, urban public transport services are simply not profitable and unlikely ever to be so again. This means careful consideration of subsidy and contract conditions is required to identify a workable contract model where the quality of service can be maintained.

The view in the first Melbourne franchise that all subsidies would be removed by the end of the contract was simply fanciful. But it was strongly believed by the proponents at the time. As one commentator has suggested that “if it looks is too good to be true then it probably is” (Stanley and Hensher 2003).

Aim for performance based contracts with competitive threats

It is very unrealistic for authorities to think that signing a contract for say 5 years means that they can walk away from responsibility for urban public transport for the whole of that period. Many unexpected events will occur over that period and in all cases authorities will have to negotiate with contractors about appropriate outcomes. With fixed contracts and adversarial relationships between contractor and regulator such arrangements are problematic. A ‘trusting partnership’ is a reasonable basis for managing contract performance *but* require competitive threats and an effective performance monitoring and incentive/reward scheme to be effective for regulators. Testing the market via a competitive tender will remain the only clear way to understand cost competitiveness. However, good regulators need to understand that some bids can be below cost. The lowest bid is not always the best.

Overall

Overall therefore there is much to commend in the concept of commercialisation of urban transit but a considered approach to regulatory design is recommended where public control of the public interest is maintained and appropriate risk allocation is shared between all parties.

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Notes

¹ This conference series has the short title the ‘Thredbo’ series of conferences named after the first event venue, Thredbo in Australia in 1989. The Thredbo Series was established in 1989 by Professor David Hensher and the late Professor Michael Beesley CBE. Since this time it has been held biennially in locations all over the world: Tampere, Finland, 1991; Toronto, Canada, 1993; Rotorua, New Zealand, 1995; Leeds, UK, 1997; Cape Town, South Africa, 1999; Molde, Norway, 2001; Rio de Janeiro, Brazil, 2003; Lisbon, Portugal, 2005; Hamilton Island, Australia, 2007; Delft, The Netherlands, 2009; and Durban, South Africa, 2011.

² In South Africa, on route competition has involved exchanges of gunfire between competing operators.

³ Multiple bus operators on the same bus route competing to get first to bus stops to attract riders.

⁴ Personal communication

⁵ Confidential discussions with key players in the first franchising model suggest this was because Unions were very keen to comply with franchising. This could be seen as evidence that the ‘threat’ of wider competition e.g. full deregulation might have benefits on disruptive unions.

⁶ Confidential discussions

