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AUSTRALIAN AND BRITISH EXPERIENCES WITH COMPETITIVE TENDERING IN RAIL OPERATIONS

Peter Kain[*]
Bureau of Infrastructure, Transport & Regional Economics (Australian Government)
peter.kain@infrastructure.gov.au

ABSTRACT

Governments typically underwrite public transport, but that funding is significant and growing. Drawing in private-sector expertise, by privatising the services typically does not eliminate the need for public funding; in any case, such support requires probity rules. Periodic competitions can be undertaken to award the right to provide the service, in return for subsidy or premium payment. Competitive tendering (or "franchising") in transport dates back to principles espoused by Chadwick in the 1850s and later by Demsetz.

The conduct of the tendering competition is central to a successful outcome of franchising. Exclusive rights set out the franchisee's responsibilities and risk transfer, in return for which a premium is paid to government or a subsidy is received. This model has been widely applied in transport in the last two decades, with varying degrees of success. The paper reviews experiences from tendering competitions in Britain and Australia. Contracting is not costless and should be applied only where value-for-money and probity gains can be identified. Attempting to transfer revenue risk makes it difficult to choose the most efficient operator and to enforce the contract, compromises underlying public interest requirements and discredits the model.

THE POLICY CASE FOR COMPETITIVE TENDERING

This paper analyses policies and experiences with competitive tendering in public transport services. I seek to provide insight into competitive tendering and to highlight competition features that undermine the objectives. I look at competitive tendering of British Rail passenger services from 1995; in Australia I look at the equivalent tendering of Melbourne's urban rail services from 1999; and provide a

[*] I appreciate comments from Lyn Martin in preparing this paper but responsibility for errors remains with the author. Opinions expressed are my personal views and not those of my employer.

contrasting look at tendering of Adelaide's bus services. In all cases, services are loss-making and their continued operation relies on public funding.

While there are well-known rationales for that public funding, "...proving a case for government intervention [in service provision] does not imply that there should be government production". (Kain 1981, p. 81) Indeed, government production is argued to be inefficient due to "principal–agent" problems.[1] The intimation of such problems is that government transport operators would not deliver "efficient" services. Indeed, as outlined in Kain (1981), nationalisation of Adelaide's private buses led to a very significant cost escalation, partly due to a large decline in productivity. As is outlined in this paper, the introduction of competitive tendering has reclaimed much of that ground.

One reason for considering tendering is therefore the perceived relatively lower private sector subsidy for service provision. I argue that another reason is for demonstrating probity with public funds. Even with public-interest justification for funding, it is difficult to demonstrate probity when using taxpayer funds to support *specific* private firms. Thus, while full privatisation is an alternative to competitive tendering, it comes at significant risk when there are large residual "public interest" issues in service provision. Privatisation may involve selling a monopoly and installing ancillary regulatory oversight. Crucially, privatisation may, sooner or later, also involve subsidising the privatised firm because the service is not profitable with public interest concerns being used to justify subsidy payments. This raises issues of probity when using taxpayer funding. These are not conceptual issues.[2] Two examples illustrate the issue:

- The privatisation of New Zealand's railways ultimately led to a situation where the privatised train operator sought public funds in return for continuing to run rail freight services. (Vaughan 2006)

- The privatisation of Western Australia's government railways, WestRail, led to a situation where the infrastructure manager commenced closing the vast network of uneconomic grain lines. The lines fulfil a significant role in shifting grain so the State's transport minister was forced to consider the request for taxpayer funding; he likened the need to respond to the closure of the lines to having "a gun held to our head". (Collyer 2009, p. 2)

In both examples, "public interest" made it difficult for government to walk away from railway service provision when the true long-term uneconomic nature of the businesses was exposed. However, can government justify subsidising a given private operator? Given that the expected answer is "no", it is more appropriate for the service provision to be put out to tender to ensure that the taxpayer is funding the provision of an appropriately-efficient service at the lowest cost. Such tendering does imply, of course, that the business should be let out as a short-term service tender rather than a one-off privatisation (or very long-term lease) of the assets.

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[1] See, for instance, Bly and Oldfield 1986, who discuss government provision of public transport services.

[2] As Gourvish notes in Freedland (2009), concerns with bailing out companies is not new; Disraeli (the Chancellor) rejected Great Western Railway's 1867 plea for financial support. To have done so would have set a precedent and favoured the firm over three other bankrupt railways, let alone other types of firm.

The three tendering systems considered in this paper focus on service delivery issues rather than issues of probity—the entities have not been fully privatised. Nonetheless, the probity concern provides another prong to the purpose of competitive tendering.

Potential financial gains in harnessing private sector skills, and grappling with principal–agent incentives, mean that the Chadwick–Demsetz auctioning at the heart of tendering may provide a basis for infusing a service with private-sector "flair" while still protecting "public interest".

There is a crucial caveat, however. The case for auctioning is predicated on franchising costs being less than the benefits. The case for franchising is weakened if the public operator is already "efficient". Further, ongoing franchisor costs, consultant costs, incremental transaction costs, monitoring costs, branding costs, franchisee competition costs (which will be clawed back in franchise payments) and loss of network economies reduce — or even eliminate — the net benefits that new management/incentives might bring.[3]

In the following analysis, I set out the franchising principles and the experiences with applying them. I then consider how well the tendering competitions conformed to the principles; whether the gains exceeded the pains; and how the system should be applied to improve performance.

PRINCIPLES OF FRANCHISING

There are two types of franchise: the Chadwick–Demsetz "natural monopoly" franchise and the "brand" franchise. Both franchising types provide incentives that are intended to remove principal–agent problems.[4] For brand franchising—like global cola drinks and internationally-branded fast food operations—the key characteristic is the tight specification of the product and often the price. Thus the primary entrepreneurial skill and innovation lies with the franchisor; the franchisee's role is limited to providing a product matching the specification, such that its quality is indistinguishable from other franchises.

The principles of franchising goods or services that have natural monopoly characteristics were espoused by Chadwick in the 1850s and later developed by Demsetz in the 1960s. Here, the financial commitments arising from franchise bidding provide the impetus to achieve production efficiency. Indeed, the proposition was put that franchising would remove the need for regulation. Chadwick argued that passenger train services would be less costly if provided by a monopoly provider chosen by a contest that would drive down the subsequent costs, rather than service providers building parallel sets of costly infrastructure (Chadwick 1859). Thus, Williamson observes that advocates of the system see an important attribute being that

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[3] For example, House of Commons Transport Committee 2009 (p. Ev 12) cites up to £5 million costs for each bidder, plus franchisor costs. The cost of rebranding the new Melbourne rail franchise (trains and stations) will exceed $15 million, almost the cost of a new six-car electric train. (Lucas and Dowling 2009)

[4] Principal–agent problems can arise when one party (the agent) undertakes work on behalf of another (the principal). The agent may have no incentive to maximise efficiency if poor productivity cannot be substantiated or can only be proven at high cost. Where the potential for this problem is significant, an important discipline is to make the agent bear the risk.

it is "...a market solution that avoids many of the disabilities of regulation". (Williamson 1976, p. 77)

Crain and Ekelund revisited these principles in the late 1970s, finding that Chadwick and Demsetz have different views on regulation. They concluded that Chadwick sees the franchisor as having a powerful regulatory role, over "a wide array of activities" that is akin to "that of the modern U.S. regulatory commission" (Crain and Ekelund 1976, pp. 159–160). A government franchisor would "...determine optimal investment and the introduction of innovations in railways and let out these activities to private entrepreneurs" (Ekelund and Price 1979, p. 222). As Ekelund and Price note, however, that type of franchising would not improve incentives:

> The civil servants would be in the same position as the hired manager; neither is able to reap the rewards of successful innovation but both are responsible for failure. (*Op. Cit.*, p. 229)

By contrast, Crain and Ekelund observe that Demsetz "...seems to imply that commission regulation is rendered unnecessary with the institution of competition for the field". Crain and Ekelund concur with Chadwick, arguing that reliance on franchising does not remove the necessity of regulation. (Op. Cit, p. 160)

Demsetz (1968) developed the franchise competition bidding framework that could identify the efficient providers that could drive out excessive profits arising from monopoly provision. In this framework, interested firms are invited to submit bids for a range of service and quality options; the range seeks to expose cost and efficiency profiles. At an advanced stage, bidding would involve cross-table negotiation between franchisor and short-listed bidders over specific details. The success of this process depends on a number of practical design parameters:

- choosing between open-bid and sealed-bid auctioning;
- establishing a robust set of criteria to assess the bids;
- attracting and retaining the market "for the ground" for future competitions;
- ensuring that competition costs are not so large as to offset the anticipated franchising benefits; and
- structuring the franchise contract to handle risk and uncertainty.

The choice between open- and sealed-bidding is important for the level of business information conveyed between bidding groups. However, rail franchising necessarily uses sealed-bid auctioning because the complexities of franchise contracting makes open-bidding impractical. The franchisor is not just selling monopoly rights for train service or selling a good; the franchisor is buying a stream of services and commitments. Sealed bidding is distinguished from open bidding in two key ways. The bid price and details are not disclosed to other bidders; and interested parties bid simultaneously. Also the winning bidder pays their own final bid price—the "first-price sealed bid" level. Thus, because the level of the bids is not revealed, the winning bidder's price is not the equivalent of the open-bid price, i.e., the second-highest bidder's price plus a margin.

Thus, bidders are "blind" to the other offers; this can be a problem. If the firm is keen to win the competition, the winning bid is *even more* likely to be over the odds than an open bid. Thus, this first-price sealed bid may result in the winning bidder paying more than the goods are worth or, in the case of rail franchising, making heroic assumptions about revenue growth or cost cutting so as to win the bid.

In this context, the bid assessment for auctioning for the rights to deliver future services is considerably more difficult than auctioning goods. The bid price is not a simple sum of money at a given point in time; it is a net present value of subsidy or premium payment stream. Risk assessment is also more difficult. In selling goods, the auctioneer will quickly learn if a winning bidder has over-extended their credit but, when auctioning future service commitments, the consequences of over-optimistic bidding are not apparent until well into the service contract. Further, service quality options cannot be compared across bids as competitions have a degree of "Beauty Contest" to them and weighting the quality attributes is judgemental. Finally, investment proposals and optional extra features need to be weighed up.

Establishing a market is one important aspect for achieving competitive bids; it is equally important to maintain market interest so that future bidding is also competitive. Factors influencing that market include:

- **the size of business being franchised**. A very large operation reduces competition by excluding medium-ranked bidders; conversely, a small operation will (for rail franchising) reduce network economies.

- **barriers to entry**. British and Australian transport competitions lower entry barriers because capital (rolling stock and buses) and incumbent staff are transferred with the contract to the winning bidder.

- **franchise length**. Regular competitions ensure that would-be bidders and incumbents have an eye to winning the next franchise round and that incumbent insight does not become so great as to stop rival bids at the next competition. Conversely, this means more competition costs and reduced investment payback time.

- **high competition costs**. High competition costs discourage bidders, encourage longer-than-desirable franchises and reduce net benefits from tendering.

- **handling risk and uncertainty**. Bids must be tested for their robustness, including plausibility, track records, skills and risk of default. If the bidder knows the franchisor is relatively risk-averse, it can lead to moral hazard behaviour.[5] The bidder has an incentive to submit a "bid-winning" business plan that is unviable, leading the franchisee to seek additional funding—the franchisor seeks to avoid service disruption.

In the following discussion I focus on transport competitive tendering competitions in Britain and Australia. Auctioning is undertaken for the right to deliver a given

[5] Moral hazard behaviour arises when a contract between two parties leads one party to alter its behaviour. For instance, where a person is insured against a given incident, the person may respond by taking more risks such as when the person insures themselves against theft, they may be less inclined to lock up their house.

"Passenger Service Requirement" provision. This minimum service standard (protecting public interests), usually consists of specifications on frequency, journey time, places served and maximum load factors. These core commitments are also essential if the franchisor is to be able to distinguish between bids.

COMPETITIVE TENDERING COMPETITION EXPERIENCES

In this section I outline the outcome of franchising experiences in Britain and Victoria and the contrasting gross-cost contracting in Adelaide. I argue that revenue risk is the defining feature of these rail franchising systems and its Achilles heel.

Great Britain

Between 1995 and 1997, British Rail (BR) was privatised. Twenty-five Train Operating Companies (TOCs), forming BR's domestic passenger business, were franchised, generally for periods of 7 to 10 years. Bids are sought only from private firms—when it operated the services, BR was not permitted to bid. TOCs have been refranchised since the original round of competitions.

The initial franchise competition objectives conflicted: the franchisor sought to improve service quality but franchises were awarded to bidders requiring the lowest subsidy. (NAO 1996, p. 8) Inevitably, this inconsistency emerged later as the franchisor could not secure higher service quality within the contracts. Currently-stated objectives for franchising include delivering efficient services representing "value for money for passengers and taxpayers", maintaining high safety standards, improving operational performance and securing accountable, viable operators". (NAO 2008, p. 10) The key words here are "value for money" and "viable".[6] Value-for-money lies at the heart of the competitions while viability means choosing an efficient company firm with realistic financial objectives.

We can adopt two approaches to consider tendering competitions. One approach is to examine official audits; the other is to look at anecdotal evidence. However, only the 1996 National Audit Office (NAO) report provides a clear assessment of the performance of 3 of the competitions and not the subsequent provision. In the absence of such information, we need to use anecdotal evidence.

It is not possible to establish whether the franchising has delivered value-for-money. The original franchisor considered that the bidding competition was a key factor in "securing value for money", but the auditor recognised that that judgement depended on the actual delivery of that improved efficiency, service quality and investment. (NAO 1996, pp. 7-8) There are no published reports that set out franchising promises relative to a public-sector comparator; such benchmarking is essential for ascertaining the worth of franchising given that public provision is the alternative to tendering.

Table 1 presents the summary findings from the NAO report on the first three franchise competitions. Although there were only a few bidders for each TOC operation, the average annual subsidy payments sought by the winning bidders was

[6] An analysis of rail safety is set out in Evans (2004).

not inconsistent with a priori estimates. Such estimates would help to moderate the tendency for the franchisor to also be drawn into bidding fever.

Table 1 Subsidy bids and estimates, first British franchises awarded (£m)

Train Operating Company	Comparison of annual subsidy estimates to a priori estimates		Final bid range for 7-year franchise period
	A priori estimate	Agreed average annual payment for 7-year franchise	
InterCity Great Western	40.8	43.3	255 – 324 (4 bids)
LTS Rail	27.0	23.2	150 – 191 (4 bids)
South West Trains	46.2	49.0	285 – 447 (4 bids)

Source: NAO 1996, pp. 28, 32.

It seems that the franchisor did not undertake such calculations in subsequent competitions. Welsby, the-then BR Chairman, noted that due to the pressure of the privatisation timetable, there was "no systematic benchmarking of the levels of improvement that a franchisee could reasonably be expected to deliver". (Welsby 1997, p. 5) Thus, value-for-money and viability could not be presumed.

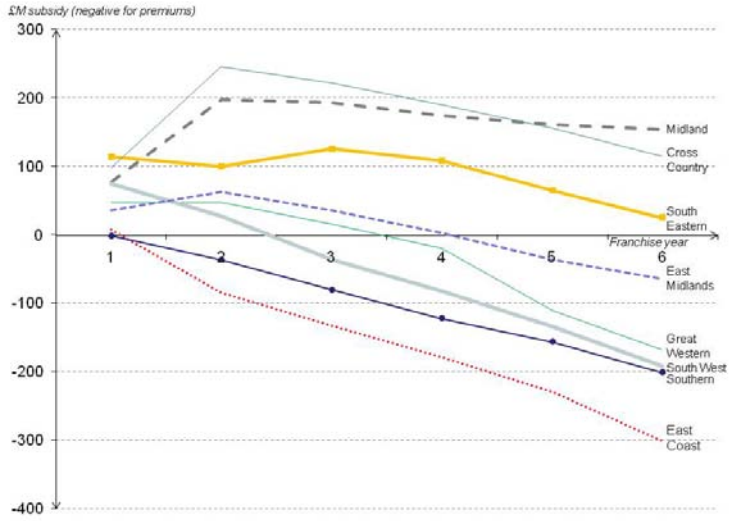
Given franchising costs, benchmarking is essential to ensure the system delivers value-for-money and viability. However, the franchisor decided against using benchmarking for value-of-money purposes. They "... took the view that the main purpose of the policy was to sell the franchises into the private sector" and that benchmarking against BR's performance would be inappropriate as the public operator's subsidy levels "could not take account of risk transfer". (NAO 1996, p. 31)

Benchmarking also provides a valuable role in assessing viability. Table 3 lists the TOCs, showing that as the first round of franchising progressed, optimism fever set in, with the initial 3 relatively cautious bids giving way to very aggressive bids. Thus it was especially later winning bidders that government bailed out—around half of the franchises. This is notable because the economic activity—which is the dominant factor in patronage growth rates—was subdued at the time of the bidding, and picked up only later. Had the economy continued on the pattern of the early 1990s, the level of bail-out would have been much worse. Thus the competitions largely failed the "viability" test.

Despite the apparent lessons learned from the initial franchising—described by the 2003 franchising director as "useless" (Bowker 2005)—refranchising rounds, beginning in 2005, have also been flawed. In the first round of competitions, the government had instructed the franchisor not to pursue bids involving profit- or revenue-risk sharing. (NAO 1996, pp. 34-35) Since 2005, however, competitions have applied revenue-sharing. A cap-and-collar revenue-risk sharing structure was introduced. A revenue band is applied around the bidder's projected "Revenue Line". Revenue excess is "capped", with government taking a share from the outset of the contract. Similarly, revenue shortfall is "collared", in this case from the start of Year 5 of the contract. Despite this apparent significant de-risking, winning bids have still failed the viability test.

There have been two notable failures of this new approach, both involving the InterCity East Coast operation. GNER re-won the TOC in 2005, using cap-and-collar risk-sharing. Its bid was based on aggressive financial improvement, especially after revenue-risk-sharing commenced in the fifth year. However, even the early-year assumptions were too bullish and the contract was cancelled in 2006, less than two years into the contract. National Express won the new contract. (Figure 1 charts National Express's agreed payments together with projected payments of other contracts using the risk-sharing approach.) By July 2009, however, that company also admitted that it did not expect to be able to make good its loss-making trend and would probably return the business to government.

Figure 1 Subsidy/premium profile of cap-and-collared franchises[7]



The evidence of bullish bids in this refranchising phase should lead the franchisor to question the bids. Opportunities for significant cost reduction (which should have been captured in the initial round of competitions) are one-off strategies, while endogenous revenue growth strategies are likely to have modest impact at the best of times. Thus financial improvements in subsequent competitions are likely to be modest, at best. In any case, robust winning bids should not be underpinned by demand and revenue projections that rely heavily on exogenous factors (notably, GDP growth). In particular, a slackening of economic activity is likely to impact on the level of patronage in that year as well as all subsequent years—the bids are typically based on compound demand and revenue growth. Thus, the bids take a long-term punt on the economy.

A clue to the bid assessment failure lies in the spread of bids: we should not expect a broad spectrum of results. Franchising competitions have awarded contracts to firms promising financial improvements that are considerably greater than other bidders; this is a problem for auctioning, especially if it leads to the franchisor opting for a bid that is not viable. As noted on page 5, sealed auctioning means that bidders are blind to other bidders' valuations. Thus, a broad bid range is likely to signal uncertainty, unrealism or incumbent advantage. For instance, the NPV value of GNER's 2005

[7] A premium payment by a TOC should not be interpreted as meaning that the TOC is profitable because TOCs do not reflect the true cost of access to the network. (RBI 2006, p7)

winning InterCity East Coast bid[8] was £1.3 billion, being around £500 million more than the nearest bidder. Similarly, the broad band of offers of the original South West Trains franchise (Table 1)—one of the first franchise competitions—probably reflected uncertainty and, thus, conservative, risk-averse bids. However Stagecoach's 2007 winning bid for South West Trains was £1.2 billion premium, being double the offer of the nearest bidder (£0.6 billion; the other 2 bids were for £0.5 billion) (RBI 2009, 2 July, p. 6). At this stage in franchising, operating trains was not the unknown quantity that it had been 12 years earlier. Stagecoach was the incumbent operator so it might be argued that it was better-informed; that said, blind bidding prevented rivals from gaining insights into the business *and* Stagecoach offered far more than it needed to. Such dispersion signals auctioning problems—if not implausibility.

Vickrey auctioning (awarding the contract to the highest bidder but on the financial terms of the second-highest bidder) can moderate the adverse impact of aggressive sealed bids although

> if the second price is *also* unduly optimistic, even this approach will not (without active franchisor scrutiny) prevent a winning bidder "winning" a franchise with financial terms that are unsustainable. (Kain 2007, p. 49)

This outcome is reflected in National Express's winning bid for InterCity East Coast, which was chosen ahead of Arriva's more aggressive bid. However, the second bid was also not robust—it relied upon sustained revenue growth of around 10 percent, which was very optimistic even for an economy not in recession. As illustrated in Figure 1, this bullish approach is common in the recently-awarded franchises using cap-and-collar. On this, in 2006 the industry specialist publication, Rail Business Intelligence, headlined that "bidders bet on perpetual growth"; the words to note from this pre-recession article are "bet" and "perpetual". Thus, collar risk-support has encouraged bidders to adopt aggressive bids in later years—a finance director of a transport group admitting that financial profiles are "all about financial engineering" (Ford 2009, p. 19).

The business plans are not robust. Even in the absence of aggressive bidding, it is to be expected that there will be difficulties with the revenue side of the ledger, due to the high exposure to exogenous factors—events beyond the control of the firm. There is also limited cost manoeuvrability, due to the enshrined Passenger Service Requirements. "Robust" business plans make contingencies for those events and this is challenging enough without taking an optimistic stance. On GNER's failure, the franchising director accepted [in January 2009] that the increased premium "…reflected the state of the market at the time but… if one was to let a franchise like that now—…" but the government had already repeated this lack of financial robustness with the replacement National Express franchise, which "…was predicated on growth rates[9] that, although reasonable at the time, proved undeliverable in the current economic climate". (House of Commons Transport Committee 2009, Ev 3; House of Commons 2009a, Column 45WH)

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[8] By contrast with initial franchising TOCs do not now pay the rail access charge costs for specified services; as a result more TOCs are paying premiums or receiving lower subsidies than previously.

[9] The franchise depended on economic growth for patronage growth and a *higher* revenue growth—it assumed that users would upgrade their tickets from discounted and second-class fares, to business and first-class fares. For this reason, the revenue projections were even more optimistic than the demand projections.

The franchises have also failed on the efficiency objective—the endogenous part of TOCs' costs should be where improvements are possible but where, in fact, performance has actually deteriorated. On average the initial franchises' unit costs rose, for instance with staff costs rising by 29 percent by 2001-02 compared to additional train kilometres of 18 percent and patronage growth of 15 percent (Kain 2007, p. 62, 79). This trend seems to have continued in later years: Nash reported a rise in real train operating costs of 47 percent for the four years from October 2000. (House of Commons 2006, p. Ev 117)

But it is attempting to transfer revenue risk transfer that is the fundamental flaw in the British franchising model. Even with cap-and-collar, both of the recent InterCity East Coast franchises faced financial difficulties long before their "collar" periods were due to commence. Cap-and-collar is not a cure-all for revenue-risk issues.

Indeed, the focus on the financial viability objective has been so dominant that the issue of value-for-money has been overlooked. The question as to whether franchising is efficient lies unanswered.

There have been extensive discussions on other aspects of the franchising model—particularly on competition cost, on optimal franchise length and service specification. These changes are important, but not fundamental. For instance, the move to much higher government specification of all aspects of franchise service delivery protects public interest (as envisaged by Chadwick) but it reduces further the ability of the franchisee to introduce the private sector flair that is supposed to lie at the heart of franchising.

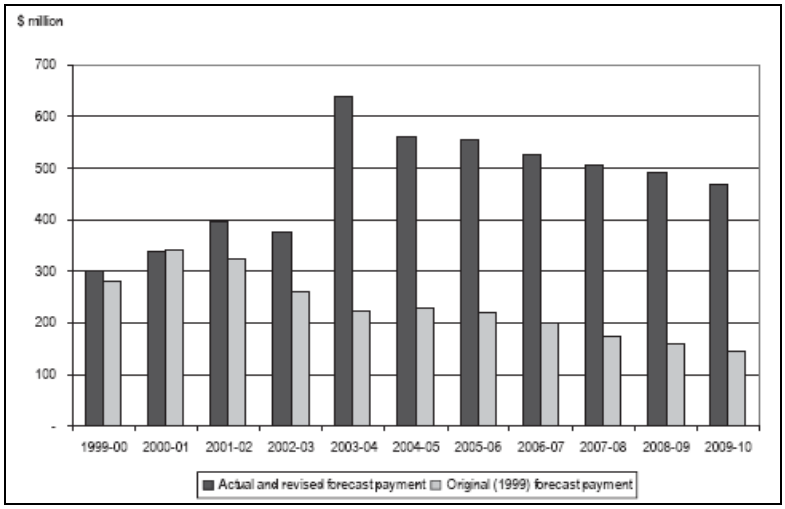
Melbourne

Three areas of passenger rail operation were franchised in the Australian State of Victoria in 1999: a regional franchise (V/Line) and Melbourne tram and rail services. I focus on Melbourne's rail services, which were initially franchised as two TOCs but refranchised as one TOC in 2009. The franchising had followed a period of rapid de-staffing, with tram, bus and heavy rail numbers falling from 18 000 in 1992, to 8 400 in 1997. (Department of Infrastructure 2005, p. 5)

The government's 1999 franchising objectives included "… to minimise the long term costs of public transport to the taxpayer", "… to transfer risk to the private sector", to improve service quality and "… to secure a substantial and sustained increase" in patronage. (*Op.Cit.*, p. 6) Despite the de-staffing as a major cost-saving already captured, the winning bidders promised major cost reductions. Indeed, as Mees notes, the Victorian Auditor-General concluded in 1998 (prior to the first competition) that "… after years of cost-cutting and rationalisation of operations, there appears to be limited scope for further cost reductions" (Mees 2005, p. 442). After the franchise system failed in 2002, the franchisor acknowledged that it was "… an industry that was already relatively efficient after five years of down-sizing and offered only limited scope for further cost reductions" (DOI 2005, p. 9) whereas in 1998 it was argued that franchising could bring a range of opportunities to reduce a substantial cost base. (Government of Victoria 1998, p. 9) The winning franchise commitments reflected this latter view and for the 5 franchise contracts in aggregate, the savings to the taxpayer relative to a public sector comparator was estimated as being between

$A 1.1 billion and $A 1.8 billion. (Kain 2007, pp. 89-90) See Figure 2, showing the projected decline in subsidy.

Figure 2 Melbourne's train and tram subsidy profile—payments to private operators (2004–05 A$)



Source: Auditor-General Victoria 2005, p. 25.

However, such promises have to be realised first. Two years into the Victorian contracts, "franchisees began to raise serious concerns with Government about their financial viability" (DOI 2005, p. 12). Cost savings could not be realised and patronage growth of 3 percent was well below operator assumptions of 15 percent. Despite additional subsidy, the new Franchise Review Task Force concluded that the franchises "… were financially unsustainable and could not be rescued by marginal contractual changes or short-term financial fixes". (DOI 2005, p. 13) This was apparent to National Express (operator of 3 of the 5 franchises), which walked away from its contracts, forfeiting its Performance Bonds. The 2 surviving tram and train operators took over the respective National Express tram and train services and shifted to negotiated contracts, ending in November 2009.[10] As is evident from Figure 2, the revised franchise subsidies and negotiated agreements led to much greater payments to franchisees than the original franchising.

As in Britain, the bidding competitions are based on first-price sealed bidding. While there is little information on how the bids are assessed it is clear that the first round competition bids bore no resemblance to patronage trends or to cost savings that could be realised. Table 2 sets out the basic parameters of the winning bids. As Greig, a staffer at the franchising agency, wrote in 2002 (before National Express's withdrawal), if the traffic forecasts were achieved "...this would bring patronage to above its highest historic level of the early 1950s, before there was widespread car ownership". Nonetheless, the "...case for optimism was bolstered by the experience of large patronage increases following privatisation elsewhere (for example, UK, Argentina". (Greig 2002, p. 245) Thus, here we can see that the *perception* of British patronage growth is filtering into *both* the bidder's financially-suicidal bids and the

[10] Following a refranchising operation in 2008-09, the Hong Kong-based MTR operator will take over the rail franchise.

bid assessors' acceptance of those projections. This is evident from a pre-franchise document:

> DOI investigated the feasibility of achieving a 40 to 50 per cent growth in rail patronage over the next 15 years. ... the results suggested developing a series of measures [such as new rolling stock, more frequent and faster services, better public transport interchanges...] would enable patronage growth to increase by around 50 per cent over the next 15 years. (Government of Victoria 1998, p. 10)

The data presented in Table 2 illustrate how this form of bidding can result in very different outcomes, for arguably two very similar urban passenger operations (similar size, patrons and exogenous environment). The National Express bid was far more aggressive than the Connex bid (which, in itself, was highly optimistic). Had it been possible to adopt open bidding, seeing other bidders dropping out of an auction might have moderated the remaining bidders' behaviour.

Table 2 Melbourne rail franchise parameters (1999 terms)

Franchisee	Patronage growth by 2014*	Revenue growth			Subsidy ($A m)		Net Present Value (NPV) of subsidies (A$ m)		
		2000–2001	2000-2005	2005-2014	2000-2001	2014	Fixed subsidies	Volume-based subsidies	Total
National Express†	+84%	15.5 %	+64% (10.4% pa)	+29% (2.9%pa)	83	-19	354	353	707
Connex‡	+64%	15.8 %	+45% (7.7%pa)	+20% (2.0%pa)	91	25	612	259	880

Notes: * Patronage growth during the 1990s was between 1 percent and 2 percent per annum.
† In addition, the franchisee committed to $A400 million in new rolling stock; $A70 million in stock refurbishments; $A260 million in track upgrading (including extensions of electrification); and $A27 million miscellaneous investment.
‡ In addition, the franchisee committed to $A314 million in new rolling stock and $A75 million in stock refurbishments.

Sources: Mees (2005, p. 438, 448); Department of Infrastructure (2005, p 9); Ehrhardt and Irwin (2004, p. 16); Productivity Commission (2001, p. 46); International Railway Journal (1999).

Subsidy trends and incentive/risk structures are crucially important to bidder viability; the 1999 Victorian franchise is a model example of a poor structure. Current British and the 2009 Melbourne franchising system use cap-and-collar revenue-risk sharing mechanisms to moderate the impact of outturn revenue that deviates significantly from the bid "Revenue Line". However, the 1999 Victorian model *amplified* the impact of the deviation of reality from forecast. As presented in Table 2, firms bid for a fixed subsidy and a volume subsidy; if patronage targets were not achieved, volume subsidy was not paid. This became a "double-whammy" for a firm not achieving its patronage growth: the fixed subsidy was inadequate and the firm could not claim on the volume subsidy. As Table 2 indicates, National Express (in particular) had a greater reliance on patronage growth to get subsidy, making the business highly unviable.

Data are not available on the 2009 competition. The new approach removed the

volume subsidy; there is a British-style cap-and-collar revenue-risk sharing structure. The collar (downside) comes into play at the outset of the franchise (rather than in the default year 5 in the British system) but the revenue must be below 70 percent of the Revenue Line before risk-sharing commences and, then, the sharing is 50:50 between franchisor and franchisee. Given the aggressive bidding observed in rail franchising, franchisees could still haemorrhage cash badly, whether above or below the Revenue Line.

Given the Auditor-General's conclusions a decade ago, the default assumption must be that there are unlikely to be significant cost savings to be achieved in the new franchising. With costs pared back, high service specification and much-reduced transfer of revenue-risk, it is debatable what, if any, gains will be captured from franchising.

Adelaide

Gross-cost contracting, involving cost-risk transfer to a private operator, is the essential feature that distinguishes Adelaide's tendering from Britain and Melbourne's rail net-cost (revenue plus cost risk transfer) franchises.[11] The British and Victorian experiences point to considerable challenges with transferring revenue risk.

Most of Adelaide's private bus operations—around one-half of all services—were nationalised in 1974. Subsequently, public sector operating conditions (notably, higher costs and lower productivity) were applied to the former private operations. Consequently, financial conditions declined dramatically. (Kain 1981, pp. 79–80)

Twenty years later, South Australia's government sought to re-introduce private provision of services. The low population density city, with relatively uncongested roads, faces financial challenges to subsidise even a modest public transport operation. Patronage had declined sharply, from around 65 million in 1980 (Kain 1981, p. 97) to 36 million in the mid-1990s. Given the need to provide a given minimum service level, declining revenue could not be matched by service cuts. However, even small per-unit cost reductions deliver considerable financial savings.

A key objective of tendering was therefore to reduce operating costs, to reduce taxpayer support. However, tendering contracts have been structured to improve service quality and encourage patronage. The evidence available (NERA 2001 and Bray & Wallis 2008) suggest that the objectives have been met to varying degrees over the two major tendering phases (1996-97 and 1999-2000).

The contracts have incorporated a degree of patronage-growth incentives. However, the leverage on financial inducement was reduced in the second contract round because "… operators were reluctant to make service changes or initiate new services because they were not confident about the likely size and speed of patronage response". (Bray & Wallis 2008, p. 128) NERA argues that there are "poor incentives to increase patronage with new contracts". (NERA 2001, p. 48)

[11] Gross-cost contracting is undertaken in other locations, such as with London's buses.

The cost-reduction objective was met. Bray and Wallis estimated that unit costs of service provision fell by between 26 and 31 percent (Bray & Wallis 2008, p. 132). The authors attribute the reductions to more flexible working conditions (enhancing productivity) and some lower pay rates (mainly for overtime). It should be noted, however, that the lower unit costs did not lead to the same reduction in taxpayer support because the cost savings were routed back to expanding the bus operations.

The consequence of service enhancements was to arrest the patronage decline. Bray and Wallis undertook a counterfactual analysis and concluded that had the pre-tendering patronage trend continued, actual patronage in 2006-07 would have been 42 percent lower than was actually recorded. They attribute the additional patronage to the consequence of tendering (with improved service levels) and to exogenous factors such as rising traffic congestion and economic growth.

There is evidence that the succession of tendering competitions have extracted the primary cost (unit cost and productivity) gains that could be achieved; the value of subsequent competitions would then seek to retain those gains. The contract terms are 10 years, with a break-point at the 5-year mark to enable either party to terminate the contract. Some insight into the margins can be ascertained. Serco ended its contract in 2004, at the contracted half-term break-point, after failing to renegotiate its contract on better terms. The company unsuccessfully rebid for the contract in the subsequent competition. The company's decision to terminate its contract suggests it faced financial pain, which implies that future competitions are unlikely to bring further significant unit-cost reductions. (Auditor-General South Australia 2006, pp. 10, 43) This finding is consistent with Hensher & Wallis's review of a range of competitive tendering competitions: "Subsequent re-tendering delivers minimal gains in subsidy reduction and often leads to an increase (above the consumer price index) in subsidy cost, in part response to the initial winner's curse". (Hensher & Wallis 2005, p. 296)

Adelaide's tendering competition has not been ambitious and has delivered unit-cost reductions that have funded service quality improvements and brought about patronage increases. As the first tendering round demonstrated, however, firms will not take the risk of patronage-inducing investments if their business plans do not rely on the possibility that revenue or subsidy may be generated.

SUCCESSES AND FAILURES IN COMPETITIVE TENDERING

My review of three tendering systems shows how the systems have evolved but, for the British and Melbourne systems, it is unclear that they have improved. Each competition has attracted at least a few bidders. However, does tendering deliver its promises? In Britain, there has been no assessment to establish whether value-for-money is achieved; primary objectives are cost reduction, patronage increase, service enhancement and viability. However, costs have risen, not fallen (Kain 2007, Nash). Patronage has risen, but predominantly due to economic growth and taxpayer-funded new rolling stock and not because of private-sector flair.

Public interest concerns arguably constrain franchisees' operational latitude—that "flair" cannot be used in service provision, with the franchisor increasingly specifying standards—as foreseen by Ekelund and Price (see above, p. 4). Indeed, a UK transport minister made no apologies for imposing detailed specifications.

Responding to criticism of micromanagement of a new franchise—such as specifying station staffing and office opening hours—the minister stated that he did "not regard that as micromanagement but rather as protecting the public interest". (Wolmar 2009) Similarly, Connex in Melbourne knew that its train air-conditioning units might fail in extreme heat "but did nothing because its contract did not require it to". (Lucas 2009) The franchisee appears to be behaving like a monopolist who arguably bears out the conclusion of Crain and Ekelund that franchising does not remove the "necessity of regulation" (in the form of high specification and monitoring).

Another area where public interest intervenes is in the loss of network economies that can arise when a network is dissected into competition-size bundles. The British soon saw a need to intervene to ensure that the railways were planned and operated as "...a coherent network, not merely a collection of different franchises". (House of Commons Select Committee on Transport, Local Government and the Regions 2002, para. 6).

Service continuity is a key public interest that has drawn governments into renegotiation, thereby undermining the competition. Firms bid aggressively, knowing that there is a strong likelihood that the government, trying to avoid disruption and competition costs, will weaken the contract terms. This also means that franchisees often have not taken on the risk that underlies their contractual payments.

Chadwick-Demsetz auctioning is fundamentally flawed when facing the twin public transport features of strong public interest and revenue-risk. That risk transfer in public transport service contracts leaves governments particularly exposed because assessors cannot establish forecast plausibility and, thus, if bids are robust. This makes it easier for bid aggression to occur, undermining incentives for the private sector to perform.. Thus risk and responsibility can never be successfully transferred to the private firm; and the most brazen bid can win over the most efficient bid. Bidders know and have observed, governments' predisposition to renegotiate. As noted by Gómez-Ibáñez, "most governments choose renegotiation… The immediate pain of inadequate service, or of one's contract being flagrantly violated, usually trumps more distant considerations of precedent". (Gómez-Ibáñez 2003, p. 7) In such situations, the incentives are weakened and recovering their bite is, according to Glaister "… harder now that the private sector has learned that the public sector is rather reluctant to enforce contracts". (Glaister 2005, p. Ev 49–50) The British government has left the door ajar, saying "… we are not prepared to renegotiate the main terms on which a franchise was awarded in the first place other than in circumstances where doing so would clearly benefit the public purse". (House of Commons Transport Committee 2006, p. 10)

In Britain, National Express has argued that its ability to respond to the 2009 downturn traffic downturn is restricted because the franchisor has tightly-specified the contracts. (Milmo, 2009) However, that Public Service Requirement is the core "public interest" feature that lies at the heart of public transport tendering. As the NAO noted in 1996, in setting the contracts in this way the Ministers wanted the franchisees to take on a "more substantial transfer of risk and reward". (NAO 1996, p. 34) The subsidy/premium payment profiles presume that franchisees accept those terms.

The underlying problems remain that bidding assessments do not remove aggressive bidding that leads to unviable franchises; and that public interest concerns wrong-foot the government in responding to that unviability. Further, even when aggression is not present, the franchises may not be robust: unanticipated exogenous growth and insufficiently accurate endogenous growth factors can undermine the assumed Revenue Line. This is not unique to franchising; new transport investments, such as Eurostar, face revenue-projection problems.

The reality is that bids are being driven by gambling on the direction and strength of economic activity—by both the bidders and the franchisor (despite the latter's apparent greater risk-averseness). Even if the bids appear to be based on conservative revenue projections, public transport patronage levels remain highly sensitive to economic activity. For instance, in Britain, the change in economic activity is the predominant determinant of the trend in InterCity and London commuter patronage. This should make it very challenging for bidders to develop financial projections that are attractive but nonetheless robust enough to sustain the normal pattern of swings in the level of economic activity.

Since 2005, British franchising and (since 2009) Victoria, has reverted to some of original 1995 ideas of revenue risk-sharing. Some have argued that a longer franchise term will solve the viability problem but, as the recent InterCity East Coast and Cross-Country examples illustrate, the franchises can get into difficulties very early in the contract—a longer term, even with break points, does not necessarily resolve this problem.

The bid assessment process has been invalidated; it has meant that franchisees received excessive subsidy/paid insufficient premium for risk they did not bear; and weakened franchisee incentives to bid for, and operate TOCs. Efforts to transfer revenue-risk are the Achilles heel of franchising.

The bidder side of the franchising competitions is also more prone to aggressive bidding and implausibility because of the (arguably necessary) use of sealed bidding, making auctioning even more susceptible to unrealistic bidding. The bidders lack the information flow that comes with open-bidding competitions; such information might otherwise encourage moderation. As a result, franchisees captured windfall gains or got into financial difficulties: the entire initial Victorian and half the initial British contracts being renegotiated, despite buoyant economies.

Adelaide's tendering has delivered the primary objective of significant cost savings, which have funded service improvements, which in turn generated patronage growth. The initial contract incentives to increase patronage were impotent, principally because there is high risk and only modest revenue gains in the contractor financing enhancements. Arguably, the city's gross-cost contracting has made the system succeed where, thus far, British and Victorian franchising has failed.

Adelaide's experience also conforms to the golden rule of contracting: do not sign contracts when there is any reasonable doubt that a party can deliver on its commitments. As only cost-risk was transferred, Adelaide's franchisor could make more reliable bid assessment, so the "right" winning firm was more likely to be chosen. This retains long-term operator incentives and protects bidding realism.

Crucially, the viability of Adelaide bidders' business plans do not rely on funds derived from revenue/patronage-enhancing incentives—this contrasts with British and Victorian rail franchises. Adelaide's revenue incentives lie outside of formal contract terms that are assessed. Thus, if revenue is generated, then it is merely icing on the cake to the underlying contracts rather than a make-or-break revenue stream. This exclusion makes it easier to assess bids for their plausibility and robustness to shocks.

It is difficult for bidders to win with robust plans when franchisors are content to accept aggressive bids. The quality of bid scrutiny is pivotal to the success of the competition—one-half of the 25 initial British franchises and all of the Victorian franchises got into financial difficulties despite the respective economies being far stronger than could have reasonably been assumed. Lessons have not been learned, with recent British franchise contracts being awarded on aggressive and/or non-robust terms—as illustrated in Figure 1. Leaving GDP risk with the government (as suggested by Kain (2007) and Britain's Association of Train Operating Companies would certainly make bidders' endogenous assumptions clearer for franchisor scrutiny and make TOC business plans inherently more robust.

Finally, where "public interest" concerns are so strong that government dominates the service specification and does not let TOCs fail, it weakens both the tendering competition and the ability of the franchisor to make the risk transfer stick. As the Director-General of ATOC has noted, "It's a realisation of the fundamental truth...the underlying risk always comes back to the person who wants it—the outsourcer." (The Financial Times, 7 March 2002)

Competitive tendering may offer significant service, financial and probity benefits—these should be subject to *ex post* value-for-money assessments. For its success, the franchising system relies on the principal successfully transferring the risk to the agent. If that risk is not being successfully transferred to the franchisee, then it provides strong arguments for *not* putting the services out to tender.

Thus, if the Chadwick-Demsetz approach is to avoid being completely discredited as a preferred service-delivery model then reducing TOC failure rates is essential. The outcome of the competition must ensure that the "efficient" winning is also one that has a robust/viable business plan *and* will face appropriate incentives to deliver the terms of the contract. Adelaide's experiences suggest that goals may be achieved simply by excluding revenue-risk transfer entirely—limiting service improvements to bolt-on bonuses that lie outside the core contract. The alternative is to remove exogenous risk (which dominates revenue risk) [12]. Either approach should make bid assessments easier/more accurate, ensuring that the business plans are more robust and formalising the level of risk that can actually be realistically transferred.

[12] Kain (2007, p. 105) suggests that if economic activity is the primary exogenous factor then an alternative is to have firms bid using their endogenous revenue growth assumptions but using a government-set subsidy component that varies according to the level of economic growth.

Table 3 Average required annual TOC financial improvement [a], implied from bids

Train operating company	Average required improvement to 2002	Order of original franchising	Phase I: financial variance from contract	Operating margin, 1996-97 to 2003-04[†]
InterCity				
Great Western	2%	=1		7.4%
Gatwick Express	4%	=2		9.3%
East Coast*)*	4%	=2		14.1%
Midland Main Line	4%	=2		7.5%
West Coast	6%	9	Management contract	9.2%
InterCity sub-total	**4%**			
London commuting (Network SouthEast)				
South West Trains	2%	=1		8.7%
LTS Rail (c2c)	3%	=3	Renegotiated[∞]	-4.1%
South Central *(Southern)*	5%	=3	Renegotiated[∞]	4.6%
Chiltern Railways	8%	4		7.9%
South Eastern	7%	=5	Management contract	-4.3%
Thames Trains	10%	=5		-1.8%
Anglia Railways	12%	=6	Management contract	-0.2%
Great Eastern	5%	=6		10.5%
West Anglia/Great Northern	11%	=6	Great Northern sub-franchise under management contract	7.5%
North London Railways	10%	=8		-0.3%
Thameslink	8%	=8		8.5%
London sub-total	**6%**			
Regional: non-South-Eastern conurbation and rural				
Cardiff	19%	=5	Management contract	7.3% (Wales & Borders)
South Wales & West *(*Wessex)	14%	=5	Management contract	7.2%
Island Line	na	=5		9.6%
Cross-Country	11%	=6	Management contract	-9.5%
MerseyRail	17%	7	Management contract	8.7% (Arriva)
RR North East [Northern Spirit] Arriva Northern	16%	=8	Management contract	4.8% (Arriva)
North Western	19%	=8	Management contract	1.4%
Central Trains	13%	=8	Extra subsidy	-2.8%
ScotRail	10%	10	Extra subsidy	-2.2%
Regional sub-total	**13%**			
Total: all franchises	**7%**			

Note: [a] The average improvement is defined as the change in subsidy over the period to 2002–03, divided by the number of years, relative to the 1996–97 turnover.

† From table in National Express 2006, p. 2. [∞] From Smith, et. al 2009, p. 43.

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