

## **Value for Money in Procurement of Urban Bus Services -- Competitive Tendering versus Negotiated Contracts: Recent New Zealand Experience**

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**Keywords:** Bus procurement; Bus tendering; Competitive tendering; Bus contracting; Negotiated contracts; Benchmarking; Cost efficiency; Value for money; Thredbo conference; Public Transport Operating Model; New Zealand.

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The paper analyses the prices for the tendered and negotiated bus contracts in NZ's two largest metropolitan areas, Auckland (50 contracts, c.1100 buses) and Wellington (16 contracts, c.400 buses). Key findings are that: (i) for the tendered contracts, significant cost reductions were achieved compared with previous tendering rounds, reflecting the considerable increase in the number of bidders per contract; and (ii) for the negotiated contracts, (gross) costs averaged about 10-15% higher (Auckland) and 30- 35% higher (Wellington) than the equivalent tendered costs.

These cost disparities reflected the weak position of the regional councils in their contract negotiations with the operators, as a result of the councils not having recourse to tendering as a fallback negotiating position and coming under considerable time pressures to introduce the new services.

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The new Public Transport Operating Model (PTOM) recently introduced by the New Zealand government for local public transport services involves a mix of competitively-tendered and negotiated bus contracts in the main metropolitan areas. Most features of the procurement procedures and almost all the contract terms and conditions are common to both types of contract. This has provided a rare opportunity internationally to compare the impacts of the alternative procurement methods on contract prices.

The paper analyses the prices for the tendered and negotiated bus contracts in NZ's two largest metropolitan areas, Auckland (52 contracts, c.1100 buses) and Wellington (16 contracts, c.400 buses). Key findings are that: (i) for the tendered contracts, significant cost reductions were achieved compared with previous tendering rounds, reflecting the considerable increase in the number of bidders per contract; and (ii) for the negotiated contracts, (gross) costs averaged about 10-15% higher (Auckland) and 30- 35% higher (Wellington) than the equivalent tendered costs.

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### **1. Introduction**

One of the key Thredbo conference topics since 1989 has been the relative 'value for money' achievable by different models of procuring urban bus services, particularly focusing on periodic competitive tendering (CT) versus continuing operation by the incumbent operator on a negotiated price basis and subject to meeting performance benchmarks (NC). A major practical problem generally encountered in attempting such comparisons has been the lack of situations suitable for 'like-for-like' comparisons. The CT and NC situations for comparison have typically differed by such factors as types of area (e.g. inner vs outer urban areas), type of services to be provided, contract sizes and durations, asset ownership and funding arrangements, performance requirements and other contract conditions.

Most of these potential comparison problems were overcome in the recent reforms of local public transport (principally bus) services in New Zealand, under the new Public Transport Operating Model (PTOM). Under this reform model, since 2016 all urban bus service contracts have been specified on a similar basis, involving a group of routes, a gross cost funding basis, bus and depot provision by the operator, and with similar contract performance requirements and financial arrangements.

Within this common contracting framework, services have been procured on one of two bases:

- (A). Open competitive tendering (CT), with tender evaluation involving price vs quality trade-offs; or
- (B). Negotiation with the incumbent operator (NC), with either: (B1) competitive tendering as a fall-back should the negotiation process be unsuccessful: or (B2) no fall-back position (ie the parties are required to reach agreement through negotiation)<sup>1</sup>.

Apart from the different bases of operator selection, in most respects the PTOM procurement processes were very similar: in both cases, a Request for Tender (RfT) document was issued, either on an 'open' basis (CT) or on a 'closed' basis to the incumbent operator only (NC), with respondents required to submit contract prices and other details of their service offering. The tendered (CT) contracts in each region were evaluated first, using a price versus quality trade-off approach. This established the preferred operator for each contract, with an associated gross contract price to be paid from the start of the contract<sup>2</sup>. The negotiated (NC) contracts were then subject to a negotiation process, taking account of both the operator's initial bid price and the prices recently established for comparable CT contracts in the same region.

This situation has provided an almost-ideal opportunity to compare contract prices established for NC with those recently established through CT for comparable services in the same region under comparable terms and conditions. These contract price comparisons are the main subject of this paper.

The paper focuses on the author's analyses for NZ's two major metropolitan areas: for Auckland they cover 50 contracts (23 CT, 27 NC) requiring some 1100 buses, for Wellington 16 contracts (9 CT, 7 NC) for some 400 buses. Analyses of contract costs (prices) were undertaken at the individual contract level, but with the primary focus on the comparative cost findings for the CT group and NC group of contracts.

To complement the cost analyses, the author held interviews with the regional authorities and other parties involved in the procurement process. These interviews explored the perceived strengths and weaknesses of the two procurement approaches; the difficulties encountered in the contract price negotiation process; the factors underlying different findings on comparative costs for different regions and different groups of contracts; and potential modifications to procedures that could contribute to achieving better value-for-money in future procurement rounds. The points emerging from these interviews were then brought together with my analyses of the negotiated and tendered contracts prices in drawing out the main learnings and conclusions on the procurement processes adopted.

After this introduction, the paper is structured as follows:

- **Section 2.** Provides an overview of the international (empirical) evidence on the relative prices (costs) achieved for urban bus service contracts procured through competitive tendering and those through negotiation with (usually) their incumbent operator -- for the few situations in which such comparisons allow useful conclusions to be drawn on the relative cost efficiency resulting from the two procurement approaches.

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<sup>1</sup> Option (B2) applied only for contracts relating to services that had previously been provided on a commercial (unsubsidised) basis.

<sup>2</sup> This initial contract price was subsequently adjusted quarterly throughout the contract term, to compensate the operator for underlying inflationary trends (e.g. relating to fuel and labour) affecting the NZ bus sector.

- **Section 3.** Outlines the recently- introduced New Zealand Public Transport Operating Model (PTOM) and its key features relevant to the alternative approaches to procuring bus contracts.
- **Section 4.** Sets out the main outcomes from the recent PTOM procurement (tendering and negotiation) rounds, focusing on NZ's two largest metropolitan areas. It describes a contract costing model, which relates contract costs (prices) to key bus operations measures (bus hr, bus km, peak vehicles), with parameters set to be consistent with the mean cost rates for tendered contracts. The model was then applied to compare the actual costs of each negotiated contract with its modelled costs (as if it had been tendered). The ratios for the negotiated contracts of their actual costs to their modelled costs is then a measure of their cost (in)efficiency relative to the tendered contract costs. The causal factors contributing to these efficiency ratios are then discussed along with any potential deficiencies or over-simplifications in the costing model.
- **Section 5.** Assesses the main findings from section 4, focusing on the primary features of the PTOM model application which appear to have been the causes of the pricing (in)efficiencies for the negotiated contracts.
- **Section 6.** Outlines the key conclusions from the paper and the lessons learned as to “how to do it better” in future PTOM procurement and contracting rounds.

## 2. Overview of the International Evidence

This section summarises the international evidence on the relative pricing of urban/regional bus service contracts procured through competitive tendering and those procured through negotiation (non-competitive, generally with incumbent operators). The focus of this literature review is on to what extent and in what circumstances negotiation with incumbent private (generally ‘grandfathered’) operators can achieve cost efficiency levels comparable with those achievable through competitive tendering (assuming a ‘healthy’ level of competition) for comparable contracts. Appendix A sets out the main findings and my assessment of these from the most relevant international literature sources.<sup>3</sup> The text following summarises the main points emerging from the international evidence which are most relevant to the theme of this paper.

Much of the international evidence examined relates to Australian experience. In most Australian metropolitan areas, bus services in the inner (older) parts of the area were originally operated by public (generally state-owned) operators. Services in the middle/outer areas were operated by private operators, which originally established the services on a commercial basis as these areas were developed: subsequently these services have been formally contracted and subsidised by state governments on a more-or-less perpetual (‘grandfathered’) basis. Over the last 20 or so years, some states have moved to competitively tender these services; while other states have continued to periodically negotiate new contract provisions and payment rates with their ‘grandfather’ operators, but with increasingly greater emphasis on benchmarking and the achievement of cost efficiency savings through negotiation (with a threat of introducing competitive tendering in the longer run if necessary to achieving these efficiency savings). Given this context, Australia has been

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<sup>3</sup> These sources are Wegelin (2018), Wallis & Bray (2014), Wallis et al (2010), Hensher (2015), Arbuckle (2014), Mouwen & van Ommeren (2016).

a fertile ground for assessing the relative cost efficiency performance of competitively-tendered contracts and periodically-negotiated contracts (in each case provided by private operators).

Apart from Australia, the other international evidence is rather mixed as to whether, to what extent and in what circumstances prices for negotiated contracts have been (or could be) secured on a par with efficient prices resulting from competitive tendering (ie the prices likely to result in open tender situations subject to a 'healthy' level of competition).

Some of the European analyses on this topic (e.g. Wegelin 2018, Mouwen et al 2016) indicate that NC may, under the right conditions, achieve close to the levels of cost efficiency obtainable through CT. In such cases, minimal further cost savings would be likely to result from the implementation of tendering.

The literature strongly indicates that the key requirement to achieve efficient pricing with NC is that the **real threat** of competition is present. This threat may involve any or all the following:

- a demonstrated policy of reverting to CT if contract negotiations break down because efficient pricing is not achievable with the incumbent operator;
- the adoption of actual competition (CT) for other contracts in the area and/or region, with implications that CT could readily be adopted for the contract in question;
- the publication (and wide knowledge) of benchmark cost rates, with indications that these would be treated as a price ceiling (subject to any warranted contract-specific adjustments) in any negotiations; and/or
- where potential bidders have experienced competition and are familiar with what is involved (in terms of efficiency improvements etc.) in achieving success in a CT environment.

Other ingredients required to under-pin the successful negotiation of negotiated contracts, usually with incumbent operators, are set out in Table 1 (based on workshop deliberations at the 2009 Thredbo conference).

<b>Table 1: Suggested Conditions for Accountability and Transparency under Negotiated (Performance-based) Contracts</b>	
1.	<b>Performance benchmarking</b> (initially and ongoing) to ensure that operator performance is efficient. This benchmarking needs to be subjected to independent verification. KPIs and the threat of competition, in the event of inadequate performance, assists the maintenance of competitive pressure and efficient performance.
2.	An <b>open-book approach to costs</b> , achieved through an independent auditor. Operators whose costs appear to be high through this analysis must justify their numbers or face a cut in remuneration. Those whose costs appear low have the opportunity to argue for an increase.
3.	The appointment of a <b>probity auditor</b> to oversee the negotiation process.
4.	<b>Public disclosure</b> of the contract.

**Source:** Stanley J and Longva F (2009). Workshop 2 Report: A Successful Contractual Setting. 11th International Conference on Competition and Ownership in Land Passenger Transport. Delft, Netherlands.

In practice, certainly in Australia, contract price negotiations with 'grandfathered' operators have been largely unsuccessful in securing contracts at efficient cost levels. For example, Table 2 summarises the evidence on price reductions negotiated for Melbourne's

'grandfathered' bus contracts in 2008: the price reductions achieved were only 0.3% averaged across all the metropolitan bus contracts and their multiple operators.

**Table 2: Melbourne Experience on Contract Price Determination for Negotiated Contracts (with Incumbent Operators)**

- Authority (DoT Vic) benchmarked the costs of the previous contracts against interstate contracts.
- MEL operators agreed to be benchmarked and provided detailed financial templates.
- DoT/operators agreed any costs exceeding the industry average by defined percentages<sup>(1)</sup> would need to be justified.
- DoT examined 18 operators under this provision and negotiated cost reductions for 11 of them.
- Contract cost reductions resulting from this process were \$1.3Mpa, representing 0.3% of total annual contract costs.

Source: Victorian Auditor-General (2009). Melbourne's New Bus Contracts. Report to Victorian Parliament, June 2009.

Notes: (1) 10% for bus hour and bus km costs, 20% for bus overhead costs, 2 percentage points for profit margin.

By contrast, the introduction of CT in Australia to replace previous 'grandfathered' (private operator) contracts has generally seen considerably greater efficiency gains than have been achieved through contract negotiations. Examples of this in Australia's two largest cities are given in Table 3, with cost savings in each case (on a like-for-like basis) of around 10% or greater.

**Table 3: Gross cost changes resulting from competitive tendering of Sydney and Melbourne metropolitan contracts (2012-14)**

Item	SYD Tranche 1	SYD Tranche 2	MEL
# Contracts	4	4	1
# Buses (approx.)	690	770	520
Total gross costs (prior to CT)	A\$130 M	A\$200 M	A\$180 M
% cost savings:			
** Headline estimate	14%	10%	8%-10%
** Adjusted estimate (1)	18% - 20%	13%-15%	Not avail.

Source: Wallis IP & Bray DJ (2014). The contracting of urban bus services - recent Australian developments. Research in Transportation Economics

Note (1): Adjusted estimate represents reduction in unit costs in competitive tendering case after allowing for any service increases and expected cost increases (for inflation etc) in 'negotiated contract' (base) case.

An additional comment made in the literature (e.g. Arbuckle 2013) is that any move from previously-negotiated contracts to CT is often preceded by efficiency savings in the few years before CT is introduced. Thus, any immediate 'before vs after' analyses of savings arising from CT (as in Table 3) are likely to under-state the total impacts of moving to a CT policy (if a longer-run perspective were taken).

The recent NZ experience with procuring a mix of CT and NC contracts, which is the primary focus of this paper, is addressed principally in section 4.

### 3. New Zealand's Public Transport Operating Model (PTOM)

#### 3.1 Policy context

Legislation was passed (the Public Transport Management Act, 2008 (PTMA)) in the last days of the then Labour-led government to change the regulatory framework for local public

transport in NZ. In particular this legislation was designed to bring all such services under the control of the regional councils: previously, since 1991, NZ had broadly followed the British regulatory model, with commercial (unsubsidised) services being largely exempt from controls by the public authorities .

Almost immediately following the passing of the PTMA, a general election resulted in a change of government to a coalition led by the National (centre-right) party. It did not support the PTMA, which was seen as increasing regional government control of the public transport sector to the detriment of the (very largely) private operators in that sector. The PTMA was therefore effectively 'put on the shelf'.

The new government embarked on a process to replace the PTMA legislation, in order to address its concerns with the previous regulatory system, including in particular: (i) increases in public spending on public transport not being matched by patronage increases; (ii) very little re-tendering occurring, with very low numbers of tender responses to the tenders that had occurred; and (iii) the regional (contracting) authorities having very limited levers to encourage and incentivise performance improvements. After an extensive process of public consultations, working parties and debates on the issues, new legislation was passed in 2013: this centred on the Public Transport Operating Model (PTOM), which was to provide a new planning, procurement and business development framework for local public transport services.

PTOM was designed to contribute to the government's overall goal of "growing public transport patronage with less reliance on subsidy". It had two top-level objectives:

- to grow the commerciality of public transport services (i.e. to improve efficiency and reduce the level of subsidy over time); and
- to grow confidence that services are priced efficiently and that competitors have access to public transport markets.

### 3.2 Key features of PTOM

PTOM applies to all local bus and ferry services in NZ (but does not cover rail passenger services): this paper focuses on bus services, which account for the major share of all local PT services. The key features of PTOM most relevant to this paper are as follows:

- **Adoption of a partnering approach to service planning and delivery.** This recognises that both parties (ie operators and PT planning/funding authorities) have a stake in, and rely on each other for, delivering affordable PT services focused on user needs. It would be achieved through mechanisms such as collaborative business planning, joint investments, and financial incentives.
- **All services to be contracted,** specified by the authority. The previous two-tier system of commercial (unsubsidised) and contracted (subsidised) services was abolished, with all services now being subject to contracts (with regional councils). This change was designed to facilitate integrated network planning, fare-setting, management information etc by the authority. The only exception was for commercial services that are not part of the region's core network.
- **Contracts to be based on 'units'.** For procurement and contract management purposes, individual routes and route groups were bundled into larger 'units'. The specification of a 'unit' was guided by multiple criteria, including to cover readily-

identifiable customer markets; to cover the entire length of one or more routes; to reflect network effects and connections between routes; and to be attractive to the operator market, by attracting competition from a range of operators.

- **Operator procurement** to be through competitive tendering (as default), but to require or allow for procurement through negotiation in some circumstances. These circumstances are: (i) in exchange for commercial services previously operated in the region, on a 'like-for-like' ('L4L') basis (ie if an operator was previously operating X bus kms pa in the region on commercial services, they were entitled to negotiate contracts covering an equal number of bus kms); and (ii) for other units in the main centres with relatively high cost recovery ratios (at the discretion of the regional council).
- **All contracts to be on a gross cost basis.** Previously contracts in all the main regions had been on a net cost basis (with the operator retaining fare revenues): this change was intended to facilitate service planning and integrated fares and ticketing systems.
- **All main assets (buses, depots) to be provided by operators.** Unchanged from previous NZ practice.
- **Contract durations** (as specified in regulations). These are 9 years for competitively-tendered units; 12 years for negotiated 'like-for-like' units (a once-off provision, no renewal); 6 years for other negotiated units.
- **Approach to procurement of negotiated contracts.** As summarised in section 1, in regions where any contracts were to be negotiated, a competitive tendering round for other contracts was to be held first, in order to determine efficient market prices: the 'benchmark' price for a given contract is defined as *"the value that the contract would be expected to receive if it was procured under a competitive market process (ie tendering)"*. This information is then used to provide a "benchmark price range", to be used as the basis for negotiating a price for the negotiated contracts are. Where an appropriate price within the "benchmark price range" cannot be agreed by negotiation, the two parties may go to mediation and (for like-for-like contracts) to arbitration. For like-for-like contracts, the arbitrator's decision is final; for other negotiated units, the authority may decide to revert to competitive tendering.
- **Treatment of labour in procurement process.** No requirements were specified regarding continuity of employment on the same or better pay and conditions for bus company employees affected by transfer of contracts to a different operator: this has been an ongoing point of contention with some employees and the labour unions<sup>4</sup>. One region did include procedures in its tender evaluation to give additional weight to tenders offering to pay the 'living wage' to all employees affected.
- **Contract monitoring.** Contract monitoring provisions were strengthened, including penalties/ incentives related to operator performance (particularly re service reliability and punctuality).

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<sup>4</sup> in Australia, prevailing practice in the urban bus sector when any contracts are retendered is that, in the event of a change in operator, the new operator is obliged to employ most staff from the existing operator who wish to transfer, on similar or better terms and conditions than with their previous employer.



## 4. NZ procurement outcomes

### 4.1 Overview of PTOM operations and cost changes (Auckland and Wellington)

For Auckland and Wellington, Table 4 provides key total operational and cost statistics following the PTOM procurement round (involving a mix of tendered and negotiated contracts), and also shows changes in the figures from the 'before' position. Some key points are:

- **Bus (service) km.** These totals increased by some 33% for AKL, 2% for WLG. The large increases for AKL reflect the authority's policy to undertake a major restructure of the route network along with a considerable increase in overall service levels, particularly in off-peak periods. By contrast, the total service km increased by only 2% for WLG, although this was also accompanied by some route restructuring.
- **Bus (service) hours.** It is noted that the AKL figure increased by 41%, substantially more than the increase in bus km. I understand that this is not because the new services run more slowly in practice, but because the previous running time allowances had been unrealistic.
- **Gross contract costs (per service km).** These costs reduced by 17% for AKL, 8% for WLG compared with the previous situation. It is also notable that AKL costs per service km were 11% lower than those for WLG, and per service hour some 16% lower. Factors influencing these cost relativities are discussed later in this section.

**Table 4: PTOM impacts on service levels and costs (Auckland, Wellington)**

Item	'After' statistics	% change 'After': 'Before' (1)
<b>Auckland</b>		
Bus km (service)	58.12 million pa	+33%
Bus hours (service)	2.672 million pa	+41%
Peak buses	1108	+15%
Gross contract costs	\$276.8 million pa	+7%
Gross contract costs/service km	\$4.76	-17%
Gross contract cost/service hour	\$103.6	n/a
<b>Wellington</b>		
Bus km (service)	14.74 million pa	+2%
Bus hours (service)	0.636 million pa	n/a
Peak buses	390	n/a
Gross contract costs	\$78.7 million pa	-7%
Gross contract costs/service km	\$5.34	-8%
Gross contract costs/service hour	\$123.7	n/a

Note (1): n/a = not available

### 4.2 PTOM approach to operator procurement

As noted in section 3, while competitive tendering was seen as the 'default' method of bus service procurement under PTOM, contract negotiation with incumbent operators was required or permitted for some contracts.

Table 5 summarises, for AKL and WLG, the resultant market shares (measured in service km) for the alternative procurement methods:

- Both regions previously had relatively high (but well under 50%) proportions of commercial services: they therefore were required to negotiate 'like-for-like' contracts for the equivalent level of service km, and they also negotiated some additional services with their incumbent operators (these additional services were generally those with a relatively low proportion of subsidy and/or were chosen for other specific reasons, such as being complementary to adjacent like-for-like services).
- For AKL, the negotiated services accounted for over half (53%) of the total service km operated, and 29 out of the 52 units; while for WLG the corresponding proportion was just over one-third (34%), accounting for 7 out of the 16 units.
- In general, the negotiated units were those with the highest cost recovery (fare revenue: operating cost) ratios. They generally focused on the main, high-frequency routes in the inner/middle parts of the urban area, while the more minor routes and the outer area routes were tendered.

**Table 5: PTOM bus contract procurement approaches (Auckland, Wellington)**

Procurement type		Duration	Market share (service km)	
			Auckland	Wellington
Competitive tendering		9 years	47.2%	65.6%
Negotiation	Like-for-like	12 years	30.7%	28.3%
	Other	6 years	22.1%	6.1%

Urban centres other than AKL and WLG previously had very few commercial services and under PTOM the great majority (or all) of their services were procured through competitive tendering.

#### 4.3 Competition for tendered contracts

For the first time since the original 'deregulation' of local bus and ferry services in New Zealand (largely implemented in 1991), the PTOM process has resulted in strong levels of competition for competitively-tendered contracts (Table 6). This was particularly the case in AKL and WLG where tenders received five to six bidders on average. In the medium/smaller centres, tenders typically received three to four bids.

**Table 6: Levels of competition for tendered contracts – NZ summary**

Region <sup>1</sup>	Tendered market		Bidders/contract	
	Units	Service km (mill pa)	Mean	Typical range
Auckland	23	27.8	5.65	4-8
Wellington	9	9.8	5.22	5-7
Medium centres (4)	17	18.8	3.94	2-6
Small centres (6)	12	2.4	2.63	2-5
<b>New Zealand total</b>	<b>61</b>	<b>58.8</b>	<b>4.66</b>	<b>-</b>

**Note:** (1). Excludes Canterbury where PTOM has not yet been fully implemented and Otago which did not respond to the survey.

Where tenders are received from at least three or four bidders, this would usually be taken (internationally) as an indication that the market is operating efficiently and that the resulting contract prices would provide a reasonable reflection of the efficient costs of supply in the

local bus service market<sup>5</sup>. It has meant that, under PTOM, contracts that have been competitively tendered have generally been awarded to operators with relatively efficient cost structures and low tender prices, subject to their meeting all other contract requirements.

These levels of competition may be compared with the earlier experience with local bus tendering in NZ. In previous tender rounds since 1991, typically the level of competition for bus contracts in the two main regions had been either one or two bidders: unsurprisingly, the great majority of contracts were retained by the existing operator.<sup>6</sup> Such levels of competition would generally be seen as insufficient to provide an effective competitive market and therefore in general unlikely to result in efficient contract prices.

**4.4 Operator market share outcomes**

The PTOM procurement round resulted in major changes in operator market shares in the main metropolitan centres (and also in the smaller centres). Previously the dominant operator of both contracted and commercial services in the main centres was NZ Bus – which was owned by Infratil and had emerged through acquisitions (originally by Stagecoach) of several municipal and railway-owned companies in the 1990s.

The main changes in operator market shares in AKL and WLG as a result of the PTOM procurement round were as follows (refer Table 7):

- **Auckland.** NZ Bus won only one (small) contract through the tendering process but was the main beneficiary of the negotiated contracts: its overall market share in the region fell from 61% to 34%. The main operators which gained market share were Go Bus (which emerged with 17% market share, all through winning tenders) and Ritchies/RMTS (with 25% market share, through a combination of tendered and negotiated services).

**Table 7: Changes in operator market shares (Auckland and Wellington)**

Operator	Nat'l market share	Regional market share (a)							
		Auckland				Wellington			
		Total pre-PTOM	Total post-PTOM	Tender	Neg'n	Total pre-PTOM	Total post-PTOM	Tender	Neg'n
Go Bus	27.8%	-	16.5%	34.9%	-	-	-	-	-
NZ Bus	24.0%	61%	33.8%	1.4%	62.8%	73%	28.5%	-	82.8%
Ritchies/RMTS	15.2%	16%	24.5%	38.7%	11.7%	-	-	-	-
Tranzit	12.2%	1%	2.8%	5.9%	-	1%	59.6%	90.8%	-
All others	20.8%	22%	22.4%	19.1%	25.5%	26%	11.9%	9.2%	17.2%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

- Note: (a) Market shares based on the proportion of total bus service km operated in the region.

<sup>5</sup> This conclusion is based primarily on UK/European experience (not specific NZ evidence). Wong and Hensher (2018) states that: "Early evidence suggested that at least four bids were required to reduce cost..... Glaister and Beesley (1991) obtained full tender data for the early rounds in London for route contracts -- for the winner and all losers..... What they showed in a statistical analysis presented at the Thredbo 1 of non-strategic bids is that there was a statistically strong relationship between the number of bidders and the bid prices offered, with the prices being lower as the number of bidders increased."

<sup>6</sup> In the 2004/05 tender round, the average bidders/contract was 1.33 in AKL, 1.12 in WLG: in both centres about 85% of contracts were retained by the incumbent operator.

- **Wellington.** The picture of market share changes was somewhat similar to AKL. NZ Bus won no tenders, with its market share reduced to 20% (all negotiated contracts). The main operator to benefit was Tranzit, which over 90% of the region's tendered contracts and achieved a 60% overall market share.

On a national basis (including the smaller centres), the previous dominance of NZ Bus has given way to dominance largely by family/collective operators, principally Go Bus (28% national market share), Ritchies/RMTS (15% market share) and Tranzit (12% market share): NZ Bus's national market share has now reduced to 24%, almost entirely in AKL and WLG.

#### 4.5 Contract costing model – formulation

As inputs to the development of a benchmark costing (pricing) model for Canterbury, one of the major NZ regional councils<sup>7</sup>, I developed a methodology to analyse PTOM contract prices for four of the other larger centres to derive unit cost rates by individual contract, which could then be aggregated across all tendered contracts and all negotiated contracts in each region. The tendered contract prices (individually and averaged) in each region were then used as a basis for setting benchmark prices for Canterbury, in particular to assist in the region's decisions on the balance between tendered and negotiated contracts, and as a guide to appropriate pricing for its negotiated contracts. The methodology was based on a unit costing model, as set out in table 8.

**Table 8: Contract costing model formulation**

Total costs pa ( $C_T$ )	Bus hour-related ( $C_H$ )	Bus km-related ( $C_K$ )	Peak bus-related ( $C_V$ )
Unit cost rates	$UC_H$	$UC_K$	$UC_V$
Main cost components	<ul style="list-style-type: none"> <li>• Driver wages &amp; on-costs</li> </ul>	<ul style="list-style-type: none"> <li>• Fuel, oil, tyres</li> <li>• Repairs &amp; mtce</li> <li>• Road use charges</li> </ul>	<ul style="list-style-type: none"> <li>• Bus capital charges (depreciation, interest, leasing)</li> <li>• Depot-related costs</li> <li>• Insurance costs</li> <li>• Administration costs</li> </ul>
Operating data (multiplicative)	<ul style="list-style-type: none"> <li>• In-service hours (<math>H_i</math>)</li> <li>• Out-of-service hours factor (<math>H_o</math>)</li> </ul>	<ul style="list-style-type: none"> <li>• In-service hours (<math>K_i</math>)</li> <li>• Non-std size bus (km) factor (<math>K_s</math>)</li> <li>• Out-of-service km factor (<math>K_o</math>)</li> </ul>	<ul style="list-style-type: none"> <li>• In-service hours (<math>V_i</math>)</li> <li>• Non-std size bus (veh) factor (<math>V_s</math>)</li> </ul>

**Notes on data sources for table:**

**Contract unit cost rates:**

- (1) For AKL, available data from tenders/negotiations gave unit cost rates ( $UC_H$ ,  $UC_K$ ,  $UC_V$ ) and total cost proportions ( $C_H:C_N:C_V$ ) for all contracts. These were applied to derive total cost proportions and hence unit cost rates for WLG, allowing for the difference in km: hour: vehicle ratios for the two centres.

**Operating data:**

- (2) In-service data ( $H_i$ ,  $K_i$ ,  $V_i$ ) available from contract specifications database.  
 (3) Out-of-service factors ( $H_o$ ,  $K_o$ ) available from authority data, estimated for other contracts from available data  
 (4) Non-standard bus size cost factors ( $K_s$ ,  $V_s$ ) available from tenders in some cases (AKL); and taken from other data sources (WLG).

This costing model was 'calibrated' against the known contract (winning tender) prices for the group of competitively-tendered contracts in each centre. The calibrated model could then

<sup>7</sup> For a range of reasons (in part resulting from the major earthquakes in 2011), the implementation of the new PTOM procurement approach in Canterbury was delayed until after its implementation in the other NZ regions and is currently in progress: this has had the advantage that lessons and information from the procurement process in the other regions could be applied in Canterbury.

be readily applied to the operating statistics for each negotiated contract, to estimate what would have been the (best estimate) price of that contract if it had been tendered. Comparisons between the synthesised contract price and the actual price of the negotiated contract then provided the best estimates of the price penalty (or bonus) being paid for setting the contract price through negotiation rather than competitive tendering.

#### 4.6 Contract costing model – application and results

Separately for AKL and WLG, the model was first applied to the tendered contracts in each centre, with model parameters being ‘calibrated’ (factored) to be consistent with the total costs of the tendered contracts in that centre. The calibrated model was then applied to the operating data for the negotiated contracts in each centre, to synthesise what the negotiated contract prices would be for each contract if its efficiency levels (unit costs) were equivalent to those for the tendered contracts. The ratios for each contract of (actual contract price)/(synthesised mean price based on all tendered contracts) gives a measure of the relative cost (in)efficiency of each contract relative to the tendered contract average for that centre. The results of applying the model, separately for AKL and WLG, are set out in Table 9

**Table 9: Summary of contract price relativities: tendered and negotiated prices (relative to weighted mean tendered price in each centre = 100%)**

Relative price bracket	Wellington		Auckland	
	# tendered contracts	# negotiated contracts	# tendered contracts	# negotiated contracts
Total contracts	9	7	23	27
Weighted average price	100%	137%	100%	116%
<b># contracts by price bracket (relative to average tendered price = 100%)</b>				
<b>Price bracket (%):</b>				
80-85			1	
85-90	1		1	
90-95	2		3	
95-100	1		5	3
100-105	3		7	1
105-110	1	1	4	5
110-115	1		2	4
115-120				5
120-125				3
125-130		1		
130-135		1		2
135-140				1
140-145		1		2
145-150				
150-155		1		
155-160				
160-165		1		1
165-170				
170-175				
175-180		1		

For each centre, the table shows (by 5% intervals) the prices for each tendered contract and each negotiated contract relative to the weighted average price over all **tendered** contracts in the region<sup>8</sup>. For instance, WLG had 9 tendered contracts and 7 negotiated contracts: the 9 tendered contracts had unit prices between 85% and 115% of the negotiated average tendered price (set = 100%). Its 7 negotiated contracts had prices between 105% and 180% of the weighted average for the tendered contracts, with an average of 137% of this tendered average. The pattern of results is broadly similar for AKL, with the average rate for the 27 negotiated contracts being 116% of the tendered contract average.

Student's t-tests confirmed that the differences between the mean negotiated and tendered contract prices in each centre were statistically highly significant, given the distributions of results for individual contracts (shown in table 9). For WLG (16 total contracts), the tests indicated a probability of 0.23% of the true mean prices being identical for the negotiated and tendered contracts; for AKL, this probability was much smaller, at less than 0.001%, despite the sample mean difference for AKL (some 16%) being considerably less than the WLG difference (37%). These results are consistent with the intuitive conclusions from visual inspection of table 9.

#### **4.7 Some comments on the comparative cost results**

On the face of it, the results shown in Table 9 strongly suggest that gross payments for the negotiated contracts in AKL are some 16% higher than would have been expected if these contracts had been procured on a competitively-tendered basis; and similarly for WLG but with a price premium of some 37% estimated in this case. These figures are expressed in terms of the **gross** cost of operations (ie not allowing for fare revenues). Given that urban bus services in NZ recover typically around 50% of their costs through fares and around 50% from public subsidies, the impact of the additional costs for the negotiated contracts on total subsidy requirements will be around twice the above percentage figures, ie subsidy increases of around 30% in AKL and 75% in WLG for the negotiated contracts on the net cost rates expected with competitively-tendered services.

But the question arises as to whether the 16% and 37% cost differences estimated for the two centres are entirely the results of the procurement basis adopted, or at least in part result from other factors that differ between the negotiated sample and the tendered sample. While an extensive quantitative analysis on this question has not been undertaken, Table 10 provides some comments on potential contributory factors to the apparent cost differences, additional to those allowed for in my costing model. It should be noted here that our model formulation already takes account of a number of factors that would not be allowed for in a simpler costing model (e.g. a very basic model that expresses all costs on a per service kilometre basis, which does not allow for differences in average operating speeds, dead running, vehicle utilisation, vehicle capacities, etc).

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<sup>8</sup> All the tendered contracts were weighted equally in deriving this weighted average.

**Table 10: Possible factors contributing to cost rate differences between negotiated and tendered contracts (additional to procurement method and factors included in costing model)**

Factor	Comments
1. Contract term (duration) and bus age	<ul style="list-style-type: none"> <li>• Would normally expect that longer contracts would have lower unit prices: this effect might be particularly significant in this case, as a large proportion of new buses have been purchased for the new PTOM contracts.</li> <li>• However, for AKL (as an example) the average contract term in the negotiated contracts is only 0.2 years longer (9.2-9.0) than that for the tendered contracts.</li> <li>• Also, discussions with the authorities involved in the two centres have not suggested that the contract term or the bus age aspects have had significant impacts on contract prices.</li> </ul>
2. Inner vs outer area operations	<ul style="list-style-type: none"> <li>• One potential factor here is that depot-related costs (principally rent and rates) tend to be higher for depots (and so generally routes) in inner metropolitan areas.</li> <li>• This factor may well be significant, as in both the major centres the negotiated services tend to be found in the inner/middle areas (in large part as they serve routes with higher-than-average patronage and cost recovery rates).</li> <li>• Some further indicative ('back of envelope') analysis could be undertaken as to the significance of this factor.</li> </ul>
3. Passenger loadings	<ul style="list-style-type: none"> <li>• In both centres the average passenger loading levels will be higher for the negotiated contracts than for the tendered contracts (as noted above).</li> <li>• To a considerable extent, the cost model already allows for this, as slower running speeds associated with more passengers boarding/alighting are reflected in the bus hours measure.</li> <li>• There may be some additional effects associated with wear and tear on bus interiors, but these would be relatively minor in cost terms.</li> </ul>
4. Traffic congestion	<ul style="list-style-type: none"> <li>• This tends to be associated with the inner vs outer area operations factor (item 2).</li> <li>• One effect of congestion is on service reliability, and on the additional time required in the schedules to compensate for this. In theory, this should be allowed for through the out-of-service hours ratio (ie already included in the cost model) but it is unclear whether this is done adequately in practice.</li> <li>• Another effect of congestion is that fuel consumption and bus repairs/maintenance costs (e.g. related to engine wear) will be higher than average (per bus km): we would expect this effect to be significant (just as for car use in congested conditions). This could be addressed through a more sophisticated model and/or (ie in the shorter term) by some indicative calculations on the size of the effect.</li> </ul>
5. Type of negotiated contracts – like-for-like vs 'other'	<ul style="list-style-type: none"> <li>• There might be an expectation that the 'other' negotiated contracts would have lower cost rates relative to the L4L contracts, as the authorities were (theoretically) in a position to revert to tendering those 'other' contracts if no price agreement was reached through negotiations.</li> <li>• However, my cost modelling indicates that, in both regions, the price premium on the 'other' negotiated contracts was slightly higher than that for the L4L contracts (although the difference is probably not significant). This result appears consistent with the comments of the two authorities that, in general, the 'other' contracts were negotiated as part of a package with the L4L contracts and therefore the price ratios are unlikely to differ significantly.</li> </ul>
6. Under-pricing of tendered contracts	<ul style="list-style-type: none"> <li>• It would seem quite possible that some of the tendered contracts will prove over time to have been under-priced (ie unlikely to be financially sustainable in the long run), This could be a particular problem in WLG, where one operator with very limited experience in operating in metropolitan/large urban areas was selected for over half the region's total bus all market.</li> </ul>

The most significant factor emerging from the Table 10 assessment together with examination of the full model is that the inner areas' negotiated rates tend to have the highest ratios of all for negotiated price relative to modelled contract price. This appears to reflect several factors affecting the additional costs of operations in inner areas that are not fully covered in the cost model adopted, ie:

- Depot-related costs, principally relating to rents, rates, lease charges etc (reflecting land values).
- Traffic congestion effects – including higher unit costs for fuel and bus repairs/maintenance etc and the need for additional ‘layover’ time allowances between trips.
- Passenger loadings – including operating costs associated with more frequent stopping/starting and additional wear/tear on bus interiors.

These would appear to be the priority aspects to be investigated further if an enhanced cost model were to be developed.

Based on assessments undertaken to date on the cost modelling results, my tentative conclusion is that, on average, over all contracts, a price premium in the order of 5% of gross costs for the negotiated contracts relative to the tendered contracts may be warranted to reflect underlying cost factors not allowed for in my current costing model. This suggests that the remaining gross cost premiums for the negotiated contracts, ie an average of around 10% in AKL and 30-35% in WLG, primarily result from the negotiated procurement approach adopted in this case. Also, in WLG a further adjustment of up to 5% **might** be appropriate to reflect possible under-pricing of the tendered contracts (although this is not clear at this stage).

## **5. Why these outcomes: what have we learned?**

In the light of the analyses of the preceding section, this section summarises what we have learned from the outcomes of the PTOM tendering rounds, for both tendered and negotiated contracts. As in the preceding section, we focus on the two main centres, which together account for almost all the negotiated contracts nationally. We first outline some (relatively few) findings relating to the tendered contracts, followed by the (rather more) findings relating to the negotiated contracts.

### **5.1 Findings on competitively-tendered contracts**

Our main findings relating to the tendered contracts are as follows:

- Strong levels of competition for contracts occurred in the main centres (typically 5 or 6 bidders per contract) and ‘adequate’ levels in the other urban centres (typically 3 or 4 bidders per contract). Particularly in the main centres, this represents a substantial increase in levels of competition in previous competitive tendering rounds since 1991, where on average the number of bidders per contract was in the range 1.1 to 1.5 (with 80% - 90% of contracts being retained by the incumbent). A major reason for this increase in competition is because the previous two-tier regulatory model (of commercial services and tendered/contracted services) acted as an inhibitor on competition for contracts: this aspect is not discussed in any detail in this paper.
- It has not been possible to geographically match pre-PTOM contracts with current contracts on any consistent basis. Therefore we are unable to provide any estimates of how the unit costs (e.g. per bus km) for the PTOM tendered contracts compare with the unit costs of their nearest equivalent contracts prior to PTOM -- although the aggregate figures (refer table 4) suggest significant reductions.
- It is unclear at this stage whether the PTOM tendered contract prices will, in all cases, prove to be financially viable over their 9-year contract life.



- The PTOM tendered contracts have resulted in increased market shares in the two main centres for several established, largely family-owned, NZ operators: one of these is Transit, which now has a 60% market share in the Wellington region. These increased shares have been largely at the expense of NZ Bus (previously NZ's largest bus operator, which operated only in the two main centres and won only one contract in these centres).

## 5.2 Findings on negotiated contracts

### 5.2.1 Why have negotiated contracts?

This appears to be a legitimate question to ask, given the results presented in section 4. We comment as follows:

- **Like-for-like contracts.** The awarding of 12 year negotiated contracts to operators in compensation for their loss of previous 'commercial' services - which did not provide any exclusive rights - seems to have been a very generous gesture by the previous NZ government. I understand that this was very largely a 'political' decision, in the context of the overall PTOM 'package'.
- **Other negotiated contracts.** The further decisions (taken at the regional level) to negotiate some other contracts (with relatively high cost recovery performance) also seem somewhat hard to justify, as it has turned out. Given that all contracts are now awarded on a gross cost basis, the operator now has little direct incentive to develop the market and provide attractive services, so the cost recovery level is arguably largely irrelevant to the choice of particular (or any) contracts for negotiated procurement..

In the following sections, we take the existence of the negotiated contracts as a given and comment on the current PTOM contracting system in that context.

### 5.2.2 Primary factors inhibiting efficient pricing for negotiated contracts

in my view, the overarching factors that have inhibited negotiation of efficient contract prices, on a par with prices for comparable tendered contracts (as was intended in the NZTA procurement requirements and guidelines) are two-fold, as follows:

- **For 'like-for-like' negotiated contracts.** As the requirement for negotiation of these contracts is specified in the legislation, the relevant regional council had to reach an agreement with the operator concerned on their pricing: the council could not walk away from the negotiations and revert to tendering the services, i.e. almost all the negotiation power lay with the operator, a minimal proportion with the regional council. From the council perspective, this goes against the most important rule for successful negotiation, i.e. the need to have an escape route (accompanied by a 'Plan B').
- **For all negotiated contracts.** In those regions which were to have any negotiated contracts (largely Auckland and Wellington), the new contracts were required to be implemented by a defined date (based on the agreed termination date for the existing contracts and commitments made to introduce revamped services). In the event, it was found that the timetable did not sufficiently allow for protracted negotiations on price or other contract aspects. Again, this worked to the advantage of the operator, the disadvantage of the regional council: the operator was not unhappy to drag out the process, while the regional council had a strong need to secure a settlement within a constrained time limit. From the regional council viewpoint, this is inconsistent with the

second most important rule of negotiation, ie not to be under time pressure to reach agreement (but to put the other party under such pressure).

### **5.2.3 Other factors contributing to (apparent) relatively high negotiated prices**

#### **(A). Costing model application too simplistic**

- My earlier analyses (section 4.7) suggest that the cost model applied may somewhat under-state the efficient costs of services in the inner areas. To the extent that this is the case, the model will overall tend to over-state the efficient cost differences between the tendered and negotiated services. While it is difficult to quantify the extent of such over-statement, my tentative conclusion is that it may account for a gap in the order of 5% between the efficient gross costs for the two groups of services.
- My costing model has been calibrated to replicate the total costs of the tendered contracts in each of the two centres. It is possible (but there is no evidence at this stage) that some of the prices for tendered contracts may prove unsustainable over time: this may be particularly the case in Wellington, where an operator with limited prior experience in urban bus operations has captured about 60% of the total regional bus market (refer table 10, last item).

#### **(B). Regional council negotiation tactics**

- Despite the NZTA requirements that the price determination for negotiated contracts should be based primarily on benchmark rates determined for tendered contracts in the region, regional councils have not generally taken a strong line on this point in negotiations. This is perhaps unsurprising, particularly for like-for-like contracts, given my comments earlier (section 5.2.2).
- As one example of the above point, regional councils have generally accepted operators' pre-existing labour rates and staffing levels in contract negotiations, even where these implied higher costs than in the benchmark rates. Councils were generally reluctant to be (or to be seen to be) associated with reducing employee pay rates or conditions.
- The use of mediation as part of the negotiation process appears not to have been highly effective, as the regional councils managed to achieve only small reductions from operators' claimed costs through its use. This is not unexpected, given that the councils did not have the option of reverting to tendering.

#### **(C). Operator negotiation tactics**

- In at least one case, an incumbent operator either (i) did not bid for tendered contracts for services it previously operated; and/or (ii) it did bid, but at inflated prices (and so was unsuccessful). By this means, when it came to negotiations with this operator, the council had knowledge only of the operator's inflated bid prices and was not in a good position to challenge these. Another example is where an operator artificially inflated its depot rental costs through transactions with a third party on non-commercial terms. Arguably, in such cases the council should have put this evidence on one side and focused the negotiations on the benchmark rates established for the region from successful competitive tenders.

#### **(D). Unit characteristics resulting in higher prices**

- In both Auckland and Wellington, most of the contract negotiations were with operators experiencing reduced market shares as a result of having little or no success in the

earlier tendering process. As a result, these operators were left with relatively high levels of 'fixed' overhead costs which they tried to recover through their negotiated contracts. In such cases the councils tended to accept these higher costs in the negotiations -- rather than attempt to negotiate costs down to match benchmark rates established from the tendered contracts.

- Some negotiated units were located such that, because of constraints on available depot locations, only one operator could provide the unit's services with reasonable efficiency. If the services were to be tendered, it is likely that the resultant tender price would have been relatively high (with the bidder exploiting its near-monopoly position); so it could be, and was, argued by this operator that the negotiated price should be similarly high.

## **6. Conclusions**

The paper has focused on the contract cost efficiency outcomes from the NZ PTOM procurement process, and particularly comparisons between these outcomes for negotiated and tendered contracts in NZ's two largest metropolitan areas. My main conclusions on this aspect are as follows:

- Overall, PTOM appears to have resulted in improved cost efficiency (better value for money) on bus contracts through its procurement process compared to the prior situation.
- For the competitively-tendered contracts (which account for nearly half the total market share in AKL, two-thirds in WLG), PTOM has resulted in keener competition in the tendering process, compared to very low levels of competition in previous tender rounds, and this has helped in achieving lower contract prices.
- For the negotiated contracts, the results have been disappointing, My best estimates are that the negotiated contract (gross) prices are about 10-15% higher in AKL and about 30-35% higher in WLG compared with the estimated contract prices that would most likely have been achieved through competitive tendering.

The primary reasons for these relatively poor results for the negotiated contracts are:

- For the L4L contracts (about 30% of the total services in both AKL and WLG), the PTOM legislation requires both parties to agree a contract price through a negotiation process. This left the regional councils with much reduced negotiating leverage, as they did not have the option of reverting to tendering the services.
- Further, given their weak position in the negotiations, the councils were not in a position to follow through on the original PTOM intention that the negotiated contract prices should be based closely on benchmark cost rates determined from recently-tendered contracts (in that region).
- In addition, the councils had committed to a timetable for introducing the new PTOM services, which allowed little or no flexibility for extension in response to the unexpected length of time taken in the contract negotiations (together with slippage in other parts of the implementation programme). These time constraints further weakened the councils' negotiation positions in the two largest regions.

One obvious learning from the NZ PTOM experience with negotiated contracts is that such negotiation processes need to be carefully planned and managed if they are to have any chance of being successful in financial terms (ie to deliver contract cost rates comparable

with or not far removed from those achievable with competitive tendering). A primary need in such processes is for a highly skilled negotiator to lead the negotiating team -- rather than, in general, a public service manager or a public transport analyst/economist..

In the right circumstances and with the right negotiation strategy and team, it may be that negotiated procurement can result in urban bus service contract prices within maybe 5%-10% (or possibly less) of 'cost-efficient' prices likely to result from competitive tendering among a 'healthy' field of bidders.

The NZ Government is currently undertaking a 'formal' post-evaluation review of PTOM: it could be expected that this will shed further light on the impacts of the PTOM procurement and contracting policies, as well as evaluate other impacts of PTOM that have been outside the scope of this paper.

Watch this space -- at Thredbo 17?

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**Appendix A: Summary of international literature findings on the impacts of tendering versus negotiation approaches on bus contract costs.**

This appendix supports the paper’s **section 2: Overview of international evidence**. My review of findings from the international literature focuses on situations where cost outcomes from competitive tendering and from negotiations for the provision of local bus services may sensibly be compared. I find that such situations are relatively rare: in most situations where some contracts are tendered and others negotiated, there are multiple differences between the two sets of procurement and contract arrangements (e.g. related to types of services, service area characteristics, contract duration, vehicle requirements, performance standards etc), such that any price comparisons cannot be interpreted as resulting from the two different procurement approaches. I have not been able to identify any other situations internationally with such similarity between the procurement processes and contract conditions for tendered and negotiated contracts as has been the case in New Zealand (and which is the subject of this paper).

**[Author’s note: it would be desirable if the appendix A material could be included at the end of the paper when published. If this does not prove possible for any reason, I request that arrangements be made to provide access to this material via a web link.]**

<b>Short ref</b>	<b>Context</b>	<b>Key findings</b>	<b>Critique, comments</b>
Wegelin P (2018). Is the mere threat enough? RETREC vol 69 (also Thredbo 15 paper, 2017)	<ul style="list-style-type: none"> <li>*Empirical assessment of indirect effects of (the threat of) competition on cost efficiency.</li> <li>*Analysis of panel data set of over 850 regional bus lines in Switzerland, 2008-2017.</li> <li>*Applied stochastic cost frontier analysis methods.</li> </ul>	<ul style="list-style-type: none"> <li>*Efficiency is greater for bus lines where any indirect effects of CT are present (effects usually relate to authority use of benchmarking and operators’ experience of CT).</li> </ul>	<ul style="list-style-type: none"> <li>*Results regarded as preliminary.....</li> <li>*Indicates that (real) threat of competition can have comparable effect on cost efficiency to CT itself.</li> <li>* Results consistent with earlier work (Filippini et al, 2015) that CT itself has little or no direct effect on cost efficiency (additional to the indirect effects).</li> <li>*Finding suggests that more flexible use of CT and its combination with other approaches such as negotiation could be appropriate for authorities in pursuing cost efficiency along with other goals.</li> </ul>
Wallis IP & Bray DJ (2014). Contracting of urban bus services - recent Australian developments, RETREC vol 48 (also Thredbo 13 paper, 2013)	<ul style="list-style-type: none"> <li>*Over period 2012-14, some of the long-standing ‘grandfathered’ contracts with private operators in Australia’s 2 largest metropolitan areas (Sydney, Melbourne) were opened to competitive tendering.</li> </ul>	<ul style="list-style-type: none"> <li>* The 2 rounds of contracts in Sydney (for terms of 5+3 years) resulted in cost savings in the range 13%-20% (after allowances for service increases and inflation adjustments).</li> <li>*For Melbourne, a large contract (&gt;500 buses) was awarded to Transdev for a 7-year term, resulting in annual savings of about 8% - 10%.</li> <li>* Further details are given in the main paper (Table 3).</li> </ul>	<ul style="list-style-type: none"> <li>*For Sydney, the new contracts involved significant service improvements, enhancements to customer/service quality and a considerably-strengthened KPI regime with financial incentives and penalties.</li> <li>*For Melbourne, further financial savings to government (additional to those in the table) could be expected in the medium term through some fare increases and through depot rationalisation.</li> </ul>

<p>Wallis IP, Bray DJ, Webster H (2010). To competitively tender or to negotiate - weighing up the choices in a mature market. RETREC vol 29 (also Thredbo 11 paper, 2009).</p>	<p>*Reports on consultancy work for the South Australian government on the best course of action to take following expiry of the (then) current Adelaide metropolitan bus contracts. Essentially the choice was between (i) calling new competitive tenders to select a supplier for the next contracts (probably for a 5-10 year duration) or (ii) extend the (then) current contracts for a further period of 3-5 years. As a precursor to providing this advice, the consultants developed an evaluation framework incorporating all criteria relevant to the decision, and then recommended the option best meeting these criteria. The work included a literature and practice review of Australian and international evidence on the choice between CT and negotiations in such circumstances.</p>	<p>*A two-pronged approach was taken to the assessment of CT and NC options for the Adelaide situation. One part was assessment against a range of factors identified from the international literature, primarily relating to the current operator performance and the expected market environment for re-tendering.</p> <p>The second part was assessment against criteria reflecting SA Government objectives; within the categories of (i) supplier market and cost aspects; and (ii) quality aspects (including service development, service quality, user and community orientation).</p> <p>A review of the international literature on the relative merits of CT and negotiation to procure PT services found that it was rather sparse and with much of it related to (relatively few) Australian sources. From the literature, it was possible to determine a number of factors that would tend to favour one strategy or the other, depending on the strength of their presence. These factors were: efficiency of existing tender prices; current service quality performance; current operator entrepreneurship (service development etc); current operator- authority relationships; contract complexity and completeness; expected strength of supplier market; and period since previous open market testing.</p>	<p>*The work reported in the paper was undertaken in 2008/09 and was to a large degree focused on one specific situation. Since that time, there have been significant developments in both Sydney and Melbourne to offer bus services to CT where these had previously been provided by a private operator under essentially a 'grandfathered' approach. As a result, most of the Sydney metro private bus services (in 8? contracts) and some one-third of the Melbourne private bus services (in one single large contract) were opened to CT, resulting in very significant cost savings (further data given in Wallis &amp; Bray, 2014 (as above) and in Table 3 in this paper). .</p>
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<p>Hensher DA (2015). Cost efficiency under negotiated performance-based contracts and benchmarking: are there gains through competitive tendering in the absence of an incumbent public monopolist? <i>Journal of Transport Economics and Policy</i> vol 49/1 (also University of Sydney. ITLS-WP-14-02, 2014).</p>	<p>*Paper uses data from various Australian bus contracts to assess whether negotiated (performance-based) contracts with actionable benchmarking could achieve as good as or better cost efficiency performance than would result from competitive tendering (where incumbents are not public operators).</p> <p>*It concludes that, in the Australian context, cost savings would not necessarily be achieved by subjecting current negotiated contracts to competitive tendering, especially where incumbent NC operators can demonstrate cost efficiency performance consistent with best practice benchmarking levels.</p> <p>*The paper takes further an intensive debate on the topic at the Thredbo 13 conference (Oxford, 2013).</p>	<p>*The paper includes a reassessment of the cost savings resulting from the two Sydney metro tranches (8 contracts) opened to CT in 2012/13. It notes that the total savings announced for the two tranches were \$45Mpa, representing a c10% reduction in unit costs/km. Excluding the savings component relating to some services previously provided by the government operator which were included in the NC contracts, the unit cost reductions for the private operator services were estimated at around 6%.</p> <p>*The paper notes that provisions to guard against regulatory capture are essential in any NC process. It suggests that transparency and accountability can be achieved under four conditions, relating to: (i) performance benchmarking accompanied by the threat of competition; (ii) an open-book approach on costs, with an independent auditor; (iii) a probity auditor to oversee the negotiation process; and (iv) public disclosure of the contract details.</p> <p>*The paper applies econometric modelling in a comparative assessment of cost efficiency levels for NC and CT contracts in Australia. The assessment covers 33 NC and 7 CT (management) contracts. The modelling results indicate that the cost efficiency levels of the two groups of contracts, calculated using a normalised cost/km measure, are very similar, such that no clear differentiation can be made between their cost-efficiency levels on this measure.</p> <p>*The paper therefore concludes that: <i>“The evidence suggests that the gains from CT are generally illusory or overstated (outside the situation of an incumbent public operator)”</i>.</p>	<p>* In relation to the cost savings from opening the 8 Sydney metro contracts to CT, my ‘headline’ figures are for savings of around \$38Mpa on total gross costs of some \$330Mpa, ie 11%-12%. On a like-for-like basis, allowing for cost increases in the BAU case and some service increases under CT, the adjusted savings were estimated at some 15%-18% (but without making any adjustment for those services previously provided by the government operator).</p> <p>* In order to assess the extent to which a NC (with actionable benchmarking) can achieve as good as or better improvement in cost efficiency than through CT, the paper states (p3) that: <i>“Crucially, we need a framework within which the counterfactual evidence is on a level playing field, so that it is possible to make sensible statements about the comparative cost efficiency of service suppliers operating under the same conditions. As far as we are aware, this has never been undertaken, due simply to the lack of data that will permit the level playing field comparisons.”</i> [This appraisal of the CT and NC approaches on a level playing field basis was one of the key objectives in this paper’s assessment of the results from the recent procurement of new bus contracts in the major NZ centres.]</p> <p>*In relation to the econometric modelling undertaken, we note that only 7 CT contracts (with locations unspecified) were included, whereas the total number of potential CT contracts in Australian metro areas is significantly greater than this. This raises concerns about the representativeness of the modelling results.</p> <p>*The paper states (p5), without substantiation, that: <i>“Australian experience across jurisdictions that implement competitive tender, and those that negotiate, suggests that there is a tendency for cost convergence.”</i> This outcome would be expected, as governments put increasing emphasis on cost efficiency considerations.</p>
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<p>Arbuckle T (2014). Contestability in passenger transport bus contracts - what is the future of private negotiated contracts in Australia? Research in Transportation Economics vol 48 (also Thredbo 13 paper, 2013).</p>	<p>*A major proportion of the metropolitan bus networks in some of Australia's largest capital cities were developed by the private bus industry over the last 80+ years, initially without government support. Over the last 20-30 years, governments have established formal contracts with these 'grandfathered' private operators to expand services and provide for integrated PT networks.</p> <p>*More recently, the foundations for future CT of private negotiated contracts began to be put in place by some state governments as part of contract renewals in the mid-to-late 1990s. Currently, a key focus area for Australian governments is to introduce contestability into the delivery of publicly funded services, to provide improved value for money and customer service. As a result, the private negotiated bus contracts which expired in Sydney and Melbourne in 2013 were opened to CT for the first time.</p> <p>*To date the private negotiated contracts in SE Queensland and the remaining areas of Melbourne continue to be provided by their 'grandfathered' private operators; these contracts do not have the same end-of-contract provisions that helped to support the recent rounds of tendering in Sydney and Melbourne.</p> <p>*The paper examines alternative models for introducing CT into negotiated private bus contracts that do not have contract provisions governing the transfer of assets and staff between the incumbent and the successful operators.</p>	<p>*For the first tranche of CT contracts in Sydney, the NSW government cited an \$18 mill p.a. reduction in subsidies, representing about 10-12% of the previous gross operating payments. It is also noted that significant contract reforms took place in the Sydney market, such that it could reasonably be assumed that the operator cost structures had already been driven down by management prior to the introduction of CT. (The paper was completed before results from the second tranche of Sydney CT contracts and of the major Melbourne CT contract were available.)</p> <p>*The paper notes that the tendering of previously negotiated private (net cost) bus contracts is rather rare internationally, apart from Norway.</p> <p>* In Norway, the private bus operators were subject to a range of contractual and funding reforms (together with the threat of competition) from the mid-1980s to the mid-1990s: these reforms included the introduction of standard cost payment models, and a transition to capped efficiency subsidy contracts. Over this period of reforms (and prior to the introduction of CT), unit costs for the Norwegian bus sector as a whole were estimated to have reduced in the range 6%-20%.</p> <p>*In Norway, CT was first introduced for private bus operators in 1994. One study estimated that the CT of private bus contracts reduce unit costs by some 10%. It also commented that the effects of CT in Norway were smaller than in many other countries, reflecting that the industry had improved efficiency over a long period prior to CT being introduced.</p>	<p>*Based on two main sources (Sydney metro tranche 1, introduction of CT in Norway), the paper suggests that cost savings resulting from a move from grandfathered' NC for private operators to open CT contracts would typically be around 10%-15%. The cost savings are likely to be towards the lower end of (or below) this range in cases where significant contract reforms have already been made prior to the introduction of CT (as in the Norwegian case, to a lesser extent in the NSW case). No suggestion is made that the level of savings could be reduced to close to zero without the introduction of CT (but noting that this was not intended to be a main focus of the paper).</p>
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<p>Mouwen A &amp; van Ommeren J (2016). The effect of contract renewal and competitive tendering on public transport costs, subsidies and ridership. Transportation Research A, vol 87.</p>	<p>*The paper examines to what extent (multiple) contract renewals and introduction of competitive tendering for long-term PT contracts affected ridership, operational costs and subsidies in concession areas governed by public transportation authorities in the Netherlands, from 2001 to 2013.</p>	<p><b>International literature review on regulative change and PT efficiency:</b></p> <p>*German urban PT companies operating in areas where CT is implemented have a significantly higher average efficiency than companies operating in other situations.</p> <p>*The panel data analysis of large cities in nine EU countries shows that firms selected through CT have TFP approximately 15%-20% higher than firms selected under different contracting methods.</p> <p>In summary, "CT effectively increases firm efficiency and decreases contract costs".</p> <p>*'High-powered' incentive contracts, especially gross cost contracts, show greater efficiency than other (ie net cost) contracts - as they provide greater incentives for production efficiency.</p> <p><b>Econometric analysis findings for the Dutch PT sector:</b></p> <p>*Contract renewal under a CT regime appears to result in decreasing subsidies (and increasing ridership). However, these results are not conclusive.</p> <p>*It appears that the immediate effect of CT is absent, suggesting that the threat of CT is sufficient in a market where the majority of contracts are competitively tendered. Further study of the threat of competition is seen as being useful (e.g. by detailed analyses of the content, procedures, and political pressure exerted relating to publicly awarded contracts).</p>	<p>* This appears to be a thorough piece of work and its findings appear to be soundly based.</p> <p>* The findings from its main (Dutch) analyses are of considerable relevance, suggesting that maybe the real threat of CT (in a market where most contracts are opened to CT) may be as effective as imposing CT on all contracts.</p> <p>*This might indicate that a mixed model, with CT for some contracts and NC for others, could result in a high level of cost efficiency, but only provided that the NC contracts are exposed to a <b>real</b> threat of competition.</p>
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**Value for money in procurement of urban bus services – Competitive tendering versus negotiated contracts: Recent New Zealand experience.**

***Credit author statement:***

This paper is entirely the work of the sole author. Data from various outside parties was used (with permission) in preparing the paper, but the analyses and interpretation of this data have been entirely the responsibility of the paper's sole author.

*T16, 13 August 2020.*