

'Contestability' in Competitive Tendering and Contracting: A Critique

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Abstract

Academic and policy discourse about Competitive Tendering and Contracting (CTC) derives its intellectual legitimacy from the theory of contestable markets. Applying contestability to CTC implies that efficiency gains generated through the initial open tender are repeated at successive stages of tendering. This paper presents a theoretically and pragmatically grounded critique of the application of this theory to CTC by focusing on the Re-Opened Tender (ROT) stage. Working within the neo-classical economic paradigm, contestability will be shown to be constrained at ROT, resulting in the most inefficient and worst possible welfare outcome for the buyer.

'Progression in Maya [empirical world] is a circle that brings you back to the starting point; but you start ignorant and come to the end with all knowledge.'

- Vivekananda [1895 (1997), 92]

1. Introduction

Competitive Tendering and Contracting (CTC) has been crucial to facilitating microeconomic reform in Australia. The market is increasingly being

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used to coordinate and deliver goods and services that were previously provided by the state. Collectively, contracting out, CTC, and outsourcing refer to the market coordinating the delivery of goods and services, with the Industry Commission estimating the total value of services contracted by the Australian Public Sector at \$13.3 billion (Industry Commission, 1996, 3).

The contestable markets theorem, proposed by Baumol, Panzar and Willig (1982, 1983), has provided the theoretical pivot to the Australian CTC academic and policy debate (Rimmer, 1994; Domberger, 1996; Domberger and Jensen, 1997; Industry Commission, 1996). 'Potential competition', rather than actual competition is argued to be sufficient to induce competitive pricing in imperfectly competitive markets. An un-competitive price, (where profits are being made) is argued to attract potential entrants who are able to capture the incumbent's market and leave before they (the incumbent) reacts.

The aim of this paper is to present a theoretically and pragmatically grounded critique of the application of contestability to CTC, with particular reference to Re Opened Tendering (ROT).¹ The ROT occurs when the initial contract expires and the buyer re-uses the market. Analyses of CTC to date have been limited to the initial contract and arising issues including efficiency, accountability, ownership, service quality, and monitoring. Empirical evidence suggests that initial cost savings are in the vicinity of 20 per cent from certain types of contracts being subject to open tender (Industry Commission, 1996; Domberger and Jensen, 1997, 67). These initial cost savings, drawn from very particular types of contracts such as cleaning, garbage and refuse collection, where the service is relatively homogenous, are then used to *extrapolate* efficiency gains first on contracting out in general even when there is asset specificity and service differentiation (Industry Commission, 1996), and secondly in successive stages of bidding once the initial term expires (Industry Commission, 1996, 137). This paper focuses on the second issue.

Explicit and implicit sunk costs, which are unsalvageable outside the immediate relationship and the intertemporal transformation of the contractual parties during the initial relationship form the theoretical critique. The theoretical critique is undertaken within a transactions cost framework, developed by Oliver Williamson (1979, 1993). The pragmatic critique is centred on the unavailability of the initial contractual price to prospective suppliers at ROT and the vast difference between the contracting example put forth by Baumol and his colleagues (1983) and CTC. Contestability will be argued to be unconditionally constrained in 'relational' contracts, where

there is asset specificity and product and/or service differentiation at ROT. The only unknown is whether the incumbent passes on their efficiency gains to the buyer or if the incumbent appropriates the buyer's entire quasi-rents acting as a monopolist – as would be expected in the neo-classical frame. Hence the critique is grounded within the dominant neo-classical economic paradigm informing policy, with the broader liberal and neo-liberal discourses of Anna Yeatman (1998) and Barry Hindess (1998) being acknowledged, although not incorporated into the analysis.

The approach is conceptual in order to challenge the underlying theoretical foundation informing the popular CTC discourse and due to the unavailability of crucial empirical information – guarded as 'commercial confidentiality'. The following analysis is applicable to relational contracts, where parties are exposed to relationship specific sunk costs. Specific examples include facilities management contracts in the areas of hospitals, supply stores, prisons and water filtration plants. The analysis has limited applicability to spot market dealings; contracts for homogenous goods or services, such as cleaning contracts; and contracts that are not required to go to open and re open tender. It is assumed that the incumbent supplier has not acted overtly opportunistically during the initial contract, and that they always bid at ROT.

This paper is structured into six components. First, the contestable markets theorem is presented. Secondly, the pros and cons of contracting are reviewed. Thirdly, the influential academic and policy oriented literature that apply this concept to CTC is presented. Fourthly, the critique and fifthly, the policy implications are considered. And finally the assumptions and limitations of this analysis are put forth.

2. The Theory of Contestable Markets

The theory of contestable markets in recent times has been associated with the collective works of Baumol, Panzar and Willig (1982, 1983). By definition, a contestable market is one where the competitive pressure from prospective suppliers constrains the activities of the incumbent supplier and forces them to price competitively (Willig, 1991, 618-619). Competitive pricing is argued to be the only eventuality when significant barriers to entry and exit are absent and when entry and exit costs are zero. A price above the competitive level induces transient potential entrants to enter and capture the incumbent's market share by pricing at the lower rate, and are assumed to be able to leave the industry before the incumbent reacts with a price cut.

It is important to note that potential entrants 'assess the profitability of their marketing plans by making use of the current prices of incumbent firms' (Willig, 1991, 619). Hence the incumbent's price acts as a signal and is crucial to the entry decision of prospective entrants, as it provides a proxy to profitability. The importance of price acting as a signal to prospective entrants cannot be overemphasised. In addition, it is assumed the price and quality of the goods or services are the only factors that affect the buyer's choice of suppliers in the contestability framework.

3. Make or Buy?: Pros & Cons

Competitive Tendering and Contracting (CTC) involves the buyer using the market for producing goods and/or delivering services, as opposed to being directly involved in these processes. Known as the 'make or buy' decision, the former involves production and delivery being performed internally, called 'vertical integration', whilst the latter involves procurement. Open tendering is the most common method of procurement. The process involves the buyer seeking expressions of interest through advertisement, once they have decided on the function they want to let and specified their assessment criteria. Price, quality, and 'value for money' are the most common criteria against which the contending suppliers are evaluated. When the initial contract expires the process is repeated.

It is not within the scope of this paper to provide a comprehensive review of the arguments in favor of and against contracting. The economic arguments made by its proponents include: efficiency gains or cost savings that arise from a particular service being subject to market forces; flexibility in service delivery; greater focus on outputs and outcomes, rather than inputs; the market offering a greater variety and more specialized service (the comparative advantage argument); and it relieving public sector managers of the more mundane functions to enable them to concentrate on more 'strategic' issues (Industry Commission, 1996).

Cost savings or efficiency gains are the primary motivation for CTC. 'Productive efficiency' or 'efficiency in use' require that these services be produced at the lowest possible cost, and the mechanism generating these cost savings for the buyer is 'contestability' or competition. Integral to competition and contestability is the idea of 'comparative advantage', whereby external suppliers who are specialized in performing certain functions are assumed to be able to deliver the service at lower cost than the buyer – in this case the government department (Domberger, 1998).

Hence the argument that it is cheaper for the government to 'buy' rather than 'make'.

Critics of contracting highlight the deterioration of service quality, the consequences of the process on those who were formerly employed by the provider and instances of contracting out being more expensive than if the function was performed internally (see various authors in Paddon and Thanki, 1995). Making a generalisation on CTC, based on these pros and cons of contracting with little empirical evidence, is difficult as there are likely to be differences between contracts, partnering relationships, characterized by different contingencies. As a result the pros may outweigh the cons in certain circumstances, whilst the reverse occurs when circumstances change. Thus a relativistic position is inevitable.

4. The Application of Contestability to CTC

The contestable markets theorem has been fundamental to the CTC academic and policy debate.² In the CTC academic economic literature the approaches of Domberger and Jensen (1997, 69), Domberger (1996) and Rimmer (1991) border on being doctrinaire in invoking this theory. Domberger (1996) argues that:

Those whose assessment of contracting is more benign, see it as a manifestation of a healthy dose of competition, or more precisely, contestability, to ensure that public services meet value for money criteria ... Yet contracting out has as much, if not more, to do with competition and contestability than with a change in ownership from the public to the private sector.

In a more recent paper published in the *Oxford Review of Economic Policy*, Domberger and Jensen (1997, 69, 75) observe:

Baumol et al (1982) introduced the concept of a 'contestable' market which, while not competitive in the sense of having several suppliers, can nevertheless generate competitive outcomes in terms of price and output. Contestability occurs when the sole supplier does not have a permanent hold on the market and could be displaced by a more efficient producer, charging lower prices. It should be evident that competitive tendering is a mechanism for introducing such 'contestability' into publicly funded services (1997, 69) ... [T]here should be no doubt that as long as ex-ante competition (or the threat of ex-ante competition) is maintained, efficient outcomes should be attainable (1997, 75). [Brackets in original].

In a symposium on contracting out in the *Australian Economic Review* in 1991, Rimmer (1991, 293) applies the same theory to CTC;

Competitive tendering involves opening up the provision of services to competition between outside and internal bidders. This approach maximises competition and, by establishing a contestable market, minimises the development or use of market power. Competition or the threat of competition provides the incentives to increase efficiency and forces inefficient non marginal service providers out of the market.

In the policy oriented literature, the Industry Commission's report – *Competitive Tendering and Contracting by Public Sector Agencies (1996)* – is still the most comprehensive document that investigates this method of service delivery. The Commission observes that:

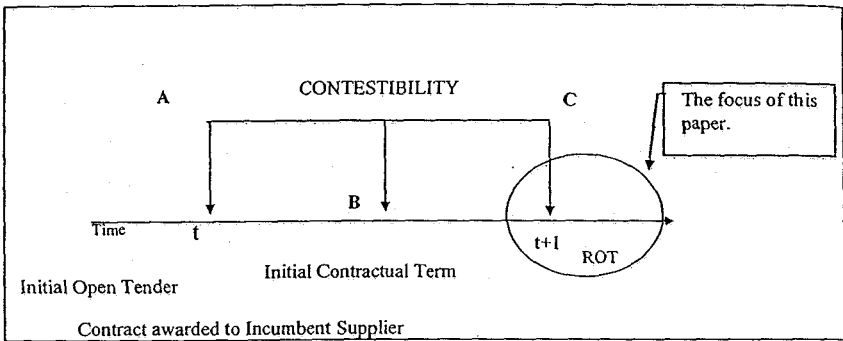
In short, it is likely that the greatest benefits will arise from CTC [Competitive Tendering and Contracting] where there are sufficient participants in the CTC process to ensure a reasonable level of competition or contestability ... it is the competition and contestability introduced by CTC which is the overriding driver of savings. (Industry Commission, 1996, 156)

Domberger and Jensen's (1997) reference to Baumol et al. dissipates any doubt as to the intellectual heritage of contestability and any conceptual differences that there may be between the original treatment of Baumol et al. and the way it has been adopted in the CTC literature.

5. Constraints to Contestability

There are two important theoretical limitations with the application of contestability to CTC. The first is based on sunk costs that have an explicit and implicit dimension. Explicit sunk costs refer to relationship-specific costs that are borne by the contractual parties during the initial contractual term that are easily quantified. Implicit sunk costs are much harder to quantify, but are inevitable when there is constant interaction between the incumbent supplier and the buyer giving rise to social institutions, such as trust and goodwill. The second theoretical argument is based on the static theory of contestable markets being applied to CTC – a dynamic phenomenon. The pragmatic critique rests on the unavailability of the initial contractual price to prospective suppliers and the difference between CTC and the contracting example used by Baumol et al (1983). Figure 1 outlines the process that leads to Re-Opened Tender (ROT) stage- the focus of this analysis.

Figure 1



(i) The Theoretical Critique: Explicit and Implicit Sunk Costs

Sunk costs are non-salvageable entry and exit costs that prevent prospective suppliers from entering and the incumbent supplier exiting the relationship with the buyer. An example of this is a tailored computer system which has very little value outside the specific use for which it was designed. A barrier to exit is inevitable when contractual parties are partners to specific assets and intangible social assets that give rise to bilateral dependency extending beyond the initial contract. If bilateral dependency between the incumbent and the buyer is anticipated by prospective suppliers, they would be discouraged from contesting the contract, particularly because the bidding process is likely to involve sunk costs. Both explicit and implicit sunk costs are procedurally similar to 'endogenous sunk costs' discussed by Stiglitz (1987, 907) and Dixit (1980).

The incumbent supplier and the buyer are most vulnerable to incurring explicit sunk costs when assets are specific. Asset specificity, the principle dimension of Williamson's Transactions Cost Analysis, refers to the degree with which a particular asset can be redeployed to an alternative function and alternative supplier (transferable to different contractual relationship with different suppliers) without sacrificing the 'productive value' of the investment³ (Williamson, 1993, 94). The four dimensions of asset specificity are 'site specificity', 'dedicated assets', 'physical asset specificity' and 'human capital specificity' (Joskow, 1993, 126). Only the last two dimensions are considered below, as these are the most relevant for the arguments of this paper.

Physical asset specificity, possibly most relevant to CTC, refers to investment into technology, machinery and equipment by contracting parties that are tailored to meet the buyer's requirements. At ROT, the value

of physical asset is maintained or is not substantially reduced in value, if the incumbent supplier is re-engaged. Enlisting an alternative supplier depreciates the value of the specific asset. For example, consider a facilities management contract where the incumbent develops a computer system customized to suit the buyer's specific requirements. At the end of the initial contract the buyer may own the computer system, but may not be able to make alterations unless the incumbent supplier is engaged. Hence the incumbent retains control over altering the system – as they hold the intellectual property over its development – with the buyer's ownership being superficial.⁴ Given that the costs of developing another system are likely to be greater than simply re-engaging the incumbent supplier at ROT, the incumbent will have a substantial advantage.

Human capital specificity refers to investment in relationship-specific human capital that is made by the contracting parties during the initial contract. The familiarity developed through the initial contractual relationship, whether operating a tailored computer system or following a certain process, will reduce the incumbent supplier's costs over time. These costs savings, similar to 'learning by doing', are not redeemable and worthless outside the immediate relationship. Therefore physical and human asset specificity will reduce the incumbent supplier's costs at ROT, giving them a distinct cost advantage over their rivals, due solely to their position (first mover advantage).

Implicit sunk costs are much harder to quantify and are borne by the buyer and the incumbent supplier during the initial contract. Implicit sunk costs refer to relationship-specific investment into social institutions, such as trust and goodwill that are made between the contractual parties during the initial contractual term. Caves and Porter (1976) make the point that barriers to entry and exit are not confined to tangible assets such as capital equipment. They argue that investment in trust and goodwill has the capacity to preclude entry and exit. This investment from the buyer's perspective serves to complement and/or substitute formal monitoring, however, is irredeemable and worthless outside the immediate relationship. The incumbent also has an interest to dedicate resources into the relationship, however their purpose is to lock-in the buyer.

Idiosyncratic explicit and implicit sunk costs preclude entry and exit at ROT through the reduction in the incumbent supplier's and buyer's costs, and simply because the incumbent is known, in contrast to prospective entrants. Re-engaging the incumbent supplier at ROT results in the most efficient social outcome as sunk costs associated with physical and human asset specificity and trust and goodwill are internalized. Replacing the

incumbent when all other things are equal, creates an inefficiency for the buyer as they will incur similar sunk costs when they engage a new supplier, even though the full extent of these costs will be difficult to quantify.

A barrier to entry arises when prospective suppliers are discouraged from contesting the contract at ROT, because of the incumbent's cost advantage. This reluctance is made worse by prospective suppliers having to incur bid costs. Bid costs are entry costs dedicated to preparing and submitting a tender which have a direct and an opportunity cost dimension. It was outlined earlier that the contestability framework makes no allowances for these costs (assumes that entry costs are zero) which are potentially sunk or not redeemable if the bid is unsuccessful. Hence from a prospective supplier's point of view, the risk of contesting the contract at ROT is extremely high, due to the incumbent supplier's cost advantage and potentially sunk bid costs which serve as a barrier to entry, constraining contestability.

The only unknown is whether the incumbent supplier acts as a monopolist appropriating the buyer's entire quasi-rents at ROT, or whether any of these savings are passed on to the buyer. Viewed within a neo-classical agency framework, the first scenario is the most likely, resulting in a worst welfare outcome for the buyer — a government agency representing the public interest.

The second theoretical limitation concerns static versus dynamic time. The contestable markets theorem is essentially a static theory that has been applied to contracting – a dynamic phenomena. If the static equilibrium of contestability, of Baumol et al. (1983) is to be applied to contracting, then the assumption being made is that the different stages of tendering at time t , $t+1$, $t+2$, $t+3$ and $t+n$ occur independently of each other, rather than being linked. In other words the contract is assumed to be just as contestable at time $t+1$ (ROT), as at time t . However, contestability at time $t+1$ (or ROT) is likely to be path determined on whom the contract was initially awarded, which was argued to preclude contestability, through the reduction in the incumbent suppliers total costs.

The reasoning of Baumol et al (1983) is based on Demsetz (1968), who questioned the orthodox view of economies of scale giving rise to natural monopolies. Demsetz, another neo-classical theorist referred to in the CTC literature by Domberger and Jensen (1997, 69) argued that the right to supply a monopoly function, where there are economies of scale, could go to auction, with monopoly rents being extracted from the prospective supplier in the initial bidding process. These could then be used for redistribution. Auctioning in Demsetz's treatment, however, is a one-off

where ownership is transferred to the supplier. The ensuing relationship does not affect the outcome at successive stages because there is no successive stage. In CTC, however, a quasi-auction⁵ is introduced at the end of each contractual period with the buyer not losing ownership, as they do in Demsetz's framework. Applying Demsetz's theory to CTC implies that competition at time t is equivalent to competition at time $t+1$ (ROT), with what takes place in between being conveniently abstracted from the analysis (Williamson, 1993). In CTC, the outcome at ROT will not only be sensitive to the initial relationship, but be path-determined on the initial relationship constraining contestability for the reasons outlined earlier.⁶

The Industry Commission (1996) makes some allowances for dynamic factors, such as 'supplier capture' and 'strategic alliances'. However, the specific effect of this on the contestability of competitively tendered contracts at ROT gets very little, if any, treatment. On the whole it is implicitly assumed in the empirical literature that the ROT process occurs independently of what took place when the initial contract was awarded.

(ii) The Pragmatic Critique: Price as Signal and Conceptual Differences in Contracting

It was established earlier that the availability of the incumbent supplier's price to potential entrants was crucial to contestability. A price above marginal costs signals to prospective entrants that profits are to be made from entry. Not having access to the prevailing price heightens the risk of entry.

In CTC, prospective suppliers who contest the contract at ROT will never (or very seldom) have access to the initial contractual price (Industry Commission, 1996, 93-96). In the Australian public sector, information relating to price is cloaked in 'commercial confidentiality'. This is justified on the basis that disclosing this and related information jeopardizes the incumbent's intellectual property and comparative advantage. The risk of entry increases when the incumbent supplier's cost advantage and the prospective entrant's potentially sunk bidding costs are incorporated into the analysis.⁷ As a result the incumbent supplier is likely to enjoy monopoly status, being immune to contestability.

A related practical criticism is the difference between Domberger and Jensen (1997, 69), Domberger (1996), Rimmer (1991) and the Industry Commission's (1996) application of contestability to CTC and the application of this theory to contracting by Baumol et al. (1983). In a symposium in the *American Economic Review*, in response to the criticisms of their

colleagues regarding the sunk cost assumption, Baumol et al. (1983) identified contracting to be a means through which contestability is able to be secured. Their argument was that a potential entrant at $t+1$ (or ROT) will offer the buyer a price $P_e \leftrightarrow P_i$, before undertaking production and sinking any costs (P_e is the price offered by the prospective entrant, and P_i is the price charged by the incumbent). This is followed by the buyer re-approaching the incumbent with P_e , and returning to the prospective entrant if the price is matched or improved. Hence buyer's motivation at $t+1$ is to play the incumbent off against the prospective entrant, yielding to whoever offers them the cheapest contract.

Therefore in the framework of Baumol et al. (1982, 1983) contestability, or some variant of it that generates a more efficient price is more likely to occur than in CTC. In the framework of Baumol et al the buyer has a lot more control over the tendering process at $t+1$, than the buyer in CTC. In CTC the buyer does not have the same opportunity to approach and re-approach their would-be suppliers, which limits the application of contestability. Therefore unavailability of price and the difference between CTC and the contracting example of Baumol et (1983) are the pragmatic issues which limit the application of contestability to CTC.

Before concluding this section on the theoretical and pragmatic limitations of applying contestability to CTC, it is important to consider the implications of the incumbency advantage on the incumbent's behaviour and on the buyer- representing the state. Contestability being constrained at ROT, within the neo-classical economic paradigm, could be detrimental to the buyer in two ways. Firstly, the incumbent could be lead to act opportunistically, by 'holding up' the buyer in order to increase profits (Williamson 1979, 1993), when the 'quality' of the incumbent supplier cannot be perfectly contracted, monitored or enforced (Farrell and Shapiro, 1989). Allowing for imperfect or asymmetric information and external factors results in the buyer being unable to distinguish between an opportunistic incumbent and external factors. As a result, the incumbent may be led to appropriate quasi-rents during the initial contract to increase their profits. Secondly, the incumbent may not show due diligence during the initial contract if they are sure of securing the contract at ROT, when there are these external factors at work. Therefore even when incentives schemes are built into the contract, if contestability is bound to be constrained at ROT, there is no reason why the incumbent will not act opportunistically to increase their profits, within the neo-classical economic paradigm, provided that they can get away with it. Thus contestability being constrained at ROT creates an inefficiency for the buyer.

6. Policy Implications

Policy implications of this analysis depend on where the government department is with a particular contract. If contracting out is being contemplated for the first time for a highly differentiated function which exhibits a high degree of explicit and implicit sunk costs due to asset specificity, then it is in the government department's best interest to reconsider its position. Even if the market is deceptively competitive at the initial stage of tendering, the likelihood of this being sustained at ROT and over consecutive rounds is extremely slim. Given the path dependency of the relationship, and the prospect of opportunism, the process of Re-Open Tendering creates a further inefficiency for the buyer, as they bear the direct and opportunity costs of instituting this process.

If the buyer is in the middle of a contract, approaching the ROT, they have three options, which are not mutually exclusive. First the buyer should do their utmost to make the details, particularly relating to the price of the initial contract, public knowledge, or at least available to prospective suppliers. This will give prospective entrants a fair idea of what they should be aiming at and serves to reduce the risk faced by prospective suppliers at ROT. The second option is to prevent the incumbent from bidding at ROT. However, the consequence of the second option may create other difficulties for the buyer. If the incumbent has no chance of securing the contract at ROT, they may be led to stint on service quality during the initial contract, to improve their profitability, given that quality is not perfectly contractable, monitored or enforceable (Farrell and Shapiro, 1989). Even if the incumbent is sure to secure the contract at ROT, they may act opportunistically or not exercise due diligence when the result at ROT is pre-determined. The buyer's third option is to pay prospective suppliers at ROT for submitting a tender. However, this increases the buyer's total contracting costs, having other implications which are not considered in this paper.

7. Assumptions and Limitations

This critique was based on the following assumptions. First, the analysis was restricted to incomplete relational contracts where there is repeated interaction between the buyer and the incumbent supplier. As a result the analysis has limited application to spot market dealings. Secondly, service differentiation was assumed. For a service which is relatively homogenous, like cleaning, this analysis has limited application. It should be noted that in cleaning and garbage collection contracts there may be efficiency gains that are generated at ROT, but these cost savings should not be used to

extrapolate efficiency gains on contracting in general as has been the tendency in the Australian academic and policy literature. Thirdly, the buyer was assumed to always bid at ROT. If the buyer does not contest the contract at this stage and prospective suppliers bid, then the contract may be competitive to some extent. However, the buyer will be left in a quandary if they do not get any response from prospective suppliers. Fourthly, it was assumed that the incumbent has not acted overtly opportunistically during the course of the initial contract. If they have, it is quite clearly in the buyer's interest to replace them at ROT. Fifthly, contracting parties were assumed to incur relationship-specific sunk costs that arise when assets are specific. Relaxing this assumption limits the applicability of this analysis, however, this may not be representative of CTC in areas such as facilities management. And finally technology was implicitly assumed to be fixed between time t and $t+1$. If prospective suppliers have access to more advanced technology which enables them to provide a much cheaper service, then this may redress some of the imbalance.

8. Conclusion

This paper provides a theoretical and pragmatic critique of the contestable markets theorem being applied to competitive tendering and contracting in Australia. The critique was motivated by the proponents of CTC extrapolating efficiency gains from the initial contest to successive stages of open tendering. The theoretical critique, sited within the neo-classical economic paradigm, demonstrated that contestability was bound to be constrained at ROT in relational contracts characterized by explicit and implicit sunk costs. Idiosyncratic expenditure into physical and human assets during the initial contract serve as a barrier to entry and exit. The incumbent supplier's cost advantage and the additional cost to the buyer when the incumbent is not engaged will constrain contestability, when all other things are equal. Allowing for the potentially sunk bidding costs of prospective entrants strengthens this argument. There was some uncertainty as to whether the incumbent's cost efficiencies will be passed on to the buyer at ROT. If cost savings are passed on, then this results in the most welfare efficient outcome. In the neo-classical framework, however, it is in the incumbent's best interest to act as a monopolist, resulting in the worst possible scenario for society.

The contestable markets theorem was also argued to be a static theory that does not make sufficient allowances for dynamics. Contracting, however, is a dynamic phenomena, with contestability at ROT, being inextric-

cably linked to whom the contract was initially awarded. Applying this theory to CTC implies that competition at time t is equal to competition at time $t+1$ (or ROT) with open tendering at each point in time occurring independently of each other. This was argued to discount process or the evolution of the initial contractual relationship, with path determination on the initial contractual relationship being more representative of CTC.

The pragmatic critique was based on the availability of price to potential suppliers and the differences between CTC and the contracting example of Baumol et al. (1983). Price facilitates contestability by providing a proxy to profitability. In CTC, however, the initial contractual price tends to be cloaked in commercial confidentiality, rather than being public knowledge or available to prospective suppliers at ROT. If the price is not readily available, contestability will be precluded as this increases the risks to potential entrants. Allowing for potentially sunk bid costs magnifies this risk.

Contestability or some variant of which was shown to be more likely in the formulation of Baumol et al. (1983) than in CTC. In the formulation of Baumol and his colleagues, the buyer is able to approach and re-approach the incumbent and prospective suppliers, playing one off against the other, awarding the contract to the cheapest contestant. In CTC, the process is based on open tender where the buyer has much less control over the tendering process, which enables them to approach and re-approach their prospective suppliers. Hence contestability is least likely to occur in CTC in contrast to the contracting formulation of Baumol et al. (1983). The consequence of contestability being constrained at ROT was argued to create a further inefficiency for the buyer if the incumbent acts opportunistically or does not exercise due diligence during the initial contract – made worse by the costs of the ROT process being borne by the buyer.

Notes

- 1 In NSW the ROT process is commissioned by the Public Sector Management (Goods and Services) Regulation (1995) under the Public Sector Management Act 1988 NSW, Section 26 (1) (a) and (b), which requires contracts over \$50,000 to go to open tender and ROT once the initial term expires.
- 2 It has been noted elsewhere that the concept of contestability has been adopted somewhat haphazardly in the Australian microeconomic reform debate (Quiggin, 1996c)
- 3 It is important to recognise that this is not simply depreciation in capital equipment. What it refers to is the excessive depreciation in the value of the asset when an alternative supplier is engaged to utilise it. A similar situation ensues from the asset being redeployed elsewhere.

- 4 This example is drawn from a conversation that the author had with a Senior Consultant of the Boston Consulting Group.
- 5 Auction is not strictly the correct term to be applied to CTC.
- 6 Joan Robinson (1953) offers a similar critique of equilibrium, in a macroeconomic context, where she differentiates between 'historical time' and 'logical time'. Her argument is that in historical time, 'there is an exceptionally strict rule of one way traffic' (1953 in 1973, 256), whereby the 'capital stock' and 'expectations' of future periods are path determined.
- 7 Theoretically, 'risk loving' suppliers, under certain conditions may contest the contract at ROT. The issue of risk is an extensive area, an extensive examination of which is outside the scope of this paper.

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