

# A Dynamic Approach to Western Australian Ports

Justin. Pyvis<sup>1</sup>

<sup>1</sup> Murdoch University, Perth, WA, Australia

*“Capitalist reality is first and last a process of change. In appraising the performance of competitive enterprise, the question whether it would or would not tend to maximise production in a perfectly equilibrated stationary condition of the economic process is hence almost, though not quite, irrelevant.” (Schumpeter 1976, p. 77)*

## 1 Introduction

The *Port Authorities Act 1999* (henceforth “The Act”) officially became state legislation on August 14, 1999 and has generally been viewed as a success (see for instance Allen Consulting Group 2009; Department for Planning and Infrastructure 2009; Department of Transport 2011). While the Department for Planning and Infrastructure’s (2009, p. 2) *Report to the Western Australian Parliament on the Operation and Effectiveness of the Port Authorities Act 1999* “found no significant deficiency within the Act”, this paper challenges that conclusion with an alternative method of evaluation – one that does not assess The Act in terms of narrowly conceived economic or financial criteria but instead examines the full cost of The Act in terms of the alternative institutional arrangements and decision-making processes foregone.

## 2 Institutions Matter

Standard analysis on port performance has tended to focus on static economic or financial criterion<sup>1</sup> that ignores – or at least, seriously understates – both the dynamic component of economic efficiency and the potential costs a certain institutional arrangement may have in terms of (largely unseen) foregone arrangements. Using comparative institutional analysis, this paper outlines an alternative framework that, it is hoped, captures these foregone alternatives.

There is a growing body of literature that has brought the role of institutions – in the sense that they guide economic activity through incentives – to the forefront of economic analysis, defined by North (1990, 1991) as the “rules of the game”. Institutional arrangements within an economy can be thought of as the combination of formal constraints, informal rules and their enforcement characteristics (Greif 1994; North 2006). The goal of institutional analysis is to evaluate the economic efficiency and distributional implications of given institutional structures.

Since institutions are an attempt to satisfy goals using incentive structures, the division of labour, rules for entry and exit into an industry and decision making authorities, all such aspects of institutions should be considered in explaining institutions and their effects. Comparative institutional analysis can be seen as an effective way to broaden the neoclassical toolkit and then use this “broadened analytical framework to explain phenomena that had previously seemed impenetrable” (Nabli & Nugent 1989, p. 1336).

Therefore, to properly analyse the performance of The Act and the port industry, a consideration of only static equilibrium benchmarks is insufficient; what is needed is a

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<sup>1</sup> E.g., Cullinane & Song (2006)

deeper look at how the formal institutional structures<sup>2</sup> created by The Act affect criteria such as dynamic efficiency (entrepreneurship), incentive structures, the effective transmission of knowledge, information costs and the true competitiveness of the industry.

While static analysis is a useful tool in its own right, it is incomplete and thus it is necessary to expand on the existing body of work to encompass the other formal “rules of the game” – Williamson’s (2000) Level 2 and Level 3 institutions (**Table 1**).

**Table 1 – Williamson’s Economics of Institutions**

| Level  | Frequency (years) | Purpose   |
|--|-------------------|---|
| <b>2</b> - Institutional environment: formal rules of the game, especially property (polity, judiciary, bureaucracy) | 10 to 102         | Get the institutional environment right. 1st order economising. |
| <b>3</b> - Governance: play of the game, especially contract (aligning governance structures with transactions)      | 1 to 10           | Get the governance structures right. 2nd order economising.     |
| <b>4</b> - Resource allocation and employment (prices and quantities; incentive alignment)                           | Continuous        | Get the marginal conditions right. 3rd order economising.       |

Most of the past research on ports has focused on the 4th level (the ongoing resource allocation process and marginal conditions *within* the port e.g., physical measures of output and financial performance indicators). In contrast, this paper analyses the success of The Act based on the 2nd and 3rd levels of institutions – the institutional environment and the institutions of governance – that Western Australian ports must operate within as a result of The Act and other legislation. These include, but are by no means limited to:

- Ownership Type;
- Organisational Structure;
- Decision Making Authority; and
- Barriers to Entry/Exit.

Each of these will be analysed individually in the following sections.

### 3 Ownership Type

The Act brought all of Western Australia’s eight Port Authorities under the one Act, each Authority having previously operated under their own governing Act<sup>3</sup>. Every Port Authority is a wholly government-owned entity operating as a separate body corporate (known as Government Trading Enterprises or GTEs), each with their own board of directors appointed by the responsible Minister (Department for Planning and Infrastructure 2009).

<sup>2</sup> Formal constraints are constitutions, laws, property rights and freedom of contract as opposed to informal rules such as sanctions, taboos, customs, traditions and codes of conduct which will not be covered in this paper. For more on the difference between informal and formal rules, see: (North 1991)

<sup>3</sup> This paper will not address the merits, positive or negative, of the move away from individual Acts to the present *Port Authorities Act 1999*.

### 3.1 Conflicting Mandates

GTEs can be viewed as hybrids that have characteristics of both public and private organisations in that their ownership and their control are public, but they are expected to “act in accordance with prudent commercial principles...and endeavour to make a profit”. However, if this duty is in conflict with the Port Authority’s ability to “...perform its functions in accordance with its strategic development plan and its statement of corporate intent as existing from time to time”, then it no longer has to act on these commercial principles (Section 34 of The Act).

There is no doubt that a conflict exists here; on the one hand, the Port Authority must serve the public interest through the “facilitation of trade” and “strategic development plans”, while on the other hand it is supposed to “endeavour to make a profit” – even if current State Government policy requires them to target a discounted return on assets of between 5 and 8 per cent, a level significantly lower than would be expected of a private organisation (Allen Consulting Group 2009, p. 30). In fact, given that this State requirement provides the Port Authority’s management with “no incentive... [to] maximise profits”, it reduces the ability of the public to monitor the results of a given port. As every Port Authority is governed by the same Act, there are no unregulated Port Authorities to compare with – the result being that meaningful price comparisons have effectively been eliminated and profit is all that remains. While fixing profit at between 5 and 8 per cent might therefore appease the public, it provides a rather perverse incentive for the Port Authorities to allow costs to rise. To quote Thomas Sowell (1980, pp. 198-9):

*“Regulated firms whose explicit financial profit rate is restricted have every incentive to allow costs to rise, taking various benefits in nonpecuniary forms...In addition, the more costs the regulated firm can accumulate...the higher its total profits at a given rate of profit. In short, there is little incentive for regulated firms to keep costs down, and much incentive to let them rise, especially in ways that make the management of such firms easier. For example, high wage demands by unions in regulated industries need not be resisted (and strikes risked) as strongly as in unregulated industries, because wage increases become part of the cost on which the regulatory agency sets prices.”*

The real point is that as even a “small inefficiency can raise the price of a good by much more than the doubling of the profit rate would” (Sowell 1980, p. 198), there is every incentive for Port Authorities to allow costs to grow at least as fast as revenue (enough to keep a steady *rate* of profit and therefore a higher *absolute* profit) even if it is wholly unnecessary. In this sense, in spite of a mandate to “endeavour to make a profit”, it is clear that the incentive structure within a Port Authority is more like that of a state-owned organisation than a privately-owned one.

Indeed, the key reason GTEs cannot operate in the same way as private businesses operate – regardless of government mandated duties to operate with “commercial principles” in mind – is an institutional one. Private businesses only operate the way they do because of the institutional environment they operate within – that of transferrable private property, market prices, true profit incentives and competition. Given that GTEs do not operate within that institutional environment, they simply cannot match their private counterparts nor will they ever be able to.

### 3.2 Guarantee of Obligations

In line with a Port Authority’s duty to operate on commercial principles, Section 85 of The Act entitles a Port Authority to borrow money, obtain credit, issue debt and capital instruments, and “...otherwise arrange for financial accommodation to be extended to the

port authority". In addition, Section 88 allows the Treasurer (with the Minister's concurrence) to guarantee the financial obligations of a Port Authority.

While there is a clause allowing the state to charge fees for this guarantee, it is questionable as to why it is there at all: if the Port Authorities are supposed to act as independent corporate entities, why the need for a special debt guarantee privilege when there are private insurance markets that can cater to their needs? The only answer can be that, by having this clause in place, Port Authorities are able to raise capital at a rate below what they would be able to absent it under the *perception* that, if in trouble, the state would step in. It is in effect a subsidy to the Port Authorities and allows them to take greater risks than they would be able to in a competitive environment. However, a deeper look reveals that this might not be the case: given that Port Authority debt is accounted for in the Government's books, Port Authorities often find themselves handicapped by this very feature – any borrowing they wish to make is effectively "controlled by Government because of competing Government agency needs" (Department of Transport 2011, p. 9).

This certainly creates incentives similar to those faced by a government owned business rather than a privately owned one; Port Authorities must lobby the Government to have funds allocated to them to undertake new projects rather than raise necessary funds on their own merit. Additionally, Port Authority boards "have no autonomy to expend" accrued profits from their operations as the "State Government view is that a reduction in cash adversely affects total Government net debt and this is despite income tax equivalent payments also being paid by Port Authorities to the State Government, rather than to the Australian Taxation Office" (Department of Transport 2011, p. 9). This raises the same issue as before: on the one hand, Port Authorities are supposed to operate as a private business would; on the other hand, the evidence suggests that the incentives they face are almost entirely aligned with those of a government-owned organisation instead of the private model they seek to emulate. **Table 2** below offers a comparison.

**Table 2 – Differences between a typical Private Business and a Port Authority**

| Private Business   | Port Authority   |
|--|--|
| Operates within a competitive market environment   | Environment includes the market, but political factors dominate non-operational decisions  |
| Profits generate needed resources to build capacity  | Capacity is built through expanding both revenue and cost base as well as through government allocations   |
| Accountable to private owners  | Accountable to government  |
| External market-based controls on financial performance (capital will only seek the highest – most urgent – needs presently available) | External market-based controls are somewhat offset by government expenditure and monopoly privilege (regulation)                                 |
| Profit orientated goals  | Mix of profit orientated goals and public goals (e.g., "facilitation of trade")  |
| Thrives or goes out of business – failed firms exit, successful ones gain market share and expand                                      | Guaranteed by government – may stagnate over time as inefficient practices persist, no incentives to maximise performance beyond a certain point |

While from the point of view of a Port Authority these constraints may appear prohibitive (and they are), they may serve some good in the sense that they reduce the potential damage an uninhibited GTE can cause. GTEs, effectively able to borrow at the same rates as a State Government owing to their government ownership and state guarantee, can as a result take excessive risks (especially when under political pressure) when their

borrowings are not constrained by the Government's books. Indeed, Frydman, Gray et al. (2001) found no significant statistical difference between state owned firms and corporatised (or GTE) firms in their ability to repay debt and that both represented a significantly higher credit risk than their private counterparts. While their analysis focused on transition economies, the recent failures of GTEs Fannie Mae and Freddy Mac in the United States would suggest that these issues are just as relevant in developed societies as they are in developing ones (Jickling 2007; Stanton 2002).

The great insight of Adam Smith (1776 [1976]) and the classical economists was that people will always act in their own self-interest; building on that, new institutional economics adds that self-interest will only be channelled to productive (socially cooperative) uses *if the correct institutional structures are in place*. Absent these constraints, the very same greed and self-interest from which we “expect our dinner” can and often does produce opposite effects (Boettke 2011). It is worth remembering these lessons before considering the removal of any budgetary constraints on Port Authorities, thereby providing them with the autonomy they desire. Without effective constraints on an organisation – whether it is voter feedback in the form of Government debt or accountability to owners in a private enterprise – there is the potential for it to run amuck.

### **3.3 The Tragedy of the Commons**

The strongest justification for public ownership of Port Authorities would appear to be that of both the “public good” and the tragedy of the commons, especially for communal services within a port. For example, Chan, Forwood et al. (2009, p. 11) recently noted “strong public good features make it difficult, even undesirable, to privatise some infrastructure services”. Likewise, Goss (1987, p. 14) said that Port Authorities must be publically owned as “there is no market [for common port services] because there is no legal recognition of exclusive property rights; and without these no one is likely to build anything at all substantial...[therefore] some public authority is needed to establish property rights in the aquatory”.

It is no surprise that the policy prescription has, as far as this author is aware, always emphasised the need for either external imposition of property rights by the government and/or the strict regulation and enforcement of rules to avoid the many issues associated with the tragedy of the commons (Chan et al. 2009). However, the literature on this subject over the past few decades is rich with empirical studies showing that this may not always be necessary; in fact, special institutional arrangements such as customs and conventions designed to induce cooperative solutions can overcome tragedy of the commons issues and in the process ensure that resources are used efficiently, without the need for government ownership or regulation (see for example Ostrom 1986, 1988, 2005; Ostrom & Blomquist 1985; Ostrom, Gardner & Walker 1994).

The authors’ point out that freedom of contract allows individuals to enter a diverse range of contractual arrangements including that of self-regulation of the use of common resources. They do this by “devising rules that are diverse in form but have specific functions in common with and mimic private property rights. Various community-based systems of rules provide incentives for accountability and responsibility in resource use, just like private property incentivises to economise on resources” (Boettke & Fink 2011, p. 4).

Nevertheless, it can be difficult and costly for such rules to emerge from within an established environment and so the government's role (whether through a local council, a state body or the Port Authority itself) in defining property rights of common resources within a port is likely required. However, it is important at this point to make a distinction

between *defining* property rights and *assigning* property rights. In the former, the actual assignment of ownership occurs through market transactions, while in the latter the “power to assign such rights to particular individuals or corporations serves the interest of politicians, not society...[they created] enormously valuable property rights to hand out at their discretion, with little more legal restrictions than vague phrases about ‘the public interest’” (Sowell 1980, p. 187).

On the issue of the “public good” or “public interest”, section 4.1 will address its intricacies but for now it is sufficient to say that, on balance, public bureaucracies – and to a lesser extent GTEs – generate no “public good”. This insight is not dependent upon any assumption that the bureaucrats or managers of GTEs are inefficient but depends solely on what was addressed earlier: that they are just as interested in maximising their own self-interest as individuals operating in the fully private sector. The key difference is that there are no reliable institutional mechanisms to incentivise public sector actors to weigh the full costs and benefits of their actions (in relation to the public) when they make their decisions. The point is that it is not just the market that does not operate to some utopian ideal, as was thought in the past – but that the government itself also does not function perfectly. The choice is then between two imperfect *processes* rather than their ideal states (Buchanan, James M. 1969).

### **3.4 Organisational Structure**

While the purpose of this paper is to examine *institutional arrangements* – “the rules of the game” – it is worth briefly touching on the organisational structure – “the players” – that The Act created. According to North (1990, pp. 3-5), “[a] crucial distinction...is made between institutions and organisations...Conceptually, what must be clearly differentiated are the rules from the players. The purpose of the rules is to define the game as played. But the objective of the team within the set of rules is to win the game-by a combination of skills, strategy, and coordination; by fair means and sometimes by foul means. Modelling the strategies and the skills of the team as it develops is a separate process from modelling the creation, evolution, consequences of the rules” (Aoki 1996).

Examining the way Port Authorities attempt to “win the game” is a topic for future study; however for now it is worth adding that The Act creates rather rigid, inflexible top-down organisational structures that could be susceptible to inefficiencies such as path dependency. Whether or not these structures would exist or persist in a competitive market environment cannot be said for sure, although in a market system ownership structures are as diverse as the individuals in society and are well suited to adaptation (whether from within the organisation or as a result of competitive forces from yet-unknown outsiders). Indeed, Demsetz and Villalonga (2001, p. 231) conducted a study comparing organisational structures and economic performance and concluded that their results “support the view that the market succeeds in bringing forth ownership structures, whether these be diffuse or concentrated, that are of approximate appropriateness for the firms they serve. These structures differ across firms because of differences in the circumstances facing firms, particularly in regard to scale economies, regulation, and the stability of the environment in which they operate”.

In a market economy, institutions are seen as efficient solutions to problems of organisation in a competitive framework where “market exchange, franchising, or vertical integration are conceived...as efficient solutions to the complex problems confronting entrepreneurs under various competitive conditions” (North 1991, p. 98). While the caveat raised by North that this is only applicable in an environment where “formal economic constraints or property rights are specified and enforced by political institutions”; and that absent those conditions both public and private organisations can and do evolve in a

predatory, non-productive way, the theory holds in a developed economy with relatively strong property rights (compared to the transitional economies North was discussing) such as Western Australia's. These institutions allow for the creation of "complex governance structures to limit the problems of agency in hierarchical organisations".

This is also supportive of the view that what is important is the institutional structure the Port Authorities operate within, rather than the structure of the Port Authority itself (or, for example, the question of "how many Stevedoring firms is optimal?"). If you get the institutions right, the rest will follow. The "key question is not the intellectual question of what to decide but the institutional question of what social process shall decide, in the light of the characteristics of that process and of the problem at hand" (Sowell 1980, p. 157).

## 4 Decision Making Authority

In both private and public businesses, agency problems may arise if the managers are not themselves owners (see for instance Lin, Cai & Li 1998). In a Port Authority, the interests of the public, the government and the managers (the board, CEO and employees) will not necessarily be inline. A situation can occur where the managers – due to the incentives they face – may not be responsive to the needs of either the public or the government and may pursue their own interests, leading to an inefficient outcome. Any losses or inefficiencies within the organisation are borne by the public in the form of higher prices and a misallocation of scarce resources and by the government, who consequently have less to spend in other areas. There is thus a natural tendency for managers to take undue risks, overinvest where possible and provide themselves with nonpecuniary privileges at the expense of the public.

### 4.1 Public Choice

*"The view that government is the automatic perfect solution to innumerable problems no longer exists."* (Tullock, Seldon & Brady 2002, p. 11)

Public choice theory was founded by Buchanan and Tullock (1967) with their book *The Calculus of Consent: Logical Foundations of Constitutional Democracy*. The theory's main contribution is that, just as in achieving private goals, the achievement of government goals is an appeal not to the public interest but to the private interest; people will always pursue their own *private* interests and they will only produce an outcome that is in the public good if it is in their own interest to do so.

This has clear implications for a number of reasons; one of the key *justifications* for having The Act and state owned Port Authorities in the first place was "owing to the perception they are natural monopolies and that public ownership can potentially prevent abuse of their market power" (Tull & Affleck 2007, p. 2), and that, as public bodies, they "ought to act in the public interest" (Goss 1987, p. 10). Public choice insights would suggest that even if ports are natural monopolies (and, ingrained in popular opinion as it may be, nothing would suggest that ports are different from any other capital intensive industry and somehow require vastly different legal and economic arrangements that serve the majority of other industries just fine), the traditional theory that all that is needed is government ownership, a "necessary evil", to correct this *perceived* market failure is false; government itself is more than capable of failing.

The point is that government should be assessed as every other social or economic group or individuals are: their actions will always be undertaken to maximise their own well-being *under a given set of institutions that form the incentives and constraints they face*.

It should be added that public choice is *not* an argument that government actors are more inefficient or “stupid” than their private counterparts (Kirzner & Sautet 2006); it is simply that, compared to the incentives and constraints that private actors find themselves in, public actors face very different incentives that, on balance, will lead to policy failure – the existence of a conflict between actual and intended outcomes. The question then becomes what is the best *process* to achieve a socially optimal outcome, and for that we must return to institutions.

What is then required are institutions that will facilitate entrepreneurship and capital accumulation, protect a rationally ignorant voter base from excessive rent seeking by interest groups and effectively tie the hands of politicians. To quote Tullock, Seldon et al. (2002, p. 62), “it is the institutional situation in which they [government actors] find themselves that frees them from the constraint of efficiently carrying out the tasks to which they have been assigned. This situation quite obviously makes the bureaus less than optimally efficient”.

These lessons are especially important given the seemingly growing desire for a national port policy or even Federal control of Port Authorities themselves, where voter feedback is diluted as benefits are concentrated and costs are dispersed further than under state or local control. To paraphrase Sowell (1980), institutions need to be judged not on their hoped-for results but on their *processes* and in terms of the full consequences entailed by *alternative* processes. Narrowly conceived economic or financial criteria cannot perform this task and so one must perform a comparative institutional analysis to avoid errors. The policy burdens and institutional incentives faced by Port Authorities prevents them from performing at socially optimal levels – putting society’s resources to the best use – and therefore creates a misallocation of resources. The tie between politics and the Authorities should be severed and attempts should be made to provide a level, competitive playing field so that market competition can perform the necessary monitoring role.

## 4.2 Profit Motive

*“The economic problem of society is thus not merely a problem of how to allocate ‘given’ resources – if ‘given’ is taken to mean given to a single mind which deliberately solves the problem set by these ‘data.’ It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only those individuals know.”* (Hayek 1945, p. 519)

Profit is the cornerstone of economic calculation and coordination in a market economy. We already know that Port Authorities have a mandate to “act in accordance with prudent commercial principles...and endeavour to make a profit”, even if this can be relatively easily superseded by political influence. However, profit alone is not enough to ensure that a socially optimal outcome has taken place. Even if a Port Authority makes a profit – while it may give us an indication that they are doing *something* right – it does not follow that the present structure of the Authority is fittest available and it certainly does not reveal missed opportunities as a result (Martin 2009). This is especially true as although Port Authorities may compete – that is, cut prices, advertise services, invest in R&D and infrastructure – they may not be *competitive*. To be *competitive* means to exist a dynamic, competitive environment where only the fittest firms thrive and survive (Park 1998).

As mentioned earlier, Port Authorities face incentives that force them to increase both costs and revenues in order to expand (whether this is to facilitate trade or increase either pecuniary or non-pecuniary benefits for staff is irrelevant for this analysis). While this is different and not as severe as what exists in a pure bureaucracy – who usually face incentives on the cost side only – it can have the same discoordinating effects.

Profit exists when something (or a number of things) can be sold for more than it cost to produce it. Prices are essential in signalling opportunities and new avenues for entrepreneurs to exploit – from small changes like cost improvements (which, as Frydman, Gray et al. (2001) showed, is achievable by GTEs provided the state is not active in company decisions)<sup>4</sup> to fundamental changes like completely different institutional or organisational structures. Kirzner (1963, p. 42) noted that for an entrepreneur to make a profit the conditions that must prevail are “first that a price discrepancy exists; and second, that the entrepreneur knows that it exists”.

He stressed that the essential character of the market process is one which coordinates this process; one that makes available information and alternatives to participants “without making it necessary for market participants to learn all this detailed information [themselves]” (Kirzner 1963, p. 42). Entrepreneurs serve the function of making sure that no discrepancy that exists between “prices paid for identical goods, or between prices paid for goods and those paid for everything required for their production”, will persist for long provided the profit incentive (urgency) is strong (large) enough (Kirzner 1963, p. 43). The existence of *undiscovered* profits is what drives entrepreneurs and is what coordinates the allocation of scarce resources in an economy to their most urgent uses; “the entrepreneurial search for profits...[leads] to the production of products commanding the highest prices (for given production costs) and to the employment of the resources involving least cost (for a given productive purpose)” (Kirzner 1963, p. 44).

If this discovery process is distorted (for example, by restricting potential profits and market entry) then the market mechanism will not work and a misallocation of resources can persist indefinitely. We have found that Port Authorities have very little incentive to perform in a way that optimises the allocation of society’s scarce resources because, as covered earlier, they are (a) not allowed to expend their profits; which leads to (b) rent-seeking in the form of lobbying government for capital expansion funds; and (c) the incentive to maximise costs as revenues rise. Artificial obstacles such as the monopoly privilege bestowed upon Port Authorities by The Act (or rather, a myriad of state legislation) necessitate that if such misallocations exist, entrepreneurs – either within the existing Port Authority or outside – are prevented from exploiting (and correcting) any such misallocations. A key component of profitability is that it serves as a viability test; firms do not survive without government aid in the long run if they cannot break even at market prices. In addition, profitability serves as a standard against which potential entrants can test their business plans (Alchian 1951).

While traditional analysis and subsequent strategies for developing integrated infrastructure solutions to improve efficiency in light of increased freight can be helpful, they ignore this dynamic aspect. In fact, if measured in objective data (e.g. freight movements) instead of “the economic reality of varying quantities and qualities demanded according to varying costs...more ‘need’ can always be demonstrated ‘objectively’ [in the absence of true] market pricing, which would convey knowledge that would cause more economical use of whatever is being sold” (Sowell 1980, p. 191).

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<sup>4</sup> Note that cost cutting is one thing that GTEs actually can achieve when the incentives they face are right; however Frydman, Gray et al. (1997) empirically demonstrated that it is only private companies that are able to grow *revenues* at a rapid rate as they are less subject to manipulation, more transparent and more future-oriented and unpredictable on the basis of past history – it therefore requires “of entrepreneurial, risk-taking activity even in mature economies” to “capture new sources of revenues or to regain the disappearing ones”.

The result of such analysis is it tends to focus attention at the maximisation of a desired result while conserving given resources and minimising waste; however, private enterprise is “ends independent,” where “...efficiency for a social system means the efficiency with which it permits its individual members to achieve their several goals” (Kirzner 1963, p. 35). Any analysis that fails to distinguish between a profit earned in a competitive environment and one earned in the absence of such competition must by necessity make subjective value judgements about the relative importance certain ends have to different market participants – which will likely lead to critical errors.

## 5 Barriers to Entry/Exit

While not explicitly outlined in The Act (which covers only existing Port Authorities), there are numerous artificial barriers to entry *and* exit in Western Australia’s shipping industry. A recent example might suffice in demonstrating how tedious this process can be, that of James Point:

1. The government put out a request for a fully-private funded and operated port – it is impossible to open a port in Western Australia without explicit government permission. In 1999, James Point Pty Ltd (JPPL) was selected as part of this process.
2. Environmental approval was granted in 2004.
3. Zoning approval from State Parliament was required as amendments must be made to the State’s Metropolitan Region Scheme – this took nine years to happen. It was “followed by a very protracted process to obtain development approval from the WA Planning Commission, and this necessitated an appeal to the State Administrative Tribunal” (James Point Pty Ltd 2011, p. 1).
4. The company must still spend over \$15m on further “detailed studies” to “satisfy the conditions attached to the approvals”.

This list is by no means exhaustive; however given that it has been twelve years since the tender process was completed and *construction has yet to commence*, it should be plainly obvious that the market for the facilitation of trade through the ocean is anything but free in the state and this raises a number of institutional concerns which need to be addressed.

### 5.1 Monopoly

*“A monopoly position is in general no cushion to sleep on...As it can be gained, so it can be retained only by alertness and energy.”* (Schumpeter 1976, p. 102)

The argument usually goes that a “natural monopoly exists where a single facility or service provider is able to service market demand at a lower total cost than two or more facilities or service providers. Where the provision of a facility or services is a natural monopoly, the incumbent provider will typically have a cost advantage over any potential new entrant and is able to exploit this cost advantage to restrict entry to the market for the facility or service and, having done so, exploit a position of market power...Vertically integrated entities may have an incentive to restrict access to services to third parties so as to protect their own interests in an associated up-stream or down-stream business” (Allen Consulting Group 2009, pp. 27-8).

There is no question that infrastructure owners where there are high fixed costs, especially ones with the potential of vertical integration such as in a port facility, would have the ability to restrict access to third parties. But to then argue that this represents monopolistic control

is to deny production efficiencies, product quality differences or differences in management (Sowell 1980). Over time, alternatives do develop (if required) and in the long run true monopolies – that is, monopoly absent state protection – can only persist by acting in a competitive manner; that is, in a manner precisely the opposite of how the theory says a monopolist ‘should’ behave.

The fact is, every producer in the private sector seeks to maximise his or her net revenue *over time* and to do this requires the setting of a price as high as possible *without enticing others to come and compete*. Over time – and with a dynamic, rather than static view of competition that sees it as a *process* and not a state of affairs – there can never be a situation of monopoly pricing provided market entry is open (Sautet 2007).

Baumol (1982, p. 14), for example, demonstrated that even for natural monopolies, once you factor time into the equation, “the heroes are the (unidentified) potential entrants who exercise discipline over the incumbent, and who do so most effectively when entry is free”. The policy implications of this are clear: “when entry and exit are completely free, efficient incumbent monopolists and oligopolists may in fact be able to prevent entry. But they can do so only by behaving virtuously, that is, by offering to consumers the benefits which competition would otherwise bring. For every deviation from good behaviour instantly makes them vulnerable to hit-and-run entry”.

The real issue, it turns out, is not the mythical “market power” that private monopolies are able to exert but, in line with institutional and public choice insights, the power that *governments* are able to exert in *restricting entry*, thereby creating or preserving monopolies and distorting the coordinating effect of the market system. Yes, markets fail. But they only fail based on preconceived ideals within a given set of subjective preferences.

It is important to once again make the distinction that the market is a *process* and not a state of affairs; it is continually evolving and adapting to new preferences, technologies and information. When one justifies intervention on the grounds of a supposed “market failure” they should proceed with extreme caution. Indeed, Harold Demsetz (1969) once accused theories that justified top-down intervention on the grounds of “market failure” as failures themselves; or a “Nirvana Approach” to economics. Such interventions are derived by looking at the present situation and then comparing that to an unattainable, ideal outcome, concluding that the present situation is a “market failure”, and subsequently recommending state intervention.

The ongoing James Point saga is a prime example. JPPL pointed out that the “existence of an Operating Agreement with the WA Government for the development repudiates the notion that Fremantle Ports should remain the monopoly supplier of multi user/multi product berths”, and that “JPPL would reiterate the point that more effective competition will reduce the scope for the exercise of market power by port authorities” (James Point Pty Ltd 2008, p. 7). Yet Alannah MacTiernan, operating in her own self-interest and desire to open a new publically-funded port, repeatedly delayed the privately funded James Point proposal while her own “plans to build a new \$1.3 billion port...in Cockburn Sound were approved”. Clearly, and very unlike private enterprise, government actors do not need to continuously satisfy consumer wants to maintain their positions; they merely need to pronounce, without any evidence, that [sic] “a new container and cargo port was too important to the WA economy to be delivered to private control” (McDonald 2009, p. 1).

Frank Knight (1935, p. 184) once said that “Always history is being made; opinions, attitudes and institutions change, and there is evolution in the nature of capitalism”. Comparative institutional analysis shows us that what should be compared are the best *processes* required to achieve a desired result (a socially optimal allocation of resources), not some

ideal goal as seen from the point of view of an outside observer viewing the result from their own subjective set of values. Comparing results between given (existing) institutions – whether developed through the market process, a hybrid (GTE) process or a governmental process – is to miss the point.

While, from the outside using a given set of subjective values, a given set of institutions may look like a “market failure”, over time – provided their monopoly position is not protected by restrictions on entry – if they do not continuously offer consumers a deal better than they would in a situation in which there are numerous competitors, their position will not last (Baumol 1982). Indeed, as was covered earlier, a greater threat to society is likely “government failure”. As Matt Ridley (2010, p. 150) explains, “because it is a monopoly, government brings inefficiency and stagnation to most things it runs; government agencies pursue the inflation of their budgets rather than the service of their customers; pressure groups form an unholy alliance with agencies to extract more money from taxpayers for their members. Yet despite all this, most clever people still call for government to run more things and assume that if it did so, it would somehow be more perfect, more selfless, next time”.

## 5.2 Competition

*“If the state of affairs assumed by the theory of perfect competition ever existed, it would not only deprive of their scope all the activities which the verb ‘to compete’ describes but would make them virtually impossible.” (Hayek 1948, p. 92)*

There is no doubt that healthy competition is vital to a thriving market economy. However, standard interpretations of competition – such as current national competition policy by which ports must abide (Allen Consulting Group 2009; Department for Planning and Infrastructure 2009; Tull & Affleck 2007) – where competition is viewed as a state of affairs rather than a dynamic process can and does lead to false conclusions about the level of competition in an industry.

Perhaps the easiest way to describe true competition is, as Kirzner and Sautet (2006, p. 11) put it, “absence of privilege” – or in a market context, freedom of entry. They describe a competitive economy as “one in which (within the proper institutional framework) no arbitrary obstacles to competitive entry are imposed by governments or any other extra-market party”.

Now, the correct institutional structure for a truly competitive market to exist is *not* one in which it takes twelve years and counting to gain approval to merely begin construction work on a new port. Stressing over issues such as “how many stevedores are optimal” within a given port should not be the focus of analysis when the very institutional structure the port operates within is flawed. Doing so necessitates that observers impose their own subjective, “ideal” design of the market and look at *existing* market structures as the determinant of competition, when in reality competition is purely a political and institutional problem (Sautet 2007). Not only is it difficult – if not impossible – to know *what* the optimum number of stevedore firms in a given port *should* be, but to do so requires the imposition of one’s own subjective value set and the result tends to be a rather arbitrary conclusion. Indeed, Cordato (1994) along with Kasper and Streit (1998) built on this and argued that deriving policy recommendations from a static analysis on a complex, evolving system where the valuation of diverse inputs and outputs is not clearly understood and where invalid interpersonal utility comparisons have been made can lead to poor policy outcomes.

On the other hand, if competition is looked at as a dynamic, rivalrous *process*, the competitiveness of an industry can be objectively determined by looking at the institutions that govern the players. With such a view, we quickly realise that artificially restricting the ability of competitors to facilitate trade through the development of port infrastructure very

quickly leads to a misallocation that cannot be readily corrected; for, as discussed earlier, when the very prices that serve as crucial conveyors of knowledge to decision makers are distorted through artificial means and competitors are unable to act on this opportunity (by entering the market themselves) to correct these prices, inefficiencies can persist indefinitely.

Perhaps a clear example of the state of regulation and restrictions on competition within the shipping industry is best provided by The Exports and Infrastructure Taskforce (2005, p. 2), who noted that the “greatest impediment to the development of infrastructure necessary for Australia to realise its export potential is the way in which the current economic regulatory framework is structured and administered. It is adversarial, cumbersome, complicated, time consuming, inefficient and subject to gaming by participants...regulatory issues are slowing down investment in infrastructure used by export industries”.

While a truly competitive environment enabled by a sound institutional structure – one dependent on the type and quality of regulations in place – “may be expected to break down the most significant barriers to competition in...the long run”, spur “innovation and improve resource allocation...both domestically and internationally”, one which looks only at an “ideal” design of the market is in a sense, as Kirzner and Sautet (2006, p. 20) put it, “anti-competitive” (Tullock, Seldon & Brady 2002, p. 115).

It is safe to say that, as it exists at present, the institutional structure that Port Authorities operate within is not one in which the speed of responsiveness to unsatisfying situations is high; to the contrary, the cumbersome regulatory burdens and almost complete prohibition of entry ultimately means that consumers are paying the (unseen) cost of both unexploited entrepreneurial opportunities and potential gains of trade. The largest issue for policy makers to consider is one that Hayek (1948, p. 105) pointed out long ago, that we should “worry much less about whether competition in a given case is perfect and worry much more whether there is competition at all... [A] much bigger gulf divides competition from no competition than perfect from imperfect competition”.

### **5.3 The importance of failure**

*“Nothing is more common in economics than the attraction of new competitors whenever and wherever there is a profit above the ordinary.”* (Sowell 1980, p. 174)

While thus far the focus has been on restrictions to *entry*, the ability for firms to *exit* is just as, if not more, important to a competitive industry. The market process is one that is continually at work discovering opportunities for new gains from trade. Like with profit, built in to the process is a powerful feedback mechanism that alerts individuals, corporations and so forth that they are either squandering society’s scarce resources or that they could be better used elsewhere (whether as a result of a change in consumer preferences, technology, or any number of reasons) and this mechanism is known as a *loss*.

That this feature is lacking in Western Australian Port Authorities is a result of a fundamental flaw in their institutional structure – the virtual inability to (a) go bankrupt (see section 3.2) and (b) for an entrepreneur to test the existing state of affairs with their own business plans by buying an existing port. Entrepreneurs are then further prevented from exploiting (and correcting) any inefficiencies that might exist: first by being virtually unable to *enter* the market; and second by the right bestowed on existing Authorities not to have to exit.

A key strength of the market process is the way that it handles failures. While a Port Authority might expect a guarantee of its debt, grants of taxpayer dollars or other such benefits if it finds itself on the slippery slope toward bankruptcy, a struggling firm within the

institutional settings of private property, freedom of contract and limited governmental barriers to entry and exit will find their borrowing costs increase (eventually drying up completely) and, if they do not change their ways soon, bankruptcy court.

Losses, like profits, can therefore be seen as a viability test; firms do not survive without government aid in the long run if they cannot at the very least break even at market prices. While it may seem harsh and unforgiving to the outsider, “from the perspective of the economy as a whole, the rapid demise of unsuccessful firms is an effective way to take the resources from those firms and reallocate them to more productive purposes. Economies that fail to do so can perpetuate losing economic activities that in their extreme form can sap the vitality from the whole economy” (Stanton 2002, p. 30).

It is for these reasons that an institutional structure that allows for freedom of *exit*, just as much as one that allows for freedom of *entry*, is required for contestable markets, competition and efficiency to truly exist. The existing institutional structure that Western Australian ports find themselves in is certainly one that does *not* have these characteristics.

## 6 Concluding Comments

*“Simple rules for a complex world.”* (Epstein 1995)

The central issue in this paper is one that stresses the importance of institutions when analysing the structure of the shipping industry, in particular Western Australian ports and Port Authorities. This is also the theme that is at the heart of the new institutional economics: that the choice is between institutions that promote production or those that promote predation (Nye 2011).

Unfortunately, institutions are not usually something that can be changed overnight. While they can be brought about endogenously through the political process, “an economy may be also locked into an inefficient institutional arrangement due to sunk cost in existing institutions and network externalities among institutions” (Aoki 1996, p. 9). However, as economists are fond of saying, “sunk costs are sunk”, and so one should not discount fundamental changes because of them (Friedman 1990).

We know that ports are essential facilitators of trade and thus contribute heavily to the wealth of the Western Australian economy (Tull & Affleck 2007). That makes it even more important to get the institutional structure right – the “rules of the game” *and their enforcement* (Greif 1994) – the very mechanisms that determine the relative payoffs to different entrepreneurial activities, both productive and unproductive (Baumol 1990).

It is hoped that this paper will encourage policy makers to move away from purely static performance benchmarks and equilibrium analysis of a given set of institutions through the lens of their own subjective values – one that will always find numerous “problems” that must be “solved” with intervention – towards the consideration of a more dynamic approach to institutions and port policy; one that encompasses institutional issues and constraints in decision making processes. To end where we began and to quote Schumpeter (1976, p. 86), any efficiency analysis which neglects an element as essential as the dynamics of the institutions in which ports operate, “even if correct in logic as well as in fact, [sic] it is like Hamlet without the Danish prince”.

While it is beyond the scope of this paper to outline a way forward, a good first step would be to reduce the cumbersome layers of bureaucracy and regulation that prevent entrepreneurs from even attempting to enter the market and, by necessity, drives the efforts of both existing

and potential actors towards political rather than productive rent seeking (there would be no sense, for example, in privatising Port Authorities given their existing institutional environment – institutional change must come first). While the government has a large role to play in both the enforcement of the rules and in ensuring that the playing field is level, they should not interfere with market outcomes themselves.

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