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Regulating Ports: competition in South Australian port services for grain

by

Luke Wilson

Principal Regulatory Officer (Transport)
Essential Services Commission of South Australia *

08 8463 4318

luke.wilson@escosa.sa.gov.au

Abstract

Certain port services, called Essential Maritime Services, are subject to price regulation in South Australia. The need for this regulation is now under review, involving a series of assessments of market structures and market power in port services. This paper proposes a framework for assessing market power in port services, to determine whether there is a *prima facie* case for regulation. Elements of the framework are applied to the grain industry, which is one of the major users of port services in South Australia.

Keywords: ports, market power, grain.

* The views contained in this paper are not necessarily those of the Essential Services Commission of South Australia.

1 Introduction

The South Australian Government divested itself of seven major commercial ports in 2001, these being purchased by a new company, Flinders Ports Pty Ltd. Along with the divestment process the government also introduced a system of economic regulation of certain port services.

The Essential Services Commission of South Australia (ESCOSA) is the economic regulator responsible for administering port regulation. Included among its responsibilities is a requirement to conduct a review of the system of price regulation. That review began in November 2002.

The review must answer two questions:

- should price regulation continue (beyond October 2004); and
- if so, in what form?

Both questions require ESCOSA to develop a decision framework. Nominally this involves looking at issues of monopoly or market power, as has occurred across a range of other industries that are now regulated. However, as is explained further below, ESCOSA must consider whether such a “traditional” analysis will provide a sufficient understanding of the issues surrounding port services.

In addition, recent legal developments have shed new light on the way in which a regulator should approach its decision making. These developments may also require changes in regulators approaches to decision making.

This paper proposes a supply chain based framework that may allow for a more thorough and practical analysis of the need for regulation in port services. The framework involves an extension of traditional analysis, rather than a departure from it. In addition, the framework may better accord with recent legal developments. An example of how the framework might be applied is set out in the context of the grain industry, which is one of the major users of South Australia’s regulated ports.

2 Port Regulation in South Australia

Economic regulation of port services is set out in the South Australian *Maritime Services (Access) Act 2000* (the MSA Act) and applies in three ways:

- Price regulation of Essential Maritime Services;
- Access regulation (a negotiate/arbitrate system) of Regulated Services; and
- Other regulatory powers may apply to Maritime Services.

A more detailed description of the arrangements can be found in an ESCOSA (2002b) Information Paper.¹ The framework proposed in this paper relates to the review of price regulation applying to Essential Maritime Services, although it may also be applicable to a similar but separate review of Access regulation that is to begin later in 2003. Further information on the review of price regulation can be found in an ESCOSA (2002c) Discussion Paper.

Essential Maritime Services are defined in the MSA Act as:

- providing or allowing for access of vessels to a proclaimed port;
- providing port facilities for loading or unloading vessels at a proclaimed port; or
- providing berths for vessels at a proclaimed port.

There are seven proclaimed ports:

- Port Adelaide;
- Port Giles;
- Wallaroo;
- Port Pirie;
- Port Lincoln;
- Thevenard; and
- Ardrossan.



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¹ All ESCOSA papers are available from the ESCOSA website: www.escosa.sa.gov.au .

Flinders Ports operates the first six and AusBulk Ltd operates the port at Ardrossan. The seventh port purchased by Flinders Ports, Klein Point, is a single user port and is not regulated.

At present, the port operators levy three charges, known as the:

- navigation services charge;
- cargo services charge; and
- harbour and mooring services charge.

In the case of Flinders Ports they are likely to account for 80-90% of revenue. The three charges accord relatively well to the three definitions of Essential Maritime Services. In the main, the charges are infrastructure charges. That is, they are for the provision of infrastructure such as channels, markers, berth structures, mooring structures, berth pockets and wharves.

Ordinarily the navigation and harbour charges are levied upon ship operators, and hence are incorporated into shipping costs. The cargo services charge is normally levied upon the cargo owner, exporter or importer.

Stevedoring, bunkering and various other services (such as the shiploaders used for bulk commodities) are not regulated under this system of price regulation.

At present the system of price regulation involves price caps, that is, maximum prices that can be charged. They are adjusted each July by CPI, except the cargo services charge for grain which is fixed. The port operator is free to charge less than a price cap. Higher prices can only arise under a wholly written contract with the customer.

3 *Prime facie* grounds for regulation

In general, price regulation may be used in two types of situation:

- where monopoly or market power may skew prices; or
- where governments seek to manage affordability (social/consumer protection).

The latter situation may be caused by market power, but refers to situations where the policy focus is on social benefits rather than economic benefits.

The Productivity Commission (2001) summarised in its review of the national access regime that the economic regulation of infrastructure is generally based on the:

- actual or likely existence and use of market power;
- in significant, bottleneck infrastructure.

Price regulation of Essential Maritime Services in South Australia is premised on market power, noting that the port operator is the only provider of those services within the port and that many goods can only be moved through sea ports.

Using this approach, ESCOSA would be likely to find that Essential Maritime Services should continue to be subject to price regulation, at least on a *prima facie* basis, if it finds that the providers of port services:

- had and were able to exercise market power; and
- their infrastructure was significant enough to warrant intervention.

This lays the basis of a “traditional” approach to regulation, which involves looking for evidence of the above market power, through examining market structures, market behaviour, prices, returns, service standards, countervailing power and the like. In the case of Essential Maritime Services this would mean looking at alternative sources of Essential Maritime Services. Suffice to say that within each proclaimed port there are none. There may be some competition between ports, for example between the oil terminal at Port Adelaide and that at Port Stanvac (each having a different port operator), although six of the regulated ports have a common owner.

The scope of competition is likely to vary regionally and vary between cargoes. Containerised products are generally of high value and are more readily transportable, bringing competition from ports in other states into play. Bulk commodities are less so, although this may also differ regionally (for example, grain on the Eyre Peninsula versus grain in the mallee which may have port options in both South Australia and Victoria).

The question of significance brings in some analysis of the costs and benefits of regulation. Given that regulation must impose some level of administration and compliance costs, are the potential savings of regulatory intervention sufficient to outweigh the costs?

The approach implied above is narrow in focus, and it is probably unfair to suggest that a regulator applying the traditional approach would not seek to gain a broader understanding of the services being regulated. For example, the Victorian Essential Services Commission (ESC 2002) reviewed regulation of grain handling. That review clearly sought to consider the linkages between grain handling and other parts of the industry. Similarly, the Productivity Commission (2002) review of towage regulation identified the role of towage in total port and goods movement costs. However, the conclusions of both appear to be based upon traditional analysis.

It would probably be uncontroversial for ESCOSA to undertake a traditional analysis for price regulation of Essential Maritime Services. That is, to look at market power and significance in respect of Essential Maritime Services and reach a considered conclusion on that.

However, this approach may not capture a complete understanding of the role of ports, and Essential Maritime Services. Based on initial discussions with various exporters and importers, it is becoming clear that few consider port services on their own. Rather, their operations focus on

entire supply chains (or sometimes value chains, logistics chains or webs), of which ports are just one smaller or larger part. This raises the question, should decisions about regulation also consider supply chains?

4 Legislative constraints

Each economic regulator in Australia is established by legislation. Normally, the legislation will set out objectives for the regulator. These objectives then inform the regulator and guide it in its function. ESCOSA is guided by a set of objectives in section 6 of the *Essential Services Commission Act 2002* (the ESC Act), which require it to:

- have as its primary objective the protection of the long term interests of South Australian consumers with respect to the price, quality and reliability of essential services; and
- at the same time, have regard to the need to—
 - promote competitive and fair market conduct;
 - prevent misuse of monopoly or market power;
 - facilitate entry into relevant markets;
 - promote economic efficiency;
 - ensure consumers benefit from competition and efficiency;
 - facilitate maintenance of the financial viability of regulated industries and the incentive for long term investment; and
 - promote consistency in regulation with other jurisdictions.

There has been some debate over the manner in which regulators have gone about their activities, including (but not limited to) suggestions that they have taken an overly academic, prescriptive or idealistic approach to regulation. For example, in a submission to the Utility Regulators Forum, the Australian Gas Association stated:

“A common theme underlying the assessment is the now discredited presumption adopted by regulatory authorities that if a given theoretical model is applied ‘correctly’, a precisely determinable ‘right’ access price will be obtainable.” (AGA 2002, p.7)

Some of the debate arises as part of the ongoing pressure being placed upon regulatory processes by stakeholders. However, a 2002 Western Australian Supreme Court judgement² resulting from a case between a gas pipeline owner and the relevant regulator examined the role of objectives and reached a decision that may have significant implications for regulatory practice.

In essence, the court found that the regulator must take specific account of each and every one of its objectives in the application of its functions. Thus, it would not be sufficient for the regulator to merely state that it had (in some general form) taken account of its objectives. Nor would it be

² RE DR KEN MICHAEL AM; EX PARTE EPIC ENERGY (WA) NOMINEES PTY LTD & ANOR [2002] WASCA 231 (23 August 2002).

sufficient for the regulator to merely introduce terms that may have been elsewhere deduced or derived from the objectives.

In simple terms, for the review of Essential Maritime Services, section 6 of the ESC Act asks a set of questions that ESCOSA will have to answer, explicitly, each in turn. Thus, a summary approach of “it’s all about market power” will not suffice. Similarly, the regulator cannot invent terms or concepts that are not in the objectives. Concepts may be derived from the objectives, but this will require explanation.

The implications of this decision are yet to play out fully. However, an example may be seen in ESCOSA’s October report (ESCOSA 2002a) and decision on retail electricity prices. In that report, ESCOSA laid out an explanation of the decision against each objective. In ESCOSA’s case, there is one primary objective and seven matters to which regard must be had. It could be that some of those seven matters are not relevant to the situation at hand. That is acceptable, as long as the regulator explains why. In general, the seven matters link with the primary objective.

It is also possible that this decision will cause some divergence between regulators, to the extent that they have different objectives. However, this need not be the case, if the varying objectives can be shown, reasonably, to lead to similar outcomes. Regulators drawing inferences from the work of other regulators, or bodies such as the Productivity Commission, will need to be mindful of the legislative objectives being met before transferring results or conclusions to their own jurisdiction (or indeed before criticising other work).

The meaning of ESCOSA’s objectives for the review of price regulation are explained in the Discussion Paper (ESCOSA 2002c). From this discussion ESCOSA concluded that its objectives require it to consider (for this review):

1. Does the structure of the market for Essential Maritime Services suggest market power could exist?
2. Does monopoly or market power exist?
3. Is market power being exercised or is the potential there for it to be exercised?
4. Do customers have alternative routes for their goods (indirect competition)?
5. Is competitive entry possible?
6. Does the answer vary between proclaimed ports and between the goods being moved (for example is the situation in grain different to that for container traffic)?
7. Are Essential Maritime Services of sufficient importance to the South Australian economy to warrant economic efficiency concerns? This could occur either because Essential Maritime Services themselves are a significant industry or because they have a significant impact on the economics of other industries.
8. Can price regulation fix the above matters or will it impose excessive additional costs and risks?

These elements are, in general, part of the traditional approach. However, items 4, 6 and 7 open up broader questions that may be implied, but not fully answered, by the traditional approach.

The proposition here is that they may require ESCOSA to consider the role of Essential Maritime Services in the broader supply chain context before a decision can be reasonably reached. The following section proposes a framework that expands upon the traditional approach

5 An assessment framework for port services

The proposed supply chain based framework is intended to complement the traditional analysis as has been applied to a range of other infrastructure services. It's addition seeks to capture further information about the real role of ports and port charges in port use decisions. This involves the identification of:

- the (main) cargoes and hence users of each of the ports in question;
- the (main) supply chain options for each of those cargoes for each geographic region;
- (and comparison of) the components of supply chain costs;
- market structure at each stage along the chain;
- drivers of supply chain choice (basic cost, timeliness, other service dimensions); and
- then using this to draw conclusions on:
 - are Essential Maritime Services (in this case) a significant part of the various supply chains;
 - could market power in Essential Maritime Services change supply chain choice;
 - would regulation make an impact upon supply chain choice; and
 - does the answer vary between regions and between products – perhaps regulation might need to be tailored.

Further issues to be developed include:

- where to start and stop the supply chain; and
- from who's perspective should a supply chain be described (the cargo owner, their agent, the supply chain decision maker, the person most effected)?

At this point, the approach is proposed only, and the manner in which any outcome would be combined with the traditional approach is yet to be fully determined. However, it is most likely that were the traditional approach to identify a potential, but uncertain, need for price regulation, then this second phase could inform the regulator on its final judgement.

It is proposed that this approach be an extension of, not a replacement for, the traditional approach because:

- the traditional approach may not capture the essence of the supply chain; and
- the supply chain framework fits with the understanding of many of the stakeholders in this area, thereby adding to the understandability of any review outcomes; and
- the traditional approach may overemphasise the importance of port services and tend to skew a regulator unduly toward regulation; but

- the supply chain framework, on its own, may overly de-emphasise Essential Maritime Services and skew a regulator unduly away from regulation.

Hence the combination of the two should work to reduce the risk of error inherent of applying only one or the other approach.

6 The case of port services for grain

ESCOSA is likely to determine whether to adopt the proposed framework based upon its application to some of the key sectors involved in South Australian ports. Some of the main sectors are:

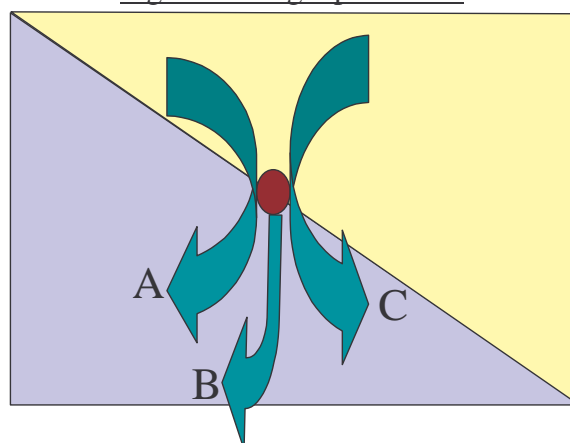
- auto;
- resources & minerals;
- wine; and
- grain.

With the review in a data collection stage, a full case study is not yet complete. However, the following shows how the framework might be applied to grain, using the Yorke Peninsula as an example.

Grain on the Yorke Peninsula area can be exported via (say):

- on-farm collection;
- direct port delivery; or
- receiving centre delivery.

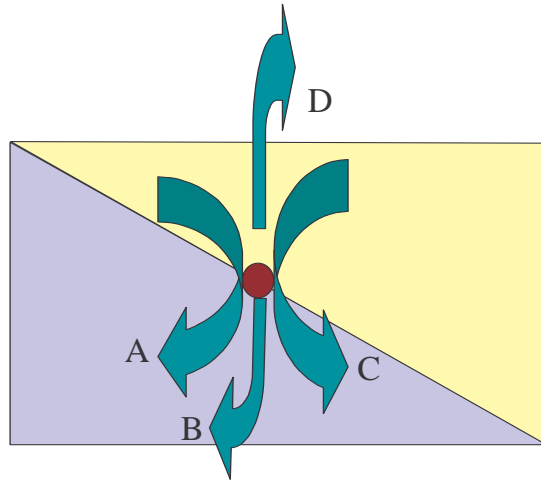
Figure 1: Single port focus



At this first level (see Figure 1), the focus remains on the local port only, which tends to emphasise the significance of the port for grain sent through that port. However, the supply chain approach seeks a broader view. For example, the grain could also be sent to (D) the domestic

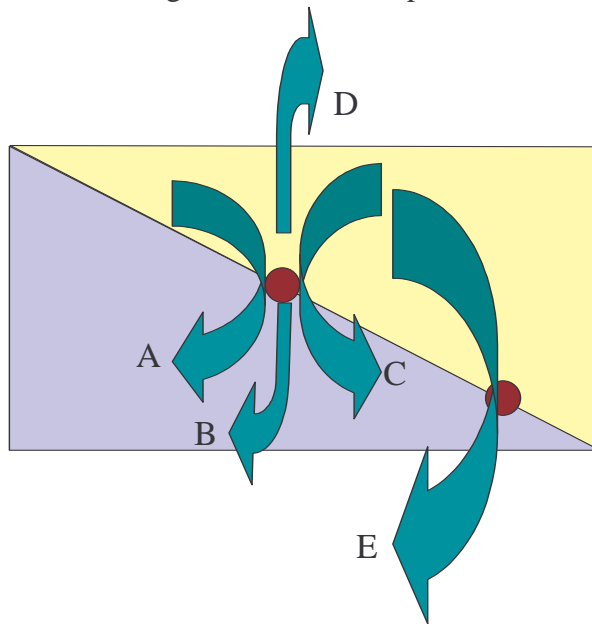
market (see Figure 2), which means that there is a supply chain option that does not necessarily involve the port, but which may have a competitive impact on the port.

Figure 2 Additional options



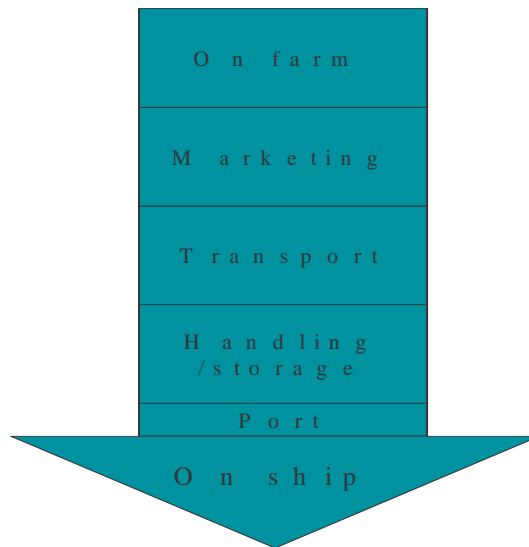
Further, there may be alternative port options, such as the use of Ardrossan rather than Wallaroo (assuming grain shipments resume there). This would provide a fifth supply chain option (E) as in Figure 3 – in this case an option using a different port operator.

Figure 3 Alternative ports



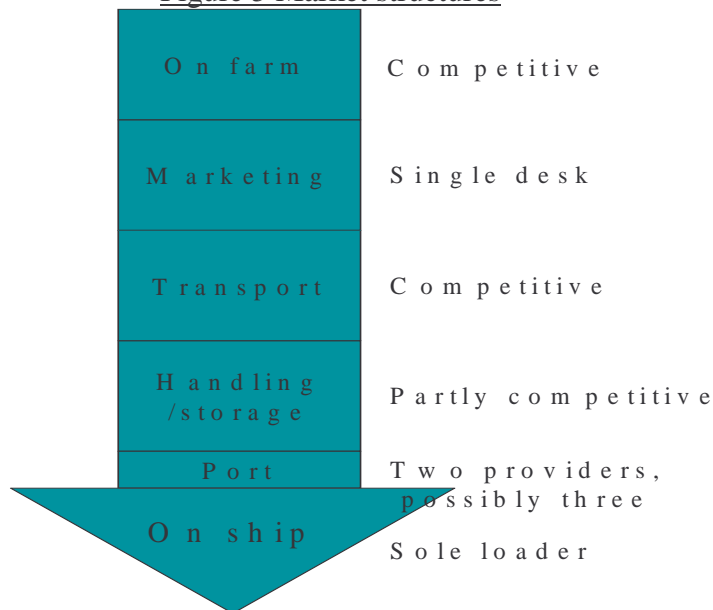
For each chain a series of chain components can be identified to varying degrees of refinement. For example, a supply chain for grain might be presented as in Figure 4 below.

Figure 4 Example supply chain



The relative component costs would provide some indication of the significance of port costs in the supply chain. An analysis of the market structure through the supply chains would provide guidance as to where the effects of regulation of port charges might be captured (see Figure 5).

Figure 5 Market structures



For example, the Productivity Commission (2002) noted that as Australian exporters are mainly price takers, any towage cost excesses may be passed through to the cargo owners in lower returns on their goods. In this case that would be the grain farmer. This may be more likely if other forms of market power exist through the supply chain.

However, to make practical sense of the role of port charges (and the other components) requires understanding of the key drivers of supply chain choice. For example, the choice may reflect:

- basic supply chain cost;

- shipping service availability at port;
- load consolidation needs;
- domestic and export cargo prices; and/or
- marketing company preferences.

7 Conclusion

A supply chain framework should provide for more informed regulatory decisions in respect of ports (and perhaps other transport sectors), made in a context that is more readily understood by some port users. It is also more likely to fulfil a regulator's legislative obligations, which have been given increased emphasis as a result of recent court activity.

However, further work is required to ensure that the supply chain framework can provide meaningful information, and to ensure that any information gleaned from it is incorporated correctly into the regulator's decision process.

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