The Independent Consumer and Competition Commission ("ICCC" or the "Commission") is a statutory body established under the provisions of the Independent Consumer and Competition Commission Act 2002 (the “ICCC Act”). Under the ICCC Act and the Prices Regulation Act (Chapter 320) ("PR Act"), the Commission is responsible for promoting competition and fair trading, regulating the prices of certain goods and services, protecting consumers’ interests and undertaking related functions.

This review is prepared by the Commission in discharge of its obligation under Section 32A(3), as it is affected by Section 21(2A), of the Prices Regulation Act (Chapter 320) consolidated to No 11 of 2008. It is not prepared for any other purpose and its use should be limited by recipients solely to the above statutory function. Previously, stevedoring services were declared monitored services under Section 32A(1) and the question is whether they should be once again declared monitored services; or whether they should be regulated as declared services under Section 21(2A); and, if so, whether the description of what constitutes the relevant declared services or declared monitored services should be changed in any manner to meet market developments since the last declaration; or whether no price regulation should apply.

The Commission has three Commissioners:

- Dr. Billy Manoka, Commissioner
- Mr. David Dawson, Associate Commissioner – Non Resident
- Dr. Eric Omuru, Associate Commissioner - Resident

The purpose of this review is to recommend to the Minister whether there is still need for the continuation of some form of regulation of stevedoring and handling services or whether the current regulatory oversight should be terminated, if consideration of the level of competition in the markets justifies such a recommendation.

The Commission undertakes this review at the end of the five year regulatory period (2009 – 2013) in an open and transparent manner in order to make any determination going forward. As part of this stakeholder consultation process, the Commission released an Issues Paper on 26th April 2013 detailing the issues of relevance on which submissions and comments were invited from the industry stakeholders and other interested parties.

Following its assessment the Commission proposes to recommend to the Treasurer that the stevedoring and handling services be declared by him as ‘declared monitored services’ for the next regulatory period.

The Commission releases this Draft Report on 9th December 2013 and again will invite all stakeholders to provide comments and submissions on the Draft Recommendations. The submissions and comments provided on the Issues Paper and the Draft Report will be valuable in assisting the Commission in making its Final Determinations and recommendations to the Minister for Treasury on the appropriate price regulatory arrangements to apply to the participants in the Stevedoring and Handling industry for
the forthcoming regulatory period commencing 1st March 2014 till 28th February 2019. A schedule of those who provided submissions through different stages of this Review process is set out in Appendix 1 of this Draft Report.

The Final Report will contain the Final Recommendations that should apply to any regulation of stevedoring and handling services provided by all stevedores and handling companies commencing 1st March 2014.

The Commission would like to thank those Government departments, organisations and business houses who participated in the review process by providing views and comments to the Commission in the course of the review up to its Draft Report.

Submissions to the Draft Report should be received by **31st January 2014** and should be directed to:

**Dr. Billy Manoka, (PhD)**
Commissioner & CEO
Independent Consumer & Competition Commission
1st Floor Garden City, Angau Drive, Boroko
P.O. Box 6394
BOROKO
National Capital District

For further enquiries contact Messrs Titus Mengi or Russell Hangatt on telephone 325 2144 or by fax on 325 3980, and or via email to tmengi@iccc.gov.pg or rhangatt@iccc.gov.pg.

Authorized by:

**Dr. BILLY MANOKA, (Ph.D)**
Commissioner & CEO

19th December 2013
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<tr>
<td>ALSC</td>
<td>Association of Licensed Stevedoring Contractors</td>
</tr>
<tr>
<td>CPI</td>
<td>Consumer Price Index</td>
</tr>
<tr>
<td>DLR</td>
<td>Discharge Load Restow</td>
</tr>
<tr>
<td>Habours Act</td>
<td>Habours Act (Chapter 24)</td>
</tr>
<tr>
<td>ICCC Act</td>
<td>Independent Consumer and Competition Commission Act 2002</td>
</tr>
<tr>
<td>ICCC/Commission</td>
<td>Independent Consumer and Competition Commission</td>
</tr>
<tr>
<td>MWCs/MHCs</td>
<td>Mobile Wharf/Harbour Cranes</td>
</tr>
<tr>
<td>PNG Customs</td>
<td>Papua New Guinea Customs</td>
</tr>
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<td>PNG Ports</td>
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</tr>
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<td>PR</td>
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<td>NAQIA</td>
<td>National Quarantine and Inspection Authority</td>
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<td>RTGs</td>
<td>Rubber Tyred Gantries</td>
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<tr>
<td>TMAs</td>
<td>Terminal Management Agreements</td>
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</table>
1 EXECUTIVE SUMMARY

This Executive Summary provides an overview of the Commission’s key findings and its draft recommendation to seek the Treasurer’s declaration of stevedoring and handling services under the Prices Regulation Act (Chapter 320) (“PR Act”). Such a declaration by National Gazettal Notice would allow the Commission to regulate stevedoring and handling services under PR Act from 1st March 2014. Key findings are considered draft determinations and are made based on the comments and submissions received on the Issues Paper as well as the Commission’s own independent assessment of the issues.

General Qualification relating to Purpose of Report

This draft report has been produced for the sole purpose of exploring the need for price regulation of stevedoring and handling services under the PR Act.

1.1 KEY DRAFT FINDINGS AND RECOMMENDATIONS

Having considered the issues surrounding the level of competition in the stevedoring and handling industry and its consequences, the Commission’s draft recommendation is that stevedoring and handling services continue to be subject to price monitoring under the PR Act for a period of five (5) years commencing 1st March 2014. In light of this, the Commission recommends that the Minister for Treasury declare stevedoring and handling services under the PR Act as declared services for the purpose of monitoring. From the review, the Commission found that the following are the main features of the industry:

- All ports maintain a single stevedoring operation, with the exception of Lae, Port Moresby and Kimbe ports which have two or more stevedoring operations. In Port Moresby port, one stevedore handles all overseas vessels and another handles all coastal vessels;

- The degree of vertical ownership links between some shipping lines and stevedores, in some cases with more than one stevedore, with consequential indirect cross ownership linkages between stevedores, and economies of scale in the industry act as a barrier to entry despite the low capital and associated establishment costs for prospective new entrants in most situations and this has limited entry by potential new operators in the industry;

- The largest operator, Steamships Shipping JV Stevedoring (“Steamships Shipping JVS”) has a significant degree of vertical linkages with the shipping sector and indirect links in stevedoring. Moreover, there has been a minimal number of stevedores exiting the market completely. In the recent past, most small stevedores have either merged or entered into some form of partnership in the industry;

- The barriers to entry are particularly evident in cases where shareholders of stevedoring firms have taken industrial action to prevent potential entry by new participants including shutting of PNG’s largest port. Landowner groups have
been vocal in opposing proposed new, ‘arms-length’ entry by Patricks Stevedores of Melbourne, Australia. A number of stevedoring firms have landowner groups as shareholders and these groups have been particularly active in the port of Lae which they have shut down through industrial action; and

- The possibility for the exercise of countervailing power is substantially lessened by contractual arrangements between the small number of shipping lines and stevedoring groups\(^1\) in PNG and therefore is extremely limited.

The above economic characteristics of the services in question justify the Commission’s view that the stevedoring and handling industry in PNG lacks effective or workable competition and its preliminary conclusion for the need to continue some form of regulation of the industry. The Commission has observed that there is little contestable behaviour in the industry and little likelihood of new entry; therefore some form of regulation is required. Having considered the options available, the Commission recommends the adoption of a price monitoring approach, which is less costly to administer by the Commission, while still empowering the Commission to continue to maintain some degree of regulatory oversight over the industry.

Under the monitoring approach, the Commission in consultation with relevant stakeholders through the review process would determine the effective baseline price operating at the commencement of the regulatory period, for the services supplied by the industry and use an acceptable price comparator to assess the movements in tariffs over the proposed five year regulatory period. A suitable, efficient-cost model and the price comparator would be developed as part of the next stage of the enquiry and this would be made known in the Commission’s Final Report. Submissions and comments are now invited and will be considered for the determinations and recommendations from this enquiry.

**Draft Recommendation**

In light of the above, the Commission proposes to recommend to the Minister responsible for Treasury that he declare stevedoring and handling services as declared monitored services under the Section 32(A) of PR Act commencing 1 March 2014 to 28th February 2019.

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\(^1\) In the broader sense of including both parent/subsidiary relationships or those with substantial but minority ownership linkages that create significant mutual economic interests.
The Commission intends to review and make appropriate recommendations which are beneficial to both end-users/consumers and the participants in the stevedoring and handling industry by being guided by the provisions of the PR Act. The review process is being carried out in a transparent and accountable manner.

General Qualification relating to Purpose of Report

This review is prepared by the Commission in discharge of its obligation under Section 32A(3), as it is affected by Section 21(2A), of the Prices Regulation Act (Chapter 320) consolidated to No 11 of 2008. It is not prepared for any other purpose and its use should be limited by recipients solely to the above statutory function. Previously, stevedoring services were declared monitored services under Section 32A(1) and the question is whether they should be once again declared monitored services; or whether they should be regulated as declared services under Section 21(2A); and, if so, whether the description of what constitutes the relevant declared services or declared monitored services should be changed in any manner to meet market developments since the last declaration; or whether no price regulation should apply.

2.1 2008 FINAL DETERMINATIONS

The 2008 Final Determinations for stevedoring and handling services in PNG were made through a similar review process. Having considered the regulatory process, the Commission then made the following recommendations to the Treasurer:

- Stevedoring and handling services as defined in Appendix 3 of the 2008 Final Report be declared services under the provision of Section 10 of the PR Act, thus requiring the Commission to determine a prices order for price control purposes for the first year of the regulatory period.
- Stevedoring and handling services provided by the stevedoring and handling industry as defined in Appendix 3 of the 2008 Final Report be declared for price monitoring under the provision of Section 32(A) of the PR Act, thus requiring the Commission to determine a prices order for price monitoring purposes.
- Recommend to the Treasurer that price monitoring should apply for a period of five (5) years commencing 1st June 2008.

The Commission then decided on the following determinations to apply under these declarations:

- For the period to 31 December 2008, the Commission applied a price freeze on stevedoring and handling charges, and that price freeze to be at rates that applied for these services as at 1 January 2008.
- For the following four years of the regulatory period, prices could then be adjusted by the industry in an open market.
- For those following four years, the Commission determined that the industry participants were required to provide updates of their price lists for the price
monitored services at the commencement of each quarter, the list to be provided to the Commission by no later than the 15th day of the new quarter.

- The Commission determined that it would use an index comparator series comprising CPI and retail diesel fuel price movements in Lae to monitor the movement in prices for the regulated services over the period from 1 January 2009 to 31 May 2013.

2.2 LEGAL BACKGROUND

The previous declared regulatory period expired on 31st May 2013. It had been in place for a period of approximately five years (1st January 2009 to 31st May 2013). The Commission is undertaking this review to consider if there is a need for regulation of the industry. This review takes into consideration the submissions from stakeholders and industry participants to an issues paper on the Stevedoring and Handling Services Pricing Review. The Commission may recommend to the Treasurer that he declare the industry through a National Gazettal Notice. The Commission will make recommendations to the Treasurer about the new regulatory arrangements, if any, the proposed date of commencement of the new regulatory period and other relevant recommendations, as it considers appropriate.

2.3 FORMAT OF THE REVIEW PROCESS

The review encompasses the consideration of all issues relating to the provision of stevedoring and handling services. During the course of this review, the Commission invited submissions on an Issues Paper and the following industry participants responded:

- PNG Ports Limited;
- Ports Services PNG Limited;
- Steamships Shipping JV Stevedoring;
- Consort Express Lines Limited (CEL);
- Association of Licensed Stevedoring Contractors (ALSC)²; and
- Riback Stevedores Limited

All views and comments raised in these submissions have been given appropriate consideration.

2.4 TIME OF REVIEW

The amended timetable of the Review is outlined in the next page.

²Members of the ALSC are: Alotau Stevedoring & Transport Ltd., East New Britain Port Services Ltd., Kavieng Port Services Ltd., Kiunga Stevedoring Ltd., Lae Port Services Ltd., Madang Port Services Ltd., New Britain Shipping, Oro Agencies Ltd., Port Services Ltd., Riback Stevedores, Sepik Coastal Agencies and United Stevedoring.
<table>
<thead>
<tr>
<th>Events</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release of Issues Paper</td>
<td>April 26, 2013</td>
</tr>
<tr>
<td><strong>Release of the Draft Report &amp; Draft Determination</strong></td>
<td><strong>December 20, 2013</strong></td>
</tr>
<tr>
<td>Closing date of submissions to the Draft Report &amp; Draft Determination</td>
<td>January 31, 2014</td>
</tr>
<tr>
<td><strong>Release of the Final Report &amp; Final Determination</strong></td>
<td><strong>February 24, 2014</strong></td>
</tr>
</tbody>
</table>
3 STRUCTURE OF THE STEVEDORING AND HANDLING INDUSTRY

There is widespread concern about the lack of efficiency in relation to all elements that comprise the sea/land transport chain in PNG.

Consideration of the structure of the stevedoring and handling industry is necessary because it is a key influence of competitive conduct, which in turn influences efficiency and overall standards of performance.3

Industry structure should not be confused with the number of legal entities involved in relevant markets, as they are often related by ownership or other economic interests and can have patterns of contractual or transactional relationships which affect their competitive interests. This section, therefore, identifies the participants in the industry and service providers from other industries that have commercial decision-making influence on, or are similarly influenced by, the stevedoring and handling industry by reason of shareholdings, other economic interests and usual transactional patterns to paint a picture of the structural features of the relevant markets having competition implications.

The following sections first discuss the participants in the stevedoring and handling industry, their related industries, their inter-relationships with each other and the mutual influence on each other by the stevedoring and handling industry on the one hand and the shipping industry on the other.

3.1 PARTICIPANTS IN THE MARKET

3.1.1. Stevedoring Companies

Stevedoring companies, now generally known as ‘stevedores’4 provide equipment and workers to facilitate transfer of cargo to, from and within vessels, temporary storage of cargo awaiting shipment or delivery to consignees, and receipt and delivery of cargo from and to road operators. Table 1 below provides the names of stevedoring companies in each declared and privately run port.

Table 1: Names of stevedoring Companies in each port

<table>
<thead>
<tr>
<th>PNG Ports Declared Ports</th>
<th>Privately Run Ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ports</td>
<td>Stevedores</td>
</tr>
<tr>
<td></td>
<td>JV Stevedoring (Ports Services Ltd)</td>
</tr>
<tr>
<td>Port Moresby</td>
<td>United Stevedoring Ltd</td>
</tr>
</tbody>
</table>

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3 This has come to be known in the industrial organisation literature as the Structure, Conduct, Performance Trichotomy
4 Originally, ‘stevedores’ were people who carried cargo on to or from vessels before the advance of material handling technology and were also known as ‘lumpers’.
Table 1: Names of stevedoring Companies in each port (cont’d)

<table>
<thead>
<tr>
<th>PNG Ports Declared Ports</th>
<th>Privately Run Ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ports</td>
<td>Stevedores</td>
</tr>
<tr>
<td>Lae</td>
<td>Lae Ports Services Ltd</td>
</tr>
<tr>
<td></td>
<td>United Stevedoring Ltd</td>
</tr>
<tr>
<td></td>
<td>Nikana Stevedores Ltd</td>
</tr>
<tr>
<td></td>
<td>Riback Stevedores Ltd</td>
</tr>
<tr>
<td>Madang</td>
<td>Madang Ports Services Ltd</td>
</tr>
<tr>
<td>Kokopo</td>
<td>East New Britain Ports Services</td>
</tr>
<tr>
<td>Alotau</td>
<td>Alotau Stevedoring &amp; Transport Ltd</td>
</tr>
<tr>
<td>Kavieng</td>
<td>Kavieng Ports Services Ltd</td>
</tr>
<tr>
<td>Kimbe</td>
<td>Kimbe Bay Shipping Agencies Ltd</td>
</tr>
<tr>
<td></td>
<td>Zilarous Stevedores Ltd</td>
</tr>
<tr>
<td>Popondetta</td>
<td>Oro Agencies Ltd</td>
</tr>
<tr>
<td>Wewak</td>
<td>Wewak Coastal Agencies</td>
</tr>
<tr>
<td>Manus</td>
<td>RK &amp; VJ Knight Shipping Agencies Ltd</td>
</tr>
<tr>
<td>Buka</td>
<td>Makerio Stevedoring Ltd</td>
</tr>
<tr>
<td>Vanimo</td>
<td>Vanimo Agencies</td>
</tr>
</tbody>
</table>

Source: ALSC Submission, 2013

Submissions

The industry players commented that several other companies who they allege are not registered as stevedoring companies provide stevedoring services at declared and privately run ports. Their names and the ports in which they conduct their operations, as has been provided to the Commission by the industry, are are shown in Table 2 below:

Table 2: Names of non-stevedoring companies that the industry alleges provide stevedoring services

<table>
<thead>
<tr>
<th>Name of Non-Stevedoring Companies</th>
<th>Ports they Operate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steamships Coastal Shipping</td>
<td>Port Moresby</td>
</tr>
<tr>
<td>Lutheran Shipping</td>
<td>Lae and Port Moresby</td>
</tr>
<tr>
<td>Bismark Shipping</td>
<td>Lae and Port Moresby</td>
</tr>
<tr>
<td>Frabelle and South Seas Lines</td>
<td>Lae and Port Moresby</td>
</tr>
<tr>
<td>Ramu Nickel Company</td>
<td>Madang</td>
</tr>
<tr>
<td>Ravuvu Industrial Park</td>
<td>Port Moresby (AES)</td>
</tr>
<tr>
<td>Lihir Gold</td>
<td>Lihir</td>
</tr>
</tbody>
</table>
### Table 2: Names of non-stevedoring companies the industry alleges that provide stevedoring services (Cont’d)

<table>
<thead>
<tr>
<th>Name of Non-Stevedoring Companies</th>
<th>Ports they Operate</th>
</tr>
</thead>
<tbody>
<tr>
<td>RD Tuna</td>
<td>Madang</td>
</tr>
<tr>
<td>South Sea Lines</td>
<td>Lae</td>
</tr>
<tr>
<td>OTML</td>
<td>Kiungua</td>
</tr>
<tr>
<td>Coconut Traders</td>
<td>Madang</td>
</tr>
<tr>
<td>Carpenters</td>
<td>Rabaul</td>
</tr>
</tbody>
</table>

*Source: Industry Submissions, July 2013*

Further points to note are:
- Bismark Maritime Ltd (‘Bismark’) provides ‘in-house’ stevedoring services for its own ships at its privately operated wharf in Port Moresby and uses a PNG Ports wharf at Lae, also for ‘in-house’ stevedoring services.
- Steamships Trading Company Ltd (‘Steamships’) provides ‘in-house’ stevedoring services for its own ships at its privately operated wharf in Port Moresby.
- The other companies mentioned above also service their own ships as part of a vertically integrated enterprise.

Apart from the above, other smaller ports in PNG also have operational stevedoring companies. These include the ports at Aitape, Kieta, and Samarai Island.

The industry players stated that other companies which are involved in other businesses also provide their own stevedoring services from their own vessels rather than contracting registered stevedoring companies at each port. The industry players state these companies are RH, Garamut, NGIP Agmark and Bismark in Rabaul/Kokopo. This is practically similar to small, self-operated shipping in PNG. Bismark and Lutheran Shipping stevedoring operations provide their own stevedoring activities for their South Sea and Penguin shipping services respectively at Lae Port.

Steamships Shipping JVS is in the process of reviewing the possibility of offering services in Daru, Wewak and Alotau. In each of these ports, it is proposed that the stevedoring and handling entity would be a joint venture between landowners, Steamships Shipping JV Stevedoring and other possible entities. The possibility of opening these new services depends entirely on current demand in each of these ports and whether it is commercially viable to enter those ports.

### 3.1.2. Shipping companies\(^5\) (including owners or charterers of vessels)

Shipping companies transport international cargoes in and out of the country and domestic cargoes within the country. The cargoes are loaded and unloaded by the stevedores on and off the vessels and temporarily stored between transfers using the port facilities.

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\(^5\) Also known as Ship Operators
Shipping companies enter into a contract with the stevedoring companies to provide stevedoring services to their vessels in a port. However, the efficiency with which they operate has a direct effect on the costs and efficiency of the businesses of cargo consignors and consignees and, ultimately, on prices to consumers. Lack of a contractual relationship between stevedoring companies and cargo consignors and consignees removes any direct accountability by stevedoring companies to cargo consignors and consignees for the costs and efficiency of services involved at the interface between them. Such attenuation of the commercial accountability system has significant economic effects in that the ultimate bearer of the cost has no say in the choice of, payment to, or level of efficiency of performance of, the stevedore which affects the costs, profitability and efficiency of the supply of the products and services by consignor or the consignee to the end-customer. The end-customer bears the costs due to any lack of efficient service delivery by the stevedore.

Shipping companies not faced with competition in their own market, nor serving ports where stevedoring is contestable, merely build in the cost of stevedoring into freight charges and it is only in the face of intense shipping competition and contestable stevedoring markets that ship-operators exercise their bargaining power to secure efficiency in stevedoring. For a range of reasons, that is not always possible. Some important reasons are discussed below.

### Shares of shipping companies in stevedores

In its 2008 Stevedoring and Handling Services Pricing Review Final Report, The Commission noted that Steamships Trading Company Limited ("STCL") had a minority shareholding in CEL in the shipping industry at that time. The interlinked shareholdings of John Swire and Sons Ltd in PNG at that time are shown in the diagram below. Now Steamships Trading Company has a majority shareholding in Consort Express Lines6. The Commission also notes that STCL had ownership interests in the stevedoring industry, particularly Ports Services (PNG) Ltd, Lae Port Services Limited, Madang Port Services, Kiunga Stevedoring Limited, Kavieng Port Services Limited, New Britain Shipping Limited and Oro Agencies Limited. CEL, in turn, has minority interests in Riback Stevedoring Limited, United Stevedoring Limited and Kambang Holdings, which itself operates a shipping business trading as Lutheran Shipping. The remaining ownership shares for each of the above-named stevedoring companies are held by landowner organisations and individuals. The Commission understands that these cross-ownerships and shareholding information may now be outdated and, therefore, requests industry participants to update the Commission on the latest situation of the shareholdings of shipping companies in stevedoring companies.

---

6 The acquisition of a tranche of shares which gave majority ownership and control in CEL to STCL is subject to litigation instituted by the Commission for an alleged contravention of Section 69 of the Independent Consumer and Competition Act 2002. Section 69 is attached at Appendix 4. The substantive issues in the matter have not been heard in the Court yet, as a judgment on a procedural issue is awaited, which will determine whether the substantive issues will be heard.
The Commission considers that such ownership links are likely to (a) foreclose contestability of “related demand” (i.e. demand by related shipping companies or those having a substantial ownership or other commercial interest in the relevant stevedore); and (b) inhibit third parties from obtaining a level playing field as ship owners may have an incentive to be selective in acquiring services from the stevedoring companies they are associated with in an ownership sense, to the possible exclusion of those in which they do not have an ownership interest. This hypothesis is based on standard economic analysis but whether it is evidenced in practice in the relevant market, would need to be demonstrated. Submissions have not dealt with this point and the Commission makes no judgment thereon at this stage.

**Commission’s Findings**

Based on the above submissions and including the Commission’s own independent assessment and consideration, the Commission is of the view that the potential for shipping companies or other companies to enter and provide stevedoring services to the market generally, as ‘arm’s length’ service providers is not significant in the short-to-medium term, despite the fact that they provide such ‘in-house’ services to their own ships or for certain major developments in the country as part of their vertically integrated operations in various ports.
3.1.3. PNG Ports Corporation Limited

PNG Ports is a state owned corporation licensed by the Commission to provide essential port services. An essential port service is defined under the Harbours Act as a port service consisting of:

- providing port facilities for loading and unloading vessels at a declared port; and
- providing berths and berth reservation services for vessels at a declared port.

The specific service PNG Ports provides to stevedores is the provision of facilities for loading and unloading vessels. Apart from this, PNG Ports also licenses stevedores to conduct their operations at the 15 declared ports, under a delegated power.

3.1.3A. Stevedoring Access & Terminal Management Agreements

The Commission has recently been made aware through PNG Ports' publication of advertisements seeking expressions of interest ("EOIs"), that it intends to implement Stevedoring Access Agreements ("SAAs"), under which PNG Ports would enter into agreements with interested stevedores for access to the port facilities and use of the mobile harbour cranes ("MHCs") and other equipment owned by PNG Ports. The Commission is not aware of the terms and conditions of these agreements and is concerned that they may give rise to significant competition issues and may amount to breaches of the ICCC Act (potentially Sections 50 and/or 58), but again, the matter has not been investigated to establish whether relevant evidence exists and no view has been formed by the Commission on the point at this time.

The Commission is also aware that PNG Ports' has sought EOIs from parties interested in entering into Terminal Management Agreements ("TMAs") including the use of rubber tyred gantries ("RTGs") and other handling equipment.

PNG Ports has not provided the Commission with draft terms of agreement, draft criteria for allocation of licences; or draft business planning or strategic documents identifying the objectives and process of grant of such licences and rights under such agreements. The Commission is of the preliminary view that the SAAs and TMAs have the potential, on the one hand, to damage competition and efficiency; and, on the other, to increase competition and efficiency, if properly designed, and, thereby, reduce costs for users and enhance national economic growth.

It is important that PNG Ports engages with the Commission on the issues arising from use of RTGs and MHCs, particularly if stevedoring and handling companies are to be compelled to use them, to avoid contravening the ICCC Act.

Submissions

PNG Ports indicated that stevedoring licencees are very scant in their inclusion of monitoring and transparency of key performance indicators. In order to improve the efficiency at the major ports within PNG, PNG Ports has taken the initiative to publish an EOI for stevedores in all declared ports. The initiative has two elements as follows:
a) PNG Ports intends the SAAs for each of its declared ports be uniform in all aspects for any stevedoring company (existing or new) which seeks access to that particular port, including the maximum price(s) that is contracted for each access seeker during the SAA period at that port. The intention is that they shall be designed to enhance competition, in a manner which limits barriers to entry, improves transparency for government, the regulator and the public and makes the access seeker responsible for its relative service performance. Therefore, PNG Ports believes that SAAs will not damage competition, but rather enhance competition. They will have elements of service level agreements seen in many other regulated infrastructure sectors where multiple providers are required to provide services to end users.

b) PNG Ports also indicated that the TMAs primarily seek to codify key performance indicators (KPIs) which shall be recorded and reported by the stevedores in a transparent manner so that their productivity can be viewed by all port users especially those who ultimately bear the cost of cargo loading/unloading, and cargo handling. Thus, they may make informed judgments about which shipping and stevedoring companies they may choose to carry and handle their goods. PNG Ports also indicated that TMAs can only be seen to improve the current circumstances where such matters are not clearly documented and clarify the obligations for stevedores in return for their rights of access to deliver efficient service and can only be seen to enhance competition.

PNG Ports also indicated that the existing criteria for issuance of stevedoring licenses are embedded in Section 50 of the Ports Management and Safety Regulation 2010 and applying the SAAs and TMAs will encourage additional obligations on the stevedores which will act as a filter for those organisations seeking entry into the stevedoring market, because they will be transparent and not create adverse barriers to entry to this market.

PNG Ports suggested that ICCC should be supportive of its initiative to move towards SAAs and TMAs and would seek the opportunity to advance and if possible conclude the negotiation of the details of the terms and conditions of the SAAs and TMAs, including maximum prices before the ICCC seeks to make judgment as to whether they are beneficial to the ports industry or raise concerns under the anti-competitive behaviour provisions of the ICCC Act.

PNG Ports also indicated in its submission that it (PNG Ports) is not seeking to eliminate the existing formal licence with the access agreements but rather introduce contractual arrangements with players where all access agreements include the same, non-discriminatory rights and obligations for any stevedore which wishes to operate at a particular declared port with performance standards and KPIs that are geared towards generating greater efficiency and productivity over time.

Steamships Shipping JVS indicated that the EOI process has been temporarily suspended. Steamship Shipping JVS also noted that not all stevedores have seen the SAAs and TMAs proposed by PNG Ports and as such were not in a good position to comment on the matter.
However, Steamships Shipping JVS indicated that it is unclear whether PNG Ports intention is to restrict access to a maximum number of stevedores in each port, or whether any interested operator may operate at a port. If restrictions are placed on entry, it is considered that it may have the effect of lessening competition in contravention of Section 50, 51 and or 58 of the ICCC Act.

Steamship Shipping JVS also suggested that the draft agreements that are proposed by PNG Ports are poorly drafted and should be reviewed by ICCC to ensure that they comply with the ICCC Act, although no specific competition concerns were identified.

Steamship Shipping JVS urged the ICCC to discuss with PNG Ports the terms and scope of the draft agreements and the obligations and fees placed on each of the stevedoring and handling service providers. Steamship Shipping JVS further urged the ICCC to review the agreements in order to ascertain whether the fees that are to be charged under the SAA and TMAs are in addition to fees that are already charged and whether the fees are in compliance with the PNG Ports Regulatory Contract for the period 1st February 2010 to 31st December 2014.

Riback Stevedores Limited also indicated that the agreements from PNG Ports may have the potential to damage competition as use of RTGs and MHCs is a minimum requirement of the agreements – and the ability of the equipment to meet acceptable levels of service and productivity has yet to be determined.

On the other hand Riback Stevedores Limited indicated that the agreements from PNG Ports may enhance competition as use of RTGs and MHC’s will require a degree of investment and faith in new technology and operating methods – and this investment would improve productivity which in turn would foster competition.

Riback Stevedores Limited was unable to comment on whether the Commission should investigate the proposed arrangements in relation to the possible application of Section 50, 53 and 58 of the ICCC Act as they believe no actions taken by them limit competition.

Riback Stevedores Limited also indicated that there are requirements to use MHCs and RTGs as part of the agreements, however, stevedores had no input into their purchase. Furthermore, in-depth training, service/R&M Contracts and a Terminal Management System would have to be put in place before possible lease – there are minimum industry requirements to fully utilize MHC and RTG

Importantly, Riback raised concerns that Stevedores may be ‘forced’ to use machinery which may have reached their ‘use by date’ and productivity capability and that could add substantially to the cost structure for stevedores leading to increased cost to the end user.

PNG Ports indicated in its submission that the Agreements are yet to be negotiated and finalized between the stevedoring companies and PNG Ports. Apart from PNG Ports’ comments, it also stated that the Commission should consider the following:

i. Calls for investigation would result in unproductive diversion of resources;
ii. Let the stevedoring and ports sectors work through the issues related to codifying ports access and observe if these industry sectors can find a common ground on which to further improve the productivity of the declared ports within PNG; and

iii. In relation to stevedoring access, clause 7.2, of the regulatory contract requires PNG Ports to set a price to be “fair and reasonable” for stevedoring access. In the event of disputes on the amount set, PNG Ports should agree on the amount set by the Commission as determined to be fair and reasonable; and

iv. Wait till industry negotiations are complete before it intervenes.

PNG Ports was disappointed with the stevedores’ reactions to the announcement of the EOI and its initiative to improve efficiency at the declared ports. PNG Ports indicated that existing stevedores’ concerns were in relation to the structure of SAAs which would bring about open access at the major ports within PNG. PNG Ports submitted that it envisages a future where the existing stevedoring arrangements become more transparent and uniform in relation to licensing and where existing stevedores continue to provide efficient stevedoring services with the threat but without the fact of new entry.

**Commission’s Findings**

The Commission is concerned about the impact of the proposed SAAs and TMAs on the stevedoring and handling services at the 16 declared ports as they may restrict entry by new stevedores and if that is the case, that would reduce competition.

The Commission is also concerned that while such agreements may increase efficiency and productivity of stevedores; it may increase the charges made for providing the stevedoring and handling services, due to any anti-competitive effect that they may give rise to.

The submission by PNG Ports, that it intends to advance, and if possible conclude, the SAAs before the Commission forms a concluded view, is highly unwise because, if the Commission does conclude that they are likely to constitute breaches of the ICCC Act, it would need to seriously consider legal action, as the contracts would have been entered into and their operation would have commenced.

The statement by PNG Ports “…people or organisations who ultimately bear the cost of cargo loading/unloading, and cargo handling, can make informed judgments over which shipping and stevedoring companies they will choose to carry and handle their goods.” can be viewed in two different ways. If the statement is intended to suggest that end-customers can choose the shipping company, on the one hand, and the stevedoring company, on the other, it ignores the significant commercial fact that generally, those who ultimately bear the costs of stevedoring and handling do not, and cannot, have a contractual relationship with stevedores - that is the role of ship-operators. That fact has been covered, both in the Issues Paper and is repeated above in this draft report. Hence, the normal bargaining power capable of being exercised by purchasers is not available to the ultimate end users of stevedoring and handling services. If, on the other hand, the statement is meant in a collective sense, that is, the information could facilitate choice of the shipping company, and, consequently, the stevedoring company as part of the shipping package, that is certainly an arguable
position. The point is that end users are unable to influence stevedoring and handling charges directly themselves and depend on the intermediary, the shipping company, to do that on their behalf, which, as explained earlier, is largely ineffective due to the absence of effective incentives and bargaining power.

The Commission notes PNG Ports’ views on the issue of the SAAs and TMAs which are in the process of negotiation with the stevedoring companies. Furthermore, the Commission is concerned that the use of MHCs and RTGs under such agreements may enable PNG Ports to effectively act as a stevedoring company, at least in relation to a significant segment of the suite of services provided by stevedores.

There is also a question whether more than one terminal manager can be appointed in each port. If only one can be appointed, then, by definition, other stevedores would be excluded from the terminal management function. If an existing stevedore is appointed, that could confer a substantial degree of market power on that stevedore, vis-à-vis other stevedores; consignors; consignees; as well as vis-à-vis shipping companies. In both situations, arguably, preference could be given to the terminal managers own stevedore; own ship-operating customers; and to the consignors or consignees of those customers, as a way of encouraging trade for that shipping line and, therefore, for itself. If such a strategy were capable of being implemented, that would likely distort competition in both shipping and stevedoring markets.

There appears to be a degree of inter-relationship between shipping lines and stevedores. If stevedores were to obtain TMAs in Port Moresby and Lae, (even if they were different, rather than the same stevedore in both ports) any such problem could be exacerbated by tacit collusion between them to give preferential treatment to their related shipping lines.

As mentioned above, the current regulatory contract prevents regulation of charges and service standards of PNG Ports in relation to the provision of RTGs and MHCs, if charges are made for the use of the equipment. Furthermore, as discussed earlier, compulsion to use such equipment may amount to a breach of the ICCC Act if the conduct is capable of authorization but not authorized, or if it is not capable of authorisation. As those services would have a significant impact on the efficiency and costs of stevedoring and handling services, it is important to examine the nature and scope of the SAAs as they could have seriously negative economic consequences if not structured properly.

It is incumbent upon PNG Ports, as the party initiating the proposals for TMAs and SAAs to provide unequivocal answers to the following questions:

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
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<tbody>
<tr>
<td>Are the proposed TMAs and SAAs likely to improve efficiency? If so, how?</td>
<td>If not, why are they being implemented?</td>
</tr>
<tr>
<td>What are the terms and conditions in the TMAs and SAAs respectively?</td>
<td>Are the draft documents released for public consultation? If not, why not?</td>
</tr>
</tbody>
</table>

Because of the significance of the proposed TMAs and SAAs for competition and efficiency on the waterfront and shipping sectors, the Commission considers that they
merit open and impartial assessment through a properly conducted public consultation process which has regard to the interests of all parties, especially the public, in terms of avoiding anti-competitive and inefficient arrangements which hamper economic growth and improvements in living standards for ‘grass-roots’ citizens.

Such an impartial, open and consultative assessment is facilitated by the authorization provisions of the ICCC Act.

**Draft Recommendation**

The Commission proposes to recommend to the Minister for Public Enterprises that the proposed TMAs and SAAs be submitted for authorization under the provisions of Section 70 of the ICCC Act to avoid potential contravention thereof and possible legal action and to allow open and impartial assessments of competition, efficiency and public benefits arising from the use of such agreements.

Section 50 of the ICCC Act prohibits the entering into, or giving effect to, any contract, arrangement or understanding or any covenant that has the purpose or effect, or is likely to have the effect of substantially lessen competition. It also prohibits entering or giving effect to any contract, arrangement or understanding that contains an exclusionary provision.

Under Section 53, arrangements between persons, any of whom are in competition with any of the others, that have the purpose or effect, or are likely to have the effect, of fixing, controlling or maintaining the price for any good or service or any discount, allowance, rebate or credit for any good or service, are deemed to substantially lessen competition for the purposes of Section 50, without the need to show a substantial lessening of competition.

Section 58 prohibits a firm that has a substantial degree of market power from taking advantage of its market power for the purpose of restricting entry into that or any other market; preventing or deterring a person from engaging in competitive conduct in that or any other market; or eliminating a person from that or any other market. Section 58 conduct is not capable of authorization, but Section 70 provides for authorization of agreements to which Section 50 may be applicable.

**Submissions**

Port Services Limited suggested that if the proposed TMAs exclude the present stevedores, there will be difficulties associated with possible increased layers of costs and provide an endless source of ‘blame game disputes’ between the stevedores and the terminal managers. Port Services Limited indicated that the establishment of such agreements and introduction of TMAs represent a failure by PNG Ports, although it did not specify what type of failure it claims to be represented. Port Services indicated in their submission that PNG Ports had several meetings with them demanding the use of their system. Port Services Limited indicated that the use of these agreements will circumvent the law and discriminate against the existing stevedoring operators,
although, again, the specific legal provisions claimed to be circumvented was not specified.

3.1.3B. Requirement to use the MHCs and RTGs

PNG Ports has purchased mobile harbour cranes ("MHCs") to load and unload cargo and rubber tyred gantries ("RTGs") to position and stack containers before or after being loaded from/to vessels located at the international wharves of Port Moresby and Lae. PNG Ports suggests that the use of MHCs and RTGs will improve the rate of loading and unloading vessels and thereby increase berth availability and reduce waiting time. The Commission understands that PNG Ports currently makes the MHCs and RTGs available to stevedores at no charge.

Submissions

PNG Ports indicated that the TMAs seek to introduce incentives for the stevedores to use the most efficient method of MHCs and RTGs for loading/unloading vessels and for handling and storage of containers at international wharves within the Lae and Port Moresby ports areas. They indicated that these incentives will be managed through introduction of different tariff arrangements and rebalancing of existing tariffs under the weighted average revenue cap currently in place under the annual tariff approval process administered by the Commission and noted that the structure of the incentives is subject to negotiation with stevedoring companies. These new tariffs shall only be applicable in Lae and Port Moresby ports. While PNG Ports would prefer to see the use of the MHCs and RTGs as a mandated obligation, particularly in regards to the exclusion of the use of ship derricks/cranes for loading/unloading, the exact approach to the use of this equipment will evolve from the negotiation process. Subject to the size and configuration of vessels, a combination of the use of the MHCs and RTGs and existing stevedoring forklifts and trailers may provide the most efficient loading/unloading, handling and storage outcomes.

PNG Ports recognised the need to carefully consider the approach to pricing the use of this infrastructure by stevedores, but also recognizes the very strong need to provide incentives to the stevedores to achieve higher and improving productivity in the two major ports in PNG. PNG Ports believes that the principal objective of the Commission, to improve economic efficiency of the delivery of regulated services for the benefit of all Papua New Guineans, is directly aligned to PNG Ports’ introduction of this infrastructure at the two largest ports in PNG. The price and incentive scheme should work and is best achieved through direct negotiation between the stevedores and PNG Ports in the first instance. As the recovery of the cost of this equipment is under an average revenue cap, any introduction of charges for this equipment would need to be offset through tariff reductions on other services.

Port Services Limited raised concerns about PNG Ports not discussing the rationale of how the MHCs and RTGs will relate to the stevedoring and handling services. H&E Stevedores Limited also addressed the issue of ownership of the equipment. PNG Ports decided that the ownership and operation of these equipment be vested with the PNG Ports Corporation. However, this decision was impractical as the operation is currently shared between PNG Ports and Port Services Limited.
CEL clarified that the operation or the usage of MHCs and RTGs is not available to coastal operators as they (MHCs and RTGs) are situated on the overseas (Berth 4) facility and have no access to the main coastal wharf berth. The MHCs and RTGs are used exclusively for loading and unloading of cargo for overseas vessels in Port Moresby and Lae ports.

Commission’s Findings

The Commission noted PNG Ports’ comments in its submission with regards to the arrangements including pricing, and that stevedores and other interested parties preferred to use MHCs and RTGs.

However, the Commission has a number of key concerns about use of the RTGs and MHCs:

a) what charges are to be made (as it is not realistic for PNG Ports to continue to provide such services without cost recovery);
b) whether users are to be compelled to use them at the nominated charge. If so, that may well amount to breaches of the ICCC Act (possibly Sections 50 and/or 58);
c) If the equipment is to be hired by stevedores on a compulsory basis then the charges should be regulated but the current regulatory contract does not allow for that;
d) if the equipment is to be hired by stevedores on a voluntary basis then the charges may not need to be regulated, and this should be possible where the port facilities provided through access to use of the MHCs and RTGs equipment are considered to be covered under the Wharfage Services definition and hence are considered Essential Port Services which in turn are regulated under the weighted average revenue cap arrangement; and

e) The claim that MHCs and RTGs will improve efficiency needs to be tested and, in any case, that depends on the incentive structure of the sector, which influences efficiency.

3.1.3C. Offering Stevedoring Services

Submissions

PNG Ports indicated that the Regulatory Contract did not restrict PNG Ports from offering stevedoring services which are considered to be contestable services. The Regulatory Contract defines these as:

“Contestable Services means a service other than an Essential Port Service that is provided using or that is otherwise related to Essential Port Services and includes stevedoring, pilotage and storage services.”

Subject to law, PNG Ports is not restricted from providing any contestable service and indeed any other competitive service in the market which is related to the provision of Essential Port Services and the control, management and investment in declared ports,
so long as it meets the requirements of its responsibility under government policy and the amended Harbours Act 1963.

As indicated in the submission, PNG Ports chose not to offer stevedoring services in order to meet the good regulatory practice of separation of the licensing of a contestable service from the performance of control, management and operation of a contestable service. The issue of conflict of regulatory and competitive functions has been a matter of debate between PNG Ports and the Commission in relation to pilotage services, in the context of a possible breach of Section 58 of the ICCC Act for the refusal to license competing pilots and PNG Ports has moved to hand back the delegation of pilot licensing powers to the National Maritime Safety Authority (NMSA), in order to progress towards the independent licensing of pilots within PNG waters.

A related issue is whether downstream providers are to be compelled to utilise the landlord’s equipment, as discussed earlier, in possible breach of Section 58 of the ICCC Act.

Moving to any compulsion for the use of MHCs or RTGs, in the Commission’s view, may not only constitute contraventions of the ICCC Act, but is also a move into significant components of stevedoring and handling service provision, in contradiction of the stated policy of PNG Ports not to enter stevedoring operations, as it may lead to the exclusion of stevedoring and handling companies from those components of those markets. If PNG Ports enters into significant components of the stevedoring and handling markets as a provider of services that downstream users are forced to acquire, that creates a clear conflict in its functions as the regulator in the very markets in which it competes, in contradiction of its own stated policy.

3.1.3D. The Capacity of Declared Ports

Impact on stevedores

PNG Ports indicated in Gazette notice dated 1st January 1977, that the then Minister for Transport and Public Works under the Harbours Board Act 1963, revoked the prior declaration of ports (which had occurred between 1967 and 1976) and declared the land and water areas which were to be included as port areas, controlled by PNG Ports. The declarations in Schedule 3 of that Gazette notice define the physical size of each of the ports which are under the control of PNG Ports. The amendments to the Harbours Board Act No. 24 (the “Harbours Board Act”), and the Harbours (General) Regulations (the ‘Regulations’) grandfathered these declared port definitions under the new legislative arrangements for PNG Ports.

To the extent possible, within the constraints of the land and water areas allocated through declaration, PNG Ports has allowed access for stevedores to provide their loading/unloading and handling services to shipping companies seeking to use the declared ports. For example, PNG Ports has issued stevedoring licenses to such operators who currently operate in privately run ports and issued licenses to new applicants for stevedoring operations within the PNG Ports owned ports. A recent license was assessed and considered for the port of Alotau early this year.
PNG Ports does not believe any of its ports have reached their port capacity whereby an additional stevedore accessing the port could restrict access by other existing and new stevedores in that port, and therefore PNG Ports has recently sought to improve access for new stevedores.

Steamships Shipping JVS indicated that the number of stevedores conducting businesses in any declared ports is not limited by the port facilities, but by the volume of cargo passing through each port - presumably referring to scale as an issue.

Discussion

The Commission considers the above submissions represent something less than a full appreciation of the factual situation, at least in the port of Port Moresby, if not also in the port of Lae. Each stevedore has its own equipment within the bonded area of the port, which occupies space. In addition, information previously provided to the Commission indicates that PNG Ports stores its own equipment needing repair, within the bonded area of the port, further reducing available space for stevedoring and handling and, in that context, space has been raised as an issue by PNG Ports. Of course, cargo occupies space and the volume of cargo passing through the port affects the available space for additional stevedores. However, the objective of port operations should be to maximize the volume of cargo throughput. It is the efficiency with which cargo is moved that determines the available space. The extent to which similar issues arise in other ports is not known.

Later in this report, submissions made by ALSC and Steamships Shipping JVS point to scale issues as a limiting factor on the number of stevedores capable of operating within a port. There is no indication, however, of the minimum efficient scale for stevedoring in various PNG Ports. Scale depends on capital investment and the technology adopted. As a general point, however, entry should be open so that the market can judge the appropriate number of operators, not the operators themselves or the landlord.

3.1.3E. Adequate service demand volume

Steamships Shipping JVS indicated that in the current ports where it operates, there are two ports where the current berth space is not adequate and mostly leads to congestion. The two ports are Lae Port and Kimbe Port. Vessels arriving may wait for long periods to berth and discharge or load their cargo. This leads to extra costs to the shipping lines that are usually passed through to the end customers. This contradicts the submission by PNG Ports that space does not restrict entry. That argument, also ignores the lack of contestability of stevedoring and handling services: i.e. that potential new entry is constrained by lack of untied (‘biddable’) demand which could create the opportunity for ‘arm’s length’ entry by prospective stevedores and cargo handlers.

In both ports, there has been limited engagement with the shipping lines or port users/stakeholders as to how to alleviate the congestion for the benefit of customers (shipping lines and end customers – cargo shippers and consignees). Steamships Shipping JVS indicated that the congestion could be reduced in Kimbe if the palm oil tanker loading facility could be constructed to take tankers off the main berth, thus making the loading facility available for international and domestic cargo vessels.
Unfortunately, the situation is ongoing, requiring many days to load and causes significant congestion and extra costs to shipping lines and end customers.

To address the issue of congestion in Lae and Kimbe ports, PNG Ports has identified a number of specific projects in its Strategic Capital Plan. The Lae Berth 3 extension, Lae Berth 3 concrete repairs and Kimbe barge are some of the many projects intended to be implemented in the last regulatory year of the current regulatory contract to relieve the acute congestion.

3.1.4. PNG Customs, NAQIA and Users

PNG Customs manages the security and integrity of PNG’s borders and works to detect the unlawful movement of cargoes across the nation’s borders. Customs officers work with stevedores and PNG Ports to ensure border protection in a manner that minimizes the impact on trade.

Cargo consignors and consignees usually have agents who deal with PNG Customs and stevedores, as ‘middlemen’ with the expertise to process Customs documentation and clearance of cargoes, in those ports that serve international trade.

The National Agriculture Quarantine and Inspection Authority (NAQIA) provides quarantine inspection for cargo arriving in PNG, and inspection and certification for a range of agricultural products exported from PNG. Officers of this agency work with stevedores and road operators to ensure that the external inspection of containers is done in an efficient and timely manner and requirements such as washing of containers and fumigation of cargoes are carried out to the requisite regulatory standards.

End users (consignors and consignees) of the stevedoring and handling services are those that the cargoes are consigned or shipped to and those who send cargoes. These users of stevedoring and handling services include sophisticated users such as resource companies, as well as businesses who are involved in general merchandising of goods and individuals who import/export or ship cargoes domestically.

Submissions

H&E Stevedores Limited indicated that the creation of an oligopoly for customs’ agents has resulted in increased fees and charges incurred by their clients. They also indicated that unless a consignor or consignee employs a ‘licensed agent’ all entries must be lodged through a customs agent. Previously a consignee could personally lodge a custom entry.

As noted above, delays in passing entries leads to high PNG Ports demurrage charges. Delays are frequently suffered even trying to pay the duty assessments made by Customs. As such, large transport companies who hire customs’ agents to clear their cargo at the ports, have been experiencing the delay problem.

H&E Stevedores Ltd view is that the charges for cartage and customs services in Port Moresby are very high. Practically in Port Moresby, customs agents do charge additional fees for wharfage and handling services on behalf of their clients. Customs
agents use the problems of dealing with such situation as an explanation for their high charges.

NAQIA was not able to provide a submission to the Issues Paper. However, other stakeholders have provided their comments. H&E Stevedores Limited indicated that NAQIA’s systems and procedures should be made more user friendly without compromising its functions. H&E Stevedores Limited also indicated that providing clarity in its requirements would be of considerable assistance. H&E Stevedores Limited was not able to specifically clarify which requirements need clarity.

Steamships Shipping JVS indicated that there is a limited relationship between stevedoring and handling operators, on the one hand, and customs and NAQIA, on the other. However, productivity has increased over the past 5 years. Steamships Shipping JVS clarifies that it is not involved in the timing and processes of cargo clearance by Customs or NAQIA at the ports.

**Discussion**

The allegation by H& E Stevedores about an oligopoly by customs agents suggests either that entry to that market may be restricted by licensing or that the current operators are engaging in conduct which has the effect of limiting entry. The Commission would welcome evidence of such allegations.

The Commission received a complaint alleging that a NAQIA Officer directed a consignor to utilize the services of one provider in preference to another and the originally intended provider was ‘cut out’ of providing services. Such conduct, if it occurs, is anti-competitive. NAQIA denied the allegation. The Commission also noted that Customs should not charge additional fees for wharfage and handling services, if that is happening.

**Draft Recommendation**

| The Commission considers that there should not be any limitation on the number of agents licensed by Customs or NAQIA as it likely constitutes an anti-competitive constraint and any such limitation should be removed quickly. A letter to his effect shall be sent to the relevant Minister following consideration of comments and development of the Commission's Final Determination. |

**3.1.5. Efficiency of Shipping Agents and Service Accessibility of End user**

Shipping agents play an important role with respect to cargo handling at the port premises and delivery of cargo to end users (consignees). Their performance may be inefficient due to the Customs and NAQIA prolonged procedures at the ports. The Commission is concerned that delays at the port area affect the efficiency and productivity of the shipping agents, which in turn affects the efficiency and productivity of the stevedores and these both increase costs to the end customers.
Submissions

Steamships Shipping JVS indicated that none of its entities have direct contact with the consignees or end customers as that is managed through different agencies. The agent’s services are contracted directly by the shipping lines, free of influence from Steamships Shipping JVS or PNG Ports.

Table 3: Shows the names of the agents in each port of PNG

<table>
<thead>
<tr>
<th>Ports</th>
<th>Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Moresby</td>
<td>Inchcape, Agility, Swire Shipping Agencies, PNG Express Lines, Carpenters, Deugro, Express Freight Management</td>
</tr>
<tr>
<td>Lae</td>
<td>Swire Shipping Agencies</td>
</tr>
<tr>
<td>Kimbe</td>
<td>Swire Shipping Agencies</td>
</tr>
<tr>
<td>Kavieng</td>
<td>Swire Shipping Agencies and Carpenters</td>
</tr>
<tr>
<td>Madang</td>
<td>Swire Shipping Agencies, Carpenters, Inchcape and Agility</td>
</tr>
<tr>
<td>Oro</td>
<td>Swire Shipping Agencies and PNG Express Line</td>
</tr>
<tr>
<td>Kiunga</td>
<td>Kiunga Stevedores Limited, PNG Lines and AES</td>
</tr>
</tbody>
</table>

Source: Steamships Shipping JV Stevedoring, 2013

Steamship Shipping JVS indicated that stevedores invoice different agents for the handling activities related to cargo. However, agents play an important part in the process and may affect the efficiency of the stevedoring activities. In order to adequately plan loading and discharge activities on a vessel, it is necessary to have adequate information and adequate pre-planning meetings. If the process prior to the arrival of the vessel is not fulfilled, this will hinder stevedoring activities that will lead to poor efficiency and productivity.

Commission’s Findings

Ownership linkages between a small number of shipping lines and most stevedoring and handling companies effectively operate as horizontal linkages among the latter, because they lack the incentive to offer the same services at the same rates with the same efficiency to competitors of their own shareholders -indeed, the incentive exists to negatively differentiate supply of services to shipping companies with which their shareholders compete.

Such anti-competitive conditions in the market are exacerbated by the lack of incentive of shipping lines to bargain strongly with stevedores because of the ability of the former to pass through stevedoring costs to end-users because of high concentration and high barriers to entry in stevedoring which makes that service uncontestable, and lack of adequate competition in shipping. The conditions in both markets create negative feedback loops which create a ‘vicious circle’ of inefficiency from anti-competitive structures and, consequently, incentives in the sea/land interface.

As a result, the absence of effective bargaining by unintegrated shipping companies with most stevedoring and handling companies, in highly concentrated and vertically integrated shipping, stevedoring and handling markets damages competition significantly.
3.2. CHARACTERISTICS OF THE MARKET

3.2.1 Stevedoring Services & Charges

The stevedoring services that stevedores provide are attached as Appendix 2 of this report. These services are the services listed in the 2008 Final Report. The Commission understands that stevedores have introduced new charges in the intervening period. The new charges which are understood to have been introduced are shown in Table 4 of this report.

Apart from these services, stevedores undertake auxiliary activities, which as a whole, are also categorized as stevedoring services. The Commission notes that in each of the services provided in Appendix 2, stevedores undertake a range of different activities. During the previous monitoring period, stevedores did not provide a detailed listing to the Commission of all activities which comprise stevedoring or handling services, even though this was requested. The sub categories of stevedoring services in Table 4 indicate what the Commission understands to be the newly introduced services in 2013.
Table 4: The newly introduced charges by the licencees stevedoring companies

<table>
<thead>
<tr>
<th>Charge</th>
<th>Service</th>
<th>Description</th>
<th>Unit</th>
<th>Definition</th>
<th>Year of Introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stevedoring</td>
<td>Discharge/Load</td>
<td>Twin Lift Ship’s or Shore Cranes</td>
<td>Per RT</td>
<td>To load/discharge from the vessel to wharf or vice versa using two ships’ or shore crane. A special lift requiring advanced supervisory and rigging skills. Rate recognizes risk and time taken to rig lift</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>Discharge/Load</td>
<td>Twin Lift Shore or Ship’s Crane</td>
<td>Per RT</td>
<td>To load/discharge from the vessel to wharf or vice versa using one ship and one shore crane. A complex and advanced lift requiring a high level of supervisory expertise and rigging skills. Rate recognizes risk and time taken to rig lift</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>Discharge/Load</td>
<td>Out of gauge Cargo fee</td>
<td>Per unit</td>
<td>To load/discharge from the vessel to wharf or vice versa of any out of gauge cargo (cargo that is higher or wider than would fill standard containers loading/unloading of which requires the use of special spreaders or equipment). Rate recognizes time to set up and rig lift using specialized equipment. Charges based upon half hour delay for rigging at the start of the lift and half hour delay at the end of the lift.</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>Discharge/Load</td>
<td>Project cargo</td>
<td>Per RT</td>
<td>To load or discharge from the vessel to wharf or vice versa of any project based, specialized cargo. Standard break bulk rate plus 15%</td>
<td>2013</td>
</tr>
<tr>
<td>Charge</td>
<td>Service</td>
<td>Description</td>
<td>Unit</td>
<td>Definition</td>
<td>Year of Introduction</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------</td>
<td>----------------------------------</td>
<td>--------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>Discharge/Load</td>
<td>Heavy lift Fee</td>
<td>Per RT</td>
<td>To load or discharge from the vessel to wharf or vice versa of heavy cargo that requires specialized equipment to lift/move to and from the port or on and off the vessel. Single unit&gt;36 tones or dimensions exceeding one of the maximums. L:20m, W: 2.4m, H:3m, normal tariff plus K5 per RT</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>Discharge/Load</td>
<td>Transhipment container TEU (in/out)</td>
<td>Per RT</td>
<td>To load or discharge from the vessel to wharf or vice versa of twenty foot transshipment container</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>stevedoring</td>
<td>Stevedore equipment fee (crawler crane)</td>
<td>TBA</td>
<td>Use of stevedore crawler crane on gearless barges/vessels</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>stevedoring</td>
<td>Assistance in starting defect vehicles on board of a vessel</td>
<td>Per hr</td>
<td>The fee for any help in starting the vehicle for anything other than a flat battery that requires a mechanic</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>stevedoring</td>
<td>Assistance in starting vehicles on board of a vessel</td>
<td>Per unit</td>
<td>The fee for jump starting flat battery</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>stevedoring</td>
<td>Light vehicle towing charge up to 12cbm</td>
<td>Per unit</td>
<td>Towing of broken down vehicles cost of one delay hour</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>stevedoring</td>
<td>heavy vehicle towing charge up to 12cbm</td>
<td>Per unit</td>
<td>Towing of broken down vehicles cost of one delay hour</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>stevedoring</td>
<td>Bad stowage fee</td>
<td>Per RT</td>
<td>The fee for poor working conditions due to bad stowage. Cargo poorly stowed can pose a hazard to stevedores and causes delays.</td>
<td>2013</td>
</tr>
<tr>
<td>Charge</td>
<td>Service</td>
<td>Description</td>
<td>Unit</td>
<td>Definition</td>
<td>Year of Introduction</td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
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<td>--------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>stevedoring</td>
<td>Cargo sorting fee</td>
<td>Per RT</td>
<td>The fee for the stevedores to sort cargo out on a vessel prior to discharge. Poorly identified and marked cargo requiring sorting causes unnecessary delays.</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>stevedoring</td>
<td>Cancellation of labour fee</td>
<td>Per gang</td>
<td>The fee for labour being cancelled at late notice. Stevedores gangs booked and on standby, but then cancelled causing additional costs.</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>stevedoring</td>
<td>Distressed cargo fee</td>
<td>Per RT</td>
<td>Cargo that has been subject to fire, water, shifting or other influences on board during transit that will cause the cargo to be handled in other than the normal efficient manner, shall be subject to special rates (at the discretion of the licensed stevedore).</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>stevedoring</td>
<td>Dangerous cargo fee</td>
<td>Per unit</td>
<td>Shore handling charges for dangerous, obnoxious and/or hazardous cargo is 200% of the standard charges.</td>
<td>2013</td>
</tr>
<tr>
<td>Stevedoring</td>
<td>stevedoring</td>
<td>Locker/deep tank/cabin cargo fee</td>
<td>Per RT</td>
<td>Any cargo discharged/loaded in the Locker/Deep tank/accommodation or anywhere that is not recognised as a cargo hold is subject to this fee.</td>
<td>2013</td>
</tr>
<tr>
<td>Cleaning</td>
<td>Cleaning</td>
<td>Cleaning-Wharf fee</td>
<td>per unit</td>
<td>The washing down of the wharf as required for quarantine purposes.</td>
<td>2013</td>
</tr>
<tr>
<td>Terminal</td>
<td>Terminal</td>
<td>Dredging recovery levy</td>
<td>Per RT</td>
<td>Dredging cost recovery levy</td>
<td>2013</td>
</tr>
<tr>
<td>Receiving</td>
<td>Receiving</td>
<td>Late receiving fee</td>
<td>Per TEU</td>
<td>The late receiving fee for setting the cargo in sequence on short notice.</td>
<td>July 2010</td>
</tr>
</tbody>
</table>

*Source: The ALSC submission, 2013*
Submissions

The ALSC indicated that since 2008, there were a number services introduced by the licensed stevedores. However, it only provided the names of the type of services and when they were introduced. It did not provide the names of the stevedores and the associated charges for the new services that were introduced. It is not clear, therefore, whether all members of ALSC, or some members only, have introduced charges for such new services, nor whether all of them have applied the same level of charges for corresponding services. This will be clarified in the final report, if submissions from ALSC in response to this draft report address this factual matter.

Steamships Shipping JVS indicated that charges are passed to the end customers. JVS commented that all stevedoring and handling charges are invoiced to the shipping lines through the agents who then pass them to the end users. CEL has indicated that the interface with stevedores is determined on the basis of the shipment with the shipping company which are governed by the basic terms in shipping usage in the bill of lading, which are “Free-In”, “Free Out” and “Liner Terms”. “Free-In” determines that the cost of stevedoring is charged directly to the account of the cargo-shiper (consignor); “Free-Out” determines that the costs of stevedoring are charged to the account of the consignee and “Liner Terms” determines that the costs of stevedoring is charged to the account of the shipping companies. Coastal shipping companies offering liner services connecting the main ports of PNG generally offer “Liner Terms”. Therefore, the shipper or consignee does not interface with the stevedore when the stevedore loads or discharges cargo from the vessel with respect to the cost of providing that service. The shipping companies pay for the cost of stevedoring services and include it in their freight.

Stevedoring charges are not invoiced to, or collected separately from, cargo-shippers or consignees when the cargo is shipped on “Liner Terms”. The submission did not indicate the terms generally adopted by international ship-operators in the PNG trades, which could, in the Commission’s view, differ as between liner and tramp shipping on the one hand, and conference and non-conference operators on the other.

Cargo-shippers interface directly with the stevedore with respect to the delivery or receipt of goods to the stevedore providing handling services. The payment or cost of providing this service is charged to the cargo-shpper by the agent of the shipping company. This payment is then passed on to the stevedore or handling service provider by the agent of the shipping company.

In the case of imports, ordinarily, under ‘liner terms’, consignees should not be liable for any charge, other than that arising out of their failure to take delivery on the scheduled date. In practice, not only are they charged by PNG Ports for storage in circumstances beyond their control, such as containers being ‘buried’ in stacks and unavailable for collection within ‘storage free’ days; but also charged by the shipping line for a range of other items such as Equipment Handling Charges; and Port Congestion Surcharges (if not already charged to the consignor).

Steamships Shipping JV Stevedoring submitted that stevedores provide equipment and labour to transfer cargo between ships and dock. Stevedores serve as terminal
operators and operate as an overall supervisor and manager of the whole operation between the ships and dock. Their stevedoring charges for break bulk and dry bulk are based on loading and discharging using vessel’s gear. These charges include charges for labourers, winch/crane drivers, ship tallymen, foreman and signalman. Stevedoring charges exclude any charge for equipment (equipment charges) required inside the vessel’s hatch/hold and/or the fees required for hiring additional labourers. The strapping or lashing of cargo, although a function of the stevedore, is charged separately. Not all vessels require this service and in some cases, it is done by the crew. Tarpaulin hire is a miscellaneous service that is provided on an “as and when” required basis.

Steamships Shipping JVS indicated that the only new service added since 2008 and presented to the Commission on quarterly update of tariff is the Terminal Stock Takes which is a description of a service rendered under the Reefer sub-category of stevedoring services which can be viewed in the stevedoring and handling services total rates in Appendix 3. All other services are existing services in accordance with the services provided and included in the 2008 Final Report.

Steamships Shipping JVS indicated that changes in their rates were determined by changes in CPI/Inflation, wages, fuel prices and capital expenditure. This is the method used to determine the charges of stevedoring and handling services for each of the ports in which Steamships Shipping JVS operates.

Discussion

In the previous regulatory period, stevedores have introduced a range of new charges beyond those charges specified in the 2008 report. The Commission was not informed of the introduction of these new services or their charges. The Commission is also aware of stevedores using different names for a particular service interchangeably over time which caused some difficulty in the Commission’s price comparisons in its monitoring of the services.

Commission’s Findings

Should the Commission decide to recommend the continuation of some form of price regulation of stevedoring services and they are declared by the Minister, it would apply regulation to all activities related to the provision of stevedoring services, including services introduced since the last determination and any new services that may be introduced during the period of any regulation that may be applied going forward. Data required to be provided under any such regulation will be required to use the common nomenclature specified by the Commission from time to time, as required, to ensure consistency rather than different nomenclature used by individual stevedores, which leads to confusion. The Commission will decide the nomenclature for any new services in consultation with stevedoring and handling companies, if appropriate, and use of such nomenclature by all stevedoring and handling providers is proposed to be mandatory.

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A ‘Reefer’ is an abbreviation for a refrigerated container
Draft Recommendation

The Commission would expand its information requirements to encompass any additional stevedoring charges that may have been introduced since its original determination; or that may be introduced during any further term of regulation, using common nomenclature, if such regulation is ultimately decided to be implemented. In essence, all existing or new services provided by stevedoring and handling companies during the regulatory period are to be covered by the price monitoring determination proposed by the Commission.

3.2.1. Handling Rates and Charges

The handling services that stevedores provide are attached as Appendix 2 of this report. These services are the services listed in the 2008 Final Report. Stevedores have introduced new handling charges in the intervening period. The new charges which are understood to have been introduced are shown in Table 5 of this report.

Submissions

ALSC has matched the descriptions of various stevedoring and handling services to those provided in the 2008 Final report and provided the existing and newly effective rates for 2013. The list of the new stevedoring and handling services is shown in table 4 and 5 of this report. ASLC did not provide annual charges for new and old stevedoring and handling services on ‘a port-by-port’ basis.

Steamships Shipping JVS indicated that Terminal Handling Charges ('THCs') are imposed by terminal operators at each port against handling equipment and maintenance. THCs vary from port to port as the cost of handling at each port differs from one port to another, depending on the total cost of port terminal handling at each port location. Normally, THCs for exports is collected from the cargo-shipper by shipping lines or their agent when releasing the Bill of Lading after completion of export customs clearance procedures. The import terminal handling charges are collected by ocean carriers or their agents at the time of issuing the delivery order to the consignee to take delivery goods. Terminal Handling includes:

1. Receipt and delivery of empty containers and full containers at the terminal as well as all clerical work and reporting associated with delivering and receiving;
2. Inspection and reporting of the condition of containers and completion of interchange receipts;
3. Movement of cargo from/to chassis, barge or wagon to or from stack; and
4. Internal transport of cargo to or from stack from or to shipside.

Steamships Shipping JVS indicated that handling activities do not include the following:

a) Delivery of containers directly from ship hook to the vessel operator's nominated transport contractors outside port area and return of empty container to the
stack including issuing of appropriate documentation. In this case, there is no transfer from ship hook to the quay and from quay to the stack, so this is not a handling service but a cartage service;

b) Delivery of containers direct to the ship’s hook from the vessel operator’s nominated transport contractor which is located outside the port area and return of empty container to stack including issuing of appropriate documentation. This is the reverse activity of that mentioned above; and

c) Cleaning of containers, internally and externally. This is a stevedoring activity.

Steamships Shipping JVS also indicated that handling is charged on a per tonne basis for both containerized and break-bulk cargo. Steamship Shipping JVS suggests that in the case of containers, consideration should be given to a unitized rate per container.

Steamships Shipping JVS indicated that the 2012 actual changes in the handling service charges of the following ports are indicated below:

- Kavieng – increased by 10%
- New Britain Shipping Ltd – increased by 10%
- Madang Ports Services Ltd – increased by 15%
- Lae Ports Services Ltd – increased by 20%
- Oro Port Services Ltd – increased by 10%
- Ports Services Ltd (Port Moresby) – increased by 20%

Discussion

The Commission notes the submissions and request ALSC to submit to the Commission the date of introduction of the charges in Tables 4 and 5. To the extent other stevedores have not submitted or updated their charges, they should do so with dates of introduction, changes and amounts of changes.
### Table 5: Indicates the handling services activities and the date of introduction.

<table>
<thead>
<tr>
<th>Charge</th>
<th>Service</th>
<th>Description</th>
<th>Unit</th>
<th>Definition</th>
<th>Year of Introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling</td>
<td>Handling</td>
<td>Distressed cargo fee</td>
<td>per RT</td>
<td>Cargo that has been subject to fire, water, shifting or other influences that will cause the cargo to be handled in other than the normal efficient manner, shall be subject to special rates (at the discretion of the licensed stevedore).</td>
<td>2013</td>
</tr>
<tr>
<td>Handling</td>
<td>Handling</td>
<td>Dangerous cargo fee</td>
<td>Per unit</td>
<td>Shore handling charges for dangerous, obnoxious and/or hazardous cargo is 200% of the standard charges.</td>
<td>2013</td>
</tr>
<tr>
<td>Handling</td>
<td>Handling</td>
<td>Assistance in starting defect vehicles in marshaling</td>
<td>Per hr</td>
<td>The fee for starting a vehicle in the yard for any other than flat battery. This requires skilled workshop staff</td>
<td>2013</td>
</tr>
<tr>
<td>Handling</td>
<td>Handling</td>
<td>Assistance in starting vehicles due to flat battery</td>
<td>Per Unit</td>
<td>The fee for starting a flat battery</td>
<td>2013</td>
</tr>
<tr>
<td>Handling</td>
<td>Handling</td>
<td>Light vehicle towing charge up to 12cbm</td>
<td>Per RT</td>
<td>Towing of broken down vehicles costs one delay hour</td>
<td>2013</td>
</tr>
<tr>
<td>Handling</td>
<td>Handling</td>
<td>Heavy vehicle towing charge up to 12cbm</td>
<td>Per RT</td>
<td>Towing of broken down vehicles costs one delay hour</td>
<td>2013</td>
</tr>
<tr>
<td>Handling</td>
<td>Handling</td>
<td>Cancellation of labour fee</td>
<td>Per shift</td>
<td>Labour booked and on standby for handling and requester fails to turn up or notify in sufficient time resulting in double labour charges.</td>
<td>July 2010</td>
</tr>
</tbody>
</table>

*Source: ALSC submission, 2013*
3.2.2 Additional Services

As with stevedoring services, stevedores, who are generally providers of handling services, handle different types of cargoes and sizes of containers, in the sense of positioning them in the storage areas between receiving and loading; or unloading and delivery; or transshipment. The Commission became aware that during the previous period additional charges have been applied for handling services which have not been provided to the Commission for monitoring.

The Commission mentioned in the Issues Paper that if it decided to recommend continued application of some form of price regulation, it would be necessary for the Commission to be informed of all handling activities undertaken by stevedores. The Commission also sought to understand why different time slots are provided for overtime receiptival and delivery of cargo. The industry responded through their submissions below.

Submissions

Port Services responded in its submission that there are a range of non-stevedoring, wharfage and handling services provided at the port upon request from the shipping companies. This is particularly true of various services provided for containers. Examples of such services are washing, fumigation and repair. Port Services also indicated that none of the ancillary services need be provided by stevedores and indeed several non-stevedoring firms offer some or all of these services and there are a number of firms, particularly the larger carriers and shipping agents, who could choose to offer them if it seemed a profitable business to enter.

Port Services also indicated that the delivery time is restricted at the port premises which results in congestion on the roads outside the ports. Port Services indicated the time of delivery as 8am – 11:30am and 1.00pm – 4:30pm. Time limitation is a concern as it has a significant cost impact on the stevedoring industry and the users.

Commission’s Findings

The Commission finds that non-stevedoring services, wharfage services and handling services are services provided by handling service providers at the request of shipping companies. However, there are established large and small companies engaged by the shipping companies to provide these services as the demand for these services has increased and this has created an additional business opportunity for the handling agents.

The Commission also noted the Port Services queries with regards to the regulation of services provided by such service providers. The Commission will assess the matter and make appropriate decisions in its final report.
4 THE REGULATORY PROCESS

The Commission may conduct a review of its own volition to consider whether or not a declared good or service should be subject to price control or price monitoring and make appropriate recommendations to the Minister.

In order to determine whether regulation is necessary, the Commission needs to assess the level of competition within the market and determine whether the degree of competition is adequate to ensure that prices are charged at efficient-cost-reflective levels and that service are being delivered at acceptable standards.

The Commission has considered the following issues to determine the competitiveness of the market:

- Degree of competition within the industry;
- Freedom of entry into and exit from the industry;
- Vertical integration;
- Countervailing power of users of the service including shippers, shipping lines and traders;
- Bargaining power of ordinary users;
- Dynamic factors affecting the industry; and
- Degree of competition from other modes of transport.

4.1. RATIONALE OF COMPETITION ANALYSIS

The rationale of competition analysis is to establish whether there is sufficient competition in the market to drive prices towards competitive levels and thereby improve efficiency in the market. If those conditions exist, regulation of prices is unnecessary. Assessment of competition assists the Commission in providing a recommendation to the Minister on the need for, and the form of, price regulation, if needed.

4.1.1 Definition of the relevant market(s)

In the Issues Paper, the Commission indicated its usual approach to the definition of a market in terms of the following:
- the product(s) and service(s);
- the geographic area(s);
- the temporal dimensions;
- the customer profiles; and
- the functional levels, if relevant.

The market is an ‘area of rivalry’, where the supply or acquisition of a product/service is considered in the context of a geographical area, within a time period, usually of about one to two years.

Defining a market is not an end in itself but a means to the end of assessing competition. Market definition becomes necessary to examine the level of competition
in some product or activity, so it is the conduct or activity itself, such as a business acquisition; an agreement between competitors; or the level of charges for the product or service; that is the starting point for consideration, with expansion of the boundaries in the various dimensions, taking account of substitution possibilities in both demand and supply, to establish the degree of constraint to which the parties or products/services, are subject. Substitution possibilities are assessed on the basis of a hypothetical small but significant non-transitory increase in price (‘SSNIP’) being applied. Such an increase can be applied either by a ‘hypothetical monopolist’ or by a number of players theoretically acting in unison (known as the ‘hypothetical monopolist test’ or the ‘SSNIP test’).

It is the likely market reaction to the price effects consequential upon the conduct under review, either in the way of additional suppliers emerging to supply below the new price; or additional quantities supplied by one or more of the existing suppliers below the new price; or customers succeeding in obtaining supply outside the existing group of suppliers below the new price; or outside the existing geographic region of acquisition below the new price; or substituting other products or services for the subject ones at prices effectively below the new price, that determines the effective limits of the various dimensions of the market in a practical sense. Precise ‘white line’ delineations are unrealistic to draw and some blurring at the edges of market boundaries are usual. Essentially, if the SSNIP can be profitably maintained by the hypothetical monopolist (or tight oligopoly) for a sustained period without disproportionate loss of profits, then that, in effect, “defines” the market, recognizing that no sharply drawn boundaries are usually capable of delineation.

Submissions

Port Services Limited and H&E Stevedores Ltd indicated that the stevedoring market in each port is a discrete market due to the geographic situation and lack of inter-modal transportation within PNG. Due to the discrete nature of the stevedoring markets, it is claimed that uncompetitive behavior is quickly realized, information spread through the business community and pressure is applied to the ‘unruly service provider’.

According to ALSC, the structure of the stevedoring industry in PNG provides only an initial indication of the extent of competition in the market. It noted that competition is not a desirable end in its own right. Competitive outcomes are only valued because they are likely to contribute to economic efficiency and, therefore, market outcomes that maximize social welfare. The scale of demand for stevedoring services in PNG is such that only a few stevedoring companies can viably operate in the larger ports. In small ports, the volume of the business is sufficient to support only a single operator. This implies that, relative to the size of the market, ‘economies of scale’ are significant. ALSC also suggested that, to assess the impact of competitive considerations on the actions of stevedores, it is necessary to undertake a more qualitative analysis of competition from direct competitors, countervailing pressure from customers, indirect competition from other markets, and potential entrants.

Steamships Shipping JVS indicated that the market for stevedoring and handling services is limited by the volume of cargo that passes through a port. The volume at the port is limited by the cargo requirements of the population, businesses and [industrial]
structure in the area, as well as by the shipping lines that provide service. The shipping lines select the stevedoring companies that they wish to use, according to the charter parties (Shipping Contracts) that regulate the commercial relationship between shipping industry players and cargo-shippers. Steamships Shipping JVS indicated that stevedoring and handling services are influenced by the growth and economic development of the areas where the port is located.

**Discussion**

The Steamships Shipping JVS submissions about charter parties governing the relationships between the parties, presumably suggesting that stevedoring performance can be thus regulated, is of limited, if any, relevance to the issue at hand and possibly misleading. Charter parties are contracts between the owner of the vessel and the operator of the vessel, which may be a shipping line or commodity exporter wishing to use the entire capacity of the vessel or such a large proportion as economically justifies ‘buying’ the whole space on the vessel. Charters are irrelevant to shippers of general cargo, the area of main concern in the stevedoring and handling markets. Commodity shippers can certainly have countervailing power if their shipments are large enough such as in the mineral ores, petroleum and grain markets, but they are not relevant for the focus of this review.

The fact that charterers can, under charter parties select stevedores makes no difference to the normal situation where ship operators contract with stevedores. The attenuation of the relationship between ship operators and end customers in respect of stevedoring has been discussed elsewhere in this draft report, particularly the lack of incentives for ship operators (including charterers) to limit stevedoring costs in the absence of intense competition in shipping and the lack of contestability in stevedoring.

Markets are defined in competition analysis by their relevance to the particular ‘problem at hand’, as it is often referred to in the industrial organisation literature, being the competition issue being considered.

In the case of stevedoring and handling, the ‘network’ nature of the market and the need for unintegrated shipping companies to have regard to their interests in stevedoring on a national basis, strongly suggests a national geographic dimension is the relevant market characteristic. This issue is examined later in this report. In any case, whether the market is geographically defined as national or port by port, the result in the present analysis is the same.

The Commission notes, moreover, that ‘the pressure’ that is claimed to be generated upon the conduct of an ‘unruly service provider’ cannot be backed up by commercial decisions that penalize the ‘unruly service provider’ by shifting to another provider and any such claimed ‘pressure’ is likely to be ineffective. Ultimately, commercially meaningful sanctions are what matter in markets and competition. Without them, little, if any, incentive exists to change behaviour.

In relation to the submissions by ALSC, raising scale, countervailing power, indirect pressure from other competitors and potential entry as mitigating the consequences of
concentration, the Commission has dealt with these matters elsewhere in this report and, briefly, countervailing pressure is largely non-existent; competition from other modes of transport or inter-port competition is virtually non-existent because of the cost of air transport and the poor quality of road transport; and potential entry is hamstrung by the lack of contestability arising from contractual or vertical integration. As for qualitative analyses, the Commission itself has researched and reported on the coastal shipping and related sectors extensively in the past as has others e.g. Salmon.

The relationship between scale and concentration raised by ALSC and Steamships Shipping JVS has been the subject of substantial consideration in various jurisdictions and markets. While the small size of the hinterland economy for some ports (and resulting small demand for stevedoring services) limits the number of competitors, it is necessary to establish the minimum efficient scale for stevedoring and handling. Historically, the use of ships’ cranes has generally obviated the need for significant investment in stevedoring and handling and the introduction of MHCs and RTGs by PNG Ports avoids large sunk costs for those activities. Furthermore, other submissions suggest that there are no barriers to entry to stevedoring in the ports of PNG. The two positions are mutually exclusive. Ports with demand below minimum efficient scale are argued to have a high economic barrier to entry; but since scale depends on the level of investment required in capital; and there is no indication that such a level of investment that raises scale issues in general cargo ports, arguments that scale is a barrier appear to be irrelevant. For example, successive vessels aggregating to small total port volume, can still be stevedored by different firms in a ‘serial’ sense, without loss of efficiency due to small overall volume.

If the stevedoring and handling markets are characterized by significant economies of scale, which is by no means generally accepted as being the case in general cargo stevedoring in PNG, any benefits are likely to be transient and quickly appropriated by management and labour.\(^8\) See Williamson’s Trade-off Model overleaf.

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Chart 2: WILLIAMSON’S TRADE OFF MODEL

Pm = Price under monopoly (or highly concentrated market structure)
Pc = Price under competition
Qm = Quantity of output under monopoly (or highly concentrated market structure)
Qc = Quantity of output under competitive conditions
ACm = Average cost under monopoly (or highly concentrated market structure)
ACc = Average cost under competitive conditions

Commission’s Findings

While the Commission receives and considers submissions as part of the consultative process in its consideration of various matters, those submissions do not, on their own, however, necessarily determine the outcome, in this case, market definition. Furthermore, markets can, and often do, overlap. Finally, market definition is neither an end in itself, nor carried out in a vacuum. Its purposive nature is of the utmost
importance. Markets are defined for the purpose of assessing competition and that is
governed by the ‘problem at hand’ which prompts the need for market definition in the
context of the particular problem. The definition, under the purposive principle, will be
governed by the criterion whether the ‘problem at hand’ is related to the demand or
supply side of the equation, or both, and the significance for definition of supply or
demand side factors, for that problem.

An individual seeking to purchase groceries is largely limited, in terms of the options
available, to the number of grocery outlets within convenient proximity for consumer purchases of groceries.

On the other hand, the issues affecting supply side aspects may be completely
different. In the case of banking, examining competition in the sector often requires an
examination of various supply side factors, which may well have an effect on the
charges and service levels to a range of customer types nationwide. Some relevant
factors include nation-wide criteria, such as regulation, barriers to entry, patterns of
strategic behaviour of existing competitors such as ‘bundling’ and loyalty incentives,
which heighten barriers to entry, economies of scale and scope, etc. All of those,
consequently, have effects on competition at the national and, consequently, at the
local level for entry, charges, service levels and consumer choice.

Entry into stevedoring, while theoretically possible in an individual port, may well be
limited by vertical integration issues, ‘network’ or national considerations by
unintegrated shipping companies, direct or indirect horizontal connections, strategic
behaviour by existing participants, including landowner shareholders of current players
equal. Demonstrations and threats by landowner partners in stevedoring joint ventures at
the port of Lae at the potential entry by Patricks is an example. Direct and indirect links,
whether by ownership or otherwise, between shipping companies and stevedores and
between stevedores themselves, may also be a relevant significant factor, in that
stevedoring contracts may well encompass the bundle of ports in a country, for
transactional efficiencies and scale and scope economies and, from the stevedoring
company’s strategic perspective, to ‘lock out’ new entry.

Furthermore, economies of scope are recognized as significant economic barriers to
entry. Existing stevedores are best placed to expand into ports in which they do not
operate. For such types of reasons, the Commission considers that, demand and supply
side substitutability factors dictate that a national market for stevedoring be
considered.

The potential for strategic behaviour by stevedores, who are also the handlers of cargo,
in relation to both end users, as well as ‘arm’s length’ ship-operators who have no
economic interest in the stevedoring group, brings into sharp focus the need to
consider a national geographic dimension of the market for stevedoring and handling,
because of their relevance for the basis of price regulation, namely, the potential to
‘give less and charge more’ and for raising prices without ‘much of a reaction’.\footnote{See Report of the U.S National Committee to Inquire into the Anti-trust Laws: 1956.}
Due to the network aspects which govern negotiating arrangements between shipping companies and stevedores, it is the national dimension of the market that ultimately influences entry conditions at the individual port level, but that does not mean that an individual ports constitutes the relevant market for the purpose of this assessment of competition in stevedoring and handling at the country-wide level.

The Commission finds, therefore, that the discontinuities of land transport, high cost of air transport, economies of scope, vertical ownership links between shipping companies and stevedores, indirect ownership links between some stevedores, ‘network’ features of the market, lack of effective bargaining power on the acquisition side in the commercial relationships between ‘arm’s length’ shipping companies and vertically integrated stevedores (which suggest an economic incentive for dealing with the same stevedoring group nationally), require that a national market for stevedoring be defined for stevedoring and handling.

Because of the above considerations, the Commission considers that entry into the national stevedoring and handling markets is significantly constrained, with performance consequences for individual ports in the way of prices and service standards.

The question for price regulation is whether there is a need for price regulation and, if so, the form such regulation should take - ‘the problem at hand’ used generally by industrial organisation economic analysts. The factors that affect such assessment apply, no matter which geographic dimension is adopted. Hence the geographic dimension of market definition does not loom large for price regulation in this case, which is governed more by the absence of contestability and bargaining power between (a) shipping companies and stevedores; and (b) end users and the stevedoring and handling companies, who are contracted by shipping companies, hence preventing end users from exerting direct price pressure on stevedores.

The Commission, therefore, will assess competition in stevedoring and handling on a national basis, in any new price regulation arrangements that it considers necessary or appropriate to recommend, while also considering the benefits in individual ports that price regulation can bring.

### 4.2 DEGREE OF COMPETITION WITHIN THE INDUSTRY

#### 4.2.1. Market concentration

Establishing market concentration requires estimation of the number and size distribution of stevedores in the market. A high level of concentration is a necessary, but not a sufficient condition for market power. Other factors, many of them listed in Section 69 (5) of the ICCC Act, contribute to an assessment of the level of competition. Hence, concentration is a starting point for the assessment of the degree of competition by assessing the possibility for the exercise of unilateral or coordinated market power, which is the anti-thesis of competition.

The mostly commonly used measures used to assess concentration are the Herfindal Hirschman Index (HHI) and concentration ratios.
The Herfindahl Hirschman Index (HHI) measures the level of competition that exists within a market or industry and it gives an indication of how the distribution of market share occurs across the companies included in the index. It is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. The closer a market is to being a monopoly, the higher the market's concentration and the lower the intensity of competition.

The key advantage of the HHI is that it does not only show the aggregate level of concentration, but reflects the relative size distribution of the leading firms, which is an important indicator of the likely existence of unilateral or coordinated market power. When the HHI value is less than 100, the market is highly competitive, and when the HHI value is between 100 and 1,000, the market is said to be not concentrated. When the HHI value is between 1,000 and 1,800, the market is said to be moderately concentrated. When the HHI value is above 1,800, the market is said to be highly concentrated.

A concentration ratio is the total market share of the top k firms, where k is normally taken to be 4, 5 or 8, i.e.: CR4, CR5 or CR8. This is normally expressed as a percentage of the market as a whole. Concentration ratios, especially the CR4, are designed to measure industry concentration, and by inference, the degree of market control and range from a low of 0 percent to a high of 100 percent. At the low end, a 0 percent concentration ratio indicates an extremely competitive market. At the high end, a 100 percent concentration ratio means an extremely concentrated oligopoly. Between these two extremes, concentration ratios can fall into low, medium, and high concentration.

Concentration measures take account of economically independent groups, not legally separate entities. Hence, a full picture of economic linkages either through ownership, or contractual ties or other economic interests, is necessary to properly calculate concentration measures. The Commission has not received complete information in submissions which enable it to make such calculations.

The ownership linkages provided by Steamships Shipping JVS, referred to earlier, suggest that the markets operate mostly as concentrated markets do, in terms of efficiency characteristics.10

As discussed elsewhere in this report, proposed revisions by PNG Ports to tariff structures do not in the Commission’s view, effectively address the lack of incentives for efficiency.

**Submissions**

The annual volume of contestable domestic and international cargoes, among a range of factors in each port, influences the number and size distribution of stevedores in the market and entry conditions.

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10 See, for example, the work of Prof Leonard Weiss, of the University of Wisconsin.
Steamships Shipping JVS submitted to the Commission its revenue tonnages for both international and domestic cargo by declared ports, these revenue tonnages are presented in Chart 3 below.

Chart 3: Indicates JV Stevedoring domestic and international cargo revenue tonnes in each declared port

![Chart 3](image)

Source: JV Stevedoring submission 2013

CEL indicated that stevedoring demand is a derived demand. Demand is derived from the demand for shipping services at the port. Throughput and the number of cargo types at the port and the number of competing shipping companies will determine the number of stevedoring companies.

CEL submitted that it does not have any statistics that allow the calculation of its market share at the ports in which they operate. However, CEL provided the table of domestic & overseas cargo revenue tonnes as indicated in the Chart 4 below:

Chart 4: CEL domestic and international cargo revenue tonnes in each declared port

![Chart 4](image)

Source: CEL submission, 2013

Discussion

As all industry participants did not provide their respective throughput data to the Commission, it is unable to calculate either the HHI or the CR for the stevedoring and handling markets.
Commissions’ Findings

Steamships Shipping JVS and CEL submitted their revenue tonnes for international and domestic ports in PNG. The Commission requests other stevedores to provide the revenue tonnes in submissions on this draft report, in order to allow it to determine the market concentration in each port.

The information provided by the largest stevedoring providers, however, do allow the Commission to form the preliminary conclusion that concentration crosses all recognized international markers for the possible exercise of unilateral or co-ordinated market power, particularly in the context of the level of prices and the standards of services provided and the capability to prevent or deter entry.

4.2.2. Level of competition in stevedoring

Steamships Shipping JVS submitted that the competition to provide stevedoring services only exists in PNG Ports controlled facilities. In private facilities such as the Bismark facilities in Lae or the Curtin Bros facilities at Motukea facilities near Port Moresby, all stevedoring activities are fully controlled by the private entities that own the facilities. Steamships Shipping JVS understood that the private entities do not allow competition at those ports. In the event, those facilities and their stevedoring companies do “compete” with the entities at the PNG Ports facilities. Steamships Shipping JVS considers that additional charges made by PNG Ports and other third parties do decrease the level of competitiveness between the stevedores operating in PNG Ports facilities and those operating in non-PNG Ports facilities.

Discussion

The stevedores argue that they are in indirect competition with vertically integrated port facilities such as Motukea, Steamships and Bismark facilities in Port Moresby to the extent the ship-operators find it more efficient or less costly to use facilities other than PNG Ports facilities. There are, however, some significant qualifications to that proposition. First, Bismark and Steamships only serve their own shipping operations rather than the wider shipping market. Secondly, as explained at length in the Commission’s Report on its Review of Competition, in response to PNG Ports request under its Regulatory Contract for such a review, the throughput at Motukea is relatively small and, in terms of market share, does not exert an appreciable competitive constraint on the trade through PNG Ports facilities in Port Moresby, nor are they likely to do so in the time span which usually frames competition assessment. Consequently, such vertically integrated operations do not significantly affect competition in stevedoring and handling.

A further consideration is the fact that stevedoring and handling in these ‘private ports’ form part of an overall ‘bundle’ of services to consignors and consignees, which, relevantly, includes shipping. Furthermore, neither the independent shipping company nor the exporter has countervailing power and that makes the stevedoring market uncontestable. Because of the lack of contestability in stevedoring of general cargo, price regulation is appropriate.
Although consignors and consignees are more concerned with the end shipping costs, including stevedoring, handling, port charges, etc., the features of the shipping markets (coastal and international), including the degree of concentration, vertical and economic relationships between the largest shipping companies and the largest stevedores and barriers to entry to those shipping and stevedoring/handling markets, mean that the ‘full-line ocean transport’ (shipping-cum-stevedoring-cum-handling) operators have no incentive to provide workable competition in either shipping or stevedoring and handling markets.

A further factor is that Motukea largely provides services to vessels servicing the PNG LNG project and is not a viable choice for that and other reasons, for cargo-shippers and consignees of general containerized or break-bulk cargo.

The submission by Steamships Shipping JVS that third party charges by PNG Ports and others reduce competitiveness between the stevedores is a curious one, not sustainable by economic analysis. Stevedoring charges are a component of total charges, while the total charges are of relevance to the end-user, stevedoring is also a separate service market, which, if competitive, would result in efficient stevedoring prices and services standards, also reducing total ‘effective’ costs. There is no link between third party charges and stevedoring competition. The total charges, in so far as they are affected by any component, affects the competitiveness of exporters and importers, not that of competing participants in their relevant separate markets which form links in the total logistical chain.

In combination, the above factors render it necessary to closely examine the performance of stevedoring/handling providers in terms of prices, service standards and overall efficiency of service provision in the respective ports in which they operate.

4.3. BARRIERS TO ENTRY, EXPANSION AND EXIT

In describing the factors to which regard must be had in assessing competition, the Trade Practices Tribunal, as it was then known¹¹, said in re: QCMA, after listing the various factors similar to those in Section 69(5) of the ICCC Act; “of all these, the most important is [2]; the condition of entry.”

The Commission assesses the competitive state of a market on the basis of a range of factors. Concentration is a starting point because it is a necessary condition for the exercise of unilateral or co-ordinated market power. However, the existence of a high level of concentration is not a sufficient condition. Following the principle in re: QCMA, which are accepted by regulators in many countries, barriers to entry are significant in an assessment whether the market is competitive or not. The ability of new competitors to freely enter or exit the market depends on the degree of market contestability. In these circumstances an incumbent monopoly operator or the few players in a highly concentrated market may well be able to engage in predatory pricing or other types of predatory or strategic conduct and thereby discourage new entrants from actually entering the market.

¹¹ In re: Queensland Co-operative Milling Association and Defiance Milling Ltd. (Proposed merger with Barnes Milling Ltd) (1976) ATPR40-012, cited from Pacli case download
Ease of entry into and exit from the market depends upon the types of barriers to entry and exit, which either prevent or restrict potential entrants from entering the market to compete with the incumbents. Barriers to market entry can either be:

- Natural or intrinsic; or
- Regulatory.

### 4.3.1 Natural or intrinsic barriers to entry

Natural or intrinsic barriers to entry are the unavoidable costs that a firm would need to incur when entering the market. For a new entrant to enter the stevedoring market, the costs of entry may involve:

- Purchase of plant, equipment and vehicles;
- Stevedoring licenses fees;
- Office set-up costs;
- Legal and insurance fees;
- Labour recruitment including training; and
- Access to the wharf facilities, including storage areas.

The extent to which unavoidable costs can become a barrier to entry depends on how much of the costs are sunk costs. Sunk costs are the costs which cannot be recovered if a stevedore ceases operation even in the long run. This includes the unamortised purchasing costs of stevedoring and handling equipment. Sunk costs can also act as a barrier to entry by deterring potential entrants by raising the costs of exiting the market.

**Submissions**

ALSC indicated that the sunk costs in the PNG context are not substantial. The Commission also notes that to establish a stevedoring business in PNG, does not require the high cost of purchasing heavy cranes and specialized container lifting equipment which is permanently standing at the wharf. Indeed, the pattern in PNG has been for the use of on-ship loading and unloading equipment, with the stevedores simply providing labour, forklifts, trailers and tractors to move containers around the port area. This is a relatively low cost arrangement by comparison to the type of lifting equipment used in many overseas main ports. Currently, in the largest ports, PNG Ports has introduced MHCs and RTGs, with no charge to stevedores.

H&E Stevedores Ltd indicated that the most significant barriers to entry are the high costs of providing the range of equipment required to efficiently conduct stevedoring operations. However, in major ports like Kiunga and Kimbe there may be large equipment required to service heavy and difficult cargoes required for economic projects around the areas. Cargoes weighing 50 or more tonnes are common in those ports. As such stevedores providing stevedoring services have high costs of providing the range of stevedoring equipment to efficiently provide the services.
Discussion

ALSC and H&E Stevedores Limited submissions have a basis only in some very limited circumstances. While it is true that, in most general cargo ports in PNG, ships’ gear are used (and PNG Ports has now provided MHCs and RTGs at no cost), in those ports handling relatively heavy cargo, such as Kiunga and Kimbe, large and expensive lifting equipment is necessary. Hence, while no generalization is made in terms of sunk costs in all ports, to the extent relevant to stevedoring and handling general cargo, which is overwhelmingly containerized, there appears to be little basis for claiming high sunk costs.

With the introduction of MHCs and RTGs by PNG Ports, while the functions of stevedoring and handling of containerised cargo generally involve significant sunk costs in ports around the world, those may well be borne by the port, at least initially, with possible later cost recovery through rental or usage charges. That does not constitute sunk costs for stevedoring and handling service providers. While that may be argued to reduce entry barriers, the use of MHCs and RTGs is yet to be formalized and publicised so that potential new entrants can take that into account in assessing their prospects of viable entry. Clearly, significant new entry has not occurred over a considerable period and that suggests that whatever barriers exist, they are high and have effectively limited entry.

4.3.2. Regulatory barriers to entry

Potential stevedores who wish to provide stevedoring services at the port need to obtain licenses from PNG Ports. PNG Ports provides licences to firms that apply to undertake stevedoring and handling activities, on behalf of the Department of Transport. In PNG there appears to be relatively ‘free’ entry in terms of the process of obtaining a license to set-up as a stevedore. The Commission understands that the cost of obtaining a stevedoring license is K5,000.00 and the license is valid for a period of 5 years although reviewed annually. There is no quota on the number of licenses issued at each port.

Submissions

Steamships Shipping JVS submits that regulatory barriers are not significant. As in all countries, there are processes to be followed in order to obtain the licenses to provide stevedoring services.

CEL indicated that there are no barriers to entry. While a license issued by PNG Ports is required, there are no restrictions on the number of license issued. Licenses are not used to limit entry but as a means of enforcing other regulations.

Discussion

The Commission considers that the capacity of port facilities for loading and unloading vessels at any declared port may be somewhat of a constraint on the number of stevedores able to compete in each of the declared ports, but not the only constraint.
The Commission understands that landowner companies who are shareholders in stevedores appear to strongly resist new entry as in the case of Ahi and Labu village landowners of Lae port. If that is so, that may well constitute a breach of the ICCC Act, although the matter has not been investigated to establish whether relevant evidence exists and no view has been formed by the Commission on the point. The point is that behavioural barriers whether by landowner companies in JVs or by conduct of the stevedores and ship-operators themselves, are far more important and constitute significant constraints.

The above submissions, while they are accurate as far as they go, ignore the reality that landowner objections to new stevedoring licences are a de facto barrier. This was brought into sharp focus during the demonstrations by landowners to the proposed introduction of Patricks Stevedores into the port of Lae, as mentioned above.

Extensive press and electronic media coverage of demonstrations by landowner groups in Lae, against proposals for Patricks Stevedores to enter that port, contradicts the suggestion that landowner opposition to entry is not a barrier to entry. Those protests raised the stakes in the confrontation to a level that required the intervention of the Independent Public Business Corporation, the holder of the Government’s share in PNG Ports, to step in to achieve a temporary resolution of the matter to lift the stoppage of work in Lae Port, but the problem is far from resolve in a substantive sense.

4.3.3. Other barriers to entry

There are other barriers to deter entry of potential stevedores. The submissions by the participants in the industry detailed their views on the nature and significance of different barriers in the case of PNG.

Submissions

Landowner Participation

With regards to the issue of the impact of land owner participation, H&E Stevedores Limited commented in its submission that landowners are not barriers to entry. As long as the applicant complies with all requirements to provide stevedoring services, a stevedoring license will be provided as in the case in Port Moresby port.

Steamships Shipping JVS shared its experience of working in partnership with landowner groups - a success for many years. Steamship Shipping JVS indicated that the joint venture partnership structure was formulated partly as a response to changes in the legislation. This previous legislation required that any company, particularly foreign companies, wishing to operate a stevedoring business must have a 51% local shareholding. Steamships Shipping JVS noted that this legislation has proven that local landowner participation is an excellent element for the company and the community in which the port is situated. Steamships Shipping JVS stated that these joint ventures not only provide employment amongst the landowner villages but may also distribute dividends to those landowner groups.
However, Steamships Shipping JVS indicated that the legislation has changed and now allows for 100% foreign ownership. Nevertheless, ALSC and Steamships Shipping JVS mentioned that PNG Ports has implemented a policy requirement of a minimum local ownership criterion of 25%. Since the establishment of this policy, Steamships Shipping JVS requested for the relevant policy document from PNG Ports, however, the document has not been provided to them. Steamships Shipping JVS indicated that new stevedores must comply with this policy and therefore must enter into a joint venture with relevant landowners.

According to ALSC, the concept of joint ventures does not constitute a barrier to entry as it would be possible to find a local joint venture partner. The ALSC suggested that if the Commission did consider this as a deterrent to entry, the efficient policy solution would be to seek the removal of the restriction on company structures rather than to control stevedoring prices.

CEL submitted that land owners in general and particularly in the Highlands have been compensated in many ways particularly around the LNG project, including seed capital to set up land owner companies.

CEL noted that landowners on the Coast have not seen this level of support by Government. It submitted that that those landowners involved in stevedoring have to obtain commercial loans to take up their equity. Therefore, landowners are of the opinion it is their right to be involved in stevedoring. However they further noted that management still has the right to hire and fire.

**Long term Contracts**

Entry into the stevedoring market is dependent on shipping lines entering into long term contracts with the relevant stevedoring companies as indicated by Steamships Shipping JVS. They also suggested that if the shipping line company decides to start a new entity to provide stevedoring services to its trade as long as all licenses for this operation are obtained, there are no barriers to entry of a new stevedoring and handling entity. For example, if a new shipping line decides to start a new line service to PNG, and does not wish to use the services of the existing stevedores, it could follow the application process for licensing to setup a new stevedoring entity to service its needs.

ALSC submitted that long term contracts can prevent entry into stevedoring. However ALSC also noted that existing contracts do not preclude shipping companies from changing suppliers in relatively short periods, through means such as contract buy outs.

Term contracts are of value to both the lines and the stevedores. It sets benchmarks for the stevedore to achieve to meet the line’s requirements and provides penalties for failure and from the stevedore’s perspective it underwrites the large investment in equipment by guaranteeing utilisation.

**High Capital Costs**

The ALSC indicated that a single firm or a duopoly (two firms) does not necessarily result in monopoly pricing and economic inefficiency provided that the market is
contestable. ALSC submitted that the markets are contestable if potential firms can enter rapidly if prices rise above costs. Industries with a few firms can be very competitive if there is a threat by other firms in the industry. If a market is contestable, the market outcome is similar to that of a competitive market. Contestability requires the absence of barriers to entry and exit. There is a need to distinguish between the costs of entry and barriers to entry. Entry into stevedoring is costly and it takes some time to enter such a market as it takes time and involves costs to obtain the required shipping company business.

ALSC summarized their concerns to barriers to entry as:
- Neither economies of scale nor high capital costs are a barrier to entry and in any case capital outlays associated with establishing a stevedoring operation are relatively modest;
- There are no contracts between stevedores and port authorities that deny access to ports to entrants and there are no restrictions on the number of licenses granted;
- Long term contracts can prevent entry into stevedoring, although existing contracts do not preclude shipping companies from changing suppliers in relatively short periods of time, including perhaps by ‘buying’ their way out of contracts that turn out to be unduly burdensome; and
- Vertical integration between shipping companies and stevedores can in principle restrict the ability of independent stevedores to obtain access to cargoes but this is not the case in PNG.

**Discussion**

The above submissions have not sufficiently taken into account the barriers imposed by landowner resistance to new entry (discussed earlier) and assert that vertical integration between shipping companies and stevedores does not restrict the ability of independent stevedores to enter the market, without providing evidence to support that view.

The submission by Steamships Shipping JVS that removing restrictions on ownership structures would enhance competition does not appear to be supported by any rational hypothesis. If market factors such as vertical and horizontal links are significant and other barriers exist, removing landowner participation restrictions would not, or itself, be likely to increase competition.

The Commission finds that most industry participants indicated that there are no barriers to entry and that regulatory barriers to entry in terms of licensing have a legitimate purpose to enforce other regulations. The Commission, however sees a contradiction in that PNG Ports has established a policy which requires a new entrant to have 25% landowner shareholding in the joint venture business and the claim that no restrictions exist on the issuing of licenses to any new and potential stevedores.

The Commission finds that landowner behaviour constitutes a significant barrier to entry as in the case of Patrick Stevedores Limited where landowners (Ahi and Labu) demonstration appears to have prevented consideration of the grant of a licence in that case and, consequently, the possibility of its entry.
The Commission finds, based on the submissions it received, that there has been, and continues to be, vertical integration between shipping lines and stevedores through significant shareholdings and contractual agreements which is highly likely to have also restricted entry. In order for the stevedores to operate, customer availability is important. Such access to customers is hindered with vertical or contractual integration and long standing commercial relationships.

In addition, long-term contracts between shipping and stevedoring companies does have a dampening effect on competition, and the exit barriers through having to “buy out” the remaining contract where a shipping customer is unhappy with the service provided or relative level of stevedoring or handling cost, does dampen the opportunity for new entry. These issues can be seen as a collectively forming extremely high barriers to new entry.

The Commission finds that there is no legal limitation on the number of licenses and the licences are non-transferable. However, licenses are issued for only three years at a time, have no automatic right of renewal and ‘de facto regulation' apparently ‘beyond power' in the form of PNG Ports requiring a given level of landowner shareholding participation, imposes unnecessary conditions for prospective entrants.

The Commission finds that substantial vertical integration is observable from the submission by Steamships Shipping JVS and that creates a significant disincentive to entry.

The ALSC submission ignores two significant points:

- First, in ports predominantly handling general cargo, such cargo is mostly transferred by ships’ gear from ship to the quay. Clearly, some equipment such as forklifts and tractors are necessary for handling within the yard, but investment in equipment is not substantial in relative terms, that is to say, in relation to revenue gained. Since PNG Ports has invested in MHCs and RTGs, that is not an investment by stevedores.

- Secondly, while long term contracts are valuable to both lines and stevedores, they prevent, or at least inhibit, other stevedores from contesting for customers for the duration of such contracts.

On the issue of the level of sunk costs, the submitters themselves disagree, with ALSC submitting they are not high but H & E Stevedores submitting they are high. While, Steamships Shipping JVS indicated in their submission to the Issues Paper that the main barrier to entry of new stevedoring services is having the shipping lines as a customer, another submission claims that contracts are contestable. If there are no new shipping lines calling to a port or if there is, and the shipping line opts for an existing stevedoring company, then there will presumably be no customer requirement for a new entrant to supply services for the duration of existing contracts. The ‘serial' nature of such contracts limits the scope for entry on a significant national scale, which would be necessary to overcome the ‘relational' barriers outlined earlier.
4.3.4. Ability of existing stevedores to engage in anti-competitive behaviour

Submissions

As noted above, Steamships Shipping JVS submitted that the entry into the stevedoring market is limited by shipping lines in two ways. Firstly, the preferences or choices of shipping lines towards a stevedoring entity that will provide the service and secondly, the initial capital investment required by the new entity. If the shipping company decides to start a new entity that will provide stevedoring services to its trade and as long as all licenses for this operation are obtained, there are no barriers to entry of a new stevedoring and handling entity. For example, if a new shipping line decides to start a new line service to PNG, and does not wish to use the services of the existing stevedores, it could follow the application for licensing process to setup a new stevedoring entity to service its needs.

Steamships Shipping JVS submitted that PNG Ports issues stevedoring licenses and there are no restrictions on the number of licenses issued. However, in order to operate, stevedore requires a contract with a shipping company. Without a contract with a shipping company, the stevedore cannot operate as a business.

Discussion

The difficulty of access to shipping lines as customers is the main barrier to entry. A significant constraint on access to shipping lines for stevedoring contracts is the very high degree of vertical integration between stevedores, on the one hand, and coastal shipping lines, on the other, in addition to some integration with international shipping lines as well as effective horizontal linkages between stevedores, which create structures which hamper effective or workable competition and lead to a lack of biddable demand for new entry.

The level of investment is irrelevant unless a significant proportion of it is unrecoverable on exit - the concept of 'sunk costs'. In practice, for general cargo stevedoring and handling, a significant level of investment by stevedores is not considered necessary.

4.3.5. Capacity of port facilities

Submissions

ALSC indicated that a stevedoring operation requires access to a berth and to land at the port for storage of containers and other cargo. In support of this, many port authorities around the world established long – term contracts with stevedores. In this case, arguably, the solution may lie in encouraging the ports authority to provide land for new entrants and to develop access arrangements that are consistent with competitive outcomes. ALSC indicated however, that access to the port is not a major consideration in PNG since there are no long term contracts between stevedores and PNG Ports that confer exclusive rights to berths or to port land and facilities.
Steamships Shipping JVS indicated that the capacity and facilities of each port generally set the limits for potential stevedores to enter the market, although the entry of new stevedores will presumably be affected by the volume of cargoes (scale issue) and whether it would be profitable for a new stevedore to enter a particular port. Currently, it is considered that there is not enough volume in the smaller ports to effectively sustain the operations of two stevedoring companies. Even if there is enough demand, the choice of stevedoring companies is determined by the shipping companies and not the consignees or consignors.

CEL indicated that the capacity of port facilities does not have a bearing on the number of stevedores. That is, the lack of cargo movement efficiency delays ships and the small number of berths limit availability of ships for stevedoring at any one time.

4.3.6. The costs structure to establish a stevedoring & handling business

Submissions

The cost structure of establishing and operating a stevedoring and handling business influences charges. The submissions by the industry participants indicate the determinants of the type of costs involved. They are:

Significance of the volume of throughput at a port

This issue has been discussed above. The Commission considers that the volume of throughput at a port can, but not necessarily does, influence the economies of scale. To establish the connection between volume and economies of scale, the minimum efficient scale needs to be determined. In the PNG context, where stevedores do not make the significant investments that they do in many other countries, there appears to be little capital investment by them that increases sunk cost significantly. The wharf; hard stand storage areas; and now MHCs and RTGs, are provided by PNG Ports; and ships cranes were previously used for the ship/wharf cargo transfer. In terms of sunk costs, the above suggests a low barrier to entry. The number of competing shipping companies calling at a port would, in a competitive market, determine the number of stevedores providing the services, but in PNG, the vertical and consequential horizontal linkages limit entry, as discussed above.

The volume of trade may determine whether a new entrant will be incentivized to provide stevedoring and handling services in a port. In many PNG ports, the volume of cargo is not enough to sustain a company to be commercially viable. If economies of scale apply, that would influence the number of competitors. Larger scale justifies greater capital investment and increases sunk costs and, in theory, productivity. However, there are two important exceptions. First, because of the vertical and consequential horizontal linkages, the benefits are likely to accrue only to related shipping lines, with unintegrated shipping lines experiencing the results of incentives against efficient, lowest cost service. Secondly, the Williamson Trade-off Model (reproduced earlier in this paper) shows that greater efficiency does not necessarily lead to lower prices if the supply market is concentrated and other entry barriers exist. As Williamson and the United States Committee to Inquire into the Anti-trust laws (1956) concluded, not only are productive efficiencies garnered and appropriated by the
monopolist (or the oligopolists in a concentrated market) rather than passed on to competitors, as they would be in competitive markets, but they are also transient, being appropriated over time by management and labour or dissipated in inefficiencies because of the lack of dynamic competition, thereby leading to loss of allocative and dynamic efficiency.

4.3.7. Availability & Contestability of Customers

H&E Stevedores Ltd indicated that due to limited customers available the shipping lines enter into term contracts with the stevedores. During that contractual period the shipping lines are tied to their respective contracted stevedores that make it uncontestable. However, the other participants indicate that due to continued economic development in and around the ports, the availability of customers will increase and will have consequent impact on the port throughput. As throughput increases, the number of competing shipping services and the capacity for competing stevedoring companies to enter will increase. H&E Stevedores Ltd indicated that since all cargoes are carried into and out of PNG by shipping lines there are a few opportunities for a non-established stevedore to secure a vessel to work.

The Commission suggests that the thrust of this submission is unclear. In most countries, cargoes are carried by shipping lines. The lack of opportunities for a non-established stevedore to secure business should not be the result of shipping lines carrying cargoes. Perhaps the argument is one of limited total demand, which has been dealt with extensively earlier in this report.

The Commission considers, furthermore, that the predictions of growth are not framed within a time scale. Hence, while there may be growth, its extent and timing are problematical. If growth is argued to create the dynamics for competitive entry, the other factors discussed above, such as vertical integration and other relationships between shipping companies and stevedores, are highly relevant in terms of barriers to entry.

Finally, while stevedores enter into term contracts with shipping lines to ensure continuity of business, such contracts may well lessen competition, by excluding new entrants from the business of shipping lines currently serving the market. Term contracts, therefore, operate in conjunction with vertical and horizontal linkages to exclude entry, except at the termination of a contract, which usually occur at different times for different lines in different ports.

The competition issue is exacerbated by the need to enter into national contracts for those lines serving more than one port. In coastal shipping, to gain customers, it is necessary to offer a national shipping service.

Availability and contestability of customers can be viewed from different perspectives. Stevedores’ customers are the shipping lines that call into a port. If the cargo requirements in a port are limited, then it is highly likely that there would be only a limited number of vessels calling at that port. However, if little sunk cost is involved and scale is largely irrelevant, then there are low economic barriers to entry, allowing new stevedores to contest the market, at the conclusion of a contract, even if one shipping
line is involved. For reasons of vertical and horizontal relationships and national strategic considerations explained earlier, however, that is unlikely to occur.

4.4. DEGREE OF COUNTERVAILING POWER

Countervailing power is defined as the ability of one or more buyers to constrain supplier(s) from increasing prices with threats of bypass, meaning entry by the customer or ‘contracted’ entry by another supplier not previously supplying the market. In most cases, only large customers have countervailing power. That is the reason customer profiles are significant both to defining the market and to assessing the level of competition.

In terms of the market for stevedoring and handling service, buyers (users)\textsuperscript{12} who ship cargoes on an ad-hoc basis as and when need arises, or regularly, but not of such value or volume that justifies bypass, do not have countervailing power. Those who may have a degree of countervailing power are those that ship cargoes on a regular basis as part of their business operations, in such volume or of such value to an individual shipping line, that it creates a credible threat of bypass in stevedoring and handling. These consignors are likely to be the extractive industry project owners (for minerals, petroleum, and natural gas), rather than those who ship a variety of general cargo. Therefore, the issue to consider is whether one or more of these consignors are able to constrain a stevedoring company from increasing its prices with threats of bypassing it and entering the market itself or ‘contracting’ new entry by using services from stevedoring companies it introduces by agreement, into the market. Such circumstances, are not present in general cargo stevedoring and handling markets for containers and break-bulk cargoes because consignors lack the necessary scale and frequency to credibly threaten to instigate their own substitutes.

It is a curious feature of stevedoring that the customer is the ship-operator, who, while initially paying for the service, is not the end customer who bears the economic cost of the service, because ship-operators can and do pass on the cost of stevedoring to consignors or consignees, the ‘end-customers’, in their invoices for the service of carrying the cargo by sea. End customers cannot bargain about the costs of stevedoring or handling, because they will not receive the bill of lading, which is effectively the ‘title document’ to the goods until the freight is paid in full, including stevedoring and handling charges. Hence, the normal bargaining process, and market constraint, does not apply, because the end customer does not have a legal ‘buyer’ relationship with the service provider, being the stevedoring company.

In some cases, such as Bismark, the shipping company also stevedores its own vessels and no separate charge is made for stevedoring.

For end-users, the key issue is the total cost of shipping their cargo, including freight, add-ons such as bunkers, currency adjustment factor; stevedoring etc. If shipping companies are not able to contain stevedoring and handling costs, that suggests that the stevedoring and handling markets are not contestable. The ability of vertically and effectively horizontally connected stevedores and shipping companies with significant

\textsuperscript{12} Are consignees or consignors who require the use of stevedoring and handling services
ownership of stevedores to impose further add on charges such as equipment handling charges (EHCs), port congestion surcharges and, for coastal carriage, currency adjustment factors where there appears to be little justification.\textsuperscript{13} is a pointer to inadequate competition in stevedoring and handling.

**Submissions**

Steamships Shipping JVS indicated that in most cases, a shipping line operates voyages if it has a liner trade with cargo being booked by a large number of different cargo-shippers and destined to a large number of consignees. The choice of stevedoring services is decided by the shipping line. If a vessel is on charter\textsuperscript{14}, then again the choice of stevedoring services remains with the shipping line or charterer depending on the terms of the charter [presumably meaning whether a ‘wet’; ‘voyage’ ‘time’ or ‘bareboat’ charter, each relevant to the incentives and possibility of separating stevedoring and handling from the hire of the vessel].

The Commission considers that, although it is possible for the charterer to organise its own stevedore, in most cases, where individual consignors ship cargo, there is no ability to bypass a stevedore if the costs are excessive, because of the lack of a contractual relationship with it. The charterer of a container or general cargo vessel generally stands in the place of the owner, with little scope to overcome the problem of the cargo-shipper’s inability to choose a stevedore. Where extractive industry consignors or consignees are involved, they may charter vessels and thus choose the stevedoring and handling provider, but that type of stevedoring and handling is not the subject of this inquiry. Hence, charters do not affect the competitive context of stevedoring and handling in PNG.

CEL indicated that using ship’s crew to load and unload vessels is not viable. Unloading and loading ships requires shore side management, manpower and equipment. In very small ports, ship’s crew may perform stevedoring tasks – but this is generally only where volumes are very small and shore side equipment is not required. The number of crew on board is limited and unable to work extended shifts, which would ultimately compromise the safety of the vessel.

Effective bypass is not likely to occur as the shipping lines are the entities that select the stevedoring companies to provide stevedoring services. To change this approach requires shipping lines to agree to end their partnership with the stevedoring company that provide services to them. PNG Ports is understood to have approached shipping lines to do so but failed as shipping lines did not accept the agreement. In recounting the reported history, the Commission does not, in any way, suggest that substitution of the stevedoring contractual relationship between shipping companies and stevedores by one between the former and PNG Ports is desirable. The example is merely meant to illustrate the difficulty of instituting effective bypass as shipping lines are the ones that select the stevedores that will provide stevedoring services and are unlikely to cede such contractual decision-making power.

\textsuperscript{13} See Salmon Report.

\textsuperscript{14} A different type of sea freight contract, applicable internationally, stipulated under ‘Terms of Charter Parties’ under the generally accepted international principles of maritime law
H&E Stevedores Ltd indicated that “It is becoming increasingly difficult to by-pass a stevedore in Port Moresby due to the shortage of locations available to discharge or load cargoes. Other ports are somewhat easier to locate a place as in Voco Point in Lae.”

4.5. NATURE & EXTENT OF VERTICAL INTEGRATION IN THE MARKET

Vertical integration is the process in which several steps in the production and or distribution of a product or service are controlled by a single company. One of the advantages of vertical integration is reduction in costs and improved efficiency for the firm. However, vertical integration does not always result in reduced costs and improved efficiency as it may lead to increased market power and consequently higher prices for the services. A factor is the combination of services offered by the vertically integrated firm, which then requires new entrants to match the range of services and geographic coverage offered, thereby raising sunk costs and risks of entry. Consideration of the nature and extent of vertical integration between stevedoring and handling services, on the one hand, and shipping services on the other, will enable the Commission to establish whether there is adequate competition in the markets for the former.

The Commission is aware that some shipping companies such as STCL and CEL which together offer substantially nationwide coverage in shipping and stevedoring, have significant shareholdings in a number of stevedoring and handling businesses.

Submissions

Port Services Ltd indicated in its submission that in 1994, when the ownership of stevedoring was negotiated, it was generally agreed that Swires (the parent of the Steamships group of companies) were entitled to have a significant interest in the stevedoring sector because of its role as the principal shipping line serving PNG.

Port Services Ltd indicated in its submission that it was expected that small stevedores would exit the market due to lack of capacity and financial position. As such, Steamships may increase its interest in the stevedoring and handling industry.

Port Services Ltd suggested that although one could claim that the level of vertical integration could lead to Steamships obtaining and keeping confidential information and misusing it against its competitors, no evidence of this occurring has ever been provided.

ALSC indicated in its submission that vertical integration and contracts are market mechanisms designed to achieve efficiency in markets that are characterized by departures from the competitive concept. Most reasons for vertical integration appear to be related to reducing costs or eliminating a market externality. Vertical integration and long term contracts address a range of potential inefficiencies that would be associated with vertical separation. ALSC also indicated that vertical integration would result in lower transaction costs.

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15 H&E Stevedores Limited, 27th May 2013, Stevedoring & Handling Prices Review, page: 10
Steamships Shipping JVS indicated that the demand for stevedoring services depends on the volume of cargo arrival at a port. If the growth of a country is such that there is more demand for import and export cargoes, then the volume of port throughput will increase and this will lead to additional work for stevedoring. If the growth is stagnant, then there is less demand for goods and less work for stevedoring services. There are no other factors that increase the demand of stevedoring and handling services other than volume of cargo and therefore growth.

Elsewhere in this report, arguments have been put to the Commission, that scale is a factor in the number of players. What has not been addressed is the minimum efficient scale - that is the total volume which can be supplied most efficiently by a single supplier and arguments about scale and total volume have been shown in this report to be largely irrelevant.

In capital-intensive industries, large scale reduces unit costs. There is no suggestion that the capital requirements of stevedoring in PNG are so large that the total output in most ports is serviced at least cost by one stevedore or in the largest ports by a small number of stevedores, who are associated by ownership or other economic interests, including behavioural ones, with particular ship-operators.

Steamships Shipping JVS indicated that in most ports, whether PNG Ports or privately run ports in which ship operators and/or agents and/or land transportation provide services from the ships through land transport, vertical integration is realized. This is applicable to Steamships Coastal Shipping, Bismarck Shipping, Coral Seas Shipping (Curtain Brothers), CEL, Lutheran Shipping, Carpenters and others. The reason behind this is mainly to address efficiencies and requirements in the industry. In some ports, the first shipping lines calling into those ports had to set up their own stevedoring operations as there are no stevedores to provide the services as well as to address delays, quality and efficiency, shipping lines took control of stevedoring work. In some of the smaller ports, the demand (volumes of cargo) is limited, business around and within the port premises is not commercially viable. As such, vertical integration is argued to exist not as a barrier to competition but out of necessity.

**Discussion**

The Commission considers that the lack of evidence of use of competitive information gained through vertical integration does not necessarily mean that the conduct has not occurred, or is not occurring, or is not likely to occur. What is relevant is that there are significant economic incentives for such conduct to occur. Regulation should prevent problems, not only seek to address demonstrated ones; incentives are a key plank of regulation.

With regards to the volume of cargo and its impact on the demand for Stevedoring and handling services the Commission noted elsewhere that what has not been addressed is the minimum efficient scale.
In capital-intensive industries, large scale reduces unit costs. There is no suggestion that the capital requirements of stevedoring in PNG are so large that the total output in a port is serviced at least cost by one stevedore.

Furthermore, there appears to be a significant degree of vertical integration between coastal ship operators and stevedoring companies and indirect horizontal ownership linkages between stevedores themselves. This has the potential to impact on the conduct of the stevedoring companies, especially in relation to non-integrated ship operators. This situation, therefore, calls for assessment of the structural and behavioural characteristics of the market to consider the potential for anti-competitive consequences and possible need for close monitoring of the costs and efficiency of stevedoring companies.

While cargo consignors and consignees contract with ship operators, who are accountable to them for the overall ocean transport task, the efficiency with which that is delivered depends on the degree of competition in the ship operating market. In respect of stevedoring efficiency; the ‘responsiveness’ of ship operators to their customers depends upon the level of competition in stevedoring and whether ship-operators can choose their stevedoring companies in each port or otherwise secure efficiency in stevedoring. The degree of competition in stevedoring affects the level of competition in relevant ship operating markets, arising from the degree of vertical integration between those two sectors of the industry, which, through feedback loops, could further harm competition in stevedoring and handling and raise prices, which is the subject of this report.

On a factual matter, the Commission is not aware that Carpenters organised its own stevedoring, as suggested by Steamships Shipping JVS and it is understood that the coastal shipping operations of Carpenters has been discontinued. Evidence of Carpenters organizing its own stevedoring would be welcome, as well as the significance of its reported withdrawal from coastal shipping.

There is, of course, a question whether, in practice, it is feasible for stevedores to engage in such preferential practices in favour of their linked shipping companies and, if so, the degree of likelihood of such behaviour. On these points, the Commission invites submissions with examples.

Commission’s Findings

The Commission noted that the Steamships conglomerate has vertical links with some stevedores; some stevedores have indirect ownership linkages as between themselves, consequent upon the shipping company having vertical links in more than one; and there has been a minimal number of stevedores entering or exiting the market over a relatively significant period.

Consequently, the structure of the stevedoring and handling industries exhibits a significant degree of concentration, vertical and effective horizontal integration, significant disincentives to entry, and minimal actual entry and exit, thus suggesting a high degree of ossification of market structure and behaviour, which has significant anti-competitive implications.
4.6. INNOVATION & GROWTH OF THE MARKET

4.6.1. Demand determinants of stevedoring

The Commission indicated in the issues paper that the stevedoring industry is currently made up of 15 stevedores who provide stevedoring and handling services at the declared ports in PNG. They load and unload cargoes from and onto coastal and overseas shipping line vessels. Their services range from loading and unloading cargoes, handling bulk, general and containerized cargoes, operating machinery and systems and handling hazardous goods.

The fortunes of this industry are often claimed to be directly linked to freight volumes, which are largely determined by factors outside of the industry and, in general terms, as a ‘derived’ function, the demand for it depends on the demand for shipping cargoes. In a marginal sense, however, the costs and efficiency of each link in the sea transport chain influence freight volumes, each cost increment or combinations thereof, making particular export or import cargo types less competitive and, therefore, affecting their volumes and, consequently, total volumes. Therefore the demand for stevedoring and handling services, while largely dependent on the demand for shipping, which in turn depends on the level of general economic activity, is also influenced by the charges for, and the efficiency with which, stevedoring and handling functions are provided. That demand will also depend on:

- the level of competition from other forms of transportation such as road and air, which is virtually non-existent in PNG for most cargoes the use of these forms of transport are complementary to that of shipping as one feeds to another; and

- the efficiency with which the services provided by each link in the sea-land transport chain is provided, as the total charges for the chain of services must, inevitably, affect demand volumes, on the classic price/demand response model.

Submissions

One of the stevedores commented that

- there is no doubt that the demand for stevedoring services will fall significantly as a result of winding down of the PNG Liquefied Natural Gas (PNG LNG) construction phase and the number of vessel calls to the Port Moresby port have declined already;

- Port Moresby, as one of the two major international ports in PNG, expects to see volume to grow by 6% to 7% per annum from the base that is estimated once the

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16 It is safe to conclude that air and road transport modes are not effectively competitive with shipping due to the cost differentials involved, and the poor condition and availability of road infrastructure. Where air transport is used, time, cargo value and location of uplift and delivery are more influential drivers. Sea transport, therefore, has no effective substitute for most goods.
transitional impact of PNG LNG has disappeared. This level of growth is based on the assumption that the population of Port Moresby will increase at 3% to 4% per annum, which is faster than the rest of the country;

- To a large extent the volume growth in Lae will be very much dependent upon the level of the currency which in turn will depend on the management of the currency by the government and the Bank of PNG. Provided the currency is carefully managed and does not rise significantly, import growth of around 4% per annum can be expected. The volume of produce exports will be very much dependent on the level of the currency - a high currency will see a dramatic drop in produce exports and this in turn becomes reflected in import volumes, which would increase, and vice-versa; and

- The release of the Marengo feasibility report will see a significant rise in imports to Madang. Similarly, a development application for the Elk-Antelope gas field will affect demand for shipping/stevedoring/handling services in Port Moresby.

Other stevedores supported the view that if there is an expansion or an introduction of new infrastructure, growth in the industry will continue.

4.6.2. Future growth & development of the industry

The macroeconomic sustainability of PNG’s economy and sectoral demand underpin the future growth and development of the shipping and stevedoring industry, which, in turn, will directly affect the fortunes of downstream industries; other sectors of the economy; national economic growth, and the overall standard of living of citizens, particularly the poorer sections of society.

Submissions

Steamships Shipping JVS indicated that if there is new infrastructure at the wharves and there is general growth in other sectors such as the mineral sector, it would have an impact on the demand of stevedoring and handling services. Greater technology innovation proposed by PNG Ports would be an advantage to increase demand for stevedoring and handling services. Presumably, this argument is based on improved efficiency from such innovation leading to lower costs which is expected to stimulate demand, in contradiction to the submission that stevedoring and handling are derived demand, implying no demand response to lower costs from competition or efficiency.

CEL indicated that the demand for stevedoring and handling services is derived from the demand for shipping services. In turn, this depends on the volume of domestic and international trade passing through PNG ports. Over the past decade, growth in the PNG economy has been driven by the world demand for minerals and energy products and the progress on economic reform in the PNG economy intended to reduce impediments to trade and investment in PNG. The future growth of the industry depends on the outlook for economic development in PNG and future industry structure.
The Commission considers that, again, this approach ignores the role of competition and efficiency, in each of the links in the sea/land transport chain, in influencing demand volumes in aggregate. While competition and efficiency in each link often have a marginal influence on growth, in some cases the effects may be substantial in certain end-markets for particular products. Furthermore, in aggregate, the effect is likely to be substantial, even if the effect is marginal in each link of the transport chain.

4.7. CONCLUSION ON COMPETITION AND REGULATION

On the basis of the discussions in sections 3 and 4.1 through 4.7 of this draft report, above, the Commission is of the view that some form of price regulation should apply to the stevedoring and handling services sector, and that it should recommend to the Minister for Treasury to declare such services accordingly.

Draft Recommendation

In light of the above, the Commission proposes to recommend to the Minister responsible for Treasury to declare stevedoring and handling services as services requiring some form of regulation under the PR Act.

Section 5 of this draft report discusses and makes a recommendation on the form of regulation which the Commission proposes to recommend for declaration.
In the first year of the past five year regulatory period, stevedoring and handling charges were set by the Commission. For the following years, the form of regulation for stevedoring and handling services has been by price monitoring. Under this arrangement, the Commission monitors the stevedoring and handling charges applied by all licensed stevedores in PNG at various ports against the movements of a comparator series consisting of CPI and retail diesel fuel prices ex Lae. The CPI consists of both the Headline and Underlying CPI (excluding alcohol, betelnut and tobacco) released by the NSO on a quarterly basis whilst the diesel fuel prices ex Lae are the monthly prices of diesel that the Commission announces every month. The comparator price index consists of 45% Headline CPI for the All Groups, 45% Underlying CPI excluding betelnut, alcohol and tobacco and 10% diesel fuel prices ex Lae.

Under the past monitoring arrangements, the stevedores provided to the Commission their prices for the services at the commencement of each quarter and that list was to be provided to the Commission by no later than the 15th day of the new quarter (e.g., 15th January for the price list applying from 1 January). The Commission analysed these charges and then used the comparator series explained above to monitor the movement in prices for the regulated services over the regulatory period. If at any time the Commission observed a significant divergence in the movement of charges against the comparator price indexes, the Commission could seek an explanation and justification from the stevedores for such deviation and, in the event it was not satisfied, could have proposed to the Minister that price control be considered.

Under the previous monitoring arrangement the Commission was only able to effectively monitor the service and handling charges of Steamships Shipping JV Stevedoring due to the failure of other stevedoring companies to comply with the price monitoring regime by providing relevant information. The Commission believes while the failure to comply was a significant obstacle, the regime was still able to monitor prices in all the declared ports and maintain oversight of participants with significant market share in the relevant ports and nationwide. Hence, the Commission was of the view that the charges applied by other smaller stevedoring companies would follow the similar price trend to those of the JV Stevedoring companies. However, should the Commission continue with price monitoring, all stevedores will be subject to monitoring, and would be subject to penalties under the PR Act for non-compliance with the Commission’s pricing order.

The Commission has been requesting licensed stevedores to provide their rates and charges on quarterly basis. The Commission notes that Steamships Shipping JVS has been consistent in providing their rates and charges on quarterly basis. Other licensed stevedores have not been consistent to provide the rates and charges. No stevedore has provided a statutory declaration to accompany its price submissions.

If after having considered the above competition issues the Commission forms a view that regulation is still required for the charges made for stevedoring and handling services, it has to consider whether to recommend to the Minister that he declare the
services as continuing to be subject to price monitoring or to be subjected to price control. Each of these forms of regulation is discussed below.

5.1. PRICE MONITORING

The price monitoring approach has been used in the previous regulatory period whereby the stevedoring companies set their tariff rates for stevedoring and handling services independently whilst the Commission monitored the rates movements by comparing it against an appropriate benchmark over time. The Commission has employed the use of Consumer Price Index (CPI) and other comparators such as the price monitoring index. The price monitoring index uses major cost drivers of the business such as labour costs, fuel transport, lifting equipment costs and other relevant costs.

If price changes deviated from the movements in the benchmark significantly, the Commission would have the option of initially seeking an explanation from the stevedoring companies. Depending upon the response provided by the stevedoring companies, the Commission would have the option of recommending to the Treasurer that the regulation of the industry be returned to price control under Section 10 and 21 of the PR Act or continuing the price monitoring arrangements.

Submissions

Submissions in response to the issues were supportive of the price monitoring approach to regulation.

ALSC indicated in its submission that the price monitoring approach is sufficient to ensure competitive outcomes. ALSC is concerned about, and proposed that the Commission should set, starting prices at reasonable levels to ensure that the industry is appropriately compensated for its operations and investment. That is, the benchmark against which prices changes are evaluated needs to adequately reflect changes in costs that are beyond the control of the industry.

Steamships Shipping JVS indicated that continuation of price monitoring is adequate as training, capital expenditure requirements and the cost structure of each port are very different. Steamships Shipping JVS went on to note that price monitoring enables the Commission to properly carry out its monitoring and regulatory functions, and that the future regime should be conducted under the same terms as the previous regime.

It was also noted by Steamships Shipping JVS that not all companies are disclosing their tariffs and rates and stated that the Commission should carry out monitoring upon all companies operating in each port.

Steamships Shipping JVS indicated in its submission that cost to the end customer is not only related to stevedoring and handling charges, but also the storage charges that are directly related to the clearance process with Customs and NAQIA. The storage charges are unusually high for the total costs of clearance of cargo. Steamships Shipping JVS suggested that the Commission should monitor storage charges as well as
Customs and NAQIA days for clearance as this has impact on the costs to the end customers.

Riback stated in its submission that the previous price monitoring regime was sufficient, practicable, and is suitable and appropriate to the industry

5.2. PRICE CONTROL

Under direct price control the Commission would be required to set a maximum price under a price control arrangement after having regard to Section 21 (2A) of the PR Act. In its consideration of matters the Commission must seek to ensure that an appropriate balance is kept between the interests of consignees and the stevedore companies, in the Commission's decision making processes.

Under this process the Commission must establish the starting price at the commencement of the regulatory period. The process of considering the makeup of the cost of providing the regulated good or service would be the same for a price control arrangement at the start of the regulatory period as it would be for a price monitoring arrangement. The only difference would be in the declaration of charges under the price control mechanism (as opposed to a price monitoring regime), and the specification of the mechanism by which charges would be adjusted over time.

The Commission would declare the initial price and the price adjustment mechanism in a pricing order under Section 21 (1) of the PR Act. Then for a period of no more than five years, the Commission would apply the price adjustment mechanism at appropriate time intervals to adjust the regulated price levels. Effectively, charges for stevedoring and handling services could be adjusted at a pre-agreed time using a pre-determined price adjustment mechanism that would be known to all parties, and the public.

This form of regulation is often referred to as a price cap, because it uses a standard price adjustment mechanism to apply to prices. If the provider of the regulated service can deliver the service at a cost below that pre-determined price adjustment level, then the service provider is able to retain any additional profits that this would imply. The price adjustment mechanism is usually expressed in the form of a CPI+/−X equation. CPI can be some other indicator of movement in relevant costs and X factor is an adjustment for, amongst other things, expected changes in productivity over time.

For this form of regulation to operate, the Commission would need to consider the efficient costs of providing the regulated services, the likely efficiency savings that the industry may be able to achieve over a period of say five years, the appropriate price path to adopt for the different services, and the timing of the price adjustments. The regulated charges could be applied to all declared ports within the country. These rates would be gazetted for purposes of meeting the requirement of price control under Section 21 (1) of PR Act. The adjustment mechanism would however be automatic, in line with the movement in the price path formula to be devised by the Commission. Should the Commission decide to adopt this form of regulation, it has to consider costs, revenues, and capital expenditure, to arrive at an efficient cost of product or service delivery.
Submissions

With regards to price control Steamships Shipping JVS stated that price control could lead to unintended consequences such as limiting investment, training and capital expenditure in a particular port as the business volumes combined with price control could reduce incomes below re-investment levels. This might lead to adverse effects on productivity and also to health and safety concerns. As noted above Steamships Shipping JVS also supports price monitoring as it is an appropriate method for the Commission’s monitoring and regulatory functions.

The ALSC submitted that the market for stevedoring and handling services is contestable. Therefore it believes that price controls would be inappropriate and be an impediment to efficient operations and investment initiatives.

5.3. REGULATORY COMPLIANCE

In the past regulatory period, the Commission has requested information on new charges and its justification as per determinations 4 and 5 of the 2008 Stevedoring and Handling Services Pricing Arrangement. However, several stevedoring companies have failed to provide the requested information and that has hampered Commission's monitoring role.

Discussion

It is clear that the key industry participants are of the opinion that price monitoring is an appropriate regulatory regime for the stevedoring and handling industry and their support for its use should the industry be subject to regulation.

It is also noted that industry participants believe that any move to a more heavy handed approach to regulation in the form of price control would have negative consequences and limit investment in the industry.

The Commission is of the opinion that there is a limited degree of contestability and competition in the industry, particularly in the Ports of Lae and Port Moresby. As such, the Commission believes that the application of a price control regime may constrict the potential for increased competition both between existing participants and between them and potential new entrants.

Therefore, the Commission considers that should the Minister declare the stevedoring and handling industry for regulation, that a price monitoring regime be put in place. The Commission believes that a price monitoring regime strikes the right balance between minimizing the potential negative consequences of the limited level of competition within the industry, encouraging more fulsome competition and minimizing the regulatory burden.

With regards to the specifics of the price monitoring regime, the Commission would require all stevedores to submit a full price list on a quarterly basis for monitoring. The
movements in the submitted prices shall be compared against an index consisting of the following:

a) 35% CPI (ex Alcohol, Betel nut and Tobacco)
b) 35% Wages, as measured by movement in the Stevedoring and Handling Award
c) 30% Diesel prices ex Port Moresby

In addition to compliance with these provisions of the PR Act, the Commission also proposes that all stevedoring and handling companies should publish their rates and charges on their official websites for transparency.

Draft Recommendation

From the discussions above, the Commission finds the appropriate form of regulation to be price monitoring. The Commission also noted the industry’s concern on setting a base price at a reasonable level whilst also monitoring the NAQIA and Customs rates - whether there is a legal basis for monitoring Customs and NAQIA charges needs to be explored.
6. LENGTH OF REGULATORY PERIOD

The Commission envisages establishing a regulatory period through this review process to replace the previous regulatory period which lapsed on 31st May 2013. The Commission is in the process of finalising this report with determinations in order to report on the its overall findings mentioned in this draft report on the last regulatory period, and further to recommend to the Treasurer to declare the stevedoring and handling services as regulated monitored services commencing 1st March 2014.

The Commission has considered the potential for using regulatory price control or price monitoring arrangements for anywhere between three years and ten years. In practice there needs to be a balance between the level of certainty provided to the regulated entities and the need to respond to external economic and business events which may have an impact on the regulatory settings. While the Commission believes that ten years may be too long a regulatory period in the current circumstances, it can see that periods anywhere from three to five years have worked well in PNG and in other similar regulatory environments.

Submissions

ALSC indicated in their submission that the 5 year regulatory period is reasonable as it has been adopted by many jurisdictions such as Australia and the United Kingdom. However, it indicated that the issues surrounding the length of regulatory period depend on how industry and the Commission balanced the costs of reviews. It also noted that the timeframe of the regulatory period is also related to the form of regulation adopted; and the extent to which initial prices are effective in balancing the interests of regulated entities and their customers. The industry indicated that the regulatory period of 5 years is adequate and should continue under the same terms as previously applied.

Steamships Shipping JVS indicated that the length of the previous regulatory period (5 years) is adequate and should be adopted for any future regulatory regime.

Commission’s Findings

The Commission noted the licensed stevedores’ submissions supporting the 5 year regulatory period. The Commission noted their submissions that if price monitoring is adopted with adjustment to set initial prices, it requires effective communication from the stevedoring companies to provide updated rates and charges for their services on a quarterly basis.

Draft Determination

The Commission finds that a 5-year period is appropriate for regulation using a price monitoring approach should be adopted and proposes, accordingly, to recommend such an approach to the Minister for Treasury for declaration under Section 32(A) of the PR Act.
APPENDICES

Appendix 1: Submission to the Issues Paper

The following are those that provided their submissions to the Commission:

Issues Paper

1. PNG Ports Limited;
2. Ports Services PNG Limited;
3. Steamships Shipping JV Stevedoring;
4. Consort Express Lines Limited (CEL);
5. Association of Licensed Stevedoring Contractors; and
6. Riback Stevedores Limited

Appendix 2: Stevedoring services for the last regulatory period.

The Commission, in its 2008 Final Report, defined stevedoring services as the:

- discharging and loading of overseas, domestic and coastal cargoes undertaken on:
  - full and empty containers;
  - I.S.O approved containers;
  - Shifting of containers and operation of vehicles for this purpose;
  - Break bulk cargo;
  - Vehicles; and
  - other containers such as “A”, “D” and “J” boxes;
- loading and discharging a vessel including lighters or barges;
- provision and operation of various types of forklifts onboard a vessel;
- strapping of cargo; and
- tarpaulin hire.

Handling services for the last regulatory period.

The Commission, in its 2008 Final Report, defined handling services as the:

- transferring containers from the stacking area to the consignee’s vehicle and the returning the empty container from the consignee’s vehicle;
- delivery of containers directly from ship hook to the vessel operator’s nominated transport contractors outside port area and return of empty container to stack including issuing of appropriate documentation;
- delivery of container direct to ship’s hook from vessel operator’s nominated transport contractors outside port area and return of empty container to stack including issuing of appropriate documentation;
- cleaning containers, internally and externally;
- strapping cargo;
- provision of tarpaulin;
- receiving and delivering general cargo; and
• receiving or delivering palletized cargo to and from vehicle.
Appendix 3: JV Stevedoring rates, in Kina, effective 2013. The total rates or charges indicated below are for specific stevedoring and handing descriptions under respective sub-heading of stevedoring and handling services.

<table>
<thead>
<tr>
<th>Stevedoring Charges</th>
<th>Kavieng</th>
<th>Kimbe</th>
<th>Kiunga</th>
<th>Lae</th>
<th>Madang</th>
<th>Oro</th>
<th>Port Moresby</th>
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<tr>
<td>Cleaning</td>
<td>40,022.44</td>
<td>42,313.61</td>
<td>50,362.97</td>
<td>42,080.75</td>
<td>42,463.92</td>
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<td>Delays</td>
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<td>552.20</td>
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<td>Depot</td>
<td>10.72</td>
<td>146.14</td>
<td>16.50</td>
<td>149.38</td>
<td>10.91</td>
<td>10.72</td>
<td>149.38</td>
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<tr>
<td>Discharge/Load</td>
<td>352.56</td>
<td>352.56</td>
<td>352.56</td>
<td>352.56</td>
<td>352.56</td>
<td>352.56</td>
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<td>Discharge Load Restow (DLR)</td>
<td>2,524.67</td>
<td>3,261.37</td>
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<td>Inspection LoLo</td>
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<td>2,280.28</td>
<td>7,608.00</td>
<td>2,271.02</td>
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<td>IRS</td>
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<td>412.48</td>
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<td>415.06</td>
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<td>Lashing</td>
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<td>1,273.26</td>
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<td>Marshalling</td>
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<td>Other R&amp;D</td>
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<td>2,142.79</td>
<td>2,126.64</td>
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<td>12.07</td>
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<td>12.07</td>
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<td>12.07</td>
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<td>3,587.89</td>
<td>3,608.62</td>
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</tbody>
</table>

Source: JV Stevedoring submission 2013
69. CERTAIN ACQUISITIONS PROHIBITED.

(1) A person shall not acquire assets of a business or shares if the acquisition would have, or would be likely to have, the effect of substantially lessening competition in a market.

(2) For the purposes of this section, a reference to a person includes two or more persons that are related corporations or are associated.

(3) For the purposes of this section, a person is associated with another person if that person is able, whether directly or indirectly, to exert a substantial degree of influence over the activities of the other.

(4) A person is not able to exert a substantial degree of influence over the activities of another person for the purposes of Subsection (3) by reason only of the fact that –

(a) those persons are in competition in the same market; or
(b) one of them supplies goods or services to the other.

(5) Without limiting the matters that may be taken into account for the purpose of Subsection (1) in determining whether the acquisition would have, or would be likely to have, the effect of substantially lessening competition in a market, the following matters shall be taken into account:–

(a) the actual and potential level of import competition in the market;
(b) the nature and effect of barriers to entry to the market;
(c) the number of buyers and sellers in the market;
(d) the degree of countervailing power in the market;
(e) the likelihood that the acquisition would result in the acquirer being able to significantly and sustainably increase prices or profit margins;
(f) the extent to which substitutes are available, or are likely to become available, in the market;
(g) the dynamic characteristics of the market, including growth, innovation and product differentiation;
(h) the likelihood that the acquisition would result in the removal from the market of a sustainable, vigorous and effective competitor;
(i) the nature and extent of vertical integration in the market.