2012-13 SUGAR INDUSTRY PRICING REVIEW

Final Report

October 31, 2013
Inquiries
Inquiries to this review should be directed to the Executive Manager Prices and Productivity Division, on telephone 325 2144 or by fax on 325 3980. Copies of Issues Paper, Draft Report and Final Report can also be obtained from the Commission’s website on www.iccc.gov.pg.

Submissions received by the Commission as part of this review are available for public inspection unless the Commission, based on the request from the relevant stakeholder, considers that all or part of the submission should remain confidential. However, in accordance with the provisions of the Independent Consumer and Competition Commission Act 2002 (ICCC Act), the Commission intends to make the review process as transparent as possible and to this end, submissions will be available for public inspection unless there are exceptional commercial-in-confidence reasons as to why submissions should be held in confidence.

Citation

About the ICCC
The Independent Consumer & Competition Commission (Commission) is a statutory body established under the provisions of the (ICCC Act) aimed at promoting competition and fair trading, regulating prices of certain declared goods and services, and to protect consumers’ interests and other related purposes.

The Commission is empowered under the ICCC Act to have one full time Commissioner and two part-time Commissioners who constitute the members of the Commission. The Commission members are:

Dr. Billy Manoka (PhD) – Commissioner & Chief Executive Officer
Mr. David Dawson – Associate Commissioner (Non-Resident)
Dr. Eric Omuru (PhD) – Associate Commissioner (Resident)
FOREWORD

Sugar has become an important product in most semi-urban and urban communities in PNG and has become a larger component of people’s daily diets in rural and remote areas as well. In urban areas the price of sugar is important as its usage constitutes a considerable portion of the average household budget.

PNG’s sugar industry is dominated by one company, Ramu Agri Industries Limited (RAI), which is responsible for almost all of the sugar in the supply chain. While RAI remains the largest player in the sugar industry, a number of new importers have entered the market recently who normally retail packaged sugar. New entrants to the sugar market have resulted in the range of sugar products available, especially in the retail sector, increasing and almost doubling in recent times.

In 2007, the Commission undertook a comprehensive review into the price setting arrangements for all sundry declared goods which included sugar products. Following this review, the Minister for Treasury determined that prices of Ramu sugar only, apart from the whole basket of sundry goods should continue to be regulated under the provisions of the Prices Regulations Act Chapter No. 320 (PRA). However, the form of regulation to be applied should shift from a price setting approach to a price monitoring approach. Price monitoring is a relatively light-handed approach to regulation and is one step from complete deregulation. The 2007 decision on this form of price regulation expired on December 31, 2012. As such the Commission is now undertaking an investigation into what should be the appropriate level of regulatory oversight into the future.

The Commission has endeavored to have a public and transparent process in establishing the appropriate form of regulation for Ramu sugar supplied by RAI. As part of this process, the Commission released an Issues Paper and a Draft Report seeking responses from the industry and the general public. The Commission has considered all submissions received on these reports and would like to take this opportunity to thank all who have contributed to this review process.

Whilst input and technical advice had been sought from relevant stakeholders, the final outcome in the Final Report remains the property of the Commission.

Dr. Billy Manoka (PhD)
Commissioner & Chief Executive Officer
Independent Consumer & Competition Commission
## Abbreviations and Glossary

<table>
<thead>
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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>ABS</td>
<td>Australian Bureau Statistics</td>
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<tr>
<td>FGP</td>
<td>Factory Gate Price</td>
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<td>FAO</td>
<td>Food and Agriculture Organisation</td>
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<td>GFC</td>
<td>Global Financial Crisis</td>
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<td>GFI</td>
<td>Goodman Fielder International (PNG) Ltd</td>
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<td>ICCC</td>
<td>Independent Consumer &amp; Competition Commission</td>
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<td>ICCC Act</td>
<td>Independent Consumer &amp; Competition Commission Act 2002</td>
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<td>LNG Project</td>
<td>Exxon Mobil Liquid Natural Gas project</td>
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<td>NSO</td>
<td>National Statistical Office</td>
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<td>NZS</td>
<td>New Zealand Statistics</td>
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<td>PNG</td>
<td>Papua New Guinea</td>
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<td>PRA</td>
<td>Prices Regulation Act Chapter No. 320</td>
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<td>RAI</td>
<td>Ramu Agri Industries Limited</td>
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<td>INA</td>
<td>Institute of National Affairs</td>
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EXECUTIVE SUMMARY

Background

The Commission currently monitors the factory gate price (FGP) of Ramu sugar products supplied by RAI, on a monthly basis in PNG. The current regulatory period expired on 31 December 2012. In view of the expiration of the current monitoring arrangements, the Commission initiated this review in late 2012 to establish whether the current regulatory process should continue, and if so, the form of regulation that should apply beyond 31 December 2013 after seeking extension to monitor the FGPs under its current regime. This Final Report has been prepared with input from a range of stakeholders and interested parties and has included the release of an Issues Paper and Draft Report.

Assessment Framework

To assess the current level of competition in the PNG sugar market, the Commission developed a tailored assessment framework based on the factors most relevant to the local market. The framework includes barriers to entry (and exit)/import competition, competition between existing market participants, countervailing market power and the exercise of market choice by customers. In addition, the Commission has analysed the data reported as part of the existing price monitoring arrangements.

Based on this analysis the Commission made the following findings.

**Commission’s Finding 1:**

The PNG sugar market exhibits very few of the characteristics of an effectively competitive market. Therefore, at this time the Commission still considers there to be value in continuing with a form of price monitoring.

**Commission’s Finding 2:**

The Commission will continue to use the New Zealand Statistics sugar index as its main sugar price comparator, but will also use the FAO sugar index to monitor Ramu Sugar prices. The Commission will also retain the option of requesting information from RAI to support any changes in price that are not consistent with the FAO or NZS sugar indexes.

Final Determination

The Commission has undertaken a review of the regulatory arrangements applying to Ramu sugar products on its own accord taking into account the expiry date of the previous pricing arrangement which lapsed 31st December 2012 and was subsequently extended until 2nd January, 2014. The ex-factory gate price of Ramu sugar products are currently declared as declared monitored goods and services under the provisions of Section 32A of the PRA.

In the Review, the Commission has assessed the development of sugar markets in PNG over the last 5 years and also tries to address some of the issues that arise during the previous pricing arrangement. The Commission acknowledges the comments and submissions received on its Sugar Industry Pricing Review Issues Paper and Draft Report. Having considered these comments and submissions, the
Commission has now made the following Final Determinations as to the manner in which the price of Ramu sugar is to be regulated over the next 5 years:

- Price regulation, through the price monitoring regime which currently applies to the ex-factory gate price of Ramu sugar products produced and sold by RAI, will continue for the next five years, and the Commission will recommend this approach to the Minister for Treasury under Section 32A of the PRA.

- The declaration of the price monitoring arrangements will apply for a five year period from 3 January 2014 until 31 December 2018.

- The form of price monitoring regulation to be applied by the Commission, should the Minister agree with its recommendation, will be:
  - price monitoring of actual ex-factory gate price (FGP) of Ramu sugar products under the provisions of Section 32A of the PRA;
  - By end of first working week of the current month, RAI must provide to the Commission previous month’s FGPs for all pack sizes and types of ramu sugar products. For instance, by end of first working week of December, RAI should provide November’s monthly FGPs to the Commission;
  - The Commission will then compare these prices to the NZS index developed using the Food Price Index Selected Monthly Weighted Average Prices for New Zealand (Monthly);
  - In the event that there is a deviation between the price movements as measured by the Ramu sugar index and the NZS index, the Commission will undertake an assessment of the Ramu sugar index against the FAO sugar index. The Commission will also retain the option of requesting additional information from RAI on costs, revenues and profit margins to support any changes in price that are not consistent with the NZS and FAO indexes.
  - If during the regulatory period the Commission finds that the NZS index is no longer relevant to use, it will find an alternative index to use and will advise RAI accordingly.

- In the event that there is significant divergence between RAI’s, NZS’ and FAO’s indexes and the Commission has reasonable grounds to believe that RAI is unnecessarily increasing prices, then it will request the Minister for Treasury to declare Ramu sugar products as price controlled goods under Sections 10 and 21 of the PRA.

- In addition, any time after 1 July 2016, RAI will be able to apply to the Commission to have the price monitoring regime removed. RAI will be required to provide supporting analytical and technical arguments to support their contention that the market is competitive and that price monitoring is unwarranted. The onus of proof will be on RAI and should be supported by the monthly returns provided to the Commission over the previous three years. Until such time as the Commission determines otherwise the price monitoring will continue, including while the Commission is reviewing the information submitted by RAI.

- The Commission shall also continue to monitor the retail prices for sugar products, including imported or other locally produced sugar products, at retail outlets within PNG, to assess the level
of competition through pricing outcomes within the production, wholesale and retail supply chain.

- Pricing returns are to be verified by a statutory declaration as required by Section 14(4) of the PRA, by the Chief Executive Officer of RAI.
CHAPTER 1  INTRODUCTION

The current regulatory arrangements for the sugar industry began on 1 January 2008 and ceased on 31 December 2012. With the current regulatory arrangements coming to end, the Commission had initiated this review in late 2012 to establish the appropriate regulatory arrangements for the future.

This document represents the Commission’s Final Report and Final Price Determination and brings to a close this review. In undertaking this review of the Sugar Industry, the Commission released an Issues Paper and sought comments from interested parties. It then released a Draft Report and again sought comments. The analysis undertaken from comments and submissions received have formed the conclusions in the Final Report.

The Final Report is structured as follows:

• Chapter 1 provides background and summarises previous reviews and the review process;

• Chapter 2 contains an overview of the sugar industry in PNG;

• Chapter 3 details the Commission’s framework for analysis;

• Chapter 4 sets out the Commission’s assessment of the regulated segment of the sugar industry;

• Chapter 5 discusses the form of regulation to be applied; and

• Chapter 6 sets out the Commission’s Final Determination.

1.1 2007 Review of the sugar industry

In 2007, the Commission undertook a comprehensive pricing review into a sundry declared basket of goods under the provisions of Section 25A(6) of the PRA. The purpose of that review was to determine whether price regulation of those declared sundry items was still necessary at that time given the changes in industry circumstances. Sugar was part of that basket of sundry goods that was reviewed then.


The main finding, amongst others, in that review was that there was overwhelming degree of competition existing at certain levels of the industry, hence, warranting the need to do away with price regulation for most of the sundry goods except for sugar where the Commission would continue to apply price regulation. Based on these findings, the Commission made the following Final Determinations that applied for a five-year regulatory period which commenced on 1st January 2008;

I. price regulation of all of the goods in the review scope, except sugar, should cease;

II. price regulation through monitoring of the prices of Ramu sugar products only should continue;
III. the Commission recommended to the Minister for Finance and Treasury to subject prices of Ramu sugar products to price regulation through monitoring of prices and an order was published in the Gazette by the Minister for Treasury that declared sugar products to be declared monitored goods under Section 32A of the PRA, and the Commission specified the form of price regulation that was to be adopted as follows;

IV. the form of price regulation that was to be applied included the monthly price monitoring of ex-factory gate price of Ramu sugar products under the provisions of Section 32A of the PRA.

1.2 Legislative requirements

The current regulatory arrangements applying to the sugar industry are governed under Sections 10 and 32A of the PRA. Under Section 10 of the PRA the Government, through the Minister for Treasury, has the power to declare that it is necessary that the price of any good (such as sugar) or service can be regulated until such time that there is a public disbenefit from regulation. Under Section 32A of the PRA the Government, through the Minister for Treasury, has the power to declare that it is necessary that the price of any good (such as sugar) or service can be monitored for the purpose of reporting such price movements to the Minister from time-to-time, and where price movements suggest it is necessary, recommend to the Minister on whether price regulation should resume.

The declaration by the Minister under Section 32A of the PRA provides the Commission power to monitor the ex-factory gate price of Ramu Sugar products. Since late 2009 when the Commission recommended the revocation of the Minister's declaration in relation to wholesale and retail margins for Ramu Sugar products, there has been no regulation declared for sugar goods under Section 10 of the PRA.

The Commission, in undertaking this Review on its own accord in assessing the development of sugar markets in the last 5 years, will have regard to the confidentiality and public disclosure provisions of the ICCC Act on information received through submissions and the current and prospective operating environment of the sugar industry in PNG.

Under Section 32A of the PRA, the Government through the Minister for Treasury has declared the following will be subject to price monitoring:

i. Ramu Mill White Sugar Poly Pack in sizes of 10Kg;
ii. Ramu Mill White Sugar Paper Pack in sizes of 15Kg;
iii. Ramu Mill White Sugar Poly Pack in sizes of (20x500g) 10Kg;
iv. Ramu Mill White Sugar Poly Pack in sizes of (40x250g) 10Kg;
v. Ramu Mill White Sachet Poly Sugar in sizes 3.5Kg;
vi. Ramu Mill White Sugar Poly Pack in sizes 5Kg;
vii. Ramu Mill White Sugar Bulk Bag in sizes 10Kg;
viii. Ramu Refined White Sugar Poly Pack in sizes 10Kg;
ix. Ramu Mill Castor Sugar Poly Pack in sizes 10Kg
x. Ramu Gold Sugar Poly Pack in sizes 10Kg
xi. Ramu Soft Brown Sugar Poly Pack in sizes 10Kg;
xii. Ramu Mill White Sugar in sizes of 25Kg; and
xiii. Ramu Mill White Sugar in sizes of 50Kg.
1.3 Review Process

The Review process followed by the Commission to facilitate public comments is set out below:

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<th>Stage</th>
<th>Action</th>
<th>Date</th>
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<tr>
<td>1</td>
<td>Public announcement of the inquiry and invitation for submissions to be made to the Commission</td>
<td>3 September, 2012</td>
<td>Completed</td>
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<tr>
<td>2</td>
<td>Release of an Issues Paper discussing aspects of the review, major issues that the Commission believes need to be considered, and requesting information and comments from stakeholders including the public</td>
<td>3 September, 2012</td>
<td>Completed</td>
</tr>
<tr>
<td>3</td>
<td>Release of a Draft Report and Draft Final Determination and the invitation of submissions on that Draft Report and Draft Final Determination</td>
<td>May 9, 2013</td>
<td>Completed</td>
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<tr>
<td>4</td>
<td>Submissions on the Draft Report and Draft Final Determination due</td>
<td>June 10, 2013</td>
<td>Completed</td>
</tr>
<tr>
<td>5</td>
<td>Release of the Final Report and Final Determination (including Final Pricing Order).</td>
<td>31 October, 2013</td>
<td>Completed</td>
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Copies of submissions received by the Commission in the conduct of this review (unless treated as confidential) are available for public viewing at the Commission's office on a ‘Public File’ or copies can be obtained from the Commission at a nominal cost for photocopying. This Final Report is also a public document and can be obtained from the Commission’s office or through the Commission’s website on www.iccc.gov.pg.

This report is the final stage in the review process and includes information from submissions received on the Issues Paper, the Draft Report as well as information gathered independently by the Commission as part of this broad investigation. The organisations which provided submissions are listed in Appendix A.
CHAPTER 2   THE SUGAR INDUSTRY IN PNG

Sugar is an important element in the diet of most semi-urban and urban communities in PNG and has become a large part of rural and remote diets as well. In urban areas, sugar consumption constitutes a considerable portion of the average Papua New Guinean household budget. Papua New Guineans enjoy their cup of tea or coffee with sugar and also use it for baking, production of other goods and for many other purposes.

The sugar market in PNG was previously entirely dominated by one company, RAI. Brand loyalty and RAI’s position as the only sugar producer in the country make Ramu sugar products a favourite in PNG. However, a number of new brands have successfully entered the market due to the tariff reduction program introduced by the government more recently.

Regulation attempts to be a surrogate for workable competition, as workable competition delivers goods and services at the lowest prices, thus maximising allocative, dynamic and productive efficiency, which maximises economic growth, enhances living standards and reduces poverty.

To assess whether regulation is necessary, it is relevant to examine whether the market is workably competitive. To do so, it is necessary first to define the market and then, assess the level of competition in it.

Following on from market definition, assessing market concentration is required because a high level of concentration is a necessary condition for the exercise of unilateral or co-ordinated market power, including the ability to raise prices above levels that would prevail in a competitive market. High concentration, however, is not a sufficient condition for the exercise of market power. Other factors, the most important of which is the condition of entry namely, what barriers, if any, impede entry¹, need to be assessed, if the market is concentrated, to arrive at an assessment of the state of competition in the relevant market.

In this Chapter, the Commission has sought to identify and discuss the various aspects of the sugar industry in PNG including:

- market definition
- the market structure
- RAI and other importers
- their relative market shares
- the wholesale and retail segments of the market
- the distribution channels to market.

2.1 Market Definition

A relevant market can be defined in terms of product(s)/service(s), geographic area(s), and temporal dimensions. The dimension of the functional level may also be relevant. In this case, it is the upstream production or supply that is the possible cause of concern hence the relevant functional level is manufacture/importation and wholesale supply. Authorities have held that a market is the ‘area of rivalry’, where ‘area’ is not only confined to spatial concepts but also to the product/service under consideration with a temporal dimension. In industrial organisation assessment, temporal dimension is

usually, but not necessarily, accepted as a time frame of one to two years. The greater the barriers to entry; the less dynamism in terms of technological or other change; the larger the relative size of the sunk costs; the longer the gestation period is for ‘gearing up’; the longer the temporal dimension is likely to be. Product and customer differentiation within the overall area of rivalry may, if the discontinuities are sharper, thereby making substitution possibilities more unlikely, require separate market definitions. Finally, more than one market may be involved and overlapping markets are common.

Market definition is a purposive task and long standing authorities say that the task of defining markets is not an end in itself, but a means to the end of assessing competition.

Because market definition becomes necessary to analyse competition in some activity, it is the activity itself, or the matter under consideration, such as a business acquisition, that delineates the starting point, 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, if a small but significant non-transitory increase in price (‘SSNIP’) is applied. Such an increase can be applied either by a ‘hypothetical monopolist’ or by one or more players (known as the ‘hypothetical monopolist test’ or the ‘SSNIP test’). It is the reaction, either in the way of additional suppliers emerging to supply at or below the new price; or additional quantities supplied by existing suppliers at or below the new price; or customers succeeding in obtaining supply outside the existing number of suppliers below the new price; or outside the existing geographic region of acquisition; or substituting other products or services for the subject ones, that determines the effective limits of the various dimensions of the market in a practical sense, although precise ‘white line’ delineations are unrealistic to expect. Essentially, if the SSNIP can be profitably maintained for a sustained period without disproportionate loss of profits because of customer reaction in successfully seeking out alternative supply, then that, in effect, defines the market.

The market definition is relevant as it identifies and defines the boundaries of competition between firms, in this case between sugar millers and importers. A relevant market definition, inter alia, makes it possible to calculate market shares that convey meaningful information regarding market power for purpose of assessing dominance of firm(s) in a market. A relevant market is defined according to both products and geographical factors and, if relevant, functional level, in relation to a relevant period.

Generally, a relevant product market encompasses all those products and/or services which are regarded as interchangeable or substitutable on the basis of product characteristics, prices and intended use. Products and/or services that could readily be put on the market by other suppliers without significant switching cost or by potential competitors at reasonable cost and within a limited time span also need to be taken into account.

A relevant geographic market encompasses the area in which the players are involved in the supply and demand of products or services, in which the conditions of competition are identical and which can be distinguished from neighbouring areas, because the conditions of competition are significantly different in those areas.

Section 33(8) of the ICCC Act provides the definition of a market as “.......a market in the whole or any part of Papua New Guinea for goods and services as well as other goods or services that, as a matter of fact and commercial common sense, are substitutable for them, including imports.”
In applying the general definition of a relevant market in which sugar suppliers operate for the purpose of competition analysis, the Commission is inclined to use sugar as the product market; manufacture/importation and wholesale supply as the functional dimension; and the whole of Papua New Guinea as the geographic dimension. The usual temporal dimension of about one to two years is adopted for analytical purposes.

However, the Commission is aware of the sugar substitutes and general sweetener market. A sugar substitute is a food additive that duplicates the effect of sugar in taste, usually with less calorific content. Some sugar substitutes are natural and some are synthetic. Those that are not natural are, in general, called artificial sweeteners. An important class of sugar substitutes is known as high-intensity sweeteners. These are compounds with many times the sweetness of sucrose, common table sugar. As a result, much less sweetener is required and energy contribution is often negligible.

While sugar substitutes and sweeteners represent functional substitutes for sugar, in the PNG context they are not true substitutes due to:

- limited availability of these products;
- high prices;
- limitations on its use in small scale manufacturing processes; and
- limited demand for low calorie food products (with the notable exception of Soft Drinks)

Therefore the relevant product for consideration in this report is limited to natural sugar.

### 2.2 Market structure

According to submissions received, a total of about 44,000 tonnes of sugar have been sold in PNG per year since 2007. More than three quarters of this figure is sold by RAI while the remainder is sold by other distributors who import. The Commission notes that domestic production by RAI each year since 2007 is over 33,000 tonnes. The majority of domestic production is used for domestic consumption and/or sold to industrial customers for use in the production of other products.
The major players in the sugar industry are:

- Processors – RAI
- Wholesalers – RAI, other wholesalers who supply to commercial customers and retailers
- Major importers – JKT Lim, Raumai, Lambs Trading and Globe
- Other importers - a small number of companies who import packaged sugar for retail sale
- Retailers - who supply sugar household consumers in PNG
- Consumers – industrial consumers (those who use sugar products to produce other products) and end-consumers (almost all residents of PNG).

The interrelationships between these players in the PNG sugar industry and the segment of the industry subject to regulation are shown in Figure 2.2.

Figure 2.2: Basic Market Structure – Sugar Market in PNG 2012

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The regulated segment of the market, (RAI's Ramu sugar products) accounts for over 70 per cent of the total sugar market, with a likely estimate of 75 per cent. As shown above, the major wholesalers/distributors and industrial customers have the option of importing or buying from RAI and these major wholesalers can sell to other wholesalers and retailers who then sell to the end-consumers.

Local Production
The local production and processing of sugar commenced in the 1970's and the government has been assisting RAI as the only miller in the country through protective measures in the form of high tariffs in order to boost domestic production and demand. RAI currently cultivates around 9,300 hectares of sugar which is processed and packed at its mill in Lae.

According to RAI’s submission, local production of sugar is approximately 37,000 tonnes per year and is dependent on seasonal variations. This number may have slightly decreased in recent years with the shortage experienced by RAI but this trend is expected to increase again from 2012 onwards. Currently, there is no legislation in PNG preventing any potential investor to invest in a new sugar production and processing enterprise.

2.3 Major importers and industrial customers

The major importers source their sugar products mainly from Australia, Thailand, other South East Asian countries and Fiji. Imports of sugar, like some other commodities in PNG, are subject to a 35% tariff after it was reduced from 70% to 40% in 2010. The four major importers are outlined below.

1. Lams Trading - Lams Sugar
2. Globe - KBS/KBest Sugar
3. JKY Lim - Mamas Sugar
4. Andersons & Raumai - CSR Sugar

Importers either import sugar products that are pre-packaged or in bulk quantities for packaging in PNG. Sugar comes in different pack sizes ranging from 500g to 50kg and is distributed to major customers such as manufacturing companies, caterers, wholesalers and retail outlets/supermarkets. To date Ramu white sugar is preferred by the majority of PNG consumers and makes up about 75 per cent of total sugar sales.

In addition to larger importers, there are a large number of industrial customers that purchase bulk sugar from RAI to use in their production or manufacturing process. These are mainly customers of RAI which use sugar to produce and manufacture other goods or products. Some of these include SP Brewery, Laga Industries and others. RAI submitted that one of the most significant consumers of sugar in PNG, Coca-Cola Amatil no longer sources its sugar from RAI, choosing instead to use imported product.

2.4 Market share

The Commission has not received information from importers to estimate the market share of each participant in the sugar industry. However, based on the few submissions that have been received, there is indication that market share is changing with RAI losing market share slightly and its competitors (other importers) increasing market share marginally. Based on the Commission’s indicative analysis, RAI has experienced a decline in market share from almost 100 per cent to 95 per cent in early 2000 to around 75 per cent or less in 2012.
Assessments undertaken by the Commission indicate that Ramu sugar makes up around 75 per cent of sales in PNG. While this is a significant portion of the market the Commission has been informed that it has been steadily declining since more varieties have become available.

**Figure 2.3 Market Share Estimates for RAI in 2000 and 2012**

Overall, the Commission notes that RAI’s Ramu sugar brand still maintains a large amount of market share. However, the slight changes in market shares and increase in a few numbers of importers is an indication of moderate competition in the sugar industry. This issue is discussed in detail in Chapter Four.

### 2.5 Wholesale and retail sugar markets

The wholesale sugar market in PNG consists of RAI, other importers and wholesalers, some of which are listed below:

- JKT Lim
- Raumai
- Lams Trading
- Globe
- Seeto Kui
- Patricks Transport
- Shao Trading Ltd (Shao)
- BNG Trading
- TST Trading
- Super Value Stores or SVS.

These businesses and other wholesalers supply a wide variety of household products and food items including sugar to retailers. In addition to supplying sugar to consumers, Seeto Kui has established

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3 Estimates based on data collected from submissions as well as assessment undertaken by the Commission as part of this review. Exact figures are commercial in confidence.
their own brand of sugar, King Sugar. King Sugar is a white sugar that is purchased from RAI but re-packaged by Seeto Kui under the brand name ‘King’. It is sold through Seeto Kui’s distribution networks to other wholesalers as well as retailers.

The retail sector in PNG consists of all formal and informal businesses responsible for selling household products to consumers. The provision and sale of sugar products at the retail level is undertaken by supermarkets and smaller stores. Retailing activities are independent from the operations of importer's activities. However, in certain cases retailers also directly import sugar and sell it to consumers as in the case of a significant sugar supply decline.

As noted previously, wholesale and retail margins were previously regulated at 10 per cent and 11 per cent respectively. This price control has now been removed as a result of the Commission’s 2009 Wholesale and Retail Industry Review.

2.6 Distribution channels to market

RAI packs its own sugar products and distributes these packaged products to its major customers all around PNG in the main towns and centres. All RAI’s sugar is grown, processed and packaged at its factory in Ramu Valley. Some of this sugar is distributed directly from Ramu to the Highlands provinces while others are sent to RAI’s Lae warehouse for loading into containers for customer orders within Lae and outside from other centres like Port Moresby.

RAI sets a base price for sugar which is determined firstly by the cost of production with added costs for transport and all other associated costs plus a profit margin. The base price is then discounted to the PNG market customers based on volume purchases. Customers who purchase over three full container loads (FCLs) of sugar per month receive discounts and these discounts increase as a customer's number of FCLs increases. Discounts are subject to change at any time depending on change in circumstances. In the case of those suppliers who import packaged sugar products, they either distribute directly to the consumers who can be either households or industrial or channel the products through other retailers for direct retailing.
CHAPTER 3 FRAMEWORK FOR ANALYSIS

3.1 Introduction

This chapter outlines the analytical framework the Commission will adopt when assessing the state of the PNG sugar market. In assessing the market the Commission is required, under the provisions of Section 25C(3) of the Prices Regulation Act, to consider whether to:

• Continue to operate price control arrangements in their present form;
• Vary the existing price control arrangements; or
• Terminate the existing price control arrangements.

The steps in this process are represented diagrammatically in Figure 3.1.

Figure 3.1: Commission's considerations and appropriate steps

In order to make a decision regarding these matters, the Commission examined the issues surrounding the competitive nature of the PNG sugar market. This chapter examines these issues and:

• discusses the rationale for using competition as the basis for assessing possible changes to the
existing arrangements,

• defines what is meant by a competitive market, and
• establishes the assessment criteria the Commission will use when making judgments regarding the competitive state of the market.

3.2 **Rationale for competition as the Basis for Assessment**

The primary objectives of the Commission as specified in Section 5(1) of the ICCC Act are:

• to enhance the welfare of the people of Papua New Guinea through the promotion of competition, fair trading and the protection of consumers' interests;
• to promote economic efficiency in industry structure, investment and conduct; and
• to protect the long term interests of the people of Papua New Guinea with regard to the price, quality and reliability of significant goods and services.

Competition is normally the most effective way to ensure that the interests of consumers are protected and enhanced. Where competition is effective in promoting economic efficiency, there is generally no need for market intervention in the form of price regulation. Regulated prices will almost always be an imperfect substitute for prices determined by competitive processes and are likely to impose costs and distortions not present in a competitive market. Because regulators have imperfect information, regulated prices are likely to be set either too low, deterring investment or innovation, or too high, to the detriment of consumers. Further, regulated prices often lack the flexibility of market prices. Price regulation is therefore justified only where markets are not competitive, where regulation can improve market outcomes, and the benefits exceed the costs.

In seeking to achieve the above primary objectives, Section 5(2) of the ICCC Act requires the Commission to have regard to the following facilitating objectives:

• to promote and protect the *bona fide* interests of consumers with regard to the price, quality and reliability of goods and services;
• to ensure that users and consumers (including low-income or vulnerable consumers) benefit from competition and efficiency;
• to facilitate effective competition and promote competitive market conduct;
• to prevent the misuse of market power;
• to promote and encourage the efficient operation of industries and efficient investment in industries;
• to ensure that regulatory decision making has regard to any applicable health, safety, environmental and social legislation;
• to promote and encourage fair trading practices and a fair market.

The common theme of the above primary and facilitating objectives is competition. Competition in the provision of a good exists where there is rivalry (or potential rivalry) between two or more businesses seeking to secure the business of a customer. In order to obtain the business of any individual customer, the businesses are under pressure to offer the most attractive product in terms of price and quality, and in some instances also the level of service.

Competition drives companies to continually seek new and improved ways of providing products and services. Competition can be thought of as delivering more efficient production in three ways.

*Productive efficiency*- Competition for customers requires that companies continually seek the lowest cost effective way of producing their products and services. If a new business can enter a market and
produce and sell the same product at a lower price, any existing businesses can expect to lose market share and may be forced out of business. Competition therefore compels businesses to continually seek to reduce costs.

*Allocative efficiency*- Competition for inputs among businesses selling differing products directs resources of the economy to where they are most valuable. This ensures that society as a whole is better off because the limited resources of the economy are being used in the most effective and efficient manner.

*Dynamic efficiency*- Competition compels businesses to seek new and improved ways of doing things. For example, if a business is able to invent a new and more efficient way of manufacturing its product (or create an entirely new product) it will benefit by attracting additional customers.

The overall effect of competition is to drive businesses to produce goods and services at least cost, allocate goods and services to where they are most valued, and to seek new and improved ways of serving customers. However, competition is not an end in itself. Rather, competition is in most situations the most effective mechanism by which customers receive low priced, high quality products suited to their needs.

Based on the primary objectives and facilitating objectives of the ICCC Act and the above discussion, it is the Commission’s view that competition in the provision of a good, such as sugar, is the most effective way to protect the long term interests of consumers and deliver efficient prices to customers. It is for this reason that the Commission is considering the competitive state of the PNG sugar market as an important issue when assessing whether to recommend to the Minister to continue, alter or cease the existing pricing monitoring arrangements.

This approach is evident in other reviews and inquiries undertaken by the Commission such as its review into the Wholesale and Retail Margins of declared goods. The conclusion of that review was that there was no longer a need for regulation of wholesale and retail margins.

### 3.3 What is a competitive market?

The definition of a competitive market as described in textbooks exists rarely, if at all, in the real world. As such, it is necessary for the Commission to adopt a real-world definition that can be applied usefully. The approach often adopted is to consider whether a market is ‘effectively competitive’. Where a market is ‘effectively competitive’ (sometimes also referred to as ‘workably competitive’), there is sufficient rivalry between businesses to ensure that they strive to deliver the goods and services consumers demand at least cost, and for product and process improvement. Effective competition will also ensure resources move relatively freely between and within markets in response to consumer demand and price signals.

Consumers in an effectively competitive environment will also have access to a reasonable degree of information to allow them to make choices and participate in the market. Businesses in an effectively competitive market may have a degree of market power associated with product differentiation or innovation, but that market power will not be substantial or sustainable and will be subject to competitive erosion over time. At any particular point in time, resources may not be employed in their most valuable use, prices may deviate from costs and technologies can deviate from the most efficient ones available. However, over time, effective competition will drive the market towards efficient outcomes. Businesses will continuously strive for competitive advantage against actual and potential rivals. They will seek out new profit opportunities to deliver the goods and services consumers want,
and the market may always appear to be in a state of disequilibrium and change. This is the very essence of real world dynamic competition.

The Commission's approach to evaluating effective competition is guided by the approach adopted in the development and application of competition law and policy. The following definition of effective competition has been applied by the Australian Competition Tribunal:

"As was said by the U.S. Attorney General's National Committee to study the Antitrust Laws in its report of 1955 (at p. 320): 'The basic characteristic of effective competition in the economic sense is that no one seller, and no group of sellers acting in concert, has the power to choose its level of profits by giving less and charging more. Where there is workable competition, rival sellers, whether existing competitors or new or potential entrants in the field, would keep this power in check by offering or threatening to offer effective inducements...'."

Conversely, the Hilmer Committee identified the characteristics of markets in which effective competition does not exist:

"Where the conditions for workable competition are absent – such as where a firm has a legislated or natural monopoly, or the market is otherwise poorly contestable – firms may be able to charge prices above the efficient level for periods beyond those justified by past investments and risks taken or beyond a time when competitive response might reasonably be expected. Such 'monopoly pricing' is seen as detrimental to consumers and to the community as a whole."

The extent of competition within a market may also vary over time. Maturing markets can be characterised as progressing towards a more competitive state as shown in Figure 3.2.

**Figure 3.2: The continuum of competition**

In addition, the dynamic nature of markets over time demands that a forward looking approach to the state of a market be adopted. Clearly, regard must be had to evidence of what has actually been happening in a market but the most important question is: what is likely to happen going forward? With the absence of decisions under Papua New Guinea law in relation to the ICCC Act, the Commission has been guided in its analysis by the forward-looking approach of the High and Federal Courts of Australia and the Australian Competition Tribunal. These entities identified the benefits of analysing competition using a forward-looking approach:

"In our judgment, given the policy objectives of the legislation [the Trade Practices Act], it serves no useful purpose to focus attention upon a short-run, transitory situation... This does not mean we seek to prophecy the shape of the future – to speculate upon how community tastes, or institutions, or technology might change. Rather, we ask of the evidence what is likely to happen to patterns of consumption and production were existing suppliers to raise price or, more generally, offer a poorer deal. For the market is a field of actual or potential rivalry between firms."
The Commission, in its assessment of the PNG sugar market, will be guided by the definition of an effectively competitive market while noting that markets change and evolve over time and that a forward-looking approach is appropriate.

3.4 **The Commission’s assessment criteria**

The Commission, in considering the competitiveness of the PNG sugar market, will investigate a wide range of real-world market characteristics. The market characteristics to be investigated are listed and discussed below. Chapter 4 will examine these characteristics with specific reference to the PNG Sugar market.

- Barriers to entry (and exit) for new participants / import competition
- Competition between existing market participants
- Countervailing market power
- Exercise of choice by customers.

3.4.1 **Barriers to entry (and exit) for new participants / import competition**

In any typical market, barriers to entry can be detrimental to effective competition. This is because barriers to entry restrict the ability of new businesses to enter a market and compete against existing participants. If barriers to entry are high, then competitive constraints will depend on existing rivals. Barriers to entry can be artificial or natural due to factors such as regulation (e.g. government monopoly, tariffs) or economies of scale in production.

Sunk costs, a potential barrier to exit, can also be a barrier to market entry. Any potential firm considering a large investment in plant infrastructure would also consider its potential costs associated with its exit from the market. If these potential costs were insignificant in a non-competitive market, it may consider entering the market. However, if these costs are high with sufficient competition then this can deter a potential entrant into the market.

Imported goods can compete with those produced locally. A business that can import a product can avoid the need to establish its own operations locally and may therefore potentially avoid the factors contributing to the barriers to entry and exit discussed above. The extent to which imports may contribute to an effectively competitive market depends on the cost of importing these goods which in turn is reliant on factors such as the cost of shipping and tariffs.

The threat of competition via imports, without the actual delivery of goods, can also increase the efficiency and competitiveness of a market. For example, an existing market participant may be constrained in their actions given that an importer may be able to quickly arrange a shipment and undercut any inflated prices.

In a very real sense import competition, and the potential threat of import competition, may be a more effective check on uncompetitive behaviour than the threat of direct market entry and competition. This is the case given that an importer may be able to source products quickly and without having to incur the costs associated with establishing a factory, thereby avoiding the barriers to entry and exit identified above.

3.4.2 **Competition between existing market participants**

Competitive markets normally exhibit competition between existing market participants. This
competition keeps a continual check on prices and forces the participants to consider new and improved ways of operating in order to maintain and attempt to increase their market share.

Competition between existing market participants is characterised by activities such as growth, innovation and product/service differentiation which enable businesses to actively increase their customer base.

**Concentration**

Highly concentrated markets, meaning a small number of suppliers, create the conditions in which competition can be harmed. As discussed in Chapter 2, while concentration is a necessary condition for reduced competition, it is not a sufficient condition for that outcome. Low barriers to entry and exit or the existence or likelihood of imports, countervailing power and other dynamic factors of the market may well constrain incumbents and limit the scope for unilateral or co-ordinated anti-competitive conduct.

There are measures used to assess concentration. The Herfindal Hirschman Index (HHI) is one and the concentration ratio is another.

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 likely level of competition.

The key advantage of the HHI is that it not only shows the aggregate level of concentration, but reflects the relative size distribution of all firms in the market, which is an important indicator of the likely existence of unilateral or co-ordinated market power.

When the HHI value is less than 100, the market is highly competitive, and when the HHI value is between 100 and 1000, the market is said to be not concentrated. When the HHI value is between 1000 and 1800, the market is said to be moderately concentrated. When the HHI value is above 1800, the market is said to be highly concentrated.

A concentration ratio (CRk) is the total market share of the top 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 power. It can 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. Of course, an individual firm’s market share is a possible indicator of unilateral market power.

A concentration ratio of 0 to 50 percent is commonly interpreted as an industry with low concentration. A workably competitive market falls into the bottom of this with oligopoly emerging near the upper end. A concentration ratio of 50 to 80 percent is considered an industry with medium concentration, with the possibility that these industries are oligopolistic, depending on the size distribution of the leading firms. An industry with a concentration ratio of 80 to 100 percent is viewed as highly concentrated. Government regulators are usually most concerned with industries falling into this category.
The above comments on market concentration are subject to the caveat that other relevant factors need to be assessed, principally, the barriers to entry and expansion.

The discussion in Chapter 2 shows that despite new entrants into the market, concentration in the market for the milling, refining and wholesale supply of sugar is still very high with RAI having about 75% market share.

3.4.3 Countervailing market power

Countervailing market power exists where a consumer either directly or indirectly demands or induces some degree of influence to cause the supplier to amend its supply arrangement or vary the price of its good by succumbing to the demands of the consumers, under a credible possibility of the consumer 'bypassing' or inducing 'bypass', either by entering the market directly; 'contracting' an agent to supply the relevant product or service; or where it is a good, importing it directly. Countervailing market power exists normally where a customer is a major customer or consumer of the good supplied. As such, it may be the case that some, but not all, customers have a degree of countervailing market power. Countervailing market power should not be confused with bargaining power, arising from size, although the two may be co-incident.

3.4.4 The exercise of choice by customers

Competitive markets are normally characterised by the ability of a segment of the customer base to access relevant information and exercise choice in their purchases and switch between competing products, which compels producers to offer goods at competitive prices and with a high level of service. If a producer does not offer goods at competitive prices, a decision by customers to switch to alternative suppliers offering more competitively priced goods will lead a loss of market share and may lead to a producer going out of business. The more actively customers respond to the competitive offers of businesses, the greater the pressure on businesses to set efficient prices and provide better quality goods or services.
CHAPTER 5 COMMISSION’S ASSESSMENT OF THE PNG SUGAR MARKET

5.1 Introduction

This Chapter sets out the following matters:

- the real-world characteristics of the market against the assessment criteria;
- analyses of data based on the information obtained via the price monitoring approach developed in 2008; and
- the Commission's findings.

5.2 Discussion against the Commission’s assessment criteria

The discussion in the following Sections is based on the following approach:

- Commission’s analysis in the Draft Final Report;
- Submissions on the Draft Final Report; and
- Commission’s Final Conclusions.

5.2.1 Barriers to entry (and exit) for new participants / import competition

Draft Report Analysis

In terms of the cultivation and milling of sugar in PNG, the Commission considers barriers to entry into this market to be high given the capital intensive nature of this business. This is supported by RAI in its submission that there are significant barriers to establish a sugar milling operation in PNG and such operation relies on nearby source of raw sugar and requires very substantial capital investment and expertise. RAI is the only cultivator and miller of raw sugar in PNG.

Wholesaling of sugar however does not rely only on a milling operation. A distributor/wholesaler of sugar may import and distribute sugar through established distribution channels. Therefore, in terms of the wholesale market of sugar products, the import tariff on sugar is a barrier to entry. The initial tariff level was 70% and this has been reduced to the current level of 35%. This tariff level is a significant barrier to entry for new participants into the wholesale sugar market. The presence of import tariffs means there are artificial barriers to entry for an importer considering entering the PNG market relative to a local manufacturer. A potential importer has to meet the cost of importing from overseas before successfully arranging for import, storage, distribution and marketing of its product. The number of major importers has slightly increased over recent years and particularly in 2010 and 2011 as a result of RAI’s recent shortage of sugar supply in the domestic market and the government’s tariff reduction program which has seen the tariff reduced to 35%. At the current levels, tariffs still represent a significant barrier to competition in the wholesale sugar market. The Commission fully supports the further reduction in import tariffs as the ideal mechanism to promote competition in the wholesale market.

The Commission notes that over the last five years, the number of sugar brands and varieties has increased. Based on the evidence available, it is clear that importers have become somewhat active in
the market more recently. Should the government continue its tariff reduction program and further reduce tariff from its current level, it is likely that new brands will enter the market. While there is interest shown by importers to supply sugar in PNG, the Commission is yet to learn of any domestic or international interest of establishing another sugar mill in PNG. As indicated above, with high costs of establishing a mill and import tariff being reduced and allowing entrants into the wholesaling market, it is highly unlikely for a new entrant to enter the PNG market and begin milling and supplying sugar. However, a new entrant could enter the wholesale market and compete with RAI.

In terms of the retail market, there is no barrier to entry. Any potential retailer could set up a retail business in general and include sale of sugar products in their business.

Submissions to the Draft Report

Ramu Agri Industries Limited (RAI) stated that:

*The ICCC report cites the existing, reduced sugar tariff as a substantial barrier to entry. With respect, this is not correct. A tariff is nothing more than an operating cost. If, as is now the case in PNG, the landed price of imported sugar, after purchase, shipping and taxation (tariff) costs, is comparable to locally grown and processed sugar, then the tariff is not a barrier to entry.*

The National Research Institute (NRI) submitted it agreed that:

*Natural Barriers especially the capital-intensive nature of Milling, and high sunk costs prevent new entrants from setting up mills to compete with RAI*

Commission’s Final Conclusions

In defining what represents a barrier to entry the Commission draws on the definitions developed by Stigler and later by McAfee, Mialon Williams (1994) who defined economic entry barriers as a cost that must be incurred by new entrants and that incumbents do not or have not had to incur.

The Commission notes that it is standard practice amongst competition regulators within the OECD to consider government imposed barriers in their analysis of barriers to entry. For example Canada’s Competition Tribunal when considering barriers to entry into a market, explicitly examines:

(a) tariff and non-tariff barriers to international trade,
(b) interprovincial barriers to trade, and
(c) regulatory control over entry.

Barriers to entry represent obstacles limiting individuals or entities from entering a particular market, in this case the sugar market. These hindrances might be experienced by individuals, businesses or regions attempting to break into an established industry, trade or field. A barrier to entry also restricts competition and can compromise new business. In a market sense, barriers to entry grant pricing power to an established entity, also known as an incumbent. Although barriers to entry allow for only the most qualified and competitive members to thrive, which is a function of capitalism, these

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4 RAI’s submission to the Independent Consumer & Competition Commission’s Draft Sugar Review
5 NRI’s submission to the Independent Consumer & Competition Commission’s Draft Sugar Review
roadblocks might also serve as a hindrance, creating a market environment where consumers are forced to pay high prices for products or services because of a lack of options. There are number of factors that create barriers to entry one of which is high tariff levels in the sugar market in PNG.

Therefore the Commission maintains its view that the existing tariff level is a barrier to entry as it reduces the ability of new importers and entrants to the market. A zero level tariff is seen as encouraging competition in the sugar industry whilst the reduced tariff level of 35% still remains a barrier to entry.

5.2.2 Competition between existing market participants

Draft Report Analysis

Competition between existing market participants is not that robust in the PNG wholesale market for sugar. The Draft Report noted RAI remains the dominant player in the wholesale market although few other importers continue to actively seek to grab a share of the market. The Draft Report also noted that the clearest form of competition that exists is price competition. Prices of sugar in the PNG market vary between retail outlets, locations and with the type of sugar being sold. Analysis undertaken by the Commission demonstrates that brands directly competing with RAI are quite expensive when compared to Ramu sugar products. However, in certain cases Ramu sugar is more expensive in the market.

In the Draft Report, the Commission stated that, competition between existing suppliers is also characterised by the development and offering of new and differentiated products and services. In the case of sugar, white and brown sugar is available in different packs and sizes.

With respect to the businesses actively seeking to maintain or expand market share, there is clear evidence of competition between importers and RAI. The Commission is unable to provide exact figures on market share in the PNG wholesale market for sugar but its analysis indicates that RAI is losing market share since 2000 and may have a market share of about 75 per cent in 2012.

The Commission concluded that price competition as well as advertising and marketing initiatives indicated that there is competition between existing players in the wholesale market. The Commission also noted it expects competition to increase given the government’s tariff reduction program and with evidence of new entrants in the market such as Lambs Trading which entered in early 2010.

Submissions on the Draft Report

The Commission received no submissions which addressed the matter of competition between existing market participants.

Commission’s Final Conclusions

The Commission maintains its view that competition between existing market participants is not very significant in the PNG sugar market. RAI remains the dominant player in the market while other importers are actively seeking to maintain or expand market share at the wholesale and retail levels.

5.2.3 Countervailing market power

Draft Report Analysis
Countervailing market power exists where a customer is able to exert influence over a supplier to cause the supplier to amend its supply arrangement or vary the price of goods, as a result of a credible threat of ‘bypass’ either to import or produce the product, or to ‘contract’ a party to do so. The extent of this countervailing power is reliant on the availability of alternative supply options of similar quality and quantity. Countervailing market power is most likely to exist for large customers although individuals can potentially exert ‘collective’ countervailing power through their consumption behaviour. In the latter case strong product differentiation, e.g. by brand advertising, can limit the scope for such ‘consumer power’.

In the Draft, the evidence available to the Commission indicates that there are limited supply options in the sugar market given that there are very few sugar importers and only one domestic producer. Notwithstanding this, large wholesalers and retailers (big supermarkets) have some form of countervailing power as they buy larger quantities than those small customers of RAI. With reduced import tariff, these buyers can import sugar and have the potential to threaten to by-pass RAI to supply Ramu sugar products according to supply arrangements that better suit their needs. Hence, the Commission is of the view that large customers of RAI have some form of countervailing power. Furthermore, the Commission understands that some importers offer discounts to long term customers as well as approach wholesalers and retailers to discuss preferred supply arrangements. If such is the case, then these customers have some countervailing power to influence the importers to supply according to arrangements that benefit them. Despite these possibilities, brand loyalty influences the extent of countervailing power and with Ramu sugar being the household item in PNG, the ability of RAI’s customers to exercise countervailing power is limited but this may change with new products entering the market and the possibility of consumer preference shifting away from the Ramu sugar.

As for small retail outlets, they can either buy from RAI or from the other wholesalers. Given that there is large number of small retail outlets, their ability to bypass RAI or the wholesalers is limited, and therefore countervailing power is limited for small retail outlets. Clearly countervailing power is non-existent for the end-consumers given that there are a large number of these customers, and their individual consumption volumes are individually small. They are price takers in the retail market.

**Submissions on the Draft Final Report**

NRI stated that:

> Brand loyalty for Ramu sugar products by consumers mean that RAI could use this to its advantage to practice anti-competitive behaviour which could hurt and reduce consumer welfare

**Commission’s Final Conclusions**

The Commission maintains its view that countervailing market power appears to exist to a limited degree in the sugar market.

**5.2.4 The exercise of choice by customers**

**Draft Report Analysis**

In the Draft Report, the Commission noted that the PNG market for sugar has been dominated by RAI since 1970 with other players only entering after 2000. During RAI’s three decades as the single

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9 NRI’s submission to the Independent Consumer & Competition Commission’s Draft Sugar Review
supplier of sugar in the PNG market, generations of consumers have become accustomed to the Ramu brand, its taste and baking characteristics.

The recent introduction of new brands of sugar presents choices to consumers who can alter purchasing behaviour and switch from one brand to another, potentially placing a significant competitive constraint on producers and suppliers.

In the Draft Report, the Commission noted the willingness of consumers to switch brands based on price is also potentially increasing because of an increase in the cost of living particularly in urban areas of PNG. Major costs such as utilities and real estate are increasing and any associated adjustments in incomes are not commensurate with the rising costs of living. Over time this situation is reducing the average Papua New Guinean real household disposable income meaning expenditure decisions have the potential to be driven more by price rather than brand. These factors are likely to affect Ramu sugar as it is traditionally consumed by all Papua New Guineans regardless of income level.

The Commission noted that direct evidence of exercise of choice by consumers is demonstrated through the changing market shares discussed. Indirect evidence available to the Commission is in the form of increased marketing and advertising activities being undertaken by the different brands, different prices for different brands and products and the declining market share of RAI. However, RAI still maintains a significant market share of about 75% and this may indicate that majority of customers are loyal to the Ramu brand of sugar products.

**Submissions on the Draft Final Report**

NRI submitted that it agreed that “brand-loyalty for Ramu Sugar products by consumers means that RAI could use this to its advantage to practice anti-competitive behavior which could hurt and reduce consumer welfare”.

RAI submitted that: “the draft report mentioned Coca Cola as one of RAI’s industrial customers. Whilst it is true that Coca Cola was in the past an industrial customer [of RAI] that is no longer the case ... the loss of Coca Cola is a very clear representation of the strength of competition in the market. Coca Cola was able to obtain cheaper sugar elsewhere and accordingly moved its business away from RAI. Their move does indicate substantial countervailing power in the market, and a willingness to use that market power by moving to an alternate supplier”

The Institute of National Affairs (INA) concurred with the Commission's draft finding that the “domestic market has become markedly more competitive in recent years, notably with the reduction of the tariff allowing imported [sugar] to enter the market and capture a sizable slice of the domestic market”

**Commission’s Final Conclusions**

The Commission maintains its view that there is direct evidence of exercise of choice by consumers as demonstrated through the changing market shares and the decision of Coca Cola to seek alternate suppliers. In addition, there is indirect evidence of the exercise of choice by customers as demonstrated through increased marketing and advertising activities being undertaken by the different brands, different prices for different brands and products and the declining market share of RAI.

**5.3 Analysis of market data – price monitoring**
In 2008 the Commission developed a price monitoring arrangement based on the ex-factory gate price of Ramu sugar, both brown and white sugar. This price is monitored against an index based on the price of 1.5kg white sugar in New Zealand as reported by the New Zealand Statistics’ (NZS) website on a monthly basis. RAI does not package 1.5kg of sugar and hence the Commission could not provide graphical representation of RAI’s 1.5kg against NZS 1.5kg of white sugar. Instead, the Commission is using the consolidated prices (prices of all pack types and sizes) of RAI’s sugar products to compare the movements as part of its price monitoring arrangement which is shown in Figure 5.1.

**Figure 5.1: Consolidated price monitoring results**

The results of the price monitoring show that the NZS Index decreased at the commencement of the monitoring period in 2008 and began to increase in early 2009. The Consolidated Ramu sugar price, on the other hand, remained stable although slight increases were experienced during the monitoring period. A likely explanation for differences observed between the NZS Index and the RAI index is that the former is a retail price for a single pack type, while the RAI index is constructed from prices of a range of pack types and some divergent tracking may be expected. Furthermore, tariff changes could be expected to lead to changes in price movements, and, consequently, in the index for RAI FGP prices. Nevertheless, both indexes are now broadly trending similarly in terms of price changes, however with some ‘stickiness’ in the RAI index.

**FAO sugar prices**

In order to better analyse the combination of these factors with respect to its price monitoring arrangements, the Commission has calculated the international price of sugar based on FAO’s statistics and converted it to PNG Kina to create an index. The index is used as a comparison with the NZS 1.5kg sugar price. This information is combined and shown in Figure 5.2.
Analysis of the three indexes shows:

- The Ramu sugar index appears to track closely with the NZS 1.5kg sugar index, especially during certain periods during the monitoring period. Although, the RAI index remained stable for much of the regulatory period apart from the shortage in 2011, NZS index has fluctuated. This is mainly due to the impact of the fluctuating exchange rate movements of the NZ$-PGK exchange rate.

- The FAO world sugar index however tells a different result. FAO world sugar prices have trended very high at the commencement of the regulatory period and although the index fell in 2008, it started picking up again and since mid-June 2009, prices have remained high until September 2012. This trend generally reflects the current prices of sugar in the world.

The changes in RAI’s sugar prices do not mirror the changes in the international sugar prices as evidenced by the significant widening of gaps between FAO’s and RAI indexes. However, the above does not reflect the actual price differential between RAI prices and the FAO prices, due to significant differences in units of weight and other factors, and there may be little or no difference between actual RAI prices and import parity prices.

Other factors
RAI claims to be experiencing higher in-country costs for energy, labour and services. However, if the market is working effectively, those cost increases should not be recoverable above import parity prices, including tariff prevailing tariff.
**Tariff and Employment Considerations**

**Draft Report Analysis**

In the Draft Report the Commission noted that the current import tariff on the import of sugar (whether it be milled or pre-packaged) is 35 per cent which has been reduced over recent times. This continues to act as a barrier to entry for wholesalers to import and wholesale sugar products. There are also no quota restrictions on the maximum amount of sugar imports per year. While there appears to be some barriers to entry, a few players have been able to enter the wholesale aspect of the industry by importing sugar products and this barrier may be further reduced when the government further reduces the current tariff under its tariff reduction program.

The Commission supported the further reduction or elimination of import tariffs on sugar to increase competition in the wholesale market.

**Submissions on the Draft Final Report**

NRI agreed that the government should further reduce the 35 percent tariff on sugar imports. NRI also noted that in light of the impact the reduction of tariffs will have on government revenue, as well as on local jobs, especially those workers employed by RAI at its mill and plantation, it recommended a phased approach to sugar tariff reduction to allow the industry and economy to adjust.

RAI submitted in relation to food security and the longer term impact of the potential demise of PNG’s domestic sugar production industry. This will reduce competition leaving sugar most likely in the hands of a small cartel of international traders and importers. Local employment will suffer, prices will rise and sugar supply will be at the mercy of fluctuations in the world market.

INA submitted that if consumers’ best interest were to be paramount, clearly the tariff should be further removed, as has been planned (noting that the tariff is outside the specific scope of the review), but other infant industry/employment considerations also influence public policy, including over trade.

**Commission’s Final Conclusions**

The Commission notes the concerns raised by both RAI and INA with regard to the potential employment and agricultural impacts of the reduction in the sugar tariff.

**Need for Regulation**

RAI submitted that there is “substantial competition in the market as defined such that price regulation in any form is no longer required.”

On the other hand NRI agreed with the determination by the Commission to continue to apply price control in the form of price monitoring in the sugar industry

### 5.4 Commission’s Findings

The Commission is required to form a view on the competitive state of the PNG sugar market to make an informed decision on the need and, if necessary, the form of any ongoing price regulation in the PNG sugar market.
To assess the current competitive state of the PNG sugar market, the Commission developed a tailored assessment framework based on the factors most relevant to the local market. The Commission's conclusion on the five assessment factors are as follows:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentration</td>
<td>The market is highly concentrated, with RAI having 75% or more of the market.</td>
</tr>
<tr>
<td>Barriers to Entry/Import</td>
<td>There is high level of barriers to entry into the milling aspect of the sugar industry given the capital intensive nature of establishing a mill in PNG.</td>
</tr>
<tr>
<td>Competition Between</td>
<td>In terms of wholesaling aspect, the current import tariff on the import of sugar (whether it be milled or pre-packaged) is 35% which has been reduced over recent times. This continues to act as a barrier to entry for wholesalers to import and wholesale sugar products. There are also no quota restrictions on the maximum amount of sugar imports per year. While there appears to be some barriers to entry, a few players have been able to enter the wholesale aspect of the industry by importing sugar products and this barrier may be further reduced when the government further reduces the current tariff under its tariff reduction program. The Commission supports the further reduction or elimination of import tariffs on sugar to increase competition in the wholesale market. As for the retail market, barriers to entry are low. Evidence provided to the Commission shows that there is a measure of import competition with the presence of various brands at the retail level, but there does not appear to be price competition, with most other brands priced at or higher than the Ramu brand prices.</td>
</tr>
<tr>
<td>Participants</td>
<td>The number of sugar suppliers has increased more recently. This includes new importers like Lams Trading who has entered the market in recent times. With the expectation that the import tariff will be further reduced under the current government tariff reduction program, it is expected that more new entrants are likely to enter the wholesale market in the near future. The number of brands and varieties of sugar products on the market has increased since the new importers commenced supplying sugar in the market. This represents competition between the major importers and RAI. Sugar importers are competing in the form of product differentiation and through advertising to end-consumers. This has impacted on RAI’s market and the Commission’s analysis reveals that RAI’s market share has fallen from approximately 95 per cent in 2000 to slightly above 75 per cent in 2012. This trend is expected to continue as long as the government reduces the import tariff and more importers enter the wholesale market. The Commission’s conclusion is that competition between existing market participants is exerting some competitive pressures in the PNG sugar market.</td>
</tr>
<tr>
<td>Competition Between</td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td></td>
</tr>
</tbody>
</table>
Countervailing Market Power

There appears to be a very small degree of countervailing market power for larger customers who, as a result, have the ability to negotiate discounts.

Overall, the Commission considers that countervailing market power, while it exists in some quarters, is extremely limited.

Customer Choice

Customers have a range of available options in terms of price, quality and products. However, customers appear to have a taste preference for Ramu sugar products.

The Commission’s analysis against its assessment framework indicates that there are competitive pressures in the PNG sugar market despite the dominance of RAI. However, before concluding that the market is effectively competitive, it is necessary for the Commission to consider the evidence provided through the price monitoring arrangement established in 2008. The analysis undertaken by the Commission revealed the following:

- Over the length of the regulatory period, the price monitoring arrangements identified a divergence between the benchmark index and the prices being charged for Ramu sugar products.

- Although the divergence was not that great comparing both NZS index and the RAI index, there are periods where the NZS index has moved away from the RAI index or vice versa. Analysis of the market conditions and an assessment of RAI’s experience show that in most cases when the world sugar prices move upwards, NZS index also trends upwards while RAI index remains constant for some periods of time. The reverse is also true, in that the world and NZS sugar price indices have dropped below the Ramu index. Such divergence could be a result of the use of indices rather than actual prices, as discussed earlier.

The Commission’s analysis indicates that the divergence between the NZS index and the PNG RAI’s index appears to be partially explained by the above factors, but the fact that the Ramu price change index does not move downwards with the other two indices suggests the existence of market power because, if the market were workably competitive, imports would increase when that price differential emerged. As such, and given that the Commission’s analysis against the assessment framework found there to be some form of competitive pressure in the PNG sugar market, it is the Commission’s view that the PNG sugar market exhibits some of the characteristics of a competitive market.

Although the Commission has identified that the PNG sugar market is showing some of the characteristics of an effectively competitive market, it has to consider other issues to decide whether it is necessary to remove price regulation. The most important issue to consider is the brand loyalty that nearly all end-users has toward Ramu sugar products and the ability of RAI to use this to its advantages.

The Commission is of the view that while there is import competition, most end-users prefers Ramu sugar products and would not shift their consumption behavior unless there is significant price difference between RAI's and importers’ prices. There is reason to suspect that importers are wary of the consumers’ brand loyalty towards Ramu sugar and may not import all the required quantity for sugar sales as they may not sell all their imported sugar products. Hence, while major wholesalers and retailers import sugar products they also get their supplies from RAI to maintain their customer base and meet the target sales of sugar products. Furthermore, consumers do not shift their preference within a short period of time as it takes a while for them to try out new sugar products. Hence, if price
regulation is removed, there is possibility that RAI may gain additional market share and increase its prices and this would ultimately affect the end-user consumers.

In light of the above, the Commission considers that while there is import competition it is necessary to continue some form of light-handed regulation on RAI’s Ramu sugar products until there is significant competition in the PNG market and consumers can readily shift their brand loyalty. The light-handed form of regulation that the Commission will apply to RAI is price monitoring and the details of the price monitoring arrangement is discussed in Chapter 6.

Commission’s Final Finding: The PNG sugar market exhibits few of the characteristics of an effectively competitive market and, at this time the Commission considers there to be value in continuing with a form of price monitoring for RAI’s Ramu sugar products.

The proposed price monitoring arrangement is discussed in Chapter 6.
CHAPTER 6  FORM OF REGULATION

The Commission has determined that price monitoring of the sugar industry should continue and the Commission must determine whether the existing monitoring arrangements are appropriate going forward.

6.1 Current Price monitoring of ex-factory gate prices

The Commission monitors the ex-FGP of Ramu sugar products by comparing the movements in the FGPs against the NZS index movement. The NZS benchmark index is developed using Food Price Index Selected Monthly Weighted Average Prices for New Zealand (Monthly) for retail price of 1.5kg sugar in New Zealand. This is subsequently adjusted by the New Zealand dollar/Kina exchange rate. The NZS index replaces the ABS index which the Commission had been using since the commencement of its monitoring role until its abolishment by ABS.

The sugar products that the Commission monitors are:

<table>
<thead>
<tr>
<th>Product</th>
<th>Pack size (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ramu Mill White Sugar Poly Pack</td>
<td>10kg</td>
</tr>
<tr>
<td>Ramu Mill White Sugar Paper Pack</td>
<td>15kg</td>
</tr>
<tr>
<td>Ramu Mill White Sugar Poly Pack</td>
<td>20x500g</td>
</tr>
<tr>
<td>Ramu Mill White Sugar Poly Pack</td>
<td>40x250g</td>
</tr>
<tr>
<td>Ramu Mill White Sachet Sugar</td>
<td>3.5kg</td>
</tr>
<tr>
<td>Ramu Mill White Sugar Poly Pack</td>
<td>5kg</td>
</tr>
<tr>
<td>Ramu Mill White Sugar Bulk Bag</td>
<td>10kg</td>
</tr>
<tr>
<td>Ramu Refined White Sugar Poly Pack</td>
<td>10kg</td>
</tr>
<tr>
<td>Ramu Castor Sugar Poly Pack</td>
<td>10kg</td>
</tr>
<tr>
<td>Ramu Gold Sugar Poly Pack</td>
<td>10kg</td>
</tr>
<tr>
<td>Ramu Soft Brown Sugar Poly Pack</td>
<td>10kg</td>
</tr>
<tr>
<td>Ramu Mill White Sugar</td>
<td>25kg</td>
</tr>
<tr>
<td>Ramu Mill White Sugar</td>
<td>50kg</td>
</tr>
</tbody>
</table>

The NZS Benchmark Index

This NZS index was adopted in March 2012 as a result of the termination of the ABS index online as it was identified based on historical correlation as a:

- good proxy for movements in the price of sugar in PNG
- useful mechanism to identify unusual market conditions in the PNG sugar market.

Monitoring prices against this NZS benchmark provides the following advantages:

- The information used to compile the index is available publicly and is easy to access
- The index is relatively easy to apply and does not impose a significant regulatory burden on industry
- The use of an indexed-based monitoring approach avoids many of the financial modelling complexities of detailed cost allocation and direct price control.
However when the NZS index was developed it was recognised that other factors such as different tax rates and international freight charges may need to be considered. The discussion of the NZS, FAO World sugar and Ramu sugar indexes in Section 4.3 above demonstrates that the Ramu sugar price tracked well against the NZS index until unusual market conditions set in and caused either of the indexes to move away creating a gap.

The Commission concludes that the use of a publicly available index remains the best approach to ensure transparency and accessibly for RAI and other interested parties to observe what the Commission is doing.

NRI and INA both concur that some form of price regulation should continue to apply to the PNG domestic sugar industry due to the overwhelming fact that RAI holds a substantial share of the market. However, RAI submitted that due to the tariff reduction of sugar imports thus indicating substantial competition in the sugar market, price regulation in any form is no longer required. Nonetheless, the Commission maintains its view that price regulation at this stage is still required and necessary to ensure that consumers of the day are not disadvantaged.

### 6.2 The Commission’s Final Findings

The Commission notes that the existing monitoring arrangements had proved effective, particularly through large price reductions in October 2012, where local FGP followed the NZS index downwards. As such, the Commission concludes it is appropriate to maintain the use of the existing NZS index. In addition, the Commission notes that it considers it appropriate to assess any significant divergences between the NZS and Ramu sugar indexes against the FAO world sugar index. The FAO sugar index is calculated using the monthly rolling average methodology as adopted for the NZS index. The data is sourced from the FAO world sugar prices as shown in the FAO’s website under price indexes. The analysis of the NZS, FAO and Ramu sugar indexes will assist in identifying any correlation between international market volatility and the Ramu sugar price and may avoid the need for the Commission to seek additional information from RAI.

The Commission believes that a regulatory period of five (5) years is appropriate as it provides a degree of certainty to industry. Also, this length of regulatory period allows for a price trend to form enabling the Commission to reasonably monitor the price movement and also ensuring that a further review is undertaken within a reasonable timeframe.

**Commission’s Final Finding 3:**

The Commission will maintain the use of the existing NZS index to monitor Ramu sugar prices. However, if there is a significant divergence between the Ramu sugar index and the NZS index, the Commission will review these changes against the world sugar price index. The Commission will also retain the option of requesting information including but not limited to financial information including production costs from RAI to support any changes in price that are not consistent with the NZS and world sugar price indexes.

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CHAPTER 7  THE COMMISSION’S FINAL DETERMINATION

7.1 The Commission’s findings

The Commission has undertaken a review of the regulatory arrangements applying to Ramu sugar products on its own accord taking into account the expiry date of the previous pricing arrangement which lapsed 31st December 2012 and was subsequently extended until 2nd January, 2014. The ex-factory gate price of Ramu sugar products are currently declared as declared monitored goods and services under the provisions of Section 32A of the PRA.

In the Review, the Commission has assessed the development of sugar markets in PNG over the last 5 years and also tries to address some of the issues that arise during the previous pricing arrangement. The Commission acknowledges the comments and submissions received on its Sugar Industry Pricing Review Issues Paper and Draft Report. Having considered these comments and submissions, the Commission has now made the following Final Determinations as to the manner in which the price of Ramu sugar is to be regulated over the next 5 years.

- Price regulation, through the price monitoring regime which currently applies to the ex-factory gate price of Ramu sugar products produced and sold by RAI, will continue over the next five years, and the Commission will recommend this approach for a decision by the Minister for Treasury under Section 32A of the PRA.

- The declaration of the prices and price monitoring arrangements will apply for a five year period from 3 January 2014 until 31 December 2018.

- The regulatory arrangements to be applied will be:
  - price monitoring of the ex-factory price of Ramu Sugar under the provisions of Section 32A of the PRA;
  - The Commission will require RAI to continue to provide the Commission with monthly price updates of all its Ramu sugar products;
  - The Commission will then compare these price increases to the NZS index developed using the Food Price Index Selected Monthly Weighted Average Prices for New Zealand (Monthly);
  - In the event that there is a deviation between the price movements as measured by the Ramu Sugar index and the NZS index, the Commission will undertake an assessment of the Ramu Sugar index against the FAO sugar index. The Commission will also retain the option of requesting information from RAI on costs, revenues and profit margins to support any changes in price that are not consistent with the NZS and FAO indexes;
  - If during the regulatory period the Commission finds that the NZS index is no longer relevant to use, it will find an alternate index to use and will advise RAI accordingly.

- In the event that there is significant divergence between RAI’s, NZS and FAO’s indexes and the Commission has reasonable grounds to believe that RAI is unnecessarily increasing prices, then it will request the Minister for Treasury to declare Ramu sugar products as price controlled goods under Sections 10 and 21 of the PRA.
• In addition any time after 1 July 2016, RAI will be able to apply to the Commission to have the price monitoring regime removed. RAI will be required to provide supporting analytical and technical arguments to support their contention that the market is competitive and that price monitoring is unwarranted. The onus of proof will be on RAI and should be supported by the monthly returns provided to the Commission over the previous three years. Until such time as the Commission determines otherwise the price monitoring will continue, including while the Commission is reviewing the information submitted by RAI.

• The Commission shall also continue to monitor the retail prices for sugar products, including imported or other locally produced sugar products, at retail outlets within PNG, to assess the level of competition through pricing outcomes within the production, wholesale and retail supply chain.

• Price information supplied by RAI shall be accompanied by a Statutory Declaration that the information supplied is complete and accurate, as required by Section 14(4) of the PRA, by the Chief Executive Officer.
APPENDIX A – LIST OF SUBMISSIONS ON SUGAR INDUSTRY PRICING REVIEW ISSUE PAPER AND DRAFT REPORT

Issues Paper

Submissions were received from:

- Ramu Agri Industries Limited
- Peter Skinner
- Titus Mengi

Draft Report

- National Research Institute
- Ramu Agri Industries Limited
- Institute of National Affairs

In addition to the formal submissions, the Commission also received informal advice during the consultation process from other interested parties.
APPENDIX B – PRICE MONITORING OF FACTORY GATE PRICES

Quarterly Price Monitoring against NSO and NZS price indexes

RAI’s Monthly Actual Prices