



**Hale & Twomey**

**2007 ACCC report into  
Australian petrol prices  
Review of applicability to the  
New Zealand petrol market**

**Prepared for**

**Ministry of Economic Development**

**July 2008**

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### **Authorship**

This document was written by Ian Twomey and Steve West. For further information, please contact Ian at [ian@haletwomey.co.nz](mailto:ian@haletwomey.co.nz) or by phone on 04 471 1109

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**Hale & Twomey**

**Hale & Twomey Limited**

Level 4 Gleneagles Building 69–71 The Terrace

PO Box 10444 Wellington 6143 New Zealand

**T** +64-4 471 1108/9 **F** +64-4 471 1158

**E** [info@haletwomey.co.nz](mailto:info@haletwomey.co.nz) **W** [www.haletwomey.co.nz](http://www.haletwomey.co.nz)

**Thinking Energy**

# Executive Summary

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The Australian Competition & Consumer Commission (ACCC) carried out a detailed inquiry into the petrol market in Australia during 2007. They found that the Australian market is fundamentally competitive, although they had concerns about the level of market concentration and made recommendations on continued monitoring of the Australian market to ensure competitiveness.

This report reviews the ACCC findings and whether any are applicable for the New Zealand petrol market. It is not a detailed inquiry into the competitiveness of the New Zealand market; however, the markets are similar with all of New Zealand's petrol wholesalers also operating in Australia.

There is nothing in this review that would indicate a detailed inquiry into the New Zealand petrol market would come to a different conclusion to the ACCC inquiry; the petrol market in New Zealand is fundamentally competitive.

Petrol price remains a significant issue for consumers – prices are prominently displayed and price rises can have a direct impact on their welfare, either in how much they use their vehicle or in reducing their general standard of living. In the past six months petrol price rises have been relentless creating significant public and political attention. Prices reached the bottom of the previous price cycle in January 2007 at \$1.38 per litre. Since then prices have risen nearly 50% or \$0.63 per litre.<sup>1</sup>

Analysis shows that the price increases from January 2007 to June 2008 are due to increases in the price of crude oil (85%) and increases in taxes (15%). While there is week to week variation in refining costs and importer margins they have had no significant impact on the long term trend.

## International crude oil price movements

Crude oil prices have risen four to five-fold since 2004, following a 20-year period of relatively stable prices in the range of US\$15-\$30/bbl. The reasons for the sharp price increase over the past five years are many with explanations including:

- Substantial demand growth particularly in Asian countries (especially China and India) with high economic growth
- A significant reduction in the spare production capacity buffer held by OPEC<sup>2</sup> countries to cover supply disruptions
- Production of crude oil from non-OPEC countries being lower than expected
- Geopolitical tensions with a number of major oil producers including Nigeria, Venezuela, Iran and Iraq
- Concern that the world is facing the end of 'cheap' oil with replacement volumes much more difficult to find and produce
- Substantial increases in the cost of exploring for and producing from new oil fields
- A sizeable proportion of known reserves being off limits to investment by anyone other than national oil companies which has led to concern that investment is not keeping up with forecast demand
- Particularly high demand growth for jet fuel and diesel that has stretched the capacity of the international refining system

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<sup>1</sup> This analysis in this report was done on data to the first week of June when the retail price for regular petrol was \$2.01. Prices have increased beyond this level – analysis is likely to show similar drivers of the latest price changes.

<sup>2</sup> Organisation of Petroleum Exporting Countries

- Continued high demand growth in countries with subsidised prices limiting any demand reduction impact from the higher prices
- Concern that speculation in oil commodity and futures markets by non-commercial interests<sup>3</sup> is adding to the price increase

There is an ongoing debate about whether current high prices are an indication of the true supply/demand balance or are a result of speculation in oil markets. The International Energy Agency (IEA) notes in its July 2008 Medium-Term Oil Market Report that “poor supply-side performance since 2004, in the face of strong demand pressures from developing countries, has forced prices up to curb demand”. It also comments that “While recognising that speculation can have a day-to-day impact on oil price moves, the fact that all producers are working virtually flat out and there is no sign of any abnormal stockbuild gives a strong indication that current oil prices are justified by fundamentals”. However other commentators and politicians are looking at the role and impact of speculators on the oil markets and believe they are at least partially responsible for the very high prices.

The regulator of US commodity and futures trading, the CFTC<sup>4</sup>, has done a number of reviews of oil markets. In its recent testimony before the US Senate<sup>5</sup>, they note “All the data modelling and analysis we have done to date indicates there is little economic evidence to demonstrate that prices are being systematically driven by speculators in these markets.” However due to general concern about speculation United States regulators are currently debating law changes to increase the regulation of oil futures trading although it is reported that the current proposals are not as radical as first proposed.<sup>6</sup>

*In summary most oil market commentators point to the current supply/demand balance as the essential driver of crude oil price increases. They note that many of the reasons driving the price higher over the past five years are structural, supporting expectations for much higher oil prices than were the case in the period from 1985-2004.*

### **Key differences between the Australia and New Zealand petrol markets**

While many of the findings from the ACCC inquiry are applicable to the New Zealand petrol market two important findings are not, suggesting the New Zealand market is more transparent in certain areas than Australia.

The ACCC had major concerns about the four refiner-marketers (BP, Caltex, Mobil and Shell) who dominate the Australian refining and wholesale markets. In particular they were concerned that buy-sell contracts between the refiners have led to the establishment of a “floor” price above the Import Parity Price (IPP)<sup>7</sup> for petrol.

*Buy-sell contracts are not used in New Zealand.* Each refiner-marketer is required to import its own crude for processing (albeit that it is processed at the same refinery) and import its own finished petrol.

A second ACCC finding concerns retail price cycles. In Australia retail prices in main cities move in regular cycles over a period (usually a week) with no direct relationship to

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<sup>3</sup> Parties with no commercial interest in physical oil and petroleum products

<sup>4</sup> Commodity Futures Trading Commission

<sup>5</sup> CFTC, Written Testimony of Jeffery Harris, Chief Economist Before the Senate Committee on Homeland Security and Governmental Affairs May 20, 2008

<sup>6</sup> Argus Weekly Global Markets Volume 28, 21 July 2008

<sup>7</sup> The IPP is the price at which a cargo of appropriate quality petrol can be purchased and shipped to the country.

market benchmark for petrol cost. The ACCC was concerned that these cycles prove confusing to the consumer and do not enhance price transparency.

*Price cycles do not occur in New Zealand.* Retail prices move less frequently (approximately 30 times a year compared with around 250 times in Australia) and the movements tend to be in line with international benchmarks.

### **Price transparency**

The lack of buy-sell contracts or price cycles allows more straight-forward monitoring of the New Zealand market. However there is still a lack of transparency concerning local wholesaler and retailer costs and any profits made from the margin between landed cost and retail price (known as “importer margin” in Ministry of Economic Development’s (MED) analysis).

*Increased transparency about the makeup of the importer margin would benefit consumers.* Increased transparency could be achieved by MED gathering more detailed data from wholesalers about their local costs (on a confidential basis) which could then be aggregated (in ranges) to provide an average breakdown of the importer margin.

The long term trend of importer margins (section 9.5) is a declining import margin reflecting ongoing efficiency improvements and greater competitive pressures.

### **Wholesale market**

Directly imported petrol or petrol components make up nearly 50% of all of the petrol sold in New Zealand, which is significantly higher than Australia. The ACCC noted that “Import parity pricing is efficient in a market where imports are the marginal source of supply” which is equally applicable to the New Zealand market.

The use of the Singapore Import Parity Price is the correct benchmark price for establishing the landed cost of petrol in New Zealand.

MED monitors the import parity price which provides a benchmark for monitoring retail price movements. Actual import costs for individual companies will vary from the benchmark depending on their competitive position for obtaining supplies from offshore.

Information in the ACCC review suggested that the quality premium for New Zealand specification petrol and the freight cost to get it to New Zealand are higher than the current MED assumptions (in total by about 4 cpl). While this alters the magnitude of the importer margin calculated by MED it doesn’t alter the relative importer margin trends over time.

MED should update its cost build up for petrol in New Zealand based on the information in the ACCC report. Importers or NZRC might also like to provide cost information.

The ACCC notes that a competitive wholesale market needs the ability for independents (i.e. not refiner-wholesalers) to do large scale importing. Gull Petroleum is the only independent in New Zealand with the facilities to do this. Using the ACCC’s approach on the New Zealand market, it is likely that similar conclusions and recommendations would be made. While other reviews and investigations into the New Zealand market<sup>8</sup> have reached a different conclusion there is still value in MED understanding the terminal dynamic. Recommendations include:

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<sup>8</sup> ACIL Economics & Policy Pty Ltd, Barriers to Entry to the New Zealand Downstream Oil Market, Ministry of Commerce, August 1997 and Commerce Commission Decision No. 434

- *New Zealand's fuel standards should be aligned with appropriate overseas standards (subject to meeting environmental policy objectives).* The purpose is to limit any adverse impact New Zealand fuel standards have on the ability of importers to source reliable supplies of competitively priced fuel from overseas refiners or traders.
- *MED to review the terminals suitable for importing petrol.* The review should cover current and future terminal capacity, current and future use of terminal capacity, and details of terminal leases and terminal sharing arrangements.
- *It is recommended that following the review there be on-going monitoring of the use, leasing and sharing of terminals suitable for importing refined petrol into New Zealand.*

### **Retail market – do prices rise faster than they go down?**

Detailed analysis of retail price movements in New Zealand reveal two important findings:

- *The week lag used by MED to monitor importer margins is justified based on analysis of the international benchmark movements and retail price movements and should continue to be used.* The result of the week lag is that wholesaler-retailers end up smoothing the benchmark price movements, which is a positive result for the consumer as it avoids an unnecessary number of price movements.
- *Contrary to consumer perceptions, retail prices go down as quickly as they go up.*

A key finding of the Australian investigation was that most Australian retailers have real time monitoring of competitor service station prices. This means they can quickly make changes and respond to competitor price movements well before the consumer is aware of price changes. This facility is not operating in New Zealand so it appears that retailers have a similar level of price transparency as consumers (through monitoring price boards and the media).

There may be some value in ensuring that an information imbalance between retailers and consumers doesn't occur in New Zealand as it has in Australia (e.g. limiting the level of price discovery that can occur between retailers or encouraging retailers to announce their price changes to avoid price cycles occurring). Any particular option would require careful consideration to ensure there were not undue market impacts that would reduce the level of competition in the market place.

FuelWatch is a system that the ACCC recommends to correct the information imbalance between retailers and consumers and price cycles. FuelWatch requires retailers to give notification of price changes (by 2PM the previous day) and only change prices once a day (at 6AM). In Western Australia, where FuelWatch has been used since 2001, it has reduced the magnitude and frequency of price cycles. The benefit to the consumer is the subject of debate<sup>9</sup> however ACCC recommended it be rolled out across Australia.

*FuelWatch does not appear to provide significant benefits to the New Zealand consumer.* Without the volatility caused by price cycles, New Zealand retail prices are more stable moving in line with international benchmarks. Therefore there is limited benefit from the notification of prices that FuelWatch provides, especially considering the possible cost of such a scheme (the nationwide FuelWatch scheme for Australia is reported to be costing AU\$20.9 million over four years).

Consumer perception is that prices rise faster than they fall. Enhancing the monitoring and reporting activities by putting more detailed information into the public arena would

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<sup>9</sup> Four Australian Government departments gave advice against adopting FuelWatch nationally

enable New Zealand's 2.5 million motorists to keep a closer eye on the petrol marketers to ensure they were passing through price changes fairly.

*MED's website monitoring should be expanded to show more detail on the daily margin movements.* Monitoring should continue to use lagged prices, because the analysis has shown that the week's lag reflects the timing of retail price changes. Furthermore the lag reduces the possibility that MED's monitoring becomes a price signal to market participants for making price changes.

The introduction of the biofuel sales obligation and the emissions trading scheme will introduce a further degree of complexity to the accurate tracking of importer margins. In order to maintain the relevancy of MED's website monitoring, officials should prepare a robust methodology and consult with appropriate stakeholders.

### **Draft Report**

A draft version of this report was circulated to a number of parties involved in the New Zealand petrol market along with some consumer groups. Where correction was required or additional relevant information was provided this has been included in the final version of the report. However in some cases different respondents had diverging views or wanted to debate the findings from the ACCC report. These issues have not been included as they are outside the scope of this report.

# Contents

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<b>Executive Summary</b> .....	<b>i</b>
<b>Glossary</b> .....	<b>ix</b>
<b>List of shortened forms</b> .....	<b>xi</b>
<b>1.0 Background</b> .....	<b>1</b>
1.1 Introduction.....	1
1.2 Terms of reference.....	1
1.3 Outline of the process.....	1
1.4 The nature of petrol .....	2
1.4.1 The 'psychology' of petrol prices .....	2
1.4.2 The nature of petrol.....	2
1.4.3 The nature of demand for petrol .....	2
1.5 Role of the ACCC in the petrol industry.....	2
1.5.1 Petrol price monitoring.....	2
1.5.2 Enforcement of the Act .....	3
1.6 Scope of the report .....	4
<b>2.0 Recent movements in petrol prices</b> .....	<b>5</b>
2.1 Introduction/ACCC conclusions .....	5
2.2 Retail price movements: July 2006 to May 2008.....	5
2.3 Longer term price movement .....	6
2.4 International petrol price comparisons.....	8
2.5 Monitoring of movements in New Zealand retail prices compared with movements in international benchmark prices.....	8
2.5.1 Importer margin monitoring .....	8
2.5.2 Overall price movements.....	9
<b>3.0 Industry structure – refining and importing</b> .....	<b>12</b>
3.1 Introduction/ACCC conclusions .....	12
3.2 Refining.....	12
3.2.1 NZ refiner-marketers .....	12
3.2.2 NZ refining.....	12
3.2.3 Refinery capacity.....	13
3.2.4 Production of petrol .....	13
3.2.5 Share of unleaded petrol production by refiner-markets .....	13
3.2.6 Sources of crude oil used for unleaded petrol refining.....	13
3.3 Imports and exports .....	14
3.3.1 Importers .....	14
3.3.2 Terminals .....	14
3.3.3 Volume of imports .....	15
3.3.4 Sources of imports of petrol .....	16
3.3.5 Share of imports.....	16
3.3.6 Exports of unleaded petrol .....	16
3.3.7 Buy-sell arrangements .....	16
<b>4.0 Industry structure – wholesale &amp; distribution</b> .....	<b>17</b>
4.1 Wholesale.....	17
4.2 Distribution.....	17
4.3 Wholesale market share.....	18
<b>5.0 Industry structure – retail</b> .....	<b>19</b>
5.1 Industry structure .....	19



5.2	Market shares .....	20
5.3	Changes in the nature of petrol retailing.....	21
5.3.1	Site rationalisation.....	21
5.3.2	Increasing importance of non-fuel competition.....	21
5.3.3	Bundling with groceries – shopper docketts .....	22
<b>6.0</b>	<b>Regulation in the petrol industry .....</b>	<b>23</b>
6.1	Fuel quality standards.....	23
6.1.1	State fuel standards.....	24
6.1.2	Implication of New Zealand fuel standards.....	24
6.2	Oilcode.....	24
6.3	Government regulation to improve transparency and competition.....	24
6.4	Taxation .....	25
6.5	Subsidies .....	25
<b>7.0</b>	<b>Price determination and profitability – refining and importing .....</b>	<b>26</b>
7.1	Refinery prices .....	26
7.1.1	Benchmark refinery price .....	26
7.1.2	Quality premium.....	27
7.1.3	Freight costs .....	28
7.1.4	Insurance and loss .....	28
7.1.5	Contribution to refinery prices .....	28
7.1.6	Changes in refinery prices over time .....	28
7.2	Impact of IPP-based formula pricing .....	29
7.3	Profitability of domestic refining.....	29
7.3.1	Costs of production.....	29
7.3.2	Measures of profitability .....	30
7.3.3	Conclusions on current profitability.....	33
7.4	Competitiveness of NZRC and the location advantage.....	33
7.4.1	Sustainability of the fuel quality premium .....	34
7.4.2	Future of refining in New Zealand .....	34
7.5	Conclusions on refinery pricing and performance.....	34
<b>8.0</b>	<b>Price determination and competition at the wholesale level .....</b>	<b>35</b>
8.1	Introduction.....	35
8.2	Structure of the wholesale sector.....	35
8.3	Buy-sell arrangements/toll refining, shared stock system .....	35
8.3.1	Toll refining .....	35
8.3.2	Refiner-marketers national inventory.....	36
8.3.3	Prices available to independent resellers.....	37
8.4	Derivation of wholesale prices .....	37
8.4.1	Refiner-marketers' evidence of wholesale prices.....	37
8.5	Terminal gate pricing.....	38
8.6	Wholesale margins .....	38
8.7	Future of wholesaling .....	38
8.8	Conclusions .....	38
<b>9.0</b>	<b>Price determination and competition at the retail level.....</b>	<b>40</b>
9.1	Introduction.....	40
9.2	Components of retail petrol prices.....	40
9.3	Relationship between retail prices and international petrol prices.....	41
9.3.1	General relationship between retail prices and Singapore mogas.....	41
9.3.2	Divergence between retail prices and international prices.....	43
9.4	How prices are determined at the retail level .....	44
9.4.1	General pricing strategies.....	44
9.4.2	Different operating structures affect how prices are set .....	44
9.4.3	Price support arrangements.....	44

9.4.4	Particular influence of various players.....	45
9.5	Retail margins.....	46
9.6	Competition at retail level .....	48
9.6.1	The nature of petrol and nature of demand .....	48
9.6.2	Market structure.....	48
9.6.3	Future of petrol retailing .....	49
9.6.4	Conclusions.....	49
<b>10.0</b>	<b>Prices in regional areas .....</b>	<b>50</b>
10.1	Introduction.....	50
10.2	New Zealand situation .....	50
<b>11.0</b>	<b>Price cycles.....</b>	<b>52</b>
11.1	Introduction.....	52
11.2	New Zealand situation .....	52
<b>12.0</b>	<b>Petrol shopper dockets.....</b>	<b>54</b>
12.1	Supermarkets' shopper docket arrangements.....	54
12.2	Previous consideration of shopper docket arrangements .....	55
12.3	Impact of shopper docket arrangements on competition.....	56
12.4	Impact of shopper docket on prices .....	57
12.5	Conclusion .....	57
<b>13.0</b>	<b>Addressing impediments to competition in petrol refining, importing and wholesaling .....</b>	<b>58</b>
13.1	Competition in wholesale petrol markets .....	58
13.2	Key features and behaviours in wholesale petrol markets.....	59
13.2.1	Buy-sell arrangements/toll refining.....	59
13.2.2	Import parity pricing.....	59
13.3	Impediments to price competition in wholesale petrol markets .....	60
13.3.1	Location advantage of local refineries.....	60
13.3.2	Ownership concentration of local refineries.....	60
13.3.3	Commercial dependences between refinery-marketers.....	61
13.3.4	Impediments to large-scale importing of refined petrol by independents .....	61
13.3.5	Impediments to entry into local refining .....	63
13.4	Potential changes to the structure of petrol markets.....	63
13.4.1	Is it likely a supermarket will 'sponsor' the entry of a large-scale importer .....	63
13.4.2	Formation of buying groups by resellers .....	63
13.4.3	Exit of a refiner-marketer from petrol retailing .....	64
13.5	Recommendation to reduce or minimise impediments to competition in wholesale petrol markets .....	64
<b>14.0</b>	<b>The role of the Trade Practices Act 1974 in addressing impediments to competition .....</b>	<b>65</b>
<b>15.0</b>	<b>Measures to improve price transparency and competition .....</b>	<b>66</b>
15.1	Measures to improve retail price transparency .....	66
15.1.1	Price transparency and petrol consumers.....	66
15.1.2	Exchange of information between suppliers, Informed Sources.....	66
15.1.3	Price transparency arrangements for consumers in Australia, WA; FuelWatch ..	67
15.1.4	Other price transparency arrangements.....	68
15.1.5	Relative imbalance in price transparency between buyers and sellers.....	69
15.1.6	H&T conclusions.....	69
15.2	Measures to improve wholesale price transparency .....	70

## Glossary

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Barrel:	Is an imperial measure used by the oil industry, one barrel is equivalent to 158.987 litres.
Buy–sell arrangements:	Bilateral arrangements between Australian refiners for the supply of petrol to another Australian refiner in a non-home refinery state of Australia.
Commission agent:	A retail arrangement whereby the site operator receives a commission for selling the supplier's product through a site owned or leased by the supplier.
Distributor:	A business which delivers petroleum products to retailers and other end users.
Duopoly:	A market structure in which there are only two suppliers.
FuelWatch:	A fuel-monitoring service operated by the Western Australian Government.
Gasoline crack:	The difference between the benchmark price of refined petrol and the benchmark price of crude oil.
Importer margin:	The difference between the retail petrol price (excluding taxes and GST) and the landed cost of petrol. This measure is a gross indicative measure and includes costs at both the wholesale and retail level (such as storage, distribution, branding and costs associated with running a service station).
Import parity pricing:	The setting of domestically refined petrol price in the wholesale market at a price comparable to the cost of importing fuel into a given location in New Zealand.
Independent:	A retailer of petrol, selling to the public from an independently owned site which may be either wholesaler branded or independently branded.
Landed Cost:	The cost to land petrol in New Zealand taking into account the Singapore benchmark price for petrol along with the appropriate quality premium, freighting costs and wharfage.
Oilcode:	A prescribed mandatory Australian industry code of conduct under s. 51AD of the Australian Trade Practices Act 1974. It regulates the conduct of suppliers, distributors and retailers in the downstream petroleum industry.
Price support:	Support provided by a supplier to a retailer to cover for loss of revenue during periods of price discounting.
Quality premium:	A premium added to the pricing benchmark to reflect the higher quality of New Zealand specification petrol relative to the Singapore benchmark price.
Refiner margin:	The difference between the prices of the suite of products produced at the refinery and the cost of crude oil.
Refiner-marketers:	Firms that refine crude oil into petroleum products and then store, sell and deliver them to resellers and other end users - in New Zealand these are the 'oil majors'.
Refinery utilisation rates:	The actual amount of production relative to a refinery's theoretical production capacity.

Shopper docket:	Generally refers to a discount offer on fuel for consumers that have purchased a minimum amount of products from a supermarket outlet.
Terminal:	A large storage facility where petroleum tank trucks gain access to supplies of petroleum products for distribution to retailers and other end users. In New Zealand these are generally located at major ports around the coast.
Terminal gate price (TGP):	A spot price that an Australian purchaser who arrives at a wholesaler's terminal with a tanker truck could expect to pay for bulk purchases for cash.
Vertical integration:	The undertaking by a single firm of successive stages in the process of production and supply of a particular good.
Wholesaler:	Firms that store, sell and deliver petroleum products to resellers and other end users. In New Zealand this is BP, Chevron, Gull, Mobil and Shell.

## List of shortened forms

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AA	Automobile Association of New Zealand
AAA	Australian Automobile Association
ACCC	Australian Competition and Consumer Commission
bbl	barrel
BP	BP Oil New Zealand Limited
Caltex	The retailing operation of Chevron
Chevron	Chevron New Zealand
Coles	Coles Group Limited (of Australia)
cpl	cents per litre
DOCEP	Department of Consumer and Employment Protection (Western Australia)
EBIT	earnings before interest and tax
fob	free on board
GST	goods and services tax
Gull	Gull Petroleum
HHI	Herfindahl-Hirschman Index
Informed Sources	Informed Sources (Australia) Pty Ltd
IPP	import parity price
kbd	thousand barrels per day
LPG	liquefied petroleum gas
Mobil	Mobil Oil New Zealand Limited
MOPS92	Mean of Platts Singapore, Mogas92
MOPS95	Mean of Platts Singapore, Mogas95
MOPS97	Mean of Platts Singapore, Mogas97
ML	million litres
MTA	Motor Trade Association (inc.)
MTBE	Methyl tertiary-butyl ether
OECD	Organisation for Economic Co-operation and Development
RACWA	Royal Automobile Club of Western Australia
ROCE	return on capital employed
RON	research octane number
RVP	Reid Vapour Pressure
Shell	Shell New Zealand Limited
TGP	terminal gate price
Woolworths	Woolworths Limited

# 1.0 Background

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## 1.1 Introduction

Over the second half of 2007 the Australian Competition and Consumer Commission (ACCC) carried out an extensive investigation into the unleaded petrol market. This study took nearly six months and involved extensive interviews with and submissions from market participants.

During 2008 there has been a sustained increase in petrol prices on the back of record crude oil prices. This has resulted in greater public concern about petrol prices and a call for an inquiry by the AA.

The Minister of Commerce together with the Ministry of Economic Development (MED) thought that the ACCC investigation could have findings that are relevant to the petrol market in New Zealand. Rather than a similar extensive market review it was agreed that the first step would be a thorough review of the ACCC report to see if its findings applied to the New Zealand market. Hale & Twomey Limited (H&T) was commissioned to perform the review on the ACCC report.

## 1.2 Terms of reference

There was no detailed terms of reference for this review but the following was agreed with MED.

*H&T will review the ACCC report in detail to assess which findings are relevant for the New Zealand situation. Where appropriate H&T would do similar analysis to that done in the ACCC report using the relevant New Zealand data. H&T would limit the analysis work to commercial aspects rather than a wider economic modelling construct, although H&T would highlight to MED any areas which would benefit from a detailed economic analysis.*

*Where appropriate H&T would also refer to previous studies on the New Zealand industry rather than redo this analysis. This would include the 1997 ACIL report on the oil industry for the Ministry of Commerce and the 2001 NZIER study on the role of independent retailers in the retail petrol market for MED.*

*There are 15 sections in the ACCC report and our initial view is that 12 of these will need to be reviewed in detail.*

*The output would be a report to MED which would follow the same structure and headings as the ACCC report, initially summarising the Australian findings and then covering the New Zealand situation, along with the results of any analysis. The report would also summarise the areas which may require further investigation by MED.*

## 1.3 Outline of the process

This study was a report review. Therefore unlike the ACCC inquiry there have been no submissions, hearings or questioning of market participants. H&T have sourced the New Zealand information from public sources and these are referenced in the report.

This report follows nearly identical headings and layout to the ACCC report except where additional information has needed to be added. The ACCC report was 261 pages. H&T has attempted to summarise the ACCC report to produce a more compact report.

## 1.4 The nature of petrol

This section looks at the nature of petrol and the particular “psychology” of petrol prices. The discussion is also applicable to New Zealand in most cases.

### 1.4.1 The ‘psychology’ of petrol prices

The ACCC noted:

- Unlike most other goods and services there is a consistently high level of community interest in petrol prices probably as rising petrol prices can result in an appreciable reduction in standard of living (and hence it is also a political issue)
- Weekly price cycles in the Australian market cause consumer concern
- The ACCC had a concern at the misinformation in reporting about petrol prices which is so often perpetuated that consumers believe it and consequently put pressure on the Government to do something about issues that are not substantiated by the evidence

### 1.4.2 The nature of petrol

The ACCC report noted that petrol has a number of characteristics that appear to make it susceptible to price volatility.

- All competitors have a similar product, there is little brand loyalty – competition is primarily on price
- The price of petrol is highly visible with price boards
- Petrol retailers receive comprehensive up-to-date price information on their competitors’ petrol prices at regular intervals during the day so can react quickly to price movements
- Service stations with shops attached may have lower prices to attract customers who may then buy other products with greater profit margins

### 1.4.3 The nature of demand for petrol

The ACCC or submitters noted:

- Many consumers are willing to switch where they buy petrol for a small improvement in price
- Motorists were typically aware of price cycles and many purchased petrol on the day that was typically the lowest in the cycle
- Discounting, such as supermarket docketts, is very popular with a significant portion of the market using any discounting available

## 1.5 Role of the ACCC in the petrol industry

The ACCC is involved in the petrol industry in Australia through its role administering the Trade Practices Act. The equivalent to the Trade Practices Act in New Zealand are the Commerce Act 1986 and Fair Trading Act 1986, both of which the New Zealand Commerce Commission is responsible for enforcing. However in New Zealand fuel monitoring is done by the Ministry of Economic Development (MED) rather than the Commerce Commission with the Commission only becoming involved if there is an investigation into possible anti-competitive behaviour or changes in market structure that might affect the competitive dynamic.

### 1.5.1 Petrol price monitoring

Petrol price monitoring is done by MED with the data available on their website<sup>10</sup>. This is updated weekly and based on comparing retail prices with an import parity price for imported petrol (covered in Chapter 7). When duties and taxes are removed the margin under the control of the importing/marketing companies can be measured (this is known as the “importer margin”).

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<sup>10</sup> [http://www.med.govt.nz/templates/ContentTopicSummary\\_\\_\\_\\_20094.aspx](http://www.med.govt.nz/templates/ContentTopicSummary____20094.aspx)

### 1.5.2 Enforcement of the Act<sup>11</sup>

The Commerce Commission has conducted only one inquiry into the overall oil products market since the mid-1990's. This was an investigation of petrol price increases between July and November 1999. The timing of the companies' announcements of the price increases, and the manner in which they were communicated, apparently raised suspicions of collusive behaviour. However, the Commission's report concluded:

*"there is no evidence of collusive behaviour amongst the oil companies and that their respective price rises, though closely following or matching each other, can be justified by the substantial increases in the cost of crude oil and imported petrol, and the operation of competitive pressures. However the time period between some of the announcements of price increases and the implementation of those increases might be argued to be price signalling."*<sup>12</sup>

Another investigation with a more limited scope, which was the only one that resulted in the Commission actually charging the oil companies with wrongdoing, was a case alleging that three of the major oil companies had colluded in 1996 to withdraw an offer of a free car wash to customers who spent \$20 or more on fuel at some of their Auckland service stations. The High Court ordered the companies to pay a combined total of \$1.175 million in penalties for price-fixing.<sup>13</sup>

Two other official investigations into the competitive situation in the New Zealand oil industry are worthy of note. In 1997 the Ministry of Commerce (a predecessor agency to the Ministry of Economic Development) engaged Australian consultants ACIL Economics and Policy Pty Ltd to investigate whether a perceived lack of price competition in the New Zealand market for petroleum products could be explained by barriers to entry for new competitors. Examples of such barriers might include access to port storage facilities and contractual arrangements with independent retailers.<sup>14</sup> However, the study concluded that:

*"there are no persistent long run barriers to entry into the New Zealand downstream oil industry...Any intervention to facilitate entry would introduce inefficiencies into the market."*<sup>15</sup>

In 2001, the Ministry of Economic Development (MED) received complaints that independent petrol retailers were having difficulty remaining in business due to inequitable wholesale pricing by the oil companies. MED responded by engaging the New Zealand Institute for Economic Research (NZIER) to examine the role of

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<sup>11</sup> Most of Chapter 1.5.2 is directly sourced from Oil; An Introduction for New Zealanders by Ralph Samuelson, published by MED

<sup>12</sup> See Commerce Commission memorandum J3484 from Nicky Beechey to Geoff Thorn, "Investigation Report into Petrol Price Increases July-November 1999, 20 December 1999 available from the Commerce Commission Library.

<sup>13</sup> See "Caltex, Mobil and Shell were price fixing: High Court imposes \$1.175 million penalties" in the Commerce Commission's newsletter Fair's Fair, Issue No. 61, March 2000, <http://www.comcom.govt.nz/Publications/ArchivedPublications/ContentFiles/Documents/ffmar2000.pdf>, p. 3. A more detailed summary of the case of Commerce Commission vs. Caltex New Zealand Ltd, (1999) 9 TCLR 305, is available from Brookers On-Line, <http://www.brookersonline.co.nz>.

<sup>14</sup> See ACIL Economics & Policy Pty Ltd, *Barriers to Entry to the New Zealand Downstream Oil Market*, Ministry of Commerce, August 1997, <http://www.med.govt.nz/upload/20284/acil2.pdf>, p. 9.

<sup>15</sup> See ACIL Economics & Policy Pty Ltd, *Barriers to Entry to the New Zealand Downstream Oil Market*, Ministry of Commerce, August 1997, <http://www.med.govt.nz/upload/20284/acil2.pdf>, p. 7-8.



independent retailers in the retail petrol market.<sup>16</sup> NZIER's report acknowledged that independent retailers were disadvantaged in terms of pricing arrangements compared with wholesaler-owned retailers, and that most of the low-volume sites could close.<sup>17</sup> However, NZIER concluded that

*"our overall conclusion is that the rationalisation of petroleum retailing is not reducing overall competition and thus not wasting resources or harming consumers. As a result, no intervention is warranted."<sup>18</sup>*

The Commission also reviewed and approved the purchase of Challenge Petroleum by Caltex (now Chevron) in 2001.<sup>19</sup>

In 2007, Australia implemented the Trade Practices (Industry Codes-Oilcode) Regulations 2006 (the Oilcode). The purpose of the Oilcode is to regulate the conduct of suppliers, distributors and retailers in the downstream petroleum retail industry. Prior to the Oilcode restrictions on retail marketing in Australia were more restrictive than New Zealand (including limitations on site ownership by refiner-marketers) so in some ways the Oilcode moved Australia closer to the New Zealand situation. However the Oilcode also introduced a number of new requirements designed to make the market more transparent (e.g. compulsory terminal gate prices discussed in section 8.5). There is no equivalent to this in New Zealand regulations.

## **1.6 Scope of the report**

This report is structured in the same way as the ACCC report in the following Chapters.

Chapter 2 looks at recent petrol price movements in New Zealand.

Chapters 3 to 5 provide information on the structure of the petrol industry for refining, importing, wholesaling and retailing. Chapters 7 to 9 then discuss price determination at each of these levels.

Chapter 6 examines regulation of the petrol industry.

Chapters 10 to 12 consider specific elements of the retail petrol market – regional price variations, petrol price cycles and petrol shopper docketts.

Chapter 13 addresses impediments to competition in petrol refining, importing and wholesaling.

Chapter 14 addresses impediments to competition under applicable regulations.

Chapter 15 addresses measures to improve price transparency.

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<sup>16</sup> See the "Review of the Role of Independent Petrol Retailers" page on the Ministry of Economic Development website

[http://www.med.govt.nz/templates/ContentTopicSummary\\_\\_\\_\\_\\_10384.aspx](http://www.med.govt.nz/templates/ContentTopicSummary_____10384.aspx).

<sup>17</sup> See New Zealand Institute for Economic Research, *The Decline of Independent Petrol Retailing; Rationalisation or Predation?*, Report to the Ministry of Economic Development, April 2002, <http://www.med.govt.nz/upload/20465/report.pdf>, Section 3.5.

<sup>18</sup> See New Zealand Institute for Economic Research, *The Decline of Independent Petrol Retailing; Rationalisation or Predation?*, Report to the Ministry of Economic Development, April 2002, <http://www.med.govt.nz/upload/20465/report.pdf>, Executive Summary.

<sup>19</sup> Commerce Commission Decision No. 434

## 2.0 Recent movements in petrol prices

### 2.1 Introduction/ACCC conclusions

This chapter looks at recent price movements in the market. While the ACCC report analysed prices up to September 2007, this report goes through to May 2008.

The ACCC report concluded:

- Data needed to be analysed on a monthly basis rather than weekly due to price cycles
- Analysis of five major cities, other cities and country towns all showed similar patterns of price movement
- Longer term price movements showed the impact from external factors
- Australian petrol is among the cheapest in the OECD, primarily due to lower taxes
- Fuel monitoring has picked up occasions where the market has been slow to move down in line with the Singapore marker, leading to the ACCC issuing public statements calling for prices to be lowered

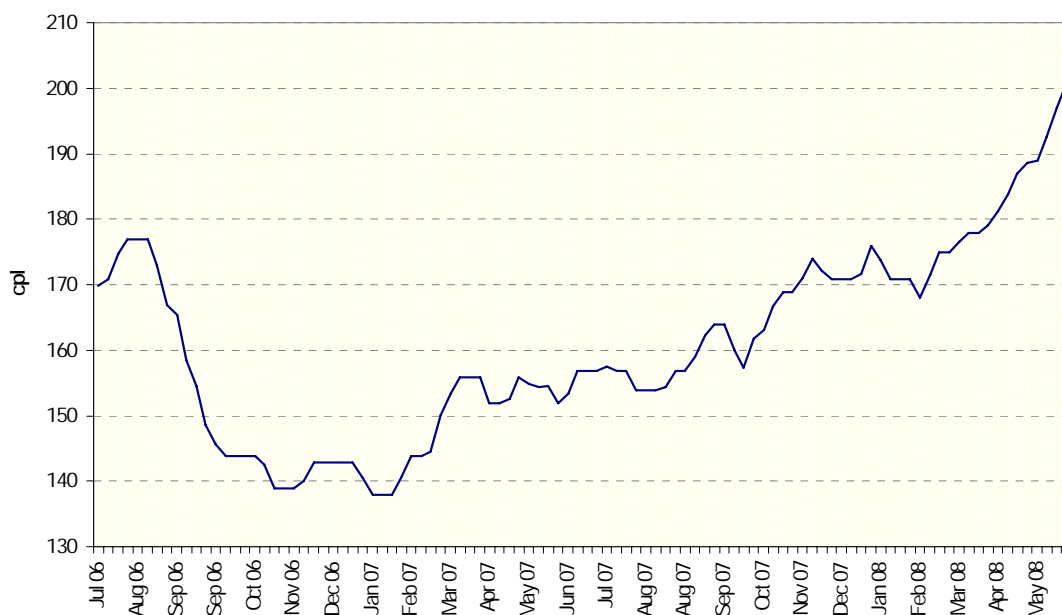
### 2.2 Retail price movements: July 2006 to May 2008

The ACCC analysed data separately for the five major metropolitan cities, other state capitals and country towns. Similar information isn't fully available for New Zealand (regional pricing is covered in Chapter 10) so Chart 1 uses data from MED's price monitoring which is a Wellington price. This is reasonably representative of the pricing in most regions in New Zealand. In addition without price cycles, weekly data as used by MED is valid for such analysis.

In summary:

- Prices peaked in July 2006 at \$1.77 then dropped to \$1.39 by year end (21% drop)
- Prices have increased steadily since January 2007 reaching \$2.01 by the end of May 2008 (45% increase)
- Since February 2008 (\$1.68) prices have increased by \$0.33 (20%) in just over 3 months.

**Chart 1: Average regular petrol price in Wellington for July 2006 to May 2008**



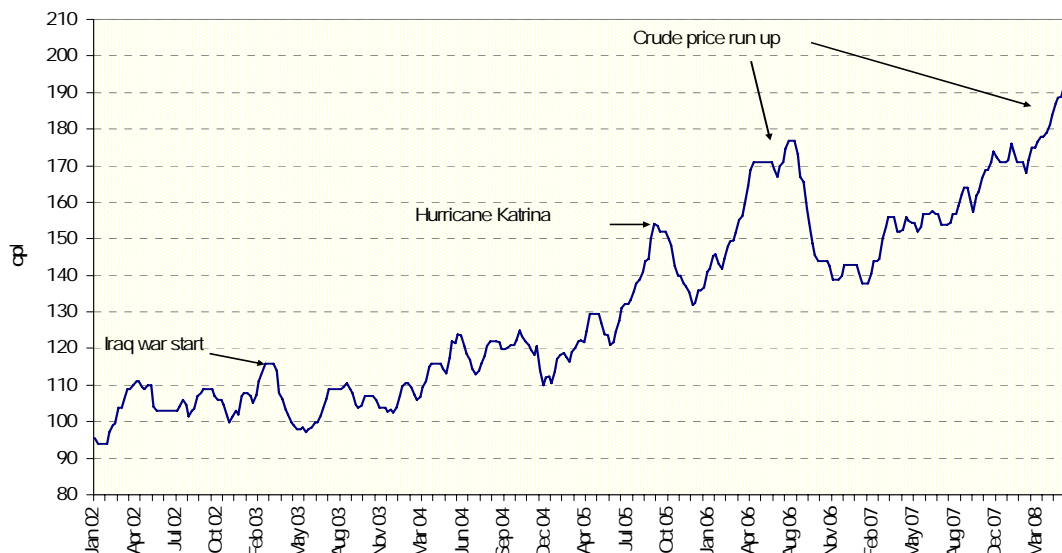
Source: MED

## 2.3 Longer term price movement

Chart 2 shows the trend in retail prices over a longer period. Worth noting is:

- retail prices have nearly doubled since 2003; and
- there have been steep increases in price before but prior to 2006 they tended to be associated with supply disruptions from specific events (war, natural disaster)

**Chart 2: Longer term regular petrol retail price**



Source: MED

### International crude oil price movements

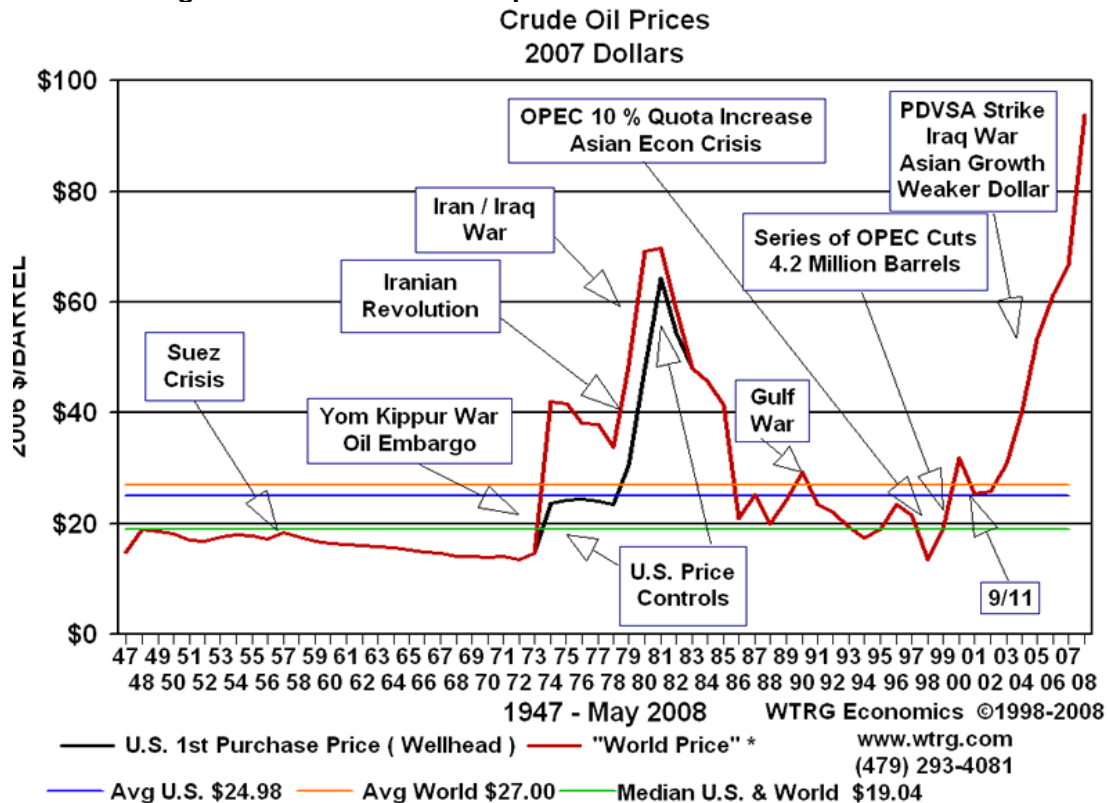
Petrol prices movements are primarily driven by changes in the price for crude oil. This section looks at the long term trend of crude oil prices and the reasons for the recent significant increases in prices.

Crude oil prices have risen four to five-fold since 2004, following a 20-year period of relatively stable prices in the range of US\$15-\$30/bbl. This trend is shown in Chart 3. The reasons for the sharp price increase over the past five years are many with explanations including:

- Substantial demand growth particularly in Asian countries (especially China and India) with high economic growth
- A significant reduction in the spare production capacity buffer held by OPEC countries to cover supply disruptions
- Production of crude oil from non-OPEC countries being lower than expected
- Geopolitical tensions with a number of major oil producers including Nigeria, Venezuela, Iran and Iraq
- Concern that the world is facing the end of 'cheap' oil with replacement volumes much more difficult to find and produce
- Substantial increases in the cost of exploring for and producing from new oil fields
- A weak US dollar
- A sizeable proportion of known reserves being off limits to investment by anyone other than national oil companies which has led to concern that investment is not keeping up with forecast demand
- Particularly high demand growth for jet fuel and diesel that has stretched the capacity of the international refining system
- Continued high demand growth in countries with subsidised prices limiting any demand reduction impact from the higher prices

- Concern that speculation in oil commodity and futures markets by non-commercial interests<sup>20</sup> is adding to the price increase

**Chart 3: Long term trend of crude oil prices**



Source: WTRG Economics

There is an ongoing debate about whether current high prices are an indication of the true supply/demand balance or are a result of speculation in oil markets. The International Energy Agency (IEA) notes in its July 2008 Medium-Term Oil Market Report that “poor supply-side performance since 2004, in the face of strong demand pressures from developing countries, has forced prices up to curb demand”. They also comment that “While recognising that speculation can have a day-to-day impact on oil price moves, the fact that all producers are working virtually flat out and there is no sign of any abnormal stockbuild gives a strong indication that current oil prices are justified by fundamentals”. However other commentators and politicians are looking at the role and impact of speculators on the oil markets and believe they are at least partially responsible for the very high prices.

The regulators of the US futures trading, the CFTC, have done a number of reviews of the market. In their recent testimony before the Senate<sup>21</sup>, they note “All the data modelling and analysis we have done to date indicates there is little economic evidence to demonstrate that prices are being systematically driven by speculators in these markets.” The US Federal Reserve chairman Ben Bernanke said in his semi-annual Monetary Policy Report to Congress on 15 July “If financial speculation were pushing oil prices above the levels consistent with the fundamentals of supply and demand, we would expect inventories of crude oil and petroleum products to increase as supply rose

<sup>20</sup> Parties with no commercial interest in physical oil and petroleum products

<sup>21</sup> CFTC, Written Testimony of Jeffery Harris, Chief Economist Before the Senate Committee on Homeland Security and Governmental Affairs May 20, 2008

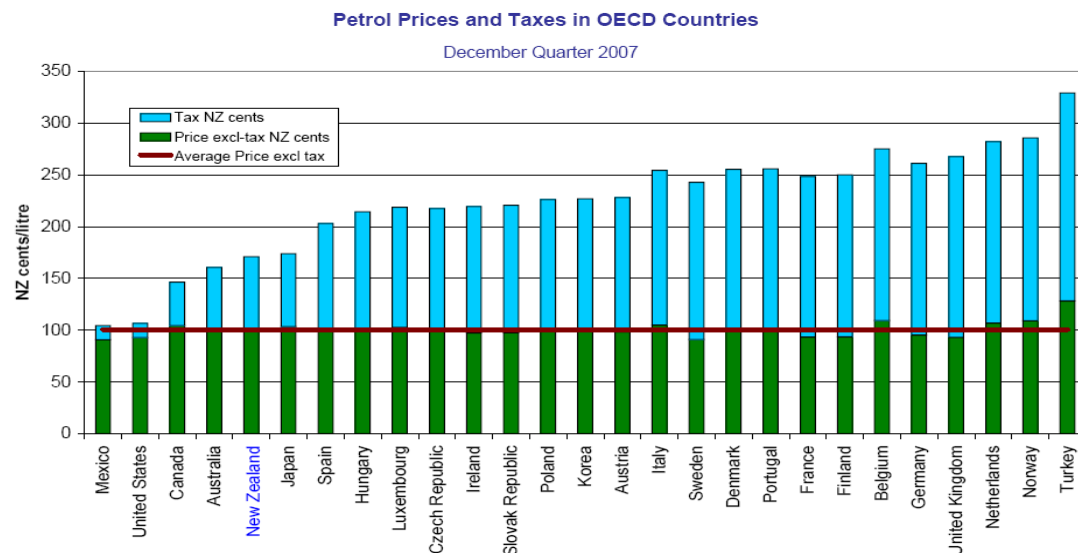
and demand fell. In fact, available data on oil inventories show notable declines over the past year. This is not to say that useful steps could not be taken to improve the transparency and functioning of futures markets, only that such steps are unlikely to substantially affect the prices of oil or other commodities in the long term.”<sup>22</sup>

However due to continued concern about the impact of speculation, United States regulators are currently debating law changes to increase the regulation of oil futures trading although it is reported that the current proposals are not as radical as first proposed.<sup>23</sup>

## 2.4 International petrol price comparisons

Information on petrol prices in OECD countries is maintained and updated by MED. Like Australia, New Zealand has one of the cheaper petrol prices in the OECD (fifth cheapest) a little higher than Australia's (primarily due to higher taxes). New Zealand is relatively typical (as is Australia) for the price of petrol excluding taxes. The latest data available is for the December quarter 2007. Taxes are discussed in section 6.4.

**Chart 4: International petrol price comparison including taxes in OECD countries**



Source: MED

## 2.5 Monitoring of movements in New Zealand retail prices compared with movements in international benchmark prices

### 2.5.1 Importer margin monitoring

The ACCC carries out analysis on retail price movement versus the international benchmark price for refined petrol in the region (i.e. the spot price for Singapore Mogas 95 Unleaded). New Zealand marketers also refer to the Singapore benchmark for setting their price so a similar analysis is valid for New Zealand.

<sup>22</sup> Argus Weekly Global Markets Volume 28, 21 July 2008

<sup>23</sup> Ibid

MED performs this analysis on a weekly basis<sup>24</sup>. This is the data used in this section. There are some differences with the Australian approach:

- The ACCC uses a seven-day rolling average to reflect the current day's price to smooth the data and because the refinery-marketers use such an approach for terminal gate pricing. There is no indication that New Zealand refinery-marketers use this approach (there is no publicly quoted terminal gate pricing in New Zealand) so MED uses a straight weekly average.
- The ACCC lags the Singapore price by one week to reflect the averaging formulas and the delay between terminal gate prices and changes in retail prices. MED also lags the Singapore prices by one week to reflect a lag in passing increases through to retail prices.<sup>25</sup>

The ACCC analysis compares the straight gap between the retail price and the Singapore marker. The MED weekly analysis also monitors changes in the freight cost, changes in the quality of the New Zealand product affecting cost versus the Singapore market over time and tax changes (GST changes with price).

Over the period analysed (January 2007 – June 2008), the amount of tax paid on petrol in Zealand increased both from direct increases (excise tax 0.616 cpl on 1 April 2007 and ACC levy by 1.55 cpl on 1 July 2007)<sup>26</sup> and the GST impact from higher prices (from 15.5 cpl in January 2007 to 23.1 cpl in June 2008). In addition the product quality of petrol in New Zealand changed on January 1 2008 which was likely to result in higher costs (relative to the benchmark)<sup>27</sup> for purchasing New Zealand quality petrol. Analysis using the importer margin rather than the straight retail price less benchmark takes these factors into account.

### 2.5.2 Overall price movements

Chart 5 is a similar graph to that produced by the ACCC. Unlike the ACCC analysis it is difficult to draw any conclusions about whether there has been any significant price discrepancy between retail prices and benchmark prices except around June 2007 the margin appeared to narrow versus normal levels.

Because of the reasons discussed in 2.5.1 a more valid analysis is to look at the oil company margin analysis.

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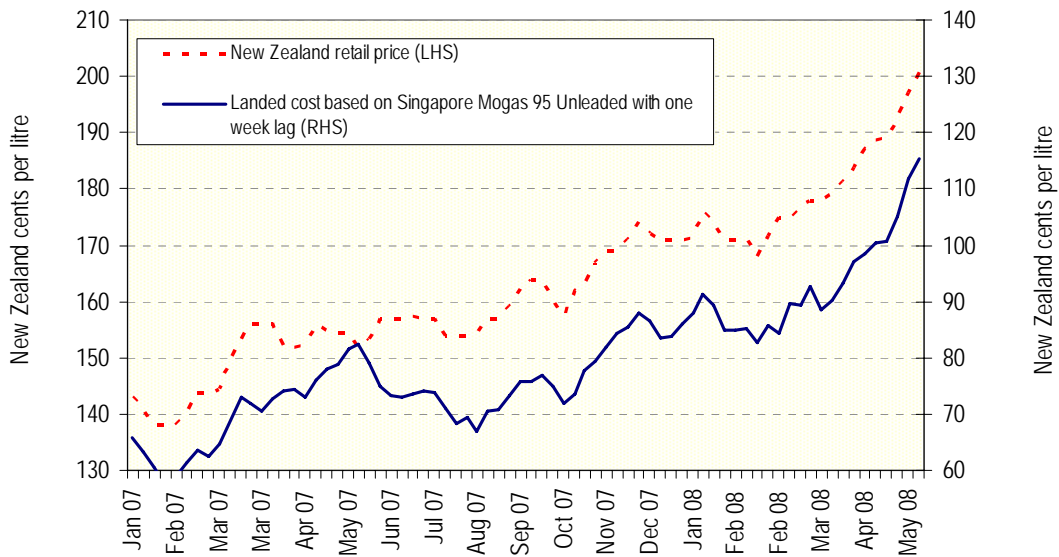
<sup>24</sup> Some companies have questioned the validity of MED's analysis as MED use data from the reporting agency Argus rather than the industry standard Platt's. Both agencies report the same market but their assessments can vary on a weekly basis. H&T has access to both and found that over the period analysed, the benchmark price only varied by US\$0.12/bbl (0.1 NZ cpl) – Platts marginally higher. Therefore the analysis using MED's data should provide a valid result.

<sup>25</sup> The use of a lag has been questioned by at least one company (claiming no lag should be used). This is discussed in detail in Chapter 9 with the finding that the use of a lag is valid.

<sup>26</sup> The ACC levy increased by another 2.01 cpl on July 1 2008

<sup>27</sup> Sulphur of premium and regular petrol dropped to 50ppm from 150ppm. The product quality premium used by MED was increased by US\$1.00/bbl (~ 0.9 NZ cpl).

**Chart 5: Retail price movement versus landed cost based on Singapore benchmark**

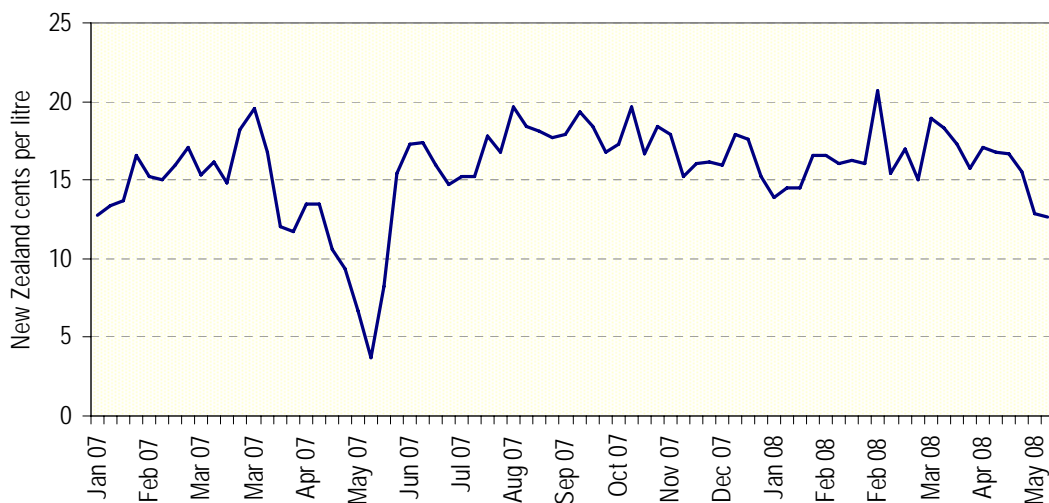


Source: MED

Chart 6 shows the importer margin trend and does not highlight any significant price divergence between the benchmark and retail prices except May/June 2007. In May 2007, led by Gull Petroleum, there was a discounting campaign. At the same time rising Singapore prices resulted in importer margins being far lower than normal.

The only other trend noted is that in recent weeks it appears that the oil companies have not increased their prices as fast as the benchmark price has been changing (even with the week lag).

**Chart 6: Importer margin over time**



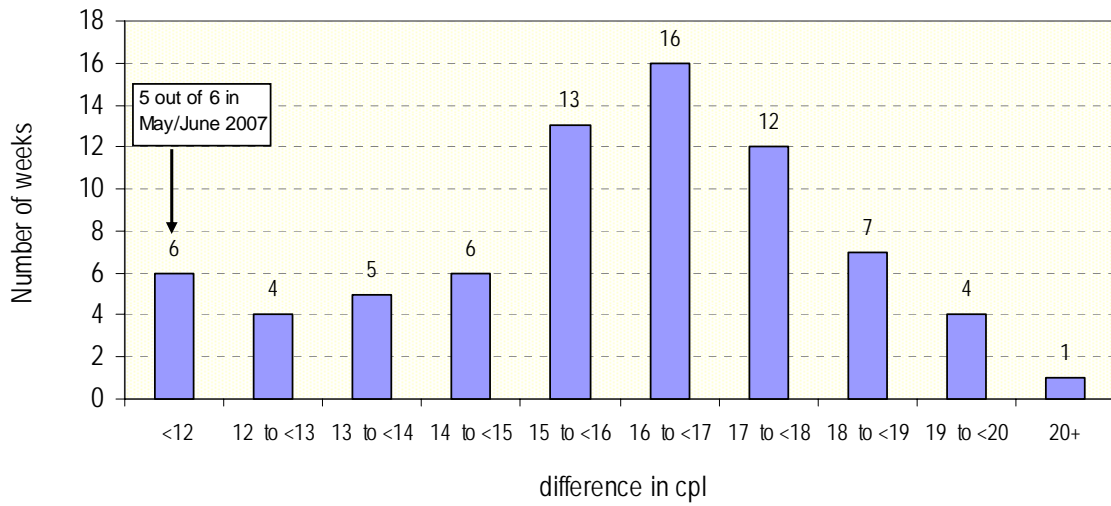
Source: MED

Chart 7 shows a similar distribution analysis of the importer margin as shown in the ACCC report. As it is over a longer period (and without smoothing) the data is more distributed but still with a similar bell shape. The average imported margin is around 16 cpl using the MED's calculation. Unlike Australia where there was some variation on the upside (higher margin), the only significant variation in New Zealand is on the downside where due to price competition margins were substantially lower than normal in May/June 2007.



This analysis only looks at variations between the benchmark price and the retail price. It does not consider whether the average margin is reasonable.

**Chart 7: Distribution of weekly importer margins**



Source: MED



## **3.0 Industry structure – refining and importing**

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### **3.1 Introduction/ACCC conclusions**

This chapter covers the structure of the petroleum industry that deals with refining and importing. This involves securing marketable products up to the point where those products are put into distribution terminals.

The ACCC summary of the Australian refining and importing industry concluded:

- Australian refinery capacity has declined over the past five years
- The seven Australian refineries are small by regional standards (the Reliance Industry refinery being built in Jamnagar, India will be bigger than the combined Australian refineries)
- Production of petrol fluctuates but is generally declining
- Australian domestic refining is fairly highly concentrated (based on a Herfindal-Hirshman Index (HHI))<sup>28</sup>
- Use of Australian crude oil has declined to 28% of refinery feedstock
- The main source of imported crude was from South East Asia (Vietnam, Malaysia, Indonesia)
- All refiner-marketers also import petrol
- There are a number of other companies who import petrol (Trafigura, Gull)
- One former importer noted the tighter fuel standards had made importing uncompetitive and they now bought from local refineries
- There are a number of shared arrangements with terminals including hosting (allowing a competitor to use your terminal for a fee) and joint venture arrangements (shared ownership)
- The volume of imports has increased over the past five years
- The bulk of the imports come from Singapore
- The refiner-marketer share of imports has increased significantly over the past five years
- The refiner-marketers in Australia have buy/sell arrangements where they have supply contracts to supply each other simultaneously in different markets (the ACCC noted that while these are discrete buy and sell contracts and may have different contract terms they do provide reciprocal benefits to the refiner-marketers)

### **3.2 Refining**

#### **3.2.1 NZ refiner-marketers**

The term refiner-marketer is used to group companies who both refine and market petrol within the country. The New Zealand refiner-marketers are the same companies as those operating in Australia (BP, Chevron (Caltex), Mobil, and Shell) with one difference. In New Zealand Chevron is 100% owned by its parent, Chevron Corporation, rather than being a 50/50 joint venture with local shareholding as is the case for Caltex Australia.

#### **3.2.2 NZ refining**

There is only one refinery in New Zealand at Marsden Point near Whangarei, which is owned by an independent company (New Zealand Refining Company Ltd - NZRC), listed on the New Zealand Stock Exchange. However all four refiner-marketers have substantial

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<sup>28</sup> The HHI is a commonly used measure of market concentration. It is calculated summing the squares of each participant's market share. An HHI measure less than 0.1000 is considered to be a fully competitive market, those below 0.1800 to be moderately concentrated markets and those above 0.1800 to be a highly concentrated market.

shareholding in NZRC (72.69% in total)<sup>29</sup> and all have processing contracts for processing crude oil through NZRC.

New Zealand is somewhat unusual as typically (as in Australia) the major oil companies control their own refineries as part of their supply chain.

### 3.2.3 Refinery capacity

The capacity of NZRC is about 110 thousand barrels per day (kbd) (17.5 million litres per day). It is similar in size to the Australian refineries but small relative to some of the refineries in Asia. It is currently undergoing an expansion (Point Forward Project) which is expected to be commissioned in 2009. This will increase the refinery's capacity by 10-12% (to 120-125kbd)<sup>30</sup>.

Refinery throughput has been relatively steady since the late 1990's. Unlike most of the Australian refineries, NZRC produces more jet and diesel than petrol as it has a hydrocracker unit that upgrades heavier components to jet and diesel. Petrol production is supplemented by imported blendstock (finished petrol or petrol component that is used to blend with petrol produced by NZRC to make New Zealand specification petrol).

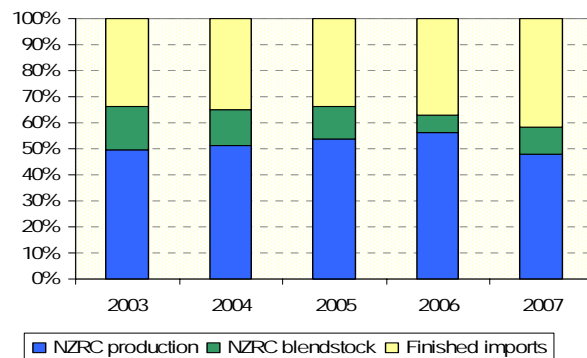
### 3.2.4 Production of petrol

Total petrol production (including blendstock) is about 65% of consumer demand with blendstock making up nearly 15% of that in total.

### 3.2.5 Share of unleaded petrol production by refiner-markets

This section is not relevant for New Zealand with its single refinery (production proportions are shown in Chart 8). However the competition implication of a single refinery is covered in Chapter 7.

Chart 8: Source of petrol in New Zealand



Source: MED data file

### 3.2.6 Sources of crude oil used for unleaded petrol refining

While New Zealand's indigenous crude production has increased significantly recently (with the Tui production area), the vast bulk is exported as it is sweeter<sup>31</sup> and waxier than the crude that suits NZRC. Most New Zealand crude is exported to Australia.

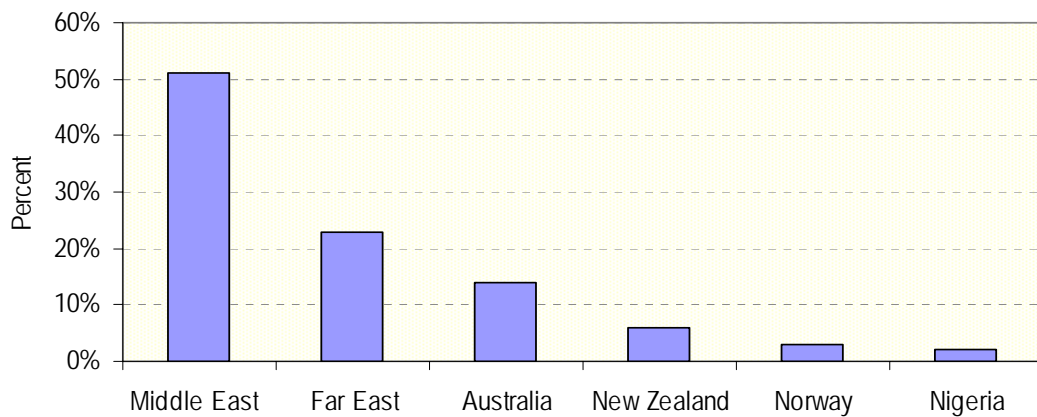
While NZRC's petrol producing facilities are relatively unsophisticated (hence the need for blendstock) it has good residual upgrading facilities which allow it to process a significant quantity of cheaper, sour crude oil and still produce on specification product. Given this it typically runs on a cheaper crude diet than the Australian refineries, with more crude sourced from the Middle East. However these upgrading facilities which take the cheaper feedstock have a higher capital cost and are more expensive to operate.

<sup>29</sup> NZRC 2007 Annual Report

<sup>30</sup> <http://www.crownminerals.govt.nz/cms/news/2008/marsden-point-oil-refinery-expansion-project-underway/>

<sup>31</sup> With crude oil "sweet" refers to crude with low sulphur levels and "sour" to crude with high sulphur levels.

**Chart 9: NZRC crude sources in 2007**



Source: NZRC 2007 Annual Report

### **3.3 Imports and exports**

#### **3.3.1 Importers**

Like Australia, all refiner-marketers import petrol into New Zealand. The only independent importer in New Zealand is Gull Petroleum (also operating in Australia) who import into a terminal at Tauranga.

No individual data is publicly available on the proportion of imports by company other than Gull who imports 100% as they have no access to refinery produced petrol. The ACCC noted the import sources - as Australian and New Zealand refiner-marketers are affiliates of the same international companies they may import from similar sources. Those given in the ACCC report are:

- BP: Open supply from several regional refiners (e.g. Chevron in South Korea). BP New Zealand may import from BP's Australian refineries.
- Chevron: South Korea, Taiwan and Japan<sup>32</sup>
- Gull: not given
- Mobil: ExxonMobil Asia Pacific refinery in Singapore
- Shell: Shell refinery in Singapore (Bukom) or third parties in South Korea, Taiwan and the Middle East.

#### **3.3.2 Terminals**

The terminal system in New Zealand is somewhat different to Australia in that with only one refinery, terminals play a larger part in the distribution infrastructure (most petrol is supplied through sea-fed terminals rather than those directly connected to refineries).

In addition the refiner-marketers have a system of sharing terminal facilities where they each contribute tanks and, as long as suitable commercial arrangements are made, they get the ability to lift product in multiple locations.<sup>33</sup> This gives them the ability to have national distribution without needing a terminal at every location. Some of the refiner-marketers also have joint ventures where they share assets and run them jointly.<sup>34</sup>

<sup>32</sup> Chevron product sources updated based on Chevron New Zealand advice

<sup>33</sup> Oil Security Report for MED 2004, Covec/Hale & Twomey

<sup>34</sup> Commerce Commission Decision No. 434

Part of the shared distribution is joint ownership of Coastal Oil Logistics Limited (COLL) which is responsible for scheduling the shipping of product from the refinery to port fed terminals around the country.

**Table 1: Petrol terminals connected to the refinery by pipeline<sup>35</sup>**

Terminal location	Ownership
Marsden Point	JV between refinery-marketers
Wiri (Auckland)	JV between refinery-marketers

**Table 2: Port fed petrol terminals**

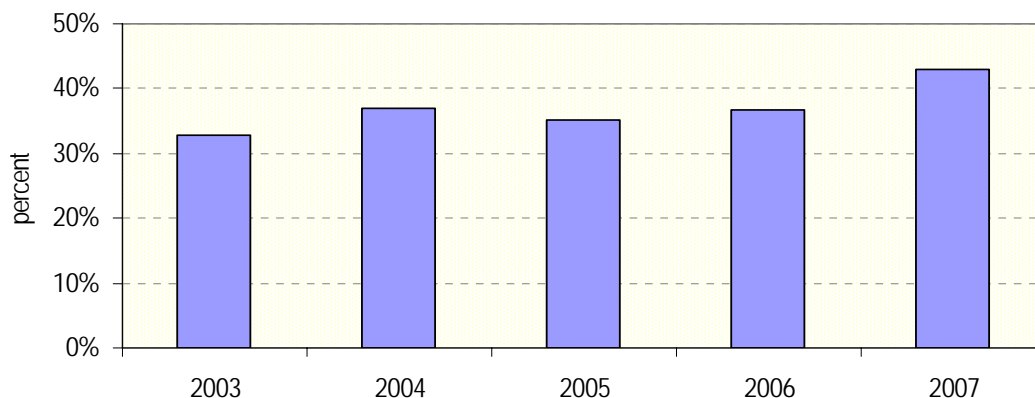
Terminal(s) location	Ownership <sup>36</sup>
Tauranga	BP, Chevron, Gull, Mobil, Shell
Napier	BP, Chevron
New Plymouth	BP, Chevron
Wellington	BP, Chevron, Mobil, Shell
Nelson	BP, Chevron, Shell
Lyttelton <sup>37</sup>	BP, Mobil, Shell
Timaru	Chevron, Shell
Dunedin	BP, Chevron, Shell
Bluff	Mobil, Shell

Gull is not part of the refiner-marketers shared tankage system. Gull has a single import terminal in Tauranga.

### 3.3.3 Volume of imports

Direct imports are relatively steady at 35% of sales (higher in 2007 due to maintenance downtime at the refinery). This is a significantly higher proportion than Australia and while New Zealand has always had direct petrol imports, significant importing is a relative recent occurrence in Australia (following closure of Mobil's refinery in South Australia in 2003). Note if blendstock (finished petrol/petrol components imported to NZRC) is included as imports the total percentage increases to 45-50% of the market.

**Chart 10: Direct imports proportion of total sales**



Source: MED data file

<sup>35</sup> Commerce Commission Decision No. 434 source for table 1 and 2 along with direct company correspondence.

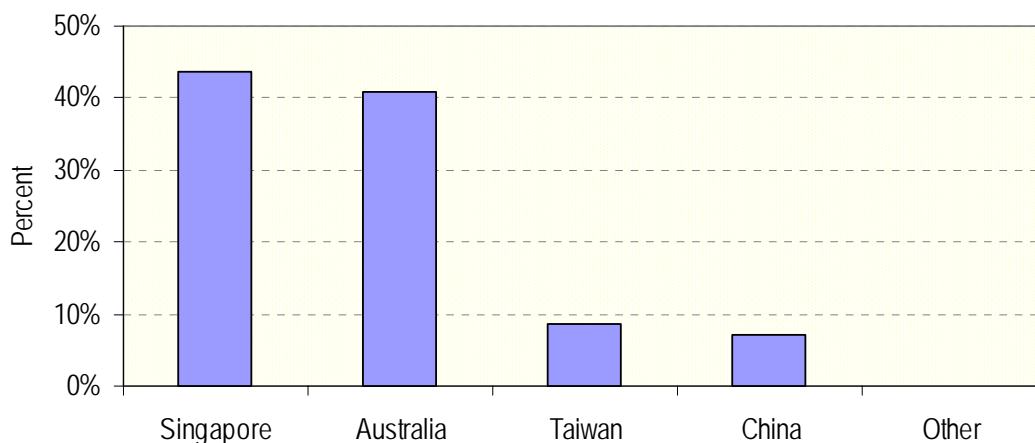
<sup>36</sup> In some ports there are multiple terminals, in others some of the parties listed work together in joint ventures and in others one company will manage another company's tank as a single terminal.

<sup>37</sup> Mobil also have a terminal at Woolston (Christchurch) connected to the Lyttelton terminals by pipeline.

### 3.3.4 Sources of imports of petrol

Over the past five years the source of imports for New Zealand has shifted from mainly Australia to more from Asia. Chart 11 shows the source in 2007. With the specification change on January 1 2008, imports from Australia may now be even lower with a corresponding increase from Asia. Recently some petrol has been imported from Europe.

**Chart 11: Source of New Zealand petrol imports in 2007**



Source: MED

### 3.3.5 Share of imports

The data on share of imports between refiner-marketers and independent importers is not available for confidentiality reasons. Gull is the only independent importer in New Zealand. Gull runs tenders for their petrol supply and since establishing in the market have been supplied both by traders and affiliates of the refiner-marketers in New Zealand<sup>38</sup>.

### 3.3.6 Exports of unleaded petrol

There have been very few exports of petrol from New Zealand over the past 10 years. In most years there appears to have been a single export of less than 15,000 tonnes (20 million litres). Generally these would have been involved in emergency cover of Pacific Island demand (or something similar) which New Zealand would not normally supply.

Exporting petrol is typically uneconomic from New Zealand.

### 3.3.7 Buy-sell arrangements

Buy-sell arrangements are where refiners in Australia sell product from their refinery to a competitor and also agree to purchase product from competitor refineries in a different location. New Zealand does not have anything similar to the buy-sell arrangements in Australia. In New Zealand each refinery-marketer processes its own crude oil through the refinery and brings in its own imports. A company may sell excess stock to another company, although we expect this would be infrequent and done on a commercial basis.

<sup>38</sup> Source: Gull New Zealand

## 4.0 Industry structure – wholesale & distribution

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This chapter focuses on the structure of the wholesale market including the petroleum distribution structures that are in place.

### The ACCC report concluded:

- There is a mix of refiner marketers, equity distributors and also some independent companies that are active in the Australian wholesale fuel market although the independent wholesalers mostly source their fuel from the refiner marketers
- Distribution costs have reduced over time with the use of higher volume trucks, delivering more fuel directly from terminals and improved logistics which has contributed to the decline of distributor numbers from 7000 in 1970 to around 130 in 2007.
- The wholesale market share of independents has declined from 11% in 2002-3 to 4% in 2006-7 which has resulted in a more concentrated market (HHI has increased from 0.2193 to 0.2752)

### 4.1 Wholesale

In New Zealand all the companies who refine and/or import petrol (BP, Chevron, Gull, Mobil and Shell) are both wholesalers and retailers of petrol. Gull is New Zealand's only independent importer.

Wholesale activities in New Zealand also include the sale of petrol and diesel to independent service station owners and supply of fuel to a range of commercial customers, although the primary fuel that is sold to commercial customers is diesel. The wholesalers own and operate some of the service stations they supply.

### 4.2 Distribution

Almost all of the petrol that is refined or imported into New Zealand is trucked from the storage terminals to the service stations and commercial customers. Similar to Australia there is a mix of transport providers including specialist trucking operators and distributors. Public information and communications between MED and wholesalers indicate the following cartage arrangements for distributing fuel:

- BP: use a range of transport providers.<sup>39</sup>
- Caltex: use Hooker Pacific.<sup>40</sup>
- Gull: use Trans Liquid Logistics.<sup>41</sup>
- Mobil: use Allied Petroleum (part of the Richardson Group) from central North Island to bottom of the South Island<sup>42</sup>. Kauriland Petroleum<sup>43</sup> is used in the North Island.
- Shell: use two primary transport providers, namely Linfox and Alexander's Petroleum Services.<sup>44</sup>

Like Australia the size of petroleum tankers has increased over time and coupled with increasing storage capacity at service stations (mostly at newer sites) the logistics of delivering fuel will have improved. Offsetting these logistics benefits will be higher cartage costs including wages, fuel cost, more expensive transport equipment, etc.

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<sup>39</sup> Communication between MED and BP

<sup>40</sup> Hooker Pacific website: <http://www.hookers.co.nz/content.asp?id=55&area=servicessubmenu>

<sup>41</sup> Communication between MED and Gull

<sup>42</sup> Allied Petroleum website: <http://www.alliedpetroleum.co.nz/about.html>

<sup>43</sup> Transpecs News Stories, 28 April 2008 - Kauriland B-Train ([www.transpecs.co.nz](http://www.transpecs.co.nz))

<sup>44</sup> Communication between MED and Shell

Service stations located inland (i.e. further away from the coastal ports) may have higher petrol prices reflecting the extra cost of delivering fuel to these locations (e.g. Greymouth, Stewart Island, Tolaga Bay).

As well as the cartage arrangements discussed above some wholesalers have arrangements with a number of distributors who buy wholesale petrol at the storage terminal and then on sell (effectively as an agent) to their own customers.

### **4.3 Wholesale market share**

New Zealand is a concentrated market with a small number of participants in the wholesale market, similar to that seen in Australia. The ACCC report found that the Australian market (in 2007) has a HHI of 0.2752. We have calculated the HHI for the New Zealand wholesale market at 0.2638<sup>45</sup>.

Using this measure of HHI shows that New Zealand, like Australia, has a concentrated wholesale petrol market. The ACCC found that the wholesale HHI in Australia was similar to that for refining and concluded that independent wholesalers place little competitive constraint on the refiner-marketers wholesale activities. With a single refinery a HHI is not relevant for New Zealand refining but like Australia the wholesale market is primarily made up of the refiner-marketers. This is discussed in more detail in Chapter 8.

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<sup>45</sup> Calculated from MED's confidential wholesale market share data

## 5.0 Industry structure – retail

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This chapter focuses on the structure of the New Zealand retail petrol market including the market participants.

### The ACCC report concluded:

- That there are four types of retailers; refiner marketer owned sites, refiner marketer branded sites (independent and distributor operated), supermarket sites and independent operators selling their own brands
- Woolworths /Caltex and Coles have the largest retail market share with 22% each. The market share of the independents has remained reasonably consistent at 7%.
- The HHI calculation for the retail market in Australia is 0.1738.

## 5.1 Industry structure

The retail market in New Zealand consists of four broad categories, these are:

1. Wholesaler owned and operated service stations<sup>46</sup>
2. Wholesaler branded service stations, these can be:
  - Independently owned and operated service stations<sup>47</sup>
  - Wholesaler owned but independently operated service stations<sup>48</sup> (arrangements include franchisees and commission agents)<sup>49</sup>
3. Supermarket service stations (e.g. Pak'nSave)
4. Independent service stations selling their own brand (e.g. G.A.S.)

While these structures are similar to Australia, the retail market is different in New Zealand. Until the introduction of the Oilcode in Australia there was legislation<sup>50</sup> which limited the number of service stations a refiner-marketer could use to set the fuel price. While this limit was an absolute number, in effect the limit was around 5% of the total retail sites. In New Zealand there haven't been any limits on wholesaler ownership or price setting at service stations since deregulation in 1988. This has resulted in a larger proportion of retail service stations being directly owned and operated by the refiner-marketers in New Zealand than Australia.

Analysis of service stations in New Zealand shows there are about 1,265 service stations<sup>51</sup>. Table 3 gives a detailed breakdown of the ownership structure. In summary there are about 502 service stations operated directly by the wholesalers, 731 service stations operated by independent operators and 32 supermarket sites. The service stations operated by independents will include a mix of fully independent operators (DOSS) and wholesaler owned but dealer operated sites (CODO) including franchisee and commission agent sites.

MTA has advised that there are about 670 independent service stations<sup>52</sup> (excluding franchisee and commission agents) of which 389<sup>53</sup> are controlled by branding

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<sup>46</sup> Also referred to as COCO – Company Owned, Company Operated

<sup>47</sup> Also referred to as DOSS– Dealer Owned Service Station

<sup>48</sup> Also referred to as CODO – Company Owned, Dealer Operated

<sup>49</sup> The Decline of Independent Petrol Retailing: Rationalisation or Predation, NZIER 2002

<sup>50</sup> Petroleum Retail Marketing Sites Act 1980

<sup>51</sup> Data provided to MED by each of the Retailers

<sup>52</sup> Meeting with MTA and MED on 26 June 2008

<sup>53</sup> Herbert Morton letter dated 17 July 2008



arrangements indicating that only 281<sup>54</sup> are fully independent. This suggests that there are about 563 wholesaler operated, commission agent and franchisee service stations (where wholesalers are able to directly control the retail price) which is about 45%<sup>55</sup> of the total number. However the wholesalers can also influence the rest of the market via their wholesale pricing and price support structures.

**Table 3: Service station ownership split**

Retailer	COCO	Independent (CODO, DOSS)	Supermarket	Total
Allied Petroleum (Mobil Distributor)	-	40	-	40
BP	78	178	-	256
Caltex (Chevron)	40	174	-	214
Challenge!	-	94	-	94
G.A.S.	-	114	-	114
Gull	26	7	-	33
Mobil	150	65	-	215
Pak'nSave / New World	-	-	32	32
Shell	208	26	-	234
Waitomo Petroleum (Mobil Distributor)	-	33	-	33
Total	502	731	32	1265

Source: Retailer websites, communications between MED and retailers

BP wholesales petrol to G.A.S. and Pak'nSave<sup>56</sup>, whereas Challenge! is owned by Chevron. Some Mobil distributors (such as Allied Petroleum and Waitomo Petroleum) also use their own branding at some service stations (often in areas outside of the major centres).

## 5.2 Market shares

Retail market share data is not publicly available for New Zealand, thus we are not able to accurately calculate a HHI for the retail sector. However based on the wholesale supply arrangements discussed in section 5.1 and with the following assumptions we have estimated the HHI to be 0.2167 for the retail sector.

H&T assumptions:

- Caltex and Challenge! have been treated as one retailer
- G.A.S. sites sell 1.0 million litres of petrol on average
- Pak'nSave sites sell 4.5 million litres of petrol on average
- 95% of the petrol sales (BP, Chevron, Mobil and Shell) are sold in the retail market

With these assumptions the HHI indicates that the retail market is less concentrated than the wholesale market but still concentrated in terms of the HHI level. This finding is consistent with the larger number of retailers in the retail market compared with the wholesale market and is similar to the trend seen in Australia.

<sup>54</sup> Herbert Morton letter dated 17 July 2008

<sup>55</sup> On average the wholesaler service stations tend to sell more fuel. If the calculation of ability to directly control the retail price was done on a volume basis the percentage would be higher than stated above due to these larger site volumes.

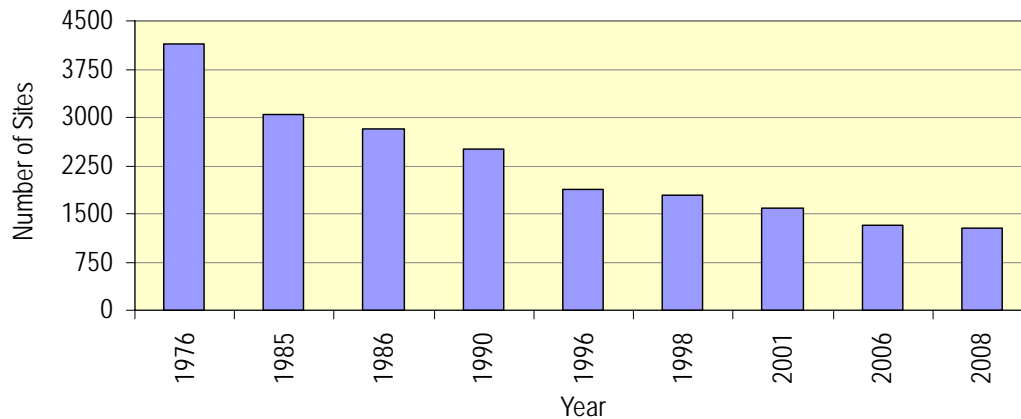
<sup>56</sup> G.A.S. and Pak'nSave websites

## 5.3 Changes in the nature of petrol retailing

### 5.3.1 Site rationalisation

Similar to the trend in Australia there has been an ongoing downward trend in the number of service stations in New Zealand. Chart 12 shows how service station numbers have declined over time. The NZIER report<sup>57</sup> showed that there were around 1,600 service stations in 2002, whereas the H&T report<sup>58</sup> showed that there were just over 1,300 service stations in 2006 compared to the 1,265 sites seen now.

**Chart 12: Service station numbers**



The ACCC report suggests that while the decline in service station numbers has occurred for many reasons, two significant contributors have been the concentration on high volume sites (which reduces operating costs on a per litre basis) and the development of highway and other major arterial routes which provide retailers with greater concentrations of customers who desire more convenient ways to purchase goods and services. A similar trend can be seen in New Zealand's metropolitan areas with new large service stations typically being built on major arterial routes and subsequent closure of smaller service stations in these areas.

### 5.3.2 Increasing importance of non-fuel competition

Several Australian industry participants indicated to the ACCC that revenue from non fuel sources (i.e. shops sales) was an important component of the competitiveness of a retail site. In many cases it was about 50% of the revenue and the majority of the gross profit (Caltex Australia quoted that non-fuel sales on average account for 70 per cent of gross margins.)

The New Zealand market is similar to the Australian market with many of the same competitors. Large convenience stores have been developed at service stations with high profile marketing of non-fuel related products indicating that New Zealand retailers also consider the revenue from non-fuel sources an important component of income generated by their retail sites.

Indicative data provided by MTA<sup>59</sup> and Shell<sup>60</sup> showed that the typical gross profit from shop sales for an independent service station is around \$250,000 to \$300,000pa whereas the gross profit from fuel sales (assuming a 4cpl retail margin) at a service station selling 2.5 million litres of fuel would only be \$100,000pa. This indicates that shop sales may be

<sup>57</sup> The Decline of Independent Petrol Retailing: Rationalisation or Predation, NZIER 2002

<sup>58</sup> Enabling Biofuels, Biofuels Distribution Options: Hale & Twomey 2006

<sup>59</sup> Meeting with MTA and MED, 26 June 2008

<sup>60</sup> Communication between MED and Shell

providing 70-75% of their gross profits. This is similar to that reported in the ACCC report.

In the 2002 NZIER report<sup>61</sup> retailer gross margins were reported to be around 4cpl. It appears that the typical retailer gross margins are now 4.0 to 6.5cpl<sup>62</sup>. During this period the Consumer Price Index (CPI) has increased by about 17% and there are now fewer service stations which (on average) will be selling more fuel, although the increased volume will only be available to service station operators located in areas where rationalisation has occurred.

### **5.3.3 Bundling with groceries – shopper docketts**

The introduction of shopper docketts (or supermarket discounting) is a relatively new development in New Zealand with both major supermarket chains launching schemes around October 2006. The impact of supermarket discounting is discussed in Chapter 12.

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<sup>61</sup> The Decline of Independent Petrol Retailing: Rationalisation or Predation, NZIER 2002

<sup>62</sup> Communications between MED and industry participants

## 6.0 Regulation in the petrol industry

This chapter covers the regulation of the petroleum industry.

### 6.1 Fuel quality standards

The New Zealand Government has regulated fuel quality standards since the deregulation of the oil industry in 1988. In general these are more comprehensive than Australian standards, which are focused mainly on environmental standards. The New Zealand standards contain more specifications controlling performance.

New Zealand quality petrol is similar to Australian petrol (shown in Table 6.2 in the ACCC report) with the notable difference being lower sulphur on regular petrol and a slightly higher MON. These make New Zealand petrol specifications more difficult for refiners to make than Australia specifications (for regular).

**Table 4: Requirements for regular grade petrol**

Property	Platts FOB Singapore gasoline specification	New Zealand retail specification for regular petrol
Research Octane Number (RON)	Min 92, Min 95, min 97	91.0 minimum
Motor Octane Number (MON)	None specified	82.0 minimum
Colour	Undyed, light yellow	Not to be mistaken for water
Percentage volume evaporated at 70°C (E70)		22 minimum - 48 maximum
Percentage volume evaporated at 100°C (E100)		45 minimum - 70 maximum
Percentage volume evaporated at 150°C (E150)		75 minimum
10% evaporated	Max 74	
50% evaporated	Max 127	
90% evaporated	Max 190	
End point (°C)	225 maximum	210 maximum
Residue (percentage volume)	2 maximum	2 maximum
Flexible Volatility Index [VP(kPa) + (0.7 x E70)]		115.0 maximum
Vapour Pressure (kPa) Summer: 1 December – 31 March Autumn: 1 April– 31 May; Winter: 1 June –31 August; Spring: 1 September – 30	Max 69 kPa	Maxima: Auckland and Northland: 65 kPa summer; 80 kPa autumn and spring; 90 kPa winter; Rest of North Island: 70 kPa summer; 80 kPa autumn and spring; 90 kPa winter; South Island: 75 kPa summer; 85 kPa autumn and spring; 95 kPa winter Minimum: 45 kPa all year
Copper strip corrosion (3 hours at 50°C)	Class 1 maximum	Class 1 maximum
Sulphur (mg/kg)	500 maximum	50 maximum
Doctor test	Negative	
Mercaptan sulphur, %wt	Max 0.0015	
Existent gum (solvent washed) (mg/100 ml)	4 maximum	5 maximum
Oxidation stability induction period (minutes)	240 minimum	360 minimum
Lead (mg/l)	13 maximum	5 maximum

Property	Platts FOB Singapore gasoline specification	New Zealand retail specification for regular petrol
Benzene (percentage volume)	5 maximum	1 maximum
Total aromatic compounds (including benzene)	Report	42 maximum pool average and 45 maximum cap
Oxygenates (percentage volume) <sup>1</sup>	10% for MTBE	1 maximum for total oxygenates
Olefins (percentage volume)		18 maximum
Manganese (mg/l)		2.0 maximum
Phosphorus (mg/l)		1.3 maximum
Acetone	100ppm maximum	

Source: Platts and New Zealand Engine Fuel Specifications [www.legislation.govt.nz/regulation/public/2008/0138/latest/DLM1325201.html](http://www.legislation.govt.nz/regulation/public/2008/0138/latest/DLM1325201.html)

As with Australian petrol quality New Zealand quality is higher than the Platts benchmark, especially for benzene, sulphur, lead, MTBE and motor octane. Note the Platts specification for sulphur has tightened since the ACCC report.

### 6.1.1 State fuel standards

New Zealand has no state or regional fuel standards (other than regional vapour pressure variation shown in the above table).

### 6.1.2 Implication of New Zealand fuel standards

The difference in New Zealand fuel standards from the Singapore benchmark, like Australia, has a number of implications for both prices and competition. These include a higher cost to manufacture and a reduced number of sources for both refinery-marketers and independent importers to obtain fuel that meets the New Zealand quality.

The ACCC report only mentioned independent importers having trouble securing imports but New Zealand regular has a tighter sulphur specification than Australian regular. BP has noted<sup>63</sup> that this makes it very difficult to secure supplies of regular petrol and they have imported supplies from Europe on occasions.

## 6.2 Oilcode

New Zealand has no equivalent of the Australian Oilcode, which regulates the conduct of suppliers, distributors and retailers in the downstream petroleum retail industry (The Oilcode is briefly covered in 1.5.2 of this report or in more detail in this chapter of the ACCC report).

## 6.3 Government regulation to improve transparency and competition

A number of Australian state governments have introduced regulations intended to improve transparency and competition. These include:

FuelWatch: A West Australian monitoring service that monitors daily petrol, diesel and automotive LPG prices at numerous city and regional locations and makes the information available to the public via a website and phone service. In addition there is a 24-hour rule which requires retailers to give the Prices Commissioner notice by 2pm daily of the next day's retail price. The retailer changes price at 6am and these must remain unchanged for the next 24 hours.

<sup>63</sup> BP website: <http://www.bp.com/genericarticle.do?categoryId=16003851&contentId=7041485>

Terminal gate pricing: A number of States have requirements for terminal gate pricing where a wholesale price must be set, reflecting a purchase at a wholesaler's terminal with a tanker truck when paying for bulk purchases with cash.

## 6.4 Taxation

New Zealand currently has a number of duties and taxes on petrol.

**Table 5: Duties and taxes in New Zealand**

	<b>From 1 July 2008</b>
National Land Transport Management Fund <sup>64</sup>	42.524
Accident Compensation Corporation Levy	9.34
Petroleum Fuels Monitoring Levy	0.025
Local Authorities Petroleum Tax	0.66
Total duties and excise	52.549
GST	12.5%

Source: MED

Excise tax was last increased on April 1 2007 by 0.616 cpl.

The ACC levy was increased on July 1, 2007 by 1.55 cpl and by 2.01 cpl on 1 July 2008.

As noted in section 2.4 New Zealand's tax burden is the fifth lowest in the OECD. In addition 9.34 cpl relates to the ACC levy covering personal injury insurance. Most other countries do not have such a scheme so may pay to cover vehicle related personal injury insurance through their car insurance.

Table 6 compares New Zealand's tax burden with Australia (removing the ACC levy as Australia doesn't have an ACC equivalent) using a range of exchange rates at June average prices for regular petrol. At current exchange rates (~0.78) once the ACC levy is removed from the New Zealand rate the overall tax burden is similar between the two countries.

**Table 6: NZ/Australia petrol tax comparison**

<b>All NZ cpl</b>	<b>NZ tax</b>	<b>Australian tax<sup>65</sup></b>		
NZ/AUS exchange rate	-	0.8	0.85	0.9
Excise and Duties	43.209	47.679	44.874	42.381
GST	23.122	18.250	17.177	16.222
Total	66.331	65.929	62.051	58.603

## 6.5 Subsidies

There are no subsidies in New Zealand similar to the state subsidies in Australia.

<sup>64</sup> This component is also referred to as excise tax. Prior to 1 July 2008, 18.708 cpl of this amount went to the Crown Bank Account rather than the National Land Transport Management Fund.

<sup>65</sup> Based on Sydney metro June 2008 regular petrol average price sourced from [www.aaa.asn.au](http://www.aaa.asn.au). Note Queensland petrol is cheaper as it has a rebate to reduce the excise tax

## 7.0 Price determination and profitability – refining and importing

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This chapter examines how the prices of imported petrol and locally refined petrol are determined. The profitability and sustainability of refining operations are also examined.

The ACCC report found for Australia that:

- All prices are heavily influenced by the Singapore spot price even locally refined petrol
- The import price (known as the Import Parity Price – IPP) is built up from the Singapore price and freight costs to terminals in Australia
- Many inquiry participants stated that as some petrol is imported to meet demand, all petrol must be priced against this benchmark.

### 7.1 Refinery prices

Nearly 50% of the New Zealand petrol supply is imported rather than refined from crude oil (either as finished petrol imports or as blendstock for blending at the refinery).

As with the Australian study:

- An import parity price (IPP) can be built from the benchmark prices and freight to land petrol in New Zealand
- The marginal barrel (direct imports) sets the price for all petrol

Therefore the same IPP formula can be used in the New Zealand market. The IPP price is also referred to as the landed cost of product.

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**IPP price = a benchmark product price (e.g. MOPS 95) + quality premium + shipping costs + wharfage + insurance and loss**

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In New Zealand the refinery price is different in that NZRC charges customers a processing fee based on the difference between the landed cost at New Zealand ports for the products (IPP) less the landed cost of crude at the refinery.<sup>66</sup> Customers pay 70% of this margin as a processing fee<sup>67</sup>. Therefore while import parity prices are used to calculate a processing fee this doesn't actually set a price for the product in the market (the refiner-marketers own the crude and products as they are processed so there is no sale of products ex the refinery).

The following sections briefly describe the elements of the IPP formula.

#### 7.1.1 Benchmark refinery price

The use of a price benchmark for petrol is long established in New Zealand as imports have been common for many years (longer than Australia). NZRC has had a processing fee based on IPP for products since 1995 and probably at least four years before that.<sup>68</sup>

The details of which benchmark is used is not public information but, like Australia, we would expect it to use the same Platts benchmarks (MOPS) as imports. This Platts quote

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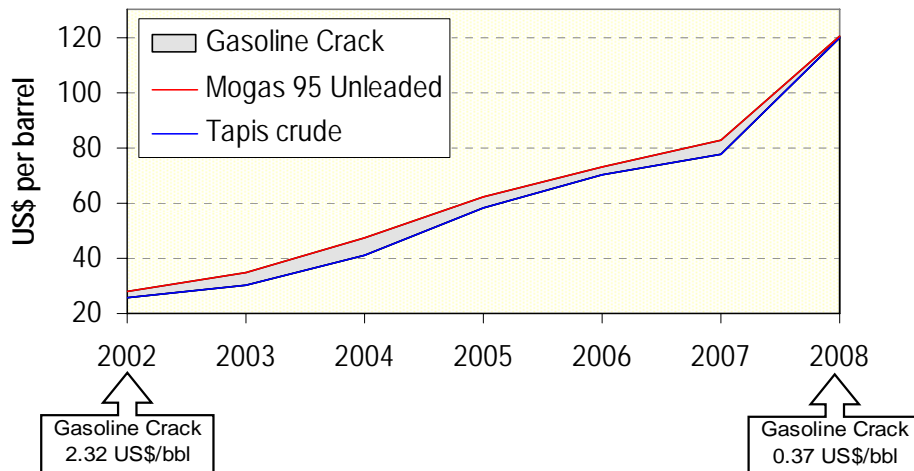
<sup>66</sup> ACIL report on Barriers to Entry to the New Zealand Market for Ministry of Commerce 1997 (pg 14)

<sup>67</sup> NZRC 2007 Annual report

<sup>68</sup> Deloitte Touche Tohmatsu "Independent Appraisal report on the Processing Arrangement of the New Zealand Refining Company" 1995. (1.10, 6.7)

is a free-on-board (FOB) price based on a trader making a 30,000 tonne cargo available to be lifted in a lifting window (period of five days) by another trader out of Singapore.<sup>69</sup> Because crude oil is the feedstock for producing petrol, MOPS prices are closely aligned to the price of crude oil. Chart 13 is a similar chart to chart 7.1 in the ACCC report comparing Tapis crude prices with mogas (petrol). The gap between the crude price and mogas is the refinery margin for gasoline (or gasoline crack).

**Chart 13: Benchmark annual average crude and petrol prices**



Source: Platts H&T

Both Tapis crude and Mogas 95 prices have increased rapidly over the past five years while the gasoline crack has been relatively steady (around US\$4/bbl). This year gasoline margins are under pressure with plentiful supply of petrol resulting in lower margins than normal. Note these can vary significantly on a week to week basis.

### 7.1.2 Quality premium

Like Australia, New Zealand petrol is higher quality than the equivalent Platts Singapore specification (Chapter 6.1). Consequently an adjustment is made to the Singapore benchmark to reflect the higher cost of the product (known as the quality premium).

The Australian study states that the key specification variations (especially MTBE and benzene) add around US\$1.50 to US\$2.50 per barrel to the cost, with a total premium of around 3 AUS cpl (3.4 NZ cpl) to the Singapore benchmark. It is noted that the actual premium will be determined by negotiation between buyer and seller and may vary with seasonal changes.

Similar information is not available for New Zealand. However if anything New Zealand specifications are tighter for regular petrol because of a tighter sulphur specification. This could easily add another US\$0.50/bbl to the equivalent Australian quality differentials. However it should also be noted that there has been a tightening of the sulphur specification for the Platts benchmark since the ACCC report which may also affect the differentials.

MED currently accounts for quality differentials in their build up of landed petrol costs and importer margin. Currently this is a premium of US\$1/bbl to a 95 octane benchmark. Based on the information in the ACCC report this should be adjusted to US\$4/bbl<sup>70</sup> which

<sup>69</sup> ACCC 7.1.1. Note even if the product comes from outside the immediate region (e.g. Middle East) it is still likely to be traded against the same Singapore benchmark

<sup>70</sup> Confidential communications to MED have confirmed that this number is more reflective of the cost of New Zealand product although it was noted that it can vary significantly on a cargo to cargo basis.



would have the effect of reducing the reported importer margin by 2.5 NZ cpl. As MED adjusted the premium with tightening standards, this adjustment should not effect the trend of margins over time (i.e. the adjustment will be similar over the time period analysed).

### 7.1.3 Freight costs

Freight needs to be added as the Platts benchmark is for the purchase of petrol loaded on a ship in Singapore. The freight cost methodology used in Australia follows an industry standard approach (how the ship owner charges for use of their ships) and a similar method is used in New Zealand (adjusting for the Worldscale voyage costs to New Zealand ports). As New Zealand is further from Singapore than Australia the freight cost will be higher.

MED uses this methodology in its landed cost price build up although using a different market quote than the quote the ACCC reports as now typically used by the market (MED uses a Singapore-Japan quote whereas there is now a Singapore-Australia quote which the market appears to have moved to). This quote is higher than the quote MED uses and as a consequence ACCC report higher freight costs to Australia than in MED's calculation for New Zealand. Analysis using H&T's data, based on the information in the ACCC report, suggests that the New Zealand freight cost may on average be 1.5 cpl higher than that calculated by MED. Combined with the product quality increase this would have the effect of reducing the average reported importer margin from around 16 cpl to about 12 cpl. The trend should not be significantly affected.

Wharfage is charged at New Zealand ports when discharging product across a jetty. These rates are published by the port companies and are generally around \$4.00/m<sup>3</sup> (0.4 cpl).

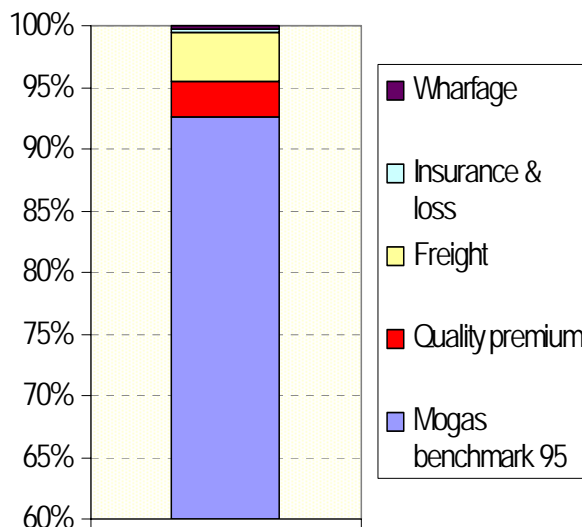
### 7.1.4 Insurance and loss

Allowance for insurance and loss would be included as in Australia. A percentage is used (0.29% in MED's calculation) of combined cargo and freight cost.

### 7.1.5 Contribution to refinery prices

Chart 14 shows the average contribution from each of the components to build up the import parity price (for May 2008 prices – adjusted with increases to quality premium and freight discussed above).

**Chart 14: Percentage components of IPP**



Source: MED

### 7.1.6 Changes in refinery prices over time

As the Singapore benchmark changes, all other things being equal, local prices based on this formula will change. However Singapore benchmarks are expressed in US dollars so local prices are also influenced by movement in the NZ/US exchange rate. A high NZ dollar will help cushion the rise in the Singapore market.

The ACCC heard evidence that the quality premium on Australian petrol has increased by US\$2-3/bbl over the past five years due to the tightening specifications. Given the similar changes to New Zealand petrol specifications the increase is likely to be similar.

The report also noted that quoted Worldscale rates for Singapore to Melbourne had increased by 55% and the trend for freight to New Zealand is likely to be similar.

## **7.2 Impact of IPP-based formula pricing**

The ACCC found the use of IPP based formula to set prices has important implications for petrol pricing in Australia. This is particularly because it is used as the basis for buy-sell arrangements in the Australian market.

As previously noted buy-sell arrangements are not a feature of the New Zealand market so the discussion in this section was not relevant. Whether IPP pricing is a valid pricing methodology for the New Zealand market is discussed in Chapter 13.

## **7.3 Profitability of domestic refining**

The ACCC report looked at the profitability of domestic Australian refiners based on their use of an IPP-based formula for pricing their products and found that:

- Australian refiners are currently profitable in an accounting sense and indeed are more profitable than they have been for some time.
- In particular, gross refiner margins are:
  - Higher than they have been for some years
  - Likely to remain steady for the immediate future
- Tightening of the gasoline crack has occurred in the last three months [note: August through October 2007] and further tightening may accompany increasing crude oil prices over the coming months
- Net refining margins are currently also high relative to previous years for most refineries
- Utilisation rates at domestic refineries have improved and short-term returns on capital employed are generally stronger than they have been for some years
- While Return of Capital Employed (ROCE) needs to be treated cautiously with regard to capital and operating expenditures incurred, all refineries are currently experiencing healthy returns on capital employed

Australian refineries are part of their owner's integrated supply chain and hence public information isn't available on profitability. To draw the above conclusions ACCC was provided with confidential information by the refiner-marketers.

The New Zealand situation is different because NZRC is a public company with a significant amount of public information available through its financial reporting and bi-monthly reporting on margins.

The refiner-marketers have two different relationships with NZRC. One is as a shareholder with rights of ownership as for any other shareholder, and the other is as customer. It does not appear to be necessary for a customer of NZRC to be a shareholder however all four customers are significant shareholders. In the following discussion it is important to keep these relationships clear – one as investor and one as a customer.

### **7.3.1 Costs of production**

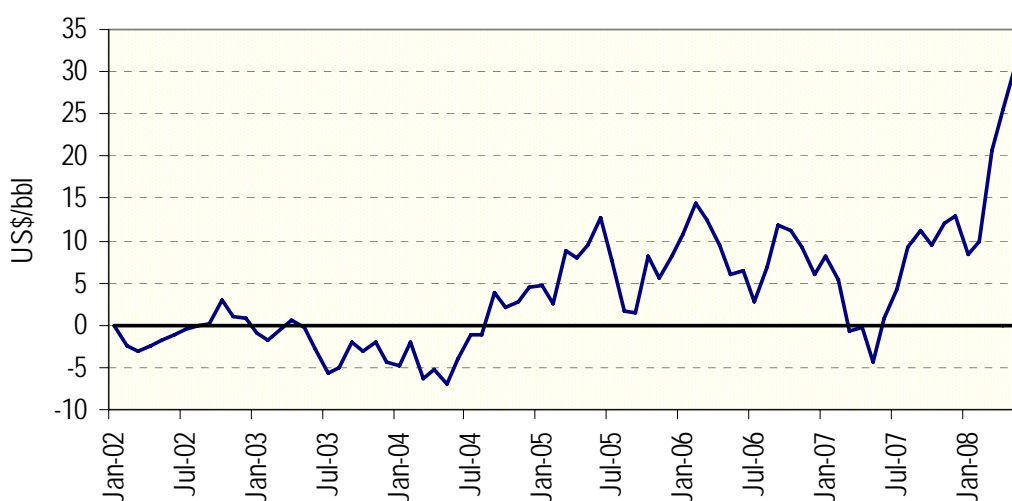
NZRC differs quite significantly from most Australian refineries in that it can process heavier, more sour crude (generally cheaper) and still produce on-specification product (albeit with higher capital cost equipment). In addition, whereas Australian refineries are heavily weighted to producing petrol, NZRC is designed to produce mainly jet and diesel.

The ACCC report noted that it is hard to isolate the refining margin for one product as refineries typically look at the total margin for processing crude (the “gross refining margin”). However petrol refining costs could be analysed using the “crack” between crude and petrol.

For NZRC the most significant impact is to assess the way prices have moved for its main products over the past few years.

Chart 15 shows the relative movement in benchmark prices for petrol and diesel (jet fuel has moved in line with diesel) over the past five years.

**Chart 15: Comparison between diesel and petrol prices (petrol=0)**



Source: Hale & Twomey

Historically diesel and petrol prices were similar with petrol usually marginally higher as it was regarded as a higher value product. Since 2004 diesel has increased in value relative to petrol and this trend has been amplified in 2008. The reasons are many including:

- Much higher growth for diesel in the developing economies (especially China, India) as diesel use is strongly linked to economic growth
- The “dieselisation” of the vehicle fleet (especially in Europe), which has shifted demand from petrol to diesel
- The use of diesel for power generation in countries where electricity supply is unreliable (New Zealand uses diesel for reserve generation at Whiranaki)
- High demand for jet fuel (jet fuel and diesel production are to a certain extent interchangeable) with the growth of the airline industry and tourism
- Tightening diesel fuel specifications making diesel harder for refineries to manufacture
- Limited ability without major investment for refineries to switch petrol production to diesel

This trend of rising diesel and jet fuel prices has been particularly beneficial for NZRC (covered in 7.3.2) as diesel and jet fuel represents a relatively high proportion of its product slate.

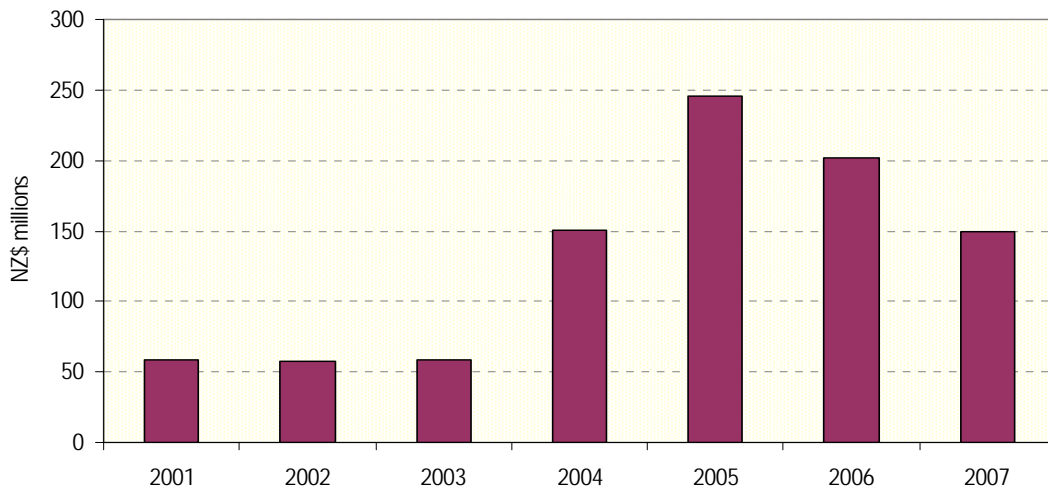
### 7.3.2 Measures of profitability

#### NZRC profitably (for shareholders)

NZRC produces annual profits which provide a transparent measure of refinery profitability. Chart 16 shows the trend for the last seven years and shows the significant upswing in profit from 2004 (in line with diesel price increases). As a result the NZRC

share price (NZR on the New Zealand stock exchange) has risen about 5-fold since January 2004.

**Chart 16: NZRC's profit trend (EBIT)**



Source: NZRC Annual Reports

While in recent years NZRC has been very profitable this follows a period of around 15 years where refinery margins were relatively low with over-capacity in the Asia-Pacific region. In 1999 refining margins were so low that NZRC made a loss on refining and only made a profit due to their pipeline income.<sup>71</sup>

The ACCC report noted that a new refinery (assuming a scale similar to Australian refineries/ NZRC) could cost about A\$3 billion. In this context profits are more modest (i.e. they would not justify a refinery being built from scratch).

### Customers

While refining is currently profitable for NZRC and therefore its shareholders, that does not ensure it is profitable for its customers. The information to assess the economics for customers is not as transparent but can be assessed from information put out by NZRC.

Customers pay a percentage (70%) of NZRC's Gross Refining Margin<sup>72</sup> which is published bi-monthly. This suggests that customers using NZRC "keep" 30% of the refining margin. When the current processing agreement structure was put in place between NZRC and its customers (1995) it was subject to independent review (Deloitte Touche Tohmatsu) and approval by non-customer shareholders (the refiner-marketer shareholders are excluded from any major decisions on processing fees). This report assessed the risks and rewards between the parties and found that the split was *"not unreasonable as it provided sufficient rewards to both parties relative to the risks they bear."*<sup>73</sup>

The risks and costs to be covered by the customers retaining 30% of the gross refining margins include<sup>74</sup>:

- The customers own the feedstock and product and carry the holding cost
- NZRC has a commitment from the User Companies to 100% of its capacity<sup>75</sup>

<sup>71</sup> NZRC 1999 Annual Report

<sup>72</sup> NZRC 2007 Annual Report

<sup>73</sup> Deloitte Touche Tohmatsu "Independent Appraisal report on the Processing Arrangement of the New Zealand Refining Company" 1995 (10.8)

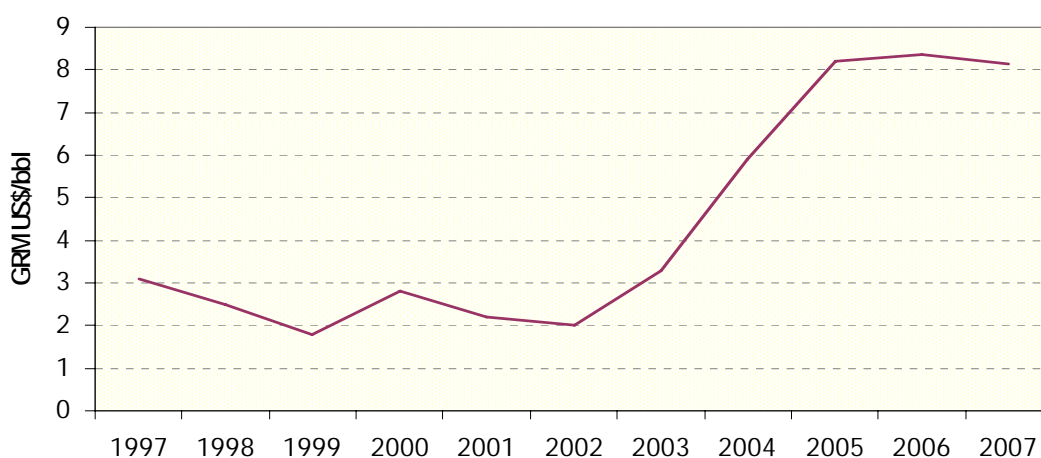
<sup>74</sup> Ibid (10.7)

- The customers have to pay a “floor” (fixed fee) if margins fall below a certain level
- The customers still have to pay for the transport of their product (either by pipeline or coastal vessel) to port terminals (including wharfage costs) before it is on an equivalent basis with imported product

In theory if the 30% of the margin retained by the refinery-marketers did not cover their costs they might choose to import (contractual relations permitting). In fact it appears they fully utilise NZRC, which implies it is a cost effective supply route.

However the 30% is highly variable. While costs will be relatively fixed, the refiner-marketers need to manage a variable income stream. Over the past 10 years (see Chart 17) margins have been both higher and lower than the approximately US\$4/bbl expected when the processing agreement was agreed (1995). Therefore refinery processing is likely to have varied profitability over this period.

**Chart 17: NZRC gross refinery margin trend**



Source: NZRC Annual Reports

High margins in the last three years of above US\$8.00/bbl will be providing refiner-marketers significant income, likely to be well in excess of the costs. Using a simplified approach, if we assume that 30% of a US\$4/bbl margin (at 0.65 exchange rate) roughly covered the refiner-marketers costs in 1995 (this was about the level when the agreement was negotiated so it is reasonable to assume costs were covered at that point) then NZ\$1.85 was enough to cover costs and risks involved. Adjusting for inflation this would now be about NZ\$2.40/bbl. However over the past three years gross refinery margins have averaged US\$8.20/bbl at an average exchange rate of 0.7. This would result in income of about NZ\$3.40/bbl to a refiner-marketer, about NZ\$1/bbl (0.6 cpl) more than the expected costs.

Costs to be covered by refiner-marketers may have changed at a different rate than assumed above. However this is unlikely to change our conclusion that the refiner-marketers are currently making profit from their use of NZRC although if portioned to a product this would be credited to diesel or jet where the bulk of the margin is being made rather than petrol.

### Floor

The processing fee arrangement NZRC has with its customers has a floor, which means if margins fall below a certain level then a minimum fee is charged that will be more than

<sup>75</sup> We are unsure if this still applies although NZRC report being fully utilised.

70% of the gross refining margin. This is one of the risks for customers in the processing agreement with NZRC. The floor was charged in the low margin environment of 1999.<sup>76</sup>

### **Ceiling or cap**

The processing fee is also subject to a ceiling or cap (maximum fee) which if margins go above, customers fees are capped. The 2007 Annual Report noted that some customers reached the cap in 2007 (US\$9.00/bbl) although the average margin was lower than this. Margins reported to date in 2008 are well above US\$9/bbl<sup>77</sup> so all NZRC's customers may currently be paying a capped processing fee. The cap works on an annual basis so if margins fall later in the year (the average margin falls below US\$9.00/bbl) customers have to repay the reduced processing fees when margins were high (i.e. it is calculated on a year to date basis).

Whether the existence of these "floor" or "cap" arrangements and profitability in using the refinery processing should make any difference to the behaviour of the wholesale market is discussed in Chapter 13.

### **7.3.3 Conclusions on current profitability**

Taking a similar perspective as the ACCC report, the conclusions that can be drawn on refining profitability in New Zealand are:

- Refining is profitable, perhaps more so than in Australia at present because of its bias toward producing higher value diesel and jet fuel
- NZRC has been highly profitable for its shareholders since 2004, although this followed a long period of much lower returns
- At current margins, refining at NZRC is also likely to be profitable for its customers as margin they capture (30%) is likely to be higher than cost and risk involved
- It is diesel and jet fuel production generating the high margins rather than petrol
- There are varying predictions on the outlook for refiner margins (unlikely to continue to be as high as year to date margins) although the outlook for diesel demand remains firm which may help support NZRC's margin.

## **7.4 Competitiveness of NZRC and the location advantage**

The ACCC asked why, if Australian refineries had higher costs than their Asian counterparts, they could continue to compete. The reasons concluded were:

- Location advantage – it is cheaper to import crude than product therefore a refinery in Australia has a competitive advantage versus direct imports
- Quality premiums charged by Australian refiners (they charge more than the import equivalent)
- The ability of Australian refiners to set domestic wholesale prices at or above IPP price reflecting the cost of imported fuel to the refinery

A location advantage also applies to New Zealand, possibly higher than for Australia as NZRC has a deeper port than most Australian refineries (therefore can accept bigger ships). NZRC also would receive a quality premium for its product but there is no evidence that this is above the market value (in the Asian market) for this quality. Similarly while there is evidence NZRC uses IPP pricing for their product there is no evidence they could set it any higher than the equivalent cost for an importer which the ACCC allude might be true for Australian refineries through buy-sell contracts (NZRC would risk losing throughput if they overprice versus imports).

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<sup>76</sup> The 1999 NZRC Annual Report notes that due to the floor an extra \$12.7 million was charged to its customers above the normal 70% of GRM

<sup>77</sup> Available on [www.nzrc.co.nz](http://www.nzrc.co.nz)

#### **7.4.1 Sustainability of the fuel quality premium**

ACCC assessed the impact of product quality premiums which have risen sharply with the mandating of higher quality product specifications in Australia.

New Zealand faces the same price pressure with less Asian refineries now capable of making New Zealand quality petrol as there are only a few Asian countries with similar high quality specifications. The value of that quality premium reflects the limited supply and like Australia is likely to be in excess of actual refining costs for the domestic refinery.

However the ACCC noted that the premium should reduce over time as more countries (and thus refineries) move to similar product quality specifications. They heard evidence that premiums were beginning to decline. As New Zealand's quality is similar to Australia the same is likely to hold for New Zealand.

#### **7.4.2 Future of refining in New Zealand**

The ACCC noted confidential discussions with the Australian refiners and agreed that:

- It was highly unlikely that a new domestic refinery of world-class scale would choose to locate in Australia
- That the legacy structure of existing refineries provide them a competitive disadvantage to larger, more efficient refineries in the region
- They are likely to face stronger international competition in the future that should put additional constraint on margins and profitability.

These conclusions are not immediately valid for the New Zealand market as NZRC starts from a stronger profitability base and a refinery configuration more suited to the current requirements of the international market (jet and diesel production). As long as NZRC produces less than the total New Zealand demand (imports continue to set the marginal price) they should be able to maintain a significant location advantage and a reasonable level of profitability (if not always as high as recent years).

NZRC is expanding capacity by 10-12% which can be taken as a vote of confidence in its future. By comparison Australian refining capacity has reduced over the past five years (including one refinery shutdown, another reduced in capacity).

### **7.5 Conclusions on refinery pricing and performance**

The ACCC report noted that the formulaic approach to refinery pricing forms the cornerstone of petrol pricing in Australia. This formula is loosely based on the concept of import parity pricing.

The ACCC concluded the IPP pricing policy provides refiners with reasonable rates of return from refinery operations and enables them to compete with regional suppliers.

The New Zealand market has been shown to use a similar construct to Australia based on import parity pricing. While this has provided significant returns to NZRC's shareholders and customers in recent years this has not always been the case. However over the long term, like Australia, the basis does provide refiners with reasonable rates of return enabling them to compete with regional refiners (in Asia/Pacific).

## **8.0 Price determination and competition at the wholesale level**

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### **8.1 Introduction**

As well as the four refiner-marketers Gull also imports and wholesales petrol. Together these companies are referred to as wholesalers. This chapter considers the ways in which wholesale prices are determined by both the refiner-marketers and the independent. Whereas the ACCC had a lot of confidential information to base their analysis on, this review has had to assume a similar structure in the New Zealand market based only on observations of behaviour.

### **8.2 Structure of the wholesale sector**

Chapter 4 contains a detailed discussion on the structure of the wholesale sector. In summary all five of the oil companies in New Zealand (BP, Chevron, Gull, Mobil and Shell) are wholesalers and retailers of petrol. Their wholesale activities include the sale of petrol and diesel to their own company-operated service stations, independent service stations and also to a range of commercial customers (predominantly diesel).

Most of the petrol sold in New Zealand is supplied by the four refiner-marketers (BP, Chevron, Mobil, and Shell) which they source from NZRC and from imports. Gull imports all its petrol requirements into its coastal storage terminal located at Tauranga, whereas the refiner-marketers utilise several terminals around the coast of New Zealand as distribution hubs.

### **8.3 Buy-sell arrangements/toll refining, shared stock system**

As discussed in Chapter 3 the Australian buy-sell contracts between refiner-marketers are not a feature of the New Zealand market. The ACCC report looked at these arrangements and concluded that they set a floor below which wholesale prices will not fall and from which wholesale prices are built up. These prices also generally appear to be lower than prices independent resellers are able to negotiate as no wholesale margin is built into the price. The buy-sell contracts are based on the IPP construct discussed in Chapter 7.

While New Zealand does not have buy-sell arrangements it does have a toll refinery and for the refiner-marketers a shared stock system. We discuss the influence of these structures in this section rather than buy-sell arrangements.

#### **8.3.1 Toll refining**

Chapter 7 discusses the processing fee paid by the customers of NZRC. The 1995 independent appraisal review referred to one of the key elements of a 1988 Heads of Agreement signed between NZRC and the User Companies being "all User companies were to enjoy identical terms"<sup>78</sup>. H&T has been advised that this has not carried through to the 1995 agreements and understand that the processing agreements are individually negotiated between NZRC and each customer. However even if there is variation between agreements we would not expect the difference to be significant as NZRC

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<sup>78</sup> Deloitte Touche Tohmatsu "Independent Appraisal report on the Processing Arrangement of the New Zealand Refining Company" 1995 (6.3)



continues to refer to the 70% Gross Refining Margin charge in its reporting and assesses the same Singapore market in order to establish product values for the processing fee.

Given this structure could it be argued that the use of a processing fee with similar product values is setting a floor structure to the price of petrol in New Zealand? We think this may not be the case for a few reasons:

- The processing fee is a means of calculating a fee for refining; it is not establishing a finished product value as the customers only pay 70% of the gross refining margin as a processing fee
- Depending on crudes processed and products made each refinery customer will pay a different processing fee and therefore have a different refining cost
- As discussed in Chapter 7 the product values are assessed on an import parity basis as if the customer was importing instead (i.e. reflecting the same price as a clean IPP structure)
- The refiner-marketers all directly import substantial volumes to meet market demand

It is the IPP benchmark that sets a “floor” in the New Zealand market and the method of refinery charging is essentially irrelevant. As discussed in Chapter 7 the refiner-marketers may make or lose money on that supply route (depending on the level of refining margins) but it does not change the IPP benchmark.

### **8.3.2 Refiner-marketers national inventory**

The four refiner-marketers run a shared inventory system as discussed in Chapter 3. Could this affect the competitive nature of the market? It is important to describe some of the attributes of this arrangement before considering the implications:<sup>79</sup>

- Each company owns and controls the level of its own inventory
- Each needs to contribute (and own) inventory into the system to be able to offtake from the system
- Each must also contribute tanks to the system to be entitled to use the system
- Fees to use another company's storage are subject to commercial negotiation

The key difference between the shared national inventory system and buy-sell in Australia is that with the New Zealand system all companies contribute their own tanks and inventory. There is no sale and purchase of the product stored and therefore no ability to set a new ‘floor’ price.

The system has been considered in reports on the petroleum market in New Zealand. The ACIL report did not consider that the shared system was a barrier to entry as the most likely entry for an independent was for it to build its own import terminal.<sup>80</sup> This occurred a couple of years after the report's publication with the entry of Challenge and Gull into the market.

The Oil Security Report<sup>81</sup> considered the shared inventory system from a security point of view (whether it encouraged economically rational behaviour) and found that “the capacity sharing system operated by the majors therefore promotes investment in tank capacity and stocks of product that are consistent with the smooth running of the supply chain”. The shared nature of the infrastructure should also result in the most efficient distribution system.

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<sup>79</sup> Oil Security Report for Ministry of Economic Development, February 2005 by Covec/Hale & Twomey

<sup>80</sup> ACIL report on Barriers to Entry to the New Zealand Market for Ministry of Commerce 1997 (pg 63)

<sup>81</sup> Oil Security Report for Ministry of Economic Development, February 2005 by Covec/Hale & Twomey

Therefore it can be concluded that the shared system is economically rational, should provide the most cost effective logistics for its participants, does not raise barriers to entry and does not allow its users to set a new 'floor' price higher than import parity.

### **8.3.3 Prices available to independent resellers**

The ACCC found that prices available to independent resellers were higher than those refiner-marketers negotiated with buy-sell contracts. This information is not available on the New Zealand market and is not relevant as there aren't buy-sell contacts. However, as discussed in the next section, sales to independent resellers will include a wholesale margin that is added to the import parity price.

## **8.4 Derivation of wholesale prices**

From wholesaler submissions the ACCC found that the basis of the wholesale price build up was similar between wholesalers. This information is not available in New Zealand and as there is no public terminal gate pricing in New Zealand this suggests that there may be less transparency in the New Zealand wholesale market than in Australia.

Anecdotal comment suggests that the New Zealand companies build up wholesale prices in a similar way to their Australia counterparts. This includes:

- A transfer price between their refining business and their wholesale business at or around the import parity price (in Australia the IPP can be the buy-sell price)
- Add-ons such as storage, delivery, brand, credit and equipment related costs where applicable
- A wholesale margin
- A discount, if negotiated

Given the similarities of the market (and the product) with Australia, the determinants of the final negotiated price are likely to be:

- The existence of a long-term supply contract
- The length of contract
- The volumes purchased
- The relationship with the purchaser

The ACCC found that large volume purchasers (e.g. Supermarkets) could obtain significant discounts from standard wholesale prices. This information is not available for this review but based on commercial contracts the larger the volume purchased typically the larger the discount (or smaller margin over import parity).

The other feature ACCC found was wholesale prices partly depended on the relative negotiating strengths of the various parties, including whether the purchaser had many (or any) alternate supply options, including imports and other wholesalers. One of the outcomes of the refiner-marketers national distribution system in New Zealand is that any purchaser is likely to have at least four options (the four refinery-marketers), thus limiting any market power if only one or two companies were represented in a region.

### **8.4.1 Refiner-marketers' evidence of wholesale prices**

As covered above there are no equivalent submissions from refiner-marketers to this study. The Australian information showed that while companies' wholesale pricing varied (both between companies and depending on the customer) in all cases similar costs were being covered.

## 8.5 Terminal gate pricing

Every wholesaler in Australia is required, under the Oilcode, to publish a daily terminal gate price (TGP). The TGP is essentially the spot price that a purchaser who arrives at a wholesaler's terminal with a truck could expect to pay for the bulk purchase of wholesale petrol for cash.

As New Zealand does not have TGP this section is not particularly relevant for the New Zealand market except to note some of the findings. These include:

- Few sales are actually made at TGP
- Companies continue to calculate their own wholesale prices and largely use these as the price basis rather than TGP
- Discounts available to contracted wholesale customer will generally result in a lower price than TGP
- As wholesale and TGP are based on a similar price build up (from import parity) analysis of TGP is still relevant

## 8.6 Wholesale margins

The ACCC received confidential information on wholesale margins from which they derived certain conclusions. Some of these conclusions may be equally valid for the New Zealand market.

- Companies are likely to have similar wholesale margins from which they then discount (band of negotiation given as 2 to 5 cpl)
- Returns are available to the refiner/wholesaler other than from the explicit wholesale margin. The ACCC referred to elements covered in Chapter 7 that will end up in the refining profit system. These will be different for New Zealand (for instance in most cases in New Zealand wharfage is an actual payment unlike Australia).
- The evidence was that petrol wholesaling is a profitable activity for the relevant participants, although wholesale margins are narrow. We would expect similar findings in New Zealand.
- When discounts are taken into account, the actual gross wholesale margin obtained by the refiner-marketers varies within a range of around 1-3 cpl. The ACCC received evidence that, on a net basis, these margins may at times be negative.

## 8.7 Future of wholesaling

There is no reason to believe that both the refiner-marketers and independent wholesaler in New Zealand would not also be positive about the future of wholesaling as was the case in Australia.

## 8.8 Conclusions

Some of ACCC's conclusions may also apply to the New Zealand market but a number won't (particularly around the impact of buy-sell arrangements and sales to wholesale sellers as there are no wholesalers in New Zealand who don't import or refine on their own account). The conclusions that apply include:

- The four refiner-marketers dominate the New Zealand wholesale market
- The use of IPP formula based pricing results in the refiner-marketers pricing in a similar way across the wholesale market (note that the finding in 13.2.2 is also relevant to this finding)

- Negotiated wholesale prices are likely to vary considerably because of various factors, the most important of which is the volume purchased; discounts/favourable terms are likely to be more generally available to larger players than smaller ones; proximity to seaboard terminals can also affect negotiations
- While competition to supply distributors, independent resellers and other commercial and industrial customers can be intense with regular changes of fuel supplier for pricing or other reasons, competition between refiner-marketers in wholesale petrol markets is not fully effective – although we believe this observation is not as clearly apparent in New Zealand (discussed in more detail in Chapter 13)

## 9.0 Price determination and competition at the retail level

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This chapter focuses on how prices for unleaded petrol are set. The ACCC used information submitted along with its own analysis. Based on data from MED and price reporting services we have done a similar analysis.

### The ACCC report concluded:

- That the main driver of Australia's domestic petrol prices has been the increase in the price of Tapis crude although there has been a strong relationship with the MOPS 95 Singapore price.
- There was no evidence of any systematic deviation of retail prices from international benchmark prices but that deviations do occur.
- Retail price setting varies with the different operating structures used in the market (e.g. owner operated, commission agent, etc). Price support mechanisms are also used to influence retail prices.
- Retail margins appear to be small with gross margins around 4.2 cpl.
- Overall the ACCC were of the view that there is significant price competition at the retail level although this is less apparent in rural areas, which they discuss in Chapter 10.

## 9.1 Introduction

As summarised in Chapter 5, the retail sector is made up of:

1. Wholesaler owned and operated service stations
2. Wholesaler branded service stations that can be:
  - Independently owned and operated service stations
  - Wholesaler owned but independently operated service stations (arrangements include franchise, commission agent, lease)
3. Supermarket service stations (e.g. Pak'nSave)
4. Independent service stations selling their own brand (e.g. G.A.S.)

There are about 563 wholesaler operated, commission agent and franchisee service stations in New Zealand, as well as around 670 independent service stations and 32 supermarket sites.

## 9.2 Components of retail petrol prices

Chart 18 shows a breakdown of the components in the New Zealand retail price, using the same approach used by the ACCC.

The components in the chart are:

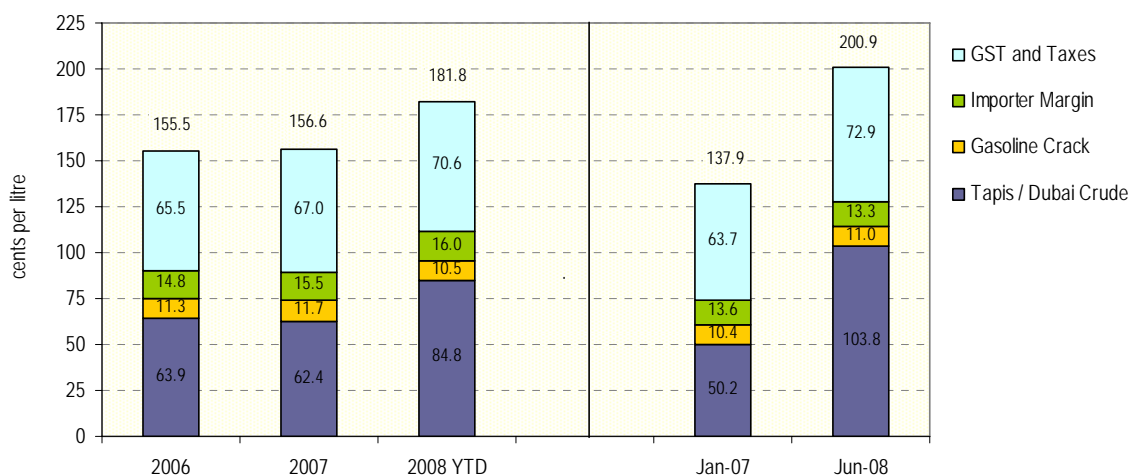
- Dubai/Tapis crude: The ACCC used Tapis crude in their analysis, whereas we have used a Dubai/Tapis crude average.
- Gasoline crack: We have calculated this as the difference between the New Zealand landed cost of petrol<sup>82</sup> and Dubai/Tapis crude, whereas the ACCC had compared the gap between Singapore petrol and Tapis crude. This is discussed further below.
- Importer Margin: This is the difference between the retail price of petrol (excluding taxes and GST) and the landed cost of petrol.

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<sup>82</sup> MED's landed cost of petrol calculation takes into account the Singapore price, NZ fuel quality premium, freighting costs and wharfage

- Taxes and GST: This is the sum of all taxes (including excise, LAPT, PFML and ACC) and the GST portion of the retail petrol price.

**Chart 18: Components of New Zealand retail price**



Source: MED International and Domestic Petrol and Diesel Price Comparisons

The "Jan-07" column in Chart 18 shows the most recent low point (\$1.38 per litre) where retail price fell from the highs of 2006. Since then prices have risen steadily to current levels over \$2.00 per litre (June 2008). Analysis of the price components over this time shows that 85% of the price increase is due to the increasing price of crude and 15% to increasing taxes (ACC levy, excise tax and GST increases all contribute). Gasoline crack and oil company margins have remained at similar levels.

The ACCC concluded that domestic petrol prices were influenced by the price of Tapis crude, that wholesale margins had increased by about 4cpl (probably reflecting tighter fuel specifications) and that retail margins have been broadly consistent. The New Zealand data shows that domestic petrol price increases have reflected the rising cost of crude (affecting the price of petrol in Singapore) and tax increases.

## 9.3 Relationship between retail prices and international petrol prices

### 9.3.1 General relationship between retail prices and Singapore mogas

Retail prices in New Zealand follow a similar trend to the Singapore market for petrol (MOPS), reflecting that as the New Zealand market is an import market, prices are set at the cost of incremental supply from Singapore (the main trading hub in the region).

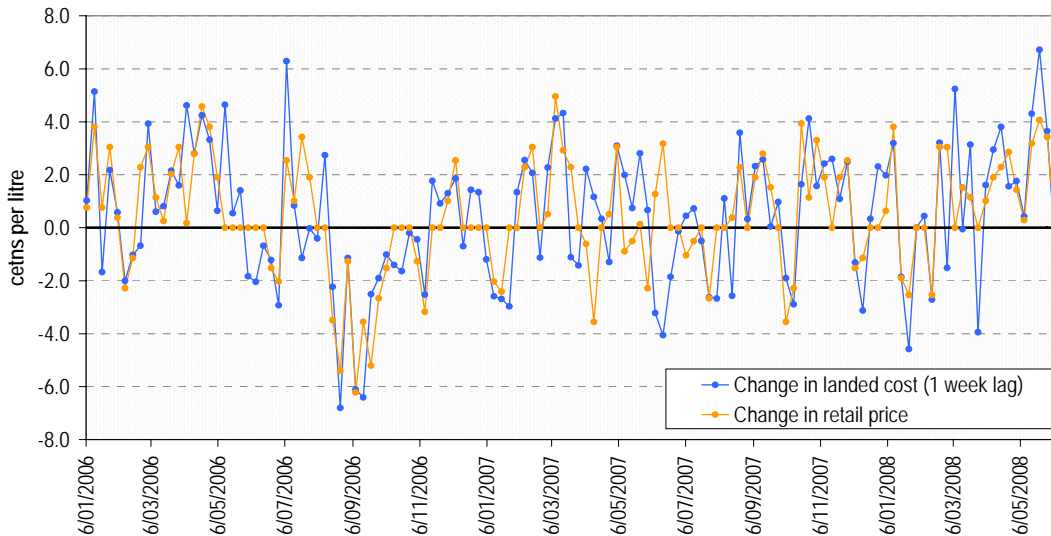
Submissions by the Australian companies to the ACCC suggested that variations between the Singapore price and retail price could largely be explained by there being a one week lag (reflecting stock turn over at retail sites).

Some New Zealand oil companies have questioned the use of a one week lag currently used by MED, citing that they use a replacement cost accounting methodology to determine retail prices (i.e. there should be no lag as they are replacing petrol sold today with purchases made today). However we contend that there must be at least a one day lag as the MOPS price on one day isn't known until the next New Zealand working day. Furthermore as retail prices do not change daily in response to MOPS prices there is an additional level of delay between MOPS changing and retail prices in New Zealand changing.

Chart 19 shows that in New Zealand there is typically a one week lag from when Singapore product prices change and the retail price changes in New Zealand. Note that the retail price used for this analysis is the point where the majority of the retailers have changed price. Individual retailers may be faster or slower than shown in this analysis.

The ACCC did some econometric analysis of retail price movements to see if they were quick to rise and slow to fall. Its conclusions were that retail prices did adjust symmetrically on average over time. To assess if the same conclusion is applicable for New Zealand (and to assess if there is a lag between MOPS and retail price changing) we have plotted the change in retail price and the change in landed cost.

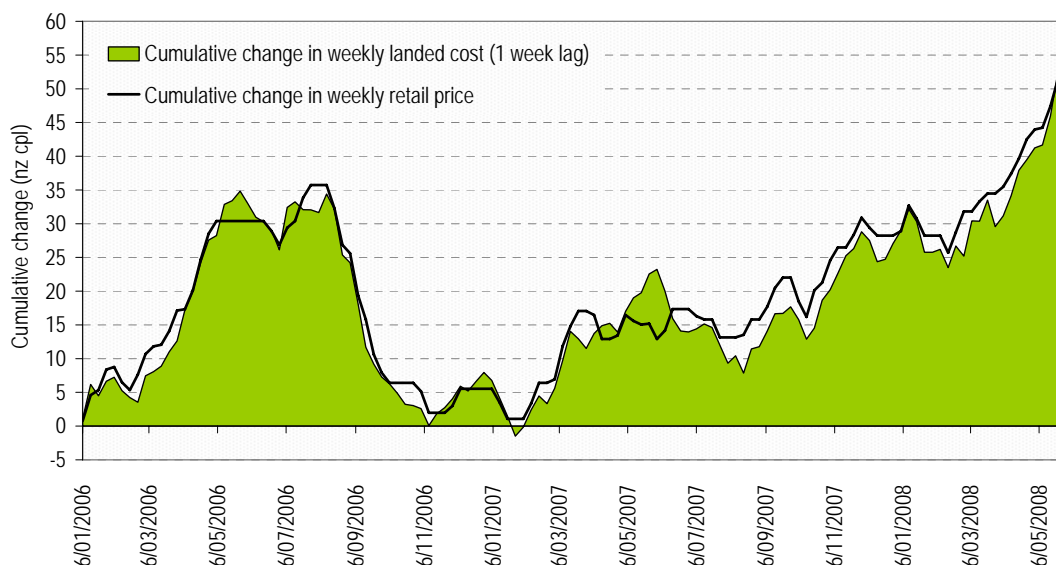
**Chart 19: Comparison of change in retail price and landed cost**



Source: MED, Hale & Twomey

As can be seen in Chart 19 there is a strong correlation between the change in retail price and the change in landed cost (with a one week lag). From this data we plotted the cumulative changes in retail price against and the cumulative changes in landed cost (Chart 20) to see if there was a pattern of prices increasing faster than market rises and decreasing more slowly when the market falls.

**Chart 20: Cumulative comparison of change in retail price and landed cost**

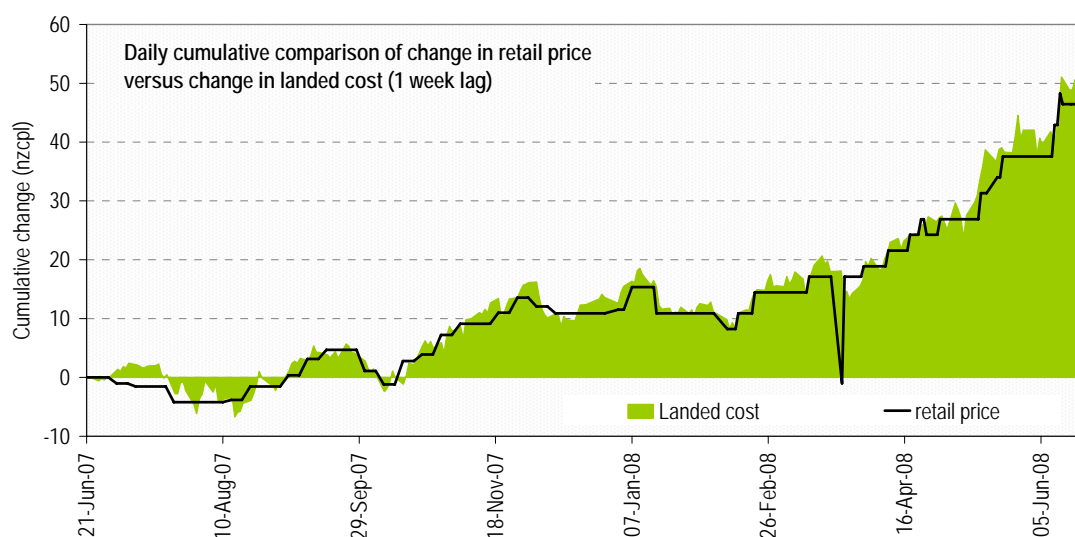


Source: MED, Hale & Twomey

The points of inflexion both for landed cost (one week lagged) and retail price were compared. Absolute differences between the two data series reflect higher or lower margins at that time. As can be seen in the Chart 20 the retail inflexion points have a very strong correlation with the lagged landed cost inflexion points.

The above chart was based on the weekly retail price and landed cost data compiled by MED. To assess if there is a pattern occurring within the week we analysed the daily retail price against H&T's daily Landed Price<sup>83</sup> again using a one week (five business days) lag on landed price. Due to the large amount of data the period analysed was from second half 2007 to now (mid June 2008).

**Chart 21: Daily cumulative comparison of change in retail price and landed cost**



Source: Hale & Twomey Limited

The daily analysis (Chart 21) also shows a strong correlation between retail price and landed price. It is also interesting to note that the marketers smooth the price movements in the benchmark to some extent as the retail price movements are not as volatile.

The analysis on both sets of data does not support the view that retail prices in New Zealand are fast to rise and slow to fall as commonly thought by consumers. As in Australia the data suggests that retail prices tend to change symmetrically with changes in landed cost (Singapore benchmark).

### 9.3.2 Divergence between retail prices and international prices

As highlighted in Chapter 2 there has been only one noticeable period where there was a divergence between retail prices and landed cost. This was in May/June 2007 where there was a discounting campaign (led by Gull). This coincided with rising prices on the Singapore market which resulted in retail prices lower than would be expected if importer margins were maintained at normal levels. Monitoring of these deviations is achieved by MED's weekly importer margin analysis, published on their website.

<sup>83</sup> H&T Daily Landed Price refers to H&T's assessment of the cost to buy, ship and discharge petroleum products in New Zealand. Refer [www.fuelpricemonitor.co.nz](http://www.fuelpricemonitor.co.nz)



## 9.4 How prices are determined at the retail level

### 9.4.1 General pricing strategies

As was discussed in 9.2, the underlying driver of retail price is the cost of landing fuel into New Zealand from Singapore. On top of the landed cost the wholesalers and retailers must cover all of their operating costs and profits. There are a number of other factors which also influence the retail price of petrol including taking into account competitor pricing. This is discussed more in section 9.4.4.

The daily operating cost of running a particular service station is likely to be similar regardless of the volume sold. Therefore retailers are incentivised to maximise volume at their site although the ability to maximise volume through discounting is limited by wholesale price levels and operating costs.

A market factor in Australia is a weekly price cycle that occurs with lower prices at certain times during the week. This is not a feature of the New Zealand market where price changes generally occur in response to changes in landed costs.

### 9.4.2 Different operating structures affect how prices are set

The type of arrangement between the retailer and the oil company (wholesaler) gives some insight into the degree of control that the oil company has on the retail price at that site. Each of these is discussed below.

Oil Company owned and operated service stations: as these sites are vertically integrated within the oil company, they can directly determine the retail price at these sites.

Oil Company branded franchisee and commission agency sites: commission agents are typically paid a set "cents per litre" rate, whereas a franchisee will pay a percentage of all sales (including non-fuel sales) to the oil company. In both arrangements the Oil Company owns the fuel and is able to directly determine the retail prices at these sites.<sup>84</sup>

Oil Company branded but independently owned sites: wholesale supply agreements require brand allegiance and often provide some level of equipment support (funding for tanks and pumps). These agreements can commit an independent operator to that brand for a period of 3-15 years and outline the basis for their wholesale price. The arrangements may also contain some price support mechanisms (which are discussed further in section 9.4.3). While the wholesaler doesn't directly control retail prices they control the wholesale price, which has an indirect effect.<sup>85</sup>

Supermarkets and other independents: the wholesale supply of petrol will again be controlled by a supply agreement; however there is little public information available on the commercial arrangements.

### 9.4.3 Price support arrangements

The use of price support arrangements was discussed in detail in the NZIER report, *The Decline of Independent Petrol Retailing: Rationalisation or Predation*, 2002. In summary a wholesaler may provide temporary price support to an independent service station (where they are contracted via a supply agreement) if the local competitive retail price is lower than the general retail price at that time. The intent of this is to ensure that the independent dealer continues to receive a reasonable gross margin (typically 4 to 6.5pl)<sup>86</sup> during this period of localised competition. These mechanisms also seem to take into

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<sup>84</sup> *The Decline of Independent Petrol Retailing: Rationalisation or Predation*, NZIER 2002

<sup>85</sup> *Ibid.*

<sup>86</sup> Communications between MED and industry participants

account any deviation between that retailer's price and the competitor price, thus creating an incentive for that retailer to price at the competitive level. This mechanism doesn't provide protection to the independent dealers against general price movements.

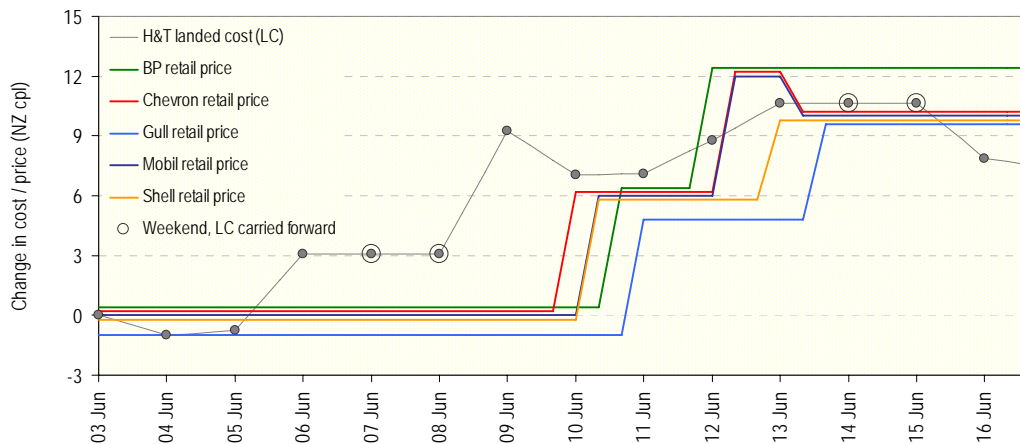
Discussions with MTA<sup>87</sup> also highlighted that service station owners who operate a wholesaler owned service station can be paying a lower site rental than the true rental cost incurred by the wholesaler. If the same site was operated by an independent operator they would incur the full rental cost for the site, however their retail margin doesn't reflect this higher cost. This implies some level of subsidy of retail activities by the wholesalers at some service station sites. The Commerce Commission<sup>88</sup> has investigated the issue of rental subsidies in 2006 and found that these arrangements don't raise competition concerns under the Commerce Act.

#### 9.4.4 Particular influence of various players

The ACCC report highlights the role of Informed Sources in providing almost real time retail price data to Australian retailers (the data covers 3,500 retail sites and is updated every 15 minutes). The ACCC highlights that the system provides a vast amount of transparent data to users of this system enabling them to make rapid changes to their pricing with low risk (i.e. they can see if others are following their lead and if not reverse their pricing quickly). It is unclear whether the weekly price cycles have led to the development of this sophisticated system or if the system has led to weekly price cycles.

In New Zealand retailers tend to obtain pricing information from physical monitoring of nearby competitor price boards. We have recorded recent price movements, with Chart 22 showing the last two retail price movements.

**Chart 22: Change in retailer's retail prices versus landed cost**



Source: Hale & Twomey, note individual prices have been spread to increase chart clarity

In this period landed cost increased significantly on the 5<sup>th</sup> and 9<sup>th</sup> of June. On the 10<sup>th</sup> of June Chevron increased retail prices by 6 cpl followed swiftly by Mobil and Shell, with BP increasing later that day. However Gull didn't move until the 11<sup>th</sup> and continued to price 1 cpl below the other retailers. On the 12<sup>th</sup> BP increased retail prices by another 6 cpl which was matched by Chevron and Mobil. However Shell didn't move until the 13<sup>th</sup> and only increased prices by 4 cpl, which saw Chevron and Mobil quickly drop their retail prices to match Shell. On the 14<sup>th</sup> Gull also increased its retail price to the same level as Shell, Chevron and Mobil.

<sup>87</sup> Meeting with MTA and MED on 26 June 2008

<sup>88</sup> Confidential communication between MED and at least one wholesaler

The chart also shows that un-lagged landed cost has increased by a similar amount over this period.

There is little that can be gleaned from this other than each of the oil companies will see different “cents per litre” margin requirements and, coupled with their view of customer perceptions of them, may influence when they tend to trigger or follow a price increase or decrease. However compared to the data shown for Australian companies there does appear to be more time between the various companies’ price movements. Margin pressures will be created from:

- The value of assets in New Zealand (more assets = greater return on asset requirements)
- Level of local operating costs
- Market share (a large market share with low operating costs places less pressure on margin requirements)
- Actual supply costs
- Profit aspirations
- Competitor pricing strategies

The independent operators including both the oil company branded sites and other brands appear to be price followers in New Zealand. This probably reflects their wholesale supply arrangements which provide these retailers with a gross retail margin of about 4 cpl<sup>89</sup> from which they must operate their service station and make a profit. This gives little room for independents to sell at a lower price and competitive pressures, along with price support arrangements tend to ensure that they don't price above their competitors.

Pak'nSave (which is part of the Foodstuffs group) also operates 32 Pak'nSave or New World branded service stations which are located by these supermarkets. The Pak'nSave service stations are supplied by BP<sup>90</sup> and to date they have been passive participants in the market, tending to follow the market changes in retail price as indicated by price boards (i.e. discounts are only available by store related docket).

The supermarket discounting schemes are discussed further in Chapter 12.

## 9.5 Retail margins

In Australia the refiner-marketers are required to publish a daily Terminal Gate Price (TGP). The TGP is essentially the spot price at which a purchaser could buy bulk petrol (i.e. 30-33kl). While the oil companies are required to publish the TGP it appears that few if any wholesale sales are actually done at the TGP. The requirement for TGP has allowed ACCC to split the importer margin into wholesale and retail gross margins.

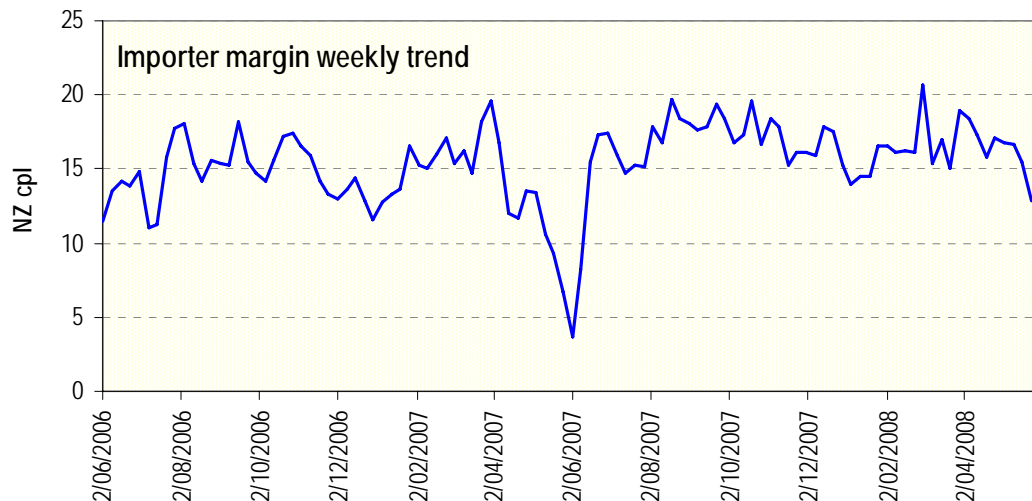
In New Zealand there is no requirement to publish a TGP (or similar benchmark), thus making it difficult to assess retail or wholesale margins. However the total importer margin is monitored and published weekly by MED. Chart 5 shows an overall trend exists between retail price and landed cost, although the gap between these two (i.e. the importer margin) does vary over time.

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<sup>89</sup> The Decline of Independent Petrol Retailing: Rationalisation or Predation, NZIER 2002. This was also confirmed as still relevant by the MTA at a meeting with MTA and MED on 26 June 2008

<sup>90</sup> <http://www.paknsave.co.nz/AboutUS/>

**Chart 23: Trend of weekly importer margin**



Source: MED

Chart 23 shows importer margin has hovered around 16 cents per litre although this fluctuates considerably (note the analysis in Chapter 7 suggests that the landed cost is higher than MED calculates and the importer margin averages about 4 cpl below this level – i.e. an average of 12 cpl). The steep trough around June 2007 reflects the period of discounting (led by Gull) which coincided with rising prices on the Singapore market.

H&T has done previous analysis<sup>91</sup> of diesel and petrol importer margins to see if there have been any significant changes in importer margin levels over time, and to assess the impact of the supermarket discounting schemes. The analysis in the 2007 report was recently updated for MED<sup>92</sup>.

This analysis calculated the cumulative incremental profit from July 2005 to mid June 2008 for the whole industry compared to a baseline margin (therefore baseline profit) taking into account:

- inflationary effects by adjusting the baseline margin each quarter by PPI (to cover increased costs such as wages, KiwiSaver, etc),
- estimated cost to wholesalers of supermarket discounting schemes (~ NZ\$28 million pa),
- incremental costs to the retailer from increases in credit card transaction fees and inventory holding costs (~ NZ\$0.85 million pa above PPI).

Taking all of these costs into account the cumulative incremental profit at mid June 2008 (on petrol and diesel) was estimated to be around NZ\$17 million. A review of the July 2005 to June 2008 period showed that cumulative incremental profits have ranged between negative NZ\$23 million and NZ\$29 million from the baseline. This indicates that the current cumulative incremental profit is within the typical range.

The report also highlighted that the recent changes in New Zealand specification fuel will have changed the quality premiums incurred by importers. While the quality premiums used by MED have been reviewed annually and were adjusted upwards in 2006 and 2008, if these adjustments did not fully reflect the new quality premiums the importer margin would be wrong (e.g. if petrol cost US\$0.50 a barrel more than assumed this would reduce the incremental petrol profits in this analysis by NZ\$14million per annum).

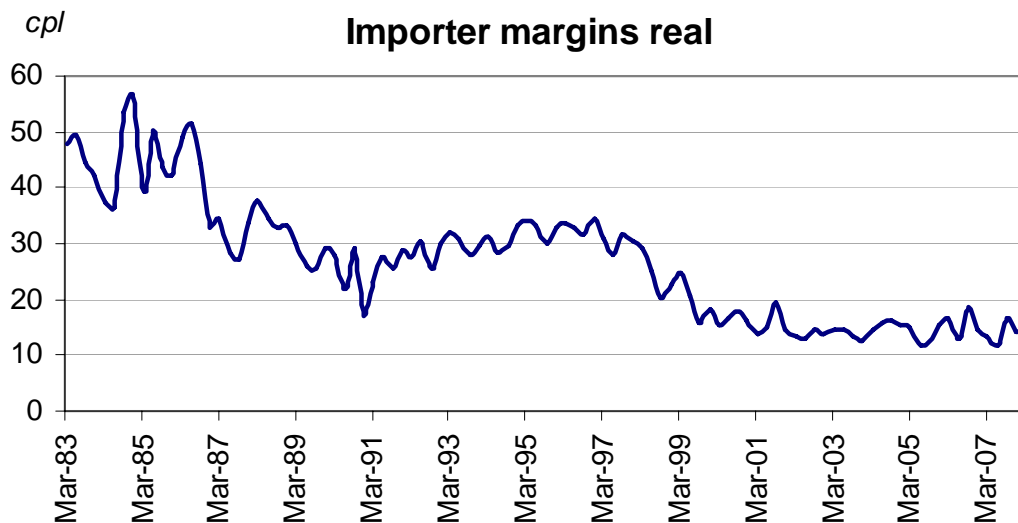
<sup>91</sup> H&T Importer Margin Review for MED, August 2007

<sup>92</sup> Importer Margin Analysis, May 2008

MED's landed cost calculations use a similar basis as the wholesalers would see for their imports. However this calculation does not provide information about the operating costs that wholesalers or retailers incur and hence does not give an indication of net margin. To do this more information would be required about the costs for running bulk storage terminals, trucking costs, etc.

For comparison MED has some longer term trend information available which is shown in Chart 24. H&T has not checked the basis of these numbers as there have been changes in methodologies over this time. However the long term trend would indicate that current importer margins (noting on average that once adjusted they are currently about 12 cpl) are low compared to historical levels.

**Chart 24: MED chart of long term petrol importer margins**



Source: MED

Reasons for such a decline would include:

- Increases in volume increasing efficiencies of scale
- Rationalisation of retail networks, reducing costs and increasing scale
- Changes in competitive dynamic in the market (e.g. deregulated market, presence of independent importers)
- Substantial reduction in promotion and advertising activities (e.g. free giveaway promotions)
- Improvements in technology
- Efficiencies from reducing organisation size supporting the activity

## 9.6 Competition at retail level

### 9.6.1 The nature of petrol and nature of demand

The ACCC report suggests that the “nature of unleaded petrol and the nature of demand for it are conducive to a competitive market and price volatility”. It also suggests that there is a mix of consumers; some who are price sensitive (often using supermarket shopper docket) and some who are not.

There is little to suggest that the New Zealand market would be any different.

### 9.6.2 Market structure

Chapter 5 discussed the retail market. In summary the retail sector is a concentrated market, although it is less concentrated than the wholesale or refinery sectors in New

Zealand with an estimated HHI of 0.2167. The retail sector in the last few years has seen the introduction of Gull, Challenge! and G.A.S. retailer brands along with the establishment of Pak'nSave supermarket outlets.

Similar to the trend seen in Australia there has been an ongoing downward trend in the number of service stations in New Zealand, from around 1,600 service stations in 2002 to about 1,265 sites now. Despite the decline in service station numbers there has been an increase in the number of retailers participating in the New Zealand retail market.

### **9.6.3 Future of petrol retailing**

Clearly there will continue to be a role for retailing of petrol in New Zealand. However, what the structure of the retail market will be in future is less clear. H&T has not discussed rationalisation/expansion plans with the retailers and is unable to comment further on this.

### **9.6.4 Conclusions**

The price of petrol in New Zealand over time has reflected the cost of importing and landing New Zealand specification petrol from Singapore.

There is a lag between changes in the Singapore price of petrol and the retail price in New Zealand. Our analysis indicates that the lag is about one week. The analysis also indicated that retail prices in New Zealand tend to rise and fall symmetrically with the one week lagged change in landed cost.

The weekly pricing cycles seen in Australia are not a feature of the New Zealand market; instead price changes tend to occur in response to changes in landed costs.

The daily operating cost of running a particular service station will be similar regardless of the volume sold, therefore retailers have an incentive to maximise volumes at their site, although the ability to maximise volumes through discounting is limited by their wholesale price and operating costs.

Wholesalers directly control the retail price at their company owned and operated service stations and also the wholesaler branded franchisee and commission agency sites. However at independent service stations wholesalers can only control the wholesale price which provides an element of indirect control.

In New Zealand retailers obtain pricing information from physical monitoring of nearby competitor price boards. Data sharing of retail prices (as done through Informed Sources in Australia) does not occur in New Zealand.

The importer margins reported by MED have generally hovered around 16 cents per litre although this does fluctuate (12 cpl with higher landed cost taken into account). Analysis by H&T which considered inflationary impacts, the cost of supermarket discounting schemes and other incremental costs, estimates current cumulative incremental profit on fuel (petrol and diesel) between July 2005 and mid June 2008 be about NZ\$17 million above a typical baseline which is within previously seen bands of negative NZ\$23 million to NZ\$29 million.

A typical importer's margin is determined by comparing retail price against landed cost calculations. While the basis for this calculation follows industry practice it is difficult to get accurate data for some components (particularly quality), thus the importer margin may be over or understated. There is also no transparency about the operating costs that the wholesaler or retailer needs to cover out of this importer margin (due to lack of market information) and thus it is difficult to accurately assess net margins. To do this more information would be required about the costs for running bulk storage terminals, trucking costs, etc. The issue of transparency is discussed further in Chapter 15.

## 10.0 Prices in regional areas

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### 10.1 Introduction

Chapter 10 of the ACCC report looked at the variation in prices between the main cities and the regions (smaller towns) in Australia. This is of concern as generally prices are higher in the regions due to a less competitive market than in the cities. The main findings were:

- There is no regular price cycling in regional towns as in the main cities
- On average the price differential is 5 cpl versus the five major cities
- The key factors for the differential were given as
  - Greater time lag on price movements
  - Smaller populations/lower volumes
  - Greater distance from terminals

The report considered analysis on how higher population and more outlets will tend to reduce prices.

### 10.2 New Zealand situation

MED does not monitor regional prices in New Zealand but notes that its analysis on the retail price (based on Wellington prices) is normally almost identical to the quarterly price published by Statistics New Zealand, which averages prices from a number of centres.

The Automobile Association (AA) monitors prices at a number of locations across towns and cities in New Zealand. This information has been provided (2007/2008 retail prices) and while not comprehensive enough for an analysis on the same basis as the ACCC, a number of conclusions can be drawn.

Unlike Australia there is very little price difference between the major cities and towns in New Zealand, with Auckland having a similar price to Invercargill. Analysis of the AA data shows that over the past 18 months prices on average have been within 0.5 cpl of each other when comparing different regions.

Such a finding might be questioned given the findings of the ACCC report (that larger population would normally expect lower prices). One of the reasons why there is possibly more uniform pricing is New Zealand's geography. Nearly every major population centre (with the exception of Hamilton and Palmerston North) is serviced by a local port terminal. This means that each location could be serviced by direct imports (and as a consequence at a similar import parity price). While the larger terminals (servicing major population centres) can be supplied more efficiently (larger ship deliveries) our analysis indicates the difference between the IPP price for each terminal at less than 1.0 cpl. For the bulk of the population there is a very similar base price, with little difference in distribution cost. Even Hamilton and Palmerston North are not far from the nearest port terminal (by comparison with Australian inland towns).

The principle of volume would still apply to the retailing of petrol in each location and as long as each company has a relatively similar number of outlets in line with population of that location we would not expect a major variance.

While these observations point to flatter pricing than would be seen in Australia, it is still somewhat surprising that there is not more variation. For example Hamilton and Palmerston North would probably justify a 1 to 2 cpl premium based on the extra

distribution cost but this is not observed in the market. That implies that the companies see some value in keeping national prices relatively consistent.

It is only for much smaller population centres at some distance from port terminals (e.g. Greymouth) that significant cost differentials are observed. For instance Greymouth prices were on average 4cpl higher than Christchurch for 2007 data. Small rural stations can have higher prices again, with some having significant premiums to city prices.<sup>93</sup> However typically these stations are independents having low volumes, so need a higher margin to cover their overheads.

Another finding from this analysis is the lack of difference between North Island and South Island prices. While the North Island has an independent importer (Gull), in the South Island only the four refiner-marketers compete.<sup>94</sup> This suggests that any competitive dynamic from the presence of an independent importer is benefiting the whole country.<sup>95</sup>

In summary New Zealand doesn't have the same variation in prices between major cities and smaller towns as seen in Australia. Prices are more uniform, in part as a result of the distribution system used to supply petroleum products.

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<sup>93</sup> The New Zealand Herald asked their readers on 10/6/2008 to send in retail prices with the highest being \$2.19 at a rural station near Opotiki (Bay of Plenty) while the typical city price was \$2.07.

<sup>94</sup> Since Caltex brought Challenge in 2001.

<sup>95</sup> AA mentioned when Gull discounted in the first half of 2007, initially the refiner-marketers only followed in areas where Gull competes. After complaints in the media (and AA's February and March PetrolWatch) that the rest of the country was missing out, prices were adjusted nationally to the lower level. It now appears that discounting promotions (when used) are nationwide.

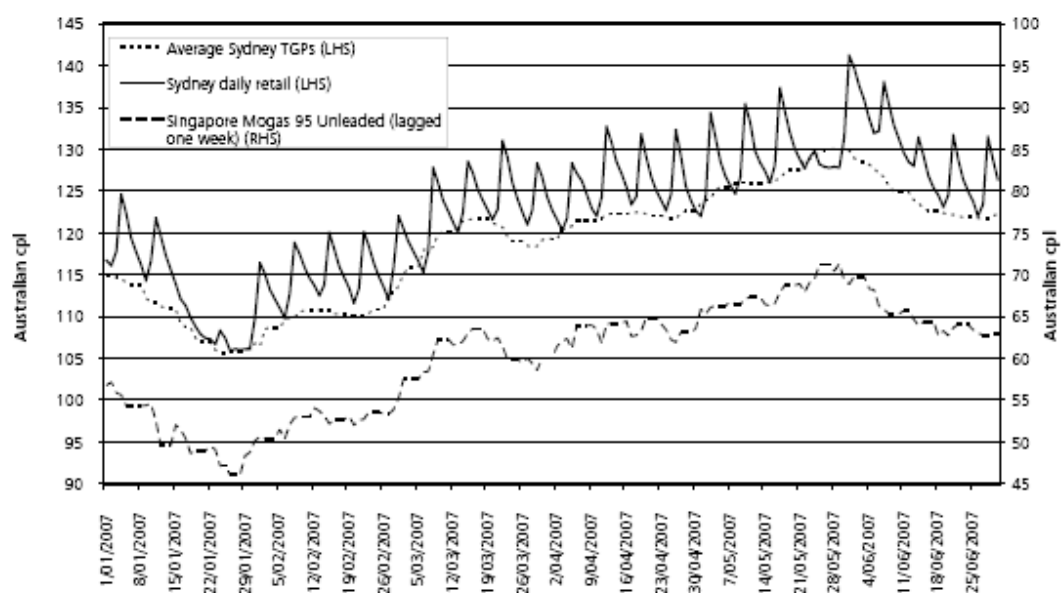


## 11.0 Price cycles

### 11.1 Introduction

This chapter covers the impact of price cycles in the market. Price cycles occur in the major metropolitan cities in Australia and are typically weekly cycles where the price gradually is taken lower and lower over a period of a few days (with no relationship to any movement in the IPP) until one market participant leads it back up, whereupon the cycle is repeated. Chart 25 taken from the ACCC report, shows the typical price cycle seen in Australia.

Chart 25: Typical price cycle, Sydney



Source: Informed Sources, BP, Caltex, Mobil, Shell and Platts, energy information division of McGraw-Hill, Inc.

Source: ACCC

Of relevance to New Zealand, the ACCC found that:

- Price cycles as seen in Australia are not widespread in petroleum markets internationally
- There are some economic theories that might explain price cycles
- The cycle movement is possible as retailers have almost instantaneous information of their competitors' prices
- The existence of price cycles alone does not seem to provide evidence of a lack of retail competition
- There were varied views as to whether consumers are able to take advantage of price cycles

### 11.2 New Zealand situation

The New Zealand market does not have price cycles therefore much of the analysis in this section is not relevant. The question that perhaps might be asked is whether the lack of price cycles is evidence of a lack of competition (not covered by the ACCC report)? In determining if a lack of price cycles is an issue the following points are noted:

- The New Zealand market reflects typical international markets with price movements directly related to changes in international price markers
- Price cycles reduce the transparency of the link to international markets

- Price cycles are confusing to the public and tend to increase mistrust of oil companies (especially with sudden price increases each week)

The occurrence of price cycles in Australia seems to be related to the high level of price information available to Australian competitors rather than from a greater level of competition. There also appear to be mixed views about the value that these price cycles provide to the Australian consumer.

Therefore the absence of price cycles in New Zealand should be regarded as a positive.

## 12.0 Petrol shopper docket

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This chapter focuses on the petrol shopper docket (or supermarket discounting) that occurs on retail sales.

### The ACCC report concluded:

- Consumers have benefited from discounted fuel offers since the introduction of shopper docket. The ACCC were of the view that there have not been any anticompetitive effects from these schemes.
- The shopper docket schemes have aided the establishment and expansion of supermarkets into petrol retailing, which has created significant challenges for those retailers who aren't aligned with the supermarkets. This is likely to have contributed to decisions by some retailers to exit the market.
- Other retailers have responded to these schemes with new competitive offers, which seems to have halted their declining volumes.
- The ACCC found no evidence to suggest that the shopper docket had hastened the decline of the total number of operating service stations in Australia.

### 12.1 Supermarkets' shopper docket arrangements

In New Zealand both major supermarket chains (Progressive Enterprises, Foodstuffs) operate nationwide fuel discount schemes in conjunction with some wholesalers. Both schemes have been in operation since November 2006 and are discussed below.

#### Progressive Enterprises

Progressive Enterprises (45% market share<sup>96</sup>) operates:

- Foodtown - 30 stores
- Woolworths - 63 stores and 22 Quickstop / Micro stores
- Countdown - 55 stores

Progressive Enterprises is also the franchise coordinator for:

- Super Value - 31 stores
- Fresh Choice - 12 stores

Foodtown, Woolworths and Countdown supermarkets offer a fuel discount scheme in conjunction with Shell and Gull. When consumers buy groceries over 40 dollars<sup>97</sup> they get a redeemable voucher which entitles them to a fuel discount (usually 4cpl but special offers of 10-20cpl have been seen) at any participating Gull or Shell site. The voucher must be used within one month of the grocery purchase, is capped at 100 litres of fuel and does not apply if the fuel is purchased using a commercial or fuel card.

#### Foodstuffs

Foodstuffs (NZ) Limited (55% market share) is jointly owned by three food cooperatives and operates:

- New World - 131 stores
- Pak'nSave - 43 stores
- Write Price/Shoprite - 6 stores
- Four Square - 279 stores (incl. Four Square Discount)
- On the Spot - 171 stores

New World, Write Price and Pak'nSave offer fuel discount schemes either in conjunction with BP or via Pak'nSave/New World fuel courts. These are outlined below.

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<sup>96</sup> Source: Progressive Enterprises ([http://www.progressive.co.nz/about\\_us/index.asp](http://www.progressive.co.nz/about_us/index.asp))

<sup>97</sup> Excludes tobacco products, lottery tickets and Christmas Club vouchers

### **Pak'nSave/New World fuel courts**

When consumers buy groceries over a set threshold they receive a voucher from the supermarket which can be used to obtain discounted fuel at the adjacent fuel court. These vouchers are not able to be used at other fuel courts or used in conjunction with a fleet or commercial card. Purchases are also limited to \$150 per voucher. The level of discount offered is linked with the value of groceries purchased (some discounts have been up to 16 – 20 cpl).

Pak'nSave currently obtains its fuel from BP under an Agency Agreement<sup>98</sup> suggesting that this is a standard commercial arrangement with BP delivering wholesale fuel to the fuel court sites. While information about the New World fuel court offer is limited it is likely that these will be similar to the Pak'nSave arrangements.

### **Other Foodstuffs supermarkets**

The other Pak'nSave and New World supermarkets as well as Write Price offer a fuel discount scheme in conjunction with BP. When consumers buy groceries worth over 40 dollars<sup>99</sup> they get a redeemable voucher which entitles them to a fuel discount (usually 4cpl but special offers of 10-20cpl have been seen) at any participating BP site. The voucher must be used within one month of the grocery purchase, is capped at 150 litres of fuel and does not apply if the fuel is purchased using a commercial or fuel card.

### **Chevron and Mobil offers**

Caltex and Mobil have offered the following:

- Caltex accepts all fuel vouchers giving a 4cpl discount (currently the offer expires 31 December 2008<sup>100</sup>)
- Mobil gives a 4cpl discount when consumers spend over \$4 on non-fuel products at a Mobil service station<sup>101</sup>

## **12.2 Previous consideration of shopper docket arrangements**

The impact of supermarket discounts in New Zealand was considered by H&T in its report Importer Margin Review<sup>102</sup>, August 2007 which was done for MED. The analysis in that report was recently updated<sup>103</sup>.

The key findings from the updated analysis were:

- H&T estimated that 25 – 30% of petrol and 10 – 15% of diesel sales may now be purchased by consumers using fuel discount vouchers. This was based on estimated consumer participation, estimated market size (i.e. retail volumes excluding card sales) and an estimate of the number of participating supermarkets and service stations.
- The original review concluded that the average discount cost per litre of discounted fuel (across all wholesalers) was around 2.5cpl.
- However, since then anecdotal comments have indicated the direct participants (i.e. BP, Gull and Shell) may only be underwriting about 1 - 2cpl of the cost.<sup>104</sup> Assuming 1.5cpl is the underwriting cost the average discount cost per litre of discounted fuel across all

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<sup>98</sup> Pak'nSave (<http://www.paknsave.co.nz/aboutUS/>)

<sup>99</sup> Excludes tobacco products, lottery tickets and Christmas Club vouchers

<sup>100</sup> Caltex ([http://www.caltex.com/nz/en/highlight\\_supermarket.asp](http://www.caltex.com/nz/en/highlight_supermarket.asp))

<sup>101</sup> Mobil (<http://www.mobil.co.nz/startframe.html>)

<sup>102</sup> H&T Importer Margin Review for MED, August 2007

<sup>103</sup> Importer Margin Analysis, May 2008

<sup>104</sup> It appears the large discounts sometimes available from supermarkets (16-20 cpl) are typically funded by the supermarket not the fuel supplier

wholesalers would reduce to about 2.2cpl (or 0.45cpl across all retail fuel sales)<sup>105</sup>. This would equate to a cost (across all wholesalers) of about NZ\$28 million per annum.

According to the ACCC report Coles Express<sup>106</sup> funds 1cpl of the 4cpl discount offered in Australia with the remaining 3cpl funded by the business (such as Coles Supermarkets), which if matched in New Zealand would put the fuel retailer only funding the lower end of the range given above.

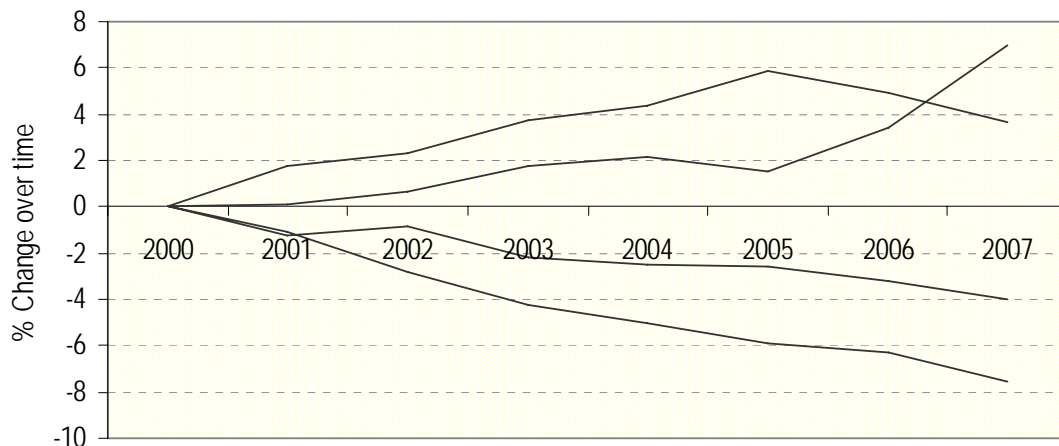
The ACCC received a submission from the Australian Automobile Association which found that 79% of surveyed motorists have used shopper docket and 48% of these were regular users. The ACCC also commissioned a survey which found a similar uptake, with 75% of motorists having used shopper docket and 49% of motorists regularly using the shopper docket. An AC Nielsen survey<sup>107</sup> done for New Zealand indicated that 92% of all New Zealanders surveyed were aware of the supermarket fuel discount schemes and these may even be encouraging consumers to change their fuel buying patterns.

### 12.3 Impact of shopper docket arrangements on competition

This section of the ACCC report focused on the impacts the shopper docket have had on the Australian market drawing on submissions of the market participants along with some analysis of this data by the ACCC.

Without receiving similar detailed information from each of the market participants in New Zealand it is difficult to reach any significant conclusions on the impact that fuel the docket schemes may be having on the New Zealand market. A review of market share<sup>108</sup> (Chart 26) is also inconclusive showing only one refiner marketer has increased market share since the introduction of the supermarket discounting schemes, with the other three all showing declining market share.

**Chart 26: Wholesale market share of refiner-marketers - change over time**



Source: MED

<sup>105</sup> The average is higher than the participants' margin as Chevron and Mobil will be carrying the full cost of any discounting.

<sup>106</sup> Coles Express is an alliance between Coles and Shell that operates Shell's core franchise service stations across Australia

<sup>107</sup> Media Release 2/3/07: Fuel discount vouchers drive loyalty to service stations, not supermarkets

<sup>108</sup> MED's confidential wholesale market share data

## 12.4 Impact of shopper docket on prices

The Importer Margin Analysis Report<sup>109</sup> indicated that the cost of the supermarket fuel discounting schemes to the wholesalers is about 0.45cpl. The report also indicated that headline importer margins had trended ahead of inflation. However when taking the cost of the supermarket discounting schemes into account, importer margins appeared to be within normal boundaries. We note that those consumers who utilise these schemes will be getting cheaper fuel than those who don't.

The ACCC report also considered the issue of whether the cost of supermarket fuel discounts have lead to an increase in grocery prices. It wasn't able to accurately gauge the effect, due to the complexities associated with determining grocery prices. However it did note that the cost of these schemes seems to be treated as business expense by the supermarkets and when compared to their supermarket sales the cost of the discounting would be insignificant.

If the New Zealand supermarkets treat it as a business expense then we estimate the cost (assuming they cover 2.5cpl of each redeemed voucher) increase on the grocery bill to be about 0.18% which is equivalent to 37 cents on a \$200 grocery bill.<sup>110</sup>

## 12.5 Conclusion

Our analysis indicates that 25–30% of petrol and 10–15% of diesel sales may now be purchased by consumers with fuel discount vouchers.

The direct participants (BP, Gull and Shell) may be underwriting up to 1.5cpl of the cost with the supermarkets picking up the rest (the typical discount is 4cpl).

However the average cost of fuel discounting across all wholesalers (including those who don't directly participate) is estimated to be 2.2cpl of discounted fuel or about 0.45cpl across all retail fuel sales. This equates to about NZ\$28 million per annum.

For those consumers who utilise these schemes they will be getting cheaper fuel.

It is estimated that the cost to the supermarkets for the fuel discounts is about 0.18% which is equivalent to 37 cents on a \$200 grocery bill.

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<sup>109</sup> Importer Margin Analysis, May 2008

<sup>110</sup> Based on reported sales revenues of Foodstuffs and Progressive Enterprises versus the estimated cost to the supermarkets from fuel discounting

## 13.0 Addressing impediments to competition in petrol refining, importing and wholesaling

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This chapter looks at whether the market up to and including the wholesaling of petrol (refining, importing and wholesaling) is competitive as the wholesale costs comprise over 90 per cent of retail petrol costs.

### The ACCC report concluded:

- Competition exists in wholesale petrol markets in Australia, but it is not fully effective
- There are impediments to the most significant potential competitive threat to refiner-marketers – large-scale importing of petrol by independents
- Impediments to importing are self-reinforcing – making barriers to large-scale independent importing of petrol substantial
- Buy-sell arrangements may have the effect of lessening competition in wholesale petrol markets

The recommendations to reduce or minimise the impediments to competition in wholesale petrol markets were:

- A more detailed examination and on-going monitoring of buy-sell arrangements between refiners – to detect any adverse effects these arrangements may have on competition in wholesale petrol markets
- Subject to meeting environmental policy objectives, Commonwealth and state governments endeavour to align Australian fuel standards with appropriate fuel standards overseas
- Undertaking a comprehensive audit of terminals suitable for importing refined petrol into Australia, covering terminal capacity, use and leasing and sharing arrangements – to identify capacity that could become available for use by independent importers
- Following the audit, there be on-going monitoring of the use, leasing and sharing of terminals suitable for importing refined petrol into Australia – to discourage ‘hoarding’ of terminal capacity

Given the similarities in the markets, it may be (with the exception of buy-sell arrangements) that similar conclusions could be drawn on the New Zealand market. The following sections look at this using the same headings as the ACCC report.

### 13.1 Competition in wholesale petrol markets

ACCC noted that competition is a matter of degree. In performing its analysis of the Australian market it endeavoured to:

- Examine the key features and behaviours in wholesale petrol markets and assess whether they are indicative of effective price competition
- Examine and evaluate any structural impediments, or potential impediments, to effective price competition in wholesale petrol markets
- Examine ways of addressing or minimising any impediments to effective competition in wholesale petrol markets

H&T has not done a similar analysis of the New Zealand market and does not have the data available (especially around wholesale pricing) to do such an analysis. Rather we consider whether the arguments put forward by the ACCC might also apply to the New Zealand market given the similarities, and consider those arguments in the context of earlier studies on the New Zealand petrol market.

## 13.2 Key features and behaviours in wholesale petrol markets

Two key features of behaviours in wholesale petrol markets have been discussed:

- Buy-sell arrangements between refiner-marketers
- The use of import parity pricing

### 13.2.1 Buy-sell arrangements/toll refining

As discussed in Chapter 3 New Zealand does not have buy-sell arrangements between refiner-marketers as they do in Australia. Each refiner-marketer imports and processes its own crude (albeit through a single refinery) and imports the balance of its petrol. Buy-sell arrangements were one of the chief concerns the ACCC had that might reduce competitiveness in the Australian market. As buy-sell is not present in New Zealand there is less concern and arguably a more transparent market.

The only parallel market structure that perhaps should be considered in this context is the refiner-marketers all processing their crude at a single refinery. As discussed in Chapter 7, while the refinery does generate a price build up for the products produced, that is used in the context of generating a processing fee which is a percentage of margin obtained. Unlike buy-sell it is not a price that sets a level for the cost of product in the market.

The refinery price build-up is also based on import parity. The refiner-marketers should have an incentive to keep the price build-up as low as possible relative to import parity to keep the refining fee they pay as low as possible. Therefore it would seem unlikely that the nominal price build-up to value refinery product would be above the import parity cost, which the ACCC suspected was the case with buy-sell contracts.

Therefore only the next section discussing import parity pricing is relevant for the New Zealand market.

### 13.2.2 Import parity pricing

Import parity pricing (IPP) was discussed in detail in Chapter 7. In summary IPP has the following build-up.

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**IPP = Singapore benchmark + quality premium + freight + wharfage + insurance and loss**

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The wholesale price at which the refiner-marketers supply petrol to resellers typically have the following components.

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**Wholesale price to resellers = IPP + wholesale margin + add-ons (such as storage and delivery)**

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The key finding of the ACCC was:

**Import-parity pricing is efficient in a market where imports are the marginal source of supply**

In Australia about 15% of the petrol market is directly imported although less than 2% is imported by independent importers.

New Zealand is far more dependent on petrol imports with close to 50% of the market imported (either directly or as blendstock at the refinery). While non-refiner-marketer importers are also a small part of the market in New Zealand (less than 5%), the finding that import-parity is efficient where imports are the marginal source of supply is applicable to the New Zealand market.



The ACCC assessed the variation between wholesale prices and buy-sell prices with import parity. They found that a reseller with a credible threat to source imports gets a lower wholesale price than a reseller without a credible threat but even with a credible threat, the price charged will be the reseller's cost of importing rather than the refiner-marketer's cost of importing fuel.

This cost information is not available in New Zealand. There are probably no resellers in New Zealand with sufficient volume to consider importing even if desired. Also we would assume that if a reseller did move to importing they would also need to include a wholesale margin as they would have similar costs to cover as the refiner-marketer or independent importers.

Therefore import parity pricing would be efficient for the New Zealand market which aligns with the view taken by the ACCC. MED uses an import parity approach in building up the landed cost for its fuel company margin monitoring.

### **13.3 Impediments to price competition in wholesale petrol markets**

The ACCC found that wholesale prices resellers and independent retailers pay for refined petrol are above the appropriate IPP benchmark. In the majority of cases, they were higher than the import costs of refinery-marketers. They concluded that this outcome is neither economically efficient nor consistent with a view that competition between refiner-marketers is fully effective.

Without sound data it is difficult to conclude whether this situation is applicable in New Zealand. We would expect a price to a reseller to be higher than import parity given the costs involved (e.g. storage, distribution) that need to be covered in the providing the petrol to resellers. What the competitive level for that margin should be does not seem to have been considered in the ACCC report. However the discussion about impediments to price competition in wholesale markets is relevant which is covered in the following sections.

#### **13.3.1 Location advantage of local refineries**

ACCC noted that the domestic refineries have a location advantage that gives a cost advantage over imported petrol. Chapter 7.4 discusses the freight benefit local refiners have along with advantages of more secure and reliable supplies.

While location advantage is available to the New Zealand refinery, we are unsure about its relevance. If import parity pricing is considered the appropriate benchmark for a market, then a refining location advantage will not alter the benchmark – it is part of the refining margin and only contributes to the profitability or otherwise of refining versus direct imports.

#### **13.3.2 Ownership concentration of local refineries**

The ACCC concluded that the high concentration of petrol refinery ownership also limited wholesale price competition noting that the refiner-marketers profit-maximising strategy within a state is not to "take each other on".

As discussed in Chapter 3 the refinery structure is different in New Zealand. In addition with nearly 50% of the petrol market imported we do not think the ownership concentration dynamic applying in the Australian market has the same relevance to the New Zealand market.

It should be noted that the refiner-marketers consistently and fully utilise the refinery, which suggests that it is a more cost effective and/or reliable supply route than direct imports. With the market set at IPP, the refiner-marketers are likely to retain any refining margin (if any) in a refining profit centre. As discussed in Chapter 7, current refining margins are high and it is likely that refiner-marketers have a positive contribution from refinery processing (although from jet and diesel production rather than petrol).

Regardless of whether refining is profitable (or not) this should not change a wholesale price which is based on IPP as in the New Zealand market. If a refiner-marketer used refinery margins (when high) to reduce wholesale margins, they could be accused of cross subsidisation which may not be available to other market participants. This may be regarded as abuse of market power. There is no evidence that such cross subsidising is occurring in New Zealand.

### **13.3.3 Commercial dependences between refinery-marketers**

In Australia the dependence between refiner-marketers is underpinned by the buy-sell contracts. In New Zealand all refiner-marketers import and process their own crude and import their own petrol so there are not these same dependencies.

### **13.3.4 Impediments to large-scale importing of refined petrol by independents**

The ACCC noted that the ability of resellers to exert competitive constraints on refiner-marketers depended on a credible threat of independent imports of petrol.

This is equally true in New Zealand as both markets have a very small proportion of independent imports (less than 2% in Australia and less than 5% in New Zealand). The ACCC found that independent operators face a number of potentially significant impediments in importing petrol products. These include:

- Australian fuel standard specification for petrol
- The availability of import terminal facilities
- Access to retail markets

As the market structures are similar this could give rise to similar findings in New Zealand, using the same basis the ACCC used to reach their conclusions.

### **New Zealand fuel specification standards**

As discussed in Chapter 6 the New Zealand regular petrol standards are tighter than the Australian specifications. The ACCC found the Australian standards meant independents had found it more difficult to get petrol supply from overseas; they either had to go further afield (Europe, Middle East) with potentially higher freight costs or pay significant premiums to get refiners to produce petrol to Australian standards. Although there was variation in views, some independents noted it was becoming easier to source Australian quality petrol over time.

BP New Zealand has stated publicly that due to the specifications for regular petrol (from January 2008) they have had to go as far as Europe to obtain supplies<sup>111</sup>. No comment was made on the cost impact. While BP has highlighted this problem, other importer supply sources may be unchanged and might not be incurring any more costs than before the specification change. BP comments that Asian refiners are likely to come on stream that will be able to supply the new specification.

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<sup>111</sup> <http://www.bp.com/genericarticle.do?categoryId=16003851&contentId=7041485>

However given the stated difficulty the ACCC recommendation that “Subject to meeting environmental policy objectives, Commonwealth and state governments endeavour to align Australian fuel standards with appropriate fuel standards overseas” applies equally to New Zealand. Certainly if Australia does make any changes to its fuel specifications then New Zealand should review these as it is important that the two markets have reasonably aligned specifications.

However as both Australian and New Zealand market participants have noted this issue is likely to become less of a problem over time (assuming New Zealand specifications do not continue to tighten) and may resolve itself in the time it takes for the Government to investigate and implement any change.

### **Availability of import facilities**

In Australia, as well as storage terminals owned by the refiner-marketers, there are independent owners of terminals (storage terminal owners only, not petrol wholesalers or retailers). The Australian refiner-marketers lease most of the capacity of these independent terminals as well as having their own.

The ACCC noted that:

- current and planned import terminal capacity may not enable a large-scale expansion of independent imports
- independent terminals are not available nationwide
- they were concerned that refiner-marketers could lease capacity in excess of requirements, restricting availability to independent importers
- some refiner-marketers noted they were prepared to lease capacity to third parties but no one had sought access
- new investments in storage need to be underwritten by long term commitment to significant throughput
- access to the retail market is difficult for independent importers if they can't offer the same reliability as refiner-marketers

New Zealand currently does not have any independent petrol storage terminal owners. The refiner-marketers and Gull all own their own storage. Therefore the points noted by the ACCC may also be applicable to the New Zealand market.

There have been previous studies on this aspect of the New Zealand market, which had found generally that there were no barriers that affect competition. The ACIL report on the New Zealand market in 1997 found that the absence of independent terminals was not a barrier to entry and building an import terminal was possible in New Zealand, if companies wanted to enter the market.

In the years following that report, both Gull (at Tauranga) and Challenge (New Plymouth, Timaru) built terminals and commenced direct importing and wholesaling and retailing in New Zealand. In 2001 Challenge was sold to Caltex New Zealand (now Chevron) in a decision approved by the Commerce Commission.<sup>112</sup> Although this involved the sale of two independent import storage terminals to one of the refiner-marketers “the Commission considers that the presence of these other competitors in the market is likely to provide an effective constraint on the combined entity [Caltex and Challenge]”.

Therefore although the ACCC findings can be applied to New Zealand, other investigations into the ability to import independently of the refiner-marketers have not raised the same concerns.

Other aspects that are relevant to this discussion include:

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<sup>112</sup> Commerce Commission: Decision No. 434

- Only the refiner-marketers are marketing in the South Island (no independent importer) and yet prices are similar to those in the North Island where there is an independent importer competing<sup>113</sup>
- It is not known whether third parties have approached refiner-marketers in New Zealand for use of any excess capacity in their terminals (given some refinery-marketers are investing in new storage they might argue that their current facilities are fully utilised).

### **13.3.5 Impediments to entry into local refining**

The ACCC found that the impediments to a new entry into local refining were substantial with one company putting the cost of a new refinery at A\$3 billion.

This would be even more so in New Zealand where the one refinery meets about 70% of market demand and is due to expand to close to 80%.

While the ACCC noted impediments to entry into local refining were substantial it made no conclusion in this regard.

## **13.4 Potential changes to the structure of petrol markets**

This section looked at potential changes to the petrol refining, wholesaling and retailing market that might alter the competitive dynamic.

### **13.4.1 Is it likely a supermarket will ‘sponsor’ the entry of a large-scale importer**

The two major supermarket chains in Australia (Coles and Woolworths) have over 40 percent share of the retail petrol market. By contrast only one supermarket has entered the New Zealand market (Foodstuffs) and their share is estimated at around 3 to 4 percent.

Even with a high market share it was considered unlikely that the Australian supermarkets would seek supply from an independent importer as they have co-branded sites (with refiner-marketers), they require national access and alternate supply may increase quality and supply reliability risk. In addition they are likely to have secured a good deal from the refiner-marketers, leaving little room for improvement by directly importing.

With much lower volumes its reasonable to assume that the New Zealand supermarkets would not secure a margin as low as the Australian supermarkets can (as discussed in Chapter 8 the amount of discounting normally relates to the volume purchased). However all sites are self branded, which probably gives Foodstuffs the opportunity to ‘shop around’ when renewing their supply contract. However with small volumes and need for national (or near national) distribution, it seems unlikely a New Zealand supermarket would sponsor an independent importer. However if the bulk of the demand is relatively close to Gull’s Tauranga terminal (north half of North Island) Gull could be an option as supplier (i.e. not a new independent importer rather an existing one).

### **13.4.2 Formation of buying groups by resellers**

The ACCC noted that resellers and importers could consider forming buying groups to either collectively bargain with refiner-marketers or negotiate directly with offshore suppliers. Comment from market participants in Australia indicated some reluctance to collectively bargain together with their competitors (other resellers) because of concerns with the Trade Practices Act.

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<sup>113</sup> Noting the comment in Chapter 10 that similar discounting has not always been available nationwide.

### **13.4.3 Exit of a refiner-marketer from petrol retailing**

The ACCC noted that if one of the existing refiner-marketers exited petrol retailing in Australia and was purchased by an independent, then large-scale importing might be viable.

This would also be true in New Zealand although any independent purchaser might also want access to the refiner-marketers logistics chain as that is likely to provide lowest costs logistics as discussed in Chapter 7. Therefore a sale would not necessarily result in a new import storage terminal.

## **13.5 Recommendation to reduce or minimise impediments to competition in wholesale petrol markets**

The ACCC recommendations were summarised at the beginning of this chapter. One of them related to buy-sell arrangements which do not apply to New Zealand. The others are partially relevant for the New Zealand market. The ACCC conclusions on the impact of import terminals are contrasted with other reviews or investigations in New Zealand which have not found a similar concern. However there is still value in MED understanding the terminal dynamic in their role as regulator of the petroleum market. The recommendations are as follows:

### **Alignment of New Zealand fuel standards with appropriate standards overseas**

This recommendation is, subject to meeting environmental policy objectives, New Zealand's fuel standards should be aligned with appropriate fuel standards overseas. The purpose is to limit any adverse impact New Zealand fuel standards have on the ability of importers to source reliable supplies of competitively priced fuel from overseas refiners of traders.

### **Review of import terminal capacity in New Zealand**

A review by MED of the terminals suitable for importing petrol is recommended. This should cover current and future terminal capacity, current and future use of terminal capacity, and details of terminal leases and terminal sharing arrangements.

### **On-going monitoring of import terminals**

It is recommended that following the review there be on-going monitoring of the use, leasing and sharing of terminals suitable for importing refined petrol into New Zealand.

## 14.0 The role of the Trade Practices Act 1974 in addressing impediments to competition

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Chapter 14 does not apply to New Zealand as it deals with the legislation that the ACCC uses in monitoring the petrol market (Trade Practices Act 1974) and particularly submissions relating to that legislation.

The role of the equivalent organisation to the ACCC in New Zealand (Commerce Commission) is discussed in Chapter 1.5. However, petrol price monitoring is done by the Ministry of Economic Development (MED) in New Zealand rather than the Commerce Commission. Therefore many recommendations made by the ACCC will apply to MED in the New Zealand context.

The New Zealand legislation petrol wholesalers and retailers operate with includes:

For consumer protection issues:

- The Fair Trading Act 1986
- Consumer Guarantees Act 1993

For general legislation:

- The Commerce Act 1986
- The Resource Management Act 1991
- Hazardous Substances and New Organisms Act 1996

Sector specific regulations:

- Engine Fuels Specifications Regulation 2008 (has replaced Petroleum Products Specifications Regulations 2002)
- Energy (Fuels, Levies, and References) Act 1989
- The Customs and Excise Act 1986
- Local Authorities (Petroleum Tax) Regulations 1970
- The Petroleum Sector Reform Act 1988

The history of specific inquiries into the petrol industry in New Zealand is covered in section 1.5.

## 15.0 Measures to improve price transparency and competition

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This chapter focuses on price transparency in New Zealand, including existing measures and ways to improve this transparency thus enhancing competition in the market.

### 15.1 Measures to improve retail price transparency

#### 15.1.1 Price transparency and petrol consumers

The ACCC report provides the following comments and insights on price transparency:

- Increased price transparency generally has benefits for consumers unless it significantly increases the risk of anti-competitive practices amongst sellers.
- Generally the more that price transparency allows sellers to react quicker than buyers to price movements the less beneficial this is for consumers and vice versa.
- There needs to be some price transparency for competition to exist.
- In some conditions (particularly in concentrated markets) increased price transparency could also increase the likelihood of conscious parallelism<sup>114</sup>.

Like Australia the main mechanism to indicate the latest petrol price is the price board at the front of the service stations. Typically in New Zealand these price boards tend to show the regular petrol price but not premium petrol or 98 octane petrol prices. The ACCC commented that in Australia the price volatility combined with weekly cycles reduces the value of this to the consumer as it is difficult to know how the signboard price will compare with the same retailer later that day or week. Reviewing Chart 11.1 in the ACCC report indicates approximately 64 price movements in the July to September 2007 period; this suggests that Australian metropolitan prices could be moving about 250<sup>115</sup> times per year. In New Zealand the price is significantly less volatile due to the lack of price cycles; typically retail price changes occur when there are underlying changes in the landed cost. It appears that New Zealand's retail petrol price has only changed 30 times in the last 12 months, about an eighth of the frequency seen in Australia.

#### 15.1.2 Exchange of information between suppliers, Informed Sources

In Australia a company called Informed Sources provides a centralised exchange of retail petrol pricing information. To do this it gathers electronic data on fuel sales from its subscribers, which it collates and then disseminates to its subscribers so that they can assess the current retail prices of their competitors.

The ACCC report raised concerns that this system provides a high level of price transparency to sellers (in this case the refiner-marketers and the supermarket resellers) which allows them to move prices more quickly than buyers (consumers) can react. The ACCC report goes on to highlight that the market risk of leading a price increase is less if subscribing (i.e. competitors can quickly see if the price increase has been followed and adjust accordingly) whereas there is more risk in leading the market down if subscribing (i.e. competitors can quickly see any decrease and respond quickly thus mitigating any volume gains from the lower price).

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<sup>114</sup> Conscious parallelism is the act of price fixing between competitors without actual discussion or agreement. One competitor would change the price and the others in the market would follow with an unspoken mutual understanding.

<sup>115</sup> Informed Sources have indicated to MED that retail price movements would be much higher (around 800 times per year).

There is no similar system of electronic data gathering in New Zealand. It appears that the typical approach used by the retailers is to physically check competitor price signs to see what their price is, with Informed Sources doing some manual price gathering in Auckland<sup>116</sup>. This suggests that retailers currently have a similar level of price transparency to consumers.

The other interesting thing to note in New Zealand is that petrol price changes make headline news. This probably reflects less frequent price changes (about once every two weeks on average in the last 12 months) and that sometimes retailers issue media releases when they make changes. The media (to the extent that they report these changes) do provide consumers with a relatively quick and transparent indication of changes (if sometimes after the event). However this process also alerts competitors to the change.

One option that could be considered would be to put some rules around the extent and level of reporting that the retailers do on price changes. Factors to consider are the value of providing clearer price transparency to the consumer about changing prices versus giving competitor's better price transparency which may reduce the competitive risks and rewards. While there may be value in requiring companies to announce their price changes within a period of time after making a price change (e.g. no later than 6 hours) there could also be risks that this could reduce competition thus giving retailers less incentive to pass on price changes promptly to the public. Before considering any requirements like this a careful analysis of the benefits and risks to the consumer should be completed.

### **15.1.3 Price transparency arrangements for consumers in Australia, WA; FuelWatch**

Since 2001 the Western Australian Government (via the Department of Consumer and Employment Protection - DOCEP) has operated a comprehensive fuel monitoring and reporting service. This system is known as FuelWatch and encompasses 584 service stations. The scheme requires fuel retailers to notify the DOCEP by 2pm of each day the price that they will sell their fuel at from 6am of the next day for a 24 hour period. The DOCEP then makes this information available to consumers from 2.30pm each day on an automated telephone service. With modern communications this information seems to flow quickly through to the internet and onto media reports by about 4pm of each day.

Retailers are then required to sell their fuel at their posted price for each 24 hour period, thus giving customers certainty on price for that 24 hour period.

The ACCC heard a variety of views on the benefit of the scheme and also undertook some econometric analysis of the scheme to assess the value of it to the consumers. In summary:

- The DOCEP suggested that Perth has been the cheapest capital city for unleaded petrol for the last few years and that the price transparency was a critical element in placing downward competitive pressure on price levels.
- The motoring associations (RACWA and AAA) indicated support for providing transparent pricing to consumers through a scheme like FuelWatch.
- The refiner-marketers suggested that the scheme reduces intra-day price discounting which has lessened competition in the market.
- The supermarket retailers suggested that this scheme has reduced the level of competition with WA consumers missing out on lower prices than are generated by vigorous intra-day price competition.

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<sup>116</sup> Communication between MED and Informed Sources 17 July 2008



- Gull Petroleum (an independent marketer) suggested that the FuelWatch scheme has harmed the competitive position of independents as the large retailers have been able to use some of their large service station networks to show lower prices while others are pricing higher, whereas the independents don't have the same ability to do this.
- Informed sources indicated that from their analysis the price of petrol in Western Australia has increased on average by 1-1.5 cents per litre.
- The ACCC econometric analysis of relative price levels between Perth and the eastern capitals found that the average price margin reduced by a statistically significant amount for Perth in the time since the introduction of FuelWatch. Using an average monthly price this was estimated to be a decrease of 1.9cpl, whereas using the weekly average price this was estimated to be 0.9cpl.
- The report also noted that headline prices have increased nationwide over the time since the introduction FuelWatch and that the Perth headline price is generally higher than the other eastern capitals which reflect differing state Government subsidies and also the more stringent fuel quality requirements in Western Australia.
- The ACCC highlighted that the recommendations leading to FuelWatch weren't specifically aimed at eliminating price cycles but were aimed at preventing wild price fluctuations.
- An independent survey done by the DOCEP indicated that up to 86% of consumers use FuelWatch to aid their fuel buying decisions.

It seems from reading the information presented in the report that the real value of the FuelWatch scheme has been the reduction in the magnitude and frequency of the price cycles that occur in Australia, thus providing the consumer a more stable market and a more transparent view of petrol prices.<sup>117</sup>

As indicated in 15.1.3, New Zealand's petrol prices change much less frequently than in Australia, with the changes typically following the Singapore refined petrol price trend. Therefore it is questionable whether a scheme like FuelWatch would provide New Zealand consumers with better price transparency than they already have. To estimate the improvement in price transparency that could be achieved from a FuelWatch scheme we have compared the number of days where the price is transparent (i.e. the days where the price doesn't change) versus a fully transparent system like FuelWatch for both Australia and New Zealand. Our calculations indicate:

- Australia: Price transparency may increase by 70%
- New Zealand: Price transparency may increase by 8%

This reflects that the price is relatively constant in New Zealand which results in a more transparent price for consumers.

#### **15.1.4 Other price transparency arrangements**

Like Australia there are a number of companies and organisations within New Zealand that provide pricing information. The sources that we are aware of are:

- MED's Website<sup>118</sup>: this reports weekly retail prices, importer costs and importer margins for petrol and diesel along with the weekly price of Dubai crude.
- PriceWatch Website<sup>119</sup>: this is operated by Cardlink and provides a snapshot of retail prices by geographic location and supplier based on fuelcard transactions.

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<sup>117</sup> Australia is moving to adopt FuelWatch nationally on the advice of the ACCC although four Government departments gave internal advice against its adoption ([www.abc.net.au/news/stories/2008/05/28/2258668.htm](http://www.abc.net.au/news/stories/2008/05/28/2258668.htm))

<sup>118</sup> MED: [http://www.med.govt.nz/templates/ContentTopicSummary\\_\\_\\_\\_20094.aspx](http://www.med.govt.nz/templates/ContentTopicSummary____20094.aspx)

<sup>119</sup> PriceWatch: <http://www.pricewatch.co.nz/>

- NZFPM Website<sup>120</sup>: this is a subscription service operated by Hale & Twomey that provides subscribers with a weekly snapshot of New Zealand fuel prices along with the underlying price drivers using market based price information.
- Petrol Price Tracker Website<sup>121</sup>: this provides a breakdown of petrol price and compares this against US RBOB gasoline prices to determine the difference between retail price and the converted petrol price.
- AA PetrolWatch<sup>122</sup>: Provides a monthly commentary on fuel prices. The AA also provides adhoc commentary about fuel prices.

### 15.1.5 Relative imbalance in price transparency between buyers and sellers

The ACCC found an imbalance in price transparency between the buyers and sellers of petrol in Australia which allows sellers to react more quickly than buyers to competitive price pressures. The ACCC considered three options to address this imbalance:

- Reducing the potential for price information sharing amongst suppliers.
- Adopting increased pricing information and price commitment rules, i.e. a nationwide FuelWatch scheme.
- Expanding the availability of pricing information to consumers either through Informed Sources or through the ACCC.

Given the difference in transparency in the New Zealand and Australia markets it is questionable whether there would be much value for the New Zealand consumer from the introduction of a scheme like FuelWatch when taking into account compliance cost both for Government (including compliance monitoring) and also resellers who are likely to pass through any compliance costs. While the ACCC report doesn't provide an indication of cost, the cost of the nationwide FuelWatch scheme has been reported to be around \$AU 21 million<sup>123</sup> over four years.

However there may be some value to be gained from improving price transparency through the current monitoring system operated by MED. Improvements could include:

- Reporting daily importer margins for each week, thus giving consumers a more accurate view of the oil company margins. This would allow consumers to check for themselves whether prices fall as quickly as they rise.
- Establishing a system to break down the importer margin into wholesale and retail margins or even to split out importer costs to derive a net margin, which would give consumers a better feel of oil company cost and margins.

Requiring the resellers to inform consumers of recent price changes as discussed in chapter 15.1.2 could be considered and controls around the level of price discovery that can occur could also be established (i.e. to avoid the establishment of electronic data gathering systems like Australia).

All of these options would require careful consideration to ensure that there weren't undue market impacts that would reduce the level of competition in the market place.

### 15.1.6 H&T conclusions

The main mechanism for revealing petrol price in the New Zealand market is the price board at the front of service stations. We understand that retailers physically check competitor price signs (either themselves or via third parties) to see what their price is,

<sup>120</sup> NZFPM: <http://www.fuelpricemonitor.co.nz/demo.html>

<sup>121</sup> Petrol@Macros: <http://www.macros.org/petrol.php>

<sup>122</sup> PetrolWatch: <http://www.aa.co.nz/motoring/owning/running-costs/petrolwatch/Pages/default.aspx>

<sup>123</sup> <http://www.alp.org.au/media/0408/mspm150.php>

which indicates that they have a similar level of price transparency as consumers. New Zealand does not have an electronic data gathering system in place (unlike Australia).

New Zealand's retail petrol price has changed only 30 times in the last 12 months, about an eighth of the frequency seen in Australia. Price changes in New Zealand continue to make headline news, perhaps reflecting the relatively infrequent price changes and high level of public interest.

The media generally provides consumers with a relatively quick and transparent indication of changes; however this process also provides this information to other competitors.

It is debatable whether a scheme like FuelWatch would provide New Zealand consumers with better price transparency than they already have, given the relatively infrequent price movements. We estimate that price transparency for the consumer could improve by 8% in New Zealand versus 70% in Australia, reflecting the lack of the weekly price cycles in New Zealand.

There may be some value to the consumer from improving price transparency through the current monitoring system operated by MED. Improvements could include more frequent (daily) reporting of importer margins and establishing a system to break down the importer margin. With the expected introduction of the Emissions Trading Scheme and the Biofuels Sales Obligation there will be additional costs that the wholesaler will look to recover from their importer margins. These additional costs will further cloud importer margin monitoring and reduce price transparency.

There may also be value to the consumer from requiring resellers to inform consumers of recent price changes or from putting controls around the level of price discovery that can occur between retailers (e.g. limiting the ability to use an electronic data gathering system). The value of a price signal depends on the timing of the information release versus the timing of the price change:

- competitive risk is minimised when advance warning of price increases occur, however consumers also obtain an advantage (i.e. can buy fuel prior to the price increasing).
- competitive advantage is maximised when no notice of price decreases is given, however consumers are also disadvantaged (i.e. may buy fuel at the old higher price)

All of these options would require careful analysis to ensure that there weren't undue market impacts that would reduce the level of competition in the market place.

## **15.2 Measures to improve wholesale price transparency**

This chapter of the report looks into the relevance of Terminal Gate Pricing (TGP). In Australia there is a requirement to post a daily TGP which is the price that a purchaser can buy bulk fuel for. However the ACCC report indicates that few sales are made at the TGP price with most sales based on long term commercial arrangements between the wholesaler and the purchaser.

There is no requirement for wholesalers to post a daily TGP in New Zealand. This suggests that a purchaser of bulk fuel in New Zealand would need a commercial arrangement for their fuel purchase.

There may be value of having TGP in New Zealand to provide an indication of wholesale prices, although this would equally be addressed by breaking down importer margins using an appropriate framework as discussed in 15.1.6.