AUSTRALIAN COMPETITION & CONSUMER COMMISSION

Report on the Australian petroleum market

December quarter 2021

March 2022

accc.gov.au

Australian Competition and Consumer Commission
23 Marcus Clarke Street, Canberra, Australian Capital Territory, 2601

ACCC 03/22_22–17

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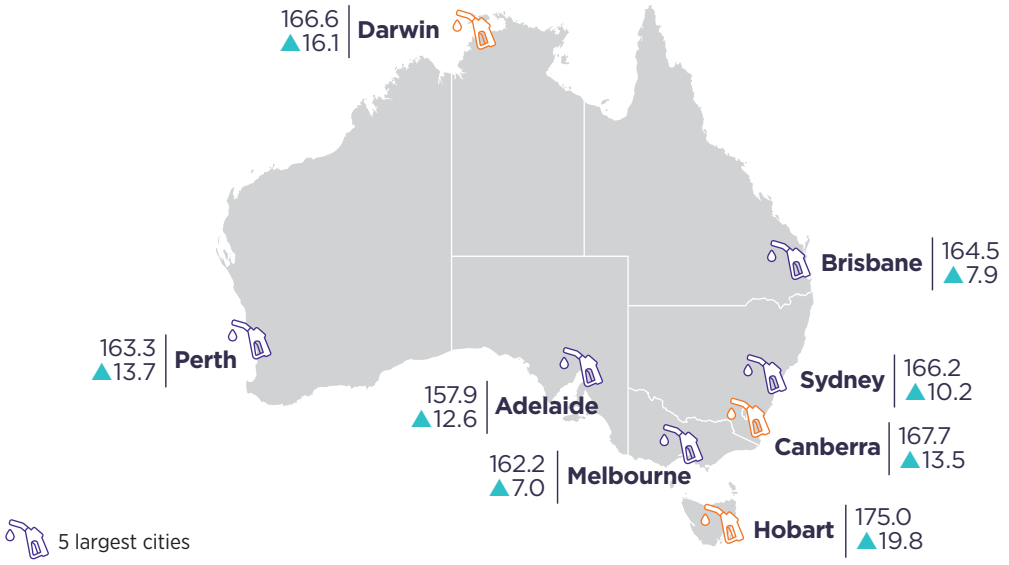
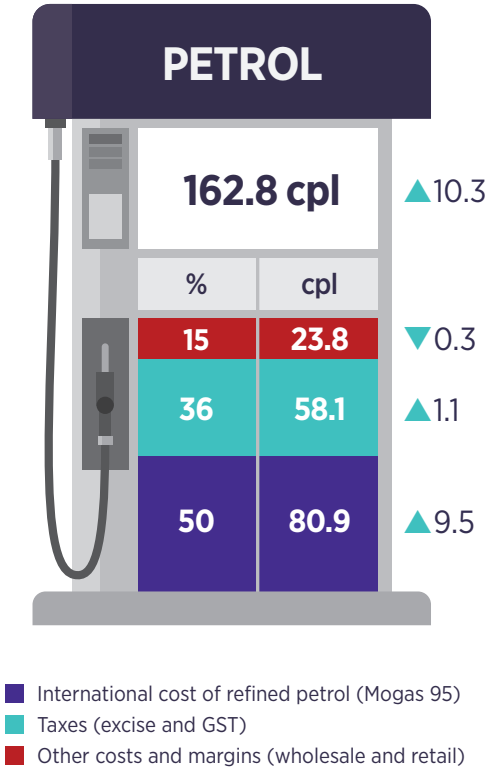
AVERAGE RETAIL PETROL PRICES



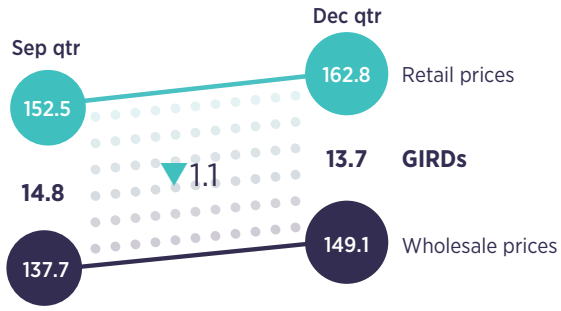
COMPONENTS OF RETAIL PETROL PRICES

Breakdown of average petrol prices in the 5 largest cities.



GROSS INDICATIVE RETAIL DIFFERENCES

GIRDs are the difference between average retail petrol prices and indicative wholesale prices in the 5 largest cities. They are a broad indicator of gross retail margins.



DIFFERENCE BETWEEN CITY AND REGIONAL PRICES

The difference between average retail petrol prices in the 5 largest cities and average prices in over 190 regional locations.

Prices are shown in cents per litre (cpl). ▲▼ cpl change from previous quarter.
'Petrol' means regular unleaded petrol (RULP) in all locations. Percentages in the bowser do not total 100% due to rounding.

Key messages

International prices drove average retail petrol prices higher in the December quarter 2021

In the December quarter 2021, average retail petrol prices in the 5 largest cities (Sydney, Melbourne, Brisbane, Adelaide and Perth) were 162.8 cents per litre (cpl).[1] This was an increase of 10.3 cpl from the September quarter 2021 (152.5 cpl), and the fourth consecutive quarter in which prices increased. Between the December quarter 2020 and the December quarter 2021 average retail petrol prices increased by 41.4 cpl (around 34%).

In **real** terms, prices in the December quarter 2021 were the highest in 7 years (when prices were 166.3 cpl in the September quarter 2014).[2]

Higher international prices in February 2022 led to retail prices increasing to their highest in 8 years in real terms

Seven-day rolling average retail petrol prices in the 5 largest cities increased to 182.4 cpl in February 2022. Prices surpassed the highest 7-day rolling average price in the December quarter 2021 (172.7 cpl on 26 October 2021) and were the highest prices in **real** terms in 8 years (since they were 182.7 cpl on 6 January 2014).

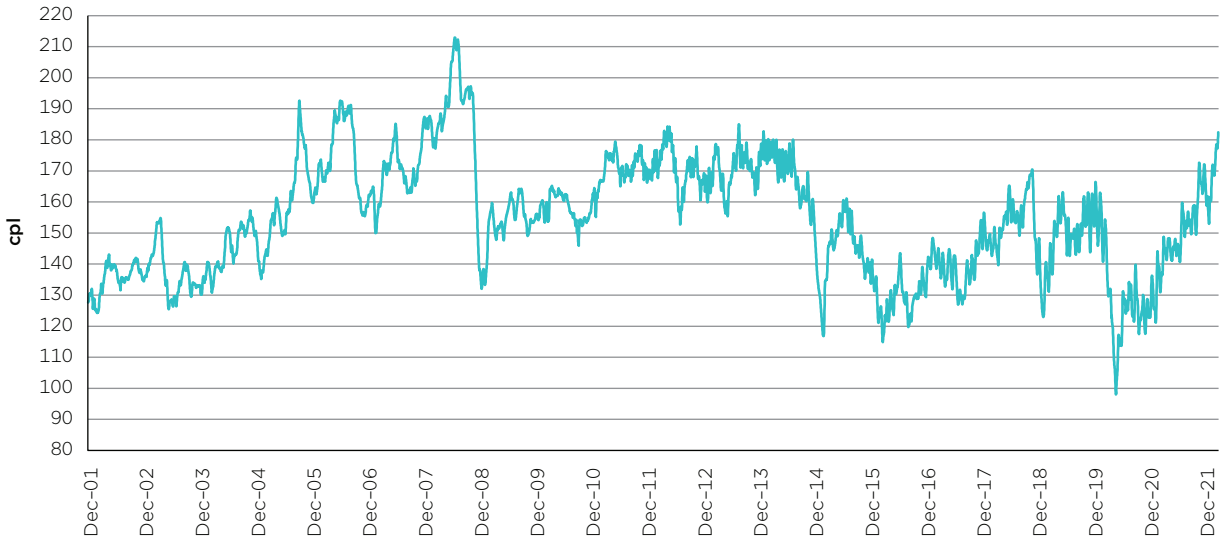
The following chart puts these prices in an historical context. It shows that while daily average retail petrol prices on a 7-day rolling average basis prices in **real** terms are relatively high, there have been periods of higher prices over the past 20 years (such as the period prior to the Global Financial Crisis when prices reached a high of 212.9 cpl on 27 June 2008). The chart also shows that prices broadly trended upwards since they reached a record low in **real** terms of 98.0 cpl on 29 April 2020 in the early days of the pandemic.[3]

1 In this report, 'petrol' means regular unleaded petrol (RULP) unless otherwise specified. Appendix A explains a methodological change in this report to using RULP prices in Sydney from 1 July 2021, rather than E10 (i.e. RULP with up to 10% ethanol) prices.
All prices in this report are nominal prices unless otherwise specified. **Real** prices are prices adjusted for inflation using the Consumer Price Index.
A 7-day rolling average price is the average of the current day's price and prices on the 6 previous days. Traditionally, the ACCC has used a 7-day rolling average to smooth out the influence of petrol price cycles in the larger cities on price movements. This has been less effective in recent years because the duration of price cycles in most of the larger cities has become substantially greater than 7 days.

2 **Real** prices are adjusted for December quarter 2021 dollars.

3 In **real** terms, this was the lowest recorded 7-day rolling average retail price since the ACCC's predecessor, the Prices Surveillance Authority (PSA), began collecting comprehensive retail prices in all 5 cities in May 1991.

Seven-day rolling average retail petrol prices in the 5 largest cities in real terms: 1 December 2001 to 28 February 2022



Source: ACCC calculations based on data from Informed Sources, FUELtrac and the Australian Bureau of Statistics (ABS), 6401.0 *Consumer Price Index, Australia, December 2021, Tables 1 and 2. CPI: All Groups, Index Numbers and Percentage Changes*, at: https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release#data-download, accessed on 22 February 2022.

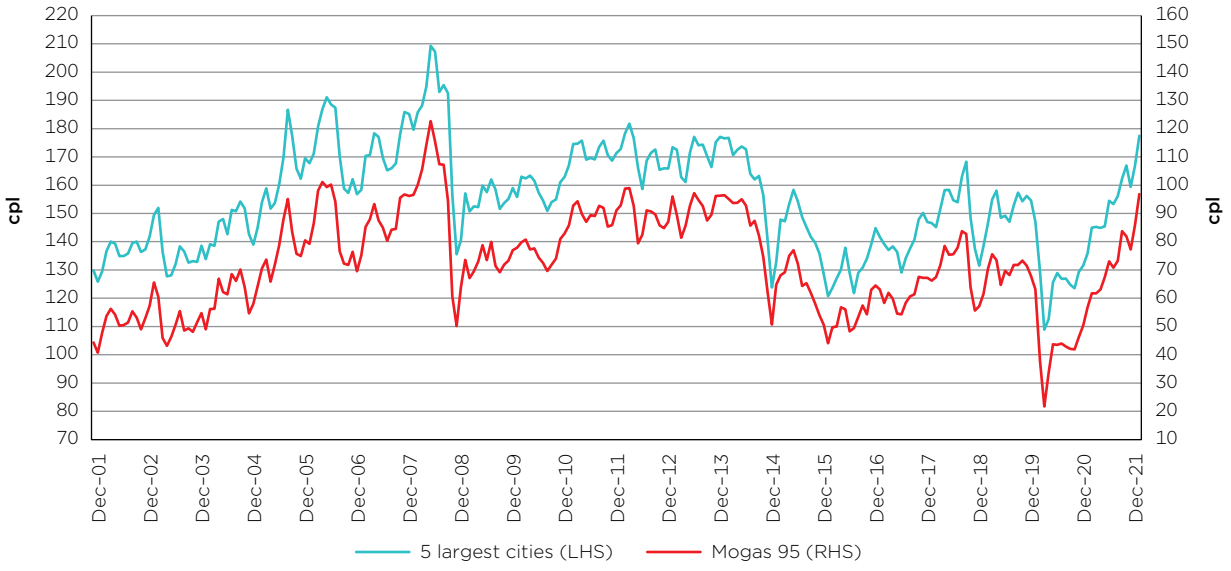
Note: **Real** prices are adjusted for December quarter 2021 dollars.

International refined petrol prices in February 2022 were the highest in over 8 years in real terms

International refined petrol prices (which are driven by international crude oil prices) and the AUD–USD exchange rate, largely determine movements in retail petrol prices in Australia. The price of Singapore Mogas 95 Unleaded (Mogas 95) is the price of refined petrol in the Asia-Pacific region and is the relevant benchmark for petrol prices in Australia.

The following chart shows that movements in retail petrol prices in the 5 largest cities and Mogas 95 prices in Australian cents per litre have moved in a similar pattern over the past 20 years.

Monthly average retail petrol prices in the 5 largest cities and Mogas 95 prices in real terms: December 2001 to February 2022



Source: ACCC calculations based on data from Informed Sources, FUELtrac, Platts, OPIS, Argus Media, the Reserve Bank of Australia (RBA) and the Australian Bureau of Statistics, 6401.0 *Consumer Price Index, Australia, December 2021, Tables 1 and 2. CPI: All Groups, Index Numbers and Percentage Changes*, at: https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release#data-download, accessed on 22 February 2022.

Note: **Real** prices are adjusted for December quarter 2021 dollars.

The chart highlights the significant volatility in Mogas 95 prices. Monthly average Mogas 95 prices in **real** terms ranged from a high of 122.7 cpl in June 2008 (just prior to the Global Financial Crisis) to a low of 21.7 cpl in April 2020 (following the decrease in demand due to the COVID-19 pandemic).

The chart also shows that monthly average Mogas 95 prices and retail petrol prices in the 5 largest cities in **real** terms increased steadily from November 2020, decreased slightly in December 2021, and then increased further in early 2022.

In February 2022, monthly average Mogas 95 prices were 96.8 cpl, the highest in **real** terms since July 2013 (97.2 cpl).

In the December quarter 2021, quarterly average Mogas 95 prices were 80.9 cpl (an increase of 9.5 cpl from the September quarter 2021).

Higher crude oil prices were influenced by the OPEC cartel's production cuts, recovering global demand and the conflict in Ukraine

The major influences on crude oil prices in recent years have been agreements by the Organisation of the Petroleum Exporting Countries (OPEC) cartel and other crude oil producing countries (including Russia) to limit supply, and the impact on demand of the COVID-19 pandemic.

Crude oil prices fell sharply in early 2020 as the pandemic caused global demand to fall. In April 2020, the OPEC cartel's significant production cuts led to a steady increase in crude oil prices to the end of June 2020. Crude oil prices were relatively stable until November 2020, when the roll-out of COVID-19 vaccines and an associated increase in economic activity contributed to increased demand for crude oil. Furthermore, a decline in the US dollar pushed prices higher. In early 2021, the ongoing production cuts as well as increasing global demand meant that crude oil prices continued to increase.

In April 2021, OPEC and non-OPEC countries agreed to increase output marginally, by 0.35 million barrels per day in May and June, and 0.4 million barrels per day in July 2021. At a meeting in July 2021, they agreed to increase crude oil production by 0.4 million barrels per day starting in August 2021.

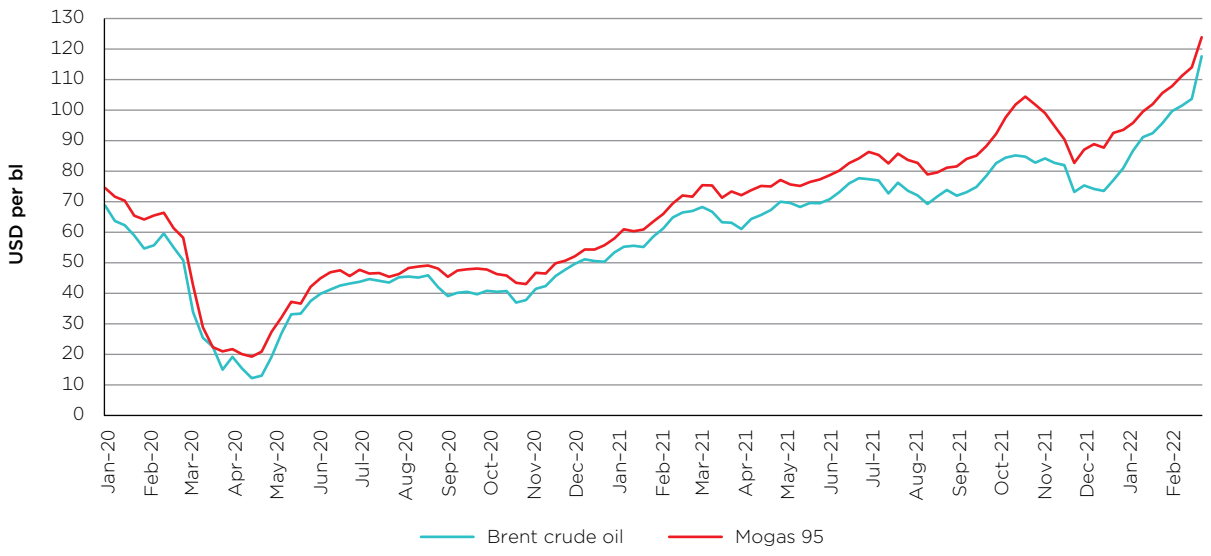
However, the impact of Hurricane Ida on crude oil production in the United States adversely affected supply in August 2021.

In September and October 2021, crude oil prices were influenced by the energy crisis associated with shortages of gas, coal and electricity in some countries in Europe and Asia, which increased demand for crude oil as an alternative source of energy. In November 2021 crude oil prices started to decrease, as higher prices led to increased supply. In December 2021, crude oil prices were also lower following increasing cases of the Omicron coronavirus variant in Europe and the United States, and the implications this could have on oil demand.

Higher crude oil prices in early 2022 reflect geo-political tensions and the convergence of the Russian invasion of Ukraine (noting that Russia is a large supplier of crude oil), ongoing commitments by OPEC limiting increases in supply of crude oil, stronger demand for crude oil as some countries relaxed COVID-19 restrictions, and supply disruptions in some countries.

The following chart shows the steady increase in international crude oil and Mogas 95 prices from mid-2020, and the sharp increase from January 2022.

Weekly average Brent crude oil and Mogas 95 prices: January 2020 to early March 2022



Source: ACCC calculations based on data from Argus Media.

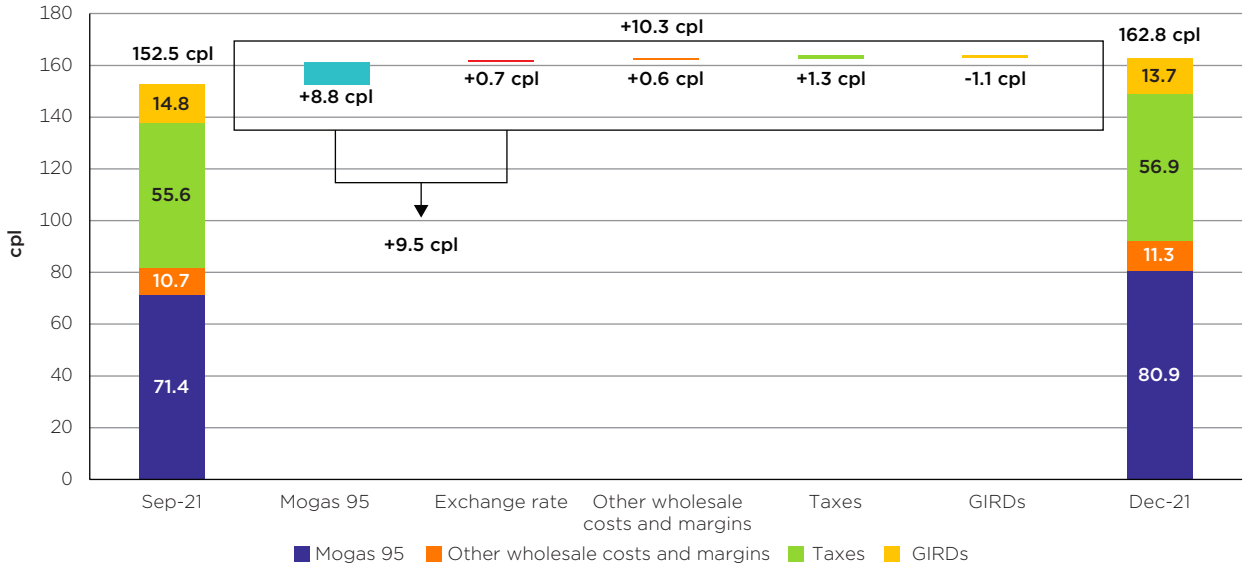
The increase in Mogas 95 prices was the main contributor to higher retail prices in the December quarter

The 3 broad components of the retail price of petrol are: the international price of refined petrol (Mogas 95), taxes (excise and GST) and other costs and margins at the wholesale and retail levels. The 2 largest components of the average retail price – Mogas 95 and taxes – accounted for 86% of the average price of petrol in the December quarter 2021.

The following chart shows the change in the components of petrol across the 5 largest cities between the September quarter 2021 and the December quarter 2021. The chart separates the other costs and margins component into 2 elements: other wholesale costs and margins (which includes international shipping costs and other import costs, and wholesale costs and margins), and retail costs and margins (represented by gross indicative retail differences (GIRDs)).[4]

4 GIRDs are an indicator of gross retail margins. They are the difference between retail prices and indicative wholesale prices (terminal gate prices (or TGPs)). See page 10 for further description.

Changes in the components of average retail petrol prices in the 5 largest cities: September quarter 2021 to December quarter 2021



Source: ACCC calculations based on data from FUELtrac, Argus Media, Ampol, bp, Mobil, Viva Energy, RBA and the Australian Taxation Office (ATO).

Notes: All prices are in Australian cents per litre.

The taxes component includes fuel excise and wholesale GST. The small amount of retail GST is included in GIRDs rather than in taxes, to be consistent with GIRDs reported elsewhere in this report. As a result, the taxes component in this chart is not the same as the taxes component in the bowser in the December quarter 2021 – Petrol snapshot.

The chart shows that the increase in average retail petrol prices in the 5 largest cities in the December quarter 2021 (10.3 cpl) was mainly due to an increase in the price of Mogas 95.

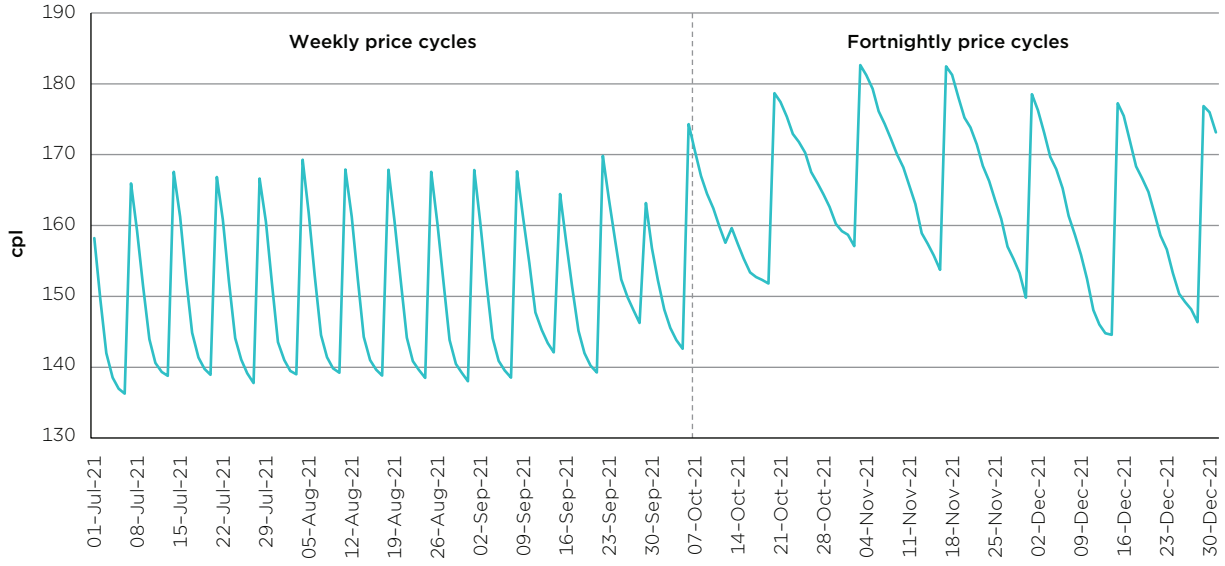
The AUD–USD exchange rate is a significant determinant of Australia's retail petrol prices because imported crude oil and international refined petrol (from which domestically refined petrol is priced) is bought and sold in US dollars in global markets. Excluding the effect of changes in the AUD–USD exchange rate (which decreased by US 0.6 cents in the quarter), Mogas 95 prices would have increased by 8.8 cpl in the quarter. The lower AUD–USD exchange rate however compounded the increase in Mogas 95 prices and resulted in Mogas 95 prices increasing by an additional 0.7 cpl in AUD terms. The net effect of movements in Mogas 95 prices and the AUD–USD exchange rate was that Mogas 95 prices in Australian cents per litre increased by 9.5 cpl.

The price cycle in Perth changed from weekly to fortnightly

In Perth, petrol price cycles had been consistently occurring on a weekly basis since 2011. In recent years, the regular weekly petrol price cycles in Perth generally reached a peak price on a Wednesday and decreased to a low price on the following Tuesday, making them very predictable for Perth motorists.

The following chart clearly shows the change in the Perth petrol price cycle from weekly to fortnightly from early October 2021.

Daily average petrol prices in Perth: 1 July 2021 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac.

The change in the price cycle appears to be due to an initial change in pricing strategy at Ampol and Caltex branded sites, which moved to a fortnightly cycle, in early September 2021. There was gradual adoption of a fortnightly pricing cycle by other brands in Perth in the following 6 weeks.[5]

It is not clear why Ampol chose to move to a fortnightly price cycle. The WA Department of Mines, Industry Regulation and Safety (the department that maintains the WA FuelWatch scheme) contacted fuel companies but no explanation for the change in the price cycle was provided.

In the 7 fortnightly prices cycles in Perth following the change in October 2021, the average increase in prices from the trough to the peak of the cycle was largely unchanged from the average price increase that occurred in weekly cycles before the change.

The frequency of the price cycle has been reasonably consistent since the change, with average prices typically increasing to a peak every second Wednesday, and decreasing over the next 2 weeks. Perth still has a relatively short price cycle compared with Sydney, Melbourne, and Brisbane where cycles are generally much longer. The average price cycle duration in Adelaide was around 2 weeks in 2021.

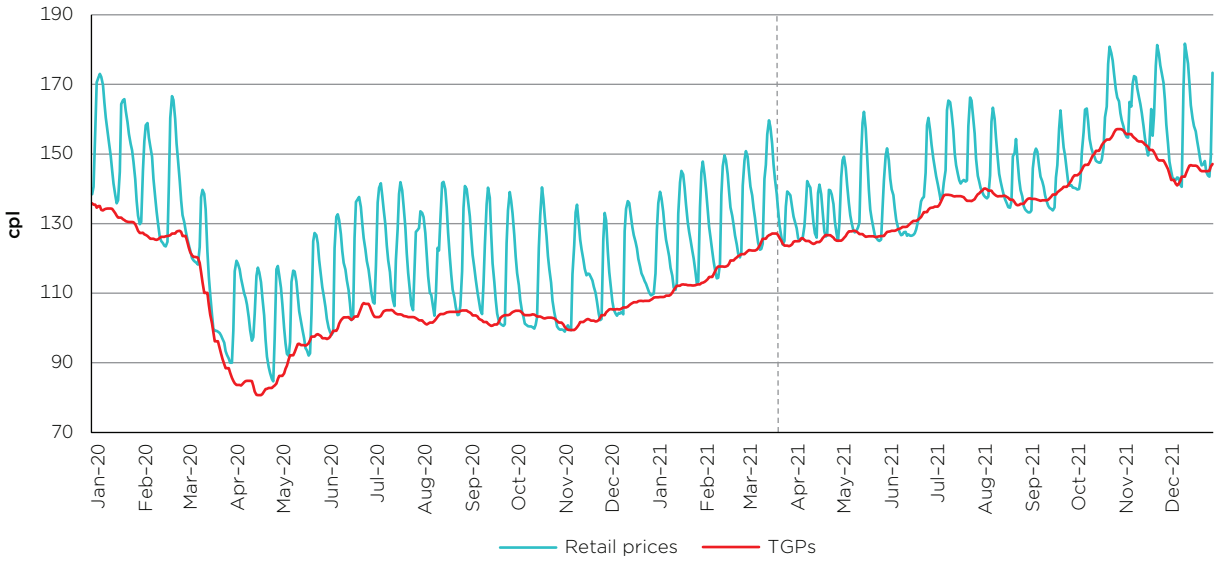
Adelaide had the lowest average retail petrol prices of all capital cities

In the December quarter 2021, average retail prices in Adelaide were 157.9 cpl, the lowest of all capital cities. This was the third consecutive quarter in which Adelaide had the lowest average capital city prices.

The introduction of the South Australian fuel price transparency scheme on 20 March 2021, which provides motorists with access to real-time fuel price information, may be one factor that impacted Adelaide prices in 2021. The pattern of petrol price cycles in Adelaide changed directly after the scheme commenced, as shown in the following chart.

5 The ACCC's analysis in Appendix B of publicly available data through the WA FuelWatch scheme clearly shows these changes.

Daily average retail petrol prices and TGPs in Adelaide: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac, Ampol, bp, Mobil and Viva Energy.

Note: The dotted line in the chart indicates when the South Australian fuel price transparency scheme commenced.

Retail prices at the peak of price cycles in Adelaide were noticeably lower on a number of occasions after the South Australian fuel price transparency scheme commenced in March 2021, compared with the period before. The average increase in prices to the peak of the cycle was 24.8 cpl in the 9 months after the scheme commenced, compared with an average increase of 34.8 cpl in the 9 months prior. At the end of 2021, however, the last 3 price cycle increases in Adelaide were each more than 30 cpl.

Demand for petrol increased as COVID-19 restrictions in some states were eased

The easing of COVID-19 restrictions on travel and economic activity in some states in the December quarter 2021, particularly in New South Wales and Victoria, meant that there was significantly more petrol being purchased from retail sites in Australia. The following chart shows that petrol sales volumes in the December quarter 2021 (2,292 million litres (ML)) were around 21% higher than in the previous quarter (1,901 ML), and were the highest since the March quarter 2020.

Quarterly sales volumes of regular unleaded petrol in Australia: March quarter 2019 to December quarter 2021

Source: Department of Industry, Science, Energy and Resources (DISER), *Australian Petroleum Statistics - Data Extract December 2021*, at: https://www.energy.gov.au/publications/australian-petroleum-statistics-2021, accessed on 22 February 2022.

In New South Wales, petrol sales volumes in the December quarter 2021 were around 47% higher than in the September quarter 2021, and in Victoria they were around 31% higher.

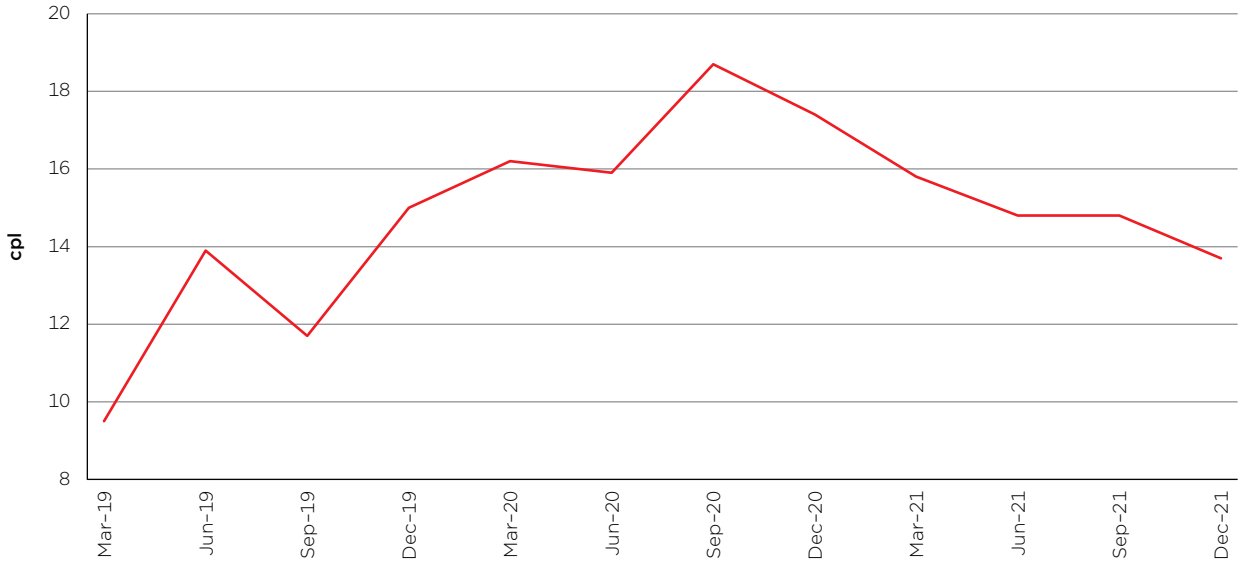
Quarterly average sales volumes for Australia as a whole in 2021 (2,175 ML) were around 4% higher than in 2020 (2,094 ML) and around 11% lower than in 2019 (2,430 ML).

Gross indicative retail differences decreased

In the December quarter 2021, average gross indicative retail differences (GIRDs) in the 5 largest cities were 13.7 cpl, a decrease of 1.1 cpl from the previous quarter.

The following chart shows that quarterly average GIRDs in the 5 largest cities trended downwards over the 5 quarters following record high GIRDs in the September quarter 2020 (18.7 cpl). Average GIRDs decreased by 5.0 cpl over the next 5 quarters, to 13.7 cpl in the December quarter 2021, which was lower than levels before the COVID-19 pandemic.

Quarterly average GIRDs in the 5 largest cities: March quarter 2019 to December quarter 2021



Source: ACCC calculations based on data from FUELtrac, Ampol, bp, Mobil, Viva Energy and WA FuelWatch.

GIRDs are a broad indicator of gross retail margins. The ACCC calculates GIRDs by subtracting average wholesale prices (as indicated by published TGPs) from average retail petrol prices. TGPs are prices that wholesalers charge for petrol in the spot market.[6] TGPs reflect the wholesale price of petrol only and exclude other retail operating costs (such as freight, the cost to use a particular brand, rent, labour and utility costs). As GIRDs include these costs, they should not be confused with actual retail profits.

GIRDs reported by the ACCC are averages across the 5 largest cities over time. The level of prices, costs and profits vary significantly between retail operations and not all retail petrol sites will be achieving these gross margins. Some will be achieving higher gross margins, others lower. The ACCC's petrol market studies published between 2015 and 2017 found that profits per retail petrol site could vary considerably between retailers, with some retail sites making substantial profits and others making very little.

A broad influence over the past 5 quarters that likely reduced average GIRDs in the 5 largest cities in aggregate was the increase in international crude oil, refined petrol and wholesale petrol prices between November 2020 to November 2021. When TGPs increase by large amounts in a short period, lags between changes in TGPs and changes in retail prices often have the effect of reducing GIRDs.

Petrol sales volumes also had an impact on GIRDs. As sales volumes were significantly affected by COVID-19 restrictions, retailers experiencing lower sales may have been keeping retail prices higher to cover their fixed costs, leading to higher GIRDs.[7]

In the September quarter 2021, GIRDs were broadly stable in the 5 largest cities in aggregate, but they increased in both Sydney and Melbourne. COVID-19 restrictions and lower turnover of petrol in New South Wales and Victoria likely influenced higher GIRDs in those cities.

In the December quarter 2021, the higher turnover of petrol in New South Wales and Victoria likely had the opposite effect as average GIRDs decreased in both Sydney and Melbourne. As COVID-19 restrictions eased in these states, sales volumes recovered with more petrol being purchased. This likely affected GIRDs, as some retailers may not have found it as necessary to keep retail prices higher to cover their fixed costs.

6 The major wholesalers post these prices on their websites on a regular basis. Although few wholesale transactions occur at TGPs, they are indicative wholesale prices. TGPs vary across brands and cities.

7 Petrol retailing is a high-volume, low-margin business with many fixed costs (such as rent and the cost to use a particular brand). This means when sales volumes decline, the cost per unit of petrol will increase. To generate revenue to partially cover their fixed costs, some retailers may have been setting retail prices higher than they otherwise would.

The Australian Government released draft Rules on the Minimum Stockholding Obligation under its fuel security package

One element of the Australian Government's fuel security package, established in June 2021, creates a minimum stockholding obligation (MSO) for fuel stocks.[8] The MSO will apply to both importers and refiners in Australia, requiring them to maintain minimum stocks of jet fuel, petrol and diesel. It is scheduled to start from 1 July 2022, with a 40% increase in diesel stockholdings from mid-2024.

The Minister for Industry, Energy and Emissions Reduction will make Rules to set out the detailed requirements of the MSO, and on 31 January 2022 the Department of Industry, Science, Energy and Resources (DISER) released draft Rules for the MSO for consultation.[9] The draft Rules set out details regarding:

- volume thresholds to determine whether a company will be subject to an MSO
- a formula to determine the level of each company's stockholding obligation
- a process where the quantity of a fuel required to be held by a company must be measured and confirmed on a regular 'obligation day'
- an intermediary market, for stocks which are outside of a company's direct control to be able to be counted toward their MSO
- an audit and compliance framework for the scheme
- transitional arrangements in place in the 2 years to 1 July 2024 and changes to the Rules to apply from that time.

The ACCC recognises the Government's stated objectives of its broader fuel security package, including security of fuel supply, and supporting local industry and employment. However, it is important that the design of the MSO arrangements does not have adverse implications for fuel prices and competition.

The MSO arrangements will impose additional costs on refiners and importers. These costs may include building additional storage capacity and importing fuels more frequently, and industry participants faced with additional costs are likely to pass them on in the form of higher wholesale and retail fuel prices.

The ACCC also considers that additional costs from the MSO arrangements do not appear to be evenly distributed among refiners and importers, particularly as the 40% increase in diesel stockholdings from July 2024 is intended only for importers. Applying a level playing field in how the scheme will affect different companies will aid the competitive dynamics in the wholesale market, and reduce impacts on competition and fuel prices.

The ACCC supports other elements of the MSO arrangements, such as having transitional arrangements in place to assist industry adapt to the MSO and to minimise compliance costs.

The proposed intermediary market is another approach to assist industry to minimise compliance costs. While this may provide flexibility for industry to adapt to the MSO, and DISER notes its intension to monitor it closely, the ACCC considers that the market's design should be carefully considered to ensure it adds to flexibility for the whole industry and does not create imbalances between companies.

8 See Parliament of Australia, *Fuel Security Bill 2021*, at: https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bId=r6716, accessed on 22 February 2022.

9 DISER, Consultation hub, *Minimum stockholding obligation in the Fuel Security Act: exposure drafts*, at: https://consult.industry.gov.au/minimum-stockholding-obligation-draft-rules, accessed on 22 February 2022.

Regional prices on average were higher than prices in the 5 largest cities

The ACCC monitors fuel prices in all capital cities and over 190 regional locations across Australia. In the December quarter 2021, average prices in regional locations in aggregate (regional prices) were 164.8 cpl, which was 2.0 cpl higher than average prices in the 5 largest cities (162.8 cpl). This was a reverse from the previous 5 quarters when average regional prices were lower than average prices in the 5 largest cities.

There are 2 main factors that are likely to have contributed to regional prices being lower in past quarters.

- Petrol retailers in the 5 largest cities, faced with a reduction in demand associated with various COVID-19 restrictions and lockdowns, may have been setting retail prices higher to partially cover their fixed costs. As demand may have been more stable in many regional locations, retailers in those locations may not have had the same incentive to increase their retail prices by as much.
- While retail petrol prices in regional locations generally follow movements in wholesale prices, they often do not respond as quickly – either up or down – relative to prices in the 5 largest cities. As wholesale prices increased between November 2020 and November 2021, the change in retail prices in regional locations is likely to have been slower. The frequency of retail site turnover of fuel influences these lags. They are longer in regional locations where volume turnover is smaller, and the degree of competition is often not as intense.

In the December quarter 2021, the higher relative prices in regional locations may have been influenced by the increase in demand for petrol in Sydney and Melbourne as jurisdictions relaxed COVID-19 restrictions (noted earlier), and the decrease in wholesale prices in the second half of the quarter being reflected more slowly in regional locations than in retail prices in the 5 largest cities.

Darwin prices were not lower than prices across the 5 largest cities in this quarter

In the December quarter 2021, average retail prices in Darwin were 166.6 cpl. This was 3.8 cpl higher than average prices across the 5 largest cities. This was only the second time in the past 12 quarters when retail prices in Darwin were above those in the 5 largest cities.

Possible factors contributing to the relatively low retail prices in Darwin include the change in price setter from Coles to Viva Energy at Coles Express retail sites in 2019, the opening of a second FuelXpress retail site in 2019, and the opening of a new United retail site in 2020. Motorists in Darwin may have become more aware of changes in pricing behaviour in the Darwin market through information available from the fuel price transparency scheme in the Northern Territory (MyFuel NT), which commenced in November 2017.

Diesel and LPG prices increased

In the December quarter 2021, diesel and liquefied petroleum gas (LPG) prices in the 5 largest cities both increased:[10]

- average retail diesel prices were 162.8 cpl in the quarter, an increase of 15.2 cpl (or around 10%) from the September quarter 2021 (147.6 cpl)
- average retail LPG prices were 106.0 cpl in the quarter, an increase of 13.0 cpl (or around 14%) from the September quarter 2021 (93.0 cpl).[11]

10 References to LPG in this report refer to automotive LPG.

11 For petrol, the percentage change in the December quarter 2021 was an increase of around 7%.

1. Developments in the petroleum industry

1.1 Demand for petrol increased as COVID-19 restrictions in some states were eased

The easing of COVID-19 restrictions on travel and economic activity in some states in the December quarter 2021, particularly in New South Wales and Victoria, meant that there was significantly more petrol being purchased from retail sites in Australia. Chart 1.1 shows that petrol sales volumes in the quarter were around 21% higher than in the previous quarter, and were the highest since the March quarter 2020.

Chart 1.1: Quarterly sales volumes of regular unleaded petrol in Australia: March quarter 2019 to December quarter 2021

Source: DISER, *Australian Petroleum Statistics - Data Extract December 2021*, at: https://www.energy.gov.au/publications/australian-petroleum-statistics-2021, accessed on 22 February 2022.

In New South Wales, petrol sales volumes in the December quarter 2021 were around 47% higher than in the September quarter 2021, and in Victoria they were around 31% higher.

The chart shows that initial COVID-19 restrictions imposed in mid-March 2020 resulted in average petrol sales volumes in Australia being substantially lower in the June quarter 2020. Petrol sales volumes partially recovered in the 2 subsequent quarters as restrictions in parts of Australia eased.

In the March quarter 2021, sales volumes declined slightly to 2,250 million litres (ML), from 2,289 ML in the December quarter 2020, and remained virtually the same in the June quarter 2021 (2,257 ML). In the September quarter 2021, sales volumes decreased significantly to 1,901 ML. In the December quarter 2021, sales volumes increased to 2,292 ML.

Quarterly average sales in 2021 (2,175 ML) were around 4% higher than in 2020 (2,094 ML) and around 11% lower than in 2019 (2,430 ML).

1.2 Supply issues affected the availability of AdBlue

On 9 December 2021, the Australian Government announced the establishment of an AdBlue Taskforce to work across government and with industry to develop solutions to any potential future supply constraints of diesel exhaust fluid, also known as AdBlue.[12]

AdBlue is an exhaust system additive used in diesel engines to control noxious emissions and is critical to the operation of modern diesel engines. An essential input in the manufacture of AdBlue is refined urea. Australia currently manufactures almost all AdBlue for the Australian market and has imported almost all of the required refined urea.

In December 2021 AdBlue manufacturers were facing difficulties securing supply of refined urea. According to industry reports the global shortage of refined urea was the result of export restrictions imposed by China, which prompted aggressive buying by some nations and limitations on exports by others.

On 20 December 2021, the Australian Government announced that it had struck an agreement with fertiliser manufacturer Incitec Pivot to secure local production of refined urea for the supply of AdBlue.[13] Under the agreement, Incitec Pivot will rapidly design, trial and, on completion of successful tests, scale-up manufacturing of significant quantities of technical grade granular Urea. At the same time the Government also said that it had accepted an offer from the Indonesian Government to provide 5,000 tonnes of refined urea in January 2022.

On 22 December 2021, the ACCC granted an urgent interim authorisation permitting manufacturers and other industry stakeholders to collaborate on arrangements for the supply of AdBlue.[14]

Authorisation provides statutory protection from court action for conduct that might otherwise raise concerns under the competition provisions of the *Competition and Consumer Act 2010.* The ACCC may grant an authorisation when it is satisfied that the public benefit from the conduct outweighs any public detriment. Further information about the interim authorisation is provided in section 2.2.

By 25 January 2022, Incitec Pivot was producing over 3 million litres of AdBlue a week. This represents around 75% of Australia's AdBlue needs. This temporary securement of local capabilities through Incitec Pivot complements the ongoing work to secure international supplies and coordination by the Government and industry to manage stock supplies nationally.[15]

1.3 The Western Australian FuelWatch website was upgraded

On 15 October 2021, the Western Australian Department of Mines, Industry Regulation and Safety announced that a revamped FuelWatch website had been launched with enhanced search and interactive mapping features which make it quick and easy for Western Australian motorists to find the cheapest fuel retail sites in their area.[16]

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12 The Hon Angus Taylor MP, Minister for Industry, Energy and Emissions Reduction, *AdBlue supplies in Australia*, media release, 9 December 2021, at: https://www.minister.industry.gov.au/ministers/taylor/media-releases/adblue-supplies-australia, accessed on 22 February 2022.

13 The Hon Angus Taylor MP, Minister for Industry, Energy and Emissions Reduction, and the Hon Dan Tehan MP, Minister for Trade, Tourism and Investment, *Increasing AdBlue supplies and protecting Australia's transport industry*, joint media release, 20 December 2021 at: https://www.minister.industry.gov.au/ministers/taylor/media-releases/increasing-adblue-supplies-and-protecting-australias-transport-industry, accessed on 22 February 2022.

14 ACCC, *Industry allowed to collaborate on AdBlue supply arrangements*, media release, 22 December 2021, at: https://www.accc.gov.au/media-release/industry-allowed-to-collaborate-on-adblue-supply-arrangements.

15 The Hon Angus Taylor MP, Minister for Industry, Energy and Emissions Reduction, *Ramp up in local AdBlue production keeps Australia moving*, media release, 25 January 2022, at: https://www.minister.industry.gov.au/ministers/taylor/media-releases/ramp-local-adblue-production-keeps-australia-moving, accessed on 3 March 2022.

16 Department of Mines, Industry Regulation and Safety, *New FuelWatch website makes it easy to find cheapest fuel sites*, media release, 15 October 2021, at: https://www.commerce.wa.gov.au/announcements/new-fuelwatch-website-makes-it-easy-find-cheapest-fuel-sites, accessed on 22 February 2022.

The Western Australian Commissioner for Consumer Protection, Gary Newcombe, stated that when FuelWatch was first launched in January 2001, it was the first fuel price monitoring program of its kind in the world. Under the FuelWatch scheme, petrol retailers are required to notify the Western Australian Government of the next day's retail price by 2:00 pm each day. Petrol retailers must sell petrol at this price for a 24-hour period from 6:00 am on the following morning. The petrol price at each retail site is publicly available on the FuelWatch website and app.

The updated FuelWatch website displays the brands and prices of all retail sites within an area defined by the user on a dynamic map. A list of all available retail sites from the lowest to the highest price is displayed next to the map. After 2:30 pm each day, the website will show both that day's and the next day's prices.

1.4 The New South Wales FuelCheck app has been downloaded more than 1.5 million times

On 1 November 2021, the New South Wales Minister for Digital and Customer Service, Victor Dominello, said that the FuelCheck app had been downloaded more than 1.5 million times.[17]

The FuelCheck app provides motorists with real-time data to find the lowest price for all fuel types across every retail site in New South Wales. The app allows users to save their favourite retail sites and includes a trends page showing the cheapest day of the week to fill up and the day's price range.

Mr Dominello commented that there is often more than a 20.0 cpl gap in price between retail sites in the same suburb, which would mean that a motorist filling up a 60 litre vehicle could save $12 by filling up at the cheaper site.

1.5 The National Measurement Institute reported on compliance of retail fuel dispensers and fuel quality in 2020–21

The National Measurement Institute (NMI) administers the *National Measurement Act 1960* and associated regulations to ensure that for trade purposes: measuring instruments are fit for purpose, measurements are made correctly, and representations about measurements are accurate. In October 2021, the NMI released its annual report on legal metrology compliance activities and outcomes in 2020–21.[18]

With respect to compliance of retail fuel dispensers it found that:

- Of 6,258 fuel dispensers tested, 221 (3.5%) were delivering more fuel than indicated on the display (to the benefit of consumers) and 245 (3.9%) were delivering less fuel (to the detriment of consumers). This represented a significant improvement on inaccuracy levels detected in recent years.
- The great majority of dispensers delivering less fuel were inaccurate in the range of one to 3 times the maximum permissible error of 0.3%. This equates to between 30 cents and 90 cents for every $100 of fuel delivered.
- If applied to 3.9% of all fuel sales in 2020–21, this would amount to between $3 million and $9 million in aggregate detriment for the community.
- Of 260 fuel-related complaints received by the NMI in 2020–21, only 17 (6.5%) were found to be justified when investigated.

17 Minister for Digital and Customer Service, Victor Dominello, *Free app gives motorists fuel for thought*, media release, 1 November 2021, at: https://www.nsw.gov.au/media-releases/free-app-gives-motorists-fuel-for-thought, accessed on 22 February 2022.

18 National Measurement Institute, *Legal Metrology Compliance in 2020–21*, October 2021, at: https://www.industry.gov.au/data-and-publications/legal-metrology-compliance-in-2020-21, accessed on 22 February 2022.

In 2020–21 the NMI was also responsible for administering compliance with the *Fuel Quality Standards Act 2000*. Under this program, the NMI undertook sampling and testing to help maintain the integrity of liquid fuel composition throughout Australia.

In 2020–21, the NMI visited 346 retail sites for fuel quality compliance audits, undertook onsite screening of 1,138 samples, and submitted 157 samples for testing. Seven samples submitted for testing were found to be non-compliant, although all were only marginally outside limits required under the legislation.

1.6 A new quarterly report on the Australian fuel retail industry was released

On 2 December 2021, the inaugural *Australian Fuel Industry Quarterly Update* was released, providing an overview of the operation of the fuel retail industry in the September quarter 2021.[19] The report is a joint initiative of the Australasian Convenience and Petroleum Marketers Association (ACAPMA) and Informed Sources.

ACAPMA is the national peak body representing the interests of the fuel wholesale, distribution and retail industry in Australia. It directly represents 95% of all fuel distributors and directly and indirectly (via franchisees and distributor-owned retailers) around 75% of service stations operating in Australia.[20] Informed Sources collects, refines, and delivers data for the fuel, convenience and retail sectors.[21]

According to the Chief Executive Officer of ACAPMA, Mark McKenzie, the quarterly update is designed to focus on the structure of the fuel retail industry in Australia. It provides strategic insights on: the various grades of petrol and diesel products, the national retail site population, the branding of retail sites, and trend information about average wholesale prices and retail prices.

The ACCC supports information on the fuel industry being widely available to the community and welcomes this initiative.

1.7 The Independent Pricing and Regulatory Tribunal in New South Wales announced the wholesale ethanol price for 2022

On 17 December 2021, the Independent Pricing and Regulatory Tribunal (IPART) in New South Wales announced that it had determined a reasonable wholesale price for fuel ethanol from 1 January to 31 December 2022 of 149.3 cpl.[22] If producers sell wholesale ethanol for more than this, fuel retailers can apply for an exemption from meeting the ethanol mandate in New South Wales. The mandate requires retailers to ensure that 6% of all fuel they sell is ethanol.

IPART sets the ethanol price based on what it would cost retailers if they had to buy ethanol from overseas. The price for 2022 is around 30% higher than the price for 2021 (114.2 cpl). The increase was driven by rising demand for fuel ethanol globally as economies recover from COVID-19.

19 ACAPMA, *Inaugural Australian Fuel Industry Update (Sep 21 Qtr) by ACAPMA*, 2 December 2021, at: https://acapmag.com.au/2021/12/inaugural-australian-fuel-industry-update-sep-21-qtr/, accessed on 22 February 2022.

20 ACAPMA, 'About', at: https://acapma.com.au/about/, accessed on 22 February 2022.

21 Informed Sources, https://informedsources.com/, accessed on 22 February 2022.

22 IPART, *Wholesale price for fuel ethanol 2022, Determination*, 17 December 2021, at: https://www.ipart.nsw.gov.au/sites/default/files/cm9_documents/Fact-Sheet-Wholesale-Price-for-Fuel-Ethanol-2022-December-2021.PDF, accessed on 22 February 2022.

1.8 Fuel prices were the largest contributor to the increase in the consumer price index

On 25 January 2022, the Australian Bureau of Statistics released the December quarter 2021 Consumer Price Index (CPI) results.[23] The CPI is a measure of inflation in the Australian economy. It measures the price change of a 'basket' of goods and services purchased by Australian households. According to the 2015–16 Household Expenditure Survey, on average, Australians spend approximately $2,300 on automotive fuel each year. This is reflected in the measurement of the CPI with a weight of 3.3% of the CPI basket.[24]

In the December quarter 2021, the CPI increased by 1.3%, with the most significant price increase being automotive fuel (6.6%). Annually, the CPI increased by 3.5% in 2021, with automotive fuel the most significant contributor, with an increase of 32.3%.

23 Australian Bureau of Statistics, *Consumer Price Index, Australia, December 2021*, 25 January 2022, at: https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release#media-releases, accessed on 22 February 2022.

24 Australian Bureau of Statistics, *Automotive fuel in the CPI*, released 23 March 2021 and updated 25 January 2022, at: https://www.abs.gov.au/articles/automotive-fuel-cpi, accessed on 22 February 2022.

2. ACCC activities

2.1 ACCC and the petrol industry

The Australian Competition and Consumer Commission (ACCC) is an independent Commonwealth statutory agency that promotes competition, fair trading and product safety for the benefit of consumers, businesses and the Australian community. The primary responsibilities of the ACCC are to enforce compliance with the competition, consumer protection, fair trading and product safety provisions of the *Competition and Consumer Act 2010* (CCA), regulate national infrastructure and undertake market studies.

In addition to those primary responsibilities, in the petrol industry the ACCC monitors prices, costs and profits relating to the supply of petroleum products in Australia under a direction from the Treasurer.[25] It is also responsible for administration of the Oil Code.[26]

Market forces determine wholesale and retail petrol prices in Australia. The ACCC does not set prices in petrol markets and does not have the powers to do so. In the absence of anticompetitive conduct that is in breach of the CCA (such as price fixing with competitors), high petrol prices are not illegal.

The ACCC's petrol monitoring role is to assist consumers to navigate this complex industry. Through its petrol monitoring reports, industry reports and other information channels, the ACCC promotes transparency in the Australian petroleum industry and improved public awareness of the factors that determine retail petrol prices. ACCC monitoring can also shine a light on and place pressure on less competitive pricing.

2.2 Activities in the quarter

2.2.1 Interim authorisation was granted permitting AdBlue manufacturers to collaborate on supply arrangements

On 21 December 2021, the ACCC received an application for authorisation from Brenntag Australia on behalf of itself and other manufacturers (subsequently referred to as the participants) to share information and collaborate to obtain adequate supply of refined urea to ensure sufficient supply of AdBlue – for Australian consumption, and the prioritised distribution of refined urea and AdBlue should shortages emerge.

The applicant sought authorisation, until 1 December 2022, for the participants to collaborate to secure adequate supplies of refined urea, promote adequate production of AdBlue for the Australian market, ensure security of supply of refined urea and AdBlue for Australian businesses and consumers, or prioritise access to refined urea and AdBlue as necessary, including by:

- sharing commercially sensitive information (for example, relating to stock levels, supply channels and manufacturing opportunities), but not relating to price
- facilitating or ensuring the acquisition and/or supply of refined urea or AdBlue
- prioritising access to refined urea and AdBlue according to need (for example, to particular geographical areas or consumers) as directed by the Australian Government
- collaborating on the production of AdBlue
- implementing sales limits (to be applied uniformly across all purchasers).

25 See the *Competition and Consumer (Price Monitoring—Petroleum Fuels) Direction 2019,* at: https://www.legislation.gov.au/Details/F2019L01657.

26 The Oil Code is a prescribed mandatory industry code of conduct, the purpose of which is to regulate the conduct of suppliers, distributors and retailers in the downstream petroleum industry.

On 22 December 2021, the ACCC granted urgent interim authorisation, with conditions, to enable the participants to engage in the above conduct, prior to the ACCC's final determination.[27]

The conditions allow coordination to occur only in relation to meetings either convened or attended by Australian Government representatives. The ACCC is able to attend the meetings and, under the conditions, has oversight over the outcomes of meetings. Coordination is only allowed to occur for the specific purpose of ensuring sufficient supply of AdBlue. The coordination does not allow for any agreements about the price of AdBlue supplied to consumers.

2.2.2 Fuel Consultative Committee

In November 2021, the ACCC hosted a meeting of the Fuel Consultative Committee (FCC), which comprises representatives from major fuel retailers, refiner-wholesalers, peak industry associations and motoring organisations. The FCC generally meets twice a year. However, due to the COVID-19 pandemic, this was the first meeting of the FCC in 2 years. The information and views shared at the meeting increase the ACCC's understanding of fuel industry issues and assist it in undertaking its roles related to competition and consumer protection in the fuel industry.

Topics discussed at the FCC meeting included: an update on ACCC fuel related activities and monitoring, and member updates on a range of issues including: industry supply chain responses to the COVID-19 pandemic, the Australian Government's fuel security package, refinery closures and conversion of infrastructure to import terminals, recent influences on metropolitan and regional fuel prices, observations on petrol price cycles in the 5 largest cities, and developments in fuel price transparency arrangements.

2.2.3 Other stakeholder engagement and communications activity

In the December quarter 2021, the ACCC responded to fuel-related media enquiries and correspondence on retail fuel prices, petrol price cycles, fuel price information and competition issues.

In the December quarter 2021, the fuel-related pages on the ACCC website received 168,879 page views, an increase of 30,141 (around 22%) from the previous quarter. Of this total, the petrol price cycles web page received 156,961 page views, an increase of 30,667 (around 24%) from the previous quarter. This was the second most viewed page on the ACCC website in the quarter.

27 ACCC, *Industry allowed to collaborate on AdBlue supply arrangements*, media release, 22 December 2021.

3. Retail petrol price movements in the 5 largest cities

This chapter focuses on petrol prices in the 5 largest cities (Sydney, Melbourne, Brisbane, Adelaide and Perth).[28] Chapter 5 analyses petrol prices in the smaller capital cities (Canberra, Hobart and Darwin) and regional locations across Australia.

3.1 Retail prices increased to their highest level in 7 years in real terms

In the December quarter 2021, average retail petrol prices in the 5 largest cities were 162.8 cpl. This was an increase of 10.3 cpl from the September quarter 2021 (152.5 cpl), and the fourth consecutive quarter in which prices increased. Between the December quarter 2020 and the December quarter 2021 average retail petrol prices increased by 41.4 cpl (around 34%). In **real** terms, prices in the December quarter 2021 were the highest in 7 years (prices were 166.3 cpl in the September quarter 2014).

Table 3.1 shows quarterly average retail prices in the December quarter 2021, the September quarter 2021 and the change in each of the 5 largest cities.

Table 3.1: Quarterly average retail petrol prices in each of the 5 largest cities: September quarter 2021 and December quarter 2021 – cpl

Quarter	Sydney[29]	Melbourne	Brisbane	Adelaide	Perth	5 largest cities
Sep–21	156.0	155.2	156.6	145.3	149.6	**152.5**
Dec–21	166.2	162.2	164.5	157.9	163.3	**162.8**
Change	**10.2**	**7.0**	**7.9**	**12.6**	**13.7**	**10.3**

Source: ACCC calculations based on FUELtrac data.

Table 3.1 shows that prices increased in all cities in the December quarter 2021, and that:

- Sydney's average retail prices were the highest (166.2 cpl).
- Adelaide's average retail prices were the lowest (157.9 cpl). This was the third consecutive quarter in which Adelaide had the lowest prices.
- Prices increased the most in Perth (by 13.7 cpl) and the least in Melbourne (by 7.0 cpl).

Chart 3.1 shows that 7-day rolling average retail petrol prices in the 5 largest cities were at a high of 156.3 cpl in mid-January 2020 before decreasing substantially to record low prices on 29 April 2020 (92.4 cpl).[30] Prices increased in May and June 2020, and in the 6 months between July and December 2020, 7-day rolling average retail petrol prices were relatively stable within a 21.4 cpl band between 112.4 cpl and 133.8 cpl.

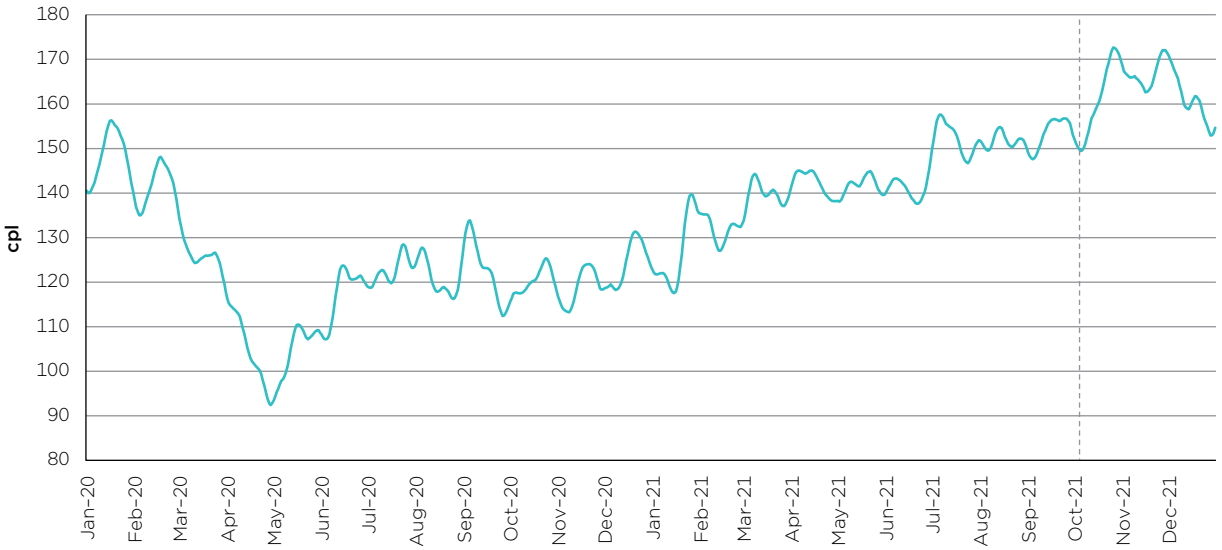
Prices trended upwards in the March quarter 2021 and were relatively stable in the June quarter 2021. Prices increased in the September quarter 2021 to a high of 157.6 cpl on 6 July 2021 and were relatively stable within a 10.8 cpl band for the rest of the quarter.

28 As noted in Appendix A, the ACCC has moved from reporting E10 prices in Sydney to reporting RULP prices. In this chapter, Sydney data generally includes E10 data up to 30 June 2021 and RULP prices thereafter.

29 For comparison, quarterly average E10 prices in Sydney were 154.5 cpl in the September quarter 2021 and 164.8 cpl in the December quarter 2021, an increase of 10.3 cpl.

30 In **real** terms, they were the lowest recorded since the PSA began collecting comprehensive retail prices in all 5 cities in May 1991.
Charts in chapter 5 show 7-day rolling average retail petrol prices in each of the 5 largest cities over the 2 years to 31 December 2021.

Chart 3.1: Seven-day rolling average retail petrol prices in the 5 largest cities: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac.

Notes: The area to the right of the dotted vertical line in this chart represents the December quarter 2021.

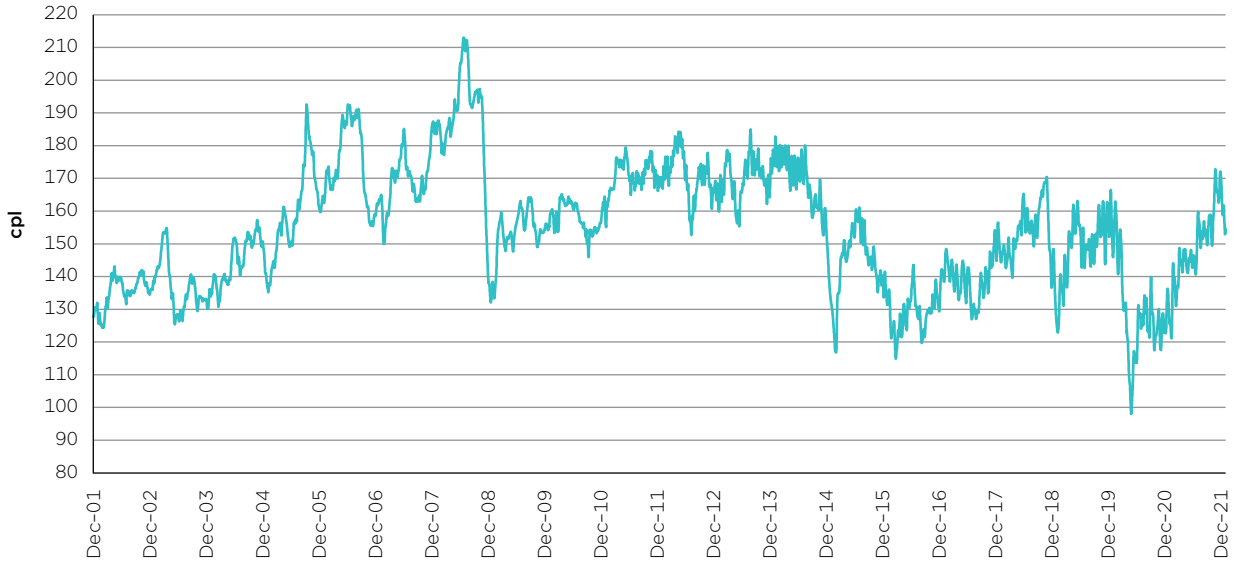
A 7-day rolling average price is the average of the current day's price and prices on the 6 previous days. Traditionally, the ACCC has used a 7-day rolling average to smooth out the influence of petrol price cycles in the larger cities on price movements. This has been less effective in recent years because the duration of price cycles in most of the larger cities has become substantially greater than 7 days.

In the December quarter 2021, 7-day rolling average retail petrol prices increased further to a high of 172.7 cpl on 26 October 2021. This was an increase of 15.1 cpl from the highest 7-day rolling average price in the September quarter 2021. Prices in November 2021 peaked at 172.1 cpl. In December 2021 prices decreased from these levels and ended the quarter at 154.6 cpl.

In **real** terms, 7-day rolling average prices in late October 2021 were the highest prices since July 2014.

Chart 3.2 places current prices in an historical context. It shows that while current daily average retail petrol prices on a 7-day rolling average basis prices in real terms are relatively high, there have been periods of much higher prices over the past 20 years.

Chart 3.2: Seven-day rolling average retail petrol prices in the 5 largest cities in real terms: 1 December 2001 to 31 December 2021



Source: ACCC calculations based on data from Informed Sources, FUELtrac and the Australian Bureau of Statistics, 6401.0 *Consumer Price Index, Australia, December 2021, Tables 1 and 2. CPI: All Groups, Index Numbers and Percentage Changes*, at: https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release#data-download, accessed on 22 February 2022.

Note: **Real** prices are adjusted for December quarter 2021 dollars.

3.2 The number and nature of price cycles in each city varied

Price cycles (i.e. the sudden, sharp increases in the price of petrol, followed by a gradual decline) are a prominent and longstanding feature of retail petrol prices in Australia's 5 largest cities. These price cycles do not occur in the smaller capital cities or in most regional locations. Price cycles are the result of pricing decisions made by petrol retailers aiming to maximise profits. They only occur at the retail level; wholesale prices do not exhibit similar cyclical movements.

The ACCC released a report on petrol price cycles in Australia in December 2018.[31] The report noted that while motorists find price cycles frustrating, they could use price cycles to their advantage to make substantial savings across the year.

Table 3.2 shows that in the year to December 2021 the number of price cycles varied in the 5 largest cities.

31 ACCC, *Petrol price cycles in Australia*, 6 December 2018, at: https://www.accc.gov.au/publications/petrol-industry-reports/petrol-price-cycles-in-australia.

Table 3.2: Number of price cycles per quarter in the 5 largest cities: March quarter 2021 to December quarter 2021

Quarter	Sydney	Melbourne	Brisbane	Adelaide	Perth
Mar–21	2	2	3	7	13
Jun–21	3	2	2	7	13
Sep–21	1	3	3	6	13
Dec–21	2	2	2	5	7
Year to Dec–21	**8**	**9**	**10**	**25**	**46**

Source: ACCC calculations based on data from FUELtrac.

Notes: A price cycle occurs in a quarter if the peak of a price cycle takes place in that quarter.

Data on E10 petrol price cycles in Sydney are shown in this table. E10 petrol price cycles and RULP petrol price cycles in Sydney move in very similar patterns.

In the December quarter 2021, Sydney, Melbourne and Brisbane each had 2 price cycles. Sydney had one more price cycle compared with the previous quarter, and Melbourne and Brisbane each had one fewer.

In calendar year 2021:

- The average duration of price cycles in Sydney was around 6 weeks, however, in the second half of 2021 price cycles in Sydney were longer in duration at around 7 weeks. The COVID-19 related lockdown in Sydney may have influenced the duration of these price cycles.
- The average duration of price cycles in Melbourne and Brisbane was around 5 weeks.

Adelaide had 5 price cycles in the December quarter 2021, one fewer than in the previous quarter. In 2021 price cycles in Adelaide had an average duration of around 2 weeks.

Perth had the most price cycles. Price cycles had been occurring on a weekly basis since 2011, however from October 2021 price cycles in Perth changed to occur each fortnight. There were 7 price cycles in Perth in the December quarter 2021 compared with 13 price cycles in each of the previous quarters in 2021.

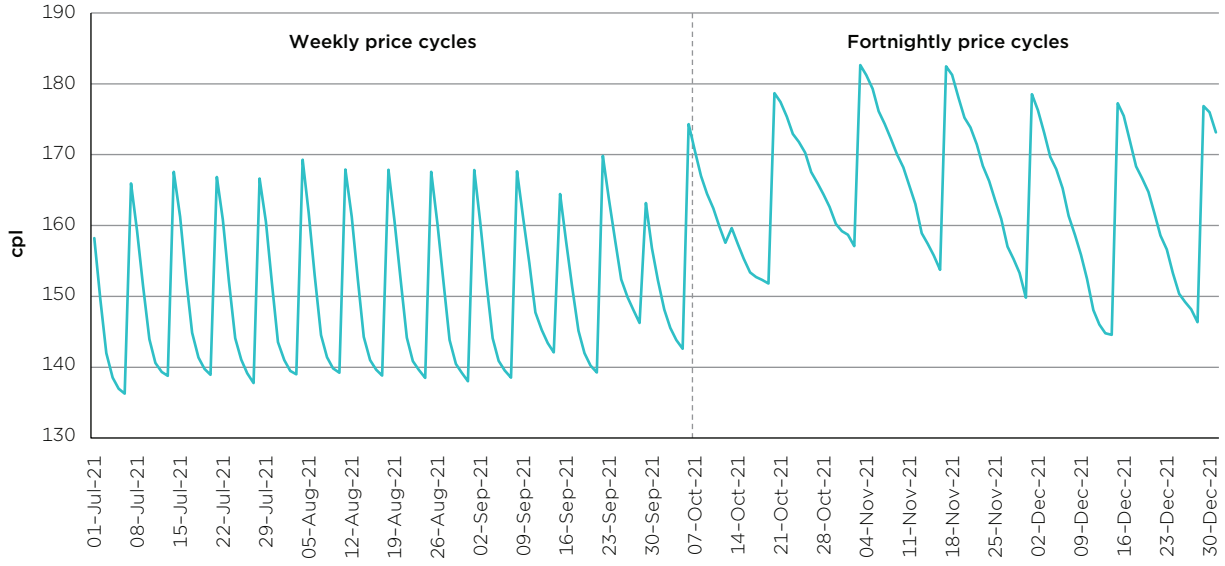
3.2.1 Change in the price cycle in Perth from weekly to fortnightly

In Perth, petrol price cycles had been consistently occurring on a weekly basis since 2011. In recent years, the regular weekly petrol price cycles generally reached a peak price on a Wednesday and decreased to a low price on the following Tuesday, making them very predictable for Perth motorists.

Chart 3.3 shows average daily retail petrol prices in Perth over the 6 months to 31 December 2021, and clearly shows that from early October 2021 the Perth petrol price cycle changed from a weekly to a fortnightly price cycle. There are 2 distinct periods:

- July to early October, when Perth had regular weekly price cycles
- early October onwards, when Perth had regular fortnightly price cycles.

Chart 3.3: Daily average petrol prices in Perth: 1 July 2021 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac.

On 12 October 2021, the WA Department of Mines, Industry Regulation and Safety (the department that maintains the WA FuelWatch scheme) issued a media release about the change in the price cycle, identifying a change in pricing at Ampol sites as the cause.[32] It noted that:

> *In recent weeks, most of Perth's major fuel companies have been slowly conforming to a fortnightly cycle that was first begun by Ampol outlets which will result in price hikes every second Wednesday...*
>
> *FuelWatch has contacted the fuel companies but no explanation for the change in the price cycle was provided.*

In the 7 fortnightly prices cycles in Perth following the change in October 2021, the average increase in prices from to the trough to the peak of the cycle was largely unchanged from the average price increase that occurred in weekly cycles before the change.

The ACCC's analysis of publicly available data through the FuelWatch scheme, which is at Appendix B, shows the initial change in pricing strategy at Ampol and Caltex branded sites, and the gradual adoption of a fortnightly pricing cycle by other brands in the Perth.

3.3 Petrol price cycles have been influenced by the impact of COVID-19

The impact of COVID-19 on retail petrol prices since March 2020 has led to changes in the price cycles in each of the 5 largest cities. This is reflected in changes in the shape of the price cycles and in daily average gross indicative retail differences (GIRDs).[33]

GIRDs are a broad indicator of gross retail margins. The ACCC calculates GIRDs by subtracting average TGPs from average retail petrol prices. TGPs are prices that wholesalers charge for petrol in the spot market. The major wholesalers post these prices on their websites on a regular basis. Although few wholesale transactions occur at TGPs, they are indicative wholesale prices. TGPs, which vary across brands and cities, reflect the wholesale price of petrol only, and exclude other retail operating costs (such as freight, the cost of using a particular brand and other costs of doing business including rent, wages and utility costs). As GIRDs are a broad indicator of gross retail margins, they should not be

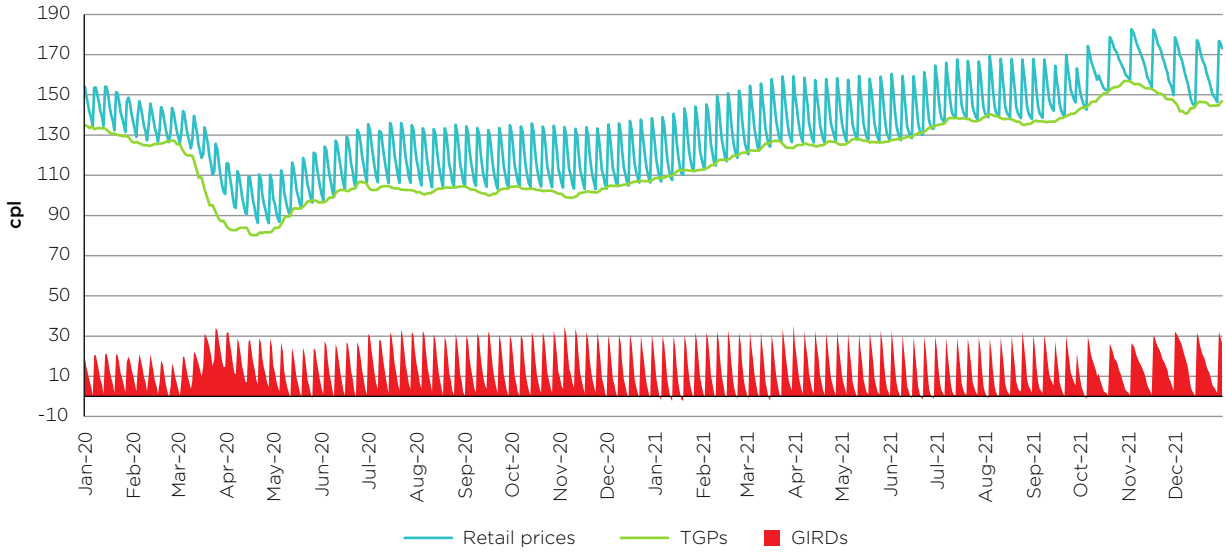
32 Department of Mines, Industry Regulation and Safety, *Change to Perth's petrol price cycle*, Media release, 12 October 2021, at: https://www.commerce.wa.gov.au/announcements/change-perths-petrol-price-cycle, accessed on 22 February 2022.

33 Petrol price cycles in the 5 largest cities are not static and change over time. The ACCC's 2018 petrol price cycles report analysed changes in price cycles between 2007 and 2017.

confused with actual retail profits, which are more closely related to net margins. Chapter 4 discusses GIRDs in the 5 largest cities in more detail.

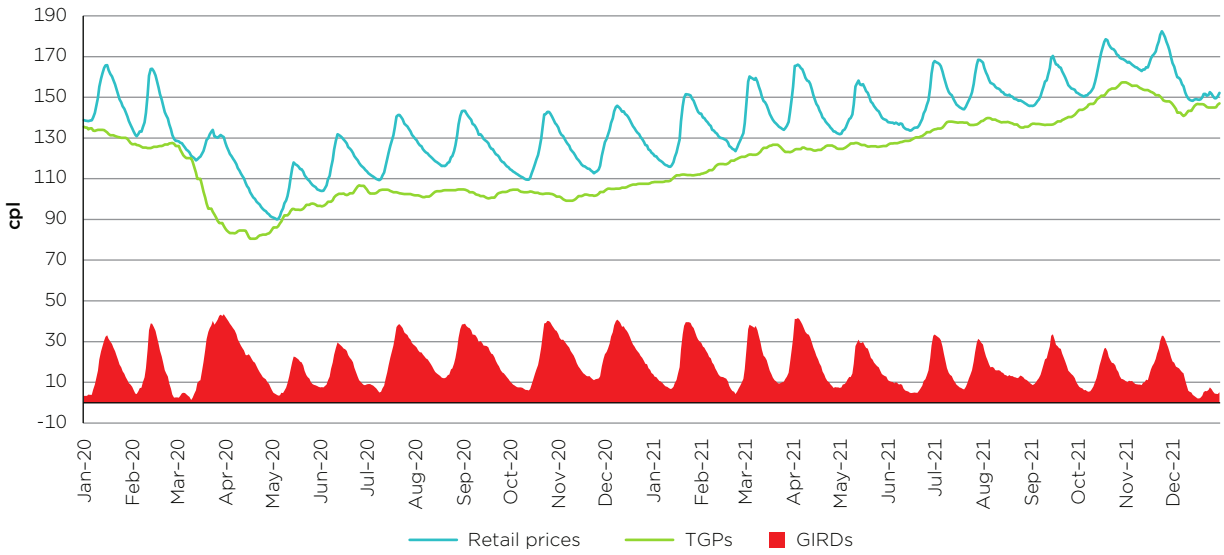
Charts 3.4 to 3.8 illustrate the changes in the shape of the price cycles and daily average GIRDs in each of the 5 largest cities in the period from 1 January 2020 to 31 December 2021. The charts show daily average retail petrol prices, TGPs and GIRDs.

Chart 3.4: Daily average retail petrol prices, TGPs and GIRDs in Perth: 1 January 2020 to 31 December 2021



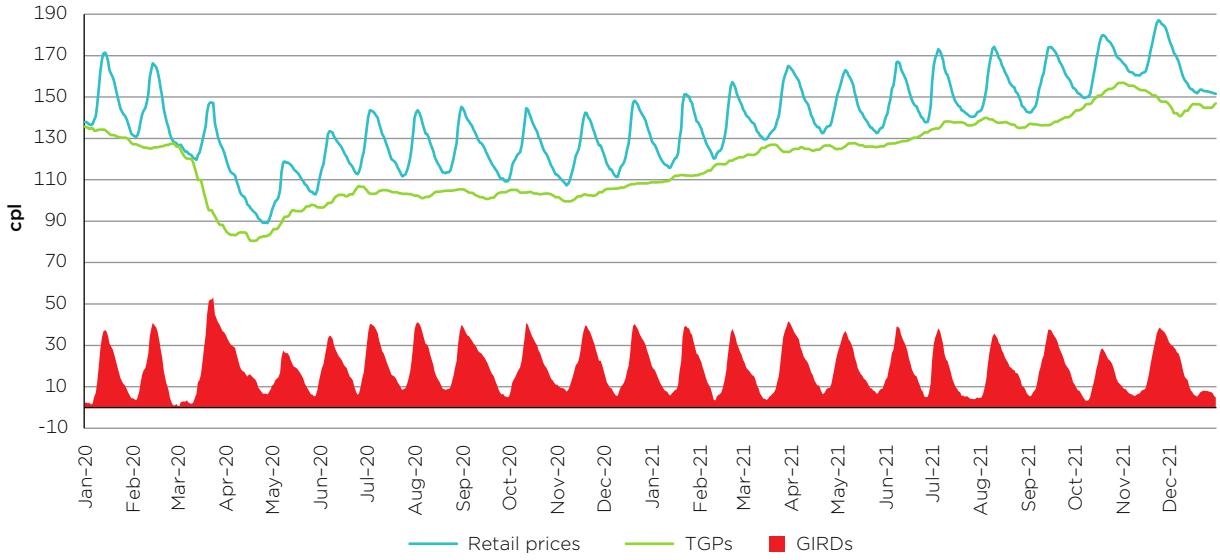
Source: ACCC calculations based on data from FUELtrac, Ampol, bp, Mobil, Viva Energy and WA FuelWatch.

Chart 3.5: Daily average retail petrol prices, TGPs and GIRDs in Melbourne: 1 January 2020 to 31 December 2021



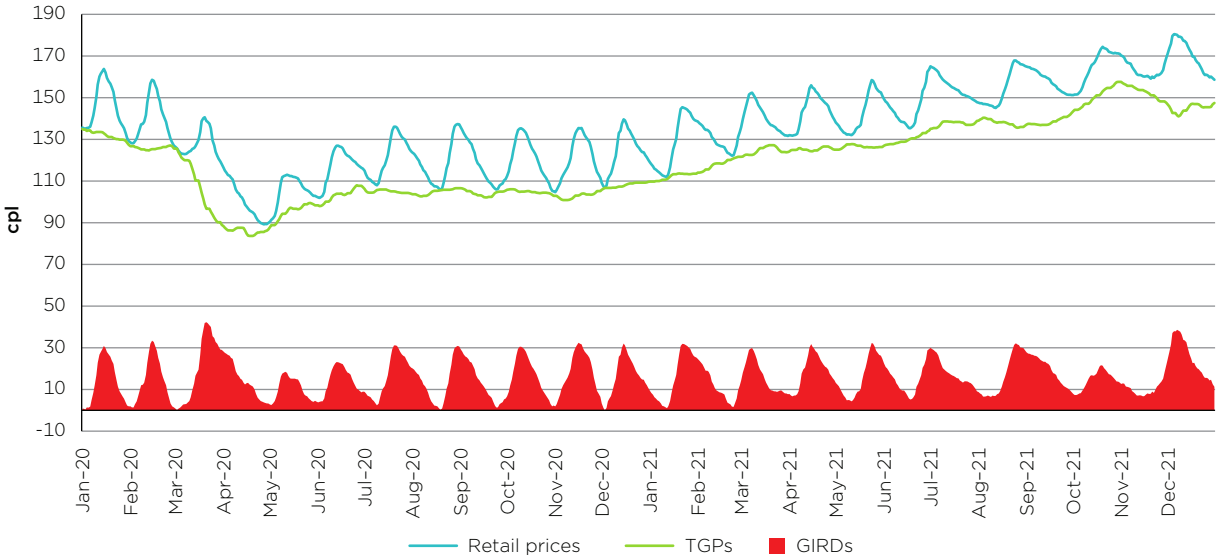
Source: ACCC calculations based on data from FUELtrac, Ampol, bp, Mobil and Viva Energy.

Chart 3.6: Daily average retail petrol prices, TGPs and GIRDs in Brisbane: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac, Ampol, bp, Mobil and Viva Energy.

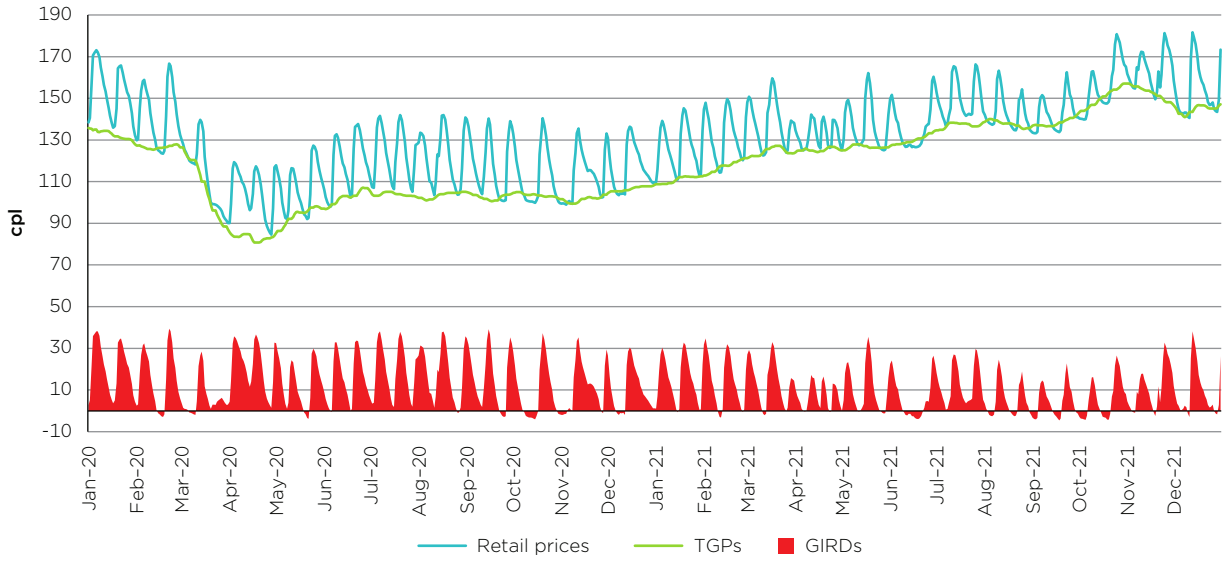
Chart 3.7: Daily average retail petrol prices, TGPs and GIRDs in Sydney: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac, Ampol, bp, Mobil and Viva Energy.

Note: E10 prices are used in this chart. E10 prices and RULP prices in Sydney move in very similar patterns.

Chart 3.8: Daily average retail petrol prices, TGPs and GIRDs in Adelaide: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac, Ampol, bp, Mobil and Viva Energy.

Changes in the shape of the price cycles were different across the cities:

- Regular weekly price cycles continued in **Perth** throughout most of the period, and then changed to fortnightly cycles in early October 2021. Following the initial impact of COVID-19 in March 2020 retail prices at the peak of the price cycle (and therefore GIRDs) increased and remained higher, including when the cycles changed to fortnightly.
- Following the initial impact of COVID-19, retail prices in **Melbourne** were higher at both the peak and the trough of the price cycle. Average retail prices also took longer to reach the trough price of the price cycle. This may have been influenced by lockdown restrictions in Melbourne in 2020 and 2021. In the September and December quarters 2021, retail prices were not as high at the peak price, however they generally remained higher at the trough price except for the last cycle in 2021.
- The shape of the price cycle in **Brisbane** over most of the last 2 years has been largely similar to that in Melbourne. In the September and December quarters 2021 however, price cycle peaks in Brisbane remained at relatively higher levels (whereas in Melbourne the price cycle peaks were somewhat lower).
- Average retail prices in **Sydney** took longer to reach the trough price following the initial impact of COVID-19. In the last 3 quarters, retail prices were higher at the trough price compared with earlier quarters. This may have been influenced by the lockdown restrictions in Sydney during most of this time.
- There was a different trend for **Adelaide**. After an initial impact from COVID-19 in April and May 2020, prices generally decreased to being either very close to, or below, TGPs in the second half of 2020. In the March and September quarters 2021, retail prices at the peak of the price cycle were noticeably lower than in earlier quarters. The introduction of the fuel price transparency scheme in Adelaide from 20 March 2021, which provides motorists with access to real-time fuel price information, may have been an influence on the smaller price cycle increases during this time. In the December quarter 2021, price cycle increases were relatively higher in the last few cycles of the year.

3.4 Retail prices in Brisbane were higher than the other 4 largest cities in aggregate

Retail prices in Brisbane are generally the highest among the 5 largest cities. However, in the December quarter 2021, Brisbane had the second highest prices (164.5 cpl) after Sydney (166.2 cpl).

Chart 3.9 shows quarterly average retail prices in Brisbane and average prices in the other 4 largest cities (Sydney, Melbourne, Adelaide and Perth) over the 2 years to the December quarter 2021. Over this period, Brisbane retail prices were on average 4.0 cpl higher than the average in the other 4 largest cities, ranging from a low of 2.0 cpl in the June quarter 2020 to a high of 6.0 cpl in the June quarter 2021.

Chart 3.9: Quarterly average retail prices in Brisbane and the other 4 largest cities in aggregate: March quarter 2020 to December quarter 2021

Source: ACCC calculations based on data from FUELtrac.

Note: The area to the right of the dotted vertical line in this and subsequent charts represents the December quarter 2021.

In the December quarter 2021, average retail prices in Brisbane were 2.1 cpl higher than the other 4 largest cities in aggregate (162.4 cpl). This was 3.0 cpl lower than the differential in the September quarter 2021 (5.1 cpl).

In calendar year 2021, Brisbane retail prices were on average 4.0 cpl higher than the average across the other 4 largest cities. This was similar to the average differential in 2020 (4.1 cpl).

The ACCC released its report on the Brisbane petrol market in October 2017.[34] It noted that petrol prices in Brisbane had been significantly higher than those in the other 4 largest cities in the period 2009–10 to 2016–17. Over those 8 years, Brisbane motorists paid on average 3.3 cpl more for petrol than motorists in the other 4 largest cities.

34 ACCC, *Report on the Brisbane petrol market*, 9 October 2017, at: https://www.accc.gov.au/publications/petrol-market-studies/report-on-the-brisbane-petrol-market.

The report found that the main factor influencing the higher prices in Brisbane was higher retail margins on petrol, which contributed to profits in Brisbane being significantly higher than the average across Australia. It also found that, compared with Sydney, retail pricing was less competitive in Brisbane, with retailers setting prices higher at the top and bottom of the price cycle than retailers in Sydney. Furthermore, Brisbane had fewer retail chains that were effective and vigorous price competitors. Brisbane had only 4 retailers in this category (7-Eleven, Woolworths, Puma Energy and United), while Sydney had 7 (Speedway, Metro, Budget, Westside, United, 7-Eleven and Woolworths).

The ACCC's 2021 report on petrol prices by major retailer in 2019 and 2020 identified that motorists in Brisbane could make savings by shopping around. The report concluded that in 2020 if a motorist in Brisbane who bought petrol at the highest priced retailer (i.e. Coles Express) had instead bought it at the lowest priced retailer (i.e. United), they could have saved themselves on average 6.7 cpl each time they filled up, or $174 a year.[35]

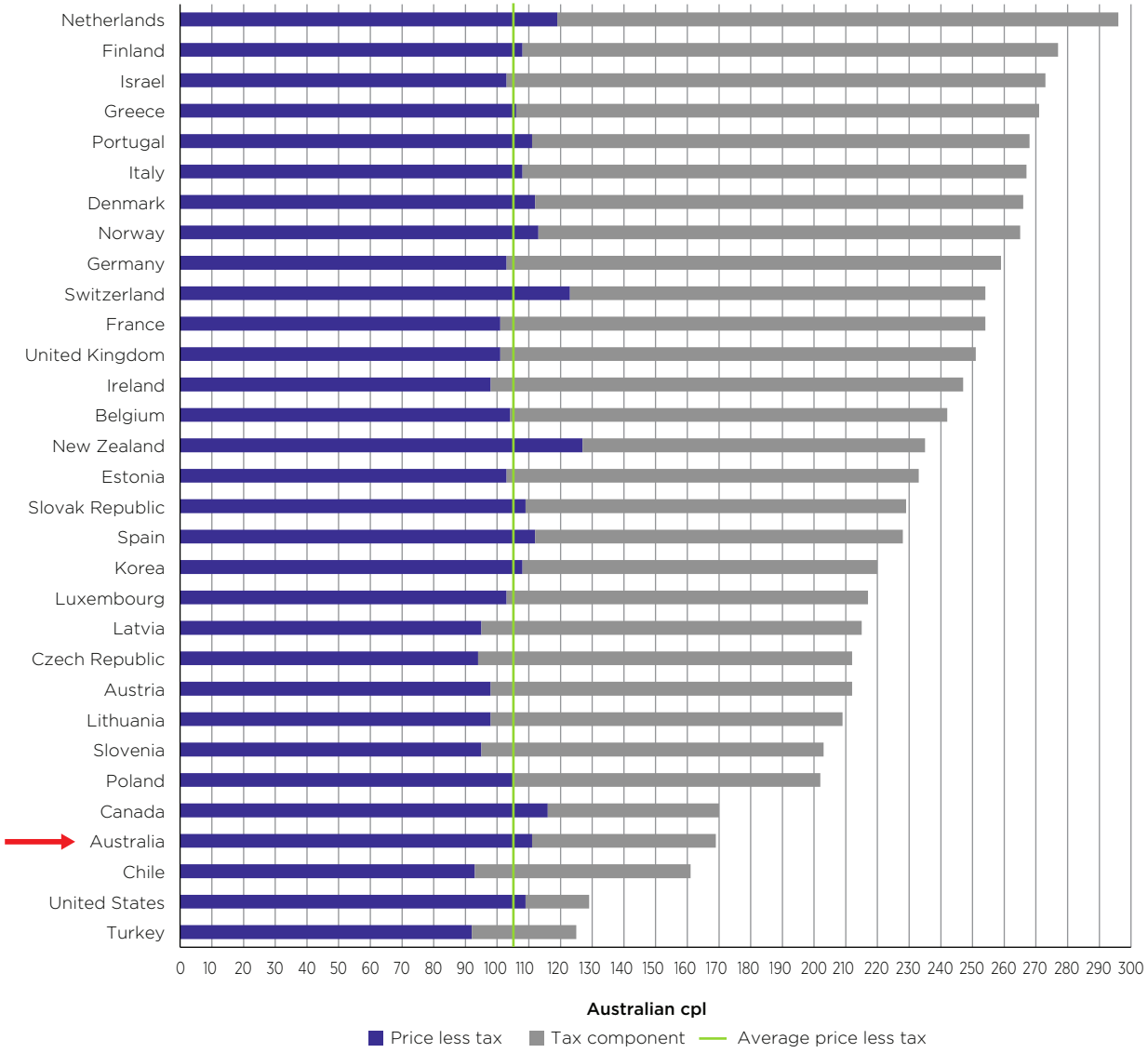
3.5 Retail petrol prices in Australia were lower than in most OECD countries due to lower taxes

Compared with other developed countries, Australia's retail petrol prices are relatively low. Chart 3.10 shows average retail premium unleaded petrol (PULP) 95 prices – both including and excluding taxes – among 31 countries in the Organisation for Economic Co-operation and Development (OECD) in the September quarter 2021 (the latest data available).

A degree of caution needs to be exercised when comparing international petrol prices, because fuel quality standards and taxation rates differ among countries, as does the availability and use of fuel types.

35 ACCC, *Independent chains generally have the lowest prices - report on petrol prices by major retailer in 2019 and 2020*, p.5, at: https://www.accc.gov.au/publications/petrol-industry-reports/independent-chains-generally-have-the-lowest-prices-report-on-petrol-prices-by-major-retailer-in-2019-and-2020.

Chart 3.10: Average retail PULP 95 prices and taxes in OECD countries: Australian cpl, September quarter 2021



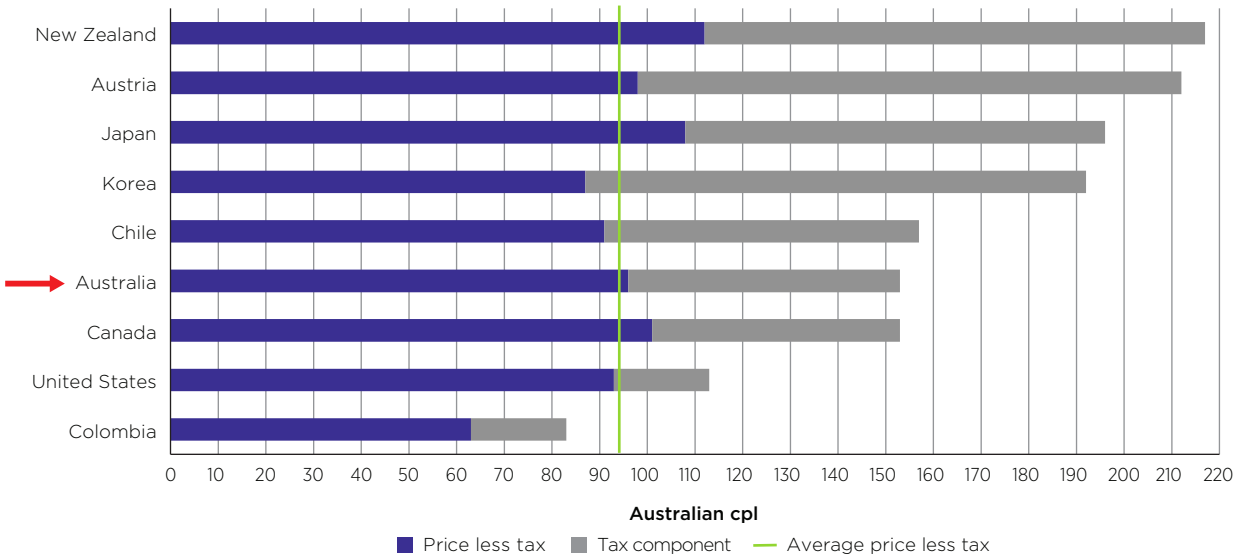
Source: DISER, *Australian Petroleum Statistics – Data Extract December 2021*, at: https://www.energy.gov.au/publications/australian-petroleum-statistics-2021, accessed on 22 February 2022.

Note: All international prices shown are for PULP 95 RON, except for New Zealand (96 RON).

The chart shows that Australia had the fourth-lowest retail PULP 95 prices among OECD countries. However, the main reason for the lower retail petrol prices in Australia is the relatively low rate of taxation on fuel. In the September quarter 2021, taxes made up around 34% of the retail PULP 95 price in Australia. This was much lower than in many other OECD countries – the average tax component on PULP 95 prices in the OECD was around 54% in the September quarter 2021. Excluding taxes, PULP 95 prices in Australia were the eighth-highest among OECD countries.

Chart 3.11 shows average retail RULP prices – both including and excluding taxes – among 9 OECD countries in the September quarter 2021. In the majority of OECD countries, RULP is not sold in significant quantities. The chart shows that Australia had the fourth-lowest retail RULP prices among these countries. Excluding taxes, RULP prices in Australia were the fifth-highest among OECD countries.

Chart 3.11: Average retail RULP prices and taxes in OECD countries: Australian cpl, September quarter 2021

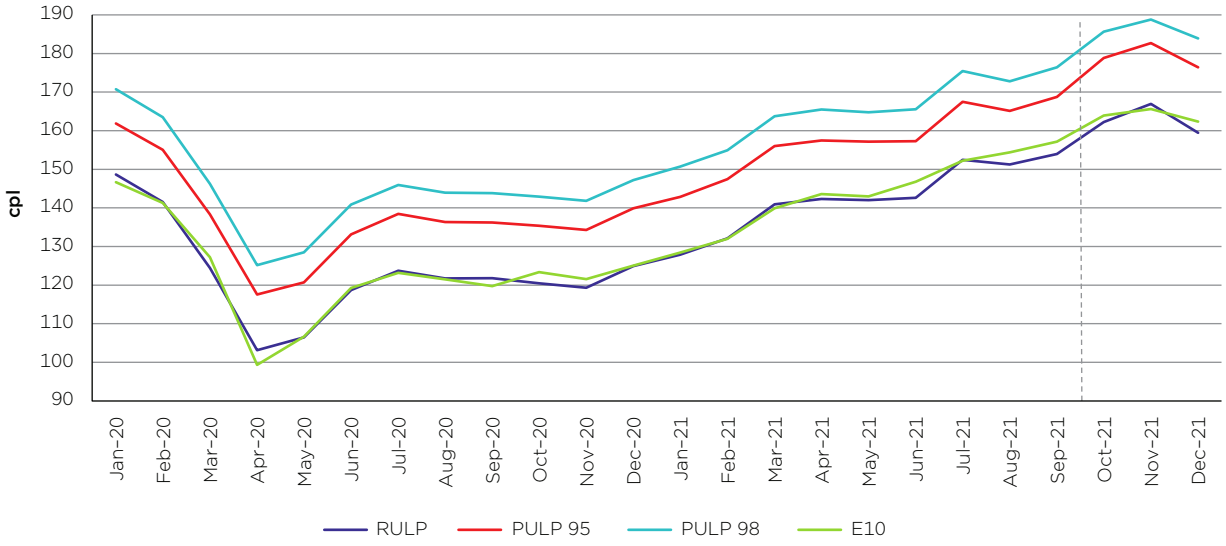


Source: DISER, *Australian Petroleum Statistics – Data Extract December 2021*, at: https://www.energy.gov.au/publications/australian-petroleum-statistics-2021, accessed on 22 February 2022.

3.6 The price differential between PULP and RULP increased

Chart 3.12 shows that retail prices of the main grades of unleaded petrol – RULP, PULP 95, PULP 98, and E10 – all moved in a similar manner over the 2 years to December 2021.[36]

Chart 3.12: Monthly average retail prices of RULP, PULP 95, PULP 98 and E10 in the 5 largest cities: January 2020 to December 2021



Source: ACCC calculations based on data from FUELtrac.

36 E10 prices are for Sydney and Brisbane only.

In the December quarter 2021, the average differential in the 5 largest cities between:

- RULP and PULP 95 prices was 16.5 cpl (an increase of 1.9 cpl from the previous quarter)
- RULP and PULP 98 prices was 23.3 cpl (an increase of 0.9 cpl)
- RULP and E10 was 1.1 cpl (a decrease of 1.0 cpl).[37]

Retail prices of the main grades of petrol move in a similar manner because they are all influenced by international refined petrol benchmark prices (which, in turn, predominantly move in line with changes in the international price of crude oil).

The ACCC noted in its 2020 industry report on the financial performance of the downstream petroleum industry that PULP 95 and PULP 98 had become more expensive relative to the retail price of RULP over time, and that PULP was significantly more profitable than other petrol products.[38]

Between 2009–10 and 2020–21, the annual average price differential in **real** terms between RULP and PULP 95 increased from 11.4 cpl to 15.2 cpl, an increase of 3.8 cpl. The annual average price differential between RULP and PULP 98 similarly increased from 17.4 cpl to 22.8 cpl, an increase of 5.4 cpl.

A variety of factors influence higher average prices for PULP, relative to RULP, including adjustments to specific international benchmarks and potentially changes in the quality of PULP products. However, the increases in PULP prices in recent years may be translating, at least in part, to higher profits on PULP.

37 Historically, E10 prices have generally been lower than RULP prices. E10 prices remained higher than RULP prices for the third consecutive quarter after they were 0.2 cpl lower than average RULP prices in the March quarter 2021.

38 ACCC, *Financial performance of the Australian downstream petroleum industry 2002 to 2018*, 22 April 2020, pp. 3-4, at: https://www.accc.gov.au/publications/petrol-industry-reports/financial-performance-of-the-australian-downstream-petroleum-industry-2002-to-2018.

4. Components of petrol prices in the 5 largest cities

There are 3 broad components of average retail petrol prices:

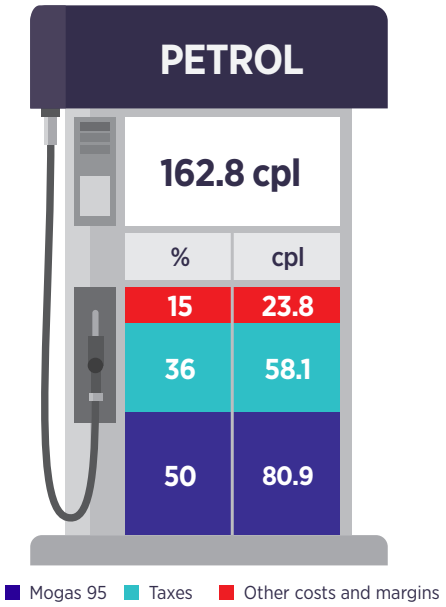
- the international price of refined petrol (Mogas 95)
- taxes (excise and GST)
- other costs and margins, at the wholesale and retail levels.

This chapter analyses these components in the December quarter 2021 and how they have changed over time.

4.1 Mogas 95 was the largest component of average retail petrol prices

Chart 4.1 shows the components of average retail petrol prices in the 5 largest cities in the December quarter 2021.[39]

Chart 4.1: Components of average retail petrol prices in the 5 largest cities in the December quarter 2021



Source: ACCC calculations based on data from FUELtrac, Argus Media, RBA and ATO.
Note: Percentages in the chart do not total 100% due to rounding.

The chart shows that the price of Mogas 95 was the largest component of average petrol prices in the December quarter 2021 (50%). The 2 largest components – Mogas 95 and taxes – accounted for 86% of average petrol prices. These components are largely outside the control of the local petrol retailers.

In the December quarter 2021, as a proportion of average retail petrol prices:

- Mogas 95 increased by 3 percentage points from the September quarter 2021
- taxes decreased by 1 percentage point
- other costs and margins decreased by 1 percentage point.[40]

39 Taxes include fuel excise, and both the wholesale and retail components of GST.
40 The percentage changes in the quarter do not sum to zero due to rounding.

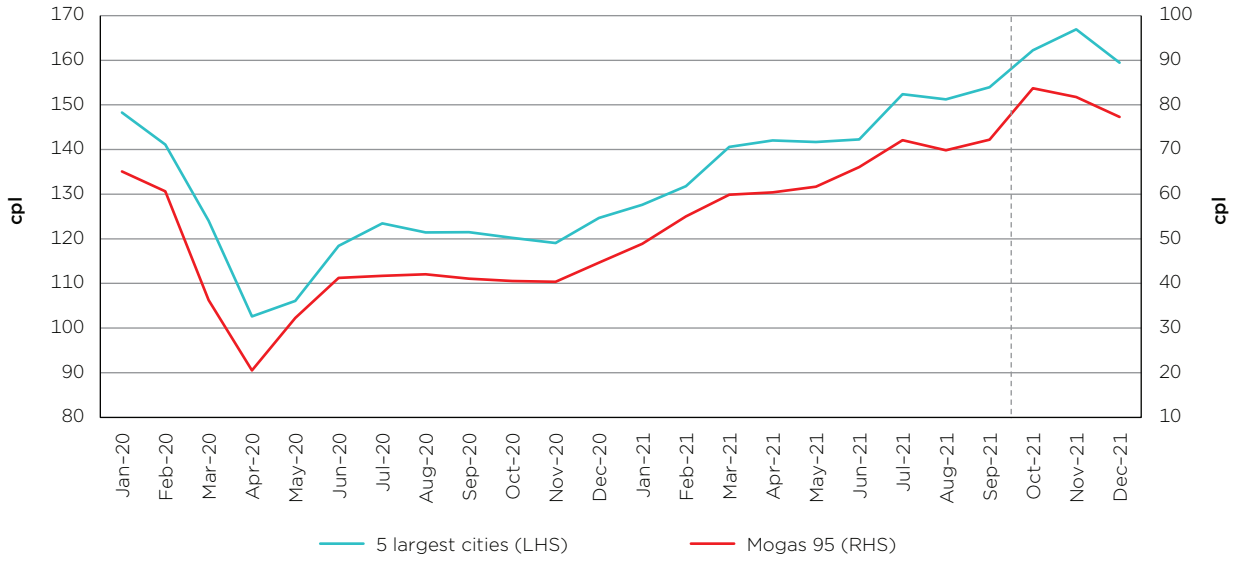
4.2 Changes in Mogas 95 prices continued to drive retail prices

As Australia's local refining capacity cannot produce all of Australia's fuel needs, refined petrol is imported to Australia from international markets. The price of refined petrol in the Asia-Pacific region is the relevant international benchmark price for the wholesale price of petrol in Australia. For RULP, it is the price of Singapore Mogas 95 Unleaded (Mogas 95). This benchmark is used for pricing petrol in Australia due to Australia's proximity to Singapore, which is one of the world's most important trading and refining centres.

The price of Mogas 95 is linked to the price of crude oil as crude oil is the major input into the production of refined petrol. Crude oil is an internationally traded commodity, and its price is determined by global demand and supply factors. When the world price of crude oil changes it generally flows through into the price of refined petrol and then into retail petrol prices in Australia. Chapter 6 provides more details on movements in international crude oil and Mogas 95 prices.

Chart 4.2 shows monthly average Mogas 95 prices in Australian cents per litre, and monthly average retail petrol prices in the 5 largest cities, in the 2 years to December 2021. It shows that Mogas 95 prices and retail petrol prices in the 5 largest cities moved in a similar pattern over the past 2 years. This indicates that changes in the international price of refined petrol generally drive changes in domestic retail prices.

Chart 4.2: Monthly average retail petrol prices in the 5 largest cities and Mogas 95 prices: January 2020 to December 2021



Source: ACCC calculations based on data from FUELtrac, Argus Media and RBA.

In the 2 years to December 2021:

- monthly average Mogas 95 prices varied by 63.2 cpl (from a low of 20.5 cpl in April 2020 to a high of 83.7 cpl in October 2021)
- monthly average retail petrol prices in the 5 largest cities varied by 64.3 cpl (from a low of 102.6 cpl in April 2020 to a high of 166.9 cpl in November 2021).

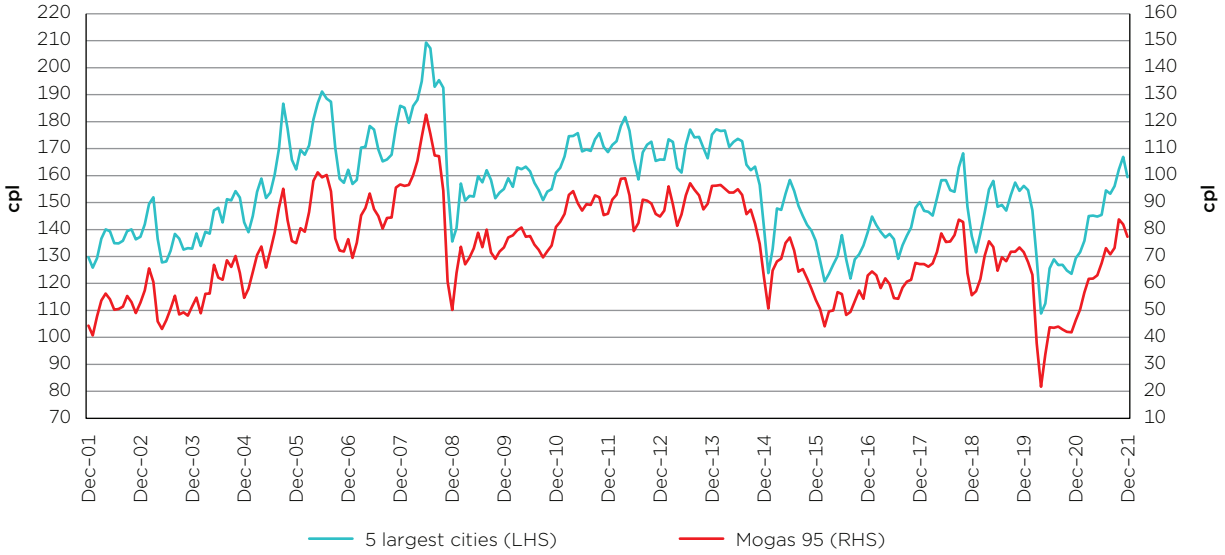
In the December quarter 2021:

- Monthly average Mogas 95 prices increased from 72.2 cpl in September 2021 to 83.7 cpl in October 2021 (an increase of 11.5 cpl). This was the highest in **real** terms since September 2018 (83.7 cpl). Mogas 95 prices then decreased to 77.3 cpl in December 2021.
- Monthly average retail prices in the 5 largest cities increased from 154.0 cpl in September 2021, to 166.9 cpl in November 2021 (an increase of 12.9 cpl), before decreasing to 159.4 in December 2021.

- Quarterly average Mogas 95 prices were 80.9 cpl (an increase of 9.5 cpl from the September quarter 2021). This was the highest in **real** terms since the September quarter 2014 (88.7 cpl).
- Quarterly average retail petrol prices in the 5 largest cities were 162.8 cpl (an increase of 10.3 cpl).

Chart 4.3 places recent Mogas 95 and retail prices in an historical context. It shows that while recent monthly average Mogas 95 and retail petrol prices in **real** terms have been relatively high, there were periods of much higher prices over the past 20 years.

Chart 4.3: Monthly average retail petrol prices in the 5 largest cities and Mogas 95 prices in real terms: December 2001 to December 2021



Source: ACCC calculations based on data from Informed Sources, FUELtrac, Platts, OPIS, Argus Media, the RBA and the Australian Bureau of Statistics, 6401.0 *Consumer Price Index, Australia, December 2021, Tables 1 and 2. CPI: All Groups, Index Numbers and Percentage Changes*, at: https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release#data-download, accessed on 22 February 2022.

Note: **Real** prices are adjusted for December quarter 2021 dollars.

Chart 4.3 also highlights the significant volatility in Mogas 95 prices. Monthly average Mogas 95 prices in **real** terms ranged from a high of 122.7 cpl in June 2008 (prior to the Global Financial Crisis) to a low of 21.7 cpl in April 2020 (following the decrease in demand due to the COVID-19 pandemic).

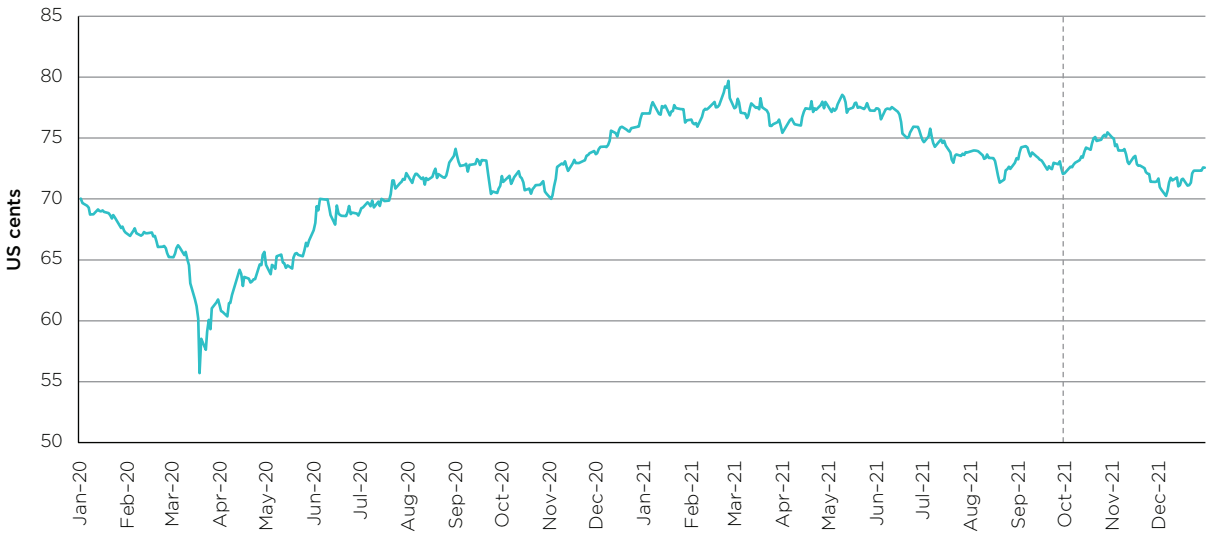
The chart also shows that monthly average Mogas 95 prices and retail prices in the 5 largest cities in **real** terms increased steadily from November 2020 to October 2021. Retail prices increased further in November 2021.

4.3 The AUD–USD exchange rate was marginally lower

The AUD–USD exchange rate has a significant influence on Australia's retail petrol prices, because international refined petrol is bought and sold in US dollars in global markets.

Chart 4.4 shows that the daily AUD-USD exchange rate varied significantly over the 2 years to 31 December 2021. It ranged from a low of US 56 cents in late March 2020 to a high of US 80 cents in late February 2021.

Chart 4.4: Daily AUD–USD exchange rates: 2 January 2020 to 31 December 2021



Source: RBA.

Note: Exchange rates are the daily RBA 4.00 pm closing rates. See: http://www.rba.gov.au/statistics/frequency/exchange-rates.html.

In the December quarter 2021, the AUD-USD exchange rate largely ranged within a US 5 cent band between US 75 cents and US 70 cents. The quarterly average AUD-USD exchange rate was US 72.9 cents, a reduction of US 0.6 cents from the September quarter 2021.

When the AUD depreciates against the USD, it puts upward pressure on domestic retail petrol prices because refined petrol sold on international markets becomes relatively more expensive in AUD terms.

If the AUD–USD exchange rate had remained at the 2-year high of US 80 cents in late February 2021, average retail petrol prices in Australia in the December quarter 2021 would have been around 7.6 cpl lower (everything else being equal).

Conversely, if the AUD–USD exchange rate had been at the 2-year low of US 56 cents in late March 2020, average retail petrol prices in Australia in the December quarter 2021 would have been around 27.0 cpl higher (everything else being equal).

This indicates the significant impact that changes in the AUD-USD exchange rate have on Australian retail petrol prices.

4.4 Average GIRDs in the 5 largest cities were lower in the quarter

Average GIRDs in the 5 largest cities (in aggregate) were 13.7 cpl in the December quarter 2021, 1.1 cpl lower than the previous quarter (14.8 cpl).

GIRDs were defined in section 3.3. The GIRDs reported by the ACCC are averages across the 5 largest cities over time. The level of prices, costs and profits vary significantly between retail operations and not all retail petrol sites will be achieving these gross margins. Some will be achieving higher gross margins, others lower. The ACCC petrol market studies found that profits per retail petrol site could vary considerably between retailers, with some retail sites making substantial profits and others making very little.

Table 4.1 shows quarterly average GIRDs in each of the 5 largest cities in calendar year 2021.

Table 4.1: Quarterly average retail petrol prices, TGPs and GIRDs in the 5 largest cities: March quarter 2021 to December quarter 2021 – cpl

Location	Quarter	Retail prices cpl	TGPs cpl	GIRDs cpl
5 largest cities	Mar–21	133.4	117.6	15.8
	Jun–21	142.0	127.2	14.8
	Sep–21	152.5	137.7	14.8
	Dec–21	162.8	149.1	13.7
	2021	**147.8**	**133.0**	**14.8**
Sydney	Mar–21	132.8	118.2	14.6
	Jun–21	143.6	127.2	16.4
	Sep–21	156.0	138.0	18.0
	Dec–21	166.2	149.4	16.8
	2021	**149.8**	**133.3**	**16.5**
Melbourne	Mar–21	136.2	117.1	19.1
	Jun–21	144.5	126.9	17.6
	Sep–21	155.2	137.4	17.8
	Dec–21	162.2	149.1	13.1
	2021	**149.6**	**132.7**	**16.9**
Brisbane	Mar-21	135.6	117.4	18.2
	Jun-21	146.8	127.1	19.7
	Sep-21	156.6	137.4	19.2
	Dec-21	164.5	148.9	15.6
	2021	**151.0**	**132.8**	**18.2**
Adelaide	Mar–21	132.1	117.5	14.6
	Jun–21	135.2	127.3	7.9
	Sep–21	145.3	137.7	7.6
	Dec–21	157.9	149.2	8.7
	2021	**142.7**	**133.0**	**9.7**
Perth	Mar–21	130.3	117.6	12.7
	Jun–21	139.9	127.5	12.4
	Sep–21	149.6	137.8	11.8
	Dec–21	163.3	148.8	14.5
	2021	**145.9**	**133.0**	**12.9**

Source: ACCC calculations based on data from FUELtrac, Ampol, bp, Mobil, Viva Energy and WA FuelWatch.

Note: Retail prices, TGPs and GIRDs in Sydney are for E10 in the March and June quarters 2021 and for RULP in the September and December quarters 2021.

The table shows that quarterly average GIRDs:

- varied significantly over time and across cities, ranging from a high of 19.7 cpl (in Brisbane in the June quarter 2021) to a low of 7.6 cpl (in Adelaide in the September quarter 2021)
- were lowest in Melbourne and Brisbane in the December quarter 2021, Perth and Adelaide in the September quarter 2021 and Sydney in the March quarter 2021

- were highest in Melbourne and Adelaide in the March quarter 2021, Sydney in the September quarter 2021, Brisbane in the June quarter 2021, and Perth in the December quarter 2021.

The table also shows that in 2021 GIRDs in Adelaide were consistently lower that average GIRDs across the 5 largest cities and GIRDs in Brisbane were consistently higher:

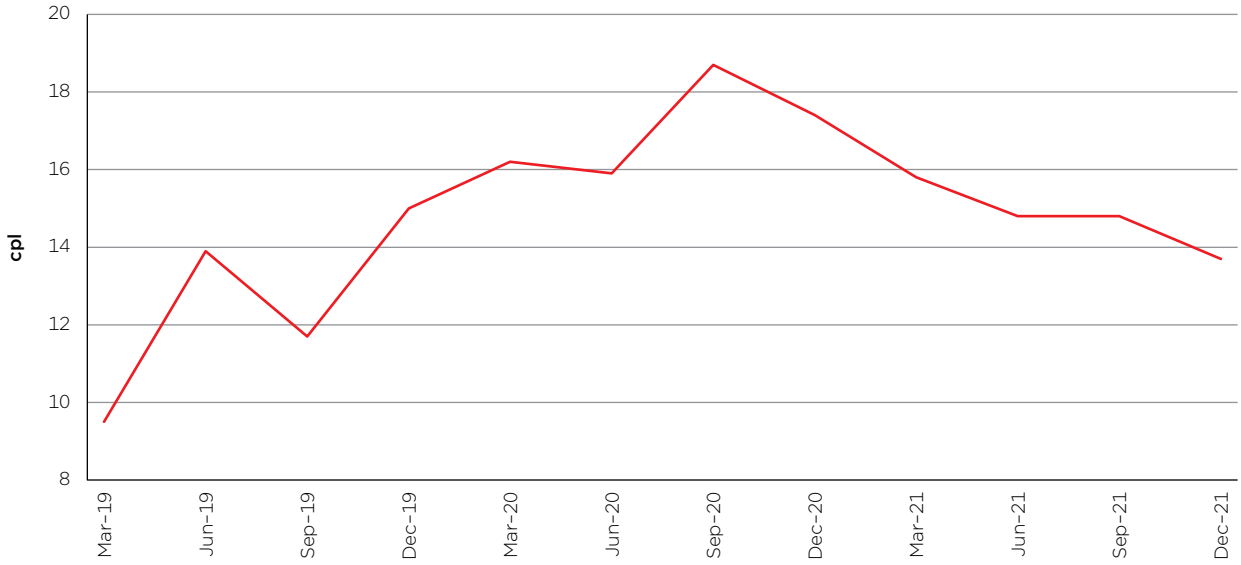
- in the December quarter 2021, GIRDs were 8.7 cpl in Adelaide, while GIRDs in Sydney, Melbourne, Brisbane and Perth were significantly higher at 16.8 cpl, 13.1 cpl, 15.6 cpl and 14.5 cpl respectively
- in 2021, annual average GIRDs were 9.7 cpl in Adelaide and 12.9 cpl in Perth, whereas in Sydney, Melbourne and Brisbane they were 16.5 cpl, 16.9 cpl and 18.2 cpl respectively.

The comparatively lower GIRDs in Adelaide are the result of relatively lower retail petrol prices. These may have been influenced by greater fuel price transparency following the commencement of the South Australian Government's fuel price transparency scheme in March 2021.

4.5 Average GIRDs in the 5 largest cities decreased over the past year

Chart 4.5 shows quarterly average GIRDs in the 5 largest cities (in aggregate) over the past 3 years from the March quarter 2019 to the December quarter 2021.

Chart 4.5: Quarterly average GIRDs in the 5 largest cities: March quarter 2019 to December quarter 2021



Source: ACCC calculations based on data from FUELtrac, AIP, Ampol, bp, Mobil, Viva Energy and WA FuelWatch.

The chart shows that quarterly average GIRDs in the 5 largest cities trended down in the 5 quarters following the record high GIRDs in the September quarter 2020 (18.7 cpl). Average GIRDs decreased by 5.0 cpl over the 5 quarters, to 13.7 cpl in the December quarter 2021, which is lower than levels before the COVID-19 pandemic.[41]

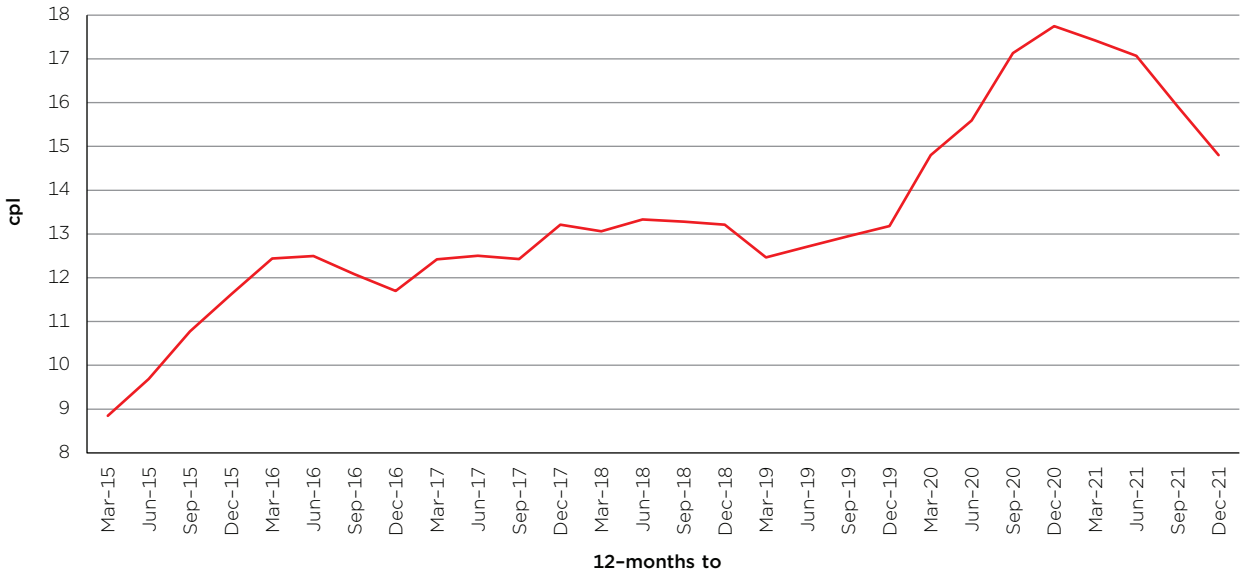
The chart also shows that GIRDs can be volatile on a quarterly basis. When TGPs increase by large amounts in a short period, lags between changes in TGPs and changes in retail prices often have the effect of reducing GIRDs in the short term. Conversely, when TGPs decrease by large amounts in a short period these lags often have the effect of increasing GIRDs.

The effects of the lags between changes in TGPs and retail prices, and their impact on GIRDs, is less prevalent when GIRDs are considered over a longer period.

41 Quarterly average GIRDs in the December quarter 2019 were 15.0 cpl.

Chart 4.6 shows 12-month average GIRDs in **real** terms across the 5 largest cities, calculated at the end of each quarter over the last 7 years.[42]

Chart 4.6: Twelve-month average GIRDs in the 5 largest cities in real terms: March 2015 to December 2021



Source: ACCC calculations based on data from FUELtrac, Informed Sources, Ampol, bp, Mobil, Viva Energy and WA FuelWatch, and Australian Bureau of Statistics, 6401.0 *Consumer Price Index, Australia, December 2021, Tables 1 and 2. CPI: All Groups, Index Numbers and Percentage Changes*, at: https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release#data-download, accessed on 22 February 2022.

Note: **Real** prices are shown in December 2021 dollars.

The chart shows that across the 5 largest cities there was a substantial increase in **real** 12-month average GIRDs between December 2019 and December 2020 (of 4.5 cpl). In the year to December 2020, 12-month average GIRDs reached their highest level on record in both nominal and real terms (17.7 cpl). Twelve-month average GIRDs have decreased by 2.9 cpl since then.

The chart also shows that:

- there was a substantial increase in 12-month average GIRDs between March 2015 and March 2016 (of 3.6 cpl)
- between March 2016 and December 2019, 12-month average GIRDs were in a 1.6 cpl band between 11.7 cpl and 13.3 cpl.

The ACCC analysed financial data provided by petrol companies on retail gross profits (i.e. retail operating costs and net profits) from 2005–06 to 2017–18 to further understand the reasons for the higher GIRDs over time.[43] The analysis found that both retail operating costs and net profits on RULP increased during the period, particularly between 2013–14 and 2016–17, suggesting that higher GIRDs had been influenced by increases in both operating costs and profits.[44]

42 i.e. using average retail prices and average TGPs over 12-month periods to the end of each quarter.

43 ACCC, *Financial performance of the Australian downstream petroleum industry 2002 to 2018*, 22 April 2020, pp. 34–36.

44 The analysis compared GIRDs (which are based on price data) with retail gross profit financial results on RULP (which are based on financial data). Both measures, although not directly comparable, showed a broadly similar upward trend over the longer term.

4.6 Decreases in GIRDs in the 5 largest cities likely reflect 2 main factors

There were 2 main factors that influenced the recent decreases in GIRDs in the 5 largest cities.

4.6.1 Petrol sales volumes recovered in the December quarter 2021 in some states

During 2020 and most of 2021 petrol sales volumes were significantly affected by COVID-19 restrictions, and retailers experiencing lower sales may have been keeping retail prices higher to cover their fixed costs. These effects from COVID-19 on petrol demand contributed to the high GIRDs in 2020–21.

Petrol retailing is a high-volume low-margin business with many fixed costs (such as rent and the cost of using a particular brand). This means that when sales volumes decline, the cost per unit of petrol will increase. To generate revenue to partially cover their fixed costs, some retailers may have been setting retail prices higher than they otherwise would.

In the September quarter 2021, average GIRDs were broadly stable in the 5 largest cities in aggregate, but they increased in both Sydney and Melbourne. COVID-19 restrictions and lower turnover of petrol in New South Wales and Victoria likely influenced higher GIRDs in these cities.

In the December quarter 2021, however, as COVID-19 restrictions eased in these states, sales volumes recovered with more petrol being purchased. This likely affected GIRDs, as some retailers may not have found it as necessary to keep retail prices higher to cover their fixed costs.

Average GIRDs decreased in both Sydney and Melbourne in the quarter as petrol sales volumes in New South Wales were around 47% higher than in the September quarter 2021, and petrol sales volumes in Victoria were around 31% higher.

4.6.2 Increasing wholesale prices likely contributed to average GIRDs decreasing over the past 5 quarters

Increasing international crude oil, refined petrol and wholesale petrol prices between November 2020 to November 2021 likely contributed to lower average GIRDs in the 5 largest cities (in aggregate). As noted above, when TGPs increase by large amounts in a short period, lags between changes in TGPs and changes in retail prices often have the effect of reducing GIRDs.

Viva Energy noted in its 2021 Half Year Results Presentation in August 2021 that increases in oil prices influenced lower retail fuel margins in the first half of 2021.[45] Viva Energy further noted that in the September quarter 2021 its retail fuel margins were negatively impacted by consistently rising oil prices through the period and the normal lag associated with reflecting these increased costs in retail pump prices.[46]

45 Viva Energy, *2021 Half Year Results Presentation*, 24 August 2021, p. 14, at: https://www.vivaenergy.com.au/investor-centre/asx-announcements, accessed on 22 February 2022.

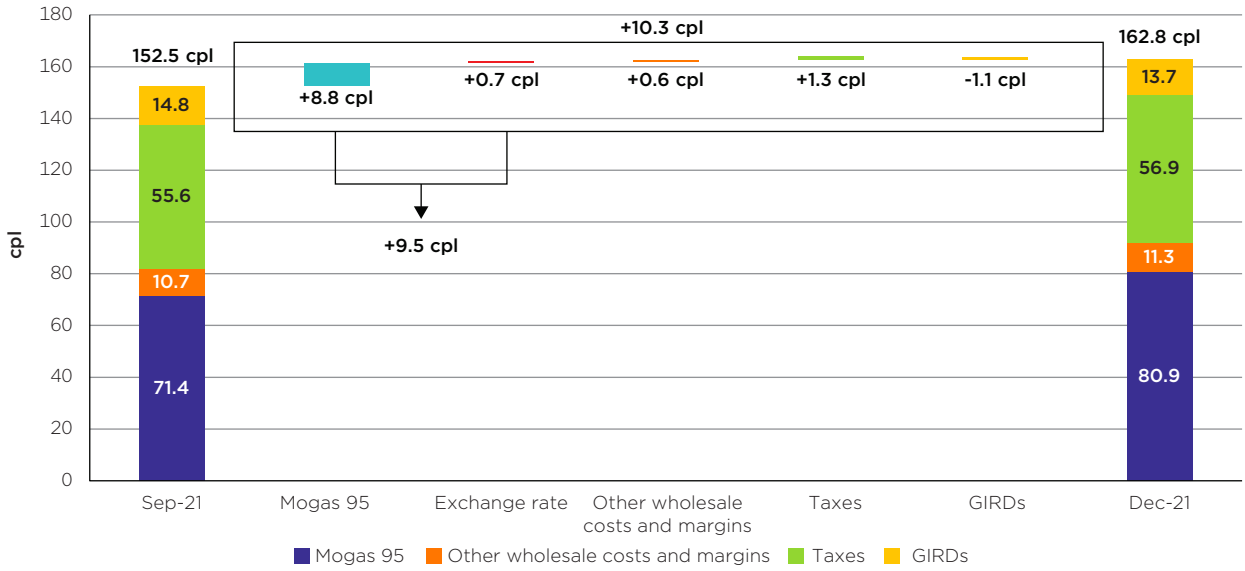
46 Viva Energy, *Third Quarter Operational and Trading Update*, ASX release, 25 October 2021, p. 1, at: https://www.vivaenergy.com.au/investor-centre/asx-announcements, accessed on 22 February 2022.

4.7 The increase in Mogas 95 prices was the main contributor to higher retail prices

Chart 4.7 shows the change in the components of average retail petrol prices in the 5 largest cities between the September quarter 2021 and December quarter 2021. The chart separates the other costs and margins component into:

- the retail component (represented by GIRDs)
- the other wholesale costs and margins component (which includes international shipping costs and import costs).

Chart 4.7: Changes in the components of average retail petrol prices in the 5 largest cities: September quarter 2021 to December quarter 2021



Source: ACCC calculations based on data from FUELtrac, Argus Media, Ampol, bp, Mobil, Viva Energy, WA FuelWatch, RBA and ATO.

Notes: All prices are in Australian cents per litre.

The taxes component includes fuel excise and wholesale GST. The small amount of retail GST is included in GIRDs rather than in taxes, to be consistent with GIRDs reported elsewhere in this report. As a result, the taxes component in this chart is not the same as the taxes component in chart 4.1.

The chart shows that the increase in average retail petrol prices in the 5 largest cities in the December quarter 2021 (10.3 cpl) was mainly due to the increase in the price of Mogas 95.

The AUD–USD exchange rate is a significant determinant of Australia's retail petrol prices because imported crude oil and international refined petrol (from which domestically refined petrol is priced) is bought and sold in US dollars in global markets. Excluding the effect of changes in the AUD–USD exchange rate (which decreased by US 0.6 cents in the quarter), Mogas 95 prices would have increased by 8.8 cpl in the quarter. The lower AUD–USD exchange rate however compounded the increase in Mogas 95 prices and resulted in Mogas 95 prices increasing by an additional 0.7 cpl in AUD terms. The net effect of movements in Mogas 95 prices and the AUD–USD exchange rate was that Mogas 95 prices in Australian cents per litre increased by 9.5 cpl.

5. Retail petrol price movements in the smaller capital cities and in regional locations

This chapter analyses petrol prices in the 3 smaller capital cities (Canberra, Hobart and Darwin) and in regional locations. The ACCC monitors fuel prices in over 190 regional locations across Australia. Appendix C lists these locations.

5.1 Retail prices in Canberra, Hobart and Darwin were higher than prices across the 5 largest cities

In the December quarter 2021, average retail prices increased in all 3 smaller capital cities: Hobart by 19.8 cpl, Darwin by 16.1 cpl and Canberra by 13.5 cpl.[47] Average retail prices in each of these cities were above the average price across the 5 largest cities.

Table 5.1 shows quarterly average retail prices in the September and December quarters 2021 in each of the 3 smaller capital cities and across the 5 largest cities. The table also shows the differential between quarterly average prices in each of the smaller capitals and the 5 largest cities.

Table 5.1: Quarterly average retail petrol prices in each of the smaller capital cities and the 5 largest cities: September and December quarters 2021 – cpl

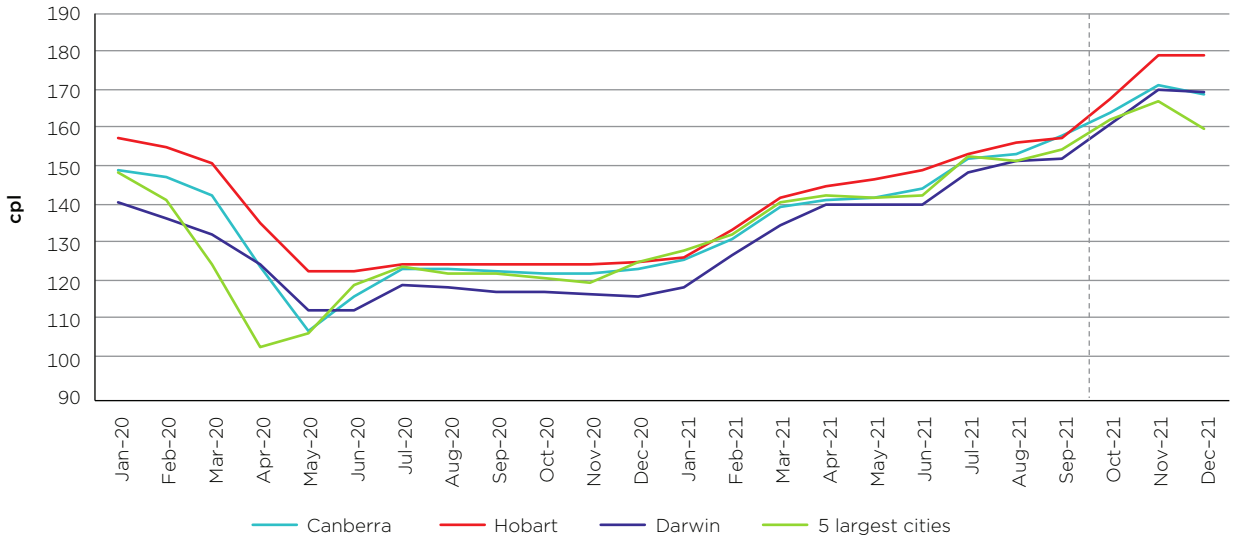
	Canberra	Hobart	Darwin	5 largest cities	Differential		
					Canberra	Hobart	Darwin
Sep–21	154.2	155.2	150.5	152.5	1.7	2.7	-2.0
Dec–21	167.7	175.0	166.6	162.8	4.9	12.2	3.8
Change	**13.5**	**19.8**	**16.1**	**10.3**	**3.2**	**9.5**	**5.8**

Source: ACCC calculations based on data from FUELtrac.

Chart 5.1 shows monthly average prices in each of the smaller capital cities and the 5 largest cities in the 2 years to December 2021.

47 Charts 5.8 to 5.10 show 7-day rolling average retail petrol prices in each of the 3 smaller capital cities over the 2 years to 31 December 2021.

Chart 5.1: Monthly average retail petrol prices in Canberra, Hobart, Darwin and the 5 largest cities: January 2020 to December 2021



Source: ACCC calculations based on data from FUELtrac.

The chart shows that in calendar year 2021, monthly average retail prices were:

- lower in Darwin than in the 5 largest cities in all months except August, November and December 2021
- higher in Canberra than in the 5 largest cities in 6 out of 12 months
- higher in Hobart than in the 5 largest cities in all months except January 2021.

5.2 Average regional prices were higher than prices in the 5 largest cities

In most parts of Australia, retail petrol prices have historically been higher in regional locations than in the 5 largest cities. A number of factors may contribute to these higher prices, including:

- a lower level of local competition
- lower volumes of fuel sold
- distance/location factors
- lower convenience store sales.

The influence of these factors varies significantly from location to location. This means that there may be substantial differences in prices between specific regional locations.

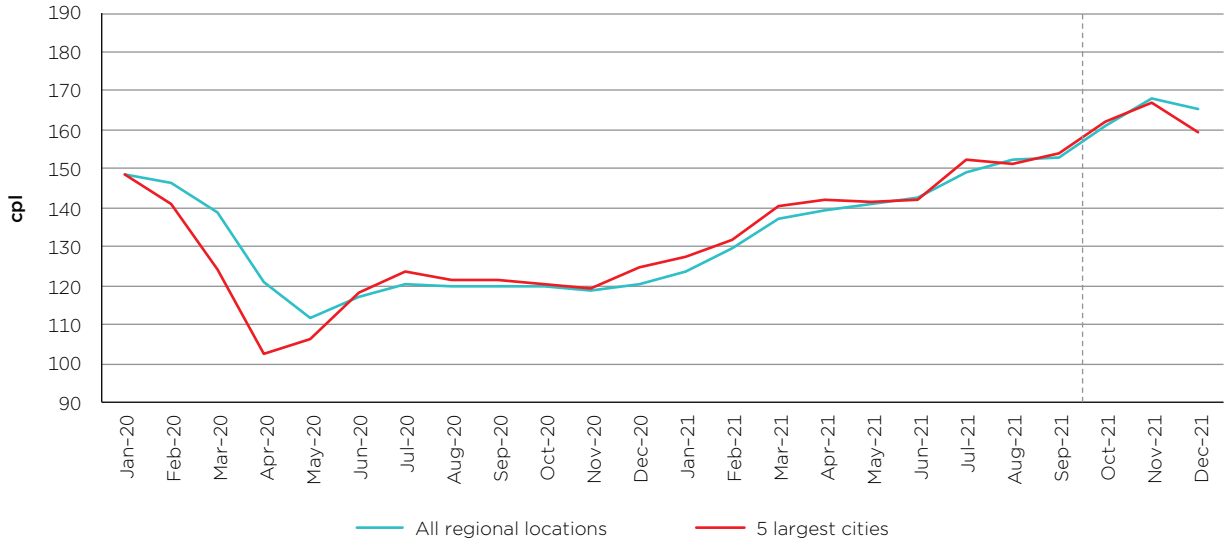
Despite these factors, average prices in regional locations in aggregate (regional prices) were lower than average prices in the 5 largest cities in the 5 quarters from the September quarter 2020 to the September quarter 2021.

In the December quarter 2021, average regional prices returned to being higher than average prices in the 5 largest cities.

Average regional prices in the December quarter 2021 were 164.8 cpl, which was 2.0 cpl higher than average prices in the 5 largest cities (162.8 cpl). In the September quarter 2021, average regional prices were 1.1 cpl lower.

Chart 5.2 shows that in calendar year 2021, monthly average regional prices were lower than prices in the 5 largest cities in all months except June, August, November and December 2021.

Chart 5.2: Monthly average retail petrol prices in regional locations in aggregate and the 5 largest cities: January 2020 to December 2021



Source: ACCC calculations based on data from FUELtrac.

Regional prices increased over the December quarter 2021. In October 2021, monthly average regional prices were 161.1 cpl, an increase of 8.1 cpl from September 2021 (152.9 cpl). They increased to 168.0 cpl in November 2021 before decreasing to 165.4 cpl in December 2021. Between September 2021 and December 2021, monthly average regional prices increased by 12.5 cpl, which was 7.1 cpl higher than the increase in average prices in the 5 largest cities over the same period (5.4 cpl).

In the December quarter 2021, average prices in 100 regional locations (representing around 56% of monitored locations) were higher than average prices in the 5 largest cities.

Appendix C has further information on petrol price movements in recent quarters in all locations the ACCC monitors.

5.3 Relatively lower regional prices in past quarters may have reflected more stable petrol demand in regional locations, and lagged effects from increasing wholesale prices

There are 2 main factors that are likely to have contributed to average retail prices in regional locations being lower than average prices in the 5 largest cities in past quarters.

The first is that petrol retailers in the 5 largest cities, faced with a reduction in demand associated with various COVID-19 restrictions and lockdowns, may have been setting retail prices higher to partially cover their fixed costs. As noted in chapter 4, lower petrol demand may have influenced higher GIRDs (and therefore higher retail prices) in the 5 largest cities in 2020 and 2021. Demand may have been more stable in many regional locations, and therefore retailers in those locations may not have had the same incentive to increase their retail prices by as much.

The second is that retail prices in regional locations likely took longer to reflect increasing wholesale prices from November 2020, compared with the 5 largest cities. While retail petrol prices in regional locations generally follow movements in wholesale prices, they often do not respond as quickly – either up or down – relative to prices in the 5 largest cities. The frequency of retail site turnover of fuel influences these lags. They are longer in regional locations where volume turnover is smaller and the degree of competition is often not as intense.

Both of these influences may have contributed to average retail prices in regional locations being relatively lower in past quarters compared with average prices in the 5 largest cities. The extent of their influence is likely to vary between regional locations. Differing levels of COVID-19 restrictions were applied across the country, and the length of lags varies among regional locations.

The higher relative prices in regional locations in the December quarter 2021 compared with those in the 5 largest cities may have been influenced by the increase in demand for petrol in Sydney and Melbourne as jurisdictions relaxed COVID-19 restrictions (noted in chapter 1), and the decrease in wholesale prices in the second half of the quarter being reflected more slowly in retail prices in regional locations than in retail prices in the 5 largest cities.

5.4 The difference between regional and city prices varied between jurisdictions

Table 5.2 shows the average differential between prices in regional locations in the states and Northern Territory and their respective capital city in the September quarter 2021, the December quarter 2021 and calendar year 2021.

Table 5.2 Average differential between prices in regional locations in the states and the Northern Territory and their respective capital city: September and December quarters 2021 and calendar year 2021 – cpl

	NSW regions – Sydney	Vic regions – Melbourne	Qld regions – Brisbane	SA regions – Adelaide	WA regions – Perth	Tas regions – Hobart	NT regions – Darwin
Sep–21	-3.8	-6.4	-6.2	3.7	4.3	0.4	12.5
Dec–21	-1.6	-0.1	-0.4	3.2	6.0	-2.7	8.0
2021	**-3.4**	**-5.0**	**-4.8**	**1.6**	**4.5**	**-1.0**	**10.3**

Source: ACCC calculations based on data from FUELtrac.

Notes: A negative number means that average regional prices were lower than average capital city prices.
RULP prices are used for Sydney and all New South Wales regional locations.

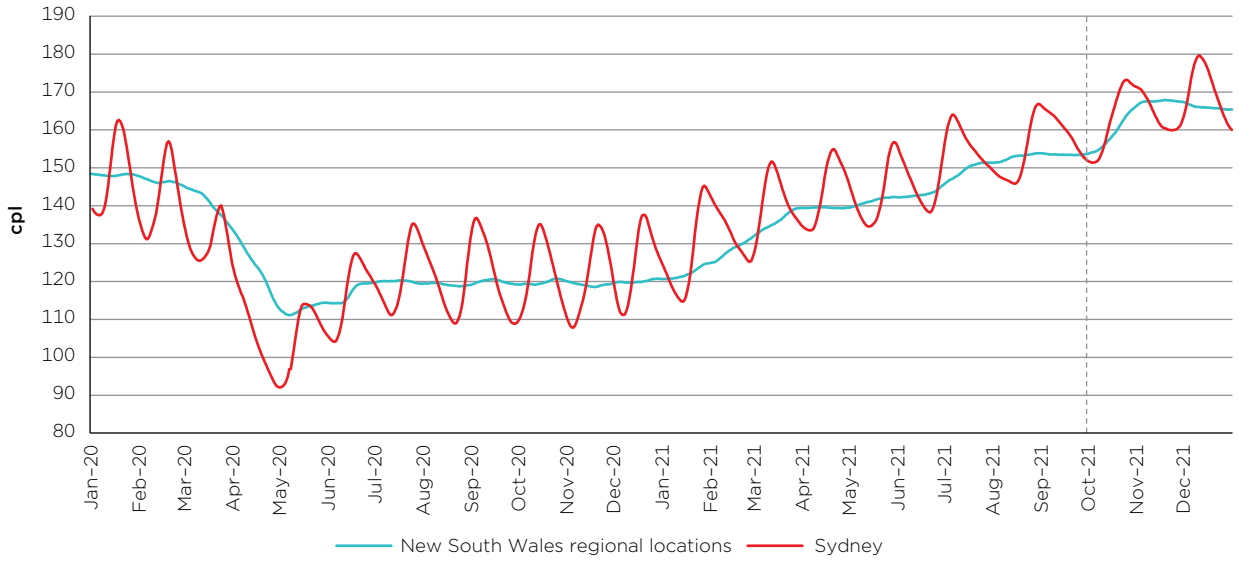
The table shows that:

- in the December quarter 2021, average regional prices were lower than average capital city prices in New South Wales, Victoria, Queensland and Tasmania, and higher in South Australia, Western Australia and the Northern Territory
- this differential ranged from regional prices being 2.7 cpl lower in Tasmania to being 8.0 cpl higher in the Northern Territory
- in calendar year 2021, the differential ranged from regional prices being 5.0 cpl lower in Victoria to being 10.3 cpl higher in the Northern Territory.

Charts 5.3 to 5.9 show 7-day rolling average retail petrol prices in regional locations in each state and the Northern Territory, along with those of the relevant capital city, from 1 January 2020 to 31 December 2021. They indicate that the pattern of price movements varies between the states and the Northern Territory.

Price cycles in a number of the capital cities significantly influence price comparisons between capital cities and regional locations over the short term. An example is the price differential between Sydney and regional locations in New South Wales in May 2020. The change in the Perth price cycle from a weekly duration to a fortnightly duration in the December quarter 2021, which was noted in chapter 3, is clearly apparent in chart 5.7.

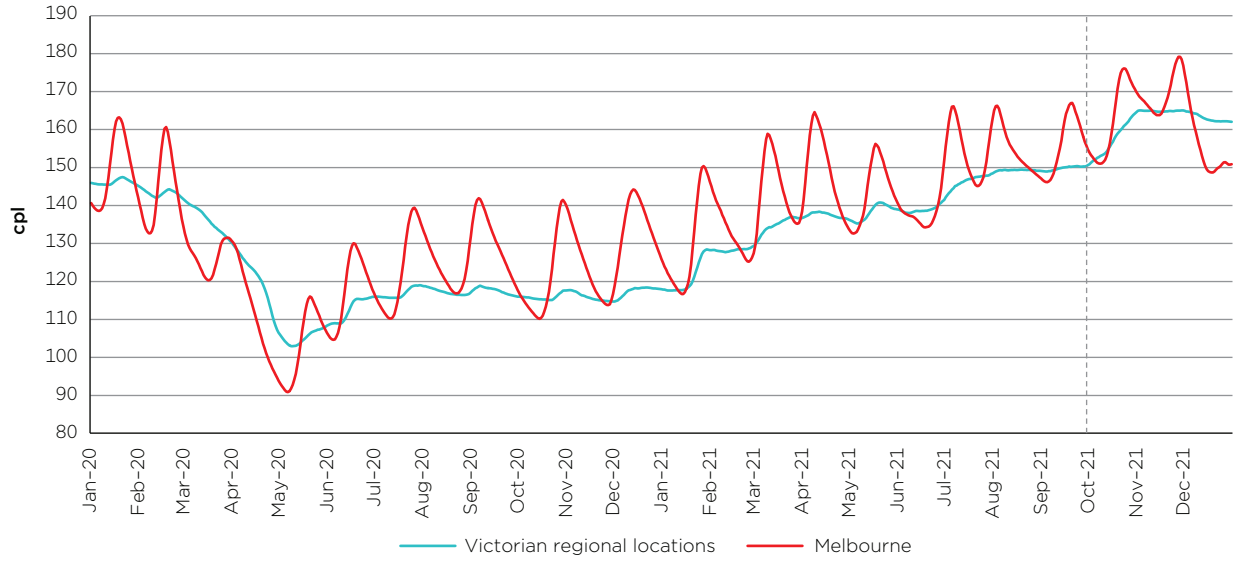
Chart 5.3: Seven-day rolling average petrol prices in New South Wales regional locations and Sydney: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac.

Notes: A 7-day rolling average price is the average of the current day's price and prices on the 6 previous days.
RULP prices are used for Sydney and all New South Wales regional locations.

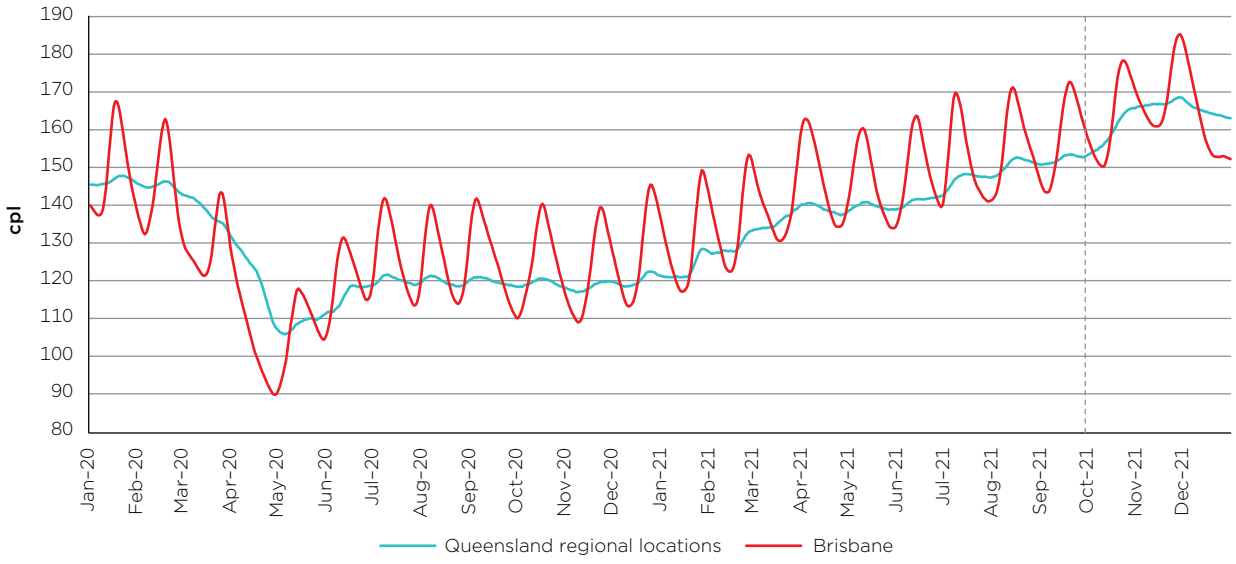
Chart 5.4: Seven-day rolling average petrol prices in Victorian regional locations and Melbourne: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac.

Note: A 7-day rolling average price is the average of the current day's price and prices on the 6 previous days.

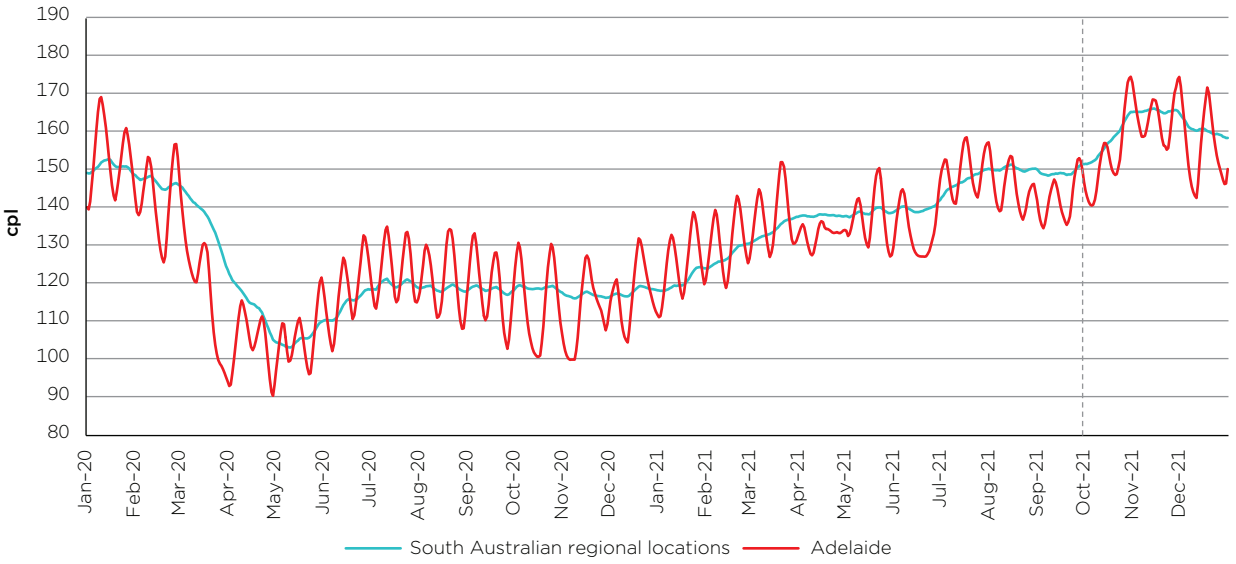
Chart 5.5: Seven-day rolling average petrol prices in Queensland regional locations and Brisbane: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac.

Note: A 7-day rolling average price is the average of the current day's price and prices on the 6 previous days.

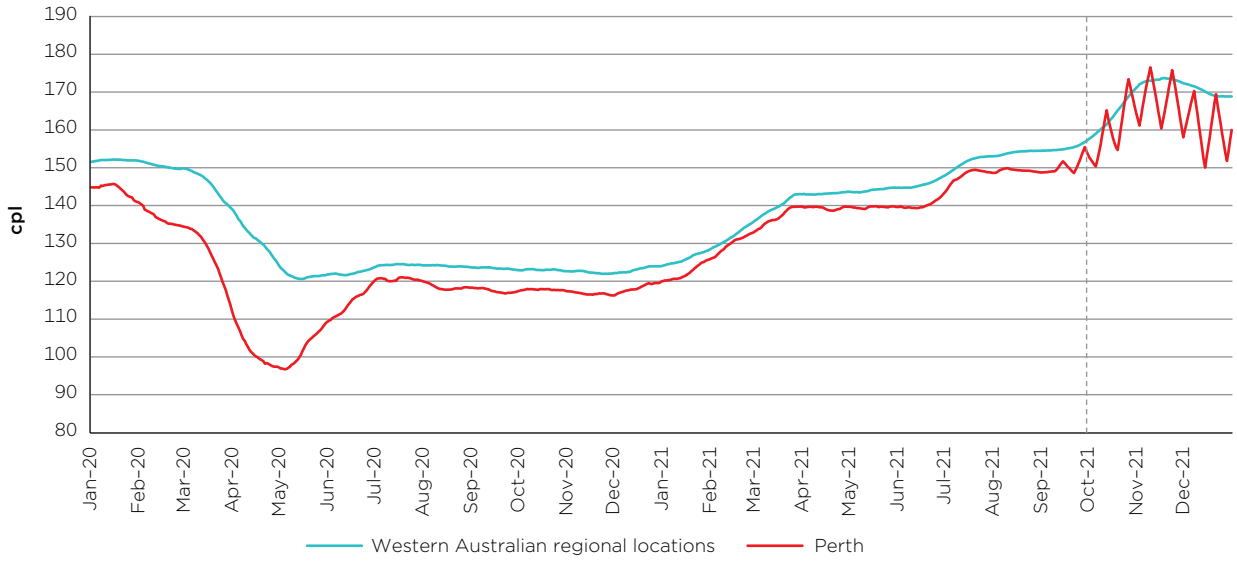
Chart 5.6: Seven-day rolling average petrol prices in South Australian regional locations and Adelaide: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac.

Note: A 7-day rolling average price is the average of the current day's price and prices on the 6 previous days.

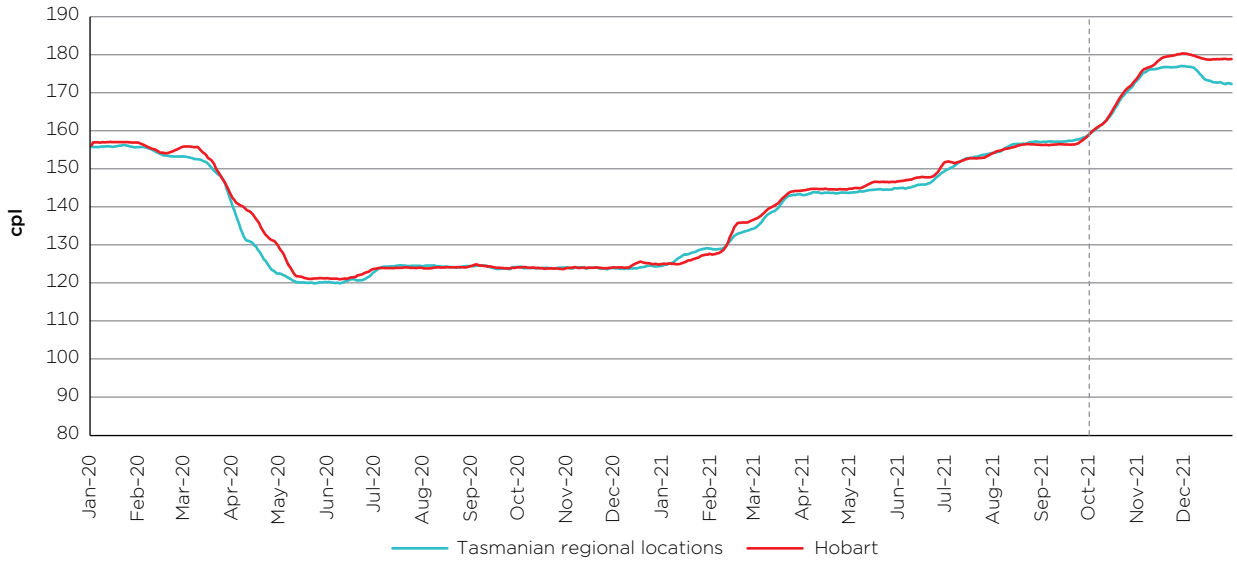
Chart 5.7: Seven-day rolling average petrol prices in Western Australian regional locations and Perth: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac.

Note: A 7-day rolling average price is the average of the current day's price and prices on the 6 previous days.

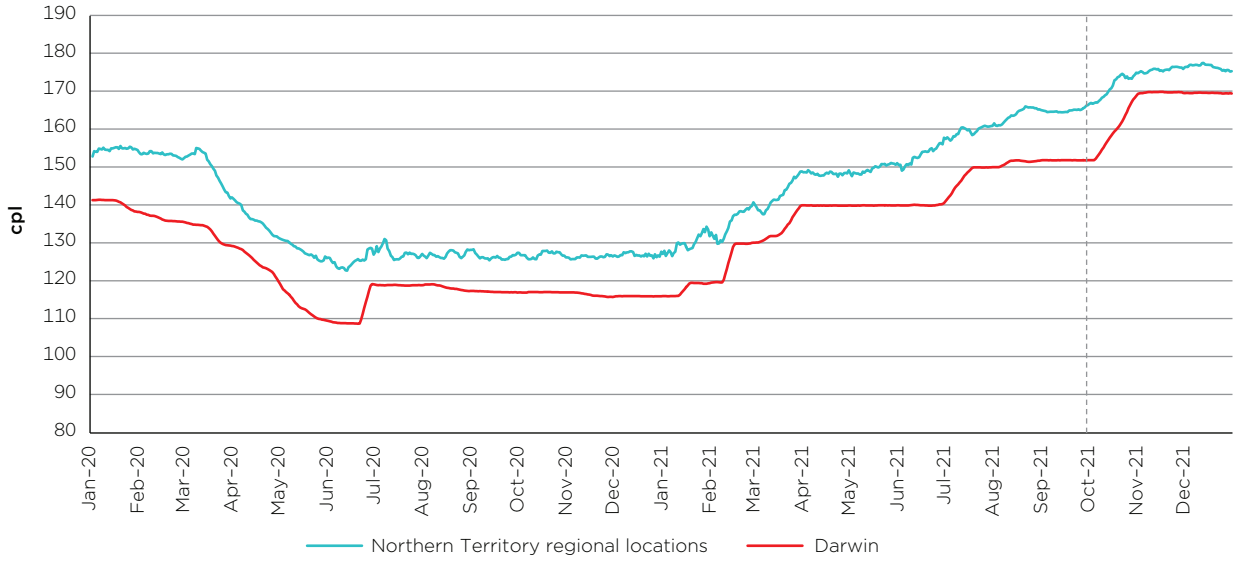
Chart 5.8: Seven-day rolling average petrol prices in Tasmanian regional locations and Hobart: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac.

Note: A 7-day rolling average price is the average of the current day's price and prices on the 6 previous days.

Chart 5.9: Seven-day rolling average petrol prices in Northern Territory regional locations and Darwin: 1 January 2020 to 31 December 2021

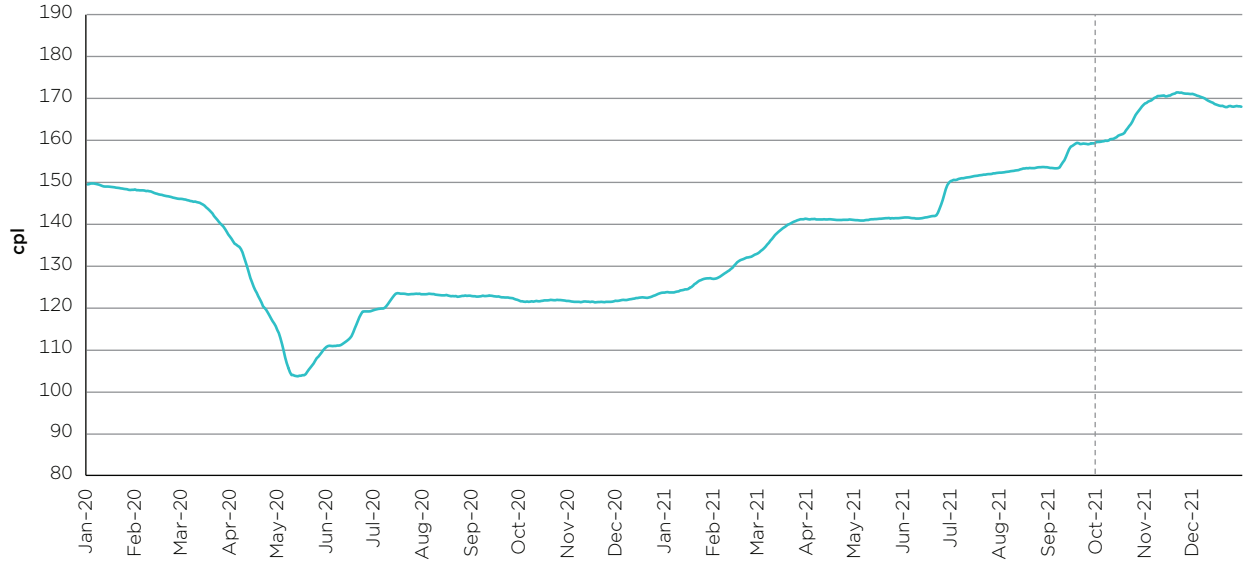


Source: ACCC calculations based on data from FUELtrac.

Note: A 7-day rolling average price is the average of the current day's price and prices on the 6 previous days.

Chart 5.10 shows 7-day rolling average retail petrol prices in Canberra from 1 January 2020 to 31 December 2021. There are no prices available for locations in the Australian Capital Territory other than Canberra.

Chart 5.10: Seven-day rolling average petrol prices in Canberra: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac.

Note: A 7-day rolling average price is the average of the current day's price and prices on the 6 previous days.

The ACCC undertook 4 regional petrol market studies between 2015 and 2017. These studies examined petrol markets in Darwin, Launceston, Armidale and Cairns. The ACCC has continued to monitor and report on petrol prices and GIRDs in these locations. Appendix D shows data on average retail petrol prices and GIRDs in each location.

6. Crude oil and refined petrol price movements

International refined petrol prices (which are influenced by international crude oil prices) and the AUD–USD exchange rate, largely determine movements in retail petrol prices in Australia.

Crude oil prices are an important influence on movements in refined petrol prices around the world. There are a number of international benchmarks used for pricing crude oil, including West Texas Intermediate (WTI), Brent, Tapis and Dubai. The most widely used benchmark in global markets is Brent crude oil.

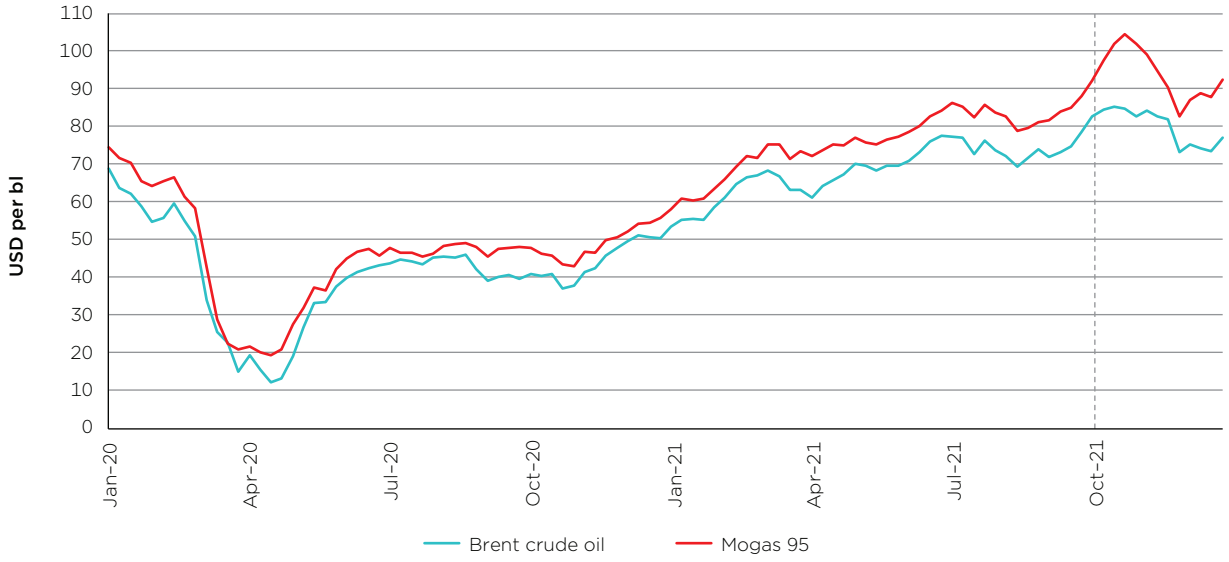
The price of Singapore Mogas 95 Unleaded (Mogas 95) is the relevant international benchmark price for determining RULP prices in Australia. This benchmark is used due to Australia's proximity to Singapore, which is one of the world's most important petroleum trading and refining centres.

Chapter 4 analysed movements in the AUD–USD exchange rate.

6.1 Crude oil and refined petrol prices increased

Chart 6.1 shows movements in weekly average Brent crude oil and Mogas 95 prices in the 2 years to December 2021.

Chart 6.1: Weekly average Brent crude oil and Mogas 95 prices: January 2020 to December 2021



Source: ACCC calculations based on data from Argus Media.

Weekly average Brent crude oil prices were around USD 69 per barrel at the beginning of January 2020 and trended downwards to around USD 12 per barrel in late April 2020.[48] They then increased sharply in May and June 2020, and remained relatively stable from July to November 2020 in a USD 9 per barrel band between around USD 37 and around USD 46 per barrel. Between late October 2020 and late September 2021, weekly average Brent crude oil prices doubled, reaching around USD 75 per barrel at the end of September 2021.

48 Weekly average Brent crude oil prices were last at this level in early March 1999 (in nominal terms).

Weekly average Brent crude oil prices continued increasing in the December quarter 2021, reaching a peak of around USD 85 per barrel at the end of October 2021. Prices subsequently decreased and were around USD 77 per barrel at the end of December 2021.

Weekly average Mogas 95 prices moved in a similar manner to Brent crude oil prices over the 2-year period. Weekly average Mogas 95 prices were around USD 75 per barrel at the beginning of January 2020 and trended downwards to around USD 19 per barrel in late April 2020.[49] They then increased sharply in May and June 2020, and remained relatively stable from July to November 2020 in a USD 7 per barrel band between around USD 43 and around USD 50 per barrel. Between late October 2020 and late September 2021, weekly average Mogas 95 prices doubled, reaching around USD 85 per barrel at the end of September 2021.

Weekly average Mogas 95 prices continued increasing in the December quarter 2021, reaching a peak of around USD 104 per barrel at the end of October 2021. Prices subsequently decreased and were around USD 93 per barrel at the end of December 2021.

Quarterly average Brent crude oil and Mogas 95 prices were higher in the December quarter 2021 compared with the September quarter 2021:

- quarterly average Brent crude oil prices were around USD 80 per barrel (an increase of USD 6 per barrel, or around 8%)
- quarterly average Mogas 95 prices were around USD 94 per barrel (an increase of USD 11 per barrel, or around 13%).

6.2 The OPEC cartel and COVID-19 were the main factors influencing crude oil prices

Two factors largely influenced movements in crude oil prices over the past 2 years:

- agreements (and, at times, disagreements) made by the Organisation of the Petroleum Exporting Countries (OPEC) cartel, and some other crude oil producing countries (including Russia), to cut production
- the influence of the COVID-19 pandemic on demand.

From mid-January 2020 news coming out of China about the COVID-19 outbreak, and its impact on Chinese economic activity, led to a fall in crude oil prices. On 30 January 2020, the World Health Organisation declared the virus a Public Health Emergency of International Concern.[50] As countries imposed restrictions on travel and economic activity, demand for crude oil and refined petrol products decreased significantly.

The inability of the OPEC cartel and other crude oil producing countries to agree on further production cuts at their meeting on 5 March 2020 compounded this decrease in demand. In March 2020, Saudi Arabia (the world's largest oil exporter) boosted production to its full capacity (12.3 million barrels per day) and announced discounts of almost 20% in key markets. The result was an immediate drop of more than 30% in crude oil prices.[51]

49 Weekly average Mogas 95 prices were last at this level in mid-June 1999 (in nominal terms).

50 World Health Organisation, *Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV)*, 30 January 2020, at: https://www.who.int/news/item/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov), accessed on 22 February 2022.

51 The World Bank, *Coping with a Dual Shock: COVID-19 and Oil Prices*, Brief, 14 April 2020, at: https://www.worldbank.org/en/region/mena/brief/coping-with-a-dual-shock-coronavirus-covid-19-and-oil-prices, accessed on 22 February 2022.

In April 2020, OPEC and other crude oil producing countries agreed to cuts in output of 9.7 million barrels per day in May and June 2020.[52] The agreement came as crude oil prices continued to decrease due to falling worldwide consumption resulting from COVID-19 and a 13-month high in OPEC's oil output in April 2020.[53] These production cuts ultimately led to a steady increase in crude oil prices to the end of June 2020.

In July and August 2020, crude oil prices remained relatively stable, but prices fell in September 2020 due to an increase in the supply of crude oil from OPEC countries and concerns of another demand shock due to rising cases of COVID-19 globally.[54] In November 2020, crude oil prices increased in response to news of the roll-out of COVID-19 vaccines and an associated increase in economic activity. Furthermore, a decline in the US dollar pushed prices higher.[55] On 3 December 2020, OPEC and other crude oil producing countries agreed to increase output by 0.5 million barrels per day from 1 January 2021.[56]

Production cuts and increasing global demand meant crude oil prices continued to increase in the March quarter 2021. In January 2021, Saudi Arabia announced it would voluntarily cut its own production by an additional 1.0 million barrels per day in February and March 2021.[57] Demand for crude oil was also influenced by cold weather in northern Asia, Europe and the United States.[58] At the OPEC and non-OPEC Ministerial Meeting on 4 March 2021, the members agreed to extend most existing production cuts into April 2021.[59]

On 1 April 2021, OPEC and non-OPEC countries agreed to increase output by 0.35 million barrels per day in May and June, and 0.4 million barrels per day in July.[60] In response to this news, crude oil prices decreased by around 5% in early April.[61] Throughout the remainder of April and into May 2021, crude oil prices increased as strong US economic data, a weaker US dollar and an expected recovery in demand outweighed concerns about higher COVID19 cases in Brazil and India.[62] In June 2021, recovering demand and falling US stockpiles led to crude oil prices rising further.[63]

On 18 July 2021, OPEC and non-OPEC countries agreed to adjust upward their overall crude oil production by 0.4 million barrels per day on a monthly basis from August 2021.[64]

In August 2021, crude oil supply was adversely affected as refineries in the United States ceased production following the impact of Hurricane Ida.

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52 Reuters, *Oil mixed as demand worries offset gains from output cut deal*, 13 April 2020, at: https://www.reuters.com/article/us-global-oil/oil-futures-little-changed-despite-record-output-cut-by-opec-idUSKCN21U0WQ?feedType=mktg&feedName=ousivMolt&WT.mc_id=Partner-Google, accessed on 22 February 2022.

53 Reuters, *OPEC April oil output surges to 13-month high before new cut deal*, 1 May 2020, at: https://www.reuters.com/article/oil-opec-survey-idUSL8N2CI8JG, accessed on 22 February 2022.

54 Reuters, *OPEC September oil output rises for third month on Libya restart, Iran*, 1 October 2020, at: https://www.reuters.com/article/us-oil-opec-survey-idUSKBN26L2XU, accessed on 22 February 2022.

55 Reuters, *Oil settles up, marking seventh straight weekly gain*, 18 December 2020, at: https://www.reuters.com/article/usglobal-oil/oil-settles-up-marking-seventh-straight-weekly-gain-idUSKBN28S09Q, accessed on 22 February 2022.

56 OPEC, *13th OPEC and non-OPEC Ministerial Meeting concludes*, press release, 5 January 2021, at: https://www.opec.org/opec_web/en/press_room/6310.htm, accessed on 22 February 2022.

57 Reuters, *Saudi voluntary oil cut to help with low demand in first quarter, OPEC chief says*, 14 January 2021, at: https://www.reuters.com/article/us-global-oil-opec-idUSKBN29I20C, accessed on 22 February 2022.

58 International Energy Agency, *Oil Market Report – March 2021*, at: https://www.iea.org/reports/oil-market-report-march-2021, accessed on 22 February 2022.

59 Reuters, *OPEC+ extends most oil output cuts into April, Saudi keeps voluntary curb*, 4 March 2021, at: https://www.reuters.com/article/oil-opec-cuts-int-idUSKBN2AW0WA, accessed on 22 February 2022; and OPEC, *14th OPEC and non-OPEC Ministerial Meeting*, press release, 4 March 2021, at: https://www.opec.org/opec_web/en/press_room/6375.htm, accessed on 22 February 2022.

60 Reuters, *Oil rises as OPEC+ decides on production policy*, 1 April 2021, at: https://www.reuters.com/article/idUSKBN2BO5X6, accessed on 22 February 2022.

61 Reuters, *Oil down 5% as rising OPEC+, Iranian output weighs*, 5 April 2021, at: https://www.reuters.com/article/idUSKBN2BS0T4, accessed on 22 February 2022.

62 Reuters, *Oil climbs to fresh 6-week high on bullish demand*, 29 April 2021, at: https://www.reuters.com/world/middle-east/oil-prices-extend-gains-demand-outlook-offsets-india-concerns-2021-04-29/, accessed on 22 February 2022.

63 Reuters, *Oil rises on lower U.S. stockpiles, demand recovery*, 30 June 2021, at: https://www.reuters.com/business/energy/oil-prices-climb-second-day-after-us-stockpiles-fall-2021-06-30/, accessed on 22 February 2022.

64 OPEC, *19th OPEC and non-OPEC Ministerial Meeting concludes*, press release, 18 July 2021, at: https://www.opec.org/opec_web/en/press_room/6512.htm, accessed on 22 February 2022.

In September and October 2021, crude oil prices were influenced by the energy crisis associated with shortages of gas, coal and electricity in some countries in Europe and Asia, which increased demand for crude oil as an alternative source of energy.[65] In November 2021 crude oil prices started to decrease, as higher prices led to increased supply.[66]

In December 2021, crude oil prices decreased following increasing cases of the Omicron coronavirus variant in Europe and the United States, and the implications this could have on oil demand.[67] Prices increased at the end of December 2021 as crude oil and fuel stocks decreased.[68]

6.3 Refiner margins were above the 10-year average

The refiner margin is the difference between the price of refined petrol and the price of crude oil. In the December quarter 2021, the average refiner margin was USD 13.5 per barrel (around 11.7 cpl in Australian dollars), an increase of USD 4.1 per barrel (AUD 3.7 cpl) from the previous quarter (USD 9.4 per barrel or AUD 8.0 cpl).

The average refiner margin in the December quarter 2021 was higher than the 10-year **real** average refiner margin (USD 12.2 per barrel). The last time the average refiner margin was higher than the 10-year **real** average refiner margin was the December quarter 2017.

6.4 Crude oil prices were above the long-term average

As with many commodities, crude oil prices fluctuate greatly. In the short term, market sentiment about economic conditions and geo-political events can drive rapid movements in crude oil prices. Over the medium to longer term, supply and demand factors drive prices, with periods of high or low prices lasting several years.

Extended periods of high crude oil prices provide an incentive for producers to invest in exploration and expansion. This leads to an increase in supply, which in turn puts downward pressure on prices. Conversely, when crude oil prices are low, producers tend not to invest, which puts upward pressure on prices, as supply is insufficient to meet the growth in demand.

Chart 6.2 shows that, over the 40 years to December 2021, WTI crude oil prices in **real** terms were on average around USD 64 per barrel. In the December quarter 2021, **real** WTI crude oil prices were on average around USD 78 per barrel, which was USD 6 per barrel higher than the September quarter 2021 (USD 72 per barrel) and USD 14 per barrel higher than the 40-year average.

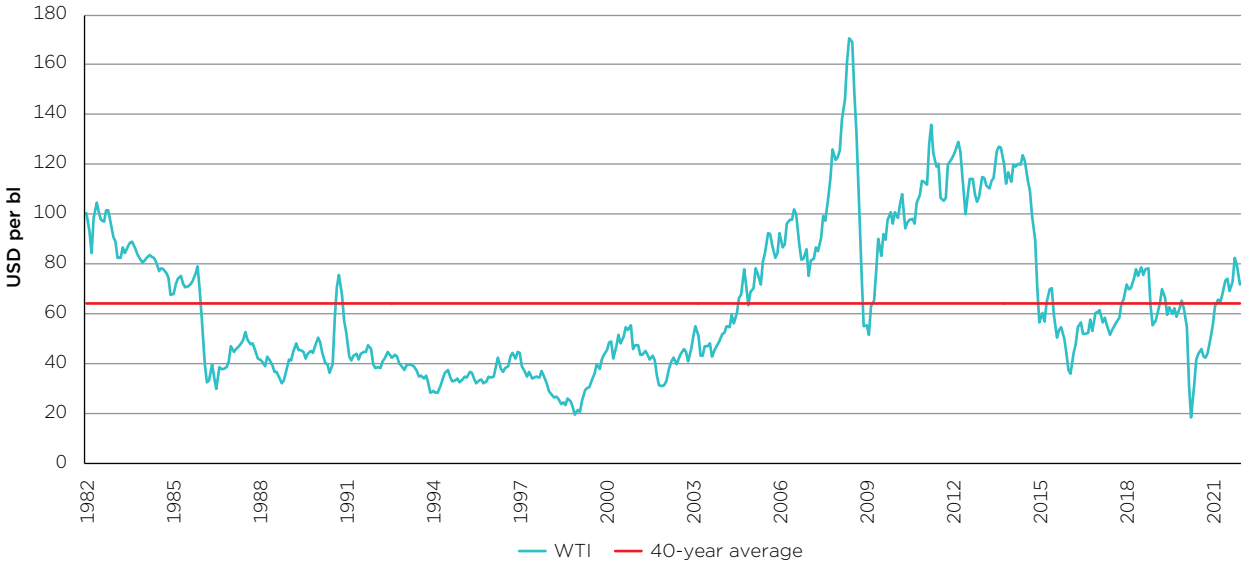
65 International Energy Agency, *Oil Market Report – October 2021*, at: https://www.iea.org/reports/oil-market-report-october-2021, accessed on 22 February 2022.

66 International Energy Agency, *Oil Market Report – November 2021*, at: https://www.iea.org/reports/oil-market-report-november-2021, accessed on 22 February 2022.

67 Reuters, *Oil prices plunge as Omicron's rapid spread dims fuel demand outlook* , 21 December 2021, at: https://www.reuters.com/markets/commodities/oil-prices-drop-2-rapid-omicron-spread-dims-fuel-demand-outlook-2021-12-20/, accessed on 22 February 2022.

68 Reuters, *Oil prices edge higher as US oil inventories fall*, 30 December 2021, at: https://www.reuters.com/markets/commodities/oil-firms-near-highest-since-late-november-risk-appetite-2021-12-29/ , accessed on 22 February 2022.

Chart 6.2: Monthly average real WTI crude oil prices: January 1982 to December 2021



Source: ACCC calculations based on data used with permission from *The Wall Street Journal,* WSJ.com, Copyright 2015 Dow Jones & Company, Inc. All rights reserved, Reuters and U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Price Index for all urban consumers*, at: https://beta.bls.gov/dataViewer/view/timeseries/CUUR0000SA0, accessed on 22 February 2022.

Note: **Real** prices are shown in December 2021 dollars.

7. Diesel and LPG prices

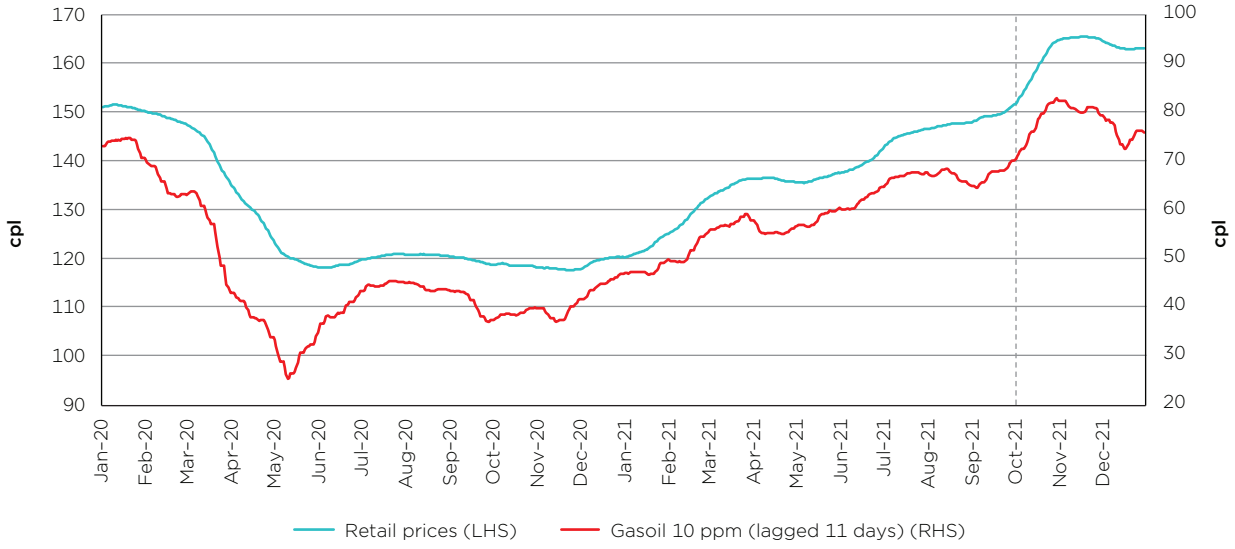
7.1 Retail diesel prices increased

Quarterly average retail diesel prices in the 5 largest cities were 162.8 cpl in the December quarter 2021, an increase of 15.2 cpl from the September quarter 2021 (147.6 cpl).

The price of Singapore Gasoil with 10 parts per million sulphur content (Gasoil 10 ppm) is the appropriate international benchmark for the wholesale price of diesel. International demand for diesel is different from that for petrol, in part because of diesel's off-road, industrial and electricity generation uses. However, both petrol and diesel are refined from crude oil and their prices broadly tend to follow similar movements over the long term.

Chart 7.1 shows that 7-day rolling average retail diesel prices in the 5 largest cities broadly tracked Gasoil 10 ppm prices over the 2 years to 31 December 2021.

Chart 7.1: Seven-day rolling average retail diesel prices in the 5 largest cities and Gasoil 10 ppm prices: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac, Argus Media and RBA.

Notes: A 7-day rolling average price is the average of the current day's price and prices on the 6 previous days.

Gasoil 10 ppm prices are lagged by 11 days as there is generally around a one to 2-week lag between changes in international prices and changes in retail prices in the 5 largest cities.

Seven-day rolling average retail diesel prices increased over the December quarter 2021. Prices were 151.8 cpl at the beginning of the quarter and increased to a high of 165.4 cpl in November, before decreasing to 163.1 cpl at the end of the quarter. Seven-day rolling average Gasoil 10 ppm prices in Australian cents per litre terms were 70.4 at the beginning of the quarter and increased to a high of 82.8 cpl in October, before decreasing to 75.8 cpl at the end of the quarter.

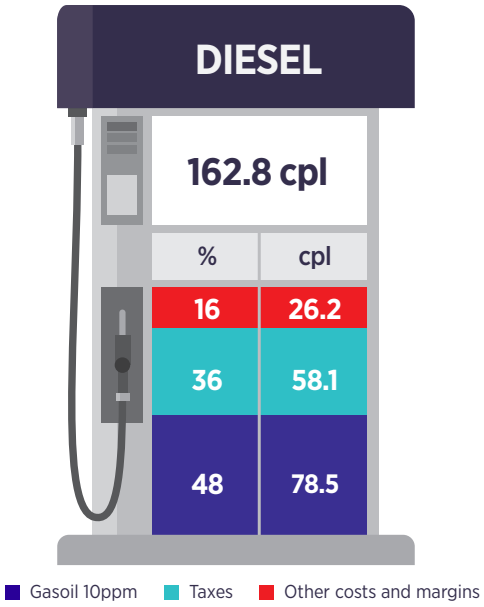
Quarterly average Gasoil 10 ppm prices in the December quarter 2021 in Australian cents per litre were 78.5 cpl, an increase of 10.2 cpl from the September quarter 2021 (68.3 cpl).

Unlike petrol prices, diesel prices in the 5 largest cities do not move in cycles. Diesel prices may not have price cycles because a large proportion of sales are to commercial users who purchase diesel on a contractual basis. According to the Australian Institute of Petroleum, only around 25% of the diesel used in Australia is sold through retail outlets, and much of that is sold to account customers with very little sold to private customers.[69]

7.2 Gasoil 10 ppm was the largest component of average diesel prices

Chart 7.2 shows the 3 broad components of average retail diesel prices in the 5 largest cities in the December quarter 2021.

Chart 7.2: Components of average retail diesel prices in the 5 largest cities in the December quarter 2021



Source: ACCC calculations based on data from FUELtrac, Argus Media, RBA and ATO.

The chart shows that in the December quarter 2021:

- Gasoil 10 ppm accounted for 48% of average diesel prices, an increase of 2 percentage points from the September quarter 2021
- taxes accounted for 36% of average diesel prices, a decrease of 2 percentage points
- other costs and margins accounted for 16% of average diesel prices, an increase of 1 percentage point.[70]

As with average retail petrol prices in the December quarter 2021, the international benchmark price accounted for the largest component of average retail diesel prices in the quarter.

69 Australian Institute of Petroleum, *Facts about diesel prices & the Australian fuel market*, at: https://www.aip.com.au/sites/default/files/download-files/2020-02/Facts%20about%20Diesel%20Prices%20and%20the%20Australian%20Fuel%20Market.pdf, accessed on 22 February 2022.

70 The percentage changes in the quarter do not sum to zero due to rounding.

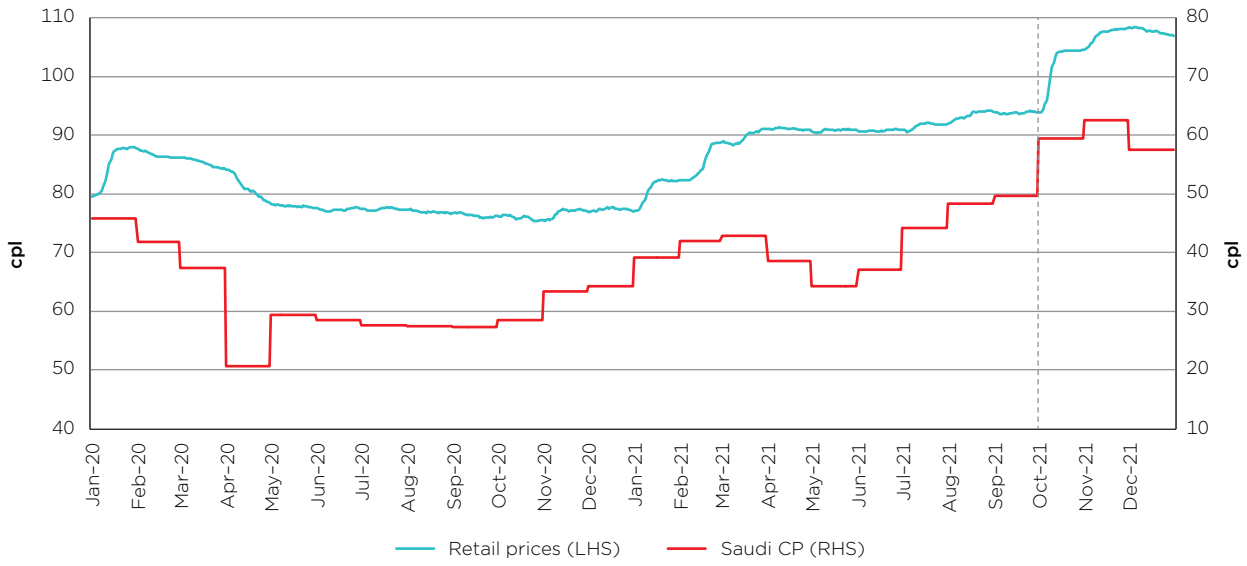
7.3 Retail LPG prices increased

Quarterly average retail LPG prices in the 5 largest cities in the December quarter 2021 were 106.0 cpl, an increase of 13.0 cpl from the September quarter 2021 (93.0 cpl).[71]

The Saudi Aramco Contract Prices for propane and butane (Saudi CP) are the appropriate international benchmarks for wholesale LPG prices. These prices only change once a month, at the start of each month. International LPG prices loosely move in line with international refined petrol and diesel prices.

Chart 7.3 shows that movements in retail LPG prices over the 2 years to 31 December 2021 were less responsive, both up and down, to movements in international benchmark prices.

Chart 7.3: Seven-day rolling average retail LPG prices in the 5 largest cities and monthly Saudi CP benchmarks: 1 January 2020 to 31 December 2021



Source: ACCC calculations based on data from FUELtrac, Reuters and RBA.

Note: A 7-day rolling average price is the average of the current day's price and prices on the 6 previous days.

Seven-day rolling average retail LPG prices increased significantly in the December quarter 2021. Prices were 93.9 cpl at the beginning of the quarter and increased to 106.8 cpl at the end of the quarter. The Saudi CP benchmarks in Australian cents per litre increased by 12.4 cpl from the end of September 2021. The benchmark price was 49.7 cpl in September 2021 and 57.5 cpl in December 2021.

Quarterly average Saudi CP benchmarks in the December quarter 2021 were 59.8 cpl, an increase of 12.4 cpl from the September quarter 2021 (47.4 cpl).

As the Saudi CP benchmarks only change at the start of each month, the relationship between movements in the international benchmark prices and retail prices for LPG is different from petrol and diesel. Furthermore, non-transport factors, such as demand for heating (particularly in the Northern Hemisphere) also influence international LPG prices.

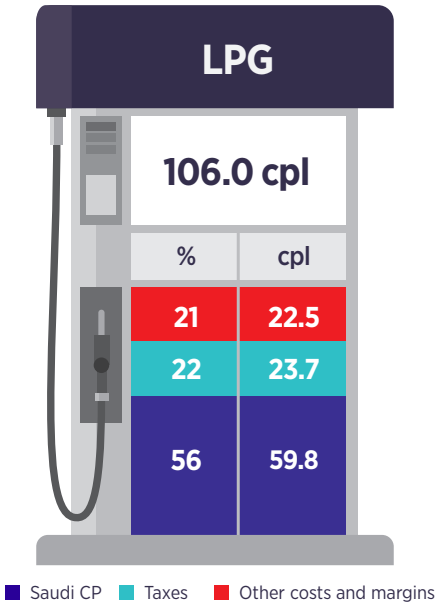
Like diesel prices, retail LPG prices tend to be less volatile than petrol prices and do not move in cycles. LPG usage in Australia is significantly less than petrol and diesel usage and has been declining for many years. There are also fewer retailers of LPG, particularly outside Victoria (where around half of Australia's LPG is sold).

71 References to LPG refer to automotive liquefied petroleum gas.

7.4 Saudi CP were the largest component of average LPG prices

Chart 7.4 shows the 3 broad components of average retail LPG prices in the 5 largest cities in the December quarter 2021.

Chart 7.4: Components of average retail LPG prices in the 5 largest cities in the December quarter 2021



Source: ACCC calculations based on data from FUELtrac, Reuters, RBA and ATO.

Note: Percentages in the chart do not total 100% due to rounding.

The chart shows that in the December quarter 2021:

- the Saudi CP international benchmarks accounted for 56% of average retail LPG prices, an increase of 5 percentage points from the September quarter 2021
- taxes accounted for 22% of average retail LPG prices, a decrease of 2 percentage points
- other costs and margins accounted for 21% of average retail LPG prices, a decrease of 4 percentage points.[72]

Other costs and margins make up a relatively large proportion of the retail price for LPG compared with those for petrol and diesel because of the higher transportation and storage costs for LPG, and the lower rate of excise.

72 The percentage changes in the quarter do not sum to zero due to rounding.

Appendix A: Methodological change in this report – Use of RULP prices instead of E10 prices in Sydney

Between 1 July 2014 and 30 September 2021, the ACCC used E10 prices (i.e. RULP with up to 10% ethanol) instead of RULP prices in Sydney. This also applied to Sydney prices included in average prices across the 5 largest cities, which is one of the main price indicators used by the ACCC in its petrol monitoring.

E10 prices were used because sales of E10 were higher than sales of RULP in Sydney in 2014 and was influenced by the ethanol mandate in New South Wales. Data available to the ACCC indicates that this is no longer the case. As a result, RULP prices are now used in Sydney.

Data for the September quarter 2021 in this report has been revised to reflect this change, so that from the beginning of the financial year 2021-22 data is presented on a similar basis. This means that some prices for the September quarter 2021 in this report will be different from those in the *Report on the Australian petroleum market September quarter 2021*. In some chapters, Sydney prices have been revised beyond 30 June 2021. These instances are noted in the report.

Over the 7-year period between 1 July 2014 and 30 June 2021, E10 prices were on average 1.8 cpl lower than RULP prices in Sydney. Therefore, using E10 prices for Sydney in average prices across the 5 largest cities over this period meant that they were on average around 0.4 cpl lower than if RULP prices in Sydney had been used.

Appendix B: Change in the Perth petrol price cycle from weekly to fortnightly

In early October 2021 the petrol price cycle in Perth changed from a weekly to a fortnightly price cycle. Price cycles had been consistently occurring on a weekly basis since 2011. In recent years, petrol prices generally reached a peak price on a Wednesday and decreased to a low price on the following Tuesday.

On 12 October 2021, the WA Department of Mines, Industry Regulation and Safety (the department that maintains the WA FuelWatch scheme) issued a media release about the change in the price cycle in Perth, identifying a change in pricing at Ampol sites as the cause.[73]

The following 3 charts show daily average petrol prices by major brand in Perth over the 6 months to 31 December 2021. Each chart shows a 2-month period.

The charts show that the major brands set petrol prices in a broadly cyclical pattern throughout the 6-month period, with different brands showing a variety of pricing levels throughout the cycles.[74] The charts also show the initial change in pricing at Ampol/Caltex retail sites from September 2021, and the gradual adoption of a fortnightly price cycle by other brands in Perth.[75]

There are a couple of features of the FuelWatch scheme that facilitates analysis of Perth retail petrol prices by brand:

- retail prices in Perth are fixed for a 24-hour period from 6:00 am every day
- historical price data is publicly available.[76]

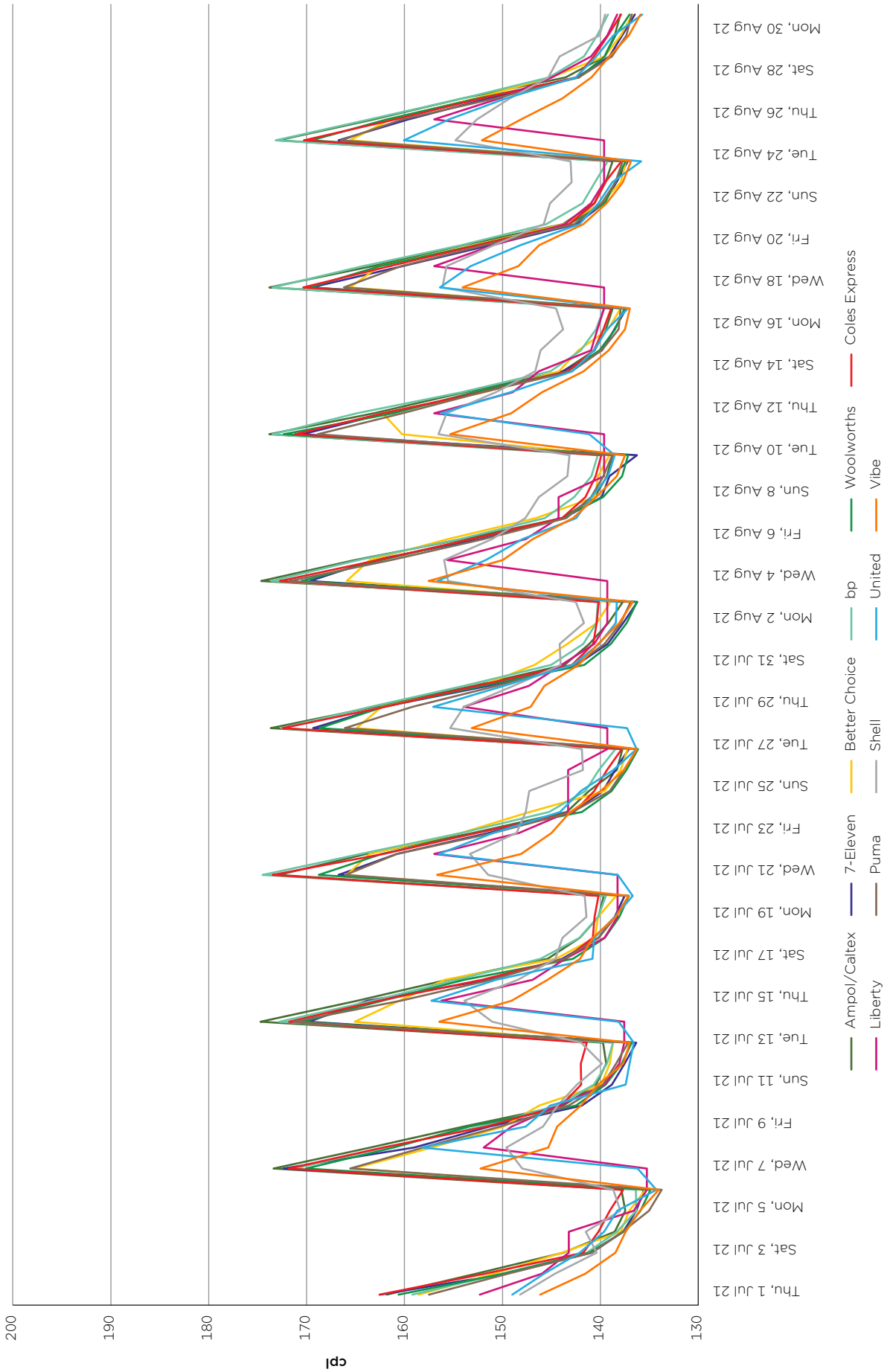
73 Department of Mines, Industry Regulation and Safety, *Change to Perth's petrol price cycle*, Media release, 12 October 2021.

74 As this analysis focuses on the price cycle, a number of brands that did not set petrol prices in a broadly cyclical pattern during this period are excluded from the charts. These brands are: Atlas, Costco, FastFuel 24/7, Mogas and Wesco.

75 While there were 'Ampol' branded retail sites and 'Caltex' branded retail sites in Perth in the second half of 2021, these sites have been combined in this analysis as 'Ampol/Caltex'. This is because the ACCC understands that Ampol sets the retail price at most of these retail sites, and because of the transition of several of these sites from the 'Caltex' brand to 'Ampol' during this period.

76 The data is available from the WA FuelWatch website at: https://www.fuelwatch.wa.gov.au/retail/historic, accessed on 22 February 2022.

Chart B.1: Daily average petrol prices by major brand in Perth: 1 July to 31 August 2021



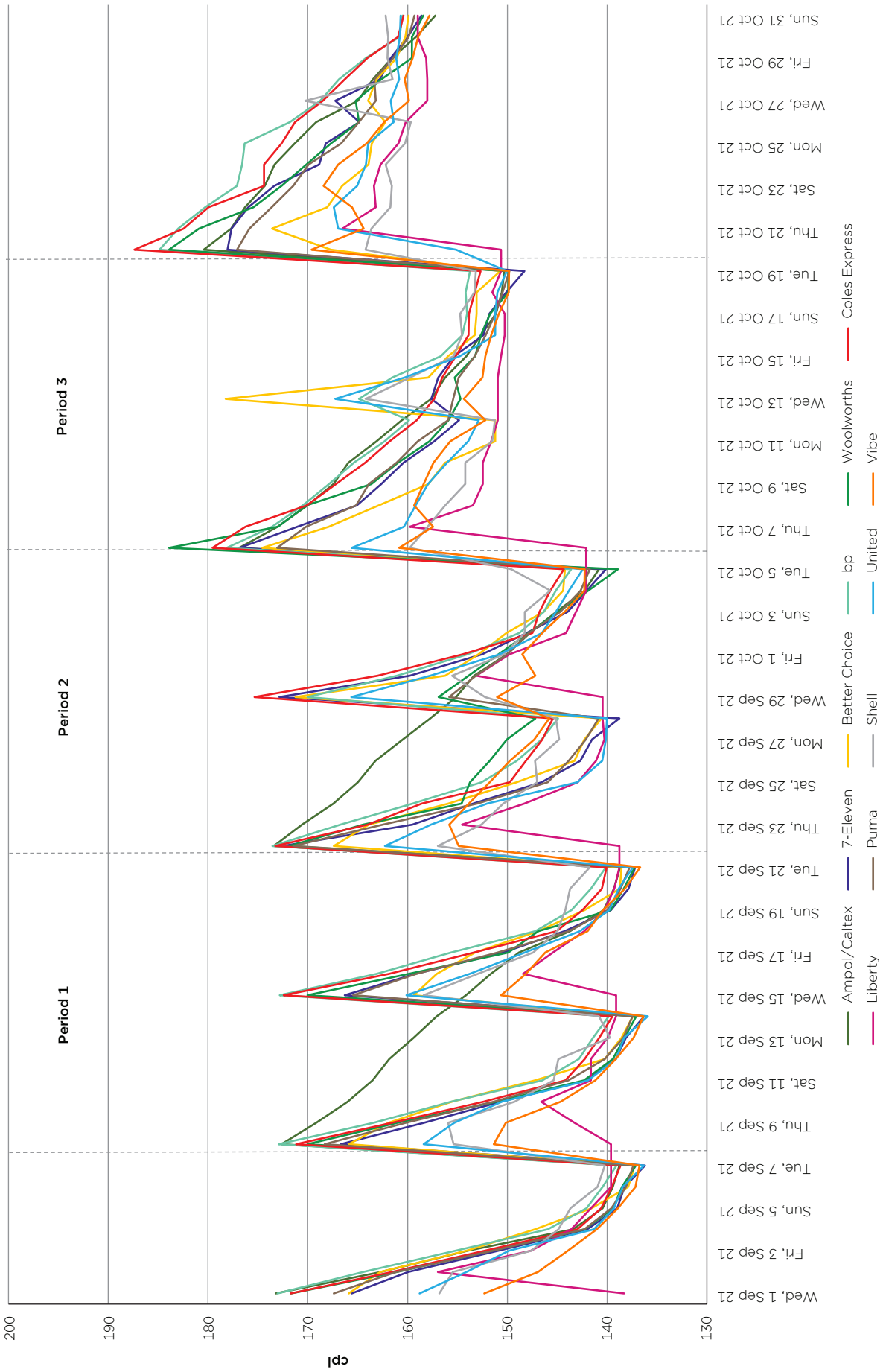
Source: ACCC calculations based on WA FuelWatch data.

Chart B.1 shows that major brands tended to each follow a similar, weekly pattern throughout July and August 2021:

- brands such as Ampol/Caltex, 7-Eleven, Coles Express, bp, Woolworths and Puma typically set higher prices at the peak of the cycle
- United, Liberty, Vibe and Shell did not set their prices as high at the peak.

Chart B.2 shows that throughout September and October 2021, over a period of around 6 weeks, most major brands changed their pricing to a fortnightly price cycle, after Ampol/Caltex first changed its pricing approach in early September.

Chart B.2: Daily average petrol prices by major brand in Perth: 1 September to 31 October 2021



Source: ACCC calculations based on WA FuelWatch data.

Chart B.2 shows 3 distinct periods when retailers changed their pricing strategies to adopt a fortnightly price cycle.

Period 1 – 8 to 21 September

On Wednesday 8 September, after the weekly price cycle reached a peak, Ampol/Caltex sites changed their pricing:

- most brands generally reduced prices in line with a regular weekly price cycle, to a low price the following Tuesday 14 September, and then increased prices the next day to a new peak price on Wednesday 15 September
- however, Ampol/Caltex reduced prices more gradually over the next 2 weeks to a low price on Tuesday 21 September.

Period 2 – 22 September to 5 October

On Wednesday 22 September, Ampol/Caltex and most other brands increased prices to a new peak price and then a slightly different pattern occurred:

- Ampol/Caltex again reduced prices more gradually over the next 2 weeks to a low price on Tuesday 5 October
- some brands generally reduced their prices in line with what was the regular weekly price cycle to a low price the following Tuesday 28 September, and then increased prices the next day to a new peak price on Wednesday 29 September
- other brands, including Woolworths and Puma, appear to have increased their prices to a level similar with prices at Ampol/Caltex around Wednesday 29 September (i.e. not set a peak price as high as they had previously), and then decreased prices to a low price on Tuesday 5 October.

Period 3 – 6 to 19 October

On Wednesday 6 October, most brands (including Ampol/Caltex) increased prices to a new peak price and most brands subsequently reduced their prices more gradually over the following 2 weeks in line with a fortnightly cycle, to a low price on Tuesday 19 October.

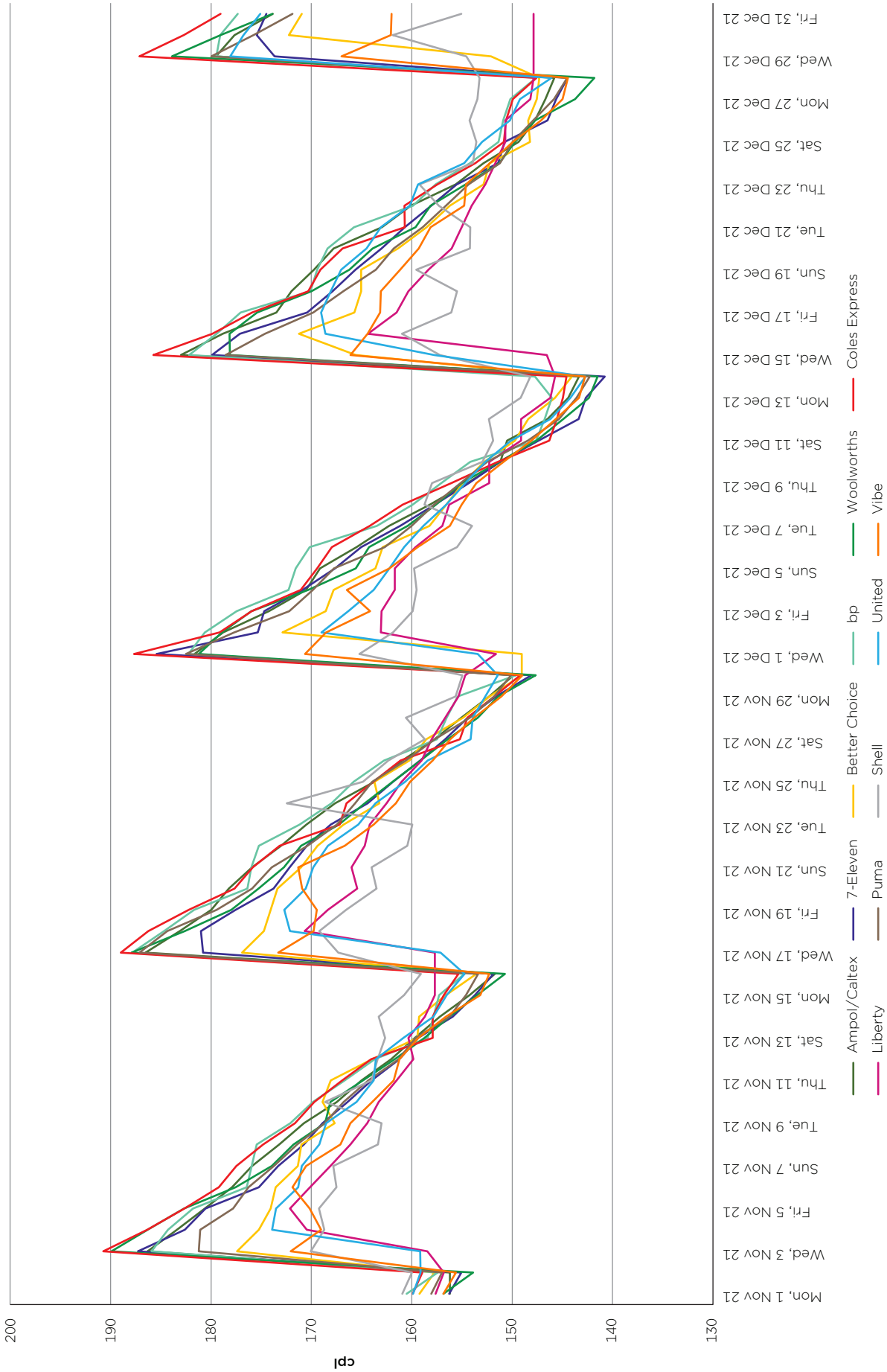
A smaller number of brands, including Better Choice, United, and bp, continued to reduced prices in line with a regular weekly price cycle, to a low price the following Tuesday 12 October, and then increased prices the next day to a new peak price on Wednesday 13 October.

On Wednesday 20 October, most brands (including Ampol/Caltex) increased prices to a new peak price and most brands subsequently reduced their prices more gradually over the following 2 weeks in line with a fortnightly cycle.

A smaller number of brands, including 7-Eleven and Shell increased their prices one week later, on Wednesday 27 October, although the daily price increases were relatively small.

Chart B.3 shows that in November and December, the major brands generally maintained a fortnightly price cycle. Similar to when the weekly price cycles occurred, average prices for different brands show a variety of pricing levels throughout the cycles.

Chart B.3: Daily average petrol prices by major brand in Perth: 1 November to 31 December 2021



Source: ACCC calculations based on WA FuelWatch data.

Appendix C: Petrol price data for monitored locations

The ACCC monitors fuel prices in all capital cities and over 190 regional locations across Australia. Table C1 shows quarterly average retail petrol prices in the September quarter 2021 and the December quarter 2021, and the change between the 2 quarters, in these locations.[77] It also shows the differential between average prices in each location and average prices across the 5 largest cities, and the location's capital city, in the December quarter 2021 and in calendar year 2021.[78]

Table C1: Quarterly average petrol prices in the September quarter 2021 and the December quarter 2021, and differentials in the December quarter 2021 and calendar year 2021 – cpl

			Change	Differential Dec 2021		Differential 2021	
Location	**Sep 21**	**Dec 21**	**Sep to Dec 21**	**5 largest cities**	**Capital city**	**5 largest cities**	**Capital city**
Sydney	156.0	166.2	10.2				
Melbourne	155.2	162.2	7.0				
Brisbane	156.6	164.5	7.9				
Adelaide	145.3	157.9	12.6				
Perth	149.6	163.3	13.7				
5 largest cities	**152.5**	**162.8**	**10.3**				
Hobart	155.2	175.0	19.8	12.2		4.8	
Canberra	154.2	167.7	13.5	4.9		1.2	
Darwin	150.5	166.6	16.1	3.8		-1.9	
New South Wales							
Albury	150.4	162.9	12.5	0.1	-3.3	-3.5	-6.1
Armidale	149.3	161.7	12.4	-1.1	-4.5	-3.3	-5.9
Ballina	156.4	171.1	14.7	8.3	4.9	4.1	1.5
Batemans Bay	155.6	169.2	13.6	6.4	3.0	3.4	0.8
Bathurst	150.4	160.8	10.4	-2.0	-5.4	-4.0	-6.6
Bega	154.9	166.5	11.6	3.7	0.3	1.0	-1.6
Broken Hill	159.5	171.9	12.4	9.1	5.7	5.9	3.3
Bulahdelah	147.8	161.3	13.5	-1.5	-3.5	-6.8	-7.9
Casino	147.8	162.4	14.6	-0.4	-3.8	-2.7	-5.3
Central Coast	157.5	163.5	6.0	0.7	-2.7	3.1	0.5
Coffs Harbour	155.0	167.3	12.3	4.5	1.1	1.9	-0.7
Cooma	155.8	166.4	10.6	3.6	0.2	2.7	0.1
Coonabarabran	155.3	161.7	6.4	-1.1	-3.1	0.3	-0.8

77 The source for all prices in this appendix is ACCC calculations based on data from FUELtrac. For prices to be included in the table there had to be price observations on at least 75% of days in the quarter/year. Eleven locations – Buronga, Gundagai, Oberon, Blackall, Charleville, Cunnamulla, Mt Isa, Normanton, Weipa, Coober Pedy and Orbost – did not have sufficient data for the September or December quarters 2021. E10 prices instead of RULP prices are reported in Bulahdelah, Coonabarabran, Cowra, Gilgandra, Gunnedah, Murwillumbah, Narrabri, Ulladulla, Wellington, West Wyalong and Yass.

78 Average RULP prices in calendar year 2021 across the 5 largest cities were 147.9 cpl. Average prices in each capital city were: Sydney – 150.5 cpl, Melbourne – 149.6 cpl, Brisbane – 151.0 cpl, Adelaide – 142.7 cpl, Perth – 145.9 cpl, Darwin – 146.0 cpl, Hobart – 152.7 cpl, and Canberra – 149.1 cpl. For those locations in New South Wales in the table for which E10 prices are reported, the differential with prices in Sydney uses E10 prices. In the September quarter 2021 average E10 prices in Sydney were 154.5 cpl, in the December quarter 2021 they were 164.8 cpl, and in calendar year 2021 they were 149.0 cpl.

Location	Sep 21	Dec 21	Change Sep to Dec 21	Differential Dec 2021 5 largest cities	Differential Dec 2021 Capital city	Differential 2021 5 largest cities	Differential 2021 Capital city
Cootamundra	149.1	162.3	13.2	-0.5	-3.9	-3.0	-5.6
Cowra	158.7	168.8	10.1	6.0	4.0	3.4	2.3
Deniliquin	152.5	163.3	10.8	0.5	-2.9	-0.9	-3.5
Dubbo	156.2	164.4	8.2	1.6	-1.8	0.7	-1.9
Forbes	158.2	169.0	10.8	6.2	2.8	3.1	0.5
Forster	153.7	160.5	6.8	-2.3	-5.7	-1.3	-3.9
Gilgandra	152.7	164.2	11.5	1.4	-0.6	-1.4	-2.5
Glen Innes	148.6	164.3	15.7	1.5	-1.9	-2.8	-5.4
Goulburn	147.6	162.2	14.6	-0.6	-4.0	-4.0	-6.6
Grafton	156.0	168.2	12.2	5.4	2.0	3.9	1.3
Griffith	145.6	160.2	14.6	-2.6	-6.0	-5.8	-8.4
Gunnedah	144.0	157.7	13.7	-5.1	-7.1	-8.6	-9.7
Hay	149.8	164.1	14.3	1.3	-2.1	-3.1	-5.7
Inverell	150.5	163.9	13.4	1.1	-2.3	-2.3	-4.9
Jerilderie	150.2	163.4	13.2	0.6	-2.8	-3.8	-6.4
Kempsey	152.0	163.7	11.7	0.9	-2.5	-2.9	-5.5
Leeton	149.7	163.3	13.6	0.5	-2.9	-2.7	-5.3
Lismore	149.4	162.4	13.0	-0.4	-3.8	-2.1	-4.7
Lithgow	152.8	162.8	10.0	0.0	-3.4	-2.1	-4.7
Merimbula	154.9	164.8	9.9	2.0	-1.4	0.0	-2.6
Mittagong	147.7	160.9	13.2	-1.9	-5.3	-3.0	-5.6
Moama	149.2	161.2	12.0	-1.6	-5.0	-2.4	-5.0
Moree	151.6	162.9	11.3	0.1	-3.3	-1.5	-4.1
Moruya	145.7	159.2	13.5	-3.6	-7.0	-7.1	-9.7
Moss Vale	149.1	159.9	10.8	-2.9	-6.3	-1.9	-4.5
Mudgee	157.8	163.8	6.0	1.0	-2.4	2.6	0.0
Murwillumbah	154.3	173.4	19.1	10.6	8.6	4.8	3.7
Muswellbrook	144.5	163.1	18.6	0.3	-3.1	-7.7	-10.3
Narrabri	152.4	166.5	14.1	3.7	1.7	-0.5	-1.6
Newcastle	155.1	161.1	6.0	-1.7	-5.1	0.4	-2.2
Nowra	149.3	164.9	15.6	2.1	-1.3	-3.1	-5.7
Nyngan	147.6	163.8	16.2	1.0	-2.4	-4.0	-6.6
Orange	152.6	159.5	6.9	-3.3	-6.7	-3.9	-6.5
Parkes	160.0	169.0	9.0	6.2	2.8	4.1	1.5
Port Macquarie	148.3	158.4	10.1	-4.4	-7.8	-5.1	-7.7
Queanbeyan	152.0	165.4	13.4	2.6	-0.8	-1.2	-3.8
Singleton	148.2	172.4	24.2	9.6	6.2	-0.1	-2.7
Tamworth	151.7	164.2	12.5	1.4	-2.0	-1.4	-4.0
Taree	152.2	166.6	14.4	3.8	0.4	1.1	-1.5
Temora	147.9	162.7	14.8	-0.1	-3.5	-3.9	-6.5
Tumut	152.7	163.1	10.4	0.3	-3.1	-0.7	-3.3
Tweed Heads South	166.6	176.0	9.4	13.2	9.8	10.8	8.2

Location	Sep 21	Dec 21	Change Sep to Dec 21	Differential Dec 2021 5 largest cities	Differential Dec 2021 Capital city	Differential 2021 5 largest cities	Differential 2021 Capital city
Ulladulla	147.3	161.3	14.0	-1.5	-3.5	-4.8	-5.9
Wagga Wagga	154.2	163.6	9.4	0.8	-2.6	-0.7	-3.3
Wauchope	151.9	166.3	14.4	3.5	0.1	-1.4	-4.0
Wellington	150.8	159.6	8.8	-3.2	-5.2	-4.7	-5.8
West Wyalong	n/a	165.1	n/a	2.3	0.3	-2.7	-3.8
Wollongong	155.7	171.6	15.9	8.8	5.4	6.2	3.6
Woolgoolga	161.5	171.8	10.3	9.0	5.6	6.9	4.3
Yass	150.7	164.4	13.7	1.6	-0.4	-0.8	-1.9
Northern Territory							
Alice Springs	158.7	173.6	14.9	10.8	7.0	7.5	9.4
Katherine	161.9	171.2	9.3	8.4	4.6	3.3	5.2
Tennant Creek	170.5	n/a	n/a	n/a	n/a	15.8	17.7
Queensland							
Atherton	150.5	164.3	13.8	1.5	-0.2	-1.8	-4.9
Ayr	146.5	160.0	13.5	-2.8	-4.5	-6.2	-9.3
Biloela	146.3	160.6	14.3	-2.2	-3.9	-6.2	-9.3
Blackwater	149.1	164.4	15.3	1.6	-0.1	-2.4	-5.5
Bowen	149.8	161.7	11.9	-1.1	-2.8	-3.9	-7.0
Bundaberg	145.6	158.5	12.9	-4.3	-6.0	-7.7	-10.8
Caboolture	157.0	167.3	10.3	4.5	2.8	3.9	0.8
Cairns	150.0	163.3	13.3	0.5	-1.2	-1.9	-5.0
Charters Towers	151.0	169.4	18.4	6.6	4.9	1.1	-2.0
Childers	149.9	163.9	14.0	1.1	-0.6	-2.6	-5.7
Cloncurry	163.0	173.3	10.3	10.5	8.8	9.7	6.6
Dalby	149.7	163.1	13.4	0.3	-1.4	-1.4	-4.5
Emerald	152.7	171.9	19.2	9.1	7.4	4.2	1.1
Gladstone	148.0	162.6	14.6	-0.2	-1.9	-4.3	-7.4
Gold Coast	156.6	168.3	11.7	5.5	3.8	4.0	0.9
Goondiwindi	151.3	164.6	13.3	1.8	0.1	-2.6	-5.7
Gympie	146.5	159.6	13.1	-3.2	-4.9	-5.2	-8.3
Hervey Bay	146.4	160.1	13.7	-2.7	-4.4	-4.7	-7.8
Ingham	146.4	160.8	14.4	-2.0	-3.7	-4.8	-7.9
Innisfail	149.7	164.4	14.7	1.6	-0.1	-1.2	-4.3
Ipswich	161.0	170.0	9.0	7.2	5.5	7.1	4.0
Kingaroy	145.2	159.9	14.7	-2.9	-4.6	-6.5	-9.6
Longreach	160.3	173.4	13.1	10.6	8.9	6.4	3.3
Mackay	150.1	163.6	13.5	0.8	-0.9	-1.1	-4.2
Mareeba	151.5	167.8	16.3	5.0	3.3	0.7	-2.4
Maryborough	144.3	159.0	14.7	-3.8	-5.5	-7.4	-10.5
Miles	144.5	162.1	17.6	-0.7	-2.4	-6.8	-9.9
Moranbah	149.9	161.9	12.0	-0.9	-2.6	-4.5	-7.6
Rockhampton	149.4	163.0	13.6	0.2	-1.5	-2.8	-5.9

Location	Sep 21	Dec 21	Change Sep to Dec 21	Differential Dec 2021 5 largest cities	Differential Dec 2021 Capital city	Differential 2021 5 largest cities	Differential 2021 Capital city
Roma	142.2	159.6	17.4	-3.2	-4.9	-8.1	-11.2
Sunshine Coast	149.7	160.7	11.0	-2.1	-3.8	-2.7	-5.8
Toowoomba	154.5	165.9	11.4	3.1	1.4	2.5	-0.6
Townsville	146.7	162.4	15.7	-0.4	-2.1	-3.1	-6.2
Tully	151.1	164.5	13.4	1.7	0.0	-1.2	-4.3
Warwick	145.5	159.5	14.0	-3.3	-5.0	-5.8	-8.9
Whitsunday	145.0	158.9	13.9	-3.9	-5.6	-7.2	-10.3
Yeppoon	149.7	161.6	11.9	-1.2	-2.9	-2.8	-5.9
South Australia							
Bordertown	149.3	161.5	12.2	-1.3	3.6	-3.8	1.4
Ceduna	151.0	163.0	12.0	0.2	5.1	-1.8	3.4
Clare	148.0	159.6	11.6	-3.2	1.7	-5.2	0.0
Gawler	145.7	160.2	14.5	-2.6	2.3	-5.7	-0.5
Kadina	148.4	160.1	11.7	-2.7	2.2	-3.9	1.3
Keith	147.5	n/a	n/a	n/a	n/a	-5.5	-0.3
Loxton	147.3	159.0	11.7	-3.8	1.1	-4.9	0.3
Mt Gambier	144.1	156.8	12.7	-6.0	-1.1	-8.5	-3.3
Murray Bridge	142.2	151.9	9.7	-10.9	-6.0	-11.1	-5.9
Naracoorte	151.2	164.3	13.1	1.5	6.4	-1.4	3.8
Port Augusta	151.0	162.7	11.7	-0.1	4.8	-2.3	2.9
Port Lincoln	149.2	160.2	11.0	-2.6	2.3	-1.7	3.5
Port Pirie	146.6	159.9	13.3	-2.9	2.0	-5.5	-0.3
Renmark	150.8	160.9	10.1	-1.9	3.0	-2.3	2.9
Tailem Bend	147.4	160.1	12.7	-2.7	2.2	-5.1	0.1
Victor Harbour	151.7	163.6	11.9	0.8	5.7	-0.9	4.3
Whyalla	152.6	163.0	10.4	0.2	5.1	-0.7	4.5
Tasmania							
Burnie	154.1	168.6	14.5	5.8	-6.4	1.8	-3.0
Campbell Town	157.6	171.6	14.0	8.8	-3.4	5.1	0.3
Devonport	156.7	172.0	15.3	9.2	-3.0	4.5	-0.3
Huonville	155.4	175.2	19.8	12.4	0.2	4.0	-0.8
Launceston	155.8	172.2	16.4	9.4	-2.8	3.5	-1.3
New Norfolk	157.1	170.9	13.8	8.1	-4.1	4.7	-0.1
Queenstown	159.7	176.2	16.5	13.4	1.2	7.8	3.0
Smithton	153.2	167.2	14.0	4.4	-7.8	1.5	-3.3
Sorell	151.5	173.9	22.4	11.1	-1.1	0.8	-4.0
Ulverstone	157.5	172.8	15.3	10.0	-2.2	5.3	0.5
Wynyard	153.6	175.1	21.5	12.3	0.1	2.7	-2.1
Victoria							
Ararat	149.7	162.8	13.1	0.0	0.6	-1.7	-3.4
Bairnsdale	146.1	161.0	14.9	-1.8	-1.2	-5.1	-6.8
Ballarat	145.0	157.8	12.8	-5.0	-4.4	-6.8	-8.5

Location	Sep 21	Dec 21	Change Sep to Dec 21	Differential Dec 2021 5 largest cities	Differential Dec 2021 Capital city	Differential 2021 5 largest cities	Differential 2021 Capital city
Benalla	146.5	159.0	12.5	-3.8	-3.2	-6.4	-8.1
Bendigo	144.6	161.7	17.1	-1.1	-0.5	-5.8	-7.5
Cobram	153.0	164.1	11.1	1.3	1.9	-1.4	-3.1
Colac	146.1	161.8	15.7	-1.0	-0.4	-3.5	-5.2
Corryong	156.3	169.1	12.8	6.3	6.9	4.0	2.3
Echuca	148.4	160.9	12.5	-1.9	-1.3	-3.6	-5.3
Euroa	149.2	162.7	13.5	-0.1	0.5	-1.6	-3.3
Geelong	142.0	155.9	13.9	-6.9	-6.3	-8.9	-10.6
Hamilton	144.9	160.4	15.5	-2.4	-1.8	-6.5	-8.2
Horsham	149.9	160.1	10.2	-2.7	-2.1	-2.2	-3.9
Koo Wee Rup	159.5	167.8	8.3	5.0	5.6	5.8	4.1
Kyabram	149.0	159.3	10.3	-3.5	-2.9	-4.1	-5.8
Lakes Entrance	145.8	160.6	14.8	-2.2	-1.6	-4.8	-6.5
Leongatha	149.1	164.6	15.5	1.8	2.4	-4.4	-6.1
Mansfield	155.5	163.2	7.7	0.4	1.0	0.2	-1.5
Mildura	145.0	159.7	14.7	-3.1	-2.5	-6.9	-8.6
Moe	145.4	161.7	16.3	-1.1	-0.5	-5.5	-7.2
Morwell	145.2	160.6	15.4	-2.2	-1.6	-6.0	-7.7
Portland	144.6	155.9	11.3	-6.9	-6.3	-8.7	-10.4
Sale	147.2	160.9	13.7	-1.9	-1.3	-4.8	-6.5
Seymour	160.1	169.7	9.6	6.9	7.5	5.4	3.7
Shepparton	149.2	162.8	13.6	0.0	0.6	-3.4	-5.1
Swan Hill	147.1	161.0	13.9	-1.8	-1.2	-5.5	-7.2
Traralgon	146.2	161.0	14.8	-1.8	-1.2	-5.3	-7.0
Wallan	157.2	166.3	9.1	3.5	4.1	3.9	2.2
Wangaratta	146.5	160.3	13.8	-2.5	-1.9	-4.0	-5.7
Warrnambool	141.8	158.7	16.9	-4.1	-3.5	-8.7	-10.4
Wodonga	148.7	161.3	12.6	-1.5	-0.9	-3.7	-5.4
Wonthaggi	151.3	165.2	13.9	2.4	3.0	-2.0	-3.7
Yarrawonga	151.6	167.6	16.0	4.8	5.4	1.0	-0.7
Western Australia							
Albany	148.1	161.6	13.5	-1.2	-1.7	-4.5	-2.5
Boulder	149.6	165.9	16.3	3.1	2.6	-1.5	0.5
Bridgetown	148.0	163.3	15.3	0.5	0.0	-2.8	-0.8
Broome	165.8	184.9	19.1	22.1	21.6	15.6	17.6
Bunbury	148.6	161.9	13.3	-0.9	-1.4	-3.0	-1.0
Busselton	146.2	160.3	14.1	-2.5	-3.0	-5.2	-3.2
Carnarvon	157.8	175.2	17.4	12.4	11.9	7.1	9.1
Collie	147.4	166.0	18.6	3.2	2.7	-3.8	-1.8
Dongara	153.6	167.6	14.0	4.8	4.3	2.0	4.0
Esperance	160.1	171.7	11.6	8.9	8.4	6.3	8.3
Eucla	170.8	184.2	13.4	21.4	20.9	19.3	21.3

Location	Sep 21	Dec 21	Change Sep to Dec 21	Differential Dec 2021 5 largest cities	Differential Dec 2021 Capital city	Differential 2021 5 largest cities	Differential 2021 Capital city
Geraldton	150.4	166.8	16.4	4.0	3.5	-0.3	1.7
Kalgoorlie	148.4	164.4	16.0	1.6	1.1	-2.5	-0.5
Karratha	166.3	184.5	18.2	21.7	21.2	15.3	17.3
Manjimup	149.9	164.2	14.3	1.4	0.9	-2.1	-0.1
Mount Barker	148.6	163.7	15.1	0.9	0.4	-3.5	-1.5
Port Hedland	160.8	179.8	19.0	17.0	16.5	10.7	12.7
Waroona	149.5	162.1	12.6	-0.7	-1.2	-2.7	-0.7

Appendix D: Petrol prices and GIRDs in regional market study locations

The ACCC undertook 4 regional petrol market studies between 2015 and 2017. These studies examined petrol markets in Darwin, Launceston, Armidale and Cairns. The ACCC has continued to monitor and report on petrol prices and GIRDs in these locations.

Table D1 shows average retail petrol prices and GIRDs for each location, and a comparison with those in the 5 largest cities, in the December quarter 2021 as well as the change from the September quarter 2021.

Table D1: Quarterly average retail petrol prices and GIRDs in Darwin, Launceston, Armidale, Cairns and the 5 largest cities – December quarter 2021 – cpl

	Darwin	Launceston	Armidale	Cairns	5 largest cities
Retail prices					
Average prices: December quarter 2021	166.6	172.2	160.0	163.3	162.8
Change from September quarter 2021	*16.1*	*16.4*	*11.5*	*13.3*	*10.3*
Difference from 5 largest cities: December quarter 2021	3.8	9.4	-2.8	0.5	-
Change from September quarter 2021	*5.8*	*6.1*	*1.2*	*3.0*	-
GIRDs					
Average GIRDs: December quarter 2021	12.9	18.3	11.8	11.5	13.7
Change from September quarter 2021	*5.0*	*5.3*	*0.4*	*2.1*	*-1.1*
Difference from 5 largest cities: December quarter 2021	-0.8	4.6	-1.9	-2.2	-
Change from September quarter 2021	*6.1*	*6.4*	*1.5*	*3.2*	-

Source: ACCC calculations based on data from FUELtrac, Ampol, bp, Mobil, Viva Energy and WA FuelWatch.

Notes: All prices are for RULP except Armidale (which is E10).
Hobart TGPs are used as a proxy for TGPs in Launceston.
Sydney and Brisbane E10 TGPs are used as a proxy for Armidale TGPs.

In the December quarter 2021:

- average retail prices in Darwin, Launceston, and Cairns were higher than prices in the 5 largest cities
  - Darwin and Cairns prices were lower than average prices in the 5 largest cities in the previous 5 quarters
- average retail prices in Armidale were lower than average prices in the 5 largest cities for the sixth consecutive quarter
- average GIRDs in Darwin, Armidale and Cairns were lower than those in the 5 largest cities for the sixth consecutive quarter
- average GIRDs in Launceston were higher than those in the 5 largest cities, after being lower than those in the 5 largest cities in the previous 5 quarters.

Motorists in these locations can use the fuel price transparency schemes in each jurisdiction to identify the highest and lowest priced retail sites. Motorists in:

- Darwin can use the MyFuel NT website and app
- Launceston can use the FuelCheck TAS website and app
- Armidale can use the FuelCheck NSW website and app
- Cairns can access site-specific petrol price data made available by commercial websites and app providers under the Queensland fuel price reporting scheme.

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