

## 9 Retail prices

### Key points

- In 2010–11, petrol prices across the five largest cities (on a seven-day rolling average basis) were higher, and more volatile, than in 2009–10.
  - Average prices in 2010–11 were around 132 cpl, which was around 8 cpl higher than in 2009–10.
  - Daily prices ranged from a low of around 116 cpl in September 2010 to a high of around 147 cpl in May 2011—a range of 31 cpl. In contrast, in 2009–10 the range between the highest and lowest daily price was only 14 cpl.
- In 2010–11, retail petrol prices reached their highest levels since October 2008.
- Movements in Australian retail petrol prices are primarily determined by movements in the international price of refined petrol (Singapore Mogas 95 Unleaded) and the AUD–USD exchange rate.
- Motorists were generally protected from very high petrol prices in 2010–11 by the appreciation in the AUD–USD exchange rate.
- The international price of refined petrol, and excise and taxes, were the main components of petrol prices in 2010–11, as they have been in previous years.

### 9.1 Introduction

This chapter primarily focuses on regular unleaded petrol (RULP) prices. However, it also examines the prices of other grades of petrol (premium unleaded petrol (PULP) 95, PULP 98, and E10), diesel and automotive liquefied petroleum gas (LPG).<sup>183</sup> It focuses on retail prices across the five largest cities (Sydney, Melbourne, Brisbane, Adelaide and Perth) although the three smaller capital cities (Canberra, Hobart and Darwin) are also considered. Petrol prices in regional locations are analysed in chapter 10.

Although the analysis of petrol price movements largely focuses on average prices across the five largest cities, price levels and price movements are not uniform across cities. This is because factors specific to each city influence the extent of competition (and therefore prices).

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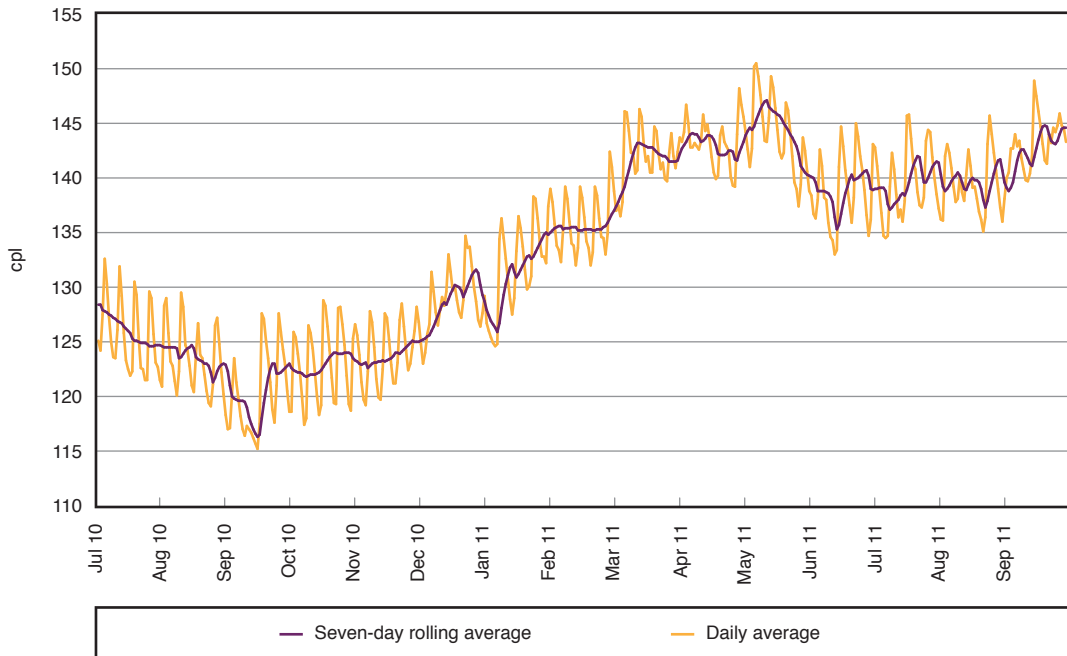
<sup>183</sup> References to petrol in this chapter are to regular unleaded petrol (RULP) unless otherwise specified.

## 9.2 Retail petrol price movements

### 9.2.1 Prices between July 2010 and September 2011

Chart 9.1 shows daily average retail prices, and seven-day rolling average prices, across the five largest cities for the period 1 July 2010 to 30 September 2011.<sup>184</sup>

**Chart 9.1** Daily average retail petrol prices and seven-day rolling average retail petrol prices, five largest cities: 1 July 2010 to 30 September 2011



Source: ACCC calculations based on Informed Sources data.

Chart 9.1 shows that:

- The year began with seven-day rolling average prices at around 128 cpl.
- Between July and mid-September 2010, prices decreased by around 12 cpl. They reached a low for the year of around 116 cpl.
- From mid-September 2010 to early May 2011, prices steadily increased, reaching a high for the year of around 147 cpl.
  - In 2010–11, the range between the highest and lowest prices was 31 cpl.
- Between early May and the end of September 2011, seven-day rolling average prices decreased by around 2 cpl to around 145 cpl.
- The regular price cycles that occur in the five largest cities are clearly evident.
  - Price cycles are analysed in detail in chapter 11.

<sup>184</sup> A seven-day rolling average price is the average of the current day's price and the prices on the six previous days. In the case of retail petrol prices it is the average of calendar days but in the case of Mogas 95 prices it is the average of working days (i.e. Monday to Friday). A seven-day rolling average is used to smooth out the effect of the regular petrol price cycles in the larger cities. The refiner-marketers use a rolling average price for Mogas 95 when determining their wholesale prices.

In 2010–11, the average price of petrol across the five largest cities was 131.7 cpl. This was 7.5 cpl higher than in 2009–10.

## 9.2.2 Prices between July 2007 and September 2011

Chart 9.2 shows seven-day rolling average retail petrol prices across the five largest cities over the period 1 July 2007 to 30 September 2011.

**Chart 9.2 Seven-day rolling average retail petrol prices, five largest cities: 1 July 2007 to 30 September 2011**



Source: ACCC calculations based on Informed Sources data.

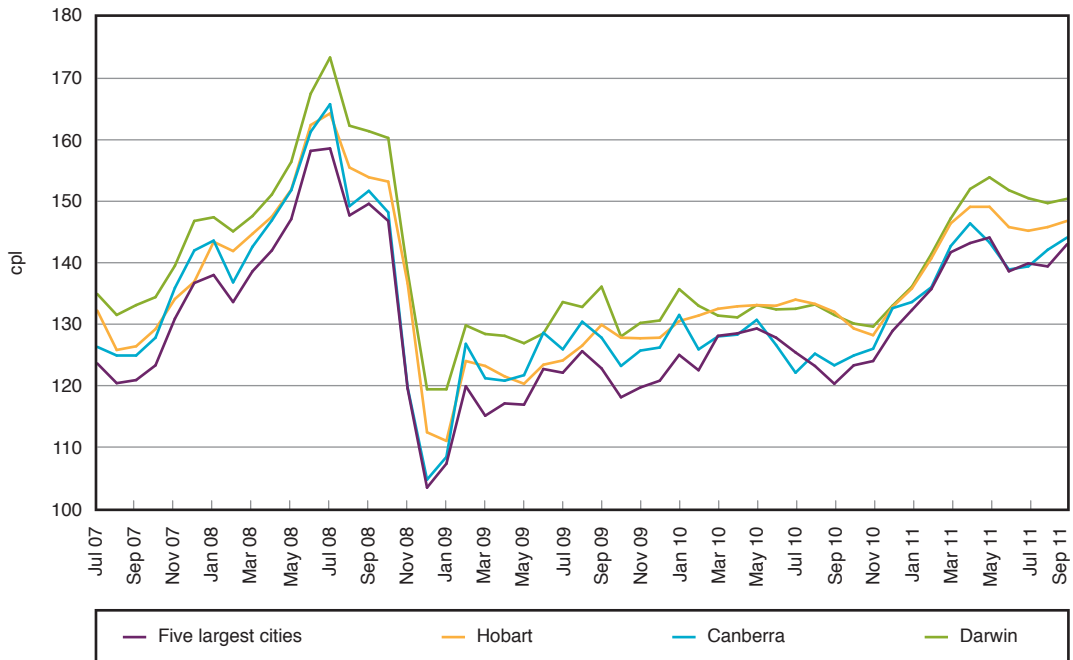
Chart 9.2 shows that:

- Petrol prices in 2010–11 were more volatile than in 2009–10.
  - The range between the highest and lowest prices in 2010–11 was 31 cpl—this was significantly greater than in 2009–10 (14 cpl).
- Prices in 2010–11 peaked at levels last reached in October 2008.
  - Retail prices were at their highest in mid-July 2008 at around 163 cpl.
- Between July 2007 and July 2008, retail prices increased rapidly (by around 38 cpl). Prices decreased substantially in the second half of 2008 (by around 62 cpl) due to the Global Financial Crisis, before recovering in early 2009 and entering a period of relative stability in 2009–10.

### 9.2.3 Prices in the three smaller capital cities

Chart 9.3 shows monthly average retail petrol prices in the three smaller capital cities (i.e. Canberra, Hobart and Darwin) from July 2007 to September 2011, compared with the average monthly price across the five largest cities.

**Chart 9.3** Monthly average retail petrol prices in Hobart, Canberra, Darwin and the five largest cities: July 2007 to September 2011



Source: ACCC calculations based on Informed Sources data.

The chart shows that over this period:

- Prices in the smaller capital cities tend to follow similar trends to those in the five largest cities.
- Price relativities between the smaller capital cities and the five largest cities vary over time.
- Prices in the five largest cities are generally lower than in the three smaller capital cities.

Prices in Darwin tend to be higher than those in Hobart and Canberra, and the five largest cities.

Factors that may be influencing the relatively higher prices in Canberra, Hobart and Darwin are outlined in section 10.3 of chapter 10.

## 9.3 Determinants of petrol prices

Movements in retail petrol prices in Australia are primarily determined by movements in the international price of refined petrol (which itself is driven by the price of crude oil) and the AUD-USD exchange rate.

Other influences on retail prices include the degree of competition at the wholesale and retail levels, the regular price cycles that occur in the largest cities, the level of excise and taxes, international and domestic freight costs, the fuel quality premium (which includes a component for producing petrol to Australian standards), and other wholesale costs and margins.

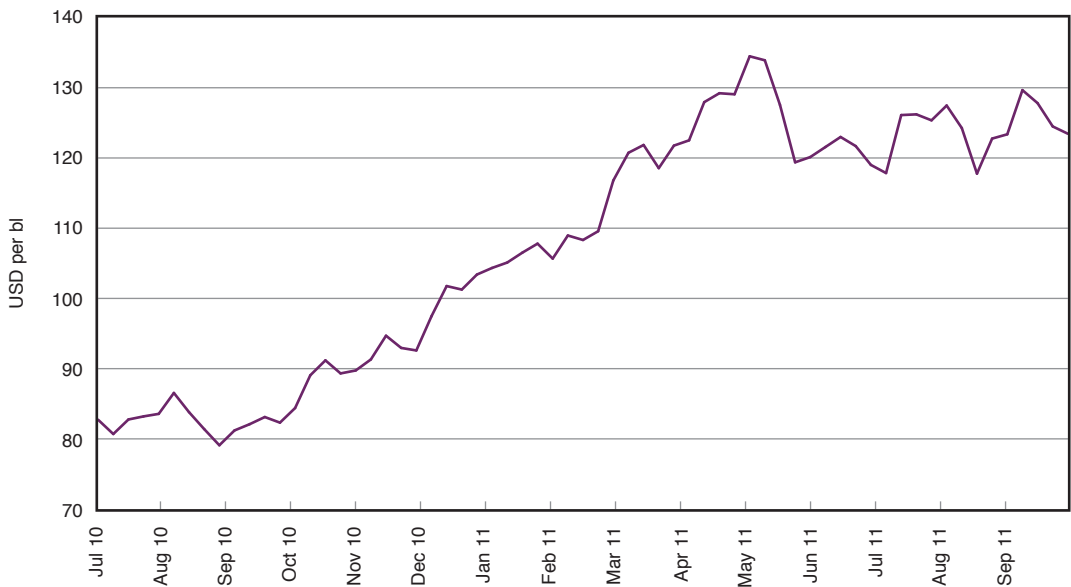
### 9.3.1 International price of refined petrol

The price of refined petrol in Australia is set with reference to international benchmark prices. The relevant international price for RULP in Australia is the price of refined petrol in the Asia-Pacific region—the price of Singapore Mogas 95 Unleaded (Mogas 95).

#### Prices between July 2010 and September 2011

Chart 9.4 shows movements in weekly average Mogas 95 prices for the period 1 July 2010 to 30 September 2011.

Chart 9.4 Weekly average Mogas 95 prices: 1 July 2010 to 30 September 2011



Source: ACCC calculations based on Platts data.

Mogas 95 prices steadily increased for most of the period. Prices started the year at around USD 83 per barrel, peaked in early May 2011 at around USD 138 per barrel (an increase of around 66 per cent), and subsequently declined to around USD 123 per barrel by 30 September 2011.

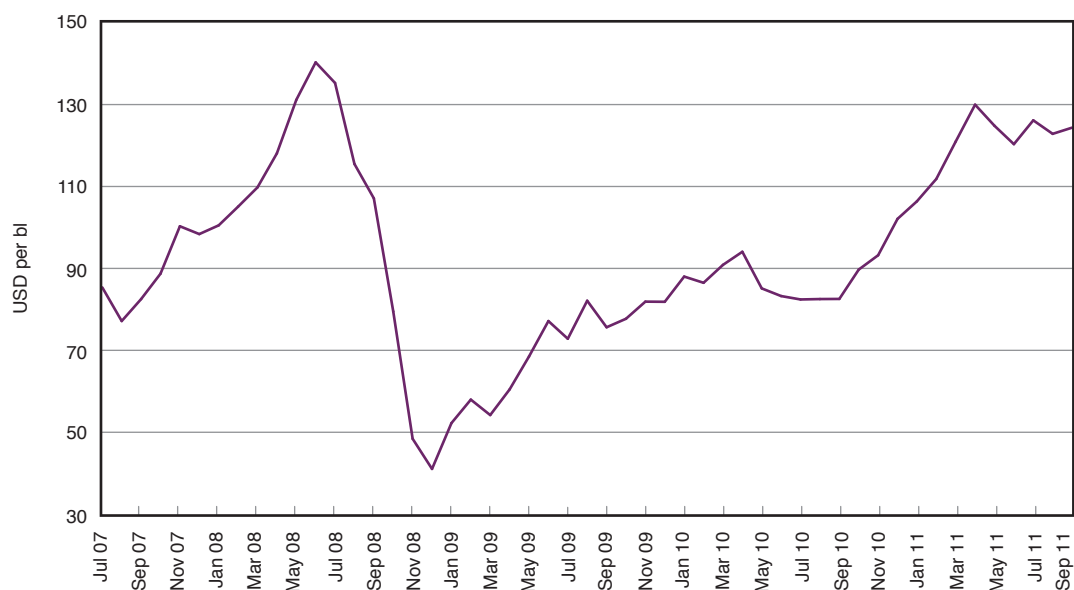
Over the period, Mogas 95 prices were influenced by:

- a particularly cold northern winter, which increased demand for crude oil products
- a decrease in global oil supplies resulting from conflict in Libya and fears of supply problems amid geopolitical unrest in the Middle East
- the depreciation of the USD against other major currencies
- economic concerns in Europe and the US.

#### Prices between July 2007 and September 2011

Chart 9.5 shows movements in monthly average Mogas 95 prices for the period July 2007 to September 2011.

**Chart 9.5 Monthly average Mogas 95 prices: July 2007 to September 2011**



Source: ACCC calculations based on Platts data.

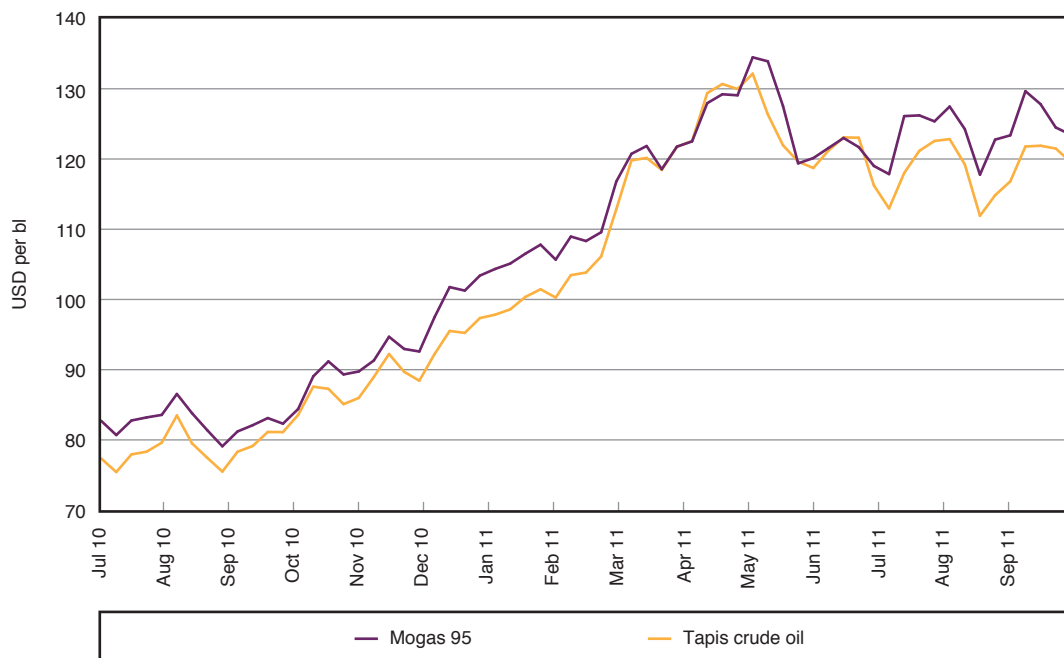
Mogas 95 prices reached a record high in July 2008 of around USD 140 per barrel. As a result of the Global Financial Crisis, prices subsequently decreased sharply to around USD 40 per barrel in December 2008, a decrease of around USD 100 (or over 70 per cent).

Prices steadily increased from early 2009 through to mid-2011. Price levels in May 2011 (around USD 130 per barrel) were the second-highest on record after the levels reached in mid-2008.

## Refined petrol and crude oil prices

Mogas 95 prices are largely determined by the price of crude oil. However, like the prices of most internationally traded commodities, the price of Mogas 95 is also determined by global supply and demand conditions. Chart 9.6 shows the close relationship between Mogas 95 prices and Tapis crude oil prices in the period 1 July 2010 to 30 September 2011.<sup>185</sup>

**Chart 9.6 Weekly average Mogas 95 and Tapis crude oil prices: 1 July 2010 to 30 September 2011**



Source: ACCC calculations based on Platts data.

The effects of movements in international benchmark prices on domestic retail prices in a number of other countries are considered in chapter 12.

### 9.3.2 AUD–USD exchange rate

The AUD–USD exchange rate is an important influence on domestic retail prices because the international benchmark prices of refined petrol are established in USD.

Chart 9.7 shows movements in the daily AUD–USD exchange rate between 1 July 2010 and 30 September 2011.<sup>186</sup> The AUD steadily appreciated throughout most of this period, from a low of around USD 0.84 in early July 2010 to a peak of around USD 1.11 in late July 2011 (an increase of around 32 per cent). The AUD fell sharply in August and September 2011 following economic uncertainty. At the end of September 2011 the AUD–USD exchange rate was around USD 0.98 (a decrease of around 12 per cent from the July 2011 peak).

<sup>185</sup> As noted in chapter 5, Australian refiner-marketers are increasingly using the price of Brent crude oil as the appropriate international benchmark price.

<sup>186</sup> These are the daily RBA 4.00 pm closing rates; see <http://www.rba.gov.au/statistics/frequency/exchange-rates.html>, accessed 30 November 2011.

Chart 9.7 Daily average AUD–USD exchange rates: 1 July 2010 to 30 September 2011



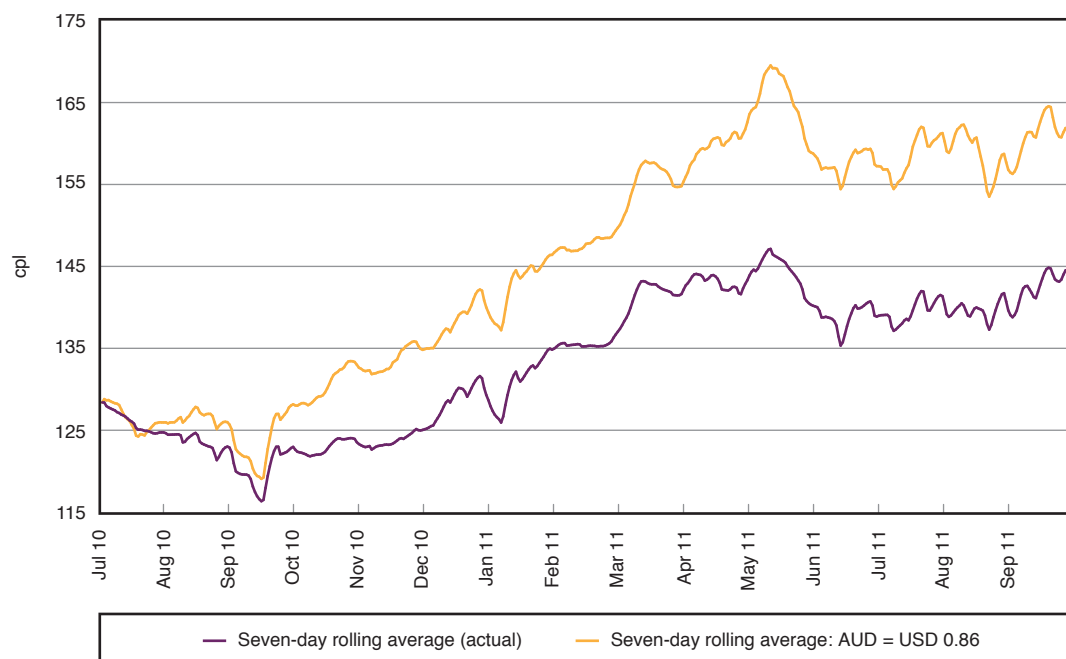
Source: Reserve Bank of Australia (RBA) data.

The effect that movements in the AUD–USD exchange rate have on domestic petrol prices is shown by assuming a constant AUD–USD exchange rate. Chart 9.8 shows actual seven-day rolling average retail prices for the five largest cities in the period 1 July 2010 to 30 September 2011 and retail prices calculated assuming a fixed AUD–USD exchange rate as at 1 July 2010 (i.e. USD 0.86).<sup>187</sup>

<sup>187</sup> This is the seven-working day rolling average RBA AUD–USD exchange rate, lagged by 10 days, as at 1 July 2010.



**Chart 9.8** Seven-day rolling average retail petrol prices with actual and constant AUD–USD exchange rates, five largest cities: 1 July 2010 to 30 September 2011



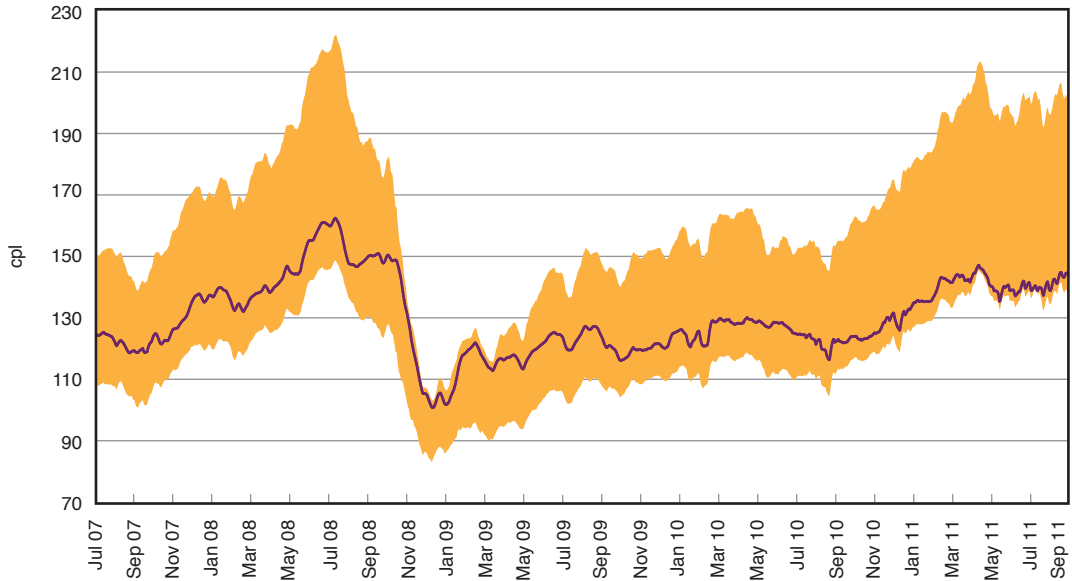
Source: ACCC calculations based on Informed Sources, Platts and RBA data.

While the USD-denominated international refined petrol price increased in 2010–11, the appreciation of the AUD through the year protected Australian motorists from what would otherwise have been even higher retail prices. Retail prices in Australia would have reached a record high of around 170 cpl in mid-May 2011—compared with actual retail prices of around 147 cpl—had the AUD–USD exchange rate in mid-May 2011 remained at the level of USD 0.86.

#### Influence of the AUD–USD exchange rate in the medium term

Chart 9.9 highlights the significance of the AUD–USD exchange rate on retail petrol prices. The burgundy coloured line shows actual daily seven-day rolling average retail prices across the five largest cities from July 2007 to September 2011. The upper line shows what retail prices would have been if the AUD–USD exchange rate was held constant at the lowest daily exchange rate for the period (i.e. around USD 0.61 in October 2008), everything else being equal. The lower line shows what retail prices would have been if the AUD–USD exchange rate was held constant at the highest daily exchange rate for the period (around USD 1.11 in July 2011), everything else being equal.

**Chart 9.9** Seven-day rolling average retail petrol prices in the five largest cities—based on actual, minimum and maximum AUD–USD exchange rates: 1 July 2007 to 30 September 2011



Source: ACCC calculations based on Informed Sources, Platts and RBA data.

The chart indicates that:

- Retail prices were at their highest in July 2008 at around 163 cpl. The AUD–USD exchange rate was relatively high at this time (around USD 0.96). If the exchange rate had been at its minimum level at this time, retail prices would have been over 220 cpl (a difference of 57 cpl).
- Retail prices were at their lowest in December 2008 at around 100 cpl. The AUD–USD exchange rate was relatively low at this time (around USD 0.65). If the exchange rate had been at the maximum level at this time, retail prices would have been around 15 cpl lower at around 85 cpl.
- In 2010–11, retail prices peaked at around 147 cpl in May 2011. The AUD–USD exchange rate was relatively high at this time (around USD 1.08). If the exchange rate had been at its minimum level at this time, retail prices would have been over 210 cpl (a difference of 63 cpl).
- The strong AUD has generally protected consumers from the high international petrol prices seen throughout most of 2011.

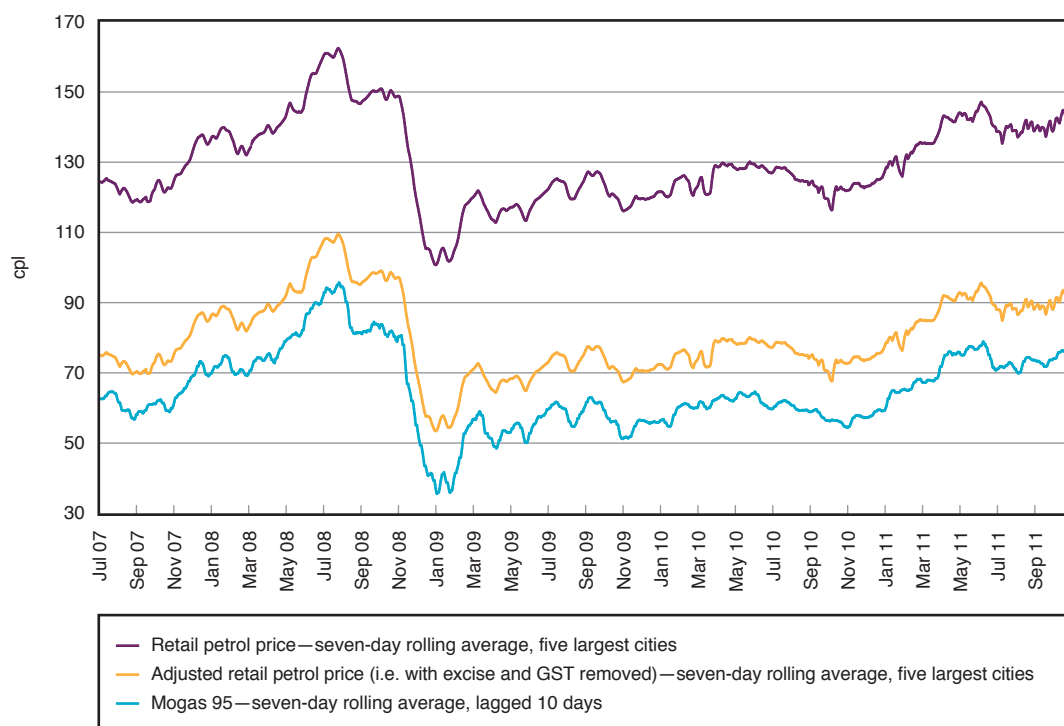
The effect of movements in exchange rates on domestic retail prices in a number of other countries is considered in chapter 12.

### 9.3.3 Retail petrol prices compared with Mogas 95 prices

Chart 9.10 shows seven-day rolling average retail petrol prices in the five largest cities, compared with Mogas 95 prices (lagged by 10 days) over the period 1 July 2007 to 30 September 2011.<sup>188</sup> For comparison purposes, it also shows adjusted retail prices (which have excise and the GST removed).

The chart shows that in the medium term retail prices in the five largest cities have closely followed movements in Mogas 95 prices in AUD terms. This demonstrates that changes in domestic retail prices are overwhelmingly driven by changes in the international price of refined petrol.

**Chart 9.10 Daily retail petrol prices, adjusted retail petrol prices and Mogas 95 prices:**  
1 July 2007 to 30 September 2011



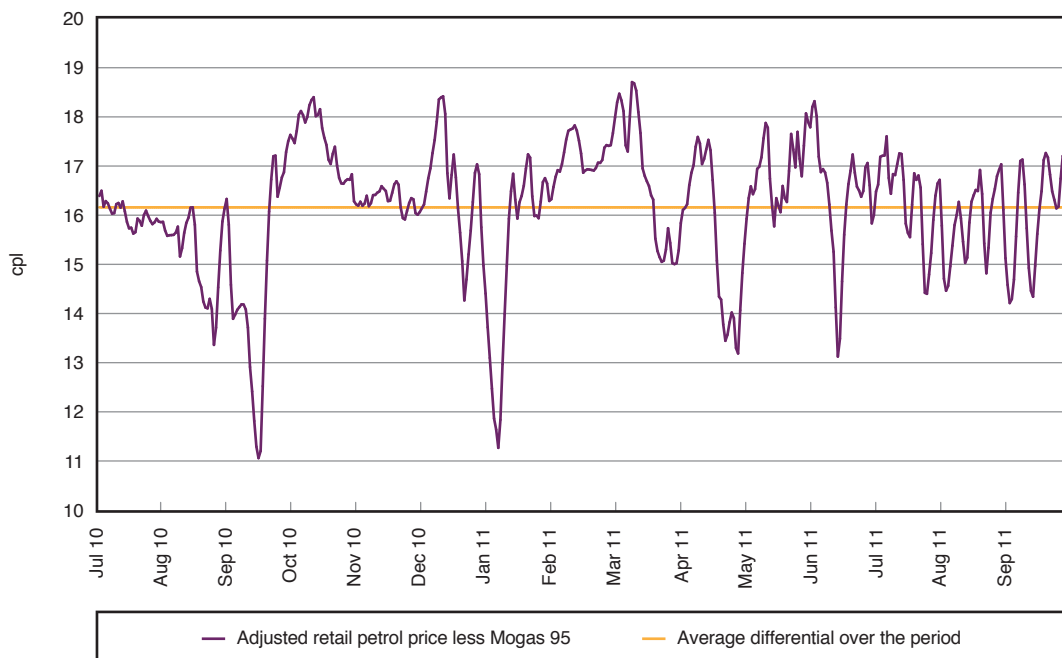
Source: ACCC calculations based on Informed Sources, Platts and RBA data.

<sup>188</sup> Mogas 95 prices are lagged by 10 days as there is generally around a one- to two-week lag between changes in international prices and changes in retail prices in the five largest cities (because of the averaging formula used by refiners in Australia when setting their wholesale prices). The lag may be longer during times of significant price volatility.

Chart 9.11 shows the daily differential between seven-day rolling average adjusted retail petrol prices in the five largest cities and seven-day rolling average Mogas 95 prices (lagged by 10 days) in Australian cents per litre over the period 1 July 2010 to 30 September 2011.

The differential between adjusted domestic retail prices and international refined petrol prices is influenced by a range of other factors, including changes in the fuel quality premium, freight costs, wholesale and retail costs, and the level of local competition.

**Chart 9.11 Daily differentials between seven-day rolling average adjusted retail petrol prices in the five largest cities and Mogas 95 prices: 1 July 2010 to 30 September 2011**



Source: ACCC calculations based on Informed Sources, Platts and RBA data.

Between 1 July 2010 and 30 September 2011, the average daily differential between adjusted retail prices and Mogas 95 prices was just over 16 cpl.<sup>189</sup> Over the period, the daily differential was within plus or minus 2 cpl of the yearly average differential on 403 days, or 88 per cent of the time, indicating the relative stability of the daily differential.

There were four occasions when the daily differential decreased significantly: these were in mid-September 2010, early-January 2011, late-April 2011 and mid-June 2011. On all of these occasions, petrol price cycles failed or were truncated in one or more cities.<sup>190</sup> The cyclical movements in the differential since July 2011 have been caused by the extended price cycles in Sydney, Melbourne, Brisbane and Adelaide.

Chart 9.11 shows that, from day to day, the differential between Australian retail prices and the price of Mogas 95 varies around the average for the period. Therefore, comparisons between

<sup>189</sup> Note that the average differential of 16.2 cpl in 2010–11 is slightly higher than the 'Other costs and margins' component in the petrol bowser in chart 9.12 (15.9 cpl). This is because there is a 10-day lag in the Mogas 95 data in chart 9.11, whereas no lag is used in chart 9.12.

<sup>190</sup> See section 11.5.1 for a definition of the various types of price cycles.

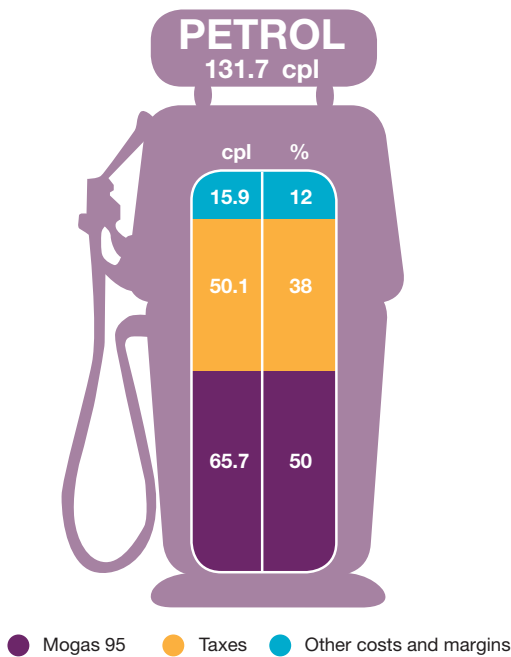
domestic retail prices and international benchmark prices should not solely focus on the differential on a particular day but consider the trend of the differential over a longer period of time.

## 9.4 Components of retail petrol prices

There are three broad components of the retail price of petrol: the international refined petrol price; domestic taxes (excise and the GST); and other costs and margins at the wholesale and retail level.

Chart 9.12 shows the components of the average retail petrol price across the five largest cities in 2010–11. The two largest components of the pump price—Mogas 95 and taxes—accounted for 88 per cent of the price of petrol. These components are largely outside the control of the local petrol companies.

Chart 9.12 Components of average retail petrol price in the five largest cities: 2010–11



Source: ACCC calculations based on Informed Sources, Platts and RBA data.

The proportions of the annual average price in 2010–11 represented by each of Mogas 95, taxes, and other costs and margins were broadly similar to those in 2009–10.

In 2010–11 the cost of refined petrol (Mogas 95) represented 50 per cent of the average price of a litre of petrol (up by 2 per cent from 2009–10).

Chart 9.13 shows a more detailed breakdown of the components of the annual average retail petrol price across the five largest cities from 2004–05 to 2010–11.

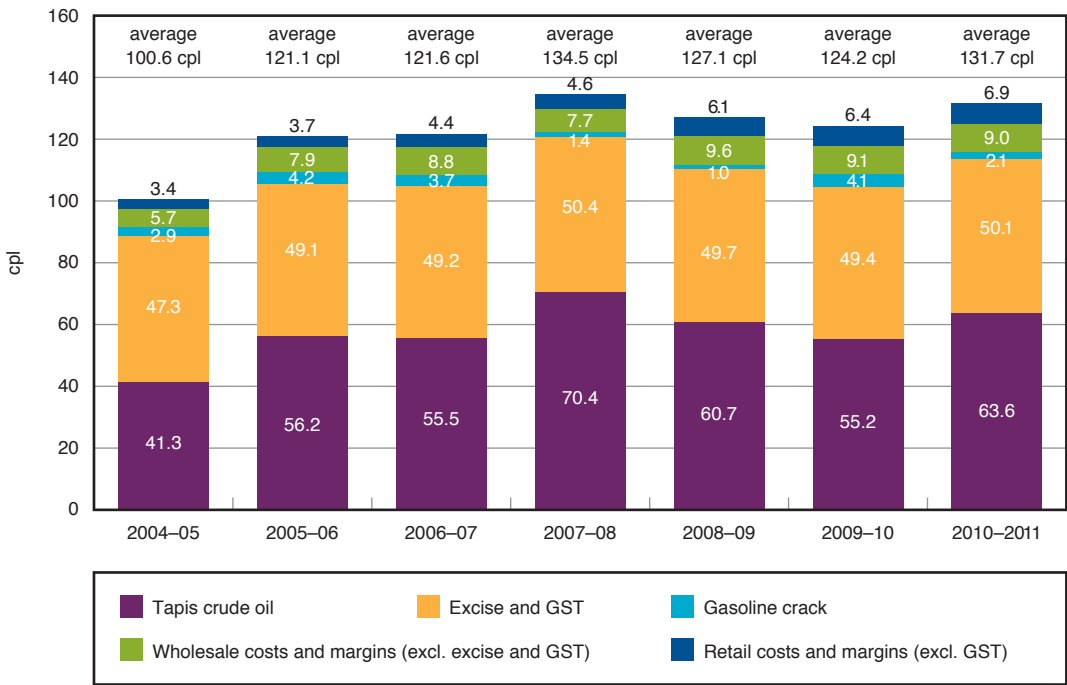
Each bar represents the annual average retail price disaggregated into the following:

- Tapis crude oil: the benchmark for crude oil in the Asia–Pacific region (including Australia)
- gasoline crack: the difference between the price of Mogas 95 and Tapis crude oil
- wholesale costs and margins (excluding excise and the GST)<sup>191</sup>
- retail costs and margins (excluding the GST)
- excise and the GST: this is excise (which is set at a constant 38.14 cpl) and the GST.

The chart shows that:

- from 2005–06, the price of Tapis crude oil has been the largest component in the retail price of petrol
- wholesale and retail costs and margins (excluding GST) have remained broadly stable over the last three years.

**Chart 9.13    Components of Australian retail petrol prices in the five largest cities: 2004–05 to 2010–11**



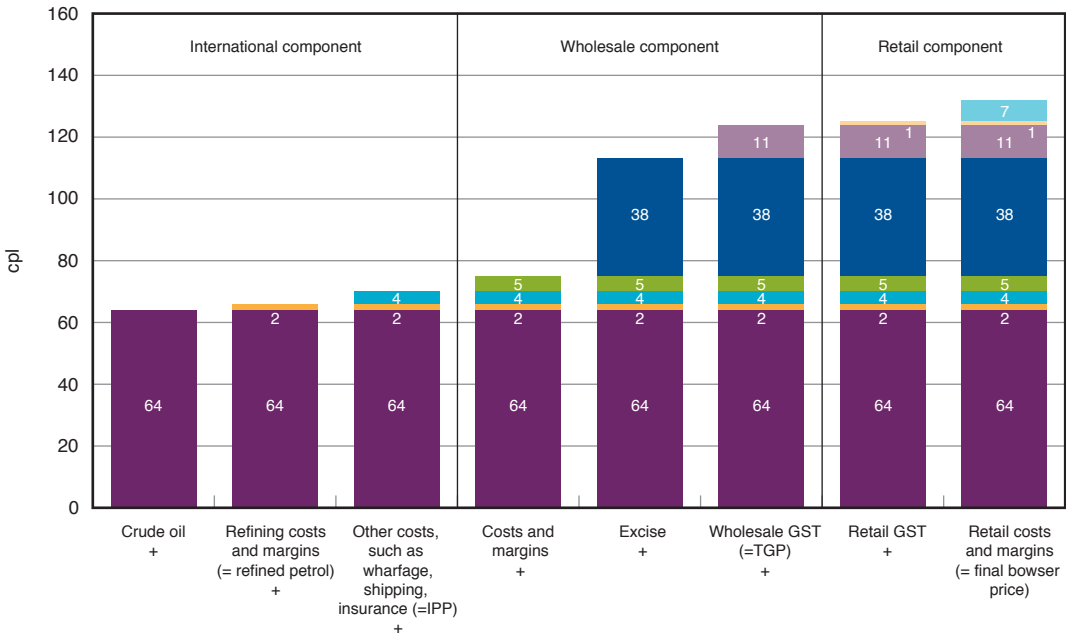
Source: ACCC calculations based on Informed Sources, Platts, RBA and WA FuelWatch data, and information provided by the monitored companies.

<sup>191</sup> Note that prior to July 2009, the Queensland Government provided a subsidy at the retail level of 8.4 cpl (around 9.2 cpl when GST is included). Therefore, terminal gate prices in Brisbane prior to July 2009 have been reduced by 9.2 cpl to put the wholesale and retail prices on a consistent basis.

Chart 9.14 presents the components of Australian retail petrol prices in 2010–11 in a different way. It shows the build up of prices according to the relevant industry sector. Note that the components are to scale.

The chart highlights that the starting point in the retail petrol price is the price of crude oil. It also indicates that, since the other largest component of the retail price of petrol is excise (which is fixed at 38.14 cpl), movements in the price of petrol are fundamentally driven by movements in the international price of crude oil.

**Chart 9.14 Build up of Australian retail petrol prices: five largest cities, 2010–11**



Source: ACCC calculations based on Informed Sources, Platts, RBA, WA FuelWatch data and information provided by the monitored companies.

## 9.5 Gross indicative retail differences for petrol

Gross indicative retail differences are calculated by subtracting average terminal gate prices (TGPs) from average retail prices.

TGPs are the prices at which petrol can be purchased from wholesalers in the spot market and are posted on a regular basis on the websites of the major wholesalers. As noted in chapter 8, not all wholesale transactions are at TGPs—some will be at higher prices and some will be at lower prices. Therefore, TGPs can be regarded as indicative wholesale prices.

Furthermore, TGPs are ‘petrol only’ prices and exclude other retail operating costs (such as branding, transportation, labour, etc.). Therefore, gross indicative retail differences should be treated as a useful indicator only. They should not be confused with actual retail profits.<sup>192</sup>

Table 9.1 shows gross indicative retail differences in the five largest cities in both nominal and real terms, from 2003–04 to 2010–11.<sup>193</sup>

**Table 9.1 Annual average retail prices, terminal gate prices and gross indicative retail differences, five largest cities: 2003–04 to 2010–11**

	Average retail price cpl	Average TGP cpl	Gross indicative retail difference cpl	Gross indicative retail difference (real) cpl
2003–04	90.3	86.1	4.2	4.1
2004–05	100.6	96.9	3.7	3.5
2005–06	121.1	117.0	4.1	3.8
2006–07	121.6	116.8	4.8	4.3
2007–08	134.5	129.4	5.1	4.4
2008–09	127.1	120.4	6.7	5.6
2009–10	124.2	117.2	7.0	5.8
2010–11	131.7	124.1	7.6	6.0

Sources: ACCC calculations based on Informed Sources, ABS, Trafigura and WA FuelWatch and information provided by the monitored companies.

Table 9.1 shows that:

- Gross indicative retail differences increased by 0.6 cpl in 2010–11 to 7.6 cpl, the highest for the period. In real terms, they also increased by 0.2 cpl to 6.0 cpl.
- In both nominal and real terms, gross indicative retail differences have been increasing every year since 2004–05.

While gross indicative retail differences have been increasing over time, it is likely that a significant part of this increase is related to increasing costs. Data in chapter 15 shows that the net retail profit from petrol sales over the last six years has on average been less than 1.0 cpl.

<sup>192</sup> Chapter 15 presents data on retail profits derived from financial data provided by the monitored companies.

<sup>193</sup> The ABS All Groups Consumer Price Index for the five cities Sydney, Melbourne, Brisbane, Adelaide and Perth was used to deflate the retail margins to 2002–03 prices. Source: Australian Bureau of Statistics, *6401.0 Consumer Price Index*, Australia, Tables 1 and 2. CPI: All Groups, Index Numbers and Percentage Changes, <http://www.abs.gov.au/AUSSTATS>, accessed 30 November 2011. Appendix E provides information on gross indicative retail differences for petrol and diesel for the five capital cities individually on an annual basis and a monthly basis for 2010–11.



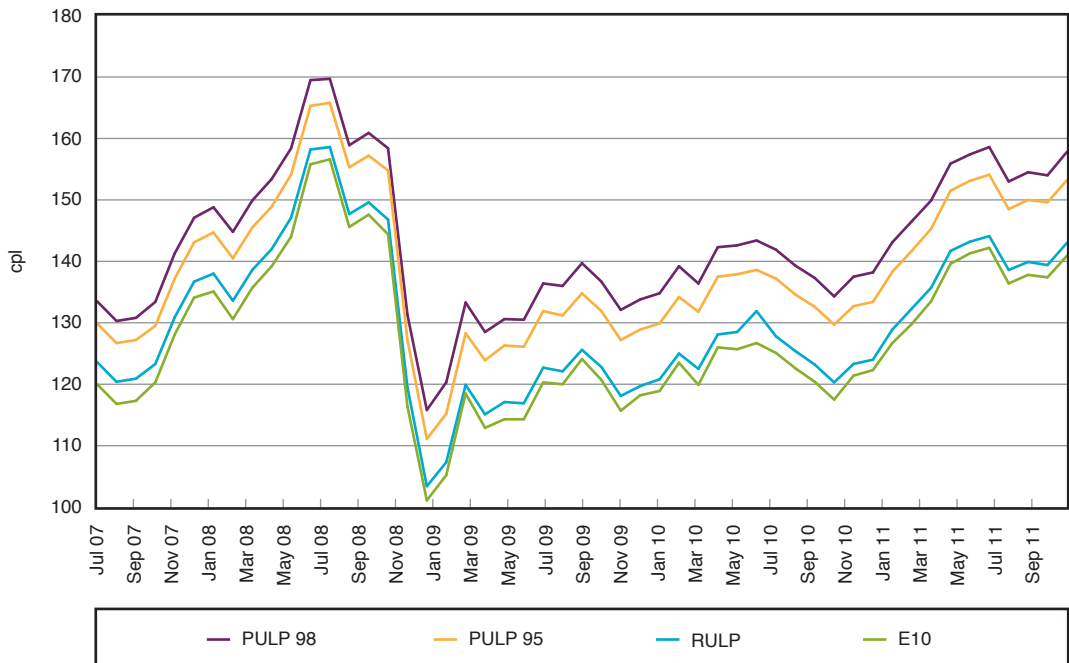
## 9.6 Other grades of petrol

### 9.6.1 Retail prices of the different petrol grades

The retail prices of the different grades of unleaded petrol—RULP, PULP 95 and 98, and E10—tend to move in similar patterns.

Chart 9.15 shows average monthly retail prices for these four grades of petrol in the five largest cities from July 2007 to September 2011.<sup>194</sup>

**Chart 9.15 Monthly average retail prices of RULP, PULP 95, PULP 98 and E10 in the five largest cities: July 2007 to September 2011**



Source: ACCC calculations based on Informed Sources data.

Retail prices of the different grades of petrol move in similar patterns because prices for the four products are set according to international refined petrol benchmark prices (which primarily move in line with changes in the price of crude oil). However, the price differentials between each type of petrol vary over time. For example, the differential between average RULP prices and E10 prices has narrowed in recent months and the differential between RULP prices and prices for the two PULP grades has increased over the period.

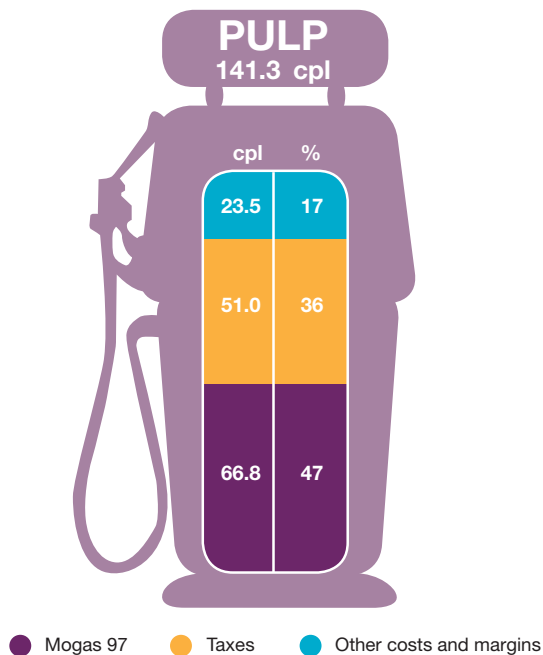
For a discussion of the markets for E10 and PULP, including movements in average retail prices, see chapters 6 and 7 respectively.

<sup>194</sup> E10 prices in the chart are for four capital cities and do not include Perth, as E10 is not sold in Western Australia.

9.6.2 Components of retail PULP 95 prices

Chart 9.16 shows the broad components of the average retail PULP 95 price across the five largest cities in 2010–11.<sup>195</sup>

Chart 9.16 Components of average retail PULP 95 price in the five largest cities: 2010–11



Source: ACCC calculations based on Informed Sources, Platts and RBA data.

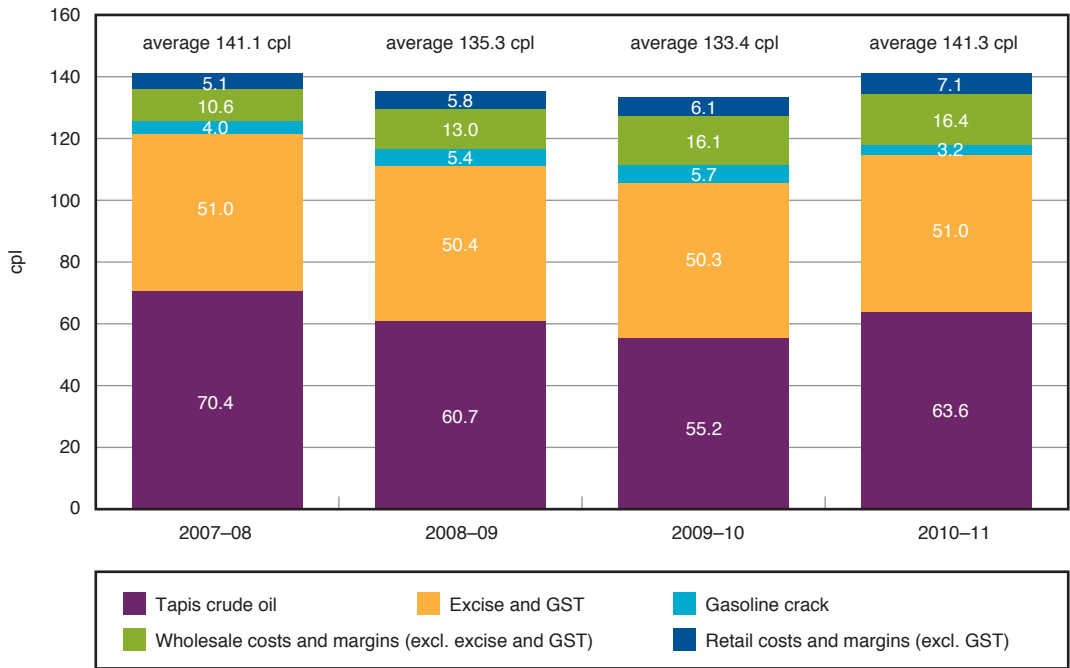
<sup>195</sup> The components of PULP 98 prices are not included in this section because wholesale prices for most companies are not available. Components of E10 prices are also not included as E10 wholesale prices are only available for a few cities and E10 is primarily sold in Sydney and Brisbane.

Chart 9.17 shows more detailed components of the annual average retail PULP 95 price across the five largest cities from 2007–08 to 2010–11.<sup>196</sup> PULP 95 can be disaggregated into the same components as RULP. However, the appropriate international refined petrol benchmark for PULP 95 is Singapore Mogas 97 Unleaded (Mogas 97), which is a higher grade of petrol than Mogas 95.

Chart 9.17 indicates that:

- changes in the retail price of PULP 95 in Australia are largely influenced by the price of Tapis crude oil
- in 2010–11, retail costs and margins (excluding GST) for PULP 95 (7.1 cpl) were very similar to those for RULP (6.9 cpl)
- wholesale costs and margins (excluding excise and GST) for PULP 95 in 2010–11 (16.4 cpl) were considerably higher than for RULP (9.0 cpl). In part, this reflects a higher fuel quality premium for PULP 95 relative to RULP, as well as other related costs.

**Chart 9.17    Components of annual average retail PULP 95 prices in the five largest cities: 2007–08 to 2010–11**



Source: ACCC calculations based on Informed Sources, Platts and RBA data, and information provided by the monitored companies.

<sup>196</sup> TGP for PULP 95 prior to 2007–08 are unavailable.

## 9.7 Diesel and automotive LPG prices

### 9.7.1 Diesel and automotive LPG prices compared with petrol prices

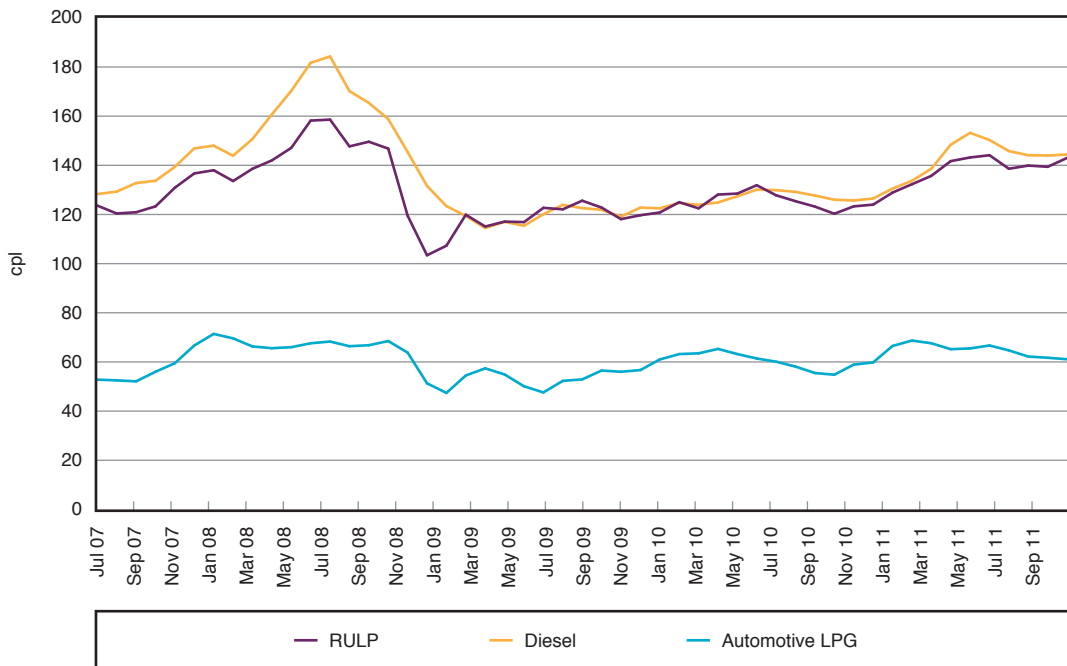
Retail prices of petrol, diesel and automotive LPG generally move in line with their respective international benchmark prices. However, these benchmark prices will vary over time because each product has its own market and is therefore influenced by different supply and demand factors.

The appropriate international benchmark price for diesel is the price of Singapore Gasoil with 10 parts per million sulphur content (Gasoil 10 ppm).<sup>197</sup> International demand for diesel is different to 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 will tend to follow broadly similar movements over the long term.

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

Chart 9.18 shows monthly average retail petrol, diesel and automotive LPG prices in the five largest cities from July 2007 to September 2011.

**Chart 9.18 Monthly average retail prices of petrol, diesel and automotive LPG in the five largest cities: July 2007 to September 2011**



Source: ACCC calculations based on Informed Sources data.

<sup>197</sup> Prior to 1 January 2009 the appropriate international benchmark for diesel was Gasoil 50 ppm.

The chart shows that:

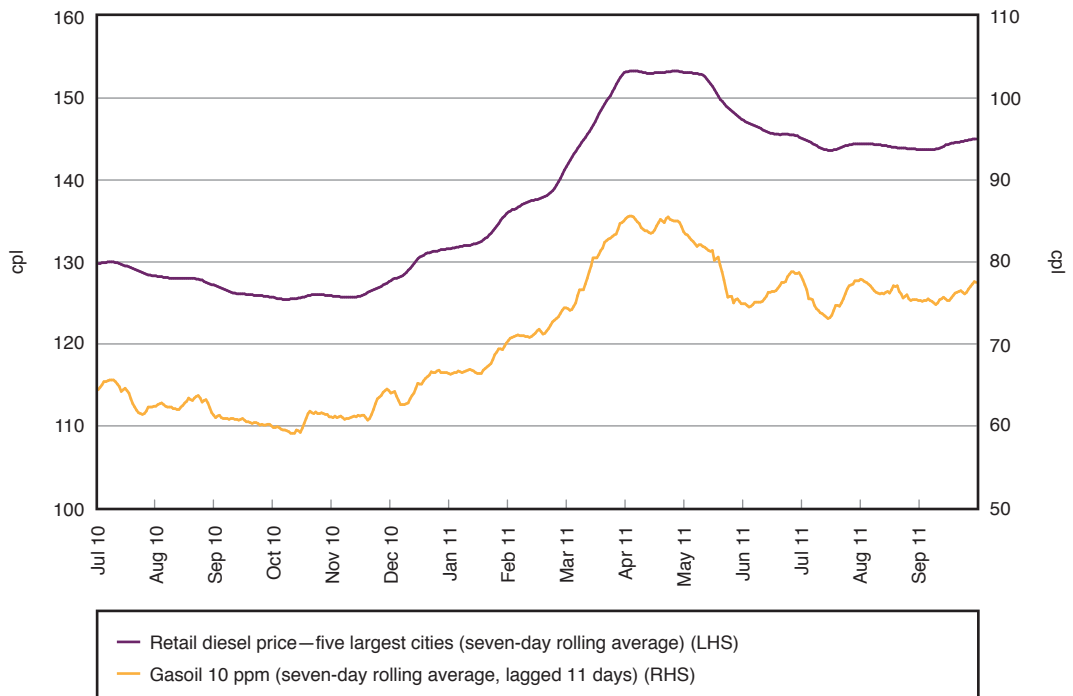
- Over the period, petrol and diesel prices broadly moved in line with each other, generally following movements in the price of crude oil.
- Diesel prices were higher than petrol prices between July 2007 and February 2009. This reflected relatively high demand for diesel compared with petrol, particularly from China and India.
- Following the Global Financial Crisis, movements in petrol and diesel prices were much closer together.
- Automotive LPG prices are significantly lower than petrol and diesel prices:
  - A major reason for this is that excise is imposed on petrol and diesel (at a rate of 38.14 cpl), but there is currently no excise imposed on automotive LPG.
  - In June 2011, the government passed legislation that will impose excise on automotive LPG from 1 December 2011. The rate will be 2.5 cpl increasing in similar annual increments to a final rate of 12.5 cpl from 1 July 2015.

## 9.7.2 Diesel prices

### Retail diesel prices compared with Gasoil prices

Chart 9.19 shows seven-day rolling average retail diesel prices in the five largest cities, compared with Gasoil 10 ppm prices for the period 1 July 2010 to 30 September 2011. Retail diesel prices broadly followed movements in Gasoil 10 ppm prices throughout the period.

**Chart 9.19 Seven-day rolling average retail diesel prices in the five largest cities and Gasoil 10ppm prices: 1 July 2010 to 30 September 2011**



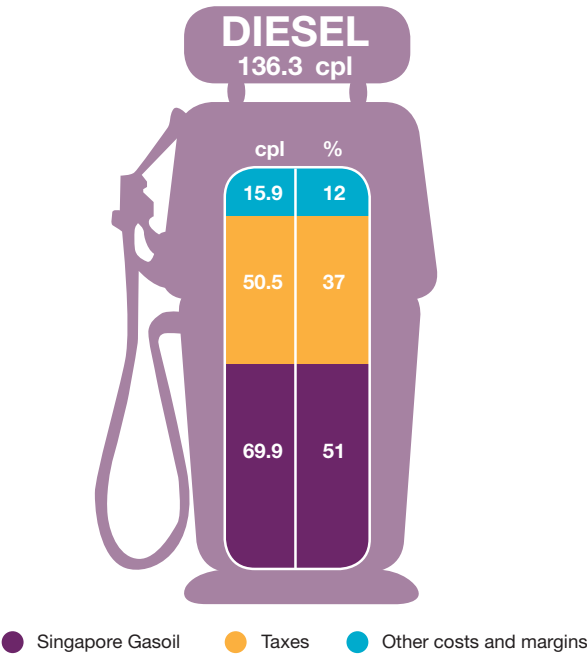
Source: ACCC calculations based on Informed Sources, Platts and RBA data.

Components of diesel prices

Chart 9.20 shows the broad components of the average retail price of diesel across the five largest cities in 2010–11.

Over half of the average price of diesel in 2010–11 was represented by the international price of refined diesel (i.e. Gasoil 10 ppm), compared with 48 per cent in 2009–10. The proportion of the pump price represented by other costs and margins in 2010–11 (12 per cent) was the same as in 2009–10.

Chart 9.20 Components of average retail diesel price in the five largest cities: 2010–11

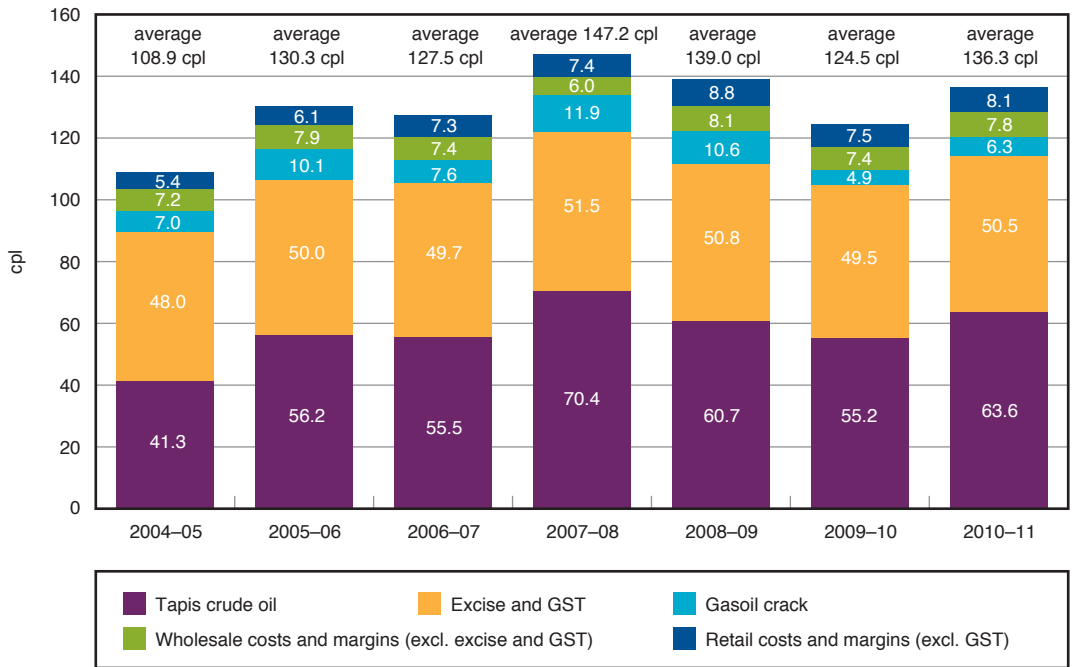


Source: ACCC calculations based on Informed Sources, Platts and RBA data.

Chart 9.21 shows more detailed components of the annual average retail prices of diesel across the five largest cities from 2004–05 to 2010–11. It shows that:

- Since 2005–06, the largest component of the retail price of diesel has been the Tapis crude oil price.
- Retail costs and margins (excluding GST) have been relatively stable since 2006–07.
- In 2010–11 the gasoil crack was around half of what it was in 2007–08.

**Chart 9.21 Components of annual average retail diesel prices in the five largest cities: 2004–05 to 2010–11**



Source: ACCC calculations based on Informed Sources, RBA, AIP, and Platts data.

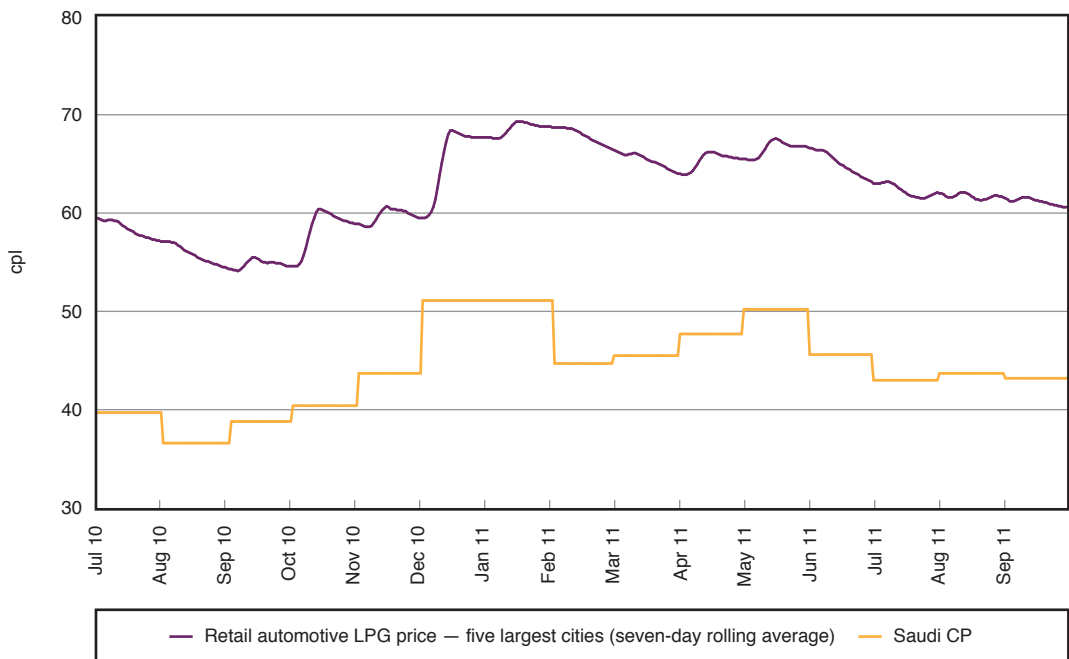
### 9.7.3 Automotive LPG prices

#### Retail automotive LPG prices compared with Saudi CP

Chart 9.22 shows seven-day rolling average retail automotive LPG prices in the five largest cities, compared with the Saudi CP in the period 1 July 2010 to 30 September 2011. Because the Saudi CP only changes at the start of each month, the relationship between movements in the benchmark prices and retail prices is somewhat different compared with petrol and diesel.

The chart shows that automotive LPG retail prices broadly tracked movements in the international benchmark price over the period. It also shows that after a rapid price increase at the start of some months, prices generally trended downward for the remainder of the month.

**Chart 9.22** Seven-day rolling average retail automotive LPG prices in the five largest cities and Saudi CP: 1 July 2010 to 30 September 2011



Source: ACCC calculations based on Informed Sources, LPG Australia and RBA data.

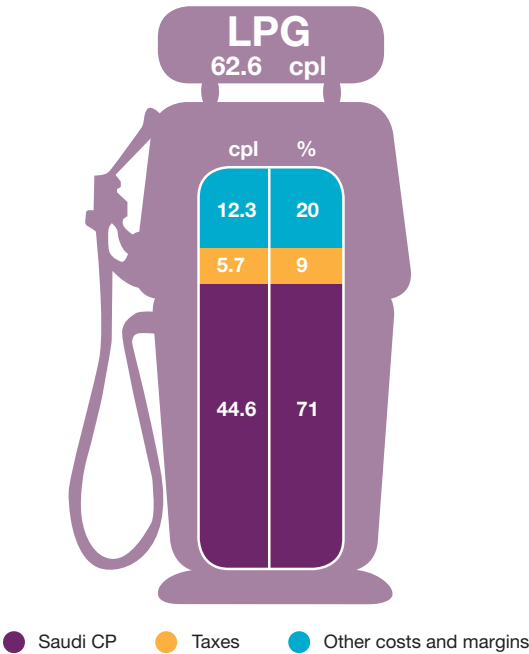


Components of automotive LPG prices

Chart 9.23 shows the broad components of the average retail price of automotive LPG across the five largest cities in 2010–11.

Over 70 per cent of the average price of automotive LPG in 2010–11 was accounted for by the international prices of butane and propane. The proportion of the price accounted for by other costs and margins in 2010–11 (20 per cent) was slightly lower than last year (22 per cent).

Chart 9.23 Components of average retail automotive LPG price in the five largest cities: 2010–11



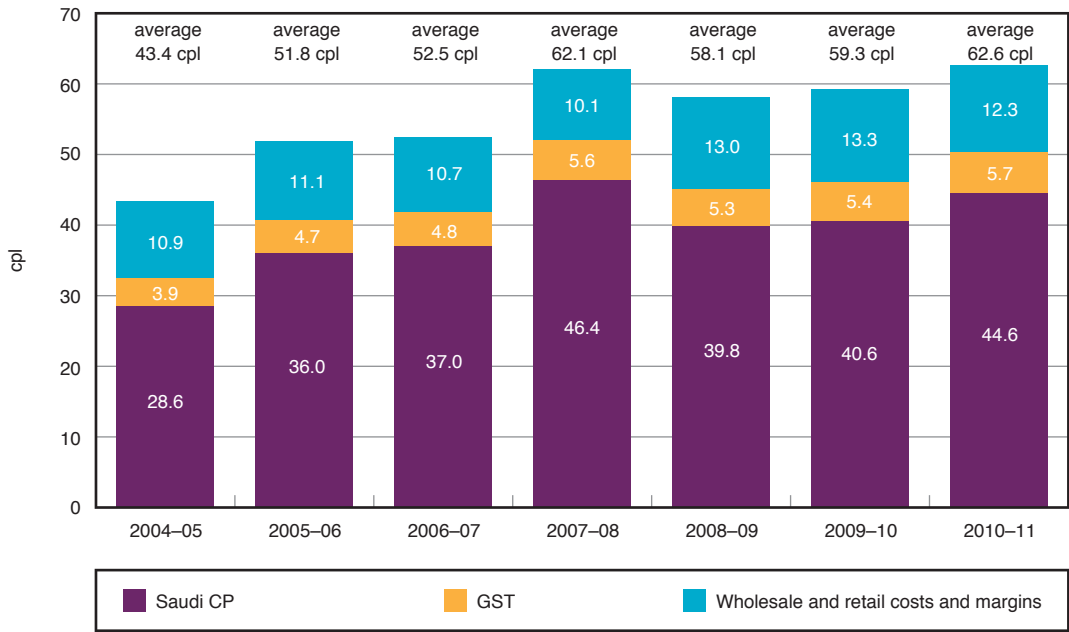
Source: ACCC calculations based on Informed Sources, LPG Australia and RBA data.

Chart 9.24 shows more detailed components of the annual average retail prices of automotive LPG across the five largest cities from 2004–05 to 2010–11.

Chart 9.24 indicates that:

- Changes in the retail price of automotive LPG in Australia are predominantly influenced by changes in the Saudi CP.
- Notional wholesale and retail costs and margins make up a relatively larger proportion of the retail price for automotive LPG compared with those for petrol and diesel, because there is currently no excise imposed on automotive LPG.

Chart 9.24 Components of Australian retail automotive LPG prices in the five largest cities:  
2004–05 to 2010–11



Source: ACCC calculations based on Informed Sources, LPG Australia and RBA data.