

12 Financial performance of the downstream petroleum industry

Key points

- Profits for the Australian downstream petroleum industry are volatile and in 2011–12 fell by 81 per cent to \$408 million or 0.46 cents per litre.
 - This compares with a net profit of \$2171 million or 2.54 cpl in 2010–11.
- The industry sold 90 billion litres of petroleum products in 2011–12, earning \$79 billion in revenue.
- In 2011–12 petrol products (that is, RULP, PULP and EBP) recorded a loss of \$9.5 million, down 101 per cent from 2010–11.
 - Regular unleaded fuels recorded a loss of \$167 million, compared with a profit of \$289 million in 2010–11.
 - Premium unleaded fuels earned a profit of \$213 million in 2011–12, compared with a profit of \$450 million in 2010–11.
 - EBP products lost \$56 million in 2011–12 after a profit of \$68 million the previous year.
- Diesel profits were \$8 million in 2011–12, compared with a \$764 million profit in 2010–11.
- Sectoral profitability was mixed during 2011–12:
 - The total supply sector recorded a loss of \$1116 million (within the total supply sector, the refinery sector recorded a net loss of \$596 million, down 271 per cent from the previous year).
 - The wholesale sector earned a net profit of \$1084 million during 2011–12.
 - The retail sector earned a net profit of \$440 million in 2011–12.

12.1 Introduction

This chapter reports on the consolidated revenues, costs and profits of the entire Australian downstream petroleum industry. The Australian downstream petroleum industry consists of three sectors: total supply (of which the refinery sector is a sub-sector), wholesale and retail. The revenues, costs and profits of individual sectors are assessed in chapters 13 and 14.

As well as reporting total revenues, costs and profits of the industry, this chapter also reports on the revenues, costs and profits associated with the supply of individual petrol products, as specified by the Minister's direction of 9 May 2011. Petrol products include regular unleaded petrol (RULP), premium unleaded petrol (PULP) and ethanol blended petrol (EBP). Financial data is collected on a historical cost basis on established templates by product and by sector. Section 12.9 provides details of the ACCC's data collection process and methodology.

12.2 Overview of financial performance of the downstream petroleum industry

Key observations on revenues, costs and profits across all products and industry sectors in the entire downstream petroleum industry for 2011–12 include:

- total revenue for the industry was \$79 billion, up 17 per cent on the previous year
- total sales volumes were 90 billion litres representing an increase of 5 per cent on the previous year
- total net profits (adjusted EBIT) for the industry decreased by 81 per cent to \$408 million relative to the previous year. Unit net profits were 0.46 cents per litre (cpl), a fall of 82 per cent on the previous year.

Key observations on revenues, costs and profits associated with petrol products (that is RULP, PULP and EBP), for 2011–12 include:

- total revenue on petrol products was \$33 billion, up 14 per cent on the previous year
- total sales volume of petrol products was 37 billion litres representing an increase of 1 per cent on the previous year
- net profits on petrol products for the industry decreased by 101 per cent to a loss of \$9.5 million. Unit net petrol losses were 0.03 cpl.

Table 12.1 shows sales volumes, revenues and net profits for the total downstream industry, for all products, for petrol products and for diesel.

Table 12.1 Sale volumes, revenues and net profits in the downstream petroleum industry: 2011–12 and average for 2002–03 to 2011–12

		2011–12	2002–03 to 2011–12 average
All products	Sale volumes (ML)	89 581	79 925
	Total revenue (\$ million)	79 246	55 357
	EBIT (\$ million)	408	1 452
	Unit EBIT (cpl)	0.46	1.82
Petrol products (RULP, PULP and EBP)	Sales volumes (ML)	37 430	36 314
	Total revenue (\$ million)	32 506	24 359
	EBIT (\$ million)	–9.5	518
	Unit EBIT (cpl)	–0.03	1.43
Diesel	Sales volumes (ML)	35 305	27 195
	Total revenue (\$ million)	29 969	18 957
	EBIT (\$ million)	8	638
	Unit EBIT (cpl)	0.02	2.42

Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

Revenues and profits on diesel have traditionally been a significant contributor to overall industry revenues and profits. However, during 2011–12, while diesel revenue grew 22 per cent to \$30 billion, diesel profits declined by 99 per cent to \$8 million. In 2011–12 diesel products contributed 2 per cent to total industry profits after having contributed 35 per cent of total profits in 2010–11.

12.3 Revenues, costs and profits in the downstream industry: all products

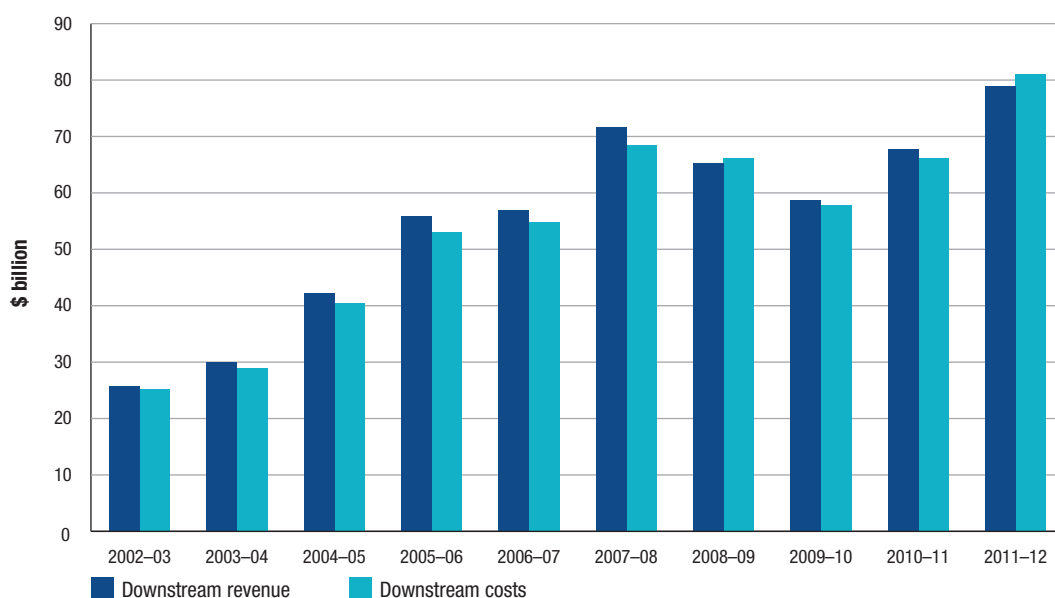
This section details the revenues, costs and profits associated with all petroleum related activities in the Australian downstream petroleum industry.

The downstream petroleum industry derives its income from a variety of sources. These include the refining of crude oil into automotive fuels and other products; revenue from the on-selling of these refined products to the commercial sector; revenue from the on-selling of fuel to the public; and revenue from selling products at convenience stores (attached to retail sites).

12.3.1 Revenues and costs, all products

Chart 12.1 shows total revenues and costs for all products and services and for all monitored firms for the period 2002–03 to 2011–12.

Chart 12.1 Downstream industry revenues and costs, all products: 2002–03 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

Note: Included in total costs are all expenses including impairment, amortisation and profit or loss on the sale of assets. These items are excluded from net profit calculations.

Key observations on total industry revenue and costs for 2011–12 include:

- total revenues and costs increased to around \$79 billion and \$81 billion respectively. These increases are largely associated with higher prices for petroleum products sold and with increases in total volumes sold of around 4.7 per cent
- total revenues reported for 2011–12 exceed the levels seen prior to the global financial crisis (GFC)
- unit revenue and unit costs for 2011–12 were 88.5 cpl and 90.5 cpl respectively.

12.3.2 Total and unit net profits, all products

Total net profits

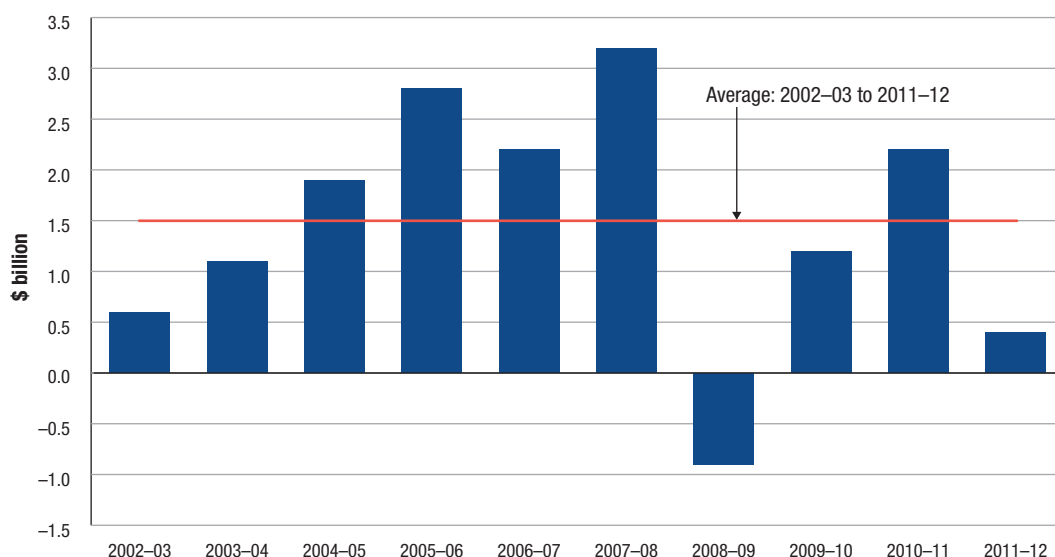
One of the key performance indicators used to monitor the profitability of the downstream petroleum industry has been adjusted EBIT in aggregate and as a unit measurement.¹⁴⁵ Further detail on this KPI and others used in the three financial chapters can be found in section 12.9.

Adjusted EBIT measures profits from the operating performance of monitored firms. This profitability measure can be volatile due to the variable effects of changing prices of crude oil and refined petrol and also changes in the AUD–USD exchange rate (see section 12.9.1).

As adjusted EBIT measures profits associated with the operating performance of monitored firms, it excludes costs and revenues associated with activities that are one-off and not part of their normal business operations. The most relevant expense exclusion from adjusted EBIT has been impairment costs associated with a re assessment of the future earnings potential of refinery assets. Thus, the 2011–12 profit data excludes Caltex's write down of the value of its refinery assets with a \$1.5 billion impairment expense charge and also Shell's \$638 million impairment charge against its Geelong refinery.¹⁴⁶ Both Caltex and Shell have reported these charges as a loss of value of their refinery assets due to the effects of competition from more efficient refineries in the Asia-Pacific region.

Chart 12.2 shows net profit, or adjusted EBIT, for all products for all monitored firms from 2002–03 to 2011–12.

Chart 12.2 Downstream industry net profit, all products: 2002–03 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

¹⁴⁵ The terms net profit and adjusted EBIT are used interchangeably throughout the chapter.

¹⁴⁶ Caltex (2012), 2011 Preliminary Final Report, Results for announcement to the market, 27 February, <http://www.caltex.com.au/Media%20Items/ASX%20Announcement%20-%202011%20Preliminary%20Final%20Report%20and%202011%20Financial%20Report.pdf>. See also Chambers, M (2012), *Shell units shed \$495 million after huge refinery write-down*, in The Australian newspaper, 11 May 2012.

Key observations on total industry net profit for 2011–12 include:

- adjusted EBIT for the entire downstream petroleum industry was \$408 million, representing a decrease of 81 per cent from profits earned in 2010–11.¹⁴⁷
- this result was affected by losses of around \$600 million in the refinery sector.¹⁴⁸
- the refiner-wholesalers' contributed no profits to the downstream industry's 2011–12 profits (after contributing 85 per cent of total profits in 2010–11). The refiner-marketers recorded a net loss in 2011–12 of \$3.3 million. Businesses only operating in the retail sector increased their share of total net profits to 78 per cent, compared with 13 per cent the previous year.

Unit net profit

Unit net profit is derived by dividing total net profit by total volume.¹⁴⁹ This measure is presented in terms of cents per litre (cpl). Key observations on unit net profit for the entire downstream industry include:

- average unit net profit for 2011–12 was 0.46 cpl, down from the 2010–11 unit net profit of 2.54 cpl
- an analysis of unit net profit by type of company in 2011–12 shows the refiner-wholesalers with negative 0.01 cpl, independent wholesalers with 2.28 cpl and firms with only a presence in the retail sector with 2.58 cpl
- the average annual unit net profit for the downstream industry from 2002–03 to 2011–12 has been around 1.8 cpl.

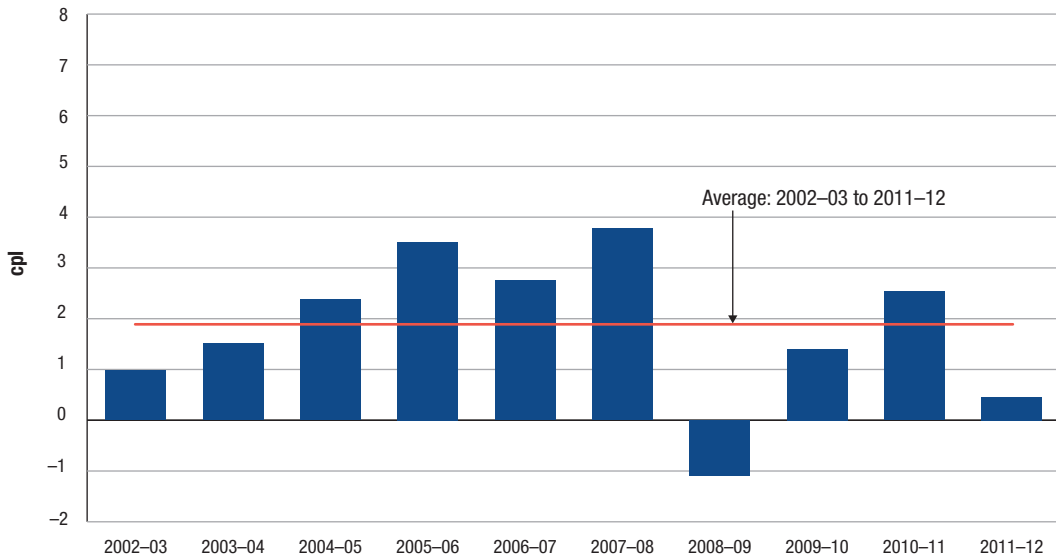
Chart 12.3 displays unit net profit for all monitored companies for the period 2002–03 to 2011–12.

147 Note that if impairment expenses had been included in the profit derivation, the overall industry result would have been a loss of \$1.82 billion.

148 Inventory valuation changes occur when a company purchases a product for on-selling and the market price of the product either increases or declines by the time the product is sold. In companies which report data on a replacement cost basis, the difference between the purchase and sell price is recorded as an inventory gain or loss in the company's accounts. Generally, those companies which report on a historical cost basis do not record inventory gains or losses. Data for the ACCC petrol monitoring program has been provided on a historical cost basis and thus does not include separate data on inventory valuation changes.

149 Total industry volume is derived after the elimination of intra-company transfers.

Chart 12.3 Downstream industry unit net profit, all products: 2002–03 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

12.3.3 Other key performance indicators

The ACCC utilises a number of other profit KPIs to assess the performance of the downstream petroleum industry. Established and common accounting measures to assess profitability and included in this analysis are return on sales (adjusted EBIT divided by total sales), return on assets (adjusted EBIT divided by total adjusted assets) and capital expenditure. For further information on these KPIs see Box 12.1 at the end of this chapter. Note that recent substantial write downs of values of refinery assets by two of the monitored companies have impacted total industry asset values and return on assets.

Key observations regarding these profit KPIs for the downstream industry during 2011–12 include:

- return on sales (RoS) decreased to 0.5 per cent (down from 3.2 per cent in the previous year).
 - refiner-wholesalers recorded the lowest RoS with negative 0.01 per cent. The independent wholesalers' RoS was 2.4 per cent while RoS for those companies with only a retail presence was also 2.4 per cent.
 - average RoS for the period 2002–03 to 2011–12 was 2.6 per cent.
- return on assets (RoA) for the industry decreased to 1.96 per cent (down from the 10.3 per cent in the previous year).
 - the largest RoA by type of firm was earned by those companies with only a retail presence with a RoA of 24 per cent. The refiner-wholesalers' RoA was negative 0.02 per cent and independent wholesalers' RoA was 12.6 per cent.
 - average RoA for the period 2002–03 to 2011–12 was 8.7 per cent.

Chart 12.4 displays these profit KPIs for the period 2002–03 to 2011–12.

Chart 12.4 Downstream industry return on sales and return on assets, all products: 2002–03 to 2011–12

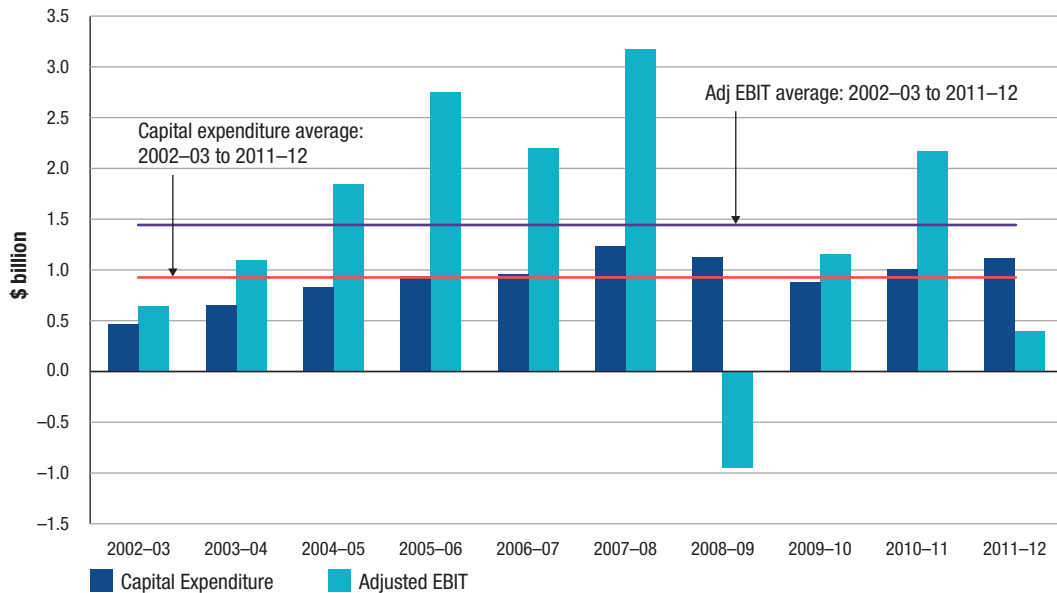


Source: ACCC analysis based on data obtained from firms monitored through the ACCC's monitoring process

Chart 12.5 presents total annual industry capital expenditure and compares this to total adjusted EBIT for the years 2002–03 to 2011–12. Key observations from chart 12.5 include:

- total capital expenditure for 2011–12 was around \$1.1 billion or approximately 2.8 times adjusted EBIT
- capital expenditure levels have ranged from a low of \$467 million in 2002–03 to a high of \$1.28 billion in 2007–08
- average annual capital expenditure from 2002–03 to 2011–12 has been around \$923 million per year or about 64 per cent of EBIT per year.

Chart 12.5 Downstream industry capital expenditure and adjusted EBIT, all products: 2002–03 to 2011–12



Source: ACCC analysis based on data obtained from firms monitored through the ACCC's monitoring process

12.4 Revenues, costs and profits in the downstream industry: petrol products

As per the minister's direction of 9 May 2011, the ACCC has reported on the revenues, costs and profits of petrol products. This section presents KPIs on petrol products for the downstream petroleum industry. As noted, petrol products are RULP, PULP and EBP.

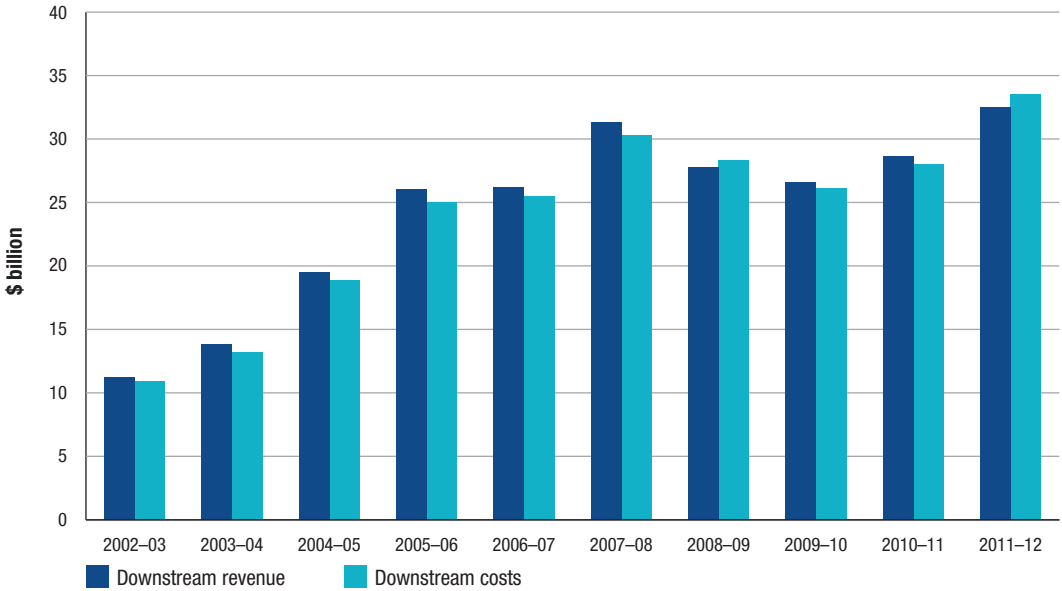
The methodology used to allocate expenses and estimate individual product profits is discussed in section 12.9.

12.4.1 Revenues and costs, petrol products

Chart 12.6 shows the total revenues and costs of petrol for all monitored firms for the years 2002–03 to 2011–12. Key observations on total industry revenue and costs relating to petrol products include:

- total revenue on petrol products increased 14 per cent in 2011–12 to \$32.5 billion while total costs increased by 20 per cent to \$33.5 billion
- this increase in revenues is largely due to increased prices for petrol products and an increase in volumes of 0.8 per cent. Increases in total costs are due to higher purchase prices and higher operating/conversion costs.

Chart 12.6 Downstream industry revenues and costs, petrol products: 2002–03 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

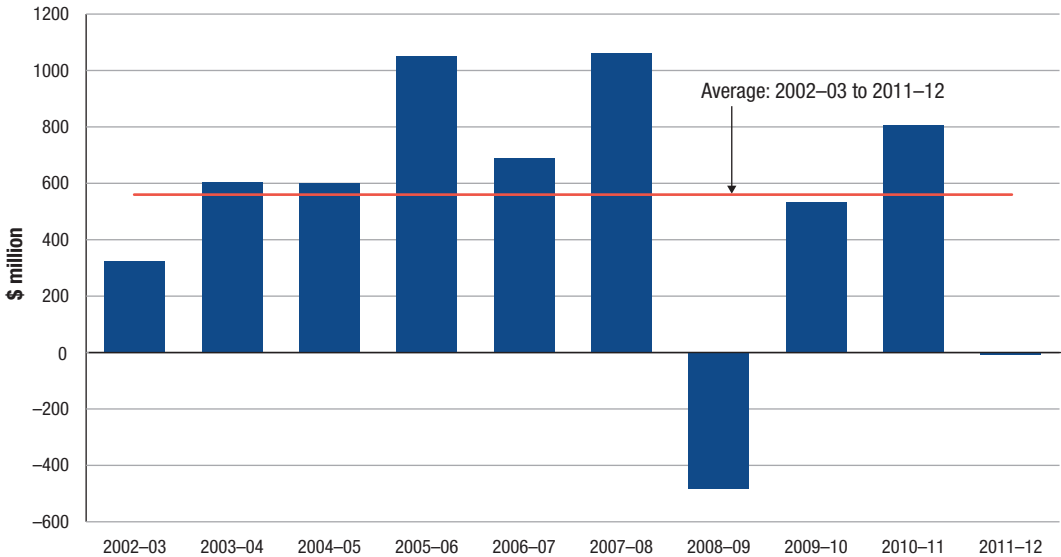
12.4.2 Total and unit net profits, petrol products

Total net profits

Chart 12.7 displays net profit on petrol products for all monitored companies, for the years 2002–03 to 2011–12. Key observations on industry petrol profits include:

- petrol products recorded a net loss of \$9.5 million in 2011–12, after earning net profits of \$807 million in 2010–11
- the average annual petrol profit over the time series has been around \$518 million.

Chart 12.7 Downstream industry net profit (adjusted EBIT), petrol products: 2002–03 to 2011–12



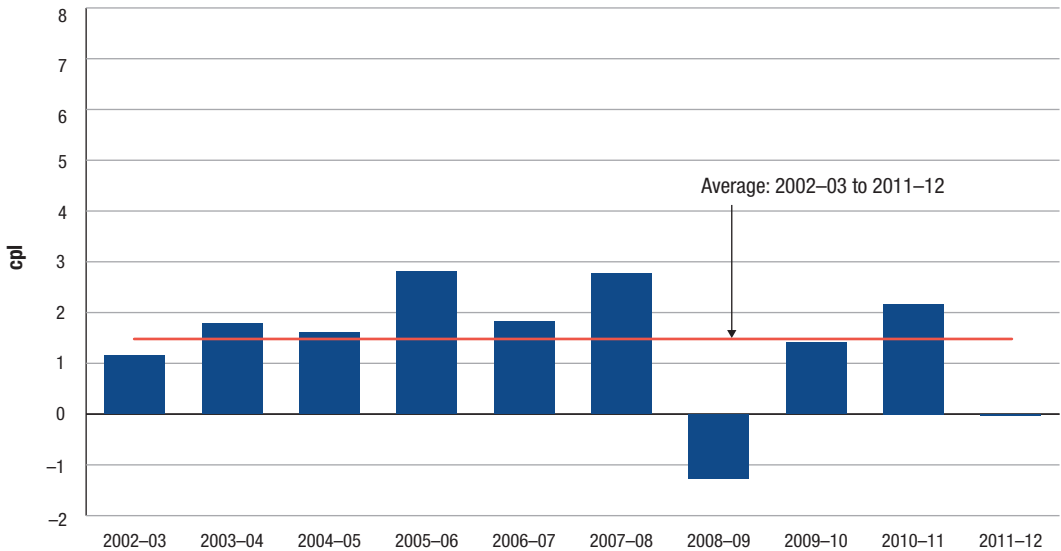
Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

Unit net profit

Chart 12.8 displays unit net profit for petrol products for all monitored companies from 2002–03 to 2011–12. Key observations from the chart include:

- unit net losses for petrol products in the downstream industry was –0.03 cpl in 2011–12 compared with a unit net profit of 2.18 cpl in 2010–11
- average annual unit net profit for petrol products over the time series has been estimated to be around 1.4 cpl.

Chart 12.8 Downstream industry unit net profit, petrol products: 2002–03 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

12.4.3 Motorist's perspective profits, petrol products

Due to complexities associated with the way that data is collected and reported in a conventional accounting framework, it is not possible to arrive at a precise measure of profits contributed by motorists. The 'motorist's perspective' profit is an estimate of profit contributed by motorists to the industry with each litre of petrol purchased. It is calculated by estimating each sector's (total supply, wholesale and retail) profit or loss taking into account the revenues and costs in that particular sector.¹⁵⁰ The motorist's perspective KPI was introduced in 2009 to provide a consumer's perspective to average profit that motorists would pay at the retail level for each litre of petrol products purchased.

KPIs discussed in previous sections present financial KPIs such as adjusted EBIT and return on assets derived from data based on standard Australian accounting principles. These KPIs represent financial results for all activities and for petrol products alone from the firm's or shareholder's perspective. These KPIs also reflect the results of transactions between petrol companies and all of their customers. This includes overseas purchasers, other refiner-wholesalers, wholesalers, commercial customers and retail customers and motorists.

The accounting system developed for the ACCC petrol monitoring programme was designed to capture data for companies operating in different sectors of the industry, as though each sector was a stand-alone enterprise. Some of these firms are integrated into different sectors. Furthermore, some of the firms transact internally across sectors. This means that a given volume of petrol may feature in the final results more than once.

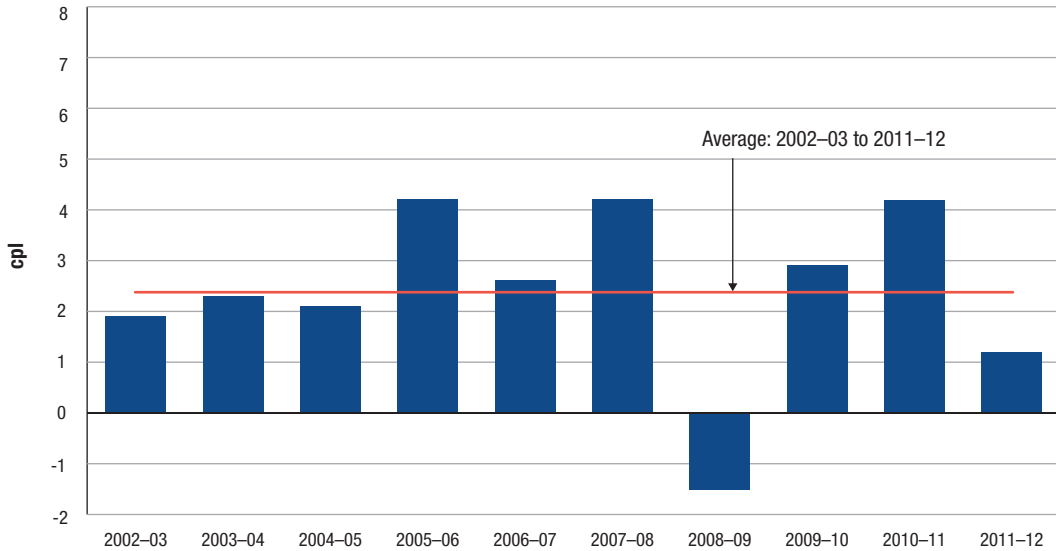
The motorist's perspective profit is a measure of the sum of the unit net profits in each sector as a stand-alone business. This measure ignores inter-sector volume transfers.

Chart 12.9 displays unit net profit from a motorist's perspective from 2002–03 to 2011–12. Key observations from the chart include:

- in 2011–12, unit net profit from a motorist's perspective was 1.2 cents per litre, down 72 per cent from 2011–12
- the average annual motorist's perspective unit net profit over the time series was around 2.4 cents per litre.

¹⁵⁰ In an ideal sense, the best way to conceptualise the motorist's perspective profit is to think of an imaginary litre of petrol that makes its way through a company operating in the three sectors of the petrol industry and finally into the tank of the motorist. As that litre flows through the industry, from one sector to the next, margins are accumulated. For instance, if at total supply the margin per litre made by the industry is 2 cents per litre (cpl), then in wholesale, the industry makes 3 cpl and finally in retail, 1.5 cpl, the litre that the motorist finally puts in his car has a total margin of 6.5 cents on it.

Chart 12.9 Motorist's perspective—downstream industry unit net profits, petrol products: 2002–03 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

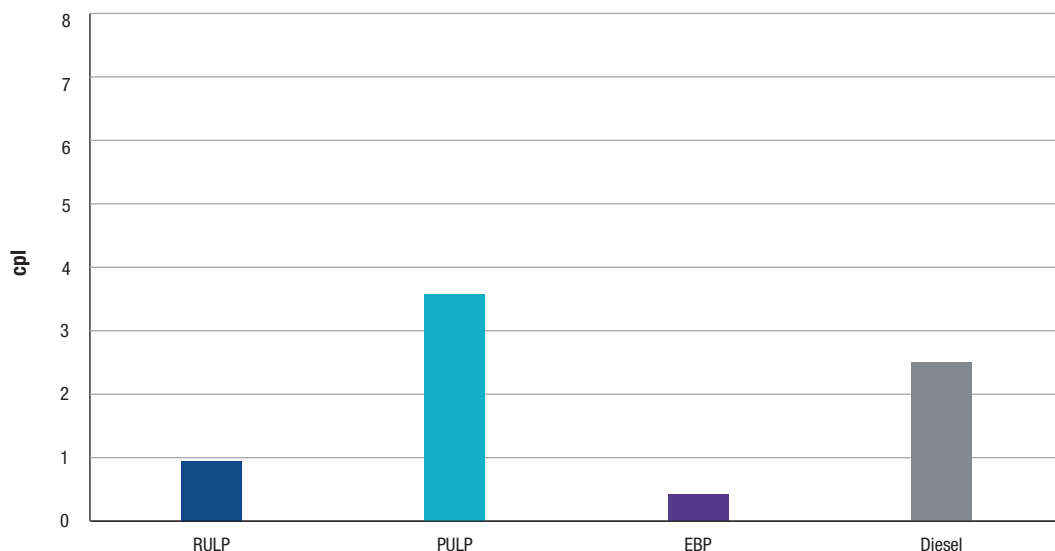
12.4.4 Unit net profits by fuel type

Unit net profit in cents per litre has been estimated for each product type. Section 12.9.4 describes the methodology used for splitting costs by product and the caveats on this measure.

Chart 12.10 displays estimates of average unit net profit by fuel type for the years 2005–06 to 2010–11. Key observations from the chart include:

- premium unleaded fuels earned an estimated average annual unit net profit of 3.6 cpl over the time period
- diesel was on average the second most profitable product over the period with average annual unit net profit of 2.5 cpl
- EBP had the lowest average product profitability with an average annual unit net profit of less than half of one cpl.

Chart 12.10 Downstream industry average annual unit net profit, by fuel type: 2005–06 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

12.5 Profits by sector: all products

As noted in the introduction to this chapter, the ACCC assesses the downstream industry in its totality and by sector. These sectors include total supply (that is refining, imports and buy sell transactions), wholesale and retail. This section assesses and compares rates of profitability in these sectors. Further detailed financial information on these sectors is presented in chapters 13 and 14.

12.5.1 Sectoral net profits, all products

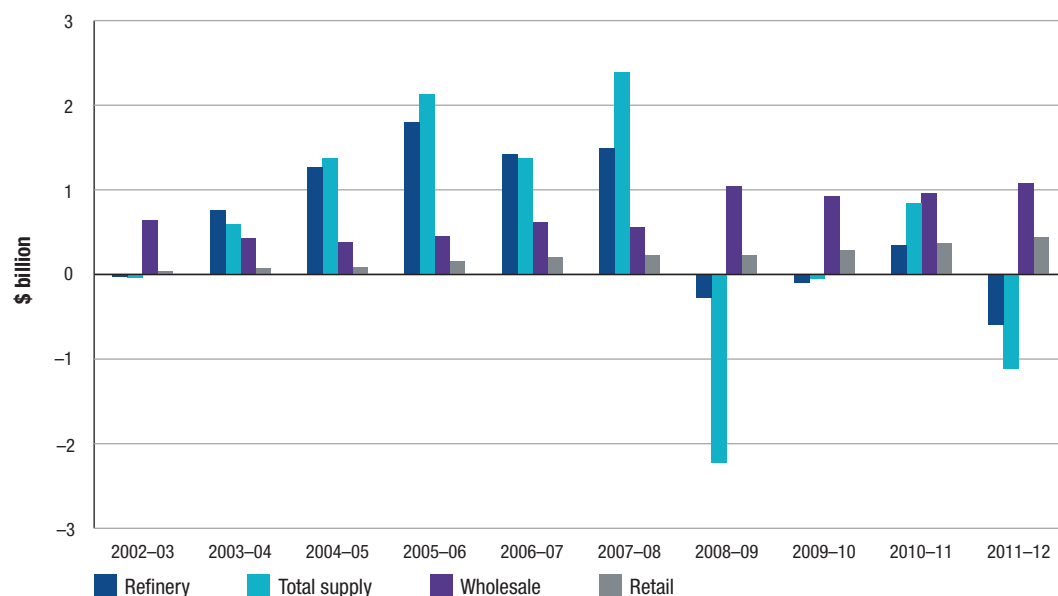
The ACCC collects data for all operations and by sector from the monitored companies. Some companies do not structure their accounts in accordance with the ACCC's sectoral split. This may mean that in some cases internal allocations and accounting arrangements (especially for the integrated firms) can affect the profit results of individual sectors.

Total net profit by sector is provided in chart 12.11. Key observations from the chart include:

- during 2011–12, the wholesale sector earned net profits of \$1.1 billion. Wholesale has been the most profitable sector of the Australian downstream industry in each of the past four financial years
- the retail sector earned \$440 million during 2011–12, up 17 per cent from 2010–11
- the refinery sector recorded a loss of \$596 million during 2011–12 which is consistent with the trend of low or negative profitability in this sector evident since the GFC. Profitability in the refinery sector has been characterised by contrasting trends over the time series. In terms of net profit, the refinery sector has gone through two distinct phases over the past 10 years, notably a relatively profitable period prior to the GFC and a considerably less profitable period post GFC. Average refiner profits prior to the GFC were \$1119 million, in contrast with average profits of negative \$156 million since the GFC

- an analysis of inter-sectoral trends on average profitability over the time series shows that the wholesale sector has had the highest average profit of \$712 million. The refinery sector was on average the second most profitable sector with \$609 million. Note that this refinery average is slightly biased by the relatively high pre-GFC profits.

Chart 12.11 Downstream industry net profits by sector, all products: 2002–03 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

Note: Refinery is a sub-sector of total supply.

12.5.2 Sectoral variation with average profit, all products

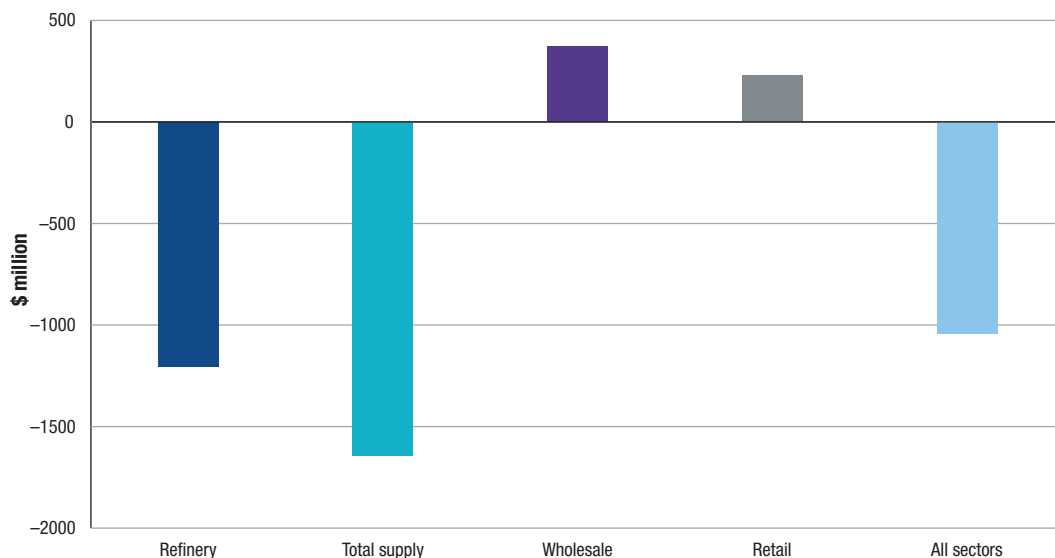
This section considers each sector's net profit for 2011–12 relative to its long term annual average.

Chart 12.12 displays the difference between the sectoral profit or loss for 2011–12 from its long term average. For instance, the chart shows that the refining sector's 2011–12 net profit is \$1205 million less than its long term average of \$609 million.

Other observations from the chart include:

- the entire downstream petroleum industry recorded a net profit for 2011–12 which was around \$1043 million below its long term average
- as was the case in 2010–11, wholesale had the largest net profit differential relative to its long term average. During 2011–12, this was \$373 million greater than its long term average
- the retail sector's net profit for 2011–12 was \$228 million above its long term average.

Chart 12.12 Downstream industry—2011–12 net profit by sector relative to the average from 2002–03 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

Note: Refinery is a sub-sector of total supply.

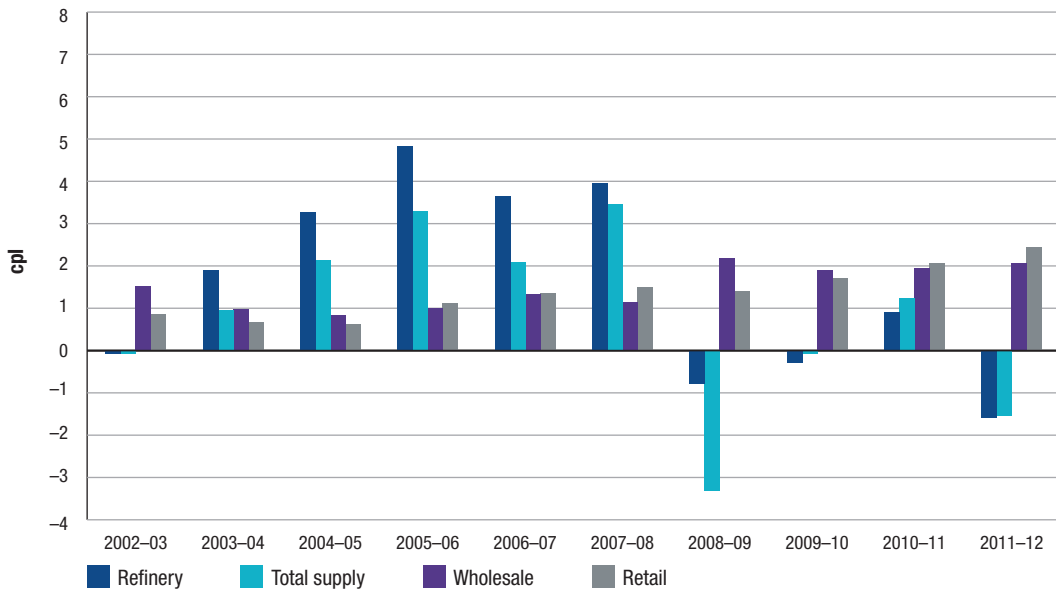
12.5.3 Sectoral unit net profits, all products

Sectoral unit net profits increased in two sectors during 2011–12. Unit net profit by sector is presented in chart 12.13. Key observations from the chart include:

- during 2011–12 the retail sector had the highest unit net profit with 2.4 cpl, up from 2.1 cpl in 2010–11¹⁵¹
- the wholesale sector had the second largest unit net profit in 2011–12 with 2.1 cpl, compared with 2.0 cpl in 2010–11
- average annual unit net profits over the time series show that the refinery sector had the highest unit net profit with 1.6 cpl. This is largely due to the above average annual profits that the refinery sector was earning prior to the GFC
- the retail sector on average had the second lowest average annual unit net profits over the time series with 1.47cpl.

¹⁵¹ Note that retail unit net profits are derived from total retail profits, which include convenience store profits.

Chart 12.13 Downstream industry unit net profits by sector, all products: 2002–03 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

Note: Refinery is a sub-sector of total supply.

12.6 Profits by sector: petrol products

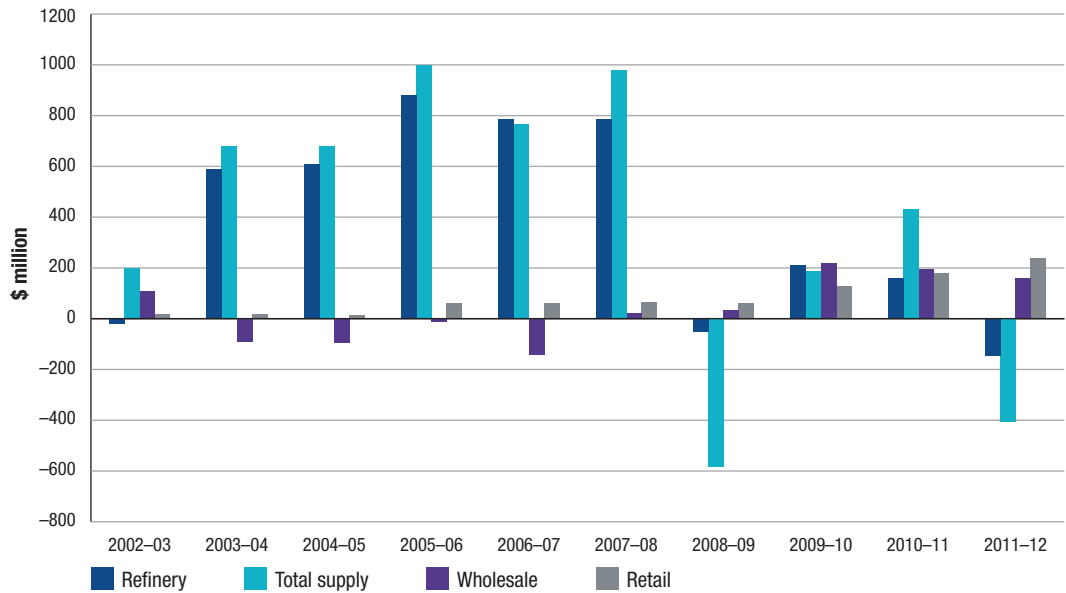
Section 12.5 detailed profit KPIs for all products by sector. This section provides profit KPIs on petrol products alone that are manufactured and/or sold by monitored companies. Petrol products include RULP, PULP and EBP. Further detailed financial information on these products is presented in chapters 13 and 14.

12.6.1 Sectoral net profits, petrol products

Chart 12.14 displays net profit on petrol products for each sector. Key observations from the chart include:

- the retail sector recorded the largest net profit from petrol products with \$239 million, up 32 per cent from 2010–11. The retail sector also recorded the largest net petrol profits in 2008–09 when the industry as a whole incurred overall losses of almost one billion dollars
- the wholesale sector had the second largest net profit from petrol products with \$159 million during 2011–12, but was down 19 per cent from 2010–11
- an analysis of average annual profits over the time series shows that total supply had the largest annual average profit with \$393 million per annum. The wholesale sector on average had the lowest average profits from petrol products with \$40 million per annum.

Chart 12.14 Downstream industry, net profits by sector, petrol products: 2002–03 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

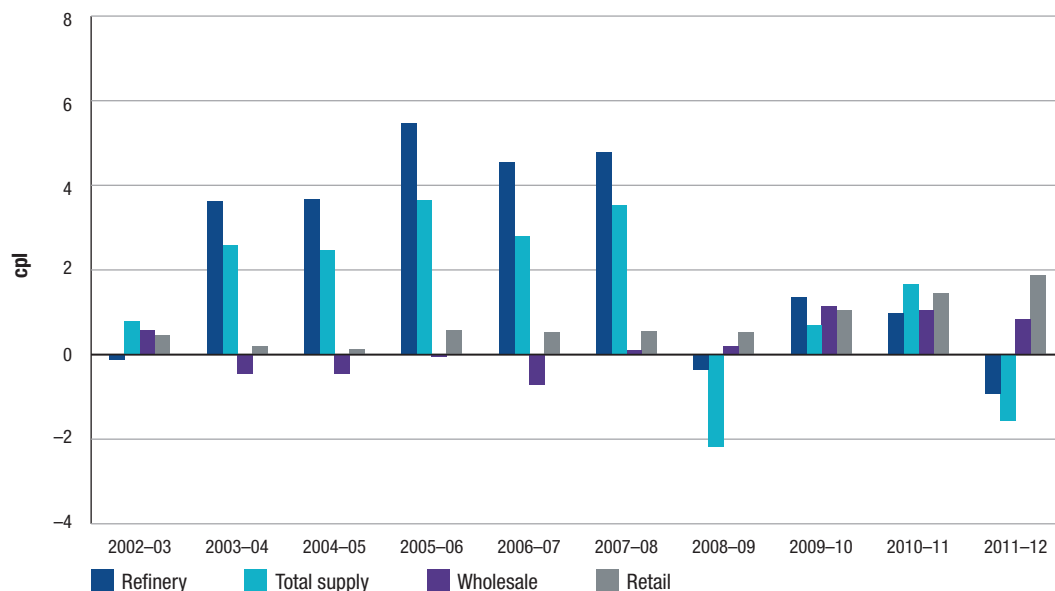
Note: Refinery is a sub-sector of total supply.

12.6.2 Sectoral unit net profits, petrol products

This section presents unit net profits by sector. The results are displayed in chart 12.15. Key observations from this chart include:

- the retail sector achieved the largest unit profit on petrol products for 2011–12 with a unit net profit of 1.9 cpl (up 30 per cent on 2010–11)
- the wholesale sector earned 0.9 cpl on petrol products during 2011–12, down 19 per cent on 2010–11
- since 2002–03 the refinery sector achieved the highest average annual unit net profit with 2.4 cpl. Profits earned prior to the GFC were higher than in the post GFC years
- the wholesale sector has the lowest average annual unit net profit over the time series with 0.2 cpl.

Chart 12.15 Downstream industry, unit net profits by sector, petrol products: 2002–03 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process

Note: Refinery is a sub-sector of total supply.

12.7 Comparison of the profitability of the downstream petroleum industry with other industries

As part of its assessment of the profitability of the downstream petroleum industry, the ACCC has compared KPIs for the petroleum industry against other Australian industries.

The benchmark used in previous monitoring reports was the Australian Securities Exchange's top 200 companies by market capitalisation (ASX200).¹⁵² The same (updated) benchmark has been used for this year's analysis. The ASX200 is represented by a wide range of industry groups and thus provides a meaningful comparison for the downstream petroleum industry.¹⁵³

A summary of the results of this comparative analysis shows that return on sales (RoS) is relatively low when compared to other Australian industries. This is not unexpected in an industry such as the downstream petroleum industry which is a high-volume and low-margin industry.

Return on assets (RoA) is slightly above the average for the ASX200. Recent writedowns of values of refinery assets by two of the monitored companies have affected the overall result for RoA.

¹⁵² A number of companies have been excluded from the ASX200 due to missing data, excessively high or low rates of return or because they are in the group of monitored companies. Further information can be found in notes under the respective charts.

¹⁵³ The Australian Securities Exchange use Standard and Poor's Global Industry Classification Standard (GICS) rather than the Australian and New Zealand Industrial Classification (ANZSIC) system. Because of this, the ACCC have adopted Standard and Poor's Global Industry Groupings.

12.7.1 Australian comparison: return on sales

The ACCC has calculated rates of return on sales (RoS) for the downstream petroleum industry and for industry groupings derived from the ASX200. The data are an average for the period 2002–03 to 2011–12 and thus present a snapshot of industry profitability over a relatively lengthy period of time. As was the case for many other Australian industries, the downstream petroleum industry was impacted by the GFC.

Chart 12.16 presents average annual rate of RoS for the period 2002–03 to 2011–12.

Key observations from the chart include:

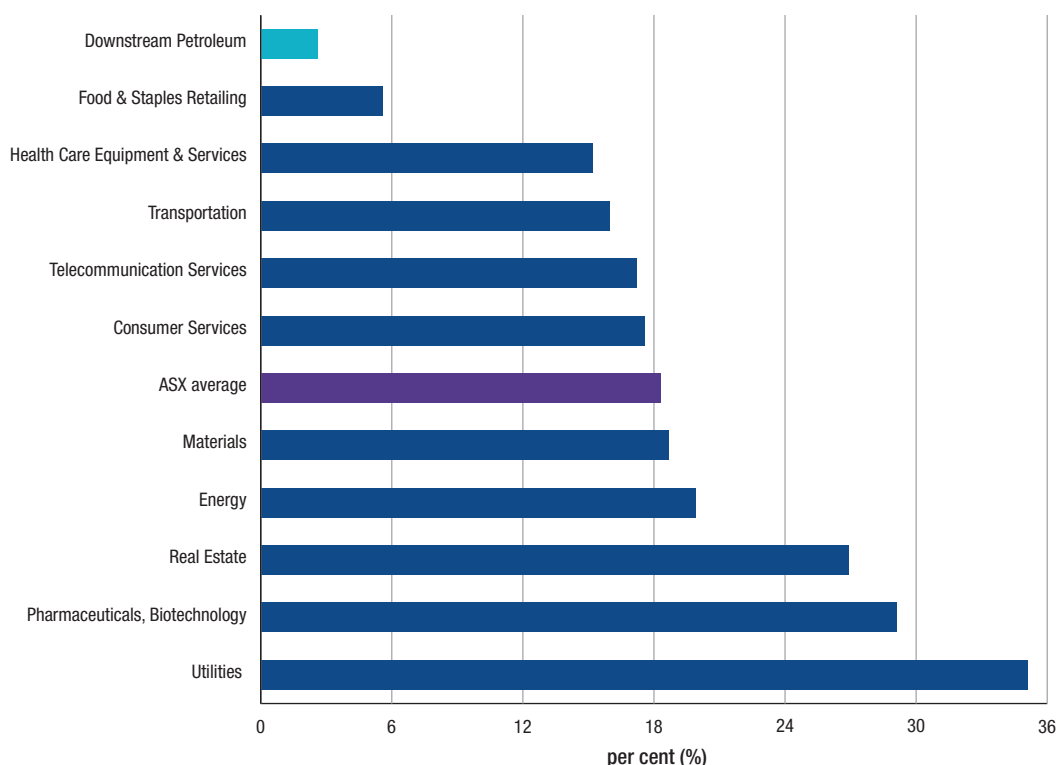
- over the period the average annual rate of RoS for the downstream petroleum industry is the lowest among all industry grouping over the time series
- the average RoS for the downstream petroleum industry between 2002–03 and 2011–12 was approximately 2.6 per cent, compared to the ASX average of 18 per cent
- the Australian Bureau of Statistics' all industry average RoS for all industries for a similar period was 13.3 per cent¹⁵⁴
- the industry grouping with the average RoS closest to the downstream petroleum industry RoS was 'Food and Staples Retailing' with 5.62 per cent.

Comparisons of RoS data for the petroleum industry with other industries should be treated with caution. As noted, the petroleum industry is a high-volume low-margin industry. Firms in this type of industry will generally have a lower RoS than firms in other industries. Furthermore, as the petroleum industry is characterised by volatile prices of both inputs and outputs, the value of sales can be affected by changing price levels with minimal impact on profits.

154 Australian Bureau of Statistics, (2011), Australian Industry, 2010–11, 2009–10, 8155.0, data cubes & Australian Industry, 2005–06, 8155.0, data cube

Note that the ABS data excludes general government and banking / insurance industries. Time series covers 2002–03 to 2010–11
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/8155.02010-11?OpenDocument>
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/8155.02005-06>

Chart 12.16 Comparison of return on sales for the downstream petroleum industry, ASX average and ASX top 10 GICS industry groupings (excluding financial and media sectors): 2002–03 to 2011–12 average



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process and Bloomberg

Note: The list of companies in the ASX200 is as at 1 October 2012. The list of companies is less than 200: for the specific industries, companies with RoS of more than 70 per cent (positive and negative) in any year have been excluded; Caltex has also been excluded. Not all companies have data for all years. Some companies report on a calendar-year or other financial-year basis. Industries are grouped using the Global Industry Classification Standard (GICS) and include at least two companies.

Industry groupings used in the chart above differ from those presented in the 2011 ACCC petrol monitoring report due to changes in their capitalisation aggregates. The list of groupings represented in the chart is from the current top 10 GICS groupings by market capitalisation that were derived from the reduced ASX200 sample. Revisions to historical data and to the composition of the ASX200 mean that comparisons with data in the comparable chart in the 2011 ACCC petrol monitoring report should be treated with caution.

12.7.2 Australian comparison: return on assets

This section compares the Australian downstream petroleum industry's average rates of return on assets (RoA) with the RoA for a number of industry groupings derived from the ASX200.

RoA is a more appropriate profitability KPI than RoS with which to compare firms across industries. Nevertheless, there are a number of caveats concerning this KPI for this industry, including:

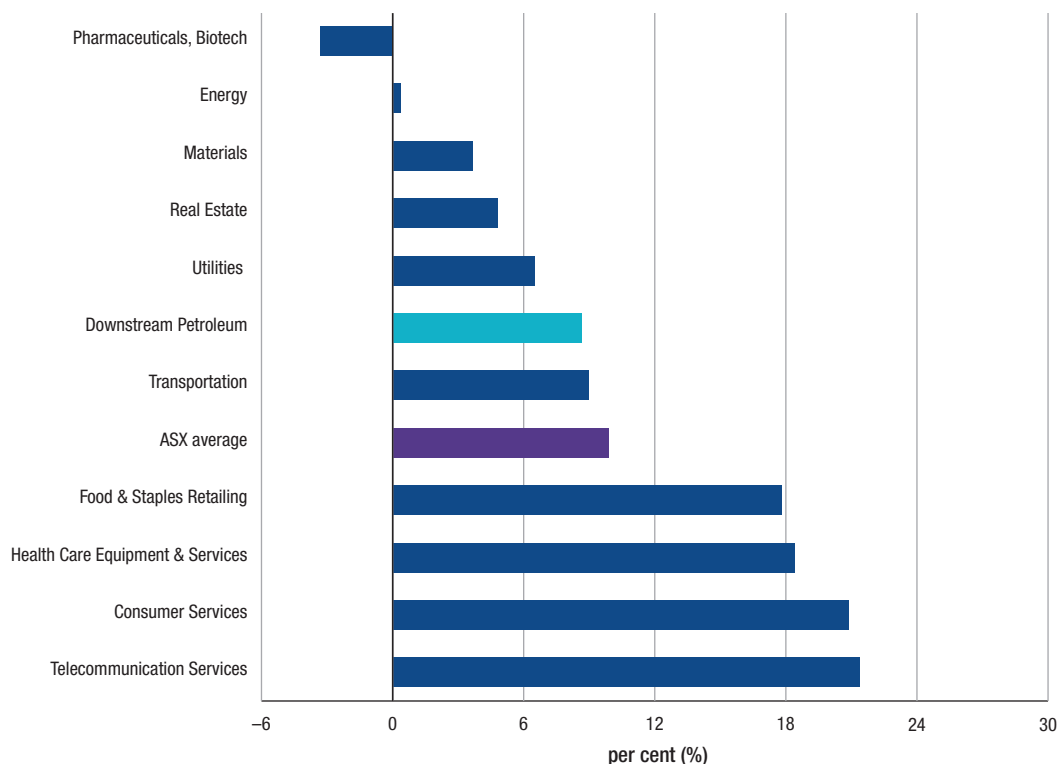
- RoA may be influenced by asset evaluation methodologies and accounting depreciation rates
- over the past two years, the downstream petroleum industry has been characterised by large write downs of asset values and impairment charges against four refineries
- some Australian refineries may have assets with an older age profile than the average for other industries. All else equal, this may have the effect of inflating RoA measures in the downstream petroleum industry relative to other industries

- in the Australian refinery sector, the value of assets is not market-based as refinery assets are not generally traded in a liquid market. This complicates comparisons of RoA data with industries where asset values are market-based.

Chart 12.17 presents RoA for the period 2002–03 to 2011–12 and compares the downstream petroleum industry to selected ASX200 industry groupings. Key observations from the chart include:

- over the time series, the average RoA for the Australian downstream petroleum industry was around the median compared to the selected industry groupings. The average RoA for the Australian downstream petroleum industry was around 8.7 per cent while the ASX200 average was 10 per cent
- industry groupings including real estate, utilities, materials, energy and pharmaceuticals had lower rates of return than the downstream petroleum industry.

Chart 12.17 Comparison of average return on assets for the downstream petroleum industry, ASX average and ASX top 10 GICS industry groupings (excluding financial and media sectors): 2002–03 to 2011–12 average



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process, and Bloomberg

Note: The list of companies in the ASX200 is as at 1 October 2012. The list of companies is less than 200: For the specific industries, companies with RoA of more than 70 per cent (positive and negative) in any year have been excluded; Caltex has also been excluded. Not all companies have data for all years. Some companies report on a calendar-year or other financial-year basis. Industries are grouped using the Global Industry Classification Standard (GICS) and include at least two companies.

Industry groupings used in the chart above differ from those presented in the 2011 ACCC petrol monitoring report due to changes in their capitalisation aggregates. The list of groupings represented in the chart is from the current top 10 GICS groupings by market capitalisation that were derived from the reduced ASX200 sample. Revisions to historical data and to the composition of the ASX200 mean that comparisons with data in the comparable chart in the 2011 ACCC petrol monitoring report should be treated with caution.

12.8 Comparison of the profitability of the Australian downstream petroleum industry with international downstream petroleum companies

The previous section found that the Australian downstream petroleum industry had lower return on sales and comparable return on assets relative to a number of selected Australian industries. This section compares the Australian downstream petroleum industry with overseas downstream petroleum companies.¹⁵⁵

In the following sections return on sales (RoS) and return on assets (RoA) are used to compare companies in the Australian downstream petroleum industry with similar overseas companies.

A comparative analysis of these KPIs with overseas companies suggests that firms in the Australian downstream petroleum industry earn less on sales than overseas companies, but have similar returns on assets.

12.8.1 International comparison: return on sales

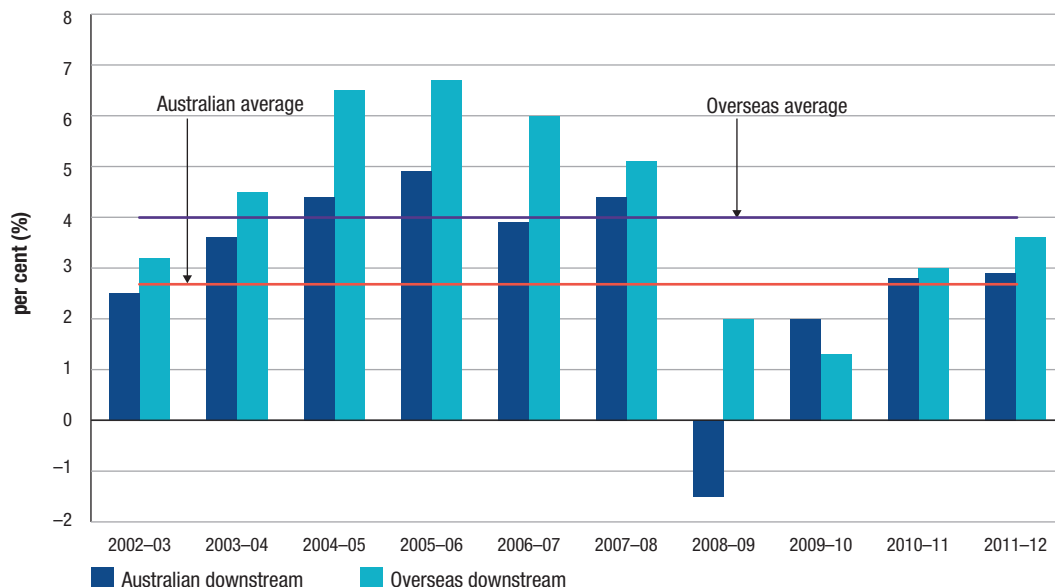
RoS for the Australian and international downstream petroleum companies are presented in chart 12.18. RoS is presented yearly and as an average for the period from 2002–03 to 2011–12.

Key observations from the chart include:

- the Australian downstream petroleum industry average RoS was just over 2.6 per cent while the average RoS for overseas companies was 3.9 per cent
- for most years, the Australian downstream petroleum industry's RoS has been below that of comparable overseas firms
- the largest difference between the two groupings occurred in 2008–09 when average RoS for the Australian companies was negative 1.5 per cent compared to 2.0 per cent for international firms.

¹⁵⁵ Note that upstream petroleum companies or those with a presence in both upstream and downstream activities have been excluded from the sample of units. Upstream businesses generally earn significantly higher profits compared to downstream companies. See chapter 16 in the 2011 ACCC petrol monitoring report for a discussion of profits in upstream petroleum industries.

Chart 12.18 Comparison of rates of return on sales for the downstream petroleum industry in Australia and overseas: 2002–03 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process, Bureau van Dijk Orbis database, Bloomberg, annual reports and Onesource

Note: Not all companies have data for all years. Overseas companies report on various annual bases. For example, year 2009 has been taken as 2009–10.

The selection of an overseas company was based on the following criteria: the company had to be based in an OECD country; be non-government owned; and have annual turnover greater than USD 10 million. Companies were also screened on the basis of their activity profile to ensure comparability with Australian downstream petroleum companies. That is, they had to derive their income from the refining and marketing of petroleum products. Major international refiner-marketers with large upstream activities such as Exxon Mobil, British Petroleum and Chevron, were excluded from the sample. A company was also excluded if it had significant non-petroleum related secondary activities such as chemical manufacturing or gas related activities. The screening process reduced the size of the sample from more than 70 companies to 29 companies.

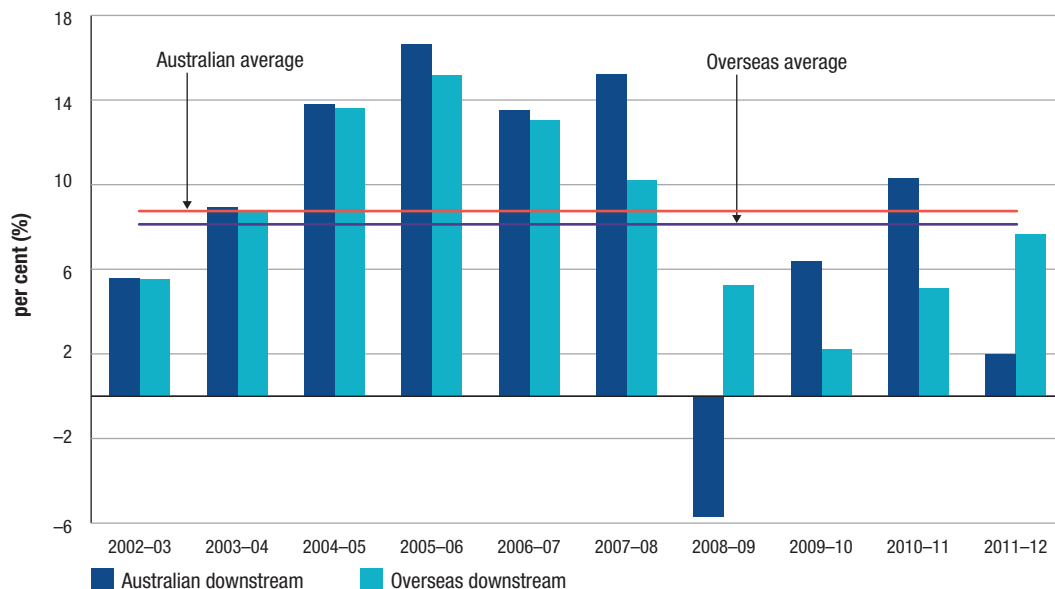
12.8.2 International comparison: return on assets

Data for return on assets (RoA) for Australian and comparable international companies are presented in chart 12.19. As was the case for RoS, RoA is presented yearly and as an average for the period 2002–03 to 2011–12. The caveats discussed in section 12.7.2 regarding asset valuation also apply in respect of data presented in chart 12.19. In particular, it is likely that Australian refineries have an older asset age profile than some of the refineries included in the international sample. This complicates comparisons of rates of RoA with international companies.

Key observations from chart 12.19 include:

- the Australian downstream petroleum industry's average RoA was slightly higher than for comparable overseas petroleum companies with RoA of 8.7 and 8.1 per cent respectively
- the Australian downstream petroleum industry achieved a higher RoA for all years except 2008–09
- the largest difference in RoA occurred in 2008–09 when the Australian industry earned an average RoA of negative 5.7 per cent compared with the overseas companies average RoA of positive 5.3 per cent.

Chart 12.19 Comparison of return on assets for the downstream petroleum industry in Australia and overseas: 2002–03 to 2011–12



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process, Bureau van Dijk Orbis database, Bloomberg, annual reports and Onesource

Note: Not all companies have data for all years. Overseas companies report on various annual bases. For example, year 2009 has been taken as 2009–10.

The selection of an overseas company was based on the following criteria: the company had to be based in an OECD country; be non-government owned; and have annual turnover greater than USD 10 million. Companies were also screened on the basis of their activity profile to ensure comparability with Australian downstream petroleum companies. That is, they had to derive their income from the refining and marketing of petroleum products. Major international refiner-marketers with large upstream activities such as Exxon Mobil, British Petroleum and Chevron, were excluded from the sample. A company was also excluded if it had significant non-petroleum related secondary activities such as chemical manufacturing or gas related activities. The screening process reduced the size of the sample from more than 70 companies to 29 companies.

12.9 Methodology note for assessing profitability in the Australian downstream petroleum industry

12.9.1 Data variability

Monitoring of the Australian downstream petroleum industry over the last five years has shown that the financial performance of the industry, particularly at the refinery and total supply levels is affected by many factors and can be volatile. Financial performance can also be affected by one-off events.

The operating performance of the downstream petroleum industry is affected by the behaviour of prices of its key inputs and outputs, that is, crude oil and refined petrol products. Crude oil and refined petrol are globally traded commodities and their prices are subject to considerable volatility. As transactions for these commodities are undertaken in USD, changes in the AUD–USD exchange rate can also affect financial outcomes expressed in Australian currency.

At any one time the refinery production and distribution process may involve significant holdings of inventories of both crude and refined products. Changes in commodity prices and the AUD–USD exchange rate can impact on the values of inventory holdings.

The effects of changes in the values of inventory holdings and foreign exchange transactions are reflected in the adjusted earnings before interest and tax (EBIT) data. Only the effects of foreign exchange transactions are reported separately to the ACCC as part of the monitoring of the total supply sector, which is the sector with the greatest exposure to foreign currency fluctuations.

Financial performance can also be affected by one-off events such as impairment charges resulting from re-assessments of assets' future earnings potential. These costs have been reported separately to the ACCC but as they are not associated with monitored firms' normal business operations they have been excluded from the calculation of adjusted EBIT.

12.9.2 Data collection process

Data presented in all financial chapters was collected from monitored firms through financial data templates established in consultation with the companies. The templates are comprehensive and collect data on revenues and cost of goods sold by product. Monitored companies include: the four refiner-wholesalers, Mobil, Caltex, BP and Shell; independent wholesalers including Neumann Petroleum, United Petroleum, Ausfuel and Liberty Oil; and retailers including 7-Eleven, On the Run, Coles Express and Woolworths Petrol.

12.9.3 Data collection methodology

Historical and replacement cost measures

Data collected from monitored companies is on a historical cost basis (as was the case for the past four ACCC petrol monitoring reports). Historical cost accounting records all revenues, costs and profits at the actual or original cost of the transaction. With rising oil prices this can mean companies can earn profits simply because of prices rising between the time the product was purchased and then sold.

Replacement cost on the other hand is a popular measure used in the oil industry by those participants who usually have a refinery operation. This measure excludes the impact of changes in the price of oil and refined products which are seen as external factors impacting profits outside the control of management. By excluding these movements, replacement cost provides a better understanding of actual management performance.

The ACCC collects data based on historical costs for a number of reasons. These include the fact that not all monitored companies report on a replacement cost basis, historical cost accounting is consistent with Australian standards, and finally, it allows the ACCC to compare monitored companies with other Australian and overseas industries.

Long-term perspective in data collection

As noted, crude oil and petroleum prices have traditionally been volatile. As data is collected on a historical cost basis, reported profits can produce large movements in time of substantial price changes. Because of this volatility, the ACCC have collected financial data going back to the 2002–03 financial year so as to provide a long term perspective. In a number of charts, the ACCC have averaged the KPI over this time series so as to smooth out the historical cost profits.

12.9.4 Estimation of profits by product or service type

Many costs in the petroleum industry are shared or common among different products. This means that estimating profits by product requires some estimation of individual product costs. The methodology the ACCC has adopted to allocate common costs in the 2012 monitoring report is consistent with that used in previous monitoring reports. Product volumes have been used as a proxy for splitting common costs. The assumption is that costs indirectly associated with refining or selling petrol and other products tend to be proportional to the volumes of these products. This methodology has also been used in respect of the total supply (including refining) and wholesale sectors.

The allocation of costs in the retail sector differs slightly due to the convenience store activities. In the retail sector, common costs are first allocated on the basis of gross profit on petroleum sales and on convenience sales. Costs estimated for petroleum product activities are then further allocated to individual products on the basis of their respective sales volumes.

12.9.5 Key performance indicators for assessing the profitability and performance of the downstream petroleum industry

Box 12.1 Key performance indicators

Gross profit: Gross profit is a measure of profit calculated by deducting the costs of goods or services sold from sales revenues. In refining, those costs can include the purchase of crude or refined product, direct labour and factory overheads included in the manufacturing (refining) process and the cost of delivering it to the customer (usually a wholesaler). Note that the gross indicative differences used in the analysis of retail prices (see chapter 8) are based on international benchmark prices for crude oil and refined products, notional import parity prices, published terminal gate prices and average retail prices. As such, they differ from the estimates provided in chapters 12, 13 and 14 which are based on financial information provided directly by the monitored companies.

Gross margin: Gross margin is the ratio of gross profit to sales and indicates how much is left from each dollar of sales after costs of goods sold have been subtracted.

Adjusted EBIT (net profit): EBIT is a common accounting measure of profit and measures the total returns to the firm before interest incomes or expenses and taxes are taken into account. The ACCC uses an adjusted EBIT profit measure. Adjusted EBIT excludes non-operating incomes, amortisation, impairment charges, and profits or losses on sales of fixed assets. This provides a consistent measure of profits from petrol activities and the petroleum industry rather than of total profits of the monitored companies.

Adjusted EBIT to sales (return on sales): The ratio of adjusted EBIT relative to sales revenue calculates the extent to which profit is earned from each dollar of revenue after deducting all relevant operating costs, other than interest and tax.

Return on adjusted total assets (return on assets): The ratio of adjusted EBIT to total assets calculates the extent to which profit is earned relative to assets used in the business. Total assets have been adjusted to exclude deferred tax assets as they are not relevant to an after-tax profit assessment. Intangibles are excluded since those values have not been consistently provided by the monitored companies, and usually arise from the acquisition of other companies (as opposed to growth solely by increasing sales). It is expressed as a percentage of total assets.