

13 Financial performance of the total downstream petroleum industry

Key points

In 2011–11:

- The Australian downstream petroleum industry recorded a unit net profit of 2.54 cents per litre (cpl), or \$2.2 billion on sales of 86 billion litres of fuel and total revenue of \$68 billion.
- Product contributions to profits in the downstream petroleum industry were:
 - petrol products (that is, RULP, PULP and EBP) earned unit net profit of 2.17 cpl, or \$807 million on sales of 37 billion litres and total revenues of \$28.6 billion.
 - diesel earned unit net profits of 2.4 cpl, or \$764 million on sales of 32 billion litres and total revenue of \$24.7 billion.
- The refinery sector earned 0.91 cpl on sales of 38.2 billion litres and total revenues of \$26.4 billion.
- The wholesale sector earned 1.96 cpl on sales of 49 billion litres and revenues of \$37.9 billion.
- The retail sector earned 2.1 cpl on sales of 17.4 billion litres and revenues of \$17 billion.

13.1 Introduction

This chapter considers the overall financial performance of the downstream petroleum industry, including the total supply (refining, importing and buy–sell transactions), wholesale and retail sectors. In particular, the chapter reports on the revenues, costs and profits associated with the supply of petroleum products, as specified by the Minister's direction of 13 May 2010.

The revenues, costs and profits in the total supply sector (including refining) are discussed in greater detail in chapter 14, while chapter 15 focuses on the revenues, costs and profits in the wholesale and retail sectors. Indicators of financial performance are also included for petrol products (regular unleaded petrol (RULP), premium unleaded petrol (PULP, RON 95 and RON 98), and ethanol blended petrol (EBP)). The financial results of activities in marketing other products in the downstream petroleum industry, such as diesel, are also discussed.

13.2 Overview of financial performance of the total downstream petroleum industry

In 2010–11, the Australian downstream petroleum industry earned \$2.2 billion in net profits. Unit net profits were 2.54 cents per litre (cpl). Total revenue was estimated to be around \$68 billion and total sale volumes were estimated to be 85 550 million litres (ML). Sale volumes, revenues, total net profits and unit net profits were higher than the average for the period 2002–03 to 2010–11.

Total net profits on petrol products, that is, regular unleaded petrol (RULP), premium unleaded petrol (PULP) and ethanol blended petrol (EBP), were \$807 million. Unit net profit on petrol products for 2010–11 was 2.17 cpl. Total revenues from sales of petrol products were estimated to be around \$29 billion and total petrol sale volumes were 37 122 million litres (ML). Diesel contributed around \$764 million to total industry net profits. Average unit net profit on diesel products were higher than the average for all products and for petrol products.

Table 13.1 shows sale volumes, revenues and net profits (adjusted EBIT) for the total downstream industry, for all products, for petrol products and for diesel. Table 13.1 also provides average values for these products from 2002–03 to 2010–11.

Table 13.1 Sale volumes, revenues and net profits in the downstream sector: 2010–11 and average for 2002–03 to 2010–11

		2010–11	2002–03 to 2010–11 average
All products	Sale volumes (ML)	85 550	78 852
	Total revenue (\$ million)	67 820	52 703
	EBIT (\$ million)	2 171	1 568
	Unit EBIT (cpl)	2.54	2.00
Petrol	Sale volumes (ML)	37 122	36 190
	Total revenue (\$ million)	28 579	23 454
	EBIT (\$ million)	807	577
	Unit EBIT (cpl)	2.17	1.59
Diesel	Sale volumes (ML)	31 814	26 294
	Total revenue (\$ million)	24 654	17 743
	EBIT (\$ million)	764	709
	Unit EBIT (cpl)	2.40	2.69

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

The wholesale sector was the largest contributor to total industry profit with \$966 million, or 44 per cent of total downstream profit. This wholesale profit is 44 per cent above the wholesale sector's average profit over the period 2002–03 to 2010–11. The total supply sector was the second-largest contributor to total industry profit with \$847 million, or 39 per cent of total profit. The retail sector contributed \$359 million to total industry profit.

Diesel contributed around 35 per cent of total downstream profit. PULP products net profit was estimated to be \$450 million or 21 per cent of total profit. RULP products earned an estimated \$289 million, or 13 per cent of total profits.

It is likely that inventory gains had a material impact on total profits in 2010–11. In the petroleum industry, prices are established with reference to international prices of crude oil and refined petrol. Like the prices of other globally traded commodities, the prices of crude oil and refined product are volatile and affected by changes in global supply and demand conditions. Since the onset of the Global Financial Crisis in 2007–08, international prices have risen significantly. These price rises have resulted in sustained upward adjustments in the value of stocks held and then subsequently sold. Those companies that report profits on a replacement cost basis are able to quantify the effect of inventory gains, but for others in the industry which report on a historical cost basis, it is not possible to quantify the precise effect of inventory gains or losses.

The remainder of the chapter discusses the performance of the downstream petroleum industry by:

- total industry performance, for all products
- total industry performance for petrol products
- total industry performance for individual products (e.g. RULP, PULP and EBP)
- sectoral performance summary.

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

13.3.1 Revenues and costs, all products

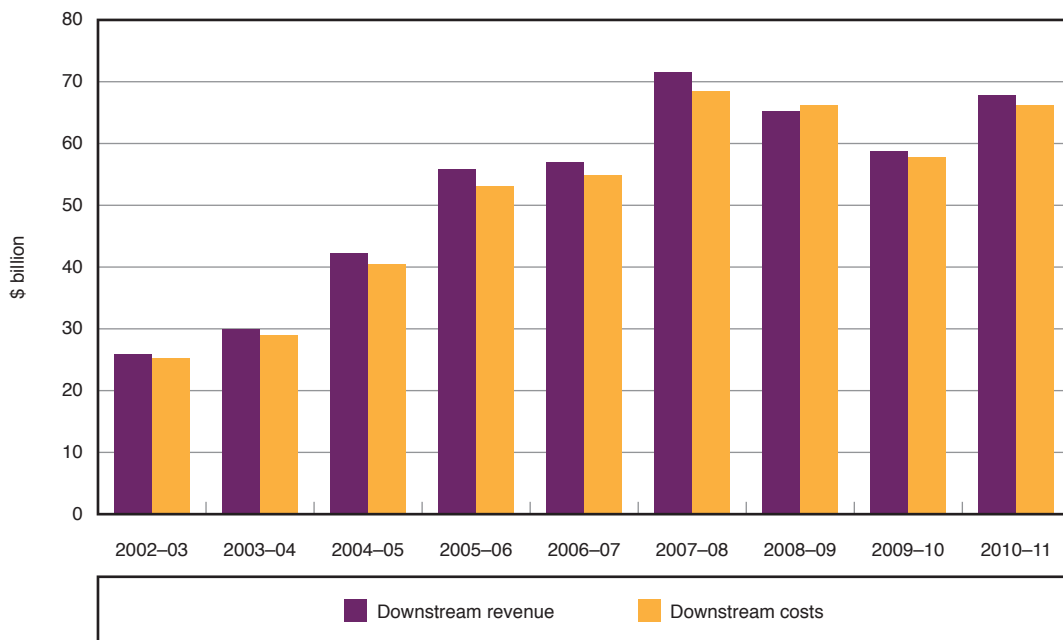
The main sources of revenue in the downstream petroleum industry include:

- revenues from refining crude oil into fuels and other petroleum products
- revenue from the on-selling of refined products (petrol, diesel and LPG) and other products such as lubricants and bitumen
- revenue from the on-selling of fuel products to the public through retail sites
- revenues from selling retail convenience store products and services.

In 2010–11, total revenues and costs in the petroleum industry increased to around \$68 billion. This increase reflects higher average prices when compared to the previous year (due to higher international prices) and an increase in volumes of 3.3 per cent over the previous year.

Chart 13.1 shows the total revenues and costs for all monitored firms for the period 2002–03 to 2010–11.

Chart 13.1 Downstream industry revenues and costs, all products: 2002–03 to 2010–11



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

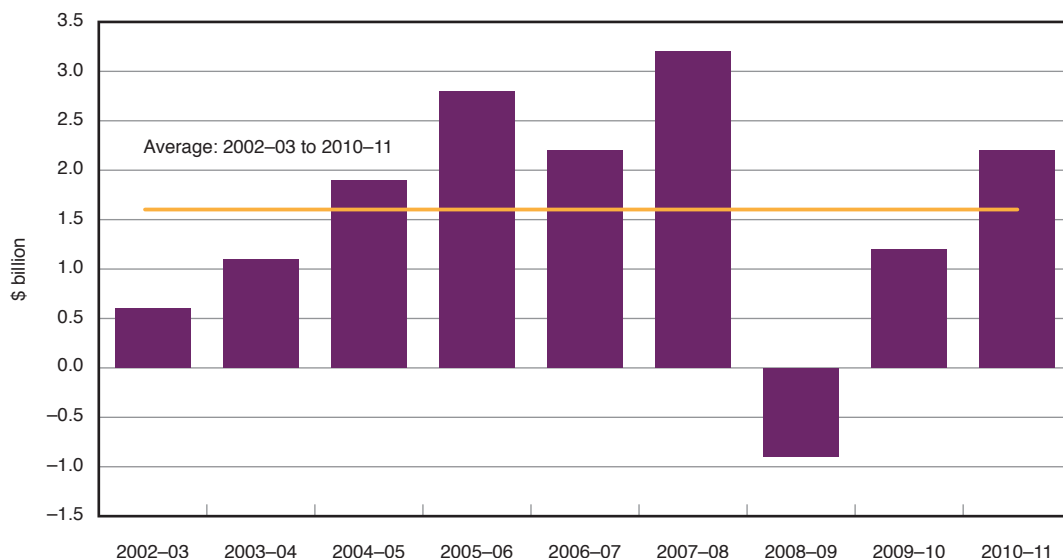
13.3.2 Total and unit net profits, all products

The ACCC uses a number of profitability measures for the downstream petroleum industry. One of the key measures is net profit (adjusted EBIT). Net profit is a standard accounting measure of earnings from the perspective of shareholders. Further details on KPIs used in this chapter can be found in section 13.10 at the end of this chapter. The adjusted EBIT (net profit) excludes a number of items including impairment costs, amortisation and profit or loss on the sale of assets. Substantial amounts in one or more of these categories were reported to the ACCC for 2010–11 and therefore underlying profitability may differ from the net profit data presented in this chapter.

Chart 13.2 shows net profit for all monitored firms from 2002–03 to 2010–11. Points from this chart include:

- Net profit for the downstream petroleum industry for 2010–11 was \$2.2 billion compared with average net profit for the period 2002–03 to 2010–11 of \$1.6 billion. The financial performance of the downstream industry for 2010–11 was affected by increased volumes produced or traded, and by inventory valuation changes. 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.²⁶² During 2010–11, the price of crude oil and refined product generally rose. In this case, it is likely that inventory valuations increased over time relative to the original purchase price. Companies in the refining and importing sector can benefit from inventory gains in a rising market (and conversely suffer losses when petrol prices fall).²⁶³
- Over the time series, profits have been variable due to changes in international prices of crude and refined petrol. In light of this, assessing profits in any one year in isolation may be misleading.

Chart 13.2 Downstream industry net profit, all products: 2002–03 to 2010–11



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

²⁶² 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 a 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 did not include separate values for inventory valuation changes.

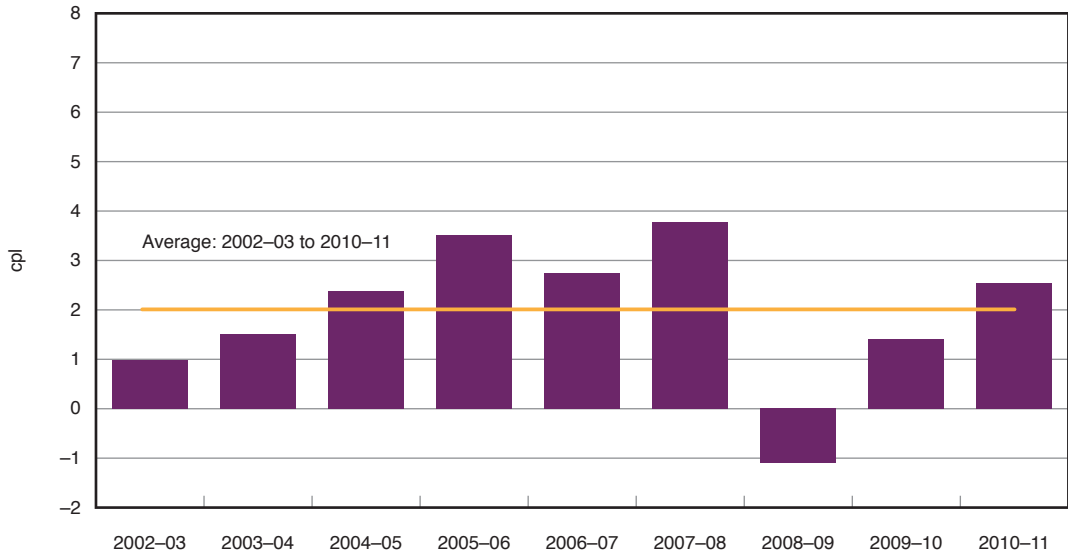
²⁶³ As an example, Caltex reported in their 2011 half yearly profit results to the Australian Securities Exchange that inventory gains comprised around 38 per cent of the total, half yearly historical cost EBIT result of \$416 million. Caltex, 2011 Half year review: shareholder report, at <http://www.asx.com.au/asx/statistics/announcements.do?by=asxCode&asxCode=CTX&timeframe=D&period=W>, accessed 30 November 2011.

Unit net profits represent total net profit divided by total volume, after the elimination of intra-company volume transfers. Unit net profits are presented in terms of cents per litre (cpl).

Chart 13.3 displays unit net profit for all monitored companies for the period 2002–03 to 2010–11.

Chart 13.3 indicates that unit net profit for the downstream petroleum industry was 2.54 cpl in 2010–11. The average unit net profit over the period 2002–03 to 2010–11 has been 1.99 cpl.

Chart 13.3 Downstream industry unit net profit, all products: 2002–03 to 2010–11



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

13.3.3 Other key performance indicators

This section presents other profit KPIs for the downstream petroleum industry. To measure the profitability of different products and activities, a common accounting method is to compare net profits (in this instance, adjusted EBIT) to sales and to total assets. An alternative measure to return on assets is return on capital employed, which is net profit divided by the sum of total adjusted assets less current adjusted liabilities of the business (see the discussion in box 13.1 at the end of this chapter).

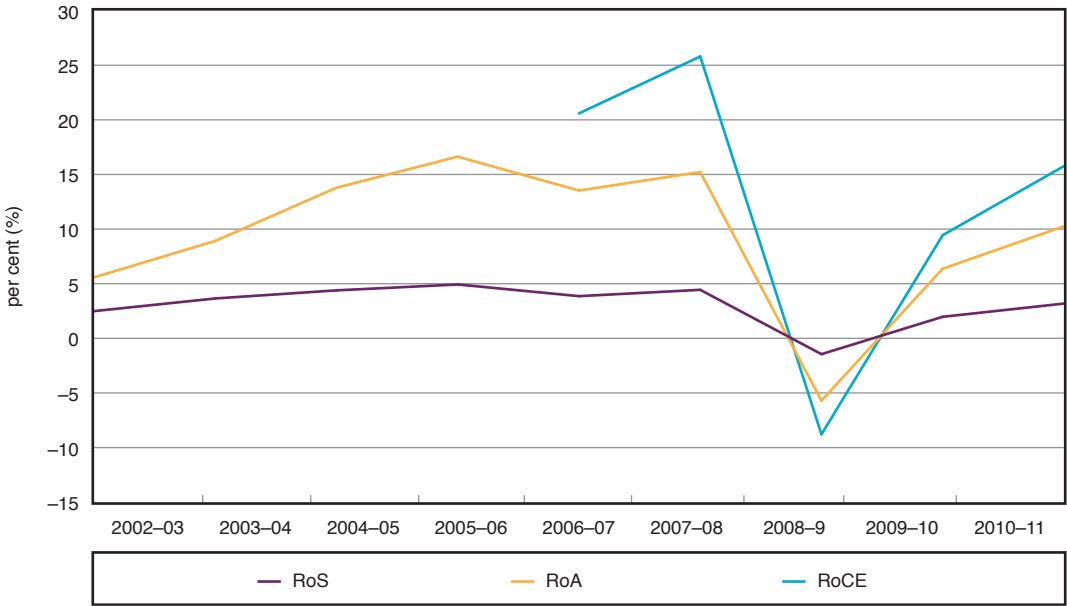
Chart 13.4 displays these profit KPIs for the period 2002–03 to 2010–11. Note that return on capital employed is presented from 2006–07 to 2010–11.

Return on sales (RoS) increased to 3.2 per cent in 2010–11. The weighted average RoS over the nine years to 2010–11 was 2.97 per cent.

Return on assets (RoA) for the downstream industry was 10.3 per cent in 2010–11, compared with the long-term weighted average of 9.6 per cent.

Return on capital employed (RoCE) increased to 15.8 per cent in 2010–11. This compares with the long-term return average on capital employed average of 12.4 per cent.

Chart 13.4 Downstream industry return on sales, return on assets and return on capital employed, all products: 2002–03 to 2010–11



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

Note: Return on capital employed is presented from 2006–07 onwards.

Chart 13.4 shows variability in these KPIs over time, particularly for RoA and RoCE.

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

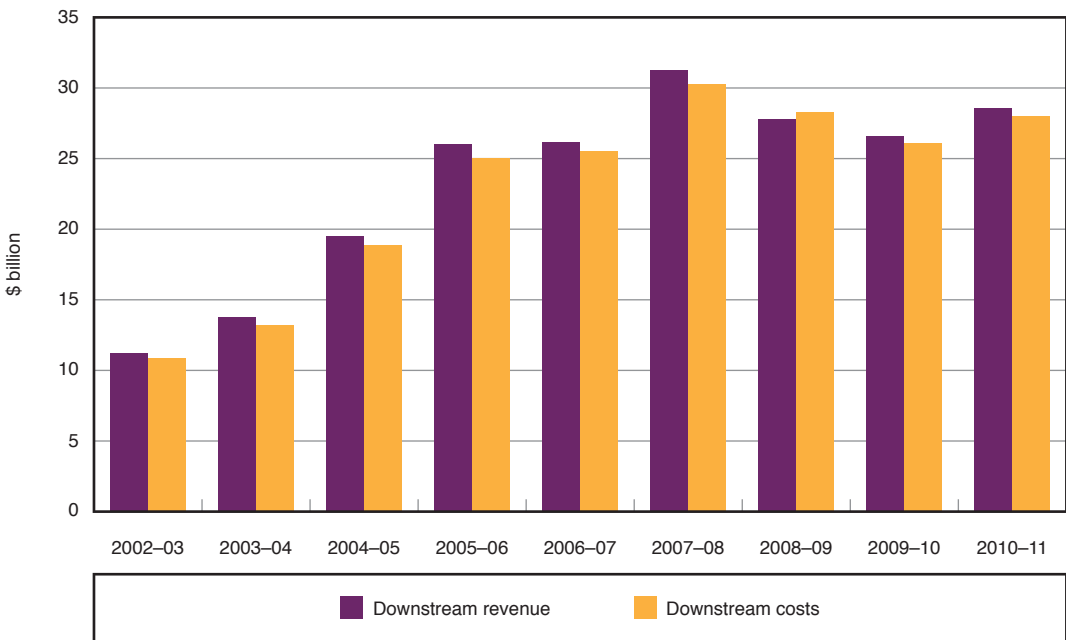
13.4.1 Revenues and costs of petrol products

The previous section discussed overall revenues, costs and profits associated with the production and marketing of all products in the downstream petroleum industry. This section discusses the profitability of the downstream 'petrol' industry. Petrol refers to the group of products including RULP, PULP and EBP. As discussed in section 13.10.2 the ACCC has estimated profits to individual products by the allocation of expenses to products.

Petrol revenues rose to \$28.6 billion and costs increased to \$28 billion. Total petrol volumes decreased slightly during 2010–11, down 1.6 per cent from 2009–10.

Chart 13.5 shows the total revenues and costs of petrol for all monitored firms for the years 2002–03 to 2010–11.

Chart 13.5 Downstream industry revenues and costs, petrol products: 2002–03 to 2010–11



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

13.4.2 Total net profit and unit net profit, petrol products

The ACCC has estimated net profits (adjusted EBIT) for petrol products for the entire downstream industry. These net profits represent a standard accounting measure of net earnings on petrol products accruing to shareholders.

Chart 13.6 displays net profit for all monitored companies for the years 2002–03 to 2010–11.

Chart 13.6 indicates that:

- in 2010–11, net profit for petrol increased to \$807 million
- since 2002–03, net profit ranged from a loss of \$485 million in 2008–09 to a high of \$1063 million in 2007–08.

Chart 13.6 Downstream industry net profit (adjusted EBIT), petrol products: 2002–03 to 2010–11



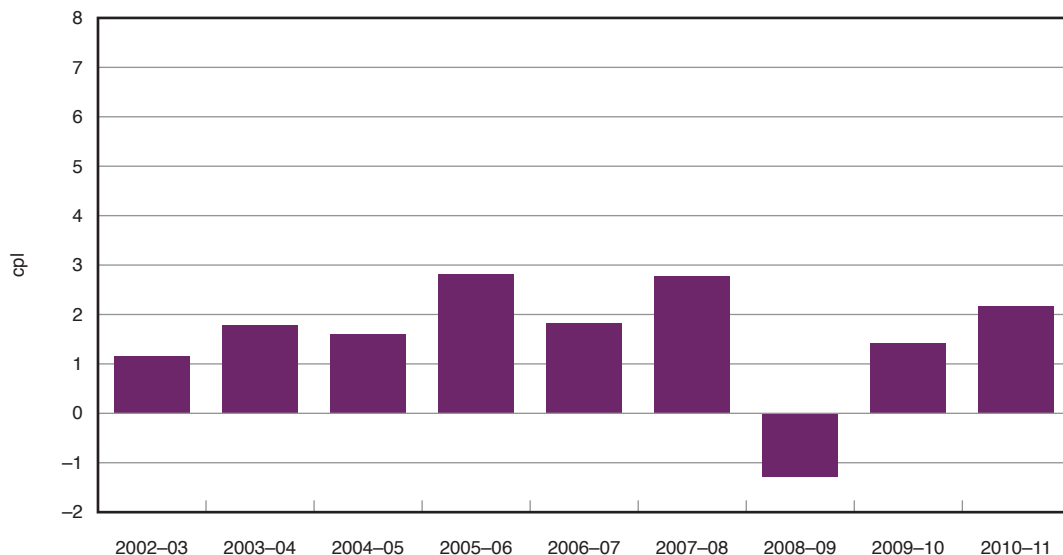
Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process.

Chart 13.7 displays unit net profit for petrol for all monitored companies from 2002–03 to 2010–11.

Chart 13.7 indicates that:

- unit net profit for petrol in the downstream industry was 2.17 cpl in 2010–11.
- unit net profit on petrol products has been variable over the time series.

Chart 13.7 Downstream industry unit net profit, petrol products: 2002–03 to 2010–11



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

13.4.3 Motorist's perspective profits, petrol products

The profitability data presented in sections 13.3.1 to 13.3.3 is for the entire downstream petroleum industry and is derived using standard Australian accounting principles. Inter-sector adjustments have been made to disaggregate intra-company transactions across different sectors of the industry. The data reflects the results of transactions between petrol companies and all their customers. This includes overseas purchasers, other refiner-marketers, wholesalers, commercial customers and retail customers and motorists.

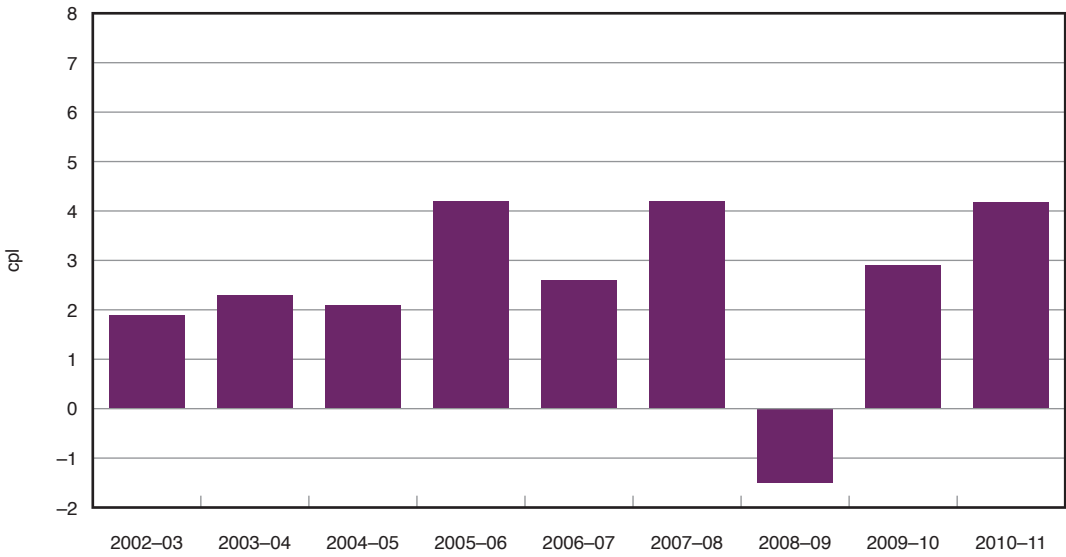
As an additional indicator of profitability, the ACCC has attempted to estimate profits associated with petrol sales to motorists. Due to data reporting difficulties, it is not possible to arrive at a precise measure of profits contributed by motorists. However, the 'motorist's perspective' profit is presented as an estimate of how much profit motorists may pay 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 by taking into account the revenues and costs in that particular sector.²⁶⁴ The motorist's perspective profit is a measure of the sum of the unit net profit in each sector as a stand-alone business.²⁶⁵ This measure ignores inter-sector volume transfers.

Chart 13.8 shows that the motorist's perspective unit net profit on petrol for 2010–11 was 4.18 cpl.

²⁶⁴ To quantify this example, if we have three non-vertically integrated companies, each working in a separate sector such as total supply, wholesale and retail. If each company made a unit net profit of 2 cpl, then from the motorist's perspective, the total unit net profit of the industry would be 6 cpl.

²⁶⁵ Each sector's unit gross (net) profit has been added to estimate unit gross (net) profit the industry receives from selling each litre of petrol at the retail level. This aggregated profit measure from the motorist's perspective is different from the consolidated profit measure for the industry as presented in chart 13.7, which calculates the downstream petrol industry average cpl profitability. However, from the motorist's perspective, the unit profits at each sector have been added in order to illustrate the 'total unit net profit' that all consumers pay when purchasing a litre of petrol.

Chart 13.8 Motorist's perspective—downstream industry unit net profits, petrol products: 2002–03 to 2010–2011



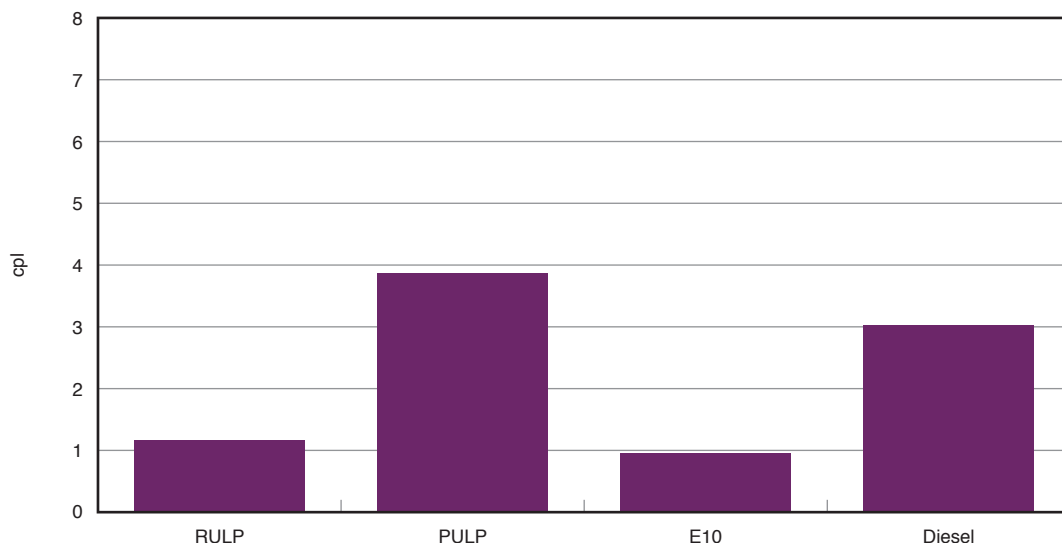
Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process.

13.4.4 Unit net profits by fuel type

Unit net profit in cpl has been estimated for each product type. Section 13.10.2 describes the methodology used for splitting costs by product and the caveats on this measure.

Chart 13.9 displays estimates of average unit net profit by fuel type for the years 2005–06 to 2010–11: premium unleaded fuels earned an estimated average unit net profit of 3.9 cpl while average diesel unit net profits were 3 cpl.

Chart 13.9 Downstream industry average annual unit net profit, by fuel type: 2005–06 to 2010–11



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

13.5 Revenues and profits by sector: all products

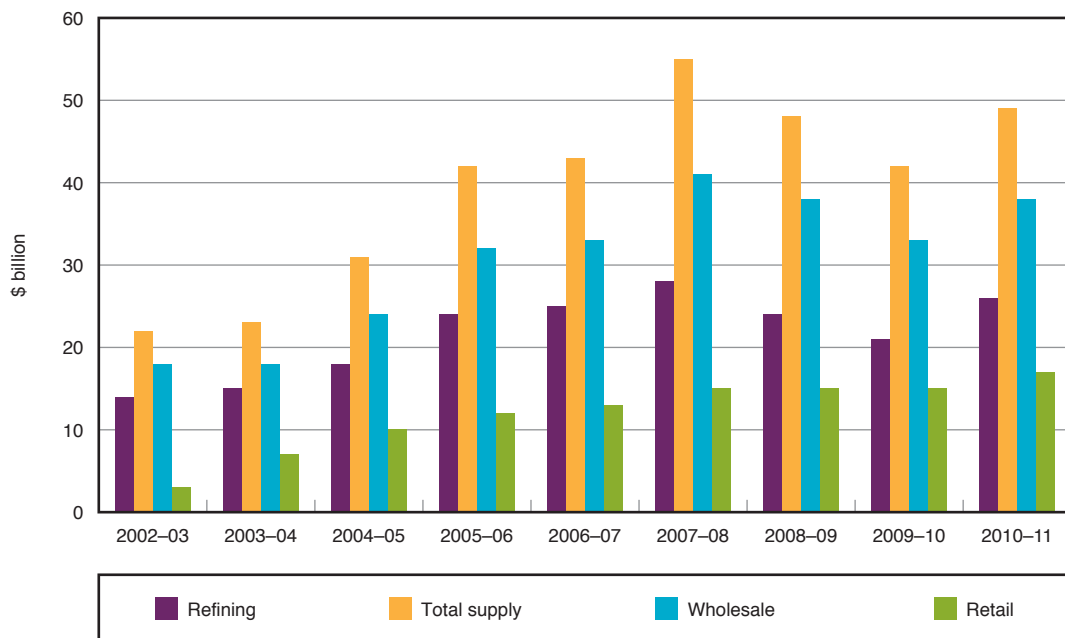
This section provides a sectoral split of total revenues and profits across all products and services in the downstream petroleum industry. This section discusses the financial performance of the refinery sector, total supply (which includes refining, imports and buy–sells), wholesale and retail sectors. Further detailed financial information on these sectors is presented in chapters 14 and 15.

13.5.1 Sectoral revenues, all products

Total revenues by sector are provided in chart 13.10. The following observations can be made from this chart:

- Revenues in the total supply sector are higher than in other sectors. Data collected by the ACCC for the total supply sector covers a greater proportion of this sector's activities than data collected for other sectors. Revenue in the total supply sector is affected by changes in international product prices to a greater degree than other sectors. This is because as stocks are typically held in the total supply sector, inventory valuation adjustments due to changes in international prices of crude oil and refined petrol are realised in this sector.
- Since 2002–03, total supply shows the greatest variance in revenue movements. The greater volatility in refinery and total supply revenues and costs may be influenced by the exposure of these sectors to international price movements and exchange rate movements. These risks are especially elevated when international markets are volatile, as has been the case since 2007–08.

Chart 13.10 Revenues by sector in the downstream industry, all products: 2002–03 to 2010–11



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

13.5.2 Sectoral net profits, all products

Total net profit by sector is provided in chart 13.11. Observations that can be made from this chart include:

- In 2010–11, net profit in the wholesale sector was \$966 million.
- The refinery and total supply sectors have recovered from the losses incurred in 2008–09 and 2009–10 to earn profits of \$348 million and \$847 million respectively.
- The losses in refining and total supply over the past two years are in contrast with the four years between 2004–05 and 2007–08 when both these sectors were profitable.

Chart 13.11 Downstream industry net profits by sector, all products: 2002–03 to 2010–11



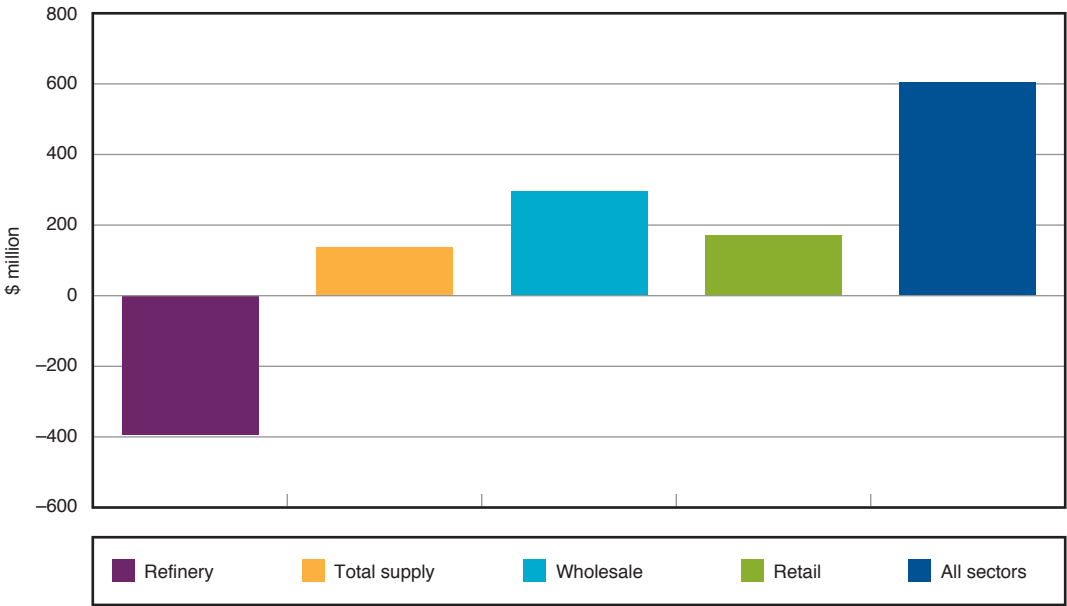
Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process.

13.5.3 Sectoral variation with average profit, all products

Net profits by sector in 2010–11 have been considered relative to their long-term average net profits from 2002–03 to 2010–11. These are displayed in chart 13.12 which shows:

- Although improving from 2009–10, refinery net profits for 2010–11 were lower than their long-term averages.
- Total supply sector net profit for 2010–11 was above its long-term average.
- The wholesale sector net profit exceeded the long-term average. In 2010–11, the wholesale sector net profit was \$296 million above its long-term average.
- The retail sector net profit for 2010–11 was \$172 million above the long-term average.

Chart 13.12 Downstream industry net profits by sector relative to long-term average, all products: 2002–03 to 2010–11



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

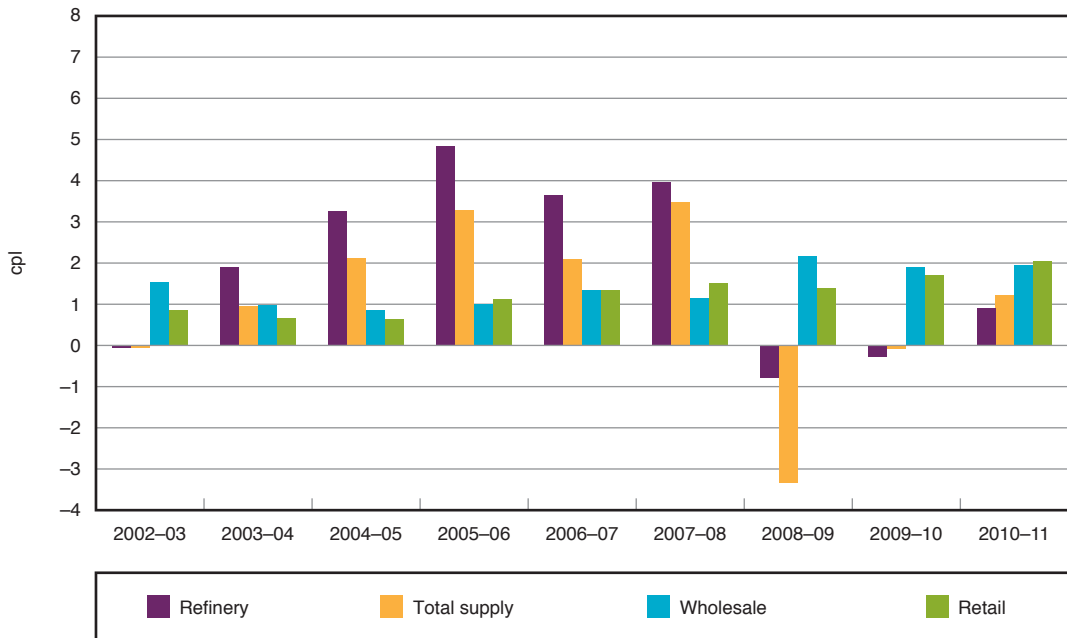
13.5.4 Sectoral unit net profits, all products

Unit net profit by sector is presented in chart 13.13. Findings include:

- Unit net profit for 2010–11 in the wholesale sector was 1.96 cpl.
- The average unit net profit for the entire time series in the refinery sector has been 1.96 cpl.
- The retail sector unit net profit for 2010–11 was 2.1 cpl.²⁶⁶ The average over the time series was 1.3 cpl.
- Total supply sector average unit net profit was 1.08 cpl.

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

Chart 13.13 Downstream industry unit net profits by sector, all products: 2002–03 to 2010–11



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

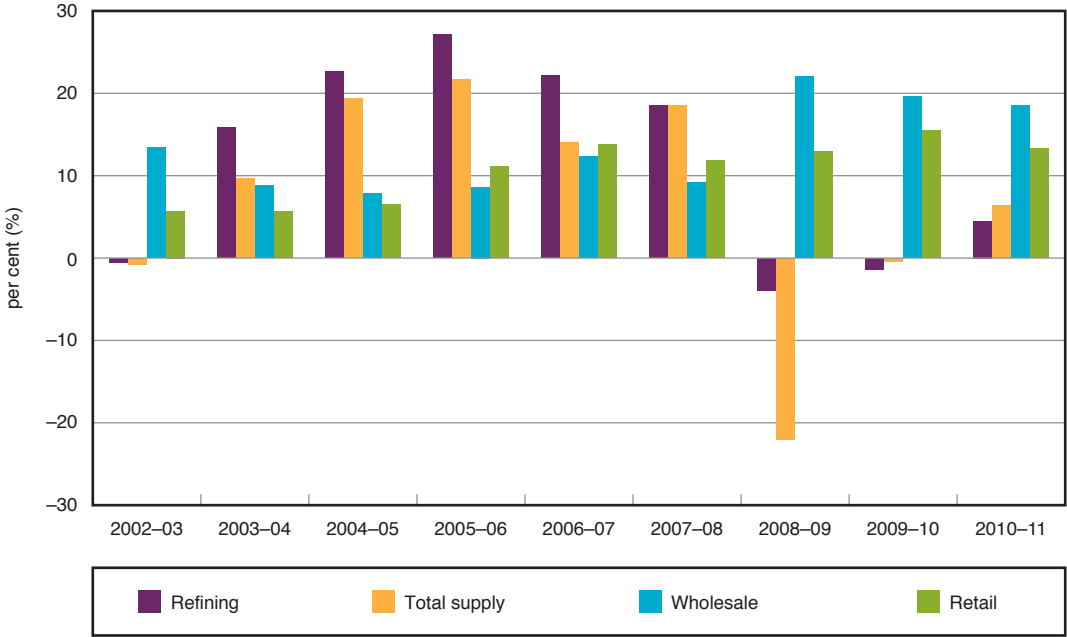
13.5.5 Sectoral return on assets, all products

The rate of return on assets (RoA) by sector for the period 2002–03 to 2010–11 is shown in chart 13.14.

This chart shows that:

- The wholesale sector's rate of return on assets was 18.5 per cent in 2010–11.
 - The retail sector's RoA for 2010–11 was 13.4 per cent.
 - The refinery and total supply sectors' RoA for 2010–11 was 5 and 6 per cent respectively.
- The average RoA for 2002–03 to 2010–11 for the refining sector was 11 per cent and for total supply, 7 per cent.

Chart 13.14 Downstream industry return on assets by sector: all products 2002-03 to 2010-11 average



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

13.6 Petrol profits by sector: petrol products

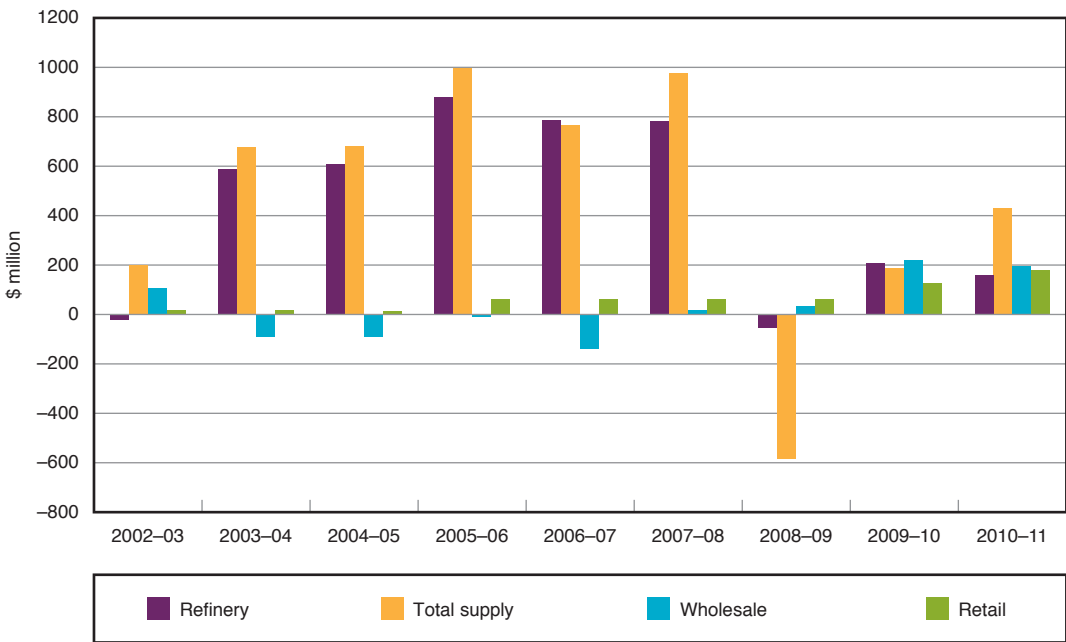
This section provides KPIs on net profits by sector for petrol products. Petrol net profits include profits earned on RULP, PULP and EBP. Further detailed financial information on these products is presented in chapters 14 and 15.

13.6.1 Sectoral net profits, petrol products

During 2010–11, all sectors continued to show profits on petrol products. Chart 13.15 displays petrol net profit for all sectors. Points from the chart include:

- Total supply sector net profits on petrol products in 2010–11 were \$430 million.
- The refinery sector earned net profits on petrol of \$159 million in 2010–11.
- The total supply sector's average net profit on petrol over the period 2002–03 to 2010–11 has been \$482 million.

Chart 13.15 Downstream industry, net profits by sector, petrol products: 2002–03 to 2010–11



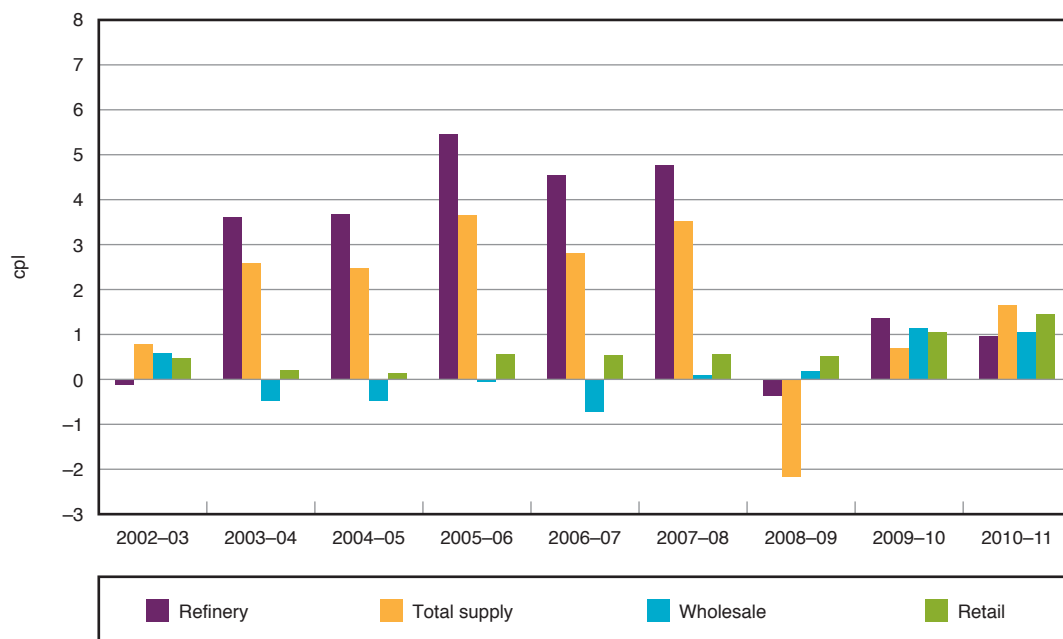
Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process.

13.6.2 Sectoral unit net profits, petrol products (cpl)

Chart 13.16 displays sectoral unit net profit on petrol. Chart 13.16 shows that in 2010–11:

- The refinery sector unit net profit for petrol was 0.97 cpl.
- The total supply and retail sectors had unit net profits on petrol of 1.7 and 1.5 cpl respectively.
- The wholesale sector unit net profit on petrol was 1 cpl.

Chart 13.16 Downstream industry, unit net profits by sector, petrol products: 2002–03 to 2010–11



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

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

The ACCC has developed benchmarks to assess the Australian downstream petroleum industry's profitability against other Australian industries. The ACCC has used the Australian Securities Exchange's top 200 businesses by market capitalisation (ASX200) to compile KPIs by individual industries such as energy, transportation and utilities.

Note that the ASX200 groupings are based on the Standard and Poor's' Global Industry Classification Standard (GICS). The KPIs used include return on sales and the return on assets for the ASX200 top 10 GICS industry groups, based on market capitalisation with at least three companies in each industry group (for comparative purposes, the financial and media ASX sectors have been excluded). These industry groups are compared with the downstream petroleum industry.

In relative terms, the return on sales for the downstream petroleum industry is relatively low, while the return on assets is estimated to be the same as the average of ASX200 companies.

13.7.1 Australian comparison: return on sales

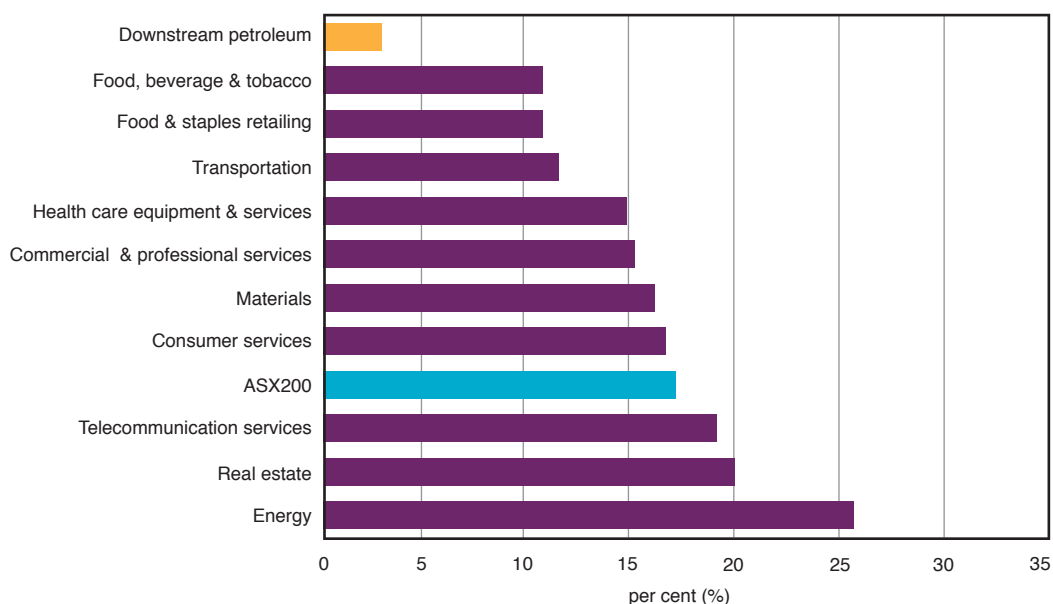
Chart 13.17 presents average return on sales (RoS) for the period 2002–03 to 2010–11 and compares the downstream petroleum industry to a selection of Australian industries.

Observations from the chart include:

- The downstream petroleum industry has the lowest RoS among other selected industries. The average downstream petroleum industry RoS between 2002–03 and 2010–11 was, approximately 3 per cent.
- The ASX200 average for the period 2002–03 to 2009–10 was around 18 per cent. The energy grouping had the highest RoS with around 27 per cent.

The downstream petroleum industry, particularly in the wholesale and retail sectors is regarded as a high-volume, low-margin industry. These types of industries will generally have lower RoS when compared to low-volume, high-margin industries such as complex manufacturing.

Chart 13.17 Comparison of return on sales for downstream petroleum sector, ASX average and ASX top 10 GICS industry groupings (excluding financial and media sectors): 2002–03 to 2010–11 average



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

Notes: The list of companies in the ASX200 is as at 21 September 2011.

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.

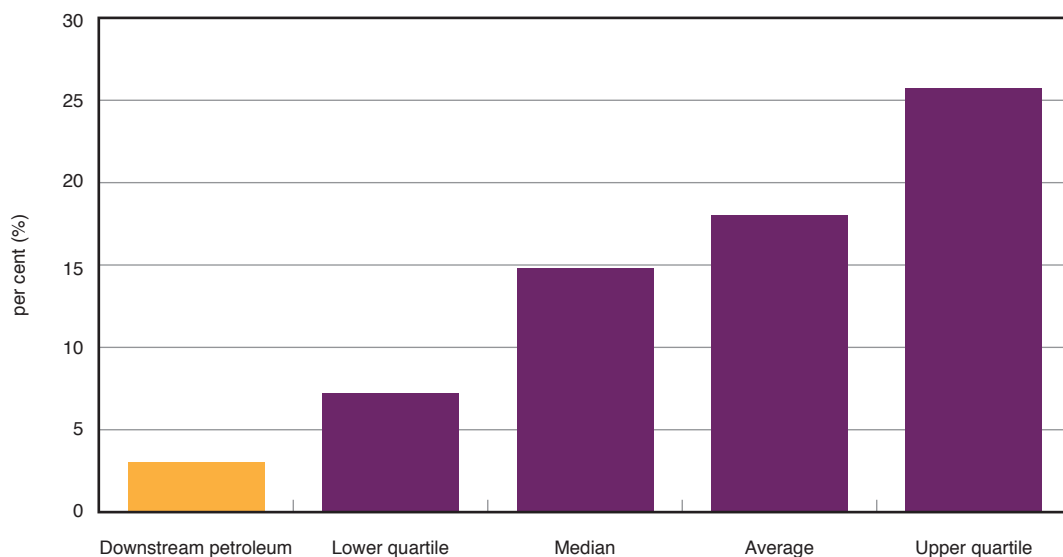
Not all companies have data for all years. Some companies report on a calendar-year or other financial-year basis. Industries are grouped using the Global Industry Classification Standard (GICS) and include at least two companies.

The energy industry grouping does not include utilities companies. Although the utilities' grouping was used separately in the same chart in the 2010 monitoring report, this grouping was not included in the 2011 monitoring report because it was no longer one of the top 10 GICS industry groupings and therefore ineligible for inclusion in the chart. The utilities industry grouping was replaced by real estate in this year's top 10 industry groupings.

Chart 13.18 presents the ASX200 RoS for all units (refer to the notes under the chart for exclusions) with rankings for the lowest and highest quartile and the median and average results.

The downstream petroleum industry is substantially below the lower quartile grouping. Average return on sales for the ASX200 was around 18 per cent.

Chart 13.18 Comparison of return on sales for downstream petroleum industry and ASX200 companies: 2002–03 to 2010–11 average



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

Notes: The list of companies in the ASX200 is as at 21 September 2011.

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.

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13.7.2 Australian comparison: return on assets

This section compares the rate of return on assets (RoA) in the downstream petroleum industry with the ASX200. Return on assets is not as adversely affected as RoS by high-volume low-margin industries and provides a clearer comparison between the petroleum sector and other Australian industries.

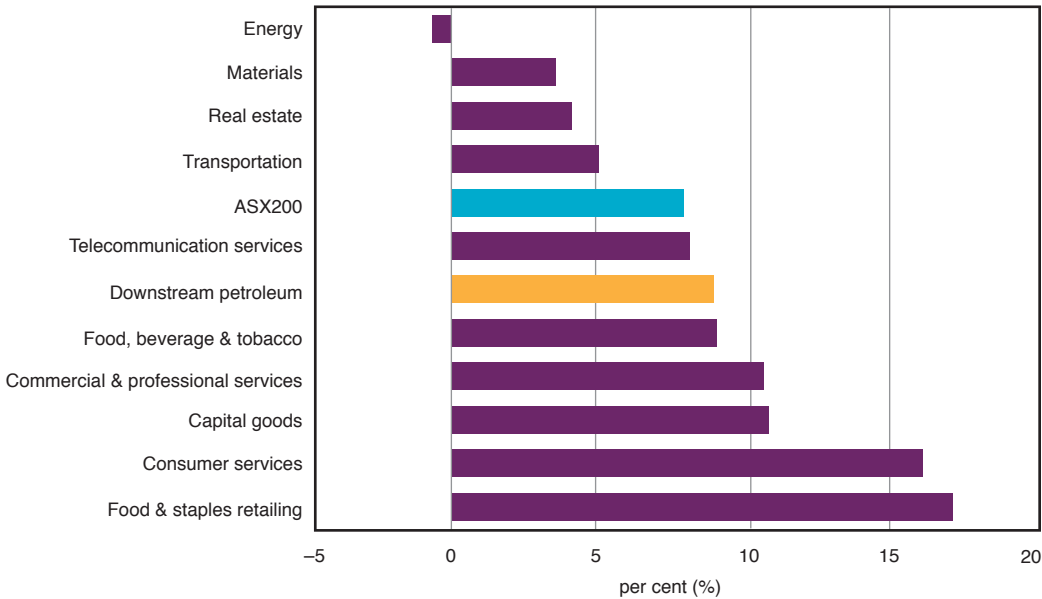
Results of analysis of comparative RoA data must be treated with caution. The asset data is based on depreciated historical cost values provided to the ACCC by the monitored companies. The values of these assets are not market based as they are not generally traded in a liquid market. Estimates of return on assets are affected by the use of different asset valuation approaches and by the asset age profile. For example, all else equal, a company with old assets valued on the basis of depreciated historical cost will generally have a smaller asset base than a company which either

values assets on a replacement cost basis or which has a younger asset age profile. Some assets in the Australian downstream petroleum industry, particularly in the refinery sector, may have a higher than average age profile.

Chart 13.19 presents RoA for the period 2002–03 to 2010–11 and compares the downstream petroleum industry to ASX200 derived industry groupings. Points from the chart include:

- The average RoA for the Australian downstream petroleum industry was 9.6 per cent compared with the ASX200 average of 8.5 per cent.
- Food and staples retailing has the highest average RoA of 18.3 per cent.

Chart 13.19 Comparison of return on assets for downstream petroleum industry, ASX average and ASX top 10 GICS industry groupings (excluding financial and media sectors): 2002–03 to 2010–11 average



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

Notes: The list of companies in the ASX200 is as at 21 September 2011.

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.

The energy industry grouping does not include utilities companies. Although the utilities' grouping was used separately in the same chart in the 2010 monitoring report, this grouping was not included in the 2011 monitoring report because it was no longer one of the top 10 GICS industry groupings and therefore ineligible for inclusion in the chart. The utilities industry grouping was replaced by real estate in this year's top 10 industry groupings.

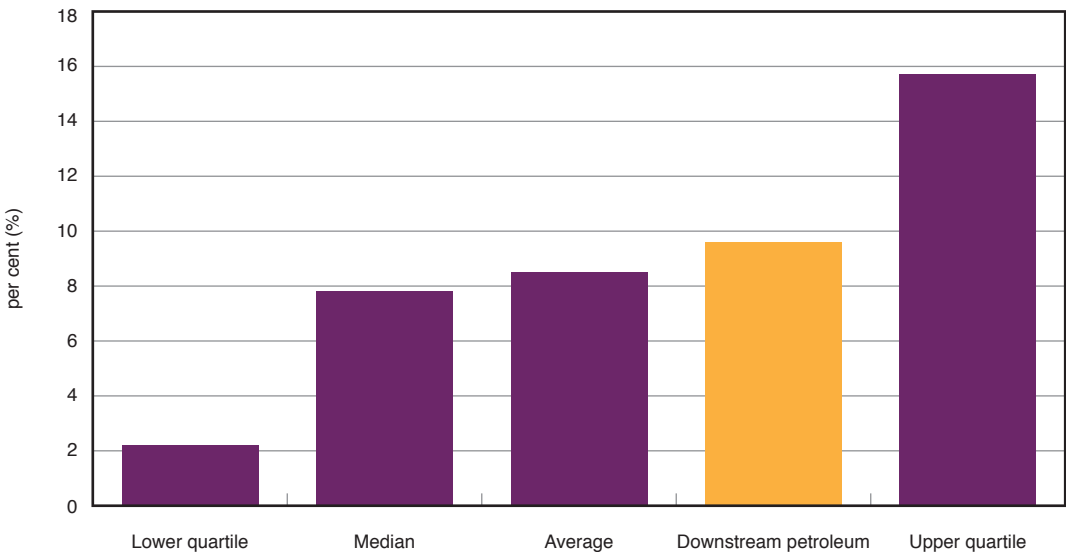
Chart 13.20 presents the ASX200 RoA (refer to the notes under the chart for exclusions) and has ranked these into the lowest and highest quartile, the median and average results.

The chart shows:

- In difference to the chart showing return on sales, the Australian downstream petroleum industry's rate of return is around the average for the entire ASX200 RoA.
- This downstream rate of return is still relatively low compared with the upper quartile where the RoA is around 16 per cent.

As noted, estimates of return on assets can be influenced by asset evaluation principles, depreciation of assets and the extent to which assets are replaced over time. In the context of the Australian downstream petroleum industry, the historical value of assets such as refineries may be relatively low given their age and depreciation over time. This could affect comparisons of profitability across industries using this KPI.

Chart 13.20 Comparison of return on assets for downstream petroleum industry and ASX200 companies: 2002–03 to 2010–11 average



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

Notes: The list of companies in the ASX200 is as at 21 September 2011.

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.

The energy industry grouping does not include utilities companies. Although the utilities' grouping was used separately in the same chart in the 2010 monitoring report, this grouping was not included in the 2011 monitoring report because it was no longer one of the top 10 GICS industry groupings and therefore ineligible for inclusion in the chart. The utilities industry grouping was replaced by real estate in this year's top 10 industry groupings.

13.8 Comparison of the profitability of the downstream petroleum industry with international downstream companies

In the previous two sections, the ACCC compared the Australian downstream petroleum industry with other Australian industries. This section compares the downstream industry with comparable overseas firms in downstream petroleum businesses. It is important to isolate downstream activities from overseas integrated petrol companies as companies with upstream operations appear to earn quite high profits relative to their downstream activities. See chapter 16 for further consideration of earnings in upstream and downstream businesses.

The following three sections will compare return on sales (RoS), return on assets (RoA) and return on capital employed (RoCE). The comparison period is the average of 2002–03 to 2010–11. Return on capital employed is presented for the period 2006–07 to 2010–11.

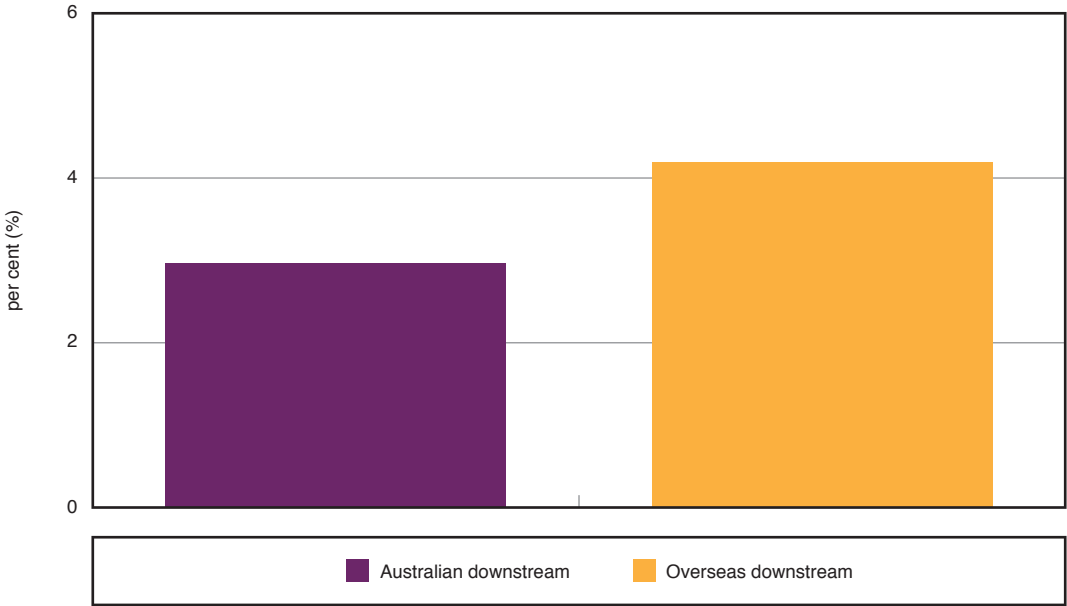
Overall the three charts suggest that the Australian downstream RoA and RoCE are generally similar to the overseas comparable companies. The Australian RoS is lower compared with overseas companies.

13.8.1 International comparison: return on sales

Chart 13.21 displays the Australian downstream petroleum industry RoS and compares this to more than thirty similar overseas businesses.

The chart shows that the Australian RoS is less than comparable international levels.

Chart 13.21 Comparison of return on sales for downstream petroleum industry in Australia and overseas: 2002–03 to 2010–11 average



Source: ACCC calculations based on data obtained from firms monitored through the ACCC’s monitoring process and Bureau van Dijk Orbis database.

Notes: 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: it 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 ExxonMobil, 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 around 70 to 30 companies.

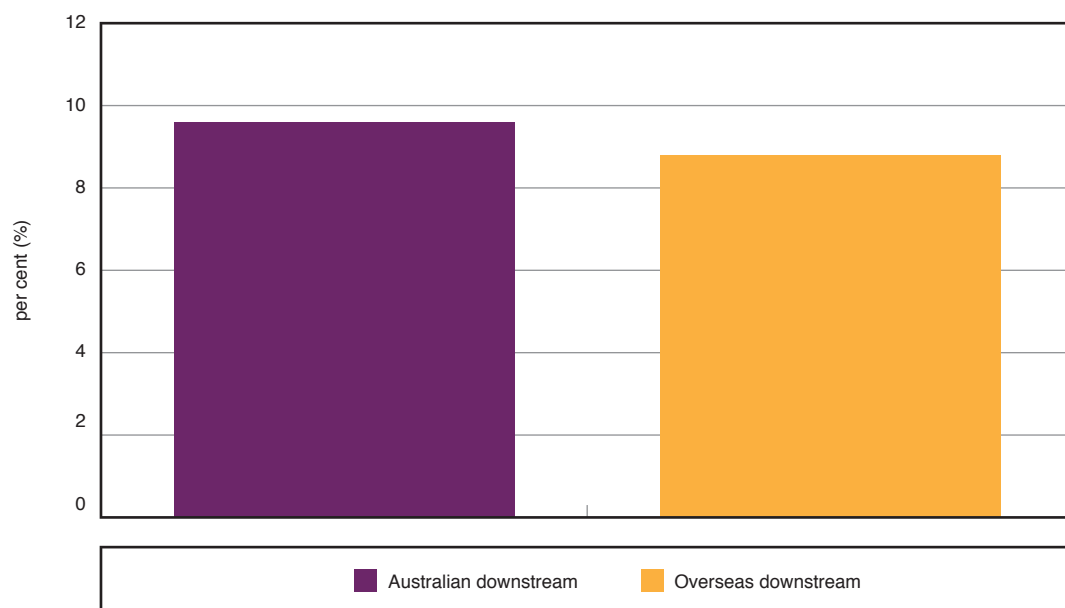
13.8.2 International comparison: return on assets

Chart 13.22 shows the Australian downstream petroleum industry RoA and the RoA for the same overseas units presented in section 13.8.1.

The cautionary caveats outlined in section 13.7.2 regarding difficulties in comparing rates of return on assets across firms and industries also apply in respect of data presented in this section.

The average Australian RoA is slightly above comparable international units' average RoA.

Chart 13.22 Comparison of return on assets for downstream petroleum industry in Australia and overseas: 2002–03 to 2010–11 average



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process and Bureau van Dijk Orbis database.

Notes: 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.

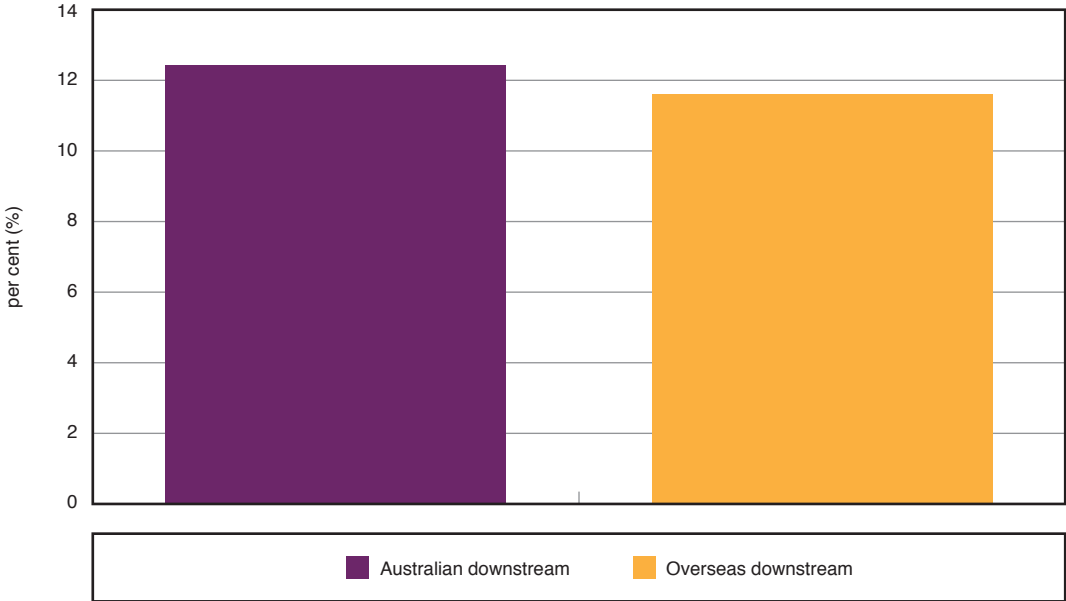
The selection of an overseas company was based on the following criteria: it had to be based in an OECD country; be non-government owned; and have annual turnover greater than USD 10 million. Companies were also screened on the basis of their activity profile to ensure comparability with Australian downstream 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 ExxonMobil, 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 around 70 to 30 companies.

13.8.3 International comparison: return on capital employed

Chart 13.23 compares the average RoCE for the Australian downstream petroleum industry with the same overseas units presented in section 13.8.1.

The average Australian RoCE is slightly above comparable international units' average RoCE.

Chart 13.23 Comparison of return on capital employed for downstream petroleum industry in Australia and overseas: 2006–07 to 2010–11 average



Source: ACCC calculations based on data obtained from firms monitored through the ACCC's monitoring process and Bureau van Dijk Orbis database.

Notes: 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: it 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 ExxonMobil, 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 around 70 to 30 companies.

13.9 Concluding remarks on the financial performance of the downstream petroleum industry

Key points from this chapter include:

- In 2010–11, industry profitability continued to recover from the losses incurred in 2008–09 following the Global Financial Crisis.
- In 2010–11 net profit for the downstream industry was around \$2.2 billion.
- Unit net profit in 2010–11 was 2.54 cpl.
- The refining and total supply sectors recovered from the losses reported in 2009–10 with net profits in 2010–11 of \$348 and \$847 million, respectively.
- Wholesale net profits were \$966 million in 2010–11 (or 1.96 cpl).
- The retail sector recorded a net profit of approximately \$359 million (or 2.1 cpl) in 2010–11.

13.10 Methodology note for assessing profitability in the downstream petroleum industry

The data in chapters 13, 14 and 15 was obtained by the ACCC from the monitored companies using established financial data templates. These templates sought data on revenues, costs and profits for each company in aggregate and for each sector in which it may operate. Data was also requested for the major products and services produced or marketed by the monitored companies.

The monitored companies included in this analysis includes the four refiner-marketers, Mobil, Caltex, BP and Shell. The monitored independent wholesalers include Neumann Petroleum, United Petroleum, Gull Petroleum and Liberty. Companies who operate in the retail sector and also included in the monitoring program include 7-Eleven, On The Run, Coles Express and Woolworths Petrol.

As would be expected with an input such as crude oil which is a globally traded commodity, annual historical cost profits can be volatile, particularly in times of rapid increases or decreases in prices.²⁶⁷ Profit measures for an extended time series, from 2002–03 to 2010–11, have been used to provide long-term perspective to annual data. In some cases, the ACCC has averaged this time series to smooth out the historical cost profits. Analysis of profits for individual years' financial performance may not give an accurate assessment of overall profitability in the industry.

13.10.1 Replacement and historical cost profit measures

The ACCC has collected data from monitored companies for the 2010–11 financial year based on the historical cost accounting convention. The previous three monitoring reports also presented data on a historical cost basis.

Historical cost accounting records revenue, expenditure and asset acquisition and disposal at the actual or original cost of the transaction. In the context of the downstream petroleum industry, this approach means that oil companies can earn profits or incur losses depending on values at the time when they purchase crude oil and when they sell refined fuel.

²⁶⁷ As occurred during 2007–08 and 2009–10.

An alternative approach is to present financial data on a replacement cost basis. Replacement cost accounting excludes the impact of the rise or fall in crude oil or refined product prices. Under a replacement cost regime, companies report the impact of these changes in their financial statements as inventory gains or losses. Replacement cost is calculated by adjusting the cost of sales using the replacement cost of goods sold. On this basis the purchase price of goods sold is based on an estimate of current cost. Caltex for example revalue the cost of sales, or more specifically inventories, by calculating the average monthly cost of cargoes received during the month of the sales.²⁶⁸

Data based on replacement cost and historical cost will differ in a volatile market where prices are rising or falling rapidly. In the petroleum industry, replacement cost accounting is generally preferred because by excluding the impact of changes in the price of crude and refined product, it measures underlying profitability (and management performance).

Both Caltex and BP have stated that they prefer to present their profit results on the basis of replacement cost because it excludes movements in the prices of crude and refined product, which they see as external factors. By excluding the changing value of inventories (or external factors), these companies believe that investors gain a greater understanding of management performance of the group and this methodology also makes comparisons with other reporting periods more relevant.²⁶⁹

As noted in previous monitoring reports, the ACCC has reported data on the Australian downstream petrol on a historical cost basis. There are both practical and conceptual reasons why the ACCC does not collect data on the petroleum industry on a replacement cost basis. They include:

- Data availability: not all refiner marketers report on a replacement cost basis. While Caltex, BP and Shell report on both a replacement and historical cost basis, Exxon Mobil only reports on a historical cost basis. Also, independent wholesalers and retailers report on a historical cost basis.
- Historical cost is consistent with Australian and international accounting standards.
- Historical cost shows the actual returns to the company and company's shareholders.
- Because replacement cost accounting is less widely used, historical cost profit allows the ACCC to compare data with other Australian industries and also companies in overseas downstream petroleum sectors.

²⁶⁸ Caltex, *Understanding our financial results, historic cost versus replacement cost basis*, 2011, at <http://www.caltex.com.au/InvestorCentre/Pages/UnderstandingOurFinancialResults.aspx>, accessed 30 November 2011.

²⁶⁹ BP, *Supplementary information 1Q, 2011 financial results*, 2011, at <http://www.bp.com/extendeddownloadscript.do?categoryId=9007137&contentId=7045446>, accessed 1 December 2011.

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

The ACCC utilises a number of key performance indicators (KPIs) to assess the profitability of the industry. These KPIs measure the financial performance of:

- the total combined downstream industry
- each sector, such as refinery, total supply, wholesale and retail
- individual products—KPIs are presented for ‘petrol products’ (RULP, PULP and EBP). Also presented are KPIs for related fuel products such as diesel, as well as for each sector in the industry.

A widely accepted KPI profitability measure is earnings before deducting interest expenses and taxes (EBIT). This measure has been further adjusted to remove revenues and costs not directly related to the production and sale of refined petroleum products. This includes eliminating revenue not directly associated with petroleum products. The term for this KPI is ‘adjusted EBIT’ and this is the ACCC’s preferred measure of underlying profits. Throughout chapters 13, 14 and 15, ‘adjusted EBIT’ is also referred to as net profit. Box 13.1 provides more detail on the various KPI profit measures used in this report.

Adjusted EBIT or net profit is presented in absolute dollar values as well as in terms of unit profit expressed in cents per litre (cpl). The net profit for the industry as a whole and for each sector reflects results of activities related to the production and sale of all petroleum products including:

- all fuels and products (in the case of the refiner-marketers, it includes petrol, diesel, aviation fuels, LPG, and other products such as petroleum coke, lubricating oils, naphtha and bitumen).²⁷⁰
- convenience store sales (for those with retail site operations)
- transactions with the commercial and retail customers (largely applicable for market participants at the wholesale level).

The unit net profit measure for the retail sector presented in ‘cpl’ needs to be treated with caution. In the retail sector, ‘unit net profit’ includes revenues from convenience stores, that is, from the sale of non-fuel products and services. As such, it is not possible to assess performance of petrol related activities from the overall ‘unit net profit’ for the retail sector. On the other hand, unit net profit measures for individual petrol products, such as ‘regular unleaded petrol unit net profit’, are more reliable measures of profitability for each petrol product.

The existence of common costs in the petroleum industry means that the methodology for estimating profits by product requires some estimation of costs. The methodology the ACCC has adopted to allocate common costs in the 2011 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.

²⁷⁰ The revenues and costs associated with these other products (such as petroleum coke, lubricating oil, naphtha and bitumen) may be significant from a refinery’s overall profitability. The profitability of these products is not the focus of the financial analysis undertaken in chapters 13, 14 and 15. However, profits earned by these products are included in the overall downstream and sectoral profit.

Box 13.1 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). The measure of gross profit does not include all costs as other operating expenses not involved in the transformation of crude into refined product are excluded. Gross profit on a cpl basis is calculated by dividing the gross profit by the volumes of product sold.

Note that the gross indicative differences used in the analysis of retail prices (see chapter 9) 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 13, 14 and 15 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. The remainder covers other expenses and provides a net profit. Gross margin is expressed as a percentage of sales.

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. EBIT has widespread use as it is not affected by the effects of different capital structures and tax rates used by various companies. 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 is commonly referred to in this report as net profit. It is presented in dollars as well as cpl.

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. This measure is referred to in this report as return on sales. It is expressed as a percentage of sales.

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. Return on assets provides an indication of how efficient management is at using its assets to generate earnings. 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.

Box 13.1 Key performance indicators (cont.)

Return on capital employed: The ratio of adjusted EBIT to total assets less current liabilities is a common measure of the return on capital employed. This measure compares earnings with the total capital used in the company. In this respect, it is a similar measure to return on assets, except that it excludes current liabilities such as trade and other payables. This KPI is in effect a measure of the return on funds provided by non-current liabilities plus owner's equity, that is, all capital used in a business.