

FACTS ABOUT DIESEL PRICES & THE AUSTRALIAN FUEL MARKET

INTERNATIONAL PRICES & INFLUENCES

Crude oil, diesel and petrol are different products and are bought/sold in their own markets.

Each market is typically regionally based and there are linkages and transactions between regional markets to balance global supply and demand.

Diesel prices in regional markets reflect the supply and demand balance in each market.

⇒ Thus, diesel prices (like other commodity prices) are determined by market forces, not production costs.

Australia's regional market for petroleum products is the Asia-Pacific market.

⇒ Diesel is the dominant fuel in Asia and in recent years there has been a significant increase in demand, particularly as a result of the economic and industrial growth in China and India.

⇒ Australian demand growth has also been strong on the back of our growing economy and the higher demand from industry - particularly as a result of the mining and commodity boom.

⇒ Regional diesel supply has not kept pace with this demand growth and, as a result, diesel prices have risen in the region including Australia.

The Singapore benchmark price of diesel (Gasoil, 10ppm sulfur diesel) is the current diesel price benchmark for Australia.

⇒ Singapore is the regional refining and distribution centre and among the world's largest.

⇒ The Singapore price for diesel can be significantly higher or lower than that for petrol, due to the impact of different supply and demand pressures.

To meet Australian demand, 60% of diesel is currently imported from Asia.

Australian refiners must price diesel to be competitive with imports from Singapore and the Asian region (so called 'import parity').

⇒ If Australia's diesel prices were below Singapore prices, Australian fuel suppliers would have no commercial incentive to import the diesel needed here (because sales of that fuel would be at a loss here). In addition, Australian refiners would have an incentive to export production.

'Refiner margins' are the differences between product prices and crude prices, both of which are set by the market, not by oil companies.

⇒ For example, a Singapore diesel 'refiner margin' is the difference between the market prices for Gasoil (10ppm sulfur) and the relevant benchmark crude oil.

The international price for diesel is also affected by the demand for other petroleum products.

⇒ This is because diesel is one of the middle distillates, which also includes kerosene, jet fuel and heating oil. If Asian refiners produce more kerosene or jet fuel as a result of increased demand, they will produce less diesel and this has an impact on supply availability and price.

⇒ There is also a seasonal shift of refining production from petrol in the northern summer towards distillate (inc. heating oil) in the northern winter that affects relative prices of these products.

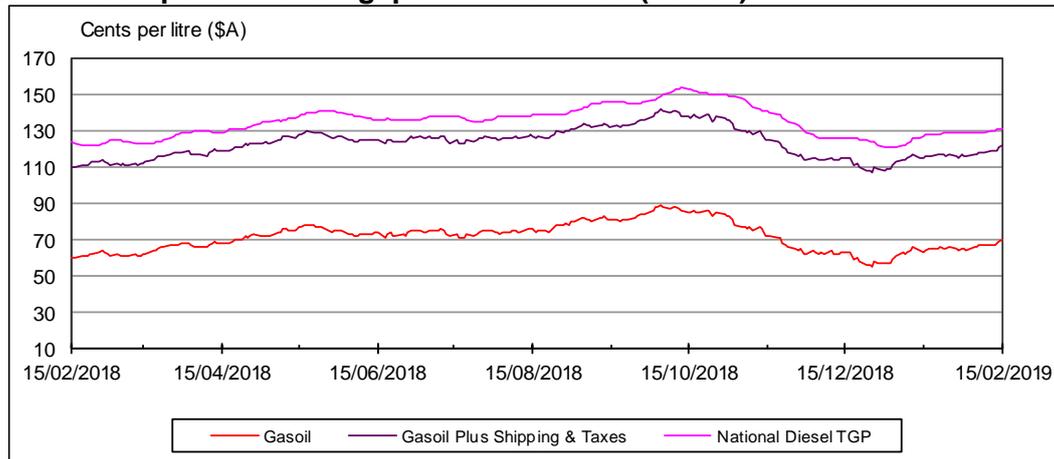
WHOLESALE DIESEL PRICES

Australian wholesale prices for diesel (including spot Terminal Gate Prices or TGP) are closely linked to the Singapore price of diesel – not crude oil prices

⇒ This relationship has been in place for many years. According to the ACCC, Australian fuel wholesalers use a pricing methodology very similar to that which was used by the ACCC when wholesale prices were regulated by government. This pricing methodology is called import parity pricing or IPP and it is based on what it would cost to import fuel into Australia.

Recent movements in Singapore diesel prices and Australian TGP are shown in Figure 1.

FIGURE 1: Comparison of Singapore Diesel Price (Gasoil) with Australian Diesel TGP



Note: Gasoil prices and Shipping rates are provided by S&P Global, Platts.

The Singapore price of diesel plus shipping costs and Australian taxes represents almost the entire wholesale price of diesel – typically around 95% (as shown in the chart above).

- ⇒ Australian taxes include excise (38 cents per litre) and GST (10%).
- ⇒ The remaining 5% of TGP is accounted for by insurance, local wharfage and terminal costs, and a wholesale marketing margin (where competitively possible).

Generally, there is a short time lag of 1-2 weeks between changes in Singapore prices and changes in Australian wholesale prices.

- ⇒ The lag can be seen in Figure 1 above (i.e. see the slight delay in the peaks and troughs in the **pink line** (National Diesel TGP) compared to the **purple line** (Gasoil plus Shipping & Taxes)).
- ⇒ The lag is a result of using a rolling average of Singapore prices; the rolling average smooths price volatility from day-to-day.
- ⇒ Importantly, this time lag occurs whether prices are going up (when the lag slows price increases to consumers) or prices are going down (when the lag delays price falls).
- ⇒ Not accounting for this lag, introduced by the rolling average, leads to incorrect conclusions about how Singapore prices flow through to prices in Australia.
- ⇒ According to the ACC, *“the lag may be longer during times of significant (international) price volatility”*.

Daily TGP data are published by all wholesale suppliers. AIP’s website presents average TGP data – see www.aip.com.au/pricing/tgp.htm and the website extract in Figure 2.

- ⇒ Australian Government Oilcode regulations require the publication of TGP’s by all wholesale suppliers on a daily basis.

FIGURE 2: Average Terminal Gate Prices: Diesel (cents per litre)
(Wholesale spot price for bulk purchase at the terminal)

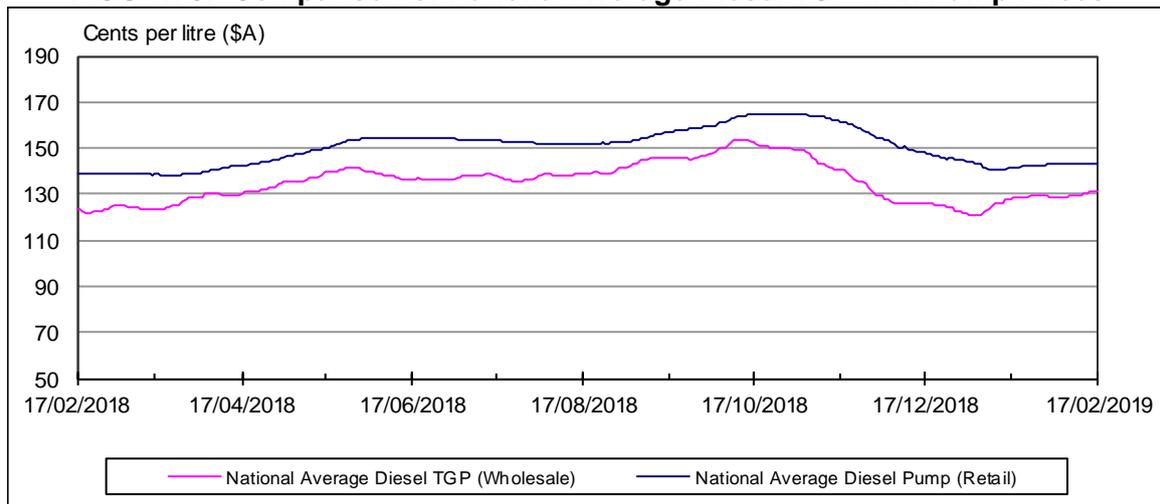
| | Monday 11 February 2019 | Tuesday 12 February 2019 | Wednesday 13 February 2019 | Thursday 14 February 2019 | Friday 15 February 2019 |
|------------------|----------------------------|-----------------------------|-------------------------------|------------------------------|----------------------------|
| Sydney | 129.7 | 130.3 | 130.7 | 131.1 | 131.4 |
| Melbourne | 129.2 | 129.8 | 130.2 | 130.6 | 130.9 |
| Brisbane | 129.7 | 130.3 | 130.6 | 131.0 | 131.3 |
| Adelaide | 130.0 | 130.7 | 131.0 | 131.4 | 131.7 |
| Perth | 129.4 | 130.0 | 130.4 | 130.8 | 131.1 |
| Darwin | 133.1 | 133.8 | 134.1 | 134.5 | 134.8 |
| Hobart | 134.7 | 135.4 | 135.7 | 136.0 | 136.3 |

RETAIL OR PUMP PRICES

The relationship between recent movements in national average diesel TGP and national average diesel pump prices is shown in Figure 3.

- ⇒ The TGP is typically around 95% of retail prices.
- ⇒ Apart from TGP, the retail or pump price in Australia also reflects all the costs of getting the fuel from the terminal to the bowser. This includes transport costs, admin and marketing costs, and service station running costs like wages, rent and utilities.

FIGURE 3: Comparison of National Average Diesel TGP with Pump Prices



Diesel and petrol have usually followed each other closely in pricing. However, in recent years a gap has opened up for extended periods as a result of changes in the relativity between international diesel and petrol prices.

In addition to the international factors influencing Australian wholesale prices, diesel pump prices here are affected by domestic market factors.

- ⇒ Only around 25% of the diesel used in Australia is sold through retail outlets and much of that is sold to account customers. Most diesel is sold in bulk to commercial/industrial customers (eg. mining and transport companies) on long term contract.
- ⇒ In the Australian retail market, there is very little diesel sold to private customers.
- ⇒ Hence retail diesel prices, unlike petrol prices, are not subject to aggressive price discounting. At service stations, retailers concentrate on petrol/LPG discounting to drive overall fuel sales volumes and associated convenience store sales.

CITY VERSUS COUNTRY RETAIL PRICES

The difference between city and country diesel retail prices largely reflects the domestic market factors noted above. In 2014, the national average city-country retail price difference for diesel averaged 3.4 cents per litre.

Retail margins are typically higher in the country compared with major capital cities, due to lower fuel volumes and shop sales over which to spread service station operating costs.

- ⇒ Freight is typically around 1.5 to 4 cents per litre greater for country than city delivery.
- ⇒ Distribution costs may be significant for some country areas where fuel must be stored in depots and double-handled, rather than being delivered directly from coastal terminals.

Retail prices in regional areas are largely set by independent owner/operators (including those who sell fuel supplied by one of the major brands under licence).

FUEL QUALITY & FUEL EFFICIENCY CONSIDERATIONS

To meet the low sulfur fuel standard for Australian diesel (10ppm sulfur) requires extensive processing in the refinery to remove the sulfur from the crude oil.

- ⇒ This is similar processing to that required for low sulfur petrol.

The tighter diesel fuel standards are now delivering dramatic reductions in vehicle emissions (including particulate emissions and black smoke), leading to a substantial reduction in the proportion of particulate emissions coming from motor vehicles and trucks in major cities and towns.

While the price of diesel relative to petrol is an important consideration, diesel consumers should also note that diesel has a higher energy content compared to petrol.

- ⇒ This means diesel delivers more kilometers for each litre of fuel consumption - particularly when combined with new, efficient diesel engines.

Diesel engines are currently more fuel efficient than equivalent petrol engines.

PRICES & COMPETITION

While the price of diesel has increased on the back of strong Asian and domestic demand, Australian customers continue to enjoy low diesel prices by international standards.

- ⇒ Figure 4 shows Australia has among the lowest diesel prices of all OECD countries.

When comparing Australian diesel prices to other countries, allowance must be made for different government taxes and tax rates applying to diesel in each country and also for any subsidies and road user charges that apply in those countries but not in Australia.

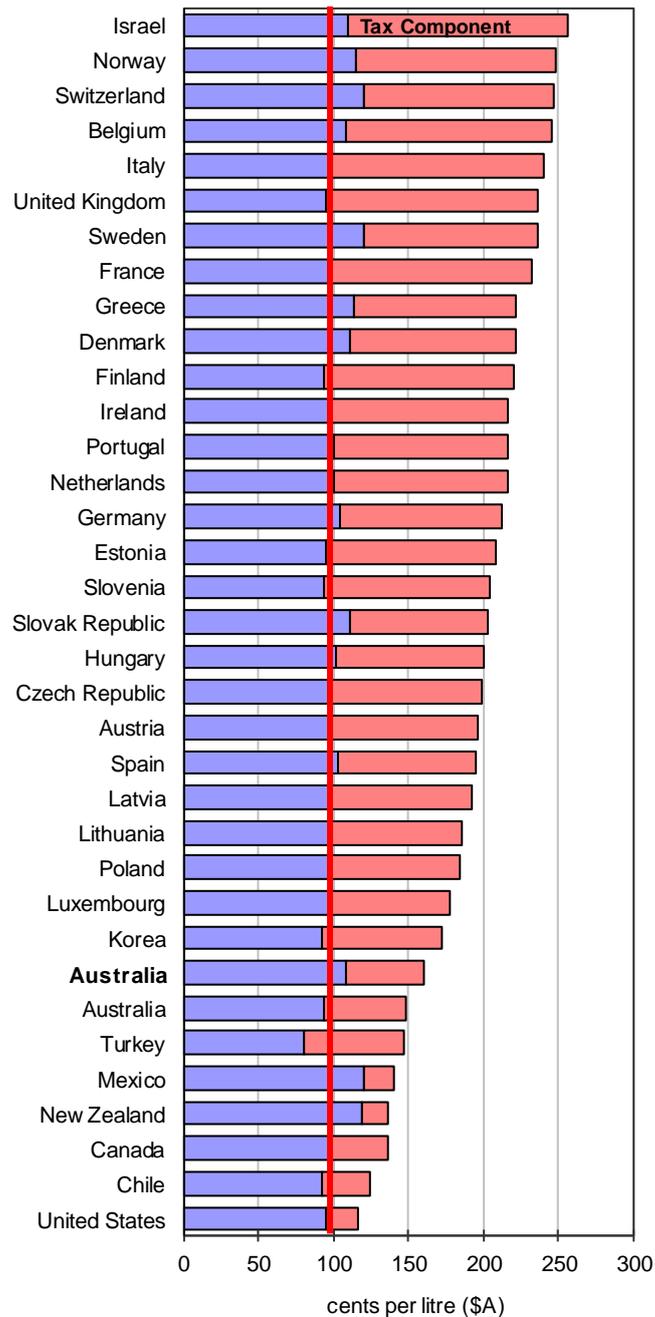
- ⇒ For example, New Zealand has a very low tax on diesel at the pump, which is the GST Only (12.5%). However, the New Zealand Government applies a road user charge to diesel powered vehicles. A passenger diesel vehicle (less than 3.5 tonnes) traveling 25,000 km per year will pay road user charges of around NZ\$820 per annum in New Zealand.
- ⇒ In comparison, the private diesel consumer in Australia (passenger vehicle) pays 38.143 cents per litre in fuel excise plus GST at the pump. Obviously, Australian businesses using diesel pay less net tax given the fuel tax credit arrangements.
- ⇒ Many countries in the Asian region heavily subsidise retail fuel sales.

Australia has low fuel prices because our petroleum market is fundamentally competitive.

- ⇒ All the way along the crude oil and products supply chains there are several large and numerous smaller market participants constantly driving market competition.

This is a view shared by many government/ACCC reviews of the petroleum market and by many informed commentators and analysts, including the International Energy Agency.

FIGURE 4 - Diesel Prices & Taxes in OECD Countries (September Quarter 2018)



Source: Australian Petroleum Statistics, Office of the Chief Economist

PROFITS OF MAJOR OIL COMPANIES

The profits made by fuel suppliers are volatile (due to the nature of the market) and are typically a very small proportion of the final or retail price.

⇒ For example, average annual net profit over the last 12 years made by oil companies (across refining, wholesaling and retailing operations) is around 2 cents per litre of all fuels sold.

There have been investments of over \$3 billion by the industry since 2004 in the cleaner fuels program to help enhance fuel supply reliability.

⇒ These investments are generating significant environmental benefits, particularly air quality improvements in metro areas (especially for particulate emissions from diesel engines).

Over the past decade, the major oil companies have invested over \$10 billion in Australia, compared with industry profits over the same period of around \$8.8 billion.