Australian Institute of Petroleum

FACTS ABOUT
THE INTERNATIONAL FUELS MARKET & PRICES

INTERNATIONAL MARKETS, PRICING & TRADING

Australian fuel prices are dependent on world market prices for crude and petroleum products.

Crude oil and petroleum products (e.g. petrol, diesel) are bought and sold in their own markets.

- ⇒ As they are different products - with their own unique physical characteristics, uses, and demand and supply factors - they are priced and traded separately.
  - Different crude oils will also be priced differently for the same reasons.
- ⇒ The price of crude oil is typically the largest determinant of the international prices for petroleum products which are processed or refined from crude oil.
  - For example, according to the ACCC, crude oil accounts for around 85–90 per cent of the cost of producing refined petrol.
  - However, the market prices for petroleum products can also influence crude oil prices (e.g. higher demand for refined diesel can flow through to higher crude prices).

The market for different crude oils and petroleum products is also regionally based.

- ⇒ Prices in regional markets reflect the supply and demand balance in each market as well as the relative quality of each commodity.
- ⇒ There are also linkages and transactions between regional markets to balance global demand and supply.

Pricing of crude oil and petroleum products in regional markets is highly transparent, through the use and publication of 'markers' or price benchmarks.

These markers are convenient indicators of what is happening with prices in regional markets.

- ⇒ For example, the main markers for crude oil are: West Texas *Intermediate* (WTI–USA), *North Sea Dated (Brent)* (Europe and Africa), *Dubai and Oman* (Middle East) and Tapis, North Sea Dated (Brent) and *Dubai* (Asia-Pacific).
- ⇒ Information on changes in the prices of markers is extensively reported on a daily basis.

'Markers' are commonly traded crude oils or petroleum products of a similar quality.

Markers provide pricing information on physical trading of crude oil and petroleum products.

- ⇒ For example, the Tapis and North Sea Dated (Brent)/Brent crude oil markers are published on the Argus information service and are used, as well as other crude oil markers, as the basis of market trading for crude oil (supply contracts and transactions).

Crude oil and petroleum products are sold through a variety of 'term contract' arrangements and in 'spot' transactions.

- ⇒ Generally these transactions are based on a formula approach where a marker is used as the base, and then a quality differential is added for petroleum products (premium/discount for fuel quality standards) and a market premium/discount is added for the crude being purchased.
- ⇒ The marker or price benchmark used in contracts for specific crude oils or petroleum product sales may change over time and between transactions, depending on market conditions and individual negotiations between the buyer and seller.

Crude oil and petroleum products are also traded on futures markets like NYMEX.

KEY FACTORS INFLUENCING INTERNATIONAL PRICES

Prices in regional markets for different products (e.g. crude oil, petrol and diesel) can be volatile due to the impact of factors and events unique to one market or all markets globally.

As a result, focusing on the longer term price trends in the relevant regional market for specific products is important to understanding what is driving movements in the prices of specific fuels here in Australia.

The box below outlines some of the fundamental market drivers and other influences impacting on regional and global market prices, and thereby Australian prices, over time.

Key Factors Influencing International Crude Oil Prices

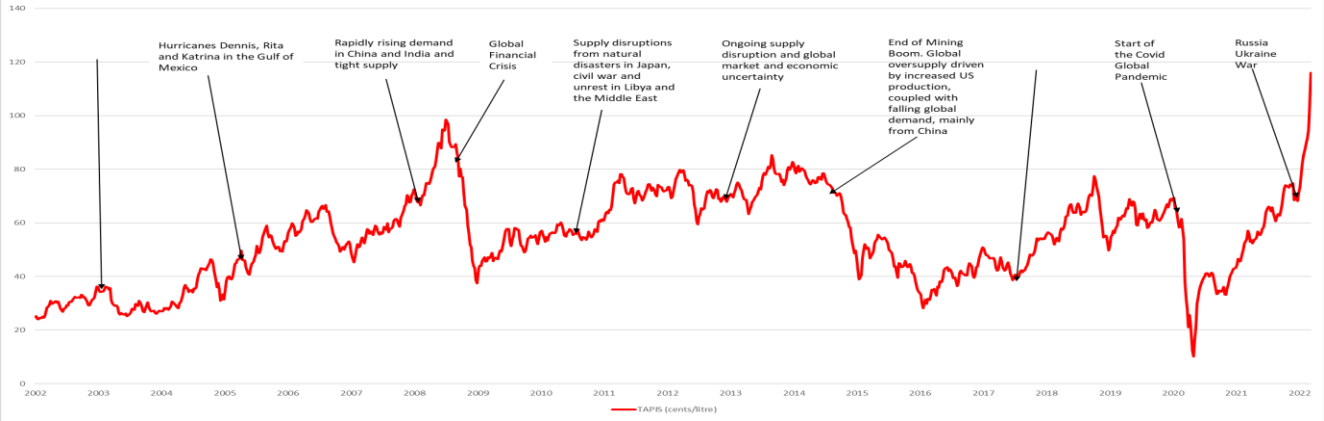
- changes in regional and global supply balances in both the short & longer term
- major supply disruptions from natural disasters, war, civil unrest and strikes
- seasonal demand and demand spikes
- inventory management
- shipping availability and freight rates
- market trading activities and strategies
- short term decisions of oil producing countries, National Oil Companies (NOCs) and nations holding strategic reserves
- alternative fuel developments
- changes in economic conditions/sentiment in both the short and longer term
- new oil discoveries
- investment in new oil production/refining capacity
- future global demand and supply balances
- global economic growth and conditions
- costs of oil production and refining
- technological progress
- long term policies of NOCs and oil producing nations
- population growth
- regulation and government policy

All of the factors above can have an influence in determining the final price to fuel consumers and the role that each of these factors plays can change over time or indeed can offset each other.

As an illustration of these factors, the chart below highlights specific international events which impacted on the price of crude oil in recent years.

Major Events Impacting on Crude Oil Prices

TAPIS CRUDE OIL: CENTS PER LITRE ($A)



For example, in recent years, two major events have dramatically impacted the price of crude oil and in turn the price of petroleum products:

- ⇒ In early 2020, the COVID19 Global Pandemic led to demand destruction for crude oil as economies locked down and passenger movements (both road and aviation) were inhibited. As a consequence, the oil price collapsed.
- ⇒ During this period, upstream exploration and production for crude oil decreased limiting the available supply of crude.
- ⇒ As economies began opening in mid to late 2021, supply remained constrained and prices steadily increased.
- ⇒ However, in February 2022, Russia invaded Ukraine leading to economic sanctions on Russia (the world's second largest exporter of crude). This curtailing of demand for Russian oil saw global demand greatly outstrip supply, and consequently, saw a rapid increase in oil prices.

THE LINK BETWEEN INTERNATIONAL AND AUSTRALIAN FUEL PRICES

There is a close relationship between international/regional fuel prices and Australian wholesale and retail fuel prices, according to the ACCC.

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

- ⇒ Key crude oil pricing benchmarks for the Asia-Pacific market including Australia are Tapis, North Sea Dated (Brent)/Brent and Dubai – it is not West Texas Intermediate (the US market benchmark) widely reported in the media.
- ⇒ The Singapore benchmark price of unleaded petrol (MOGAS95) & diesel (Gasoil 10ppm sulfur) are the key petrol and diesel price markers for Australia.

Singapore prices are the key pricing benchmarks for Australia because Singapore represents the competitive alternative source of supply for Australia.

- ⇒ To meet Australian demand, around half of fuel needs are imported, mostly from Asia.
- ⇒ Singapore is the regional refining, distribution and trading centre and among the world's largest petroleum markets.
- ⇒ A recent ACCC report concluded that Singapore pricing benchmarks should continue to be used as the basis for setting fuel prices in Australia.

Australian refiners must price their fuel to be competitive with fuel imports from Asia (called 'import parity').

- ⇒ Import Parity Pricing (IPP) is the 'landed cost' of refined fuel to Australia and includes: the international price for refined fuel (e.g. for petrol - MOGAS95), the 'quality premium' for specific Australian fuel standards, freight, exchange rate, wharfage, insurance and loss.
- ⇒ If Australia's petrol and diesel prices were below Singapore prices, Australian fuel suppliers would have no commercial incentive to import to Australia (because sales of that fuel would be at a loss here).
- ⇒ In addition, Australian refiners would have an incentive to export production and receive a higher world price.

Growth in demand for fuel in Australia will continue to be largely met by imports in the future, further strengthening the price relationship with Asian fuel prices.

'Refiner margins' are the differences between product prices and crude prices, both of which are set by the market. Margins are not set by oil companies (e.g. the Singapore petrol 'refiner margin' is determined by the difference between the market prices for MOGAS95 Petrol and the relevant crude oil).

As the Singapore benchmark prices for fuel are quoted in $US per barrel terms, their price in Australian dollar terms reflects movements in both the $US benchmark price for fuel as well as movements in the $US/$AUD exchange rate.

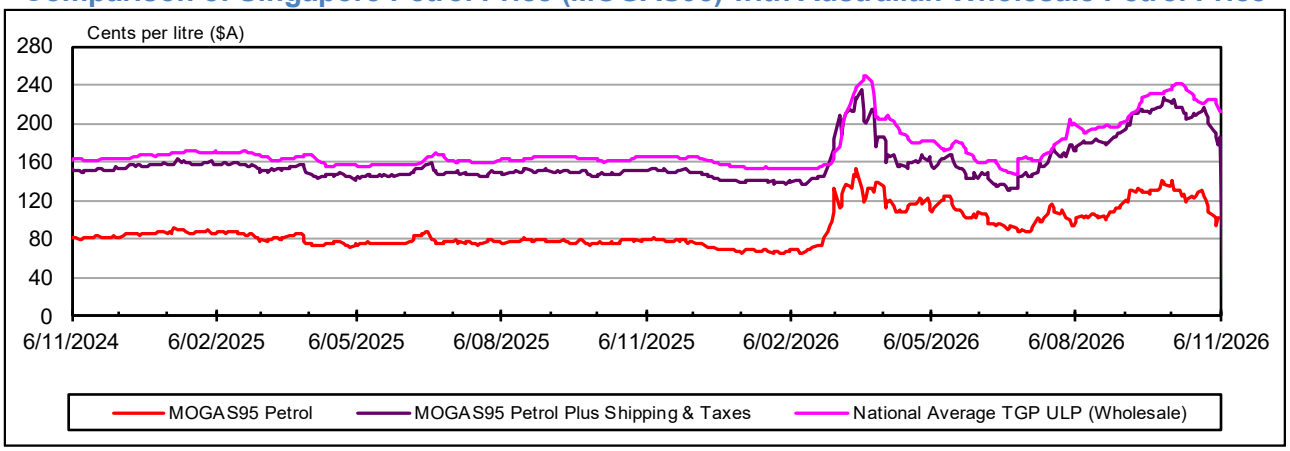
- ⇒ This means that exchange rate movements can offset or magnify changes in Singapore fuel prices.
- ⇒ Fluctuations in the exchange rate can also independently impact on the market prices for shipping and fuel quality premiums which are also quoted in $US terms.

Singapore market prices for fuel plus shipping costs and Australian taxes - called the 'refined product cost' – is almost the entire retail price of fuel in Australia (around 90%).

According to the ACCC, *movements (both up and down) in the international price of refined petrol have been passed on to Australian motorists.*

The link between the Singapore price of petrol (MOGAS95) and the Australian wholesale price is clearly shown in the chart below.

Comparison of Singapore Petrol Price (MOGAS95) with Australian Wholesale Petrol Price



Note: MOGAS95 Petrol prices and shipping rates data are supplied by Argus Media Group (see www.argusmedia.com)

THE SINGAPORE TO WHOLESALE PRICE LAG

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

⇒ The lag can be seen above (i.e. the slight delay in the peaks and troughs in the pink line (TGP for petrol) compared to the purple line (MOGAS95 plus Shipping & Taxes).

Importantly, this time lag occurs whether prices are going up (when the lag slows price rises to consumers) or prices are going down (when the lag delays price falls).

⇒ The lag is a result of using a rolling average of Singapore prices as part of the wholesale pricing methodologies of companies — very similar to that used by the ACCC when wholesale prices were regulated by government. The use of rolling averages smooths day-to-day price volatility.

Not accounting for this time lag leads to incorrect conclusions about how Singapore fuel prices flow through to prices in Australia.

PRICE TRANSPARENCY

Pricing of crude oil and petroleum products in regional markets is highly transparent along the entire the supply chain.

For the latest information on international market developments and prices see:

⇒ The International Energy Agency (IEA) at www.iea.org and the IEA's latest Oil Market Report at http://omrpublic.iea.org/currentissues/full.pdf

⇒ The US Energy Information Administration (EIA) at http://www.eia.doe.gov/

⇒ Argus Media (www.argusmedia.com); NYMEX (www.nymex.com), and CBOT (http://www.cmegroup.com/)

⇒ Intercontinental Exchange (NYSE: ICE) at https://www.theice.com.

In addition to the significant transparency of international prices, the transparency of Australian fuels prices is assisted by data published by AIP and member companies.
This includes:

⇒ a range of AIP charts and factual information on crude oil and fuel prices

⇒ extensive wholesale and retail market data across major Australian cities and towns on AIP's website

⇒ AIP's Weekly Petrol Prices Report www.aip.com.au/pricing/weeklyreport.htm

The ACCC also formally monitors crude oil and fuel prices, and the prices paid, costs and profits of major fuel suppliers, under the *Competition and Consumer Act 2010* and the latest ACCC Monitoring Report is available from www.accc.gov.au.