

# e-brief

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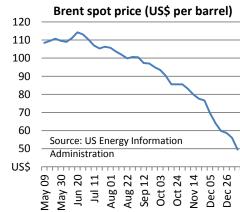
# A plunging oil price: implications and expectations

# by Andrew Haylen

#### 1. Introduction

The fall in oil prices in the second half of 2014 was both dramatic and unexpected, bringing to an end a four-year period of relative

stability. As recently as October 2014, the World Bank forecast crude oil to average US\$96/bbl in 2015. As at 19 January 2015, crude oil was trading around \$49/bbl. This is the lowest pricing point since April 2009, at the height of the global financial crisis.



So what's driving the oil price plunge? In short, a

cocktail of supply, demand and geopolitical conditions have created a surplus of crude oil internationally which has driven down the price.

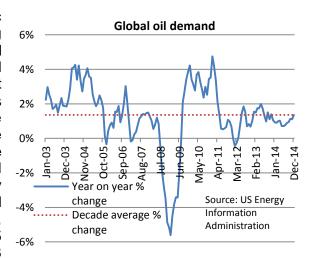
Isn't a fall in oil prices meant to be good news? The effect of the oil price plunge varies between economies, individual sectors, businesses and households. Generally though, if you're consuming more than you're producing you'll be better off.

On this premise, not everyone is going to be better off at the back end of this price cycle. The implications of this economic event will be both complex and far reaching. For producers of oil and gas, including Australian firms Santos and Woodside, it could be a critical moment.<sup>2</sup> For the average Australian manufacturer with big energy needs, it will be a reprieve, as it will be for most Australian households.

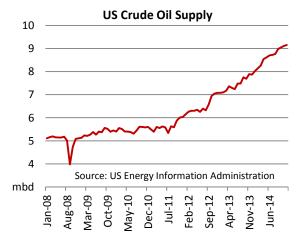
Regardless of who wins or loses, the rapid and sustained fall in the oil price is shaping up to be 2015's biggest economic story.

### 2. What's caused the oil price plunge?

A slowdown in economic growth within emerging markets such as China<sup>3</sup> and an improvement in global energy efficiency have meant that demand is not growing as significantly as it was in the 2000s early and in the immediate period after the GFC.4 The outlook for oil demand also remains relatively subdued. Between July and December 2014 alone. projected oil demand for 2015 was revised down by 0.8 million barrels per day (mb/d).5



While subdued demand growth has been a contributing factor, the primary responsibility for the collapse in the oil price, as identified by The Economist, lies with the 'the oilmen of North Dakota Texas'.6 Following a and spending spree that totalled more than \$2 trillion in energy related capital projects over the past five years7, US shale oil output has lifted significantly.



OPEC countries, led by Saudi Arabia, have also played their part. Accelerating the oil price fall was OPEC's decision in November 2014 to maintain, not cut, production levels.<sup>8</sup> This decision was aimed specifically at forcing out higher cost producers, reducing supply in the long run so that oil would settle at a higher pricing point. As Liam Denning in *The Australian* notes:<sup>9</sup>

With triple digit oil having unleashed the genies of shale and demand conservation, artificially supporting prices would simply curb demand and shrink Saudi Arabia's market share further. Letting the price fall, while painful, at least plays to its key strength: low per-barrel production costs.

In a price war, what counts is the ability to 'dish out pain and to withstand it' and, as Denning points out, 'Saudi Arabia's capacity looks ample on both fronts.' With Saudi Arabia's foreign currency reserves providing it a buffer in the short run, the Saudi Arabian Oil Minister was quoted as saying that even US\$20 per barrel wouldn't trigger a change of heart.<sup>10</sup>

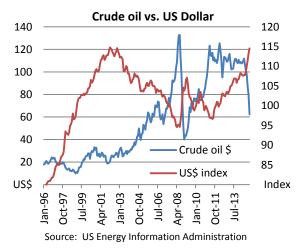
However, the November decision has been to the detriment of Russia<sup>11</sup>, along with OPEC members such as Iran and Venezuela which are suffering from painful and potentially destabilising major declines in petroleum export

revenues.<sup>12</sup> For Venezuela, where oil makes up 96 per cent of the country's export earnings, every \$US1 drop in the price of a barrel costs the country \$US770 million a year.<sup>13</sup> Russia's credit rating is now just a notch above junk status, and it will probably go lower as the rouble continues to devalue in line with the oil slump.<sup>14</sup>

Global oil supply has also been bolstered by recent developments in the

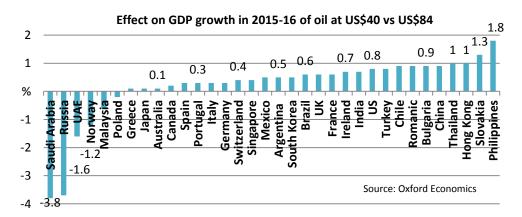
Middle East. The previously expected shortfalls in supply from Libya and Iraq have not materialised.

The other major factor contributing to the oil price decline was the appreciation of the US dollar in the second half of 2014. As the US dollar increases in value the price of oil becomes more expensive for importing countries, thereby tending to depress demand in those countries.



# 3. Who benefits from a lower oil price?

The shift in income from oil exporting countries, which tend to save, to net importers which tend to spend, 'should generally result in stronger global demand over the medium term.' <sup>15</sup> Many analysts argue that lower oil input costs could spur the broader growth needed in the world today. <sup>16</sup> As shown in research from Oxford Economics, most countries will experience positive GDP growth in response to the oil price plunge. <sup>17</sup>



As most sectors in Australia are net energy consumers, a lower oil price is generally seen as a net positive for growth. RBA Governor Glenn Stevens in an interview with *The Australian Financial Review* emphasised this: 19

...people are making quite a lot of the fall in oil prices, which is obviously bad news if you are a producer. But actually, historically, low oil prices have been good for the global economy. In my opinion on the whole, this is good news, not bad news. It isn't that many years ago actually that we agonised over whether the price of oil would be \$15 [\$US a barrel], or \$20,

or \$25. It goes to \$100 plus, and actually the world economy coped with that, and now it has gone down to, say, \$60. I actually think that's a bullish point for global growth.

#### Households

Households are net consumers of oil which means that a lower oil price will increase household spending power. Spending on petrol is 3.5 per cent of an average household spending basket for NSW residents. According to the Commonwealth Bank, the income gain for households calculates at around 0.1 per cent of GDP or 0.2 per cent of household income.<sup>20</sup>

At a petrol price of around \$1.13/litre, there is likely to be a saving for the average family petrol budget of around \$14 a week compared to mid last year. If sustained this will amount to \$728 a year, which is a significant saving. If the 99.9 cent/litre price becomes the norm then the saving will rise to \$988 a year. The NRMA recently reported that car owners should expect the average price of unleaded fuel, which is currently \$1.06/litre, to drop below \$1 per litre in coming weeks.

While this is all positive news for metropolitan motorists, there is strong evidence to suggest that regional consumers are being 'ripped off by petrol chains refusing to pass on a plunge in petrol prices.'<sup>23</sup> ACCC chairman Rod Simms was quoted as saying:<sup>24</sup>

While lags are expected, as older stocks can take longer to run down in regional locations, we would expect the falls to be passed on reasonably quickly.

Over the past six months, city drivers have reaped the benefit with the average retail price falling by around 38 cents per litre in the five largest capital cities, Sydney, Melbourne, Brisbane, Adelaide and Perth. While regional

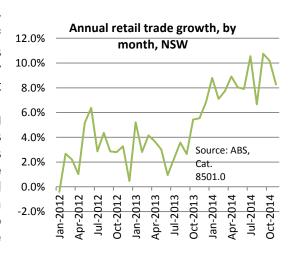
Regional petrol prices, week ending 18 Jan 2015 Source: Australian Institute of Petroleum			
	Weekly	Weekly	+/- from
	average	change	metro
State Average	115.4	-4.4	8
Sydney	107.4	-4.9	-
Canberra	126.3	-4.3	18.9
Regional Average	124.4	-3.9	17

communities were paying just 5.7 cents per litre more than the major metro centres in the middle of last year, by the start of 2015 the gap had more than tripled to around 17 cents per litre.<sup>25</sup>

Some of these regional differences may be due to a range of factors, such as slower rates of sales, which meant it took longer to pass on fuel price changes and less competition with fewer outlets in the market. The ACCC has put petrol chains on notice that they will face a backlash by consumers, enforcement action by the regulator or law reform by the government if they are to be found gouging consumers.<sup>26</sup>

#### Boost to retail?

Discretionary retail is usually seen as the major beneficiary of a fall in petrol prices, as household spending power increases and savings are spent elsewhere in the economy. CommSec economist Craig James said that, by Christmas 2014, Australian consumers would have benefited to the tune of \$2 to \$3 billion from the oil fall.27 JP price Morgan economist Ben Jarman also suggested that the plunge in the oil price was:28



... about as good a free kick as you're going to get for the consumer globally... If you look at a single chart of oil prices versus global real retail sales volumes you can easily see the historical correlation.

ANZ Chief Economist Warren Hogan added to this sentiment, suggesting that 'the \$1/litre petrol currently being pumped from Sydney bowsers is akin to half a 0.25 per cent interest rate cut.'<sup>29</sup>

According to Citi analyst Craig Woodford, the boost to Australia household incomes from cheaper petrol is equivalent to a 50-basis-point cut in official interest rates.<sup>30</sup>

Other analysts however believe that the jury's still out on whether or not the savings of cheap fuel and energy are converted by consumers and companies into stimulatory spending and investment.<sup>31</sup> Merrill Lynch chief economist, Saul Eslake, commented that:

Households who are confronted with slow growth in their incomes, still relatively high levels of household debt and concerns about rising unemployment will probably say 'this is very nice, but I'm not going to spend as much of it as I would have 10 years ago.' And similarly, businesses who save through lower energy and transport costs will probably say, 'this is very nice, but I'm going to pass it through to my bottom line for the time being.'

There are expectations that retail companies, including Woolworths and Wesfarmers, are poised to benefit from the falling oil price if transport companies such as Toll Holding pass on fuel savings.<sup>32</sup>

Dr Hermoine Parsons, director of the Institute of Supply Chain and Logistics at Victoria University, suggested that in the short term 'consumers should not expect to see any savings on shelf prices at the major retailers'.<sup>33</sup>

Dr Parsons identified an expected reluctance on the part of transport companies, who have 'worked on extremely tight profit margins for a long time', to pass on the expected savings from the reduction in oil prices. Rather, it would take some time before any real tangible benefits flow

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through to the retail sector and that the longer-term benefits are likely to flow from improved consumer sentiment rather than lower petrol prices.

#### Lower business expenses

A rapidly declining oil price will lower the operating expenses of many businesses across Australia, particularly those in the manufacturing sector whose international competitiveness has already been undermined by higher labour and high Australian dollar.

The specific impact on business is difficult to predict, as oil and its derivatives have varying contributions to individual business expenses.

Those in the distribution and transport sector, for example, will reap significant benefits out of the associated petrol price decline. Transport costs alone constitute between 30 and 35 per cent of a typical businesses' total supply chain costs.<sup>34</sup> There are likely to be flow on employment benefits in such energy intensive industries.

On the other hand, businesses in the service sector, where labour costs account for a higher proportion of business expenses, will be less affected by recent developments.

Depending on competitive pressures in their respective industries, businesses will have the choice of improving their margins and profitability or passing on lower costs.

#### **Inflation expectations**

Other **macro-economic benefits** are likely to flow from lower oil prices, in the form of reduced inflationary expectations and downward pressure on interest rates. This has already shown up in the inflation data. In the September quarter, fuel prices fell by 2.5 per cent and subtracted around 0.1 points from aggregate inflation.

The significant drop in oil prices over the current quarter to date suggests that petrol prices will further dampen inflation figures to be released later this month.<sup>35</sup> According to the Commonwealth Bank, the impending figures are likely to show inflation running around 2 per cent providing plenty of scope for further monetary easing by the Reserve Bank.

Interest rate cuts could be the catalyst needed to turn around Australia's sluggish consumer confidence in 2015. Local consumer confidence has been held back by rising unemployment, flat real wage growth, rising fiscal burden and high debt levels. Morgan Stanley, in the *Australian Financial Review*, suggested a rate cut from the RBA could be the 'breakthrough needed to drag consumers out of their conservative position'. <sup>36</sup>

However, the chances of further interest rate cuts by the Reserve Bank of Australia this year were dealt a blow when employment rose sharply for a second straight month. The national unemployment rate fell to 6.1 per cent in December. As chief economist of the Commonwealth Bank Michael Blythe put it, 'if you're scoring numbers, certainly you'd be on the nochange side of the interest rate ledger.' Blythe expected that the Reserve

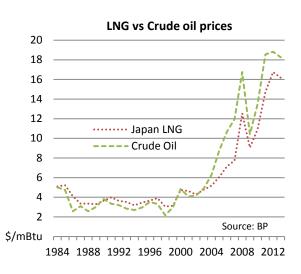
Bank would keep rates on hold for all of 2015 and that lower fuel prices could provide a bigger jolt than a rate cut.

The ANZ revised their inflation expectations just prior to the release of the employment data, suggesting that weaker growth and lower inflation in 2015 would provide the RBA with a reason and the scope to take the cash rate down 50 basis points to 2 per cent over the first half of the year.<sup>37</sup> NAB and Westpac also expect the cash rate will be cut further beyond its historical low of 2.5 per cent, potentially as early as the first quarter of 2015.

#### 4. Who loses out?

#### **Energy companies**

Energy and natural resource companies, particularly those associated with developments in Queensland and Western Australia, have borne the brunt of the oil price collapse with billions wiped off their respective **share market values**. These companies suffering are because the price of LNG is linked to the price of oil. As resources analyst Peter Strachan from Stock Analysis explains: 38



On average 16 per cent of the price of a barrel of oil gives you the price of a gigajoule of gas. So, if the price of oil is \$100 a barrel, then gas is about \$15.50 to \$16 a gigajoule. Now that we're seeing oil prices around the \$62 to \$64 a barrel, LNG prices are down around \$9.50 to \$10 a gigajoule on contract, and spot prices might even be lower.

It was reported recently by the Oxford Institute of Energy Studies that LNG prices in Asia are poised to average below US\$10/mBtu (million British thermal units). Bloomberg New Energy Finance analyst, Ashish Sethia, was equally as pessimistic about the price outlook for LNG:<sup>39</sup>

The outlook for the spot price in the next few months remains weak as storage and incremental supply are [more than] sufficient to cover seasonally higher demand.

Spot prices were at US\$9.60 the week ending 16 January 2015. If the oil price falls, it will hurt the bottom line and threatens the expansion of the LNG industry before it has even had a chance to take off. Some analysts fear that if the price of oil falls further and stays there, it will put some projects on hold for years.<sup>40</sup>

**Woodside Petroleum's** Browse floating LNG project in Western Australia is likely to be an early casualty of the collapsing price. <sup>41</sup> This follows the scrapping of a joint marketing agreement for Browse LNG signed almost three years ago with project partners Mitsui and Mitsubishi. This will delay the start of engineering and design work on the Browse project to mid-

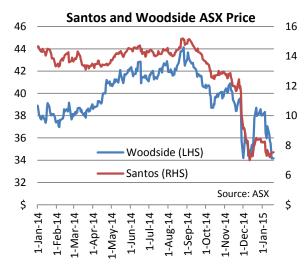
2015. There are considerable doubts as to whether the revised timetable will be met.<sup>42</sup>

The situation is only likely to get worse for investors in Woodside Petroleum, with reports suggesting they should brace for a steep cut in their dividends for the 2015 financial year.<sup>43</sup> This comes after the company recently announced spending cuts and asset write downs of up to US\$400 million.<sup>44</sup>

As the most financially stretched of the larger Australian players, **Santos** is especially vulnerable. Still more than six months away from completing its

flagship US\$18.5 billion GLNG gas export project in Queensland. Santos has watched its market value crumple to less than half of its size since August. That's more than \$7 billion of market capitalisation. It has already slashed its 2015 capital expenditure budget by \$700 million and is cutting costs.<sup>45</sup>

ConocoPhillips chief executive Ryan Lance, whose company is a key investor in the Asia Pacific LNG project in Queensland, also



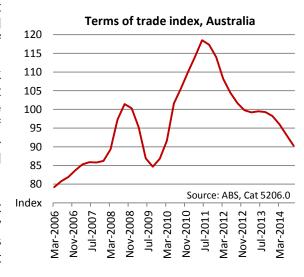
suggested that the plunge in crude oil will likely halt new energy projects in Australia. ConocoPhillips has up to eight possible LNG and oil projects on the drawing board around Australia. Any withdrawal of investment in these projects would have negative flow on effects in terms of employment and a reduction in export earnings.

#### Terms of trade and government revenues

From a national perspective, lower oil prices will have flow on effects in terms prices for other substitutable energy sources (e.g. coal and gas). As

significant Australia is a commodities exporter, this will result in a negative terms of trade<sup>46</sup> impact for Australia. Commonwealth The Bank suggests that a 20 per cent fall in oil prices (over one year) will equate to a terms of trade impact worth around -0.4 per cent of nominal GDP.47

Brought on by the latest heavy falls in commodity prices, Deloitte Access Economics estimated that Australia's terms of trade will



fall by 12 per cent in 2014-15, with a further 4 per cent fall in 2015-16. This is likely to eat into government revenue, with the Commonwealth Parliamentary Budget Office estimating that a 10 per cent fall in the terms of trade will wipe \$7 billion off the budget bottom line in the current financial year, with the total rising to \$12.4 billion a year by 2023-24.<sup>48</sup>

While federal government **fuel excise revenues** are likely to benefit as lower fuel prices lift sales volumes, there is the strong possibility that reduced profitability, down-scaling and asset write-downs of energy companies could hit the federal budget through lower-than expected **tax revenues**.<sup>49</sup>

In response, the federal government may be forced to find more savings to prevent a further blowout in the deficit, as its income from energy sectors dries up.

There will also be pressure on State coffers because of the foreseeable **reduction in royalties**. The majority of oil reserves are located off the coast of Western Australia, Queensland, the Northern Territory, Victoria and South Australia. The oil crash is forecast to blow a multi-million dollar hole in the Western Australian budget over the next three years. The Queensland government, which has had its revenues hit in recent years by a drop in coal prices, is also facing the prospect of lower than expected petroleum income. <sup>50</sup>

# 5. Oil price outlook

In his opinion piece in *The Australian Financial Review*, Jim O'Neill, the former chief economist at Goldman Sachs remarks:<sup>51</sup>

I used to joke that the most important thing I learned from my research was never to attempt to forecast the price of oil.

Despite the pessimism in oil price forecasting at present, there is a general consensus that oil prices aren't going back up in a hurry. Best estimates suggest they will not break through the \$100 per barrel barrier in 2015.

Barring significant unrest in key areas such as Russia, Syria and Iraq, it is going to take a number of months for supply and demand fundamentals to realign. Marginal producers, particularly those in the US, will eventually be forced out of the market once the price of crude oil falls below the breakeven point of production. It is therefore likely that a sustained rebound in the price of oil will not be realised until the backend of 2015.

Even then, there is considerable uncertainty around the extent of this rebound, with most suggesting that underlying supply and demand fundamentals will suppress the price of oil below previous highs for some years to come.

Jim O'Neill identified US shale oil production and weakening Chinese demand as the two big factors fundamentally driving the price of oil. Because the Chinese economy was no longer consuming energy at the frenetic pace it had been, O'Neill concluded that:<sup>52</sup>

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...there was a fair chance that oil prices were peaking and that before too long spot prices would reverse and start to decline.

Oil prices may not start rising in the coming months, but forces that will eventually halt their decline are beginning to appear. The drop in the spot price is significantly below the five-year forward price. My hunch for 2015 is that oil prices may continue to drop in the short term; unlike in the past four years, however, they are likely to finish the year higher than they were to begin.

Sir Michael Hintze, the founder of US\$14 billion hedge fund CQS, suggested that the structural factors contributing to the decline in the oil price may mean that:<sup>53</sup>

...we will have to become accustomed to a lower oil price for longer than most might think [and that] the 'new normal' in the price of oil is a structural shift that is unlikely to be reversed over the next decade.

## Is history repeating itself?

There are suggestions that this price plunge is a repeat of the story 30 years ago (when the price plunged by 67 per cent between November 1985 and March 1986) and that those events might provide a good timeline indicator for a price recovery. However, as Russell Gold of the *Wall Street Journal* points out, there are fundamental differences in the supply and demand dynamics which should set the current price recovery on a steeper rebound trajectory to that of 30 years ago. Specifically, Gold highlighted the shorter oilfield investment cycle of shale as the key difference between now and then:<sup>54</sup>

Faster-reacting shale production could help cut supply more quickly than in the past, restoring market balance without a decades long wait.

But that doesn't mean prices will rebound soon, or return to the triple-digit levels seen just months ago. Price pressure may need to remain on the US oil industry and its lenders for months to rein in supply.

The price may have to go even lower before US companies start responding, with reports that the oil price would have to drop below \$40 per barrel before the major companies started reigning in supply. Key US producers, ConocoPhillips and EOG Resources, both claimed that they can still drill wells profitably at around \$40 per barrel.<sup>55</sup>

#### Forecasts for crude oil

Most of the forecasts presented in this paper suggest that the crude oil price will average between the \$60 and \$70 per barrel market in 2015.

Standard & Poor (S&P), which is one of the world's leading credit rating agencies, has already cut its oil price forecasts for the fourth time in the space of three months which emphasises the dramatic and uncertain nature of the commodities market at present. In its most recent price forecast, S&P slashed its 2015 crude oil forecast by more than 20 per cent to \$55 per barrel and suggested a price recovery was unlikely in the near future; and a return to US\$80 per barrel was not likely until 2017 at the earliest.

Goldman Sachs was particularly bearish in its forecast, suggesting that oil prices will need to be 'lower for longer' before a balance is restored between supply and demand. The investment bank predicted Brent prices could fall to US\$42 per barrel by early April.

AMP chief economist Shane Oliver was equally bearish, expecting oil to fall back to around \$US40 a barrel or just below:<sup>56</sup>

This level should start to force supply cutbacks amongst more marginal producers but, as we saw in the 1980s and 1990s, once prices bottom [out] its likely to be followed by a period of base building rather than a quick surge back up.

The official forecaster in the US, the Energy Information Administration, expects global oil inventories to continue to build over the next year, keeping downward pressure on oil prices. The forecast Brent crude oil price averages \$68/bbl in 2015:

Based on current market balances, EIA expects downward price pressures to be concentrated in the first half of 2015 when global inventory builds are expected to be particularly strong. EIA projects that Brent prices will reach a 2015 monthly average low of \$63/bbl for each month from March through May, and then increase through the remainder of the year to average \$73/bbl during the fourth quarter.

Crude oil price forecasts			
Organisation	Date published	2015 Average (USD/bbl)	
Standard and Poor	Jan-15	55	
Citigroup	Dec-14	63	
Dep't of Industry	Dec-14	66	
EIA	Dec-14	68	
Oxford Economics	Dec-14	69	
UBS	Dec-14	70	
Allianz	Dec-14	70	
JP Morgan	Jan-15	82	

The underlying factor behind the oil price bounce-back lies in the United States. The logic behind this is that, if the oil price dips to below this 'breakeven' price – which is likely to be between US\$40 and US\$60 a barrel (depending on the size of the firm) – production is no longer profitable. In response, investments are no longer made in additional production facilities, or existing facilities are taken out of operation, reducing the global oil supply and forcing the oil price back up.

It appears that US producers are already starting to feel the heat, with energy companies shutting down 74 onshore oil and gas drilling rigs last week, the largest number in six years. In response to weak prices, global energy companies and oil field services firms, including Apache, Shell, BP and ConocoPhillips are slashing capital expenditure plans and cutting thousands of jobs. A recent report by Baker Hughes shows that the 1676 oil and gas rigs operating in the US is the lowest amount since October 2010.<sup>57</sup> However, as a number of analysts point out, the reduction in drill numbers does not immediately indicate a proportionate reduction in production.<sup>58</sup> This is because the smaller and usually higher cost wells are shut down first; leaving the larger and more efficient wells.

#### 6. Conclusion

The Economist summarises the current situation succinctly, suggesting that the fundamentals have changed dramatically and the long-run market equilibrium might have shifted as a result:<sup>59</sup>

The economics of oil have changed. The market will still be subject to political shocks: war in the Middle East or overdue implosion of Vladamir Putin's kleptocracy would send the price soaring. But, absent such an event, the oil price should be less vulnerable to shocks or manipulation. Even if the 3m extra b/d that the US now pumps out is a tiny fraction of the 90m the world consumes, America's shale is a genuine rival to Saudi Arabia as the world's marginal producer. That should reduce the volatility not just of the oil price but also of the world economy. Oil and finance have proved themselves the only two industries able to tip the world into recession. At least one of them should in future be a bit more stable.

Oil quite literally drives the global economy. As has been illustrated in this paper, falling oil prices affect everyone from governments to companies and consumers.

At the broader economy level, rapid changes to the oil price can up-end share markets, slash government budgets and send countries into recession. The prevailing opinion is that the Australian economy, as a whole, will benefit from a sustained drop in the oil price.

The economic impacts of the recent oil price slump on the global macroeconomy are multiple, complex and conflicting. Though not typical, the Australian case is illustrative. The windfall of falling oil prices reduces the cost of net oil imports and favours industries sensitive to transport costs. However, LNG exporters tied to lower oil prices may experience reduced profits. 62

Looking ahead, most analysts expect the price to sit around the US\$60 a barrel market, with a rebound likely toward the end of 2015 and early 2016; although the extent and nature of this rebound remains highly uncertain.

That said, conditions in the commodities business can change very quickly and dramatically. As Jennifer Hewett, writing in *The Australian Financial Review* put it, oil forecasting is '...complicated. And the pet galah's view is as good as anyone else's." <sup>63</sup>

World Bank, <u>Commodity Markets Outlook</u>, October 2014, Global Economic Prospects, p.2

Sydney Morning Herald, <u>Plunging oil price has profound effects on economy</u>, 9 January 2015

Chinese economic growth has slowed to around 7 per cent compared to 10 per cent or so last decade.

UBS, Will there be blood? The implications from lower oil prices, 18 December 2014, p.3

World Bank, <u>Understanding the Plunge in Oil Prices: Sources and Implications</u>, January 2015, Global Economic Prospects, Chapter 4, p.156

<sup>&</sup>lt;sup>6</sup> The Economist, <u>The new economics of oil: sheiks vs shale</u>, 6 December 2014

UBS, <u>Will there be blood? The implications from lower oil prices</u>, 18 December 2014, p.3

AMP, <u>The plunging oil price – why and what it means</u>, January 2015, Oliver's Insights, Edition 1, p.1

The Australian, Saudis go for shock therapy in shale war, 12 January 2015

The Australian Financial Review, Why the US will lose the price war, 14 January 2015

- Australian Mining, Oil prices fall as economics trumps geopolitics, 9 December 2014
- The Economics October 25 2014
- Bank of America estimates in: Buenos Aires Herald, <u>Amid economic crisis</u>, <u>Venezuela's</u> Maduro directs anger at US, 16 December 2014
- The Australian Financial Review, Fitch slashes Russian debt to just above junk, 12 January 2015
- <sup>15</sup> The Australian Financial Review, True cost of cheap oil, 10-11 January 2015
- 16 Ibid
- Oxford Economics, World economic prospects, January 2015
- Commonwealth Bank, What does a lower oil price mean for Australia?, 5 November 2014, Global Markets Research, p.1
- Australian Financial Review, Glenn Stevens interview: the full transcript, 12 December 2014
- Commonwealth Bank, What does a lower oil price mean for Australia?, 5 November 2014, Global Markets Research, p.1
- AMP, The plunging oil price why and what it means, January 2015, Oliver's Insights, Edition 1, p.2
- The Australian Financial Review, Tanking fuel price has some winners, 17-18 January 2015
- The Australian Financial Review, <u>Petrol chains gouge country motorists</u>, 15 January 2015
- <sup>24</sup> Ibid
- 25 Ibid
- <sup>26</sup> The Australian Financial Review, Oil fall fuels good news, 9 January 2015
- News, What the oil price collapse means for Australia and world economies, 13 December 2014
- Sydney Morning Herald, <u>Falling oil price a free kick for Australian economy</u>, 15 November 2014
- The Australian Financial Review, True cost of cheap oil, 10-11 January 2015
- The Australian, Oil price plunge set to keep lid on rates as recovery stalls,15 January 2015
- The Australian Financial Review, True cost of cheap oil, 10-11 January 2015
- The Australian Financial Review, Cheap fuel a boost to retail, 14 January 2015
- 33 Ibid
- 34 Ibid
- Commonwealth Bank, What does a lower oil price mean for Australia?, 5 November 2014, Global Markets Research, p.2
- The Australian Financial Review, <u>Rate cut needed to boost consumer confidence</u>, 15 January 2015
- Sydney Morning Herald, Jobless rate drops to 6.1% easing pressure, 16 January 2015
- ABC Online, LNG hailed as Australia's next big revenue raiser, 7 December 2014
- The Australian Financial Review, LNG prices poised to dive despite rally in oil prices, 20 January 2015
- Australian Financial Review, <u>Crude oil price slump threatens Australian LNG projects</u>, 26 October 2014
- The Australian Financial Review, Gas industry in shock, 8 January 2014
- The Sydney Morning Herald, Oil price taking its toll at Woodside, 16 January 2015
- <sup>43</sup> The Sydney Morning Herald, Woodside to cut payouts due to oil fail, 14 January 2015
- The Australian Financial Review, Woodside flags cuts, write-downs, 16 January 2015
- The Australian Financial Review, <u>Santos considers ditching assets</u>, 14 January 2015
- Terms of Trade refers to the relative price of exports in terms of imports and is defined as the ratio of export prices to import prices. It can be interpreted as the amount of import goods an economy can purchase per unit of export goods.
- Commonwealth Bank, What does a lower oil price mean for Australia?, 5 November 2014, Global Markets Research, p.2
- The Australian, Oil price crash rips another hole in budget, 13 December 2014
- The Australian Financial Review, True cost of cheap oil, 10-11 January 2015
- News, What the oil price collapse means for Australia and world economies, 13 December 2014

- <sup>51</sup> The Australian Financial Review, Prepare for a price bounce-back, 14 January 2015
- <sup>52</sup> The Australian Financial Review, Prepare for a price bounce-back, 14 January 2015
- The Australia Financial Review, Oil price slide puts future of OPEC in doubt, 17-18 January 2015
- Wall Street Journal, <u>Back to the future? Oil replays the 1980s burst</u>, 15 January 2015
- <sup>55</sup> Reference to article
- AMP, <u>The plunging oil price why and what it means</u>, January 2015, Oliver's Insights, Edition 1, p.2
- The Australian Financial Review, US rigs close as oil price hits projects, Monday 19 January
- S Ibid
- <sup>59</sup> The Economist, The new economics of oil: sheiks vs shale, 6 December 2014
- News, What the oil price collapse means for Australia and world economies, 13 December 2014
- Sydney Morning Herald, <u>Falling oil price a free kick for Australian economy</u>, 15 November 2014
- <sup>62</sup> Australian Mining, Oil prices fall as economics trumps geopolitics, 9 December 2014
- The Australian Financial Review, Confusion by the barrel-load, 15 January 2015

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