OIL MARKET OUTLOOK

MARCH 2017

Author **Phin Ziebell, Economist**

National Australia Bank

HIGHLIGHTS

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CONTACTS

Phin Ziebell
Economist
+61 (0) 475 940 662

Riki Polygenis
Head of Australian Economics
+61 3 8697 9534

Alan Oster
Chief Economist
+61 3 8634 2927

After a wild couple of years, oil prices have been more stable of late, spending the last three months essentially range bound in the mid $50s/bbl (Brent). The market had balanced price upside from an OPEC-Russia agreement to cut production against signs of life in US shale and conventional oil, although steep price falls in the last two days amid building US inventories show that the market remains concerned about the supply-demand balance.

Brent, Tapis and WTI currently stand at around USD53/bbl, USD55/bbl and USD49/bbl respectively. Should data continue to confirm that the OPEC-Russia deal is holding, we expect a gradual uptrend this year, although if inventories remain elevated a rally will be less likely. After revising our oil price forecasts higher last month, we have kept our forecasts on hold in this update. Our central case is for oil prices to average around the mid to high USD50s in Q2, before reaching low USD60s by end-17 and stabilising at around those levels in 2018. As we approach the 2020s, there may be some upside as lower investment flows through to lower production capacity, although this is far from clear at present.

The impact of higher oil prices at the bowser is magnified by our expectations of a lower Australian dollar, which we see falling to 70 US cents by the end of 2017. We place Australian petrol prices at 140 cents/litre by the end of this year and 147 cents/litre by the end of 2018.

Another major consideration for Australia is the impact of oil market developments on the LNG export industry. Australia is significantly ramping up LNG production capacity, with new terminals in Western Australia, Queensland and the Northern territory having opened or under the advanced stages of construction. This will give Australia the world's largest LNG production capacity – around 85 million tonnes per annum, over 20% of global capacity. With much of Australia's LNG priced against Japan Crude Cocktail (the import price of crude oil into Japan), a recovery in the oil price represents an upside for the value of Australian LNG exports.

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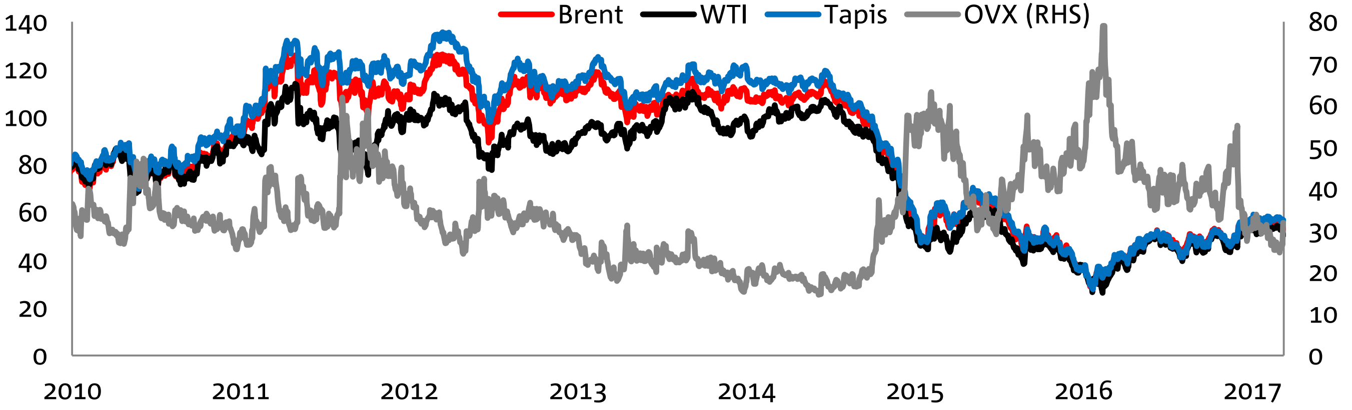
PRICE UPDATE

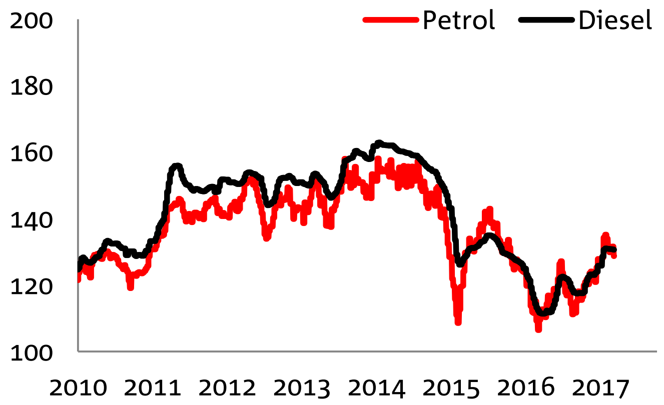
OIL PRICES AND OIL VOLATILITY

USD/bbl (lhs), index (RHS)



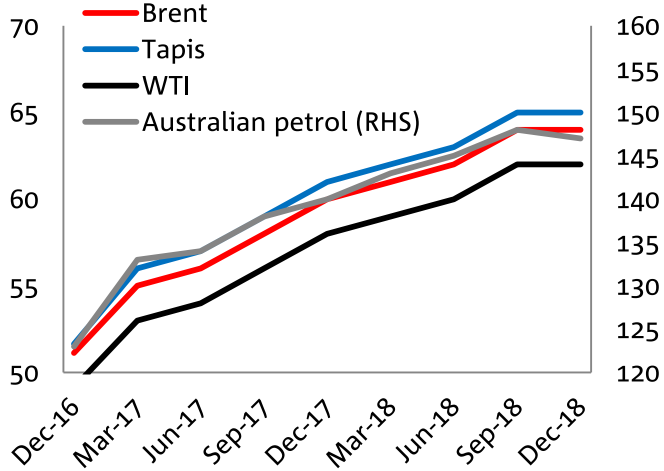
PETROL AND DIESEL PRICES

AUc/litre



NAB OIL PRICE FORECASTS

USD/bbl (LHS), Australian cents/litre (RHS)



Source: Bloomberg, Thomson Datastream, EIA and NAB Group Economics

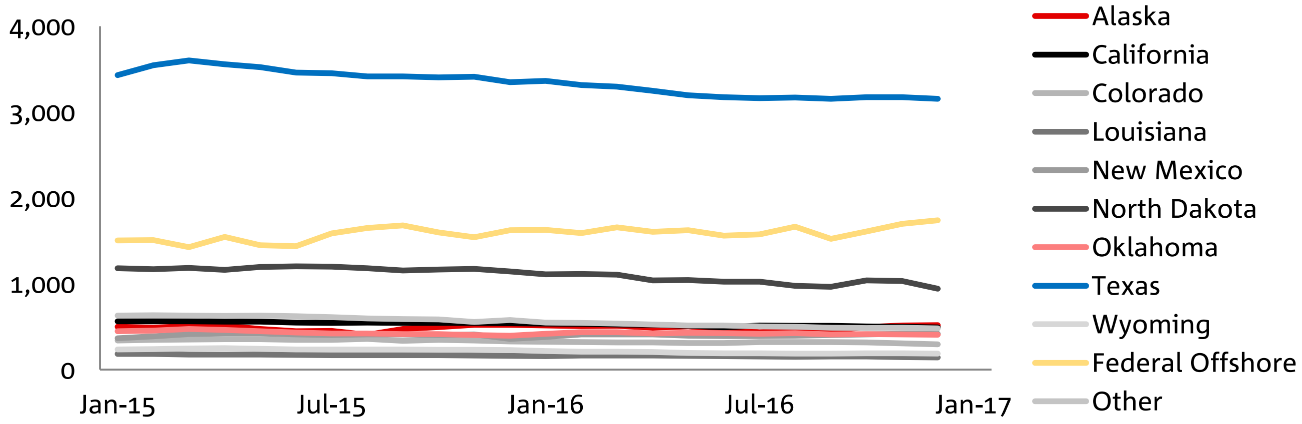
Prices have seen a gradual recovery from the mid-2014 to early 2016 price slide, although remained generally range bound from late last year to this week in the mid-50s/bbl. Meanwhile, oil volatility has fallen last year's peaks but has ticked up again in the last two days. Brent, Tapis and WTI currently stand at around USD53/bbl, USD55/bbl and USD49/bbl respectively, with WTI at one point falling below USD49 overnight. Increased market expectations of a US rate rise next week combined with the prospect of traders liquidating long positions point to volatility continuing into next week.

We expect a gradual uptrend in prices this year if data continue to confirm that the OPEC-Russia deal is holding. However, building inventories at Cushing combined with concerns from the Saudi oil minister that the deal is proportionally benefitting US shale producers are a risk to the outlook. After revising our oil price forecasts higher last month, we have kept our forecasts on hold in this update, with an expectation that oil prices will average around the mid to high USD50s in Q2, before reaching low USD60s by end-17 and stabilising at around those levels in 2018.

SUPPLY CONDITIONS: UNITED STATES

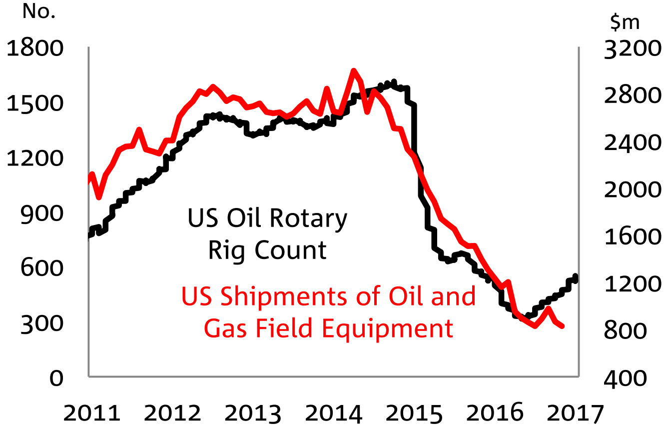
MONTHLY US CRUDE OIL PRODUCTION BY STATE

Thousand barrels a day



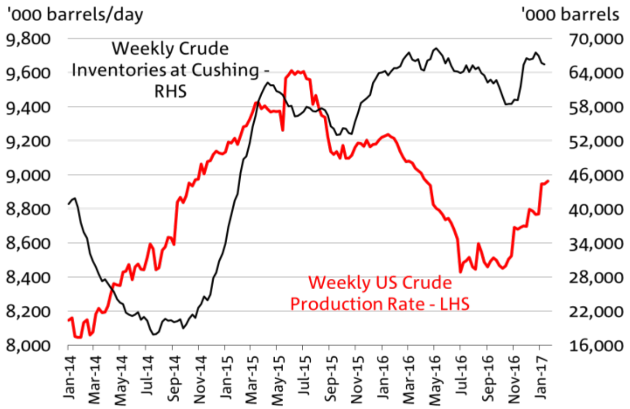
FIELD EQUIPMENT AND RIG COUNT

Weekly count (rigs)



PRODUCTION AND INVENTORIES

Weekly, inventories at Cushing



Source: EIA, Bloomberg, Baker Hughes and NAB Group Economics

The price crash of 2014-16 hit US shale producers hard, with production contracting particularly in Texas (Eagle Ford and Permian) and North Dakota (Bakken) as prices plunged well below shale break even prices. Lower cost conventional oil in the Gulf of Mexico was unaffected, at least as far as production was concerned.

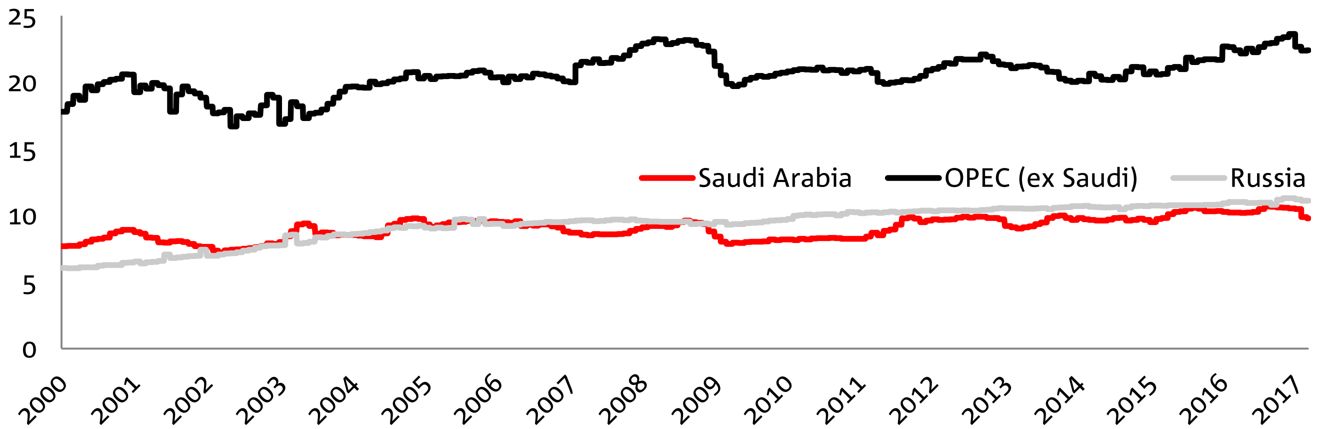
As prices have gradually recovered since early 2016, US oil producers have become more optimistic in undertaking further exploration and extraction, underlined by the rising Baker Hughes rotary rig count from mid last year. In early March the oil rig count stood at 609, almost double its May 2016 nadir, but still 62% below its pre-crash peak.

Ultimately, capital expenditure by US oil companies remains subdued, as indicated by the weak import shipments of oil and gas field equipment. Even a partial capex recovery in 2017 would still be well below the record level of around USD200 billion in 2014. This suggests that supply is likely to increase gradually absent substantial additional capex. The US Energy Information Administration's outlook for US production for 2017 has seen upward revisions in recent months, with the latest forecast for 9.2mb/day in 2017, up from 8.9mb/d in 2016. 2018 US production is pegged at 9.7mb/d.

SUPPLY CONDITIONS: OPEC AND OTHER

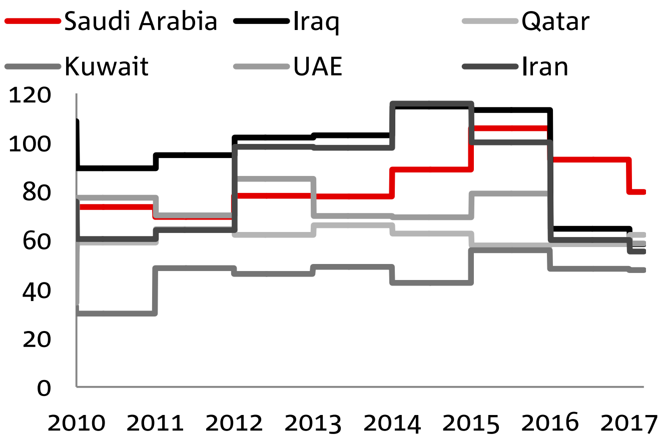
OPEC AND RUSSIAN OIL PRODUCTION

Million bbl/day



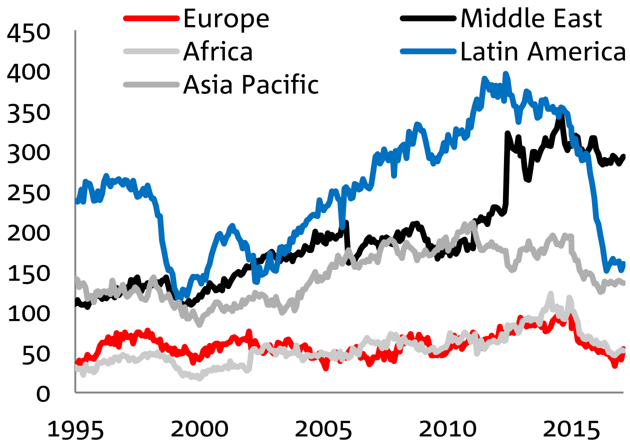
OPEC FISCAL BREAK EVENS

$/bbl



INTERNATIONAL RIG COUNT

Oil rigs by region



Source: Bloomberg, OPEC, IEA, Baker Hughes and NAB Group Economics

In late November last year OPEC and Russia agreed to cut oil production by 1.8mb/day. If fully implemented, the cuts would take OPEC production just below 18mb/day. The deal led to oil prices rising around 15% (more heavily reflected in Brent and Tapis futures owing to their closer links with Middle Eastern and Asian markets) . Recent data show that the cuts appear to have taken effect and look to be holding.

While the deal looked to have stabilised oil prices in the mid $50s range, re-emerging US shale and building inventories have seen prices fall this week. This presents something of a risk for OPEC (and to some extent Russia), as US shale producers could snatch some of the market share yielded by the agreement. Saudi oil minister Khalid Al Falih again flagged concerns about US shale this week.

It remains to be seen for how long the deal will hold. Certainly there is a long history of broken OPEC agreements as the incentive to cheat is strong. Furthermore, while the fiscal positions of OPEC countries have improved, for Saudi Arabia break evens are well above current (and indeed projected) prices despite Saudi Arabia doing much of the heavy lifting. This will remain an issue for OPEC producers (and indeed Russia) throughout 2017 and will add complexity to the agreement.

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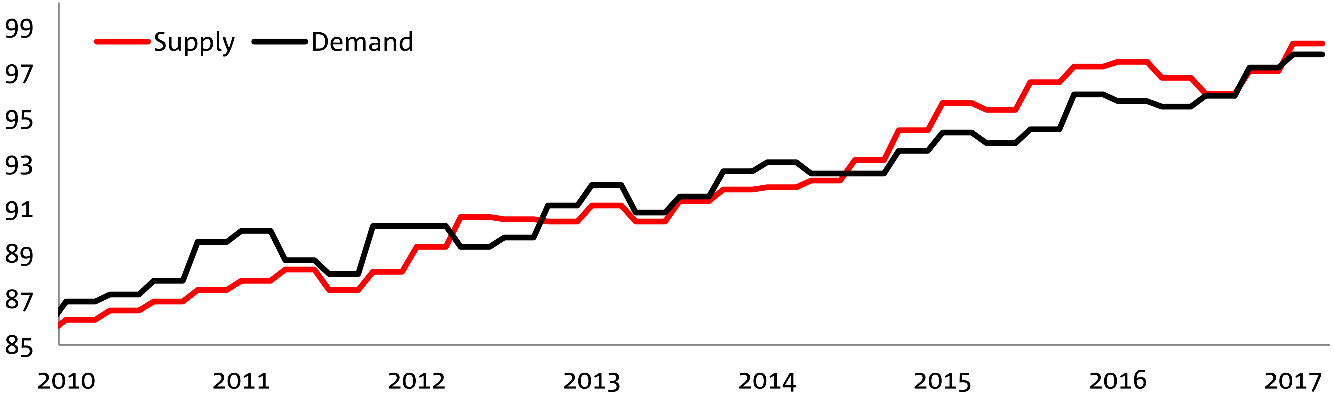
DEMAND CONDITIONS

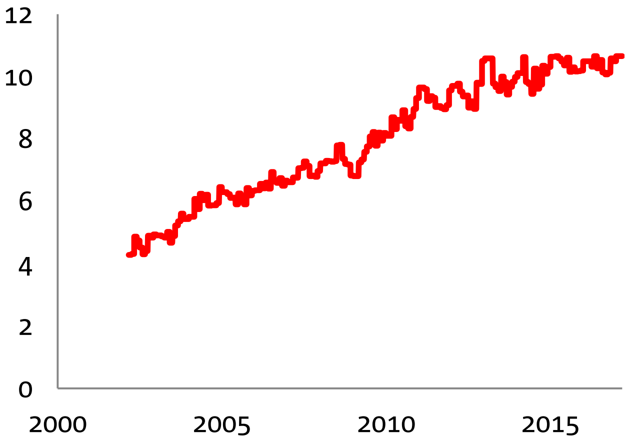
INTERNATIONAL ENERGY AGENCY GLOBAL SUPPLY-DEMAND BALANCE

Million bbl/day



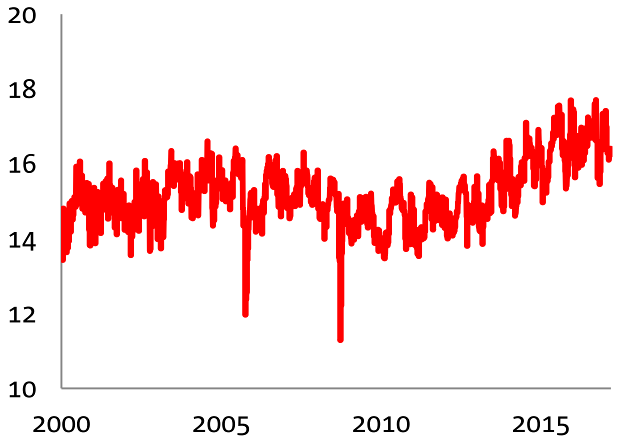
APPARENT OIL CONSUMPTION – CHINA

Million bbl/day



IMPLIED OIL DEMAND – US

Million bbl/day



Source: Bloomberg, DOE, IEA and NAB Group Economics

Global demand conditions look to have picked up over 2016, although International Energy Agency data show that demand remains outstripped by supply.

However, implied US oil demand has trended upwards since 2011, reflecting a recovery from the GFC and since 2014 lower retail prices. The US Energy Information Administration forecasts that retail petrol prices will not return to 2015 levels until 2018.

Chinese crude oil imports gained momentum since H2 2015 as the Chinese government loosened the importing rules for independent refiners, combined with expanding domestic crude oil importing and refining capacity. In 2016, total Chinese crude imports in 2016 rose by 13.6% relative to 2015 to hit a record high level of 381 million tonnes, or 7.46mb/day.

This surge in refining capacity has caused an overcapacity problem in the Chinese oil processing industry. Combined with a glut in domestic refined petroleum products, last year saw a record level of Chinese fuel exports into the Asian market. We expect Chinese crude import demand growth to ease slightly this year but still proceeding at a relatively healthy rate of between 6% to 9%.

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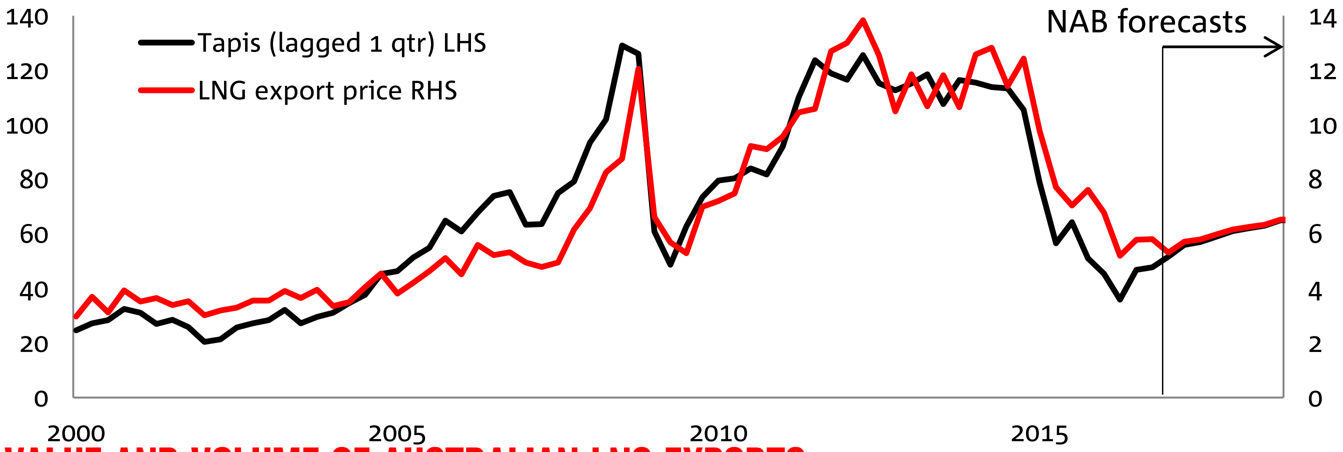
IMPLICATIONS FOR AUSTRALIAN LNG

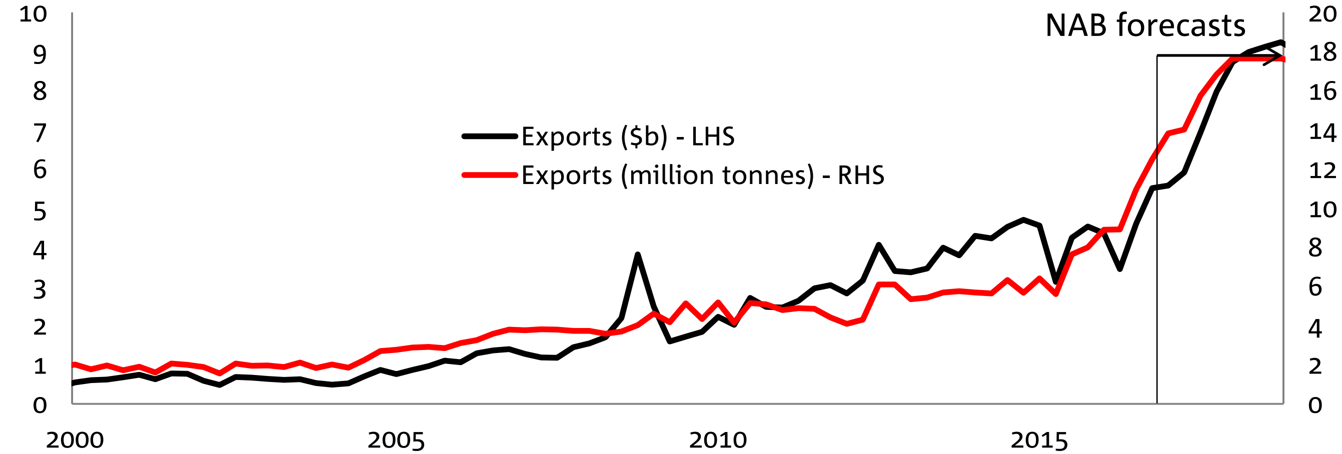
NAB LNG EXPORT PRICE INDICATOR AND LAGGED OIL PRICES

USD/bbl (LHS), USD/GJ (RHS)



VALUE AND VOLUME OF AUSTRALIAN LNG EXPORTS

AUD billion per quarter (LHS), million tonnes per quarter (RHS)



Source: Bloomberg, Poten & Partners, APPEA, Department of Industry, Australian Bureau of Statistics and NAB Group Economics

We have developed an Australian LNG export price indicator based on Australian Bureau of Statistics international trade data and LNG cargoes. A history of this series from 2000 is shown to the left.

East Asian LNG prices have fallen significantly since mid-2014 on the back of lower oil prices, to which many LNG contracts are tied. For example, most Japanese LNG contracts are based on the Japan Crude Cocktail (JCC) – the import price of crude oil into Japan.

In line with our expectation for moderately higher oil prices and a lower Australian Dollar, we see AUD denominated Australian export prices to increase this year.

We place NAB's Australian LNG export price indicator at around AUD8.50/GJ by the end of 2017, heading closer to AUD9.50/GJ by the end of 2018. We see the value of Australian LNG exports at approaching AUD26.4 billion in 2017.

For more information, see our January Natural Gas and LNG Market Outlook.

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APPENDIX I: NAB OIL PRICE FORECASTS

	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18
Brent	55	56	58	60	61	62	64	64
Tapis	56	57	59	61	62	63	65	65
WTI	53	54	56	58	59	60	62	62
Australian petrol (AUc/l)	133	134	138	140	143	145	148	147

Source: Bloomberg, Thomson Datastream, EIA and NAB Group Economics