MINERALS & ENERGY OUTLOOK

FEBRUARY 2017

National Australia Bank

Key Points:

- **An improved outlook for fundamentals has helped to sustain the enthusiasm in commodity markets, despite the fact that the USD generally strengthened against major currencies in the final quarter of 2016 – albeit losing some ground recently.** Some economic indicators suggest an improvement in global demand prospects, while supply conditions have improved noticeably in some markets. **Despite some lingering (and significant) uncertainties, these developments have prompted us to revise up our near-term forecast for NAB's Commodity Price Index.**
- Largely reflecting sharply higher bulk commodity prices, **the NAB USD non-rural commodity price index is now expected to rise by around 22% in 2017,** although this masks an anticipated correction in bulks prices; **the index is forecast to be down 6% over the year to December 2017.** Given the anticipated USD appreciation, prices will be somewhat stronger in AUD terms. NAB forecasts the AUD to bottom at around 68 US cents by mid 2018. **Overall, the Australian terms of trade is expected to resume its gradual descent following a short-lived rise in the near term.**
- Since the landmark deal between OPEC and non-OPEC members to trim **oil** production by 1.8mb/day was struck in November, there is anecdotal evidence to suggest that the collective agreed cuts are progressing according to schedule. As a result, oil prices have stabilised around 15% above the pre-deal levels, with Brent and Tapis futures rising disproportionately more than WTI. The upward pressure on oil prices has been partly offset by rising US production since October last year, which is expected continue for the rest of 2017. **We now expect oil prices to average around the mid to high USD50s in Q1 and Q2, before reaching the low USD60s by end-17 and stabilising at around those levels in 2018.**
- While **LNG export prices are likely to stay subdued for some time, increased volume will see the value of exports increase significantly**. We forecast the annual value of Australian LNG exports to exceed AUD 27 billion in 2017 and approach AUD 35 billion in 2018.
- **Bulk commodities** prices have remained elevated in recent months – however coal prices started to fall, as Chinese government imposed restrictions on coal mining have eased, boosting domestic supply. Slowing Chinese construction activity in 2017 is expected to weaken steel demand, and with it, demand for iron ore and metallurgical coal. Given the stronger starting point for prices (compared with our last Minerals & Energy Outlook), we have revised our forecasts higher – **iron ore is forecast to average US$66 a tonne and hard coking coal to average US$208 a tonne in 2017. Our forecast for the thermal coal contract price is unchanged at US$65 a tonne, however we note that high current spot prices add some upside risk to this forecast.**
- Prices across the **base metals** complex have generally been stronger than expected in recent months, prompting some upward revisions to our price forecasts. The **outlook on zinc remains the most positive** due to supply shortages, while copper, aluminium and lead markets are well supplied, which should keep a lid on prices. Nickel remains susceptible to policy changes.
- Demand for **gold** as a safe haven asset is likely to increase this year, as global geopolitical risk aversion grows on the back of the unorthodox policies by a Trump presidency, continued uncertainty surrounding the terms of Brexit, as well as a general rise in populist politics in Europe. That said, the overarching narrative of an expected acceleration in US Fed funds rate hikes, with Fed officials indicating three 25bps hikes before the end of 2017 (NAB is forecasting two 25bps hikes in the June and December quarters), will be the dominant driver of gold prices this year. **Overall, we continue to expect gold prices to follow a mild downward trend in 2017 and 2018 US as Fed monetary tightening gains pace, with prices easing to US$1140/oz by end-17 and US$1060/oz by end-18.**

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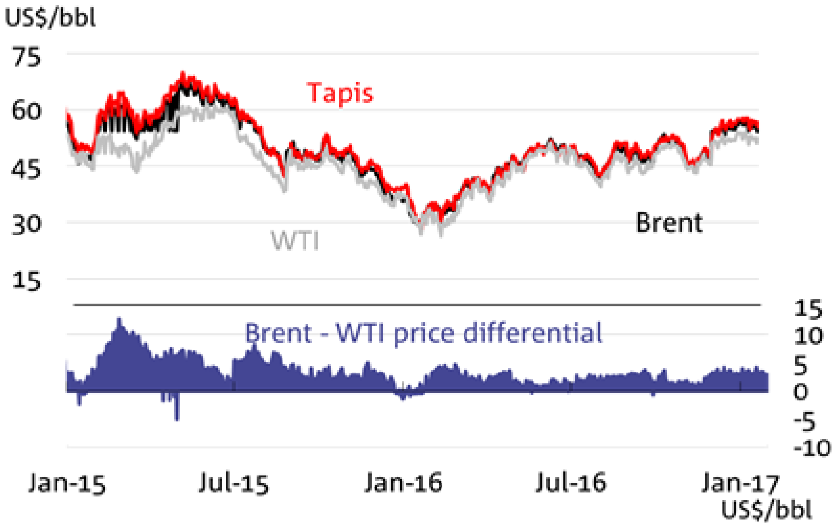
OIL

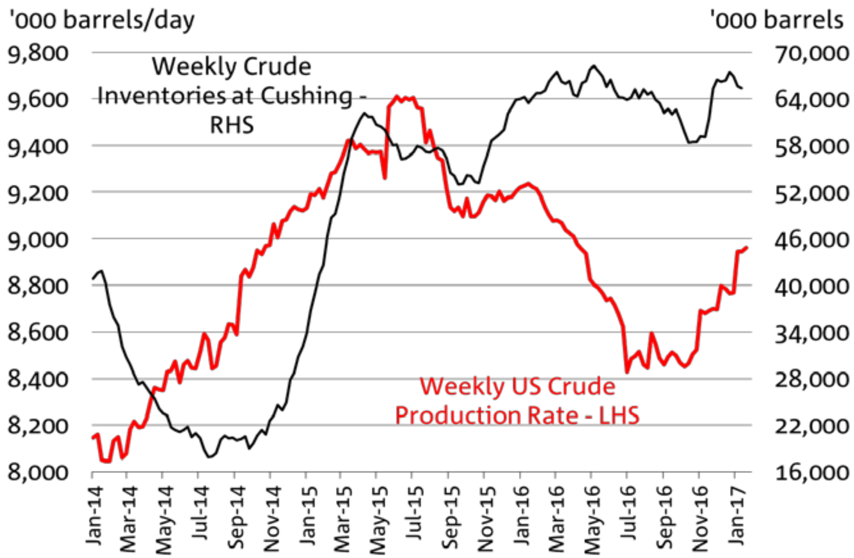
Oil prices buffered by credible cuts from major OPEC & non-OPEC producers

DAILY OIL PRICES (USD/BARREL)



Source: Thomson Datastream

WEEKLY US CRUDE PRODUCTION AND INVENTORIES AT THE CUSHING DELIVERY HUB



Source: Bloomberg, NAB Group Economics

- January represents the first month of implementation for the landmark deal between OPEC and non-OPEC members to trim oil production by 1.8mb/day. As of late January, Saudi Arabia indicated that more than 80% of the targeted reduction had been implemented. So far oil market investors and analysts appear to be convinced of the progress in the production cuts, with oil prices stabilising around 15% above the pre-deal levels. Brent and Tapis futures, which are more closely linked with the Middle Eastern and Asian markets, have risen disproportionately more than WTI, widening the Brent-WTI differential to the highest level since February last year. In January, Brent, Tapis and WTI averaged around USD56/bbl, USD57/bbl and USD53/bbl respectively. By early February we should have firmer data on the cuts achieved in January, and if they do come in line with or exceed the pre-agreed targets, prices are expected to average slightly higher in coming months.
- The upward pressure on oil prices has been partly offsetting some of the effects of the agreed cuts on prices is the by rising US production since October last year. According to the more timely but perhaps less accurate weekly US production data (as compared to the monthly series), the country pumped an average of 8.9mb/day in the first three weeks of January, compared to the 8.5mb/day in October. Against a backdrop of higher crude prices at the moment, we expect US crude production to continue to pick up pace. However, the rise in US production is expected to be smaller than the much larger and swifter cuts by other OPEC/non-OPEC producers, which should see the overall oil market returning to balance by H2 this year.
- At this stage, Saudi Arabia has not ruled out walking away from the deal after the initial six months, with the country's oil minister, Khalid al-Falih suggesting the possibility of the global market descending into a shortage if the deal is in place beyond six months. From a strategic perspective, there is also the risk of the participants losing market share to US shale producers should production cuts be prolonged beyond the optimal time frame.
- Given that oil prices have risen by slightly more than expected on the back of the November deal and news pointing to a generally high level of compliance among its participants with their allocated quota , we have revised our oil forecasts slightly higher in the short term, while continuing to believe that the heightened competition between global producers are likely to keep a lid on "terminal" equilibrium prices. **We now expect oil prices to average around the mid to high USD50s in Q1 and Q2, before reaching low USD60s by end-17 and stabilising at around those levels in 2018.**

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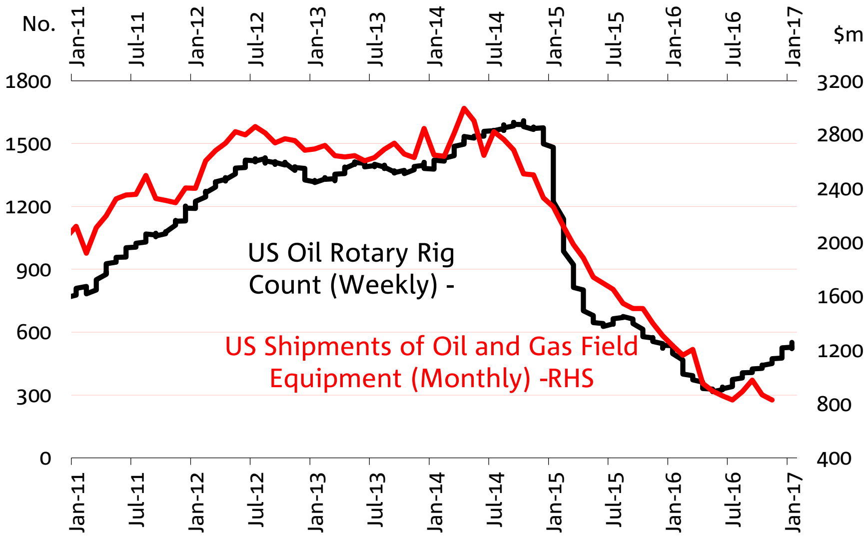
OIL (CON'T)

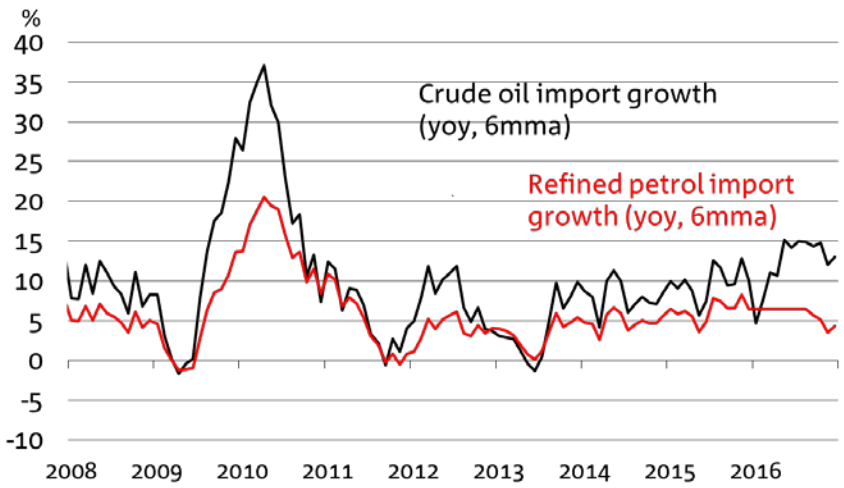
US crude production has turned the corner and expected to rise further

US OIL RIG COUNT AND IMPORTS OF OIL AND GAS FIELD EQUIPMENT



Source: EIA, NAB Group Economics

CHINESE CRUDE OIL AND REFINED PETROLEUM IMPORT GROWTH



Source: Bloomberg, NAB Group Economics

THE OUTLOOK FOR US PRODUCTION

- Corresponding to a gradual recovery in oil prices since January last year, US oil producers have become more optimistic in undertaking further exploratory and extraction activity, as evident in the rising trend of the rotary rig count in North America since early June last year. As of the third week of January, the Baker Hughes rotary rig count had increased by 250 since its lowest level of 316 during the last week of May. At this level, however, the rig count is still around 65% lower than the peak of 1609 in October 2014.
- Meanwhile, capital expenditure by US oil companies remains subdued, as indicated by the weak import shipments of oil and gas field equipment. Some industry analysts expect capital expenditure by US oil companies to rise above USD 60bn in 2017, but this figure is well below the record level of USD 200bn in 2014. This suggests that the positive supply response by US producers is expected to progress in a relatively more gradual (albeit still notable) manner in the next few months, but should accelerate once productive capacity is ramped up more significantly through additional capital investment. The US Energy Information Administration has revised its forecasts US production for 2017 upwards in recent months, now expecting it to average around 9.0mb/day, from 8.89mb/d in 2016. However, this is still too low in our opinion given that the weekly production is already inching towards the 9mb/day mark. **We expect US production for 2017 to average around 9.3mb/day.**

CHINESE DEMAND

- Chinese crude oil imports have gained momentum since H2 2015 as the Chinese government loosened the importing rules for independent refiners, or the so-called "teapot refiners", in conjunction with rapidly 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.
- A surge in refining capacity in 2016 has resulted in an overcapacity problem in the Chinese oil processing industry at present, with refiners running at around 79%of capacity utilisation on average, according to the latest data of October 2016. This is accompanied by a persistent glut in the domestic refined petroleum products market, which in turn led to a record level of Chinese fuel exports into an already saturated Asian market last year. The state-owned oil producer CNPC forecasts a further 55% surge in diesel exports by the country in 2017, which could drive Asian diesel prices lower. As such, **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% , which will contribute to the rebalancing of the global oil market towards the end of this year.**

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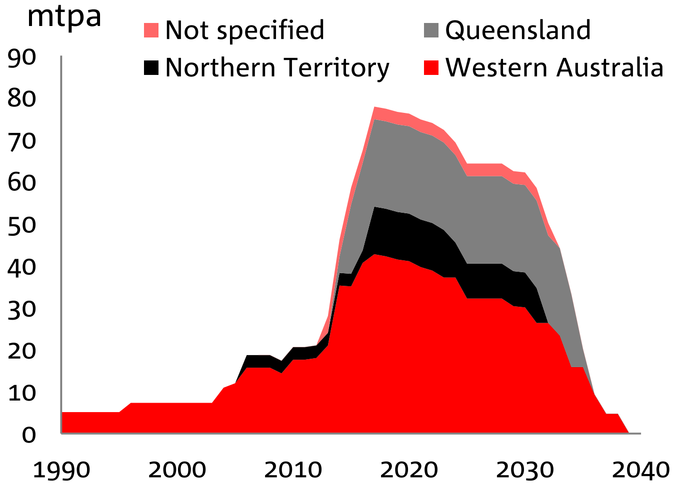
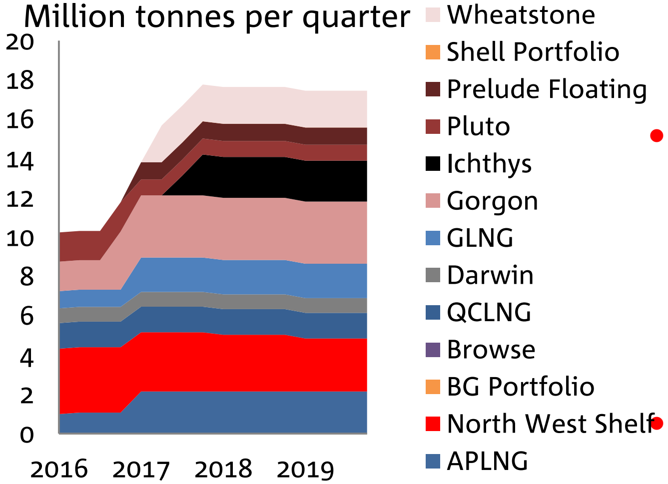
NATURAL GAS AND LNG

Supply is ramping up with final terminals nearing completion

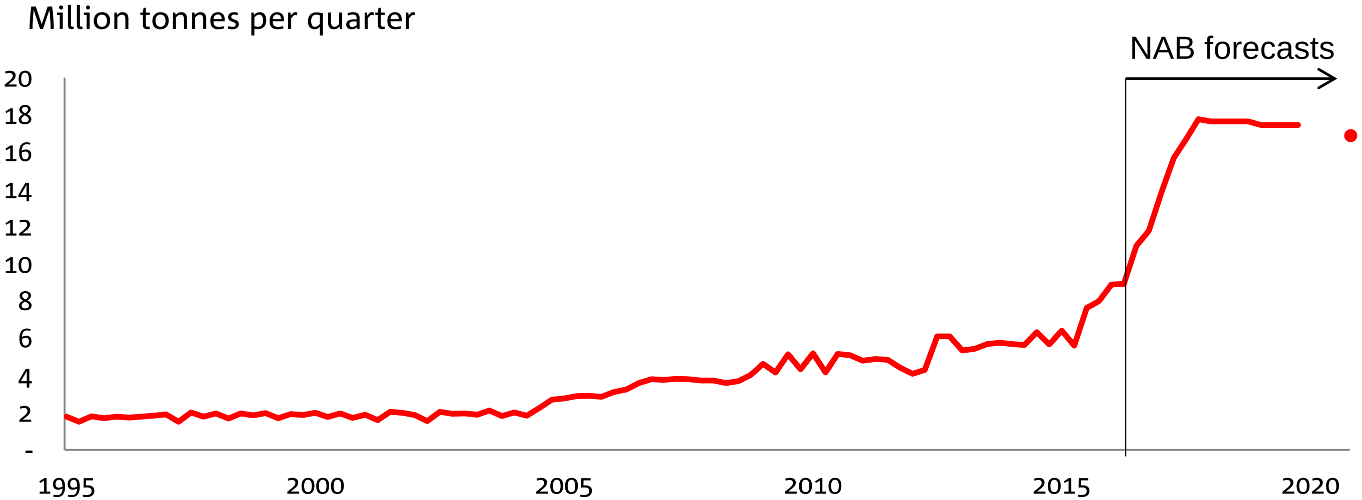
CONTRACTED LNG SUPPLY



FORECAST OUTPUT PER TERMINAL



AUSTRALIAN LNG EXPORT VOLUME



- 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. However, the ramp-up in production is progressing slower than expected, and some terminals are running well below capacity amid an oversupplied global market.
- Contracted volumes are likely to be lower, reflecting the fact that that while most production is tied up in long term contracts, there may be lower than expected demand for spot cargoes in the face of international competition and expanding global supply.
- Australia exported 27.6 million tonnes of LNG in 2015 and likely over 40 million tonnes in 2016. **We forecast that exports will total around 64 million tonnes in 2017 and over 70 million tonnes in 2018.**

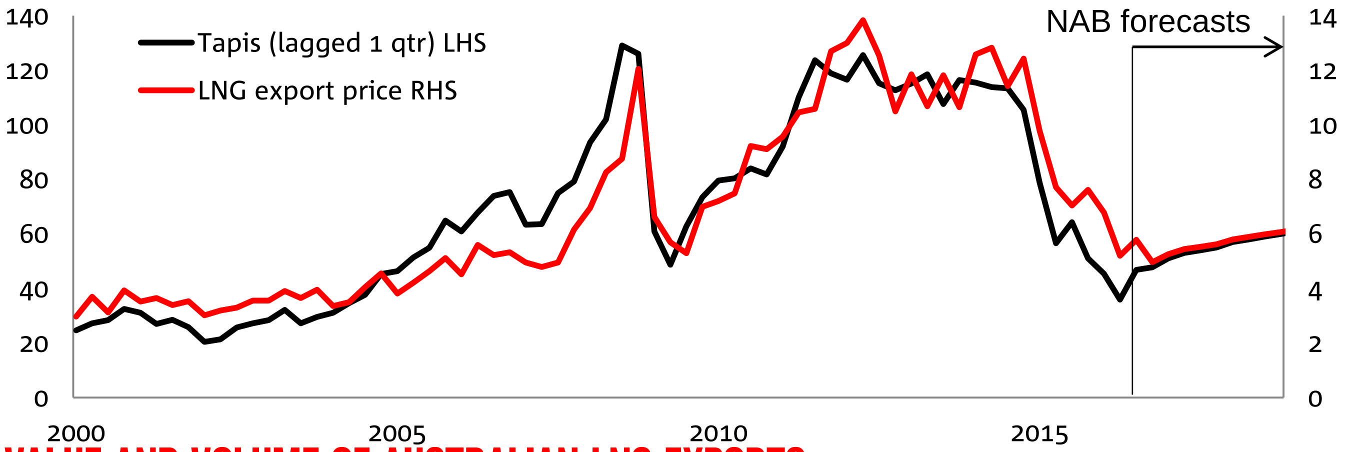
Source: Bloomberg, Poten & Partners, APPEA, Department of Industry, Australian Bureau of Statistics Oxford Institute for Energy Studies and NAB Group Economics

NATURAL GAS AND LNG (CON'T)

Partial price recovery expected but still well below peaks

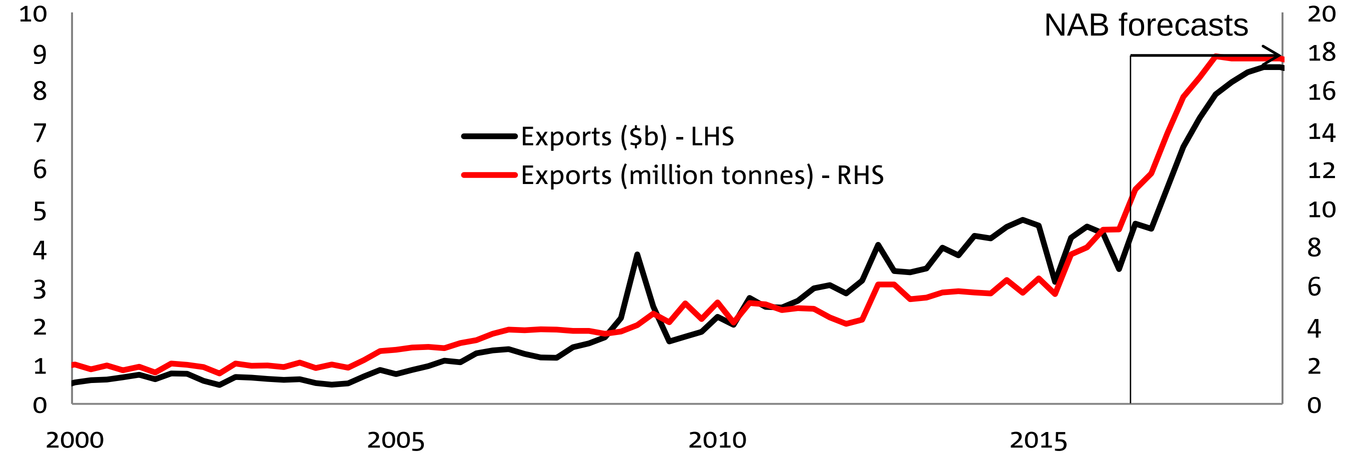
NAB LNG EXPORT PRICE INDICATOR AND LAGGED OIL PRICES

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

- Global LNG prices have fallen significantly since mid-2014 on the back of lower oil prices, to which many LNG contracts are tied. While global dynamics have been somewhat more favourable of late, prices remain well below previous peaks and new supply from competitors will place further pressure on the market. **We expect our Australian LNG export price indicator to finish 2017 at around AUD8.50/GJ.**
- In export value terms, the lower prices will be offset by the increased supply. We see the value of Australian LNG exports at approaching AUD17 billion in 2016, a slight increase on 2015. However, the value of exports should climb steadily in 2017 and 2018.
- The exposure of eastern Australia to LNG export markets will have far-reaching implications for domestic gas use. Wholesale prices are likely to increase significantly and some questions remain over the availability of commercially recoverable gas from Queensland coal seam gas fields.
- For more information, see our January Natural Gas and LNG Market Outlook.

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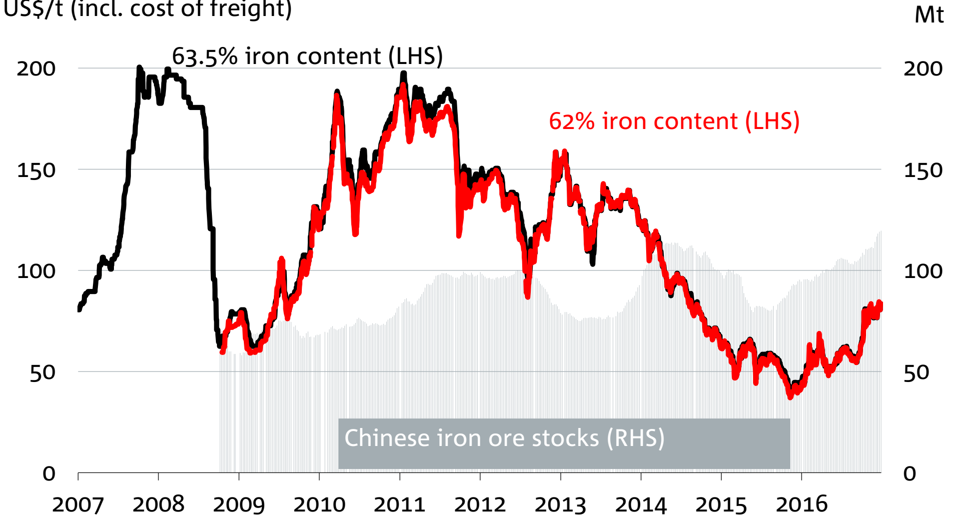
IRON ORE

Prices rally despite record Chinese ore stockpiles

IRON ORE RALLIES AGAIN – BACK TO US$80/T

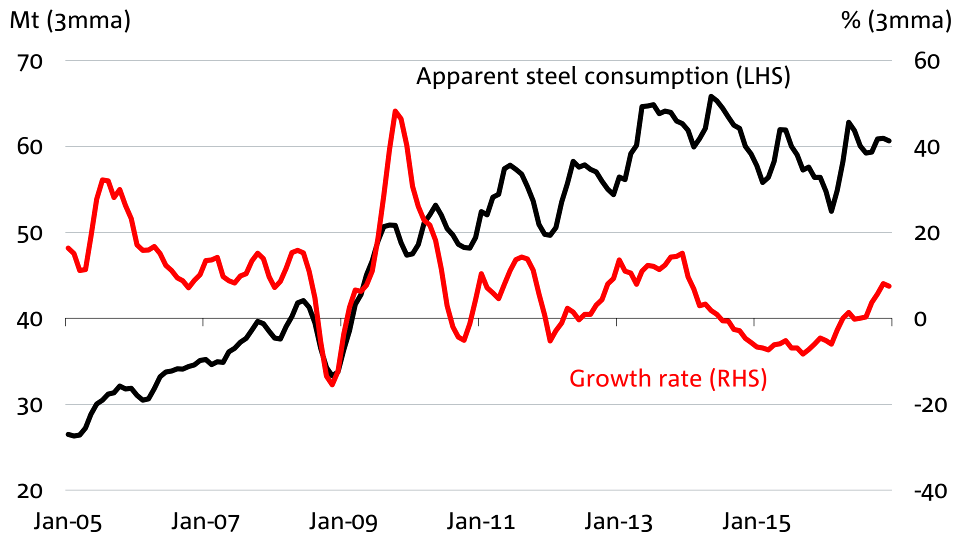
Record ore stockpiles fail to dampen price gains



Source: Bloomberg, Thomson Datastream, NAB Economics

STEEL CONSUMPTION RISES FROM EARLY '16 LOWS

But remains below 2013 and 2014 levels



Sources: CEIC, Bloomberg, NAB Economics

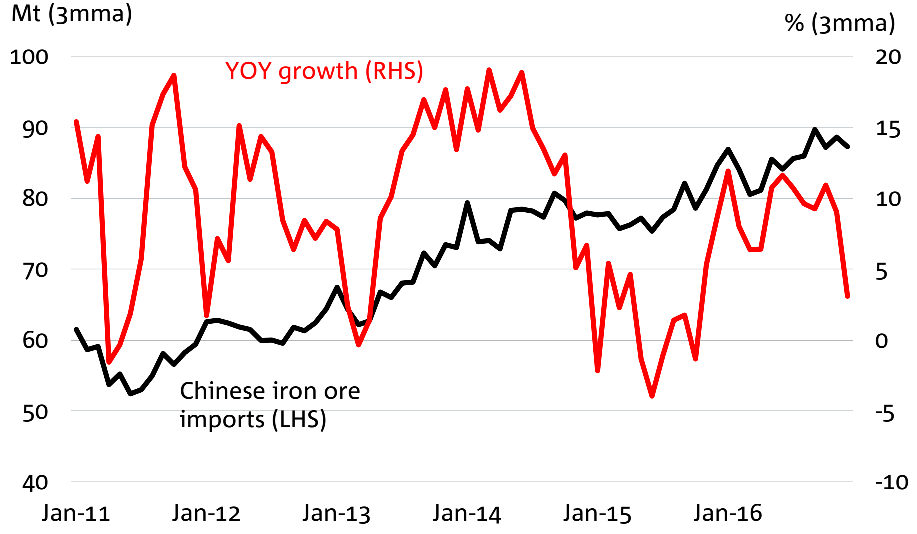
- Iron ore prices jumped in the latter part of 2016. Between mid-October and mid-November, iron ore spot prices rose from around US$55 a tonne to around US$80 a tonne. This increase came despite a rising trend in Chinese ore stocks – with stocks reaching a record high of almost 120 million tonnes in late January – and confirmation of further efforts to reduce excess steel capacity in China.
- China's steel consumption accelerated from the second quarter of 2016, driven by a credit-fuelled construction boom. However despite a 2.0% increase in apparent steel consumption in 2016, consumption remained well below the levels recorded in 2013 and 2014.
- Chinese policy makers have been concerned by surging property prices and the resulting construction boom, introducing a range of measures to slow the sector (including tighter purchase requirements and pressure on banks to reduce mortgage lending). While these measures appear to be slowing property price growth, they are yet to clearly flow through to the construction sector. Construction starts contracted in year-on-year terms between September and November before surging again in December. **We expect these measures to impact construction activity in 2017, reducing China's steel demand (and by extension, iron ore demand as well).**
- Global steel production rose marginally in 2016 – up by 0.5% to 1.63 billion tonnes (adjusting for Chinese steel data). The bulk of the increase was recorded in India and China, somewhat offset by falls in the United Kingdom, Brazil, South Korea and Spain.
- China produced just under half the global total – at around 808 million tonnes. This was an increase of 0.6%.
- Profitability for Chinese steel mills improved considerably in 2016 – reflecting a rising trend in Chinese steel prices over the year. Benchmark hot rolled coil prices in early January 2017 were around RMB 3780 a tonne – more than double the record lows recorded in December 2015.

IRON ORE cont.

Weaker Chinese steel output to lower iron ore prices in coming years

CHINA IRON ORE IMPORTS

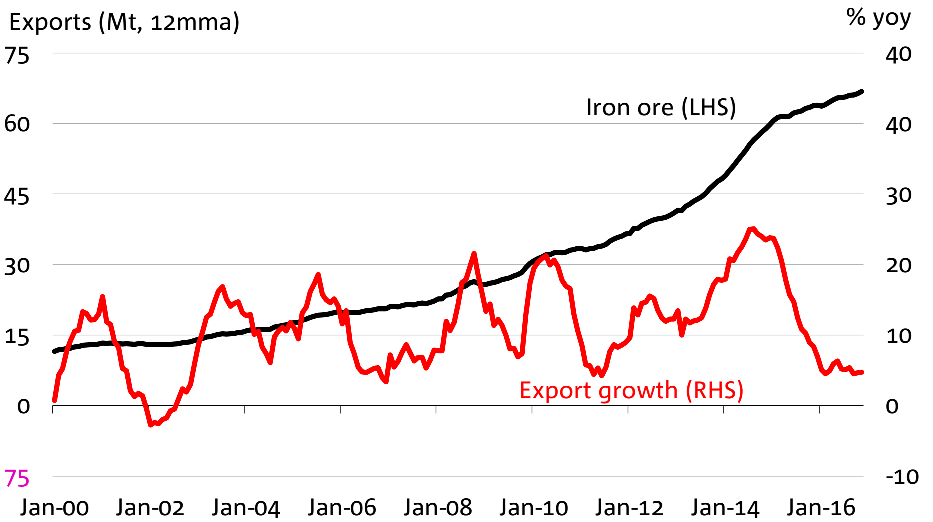
Chinese steel increasingly underpinned by imported ore



Source: CEIC, NAB Economics

AUSTRALIAN IRON ORE EXPORTS

Export growth has slowed in line with steel output



Sources: Bloomberg, NAB Economics

- China's domestic iron ore production fell in 2016 – down 5.7% to 1.3 billion tonnes (compared with a peak of almost 1.5 billion tonnes in 2014). Lower production and lower apparent ore grades have resulted in imported ore supplying an increasing share of China's steel requirements – at around 92% in 2016 (from 86% in 2015).
- China's steel exports fell by 3.0% in 2016, to 109 million tonnes (or around 13.5% of total steel production) – that said, exports rose over the first seven months of the year, until the introduction of steel-specific tariffs in the United States and European Union in May and July began to exert an impact. Allegations of steel dumping in global markets, and the constraints to trade imposed by major markets suggests there is limited upside to Chinese steel exports in the short term.
- Longer-term prospects are also constrained by efforts to reduce steel capacity. Last year, China's State Council announced plans to cut crude steel capacity by between 100 and 150 million tonnes by 2020 – with 45 million tonnes of cuts scheduled for 2016. According to the National Development and Reform Commission (NDRC), this target was met by the end of October (albeit around three-quarters of this capacity was no longer producing).
- Australian iron ore exports have recorded weaker growth recently (compared with the surging rates recorded between 2012 and 2015) – with exports rising by 5.0% yoy in the first eleven months of 2016. Almost 82% of Australian iron ore was exported to China over this period.
- **We expect weaker Chinese steel demand to impact global iron ore markets in 2017, putting downward pressure on ore prices – which are forecast to decline across the year to around US$60 a tonne by the end of 2017, and average US$55 a tonne in 2018.**

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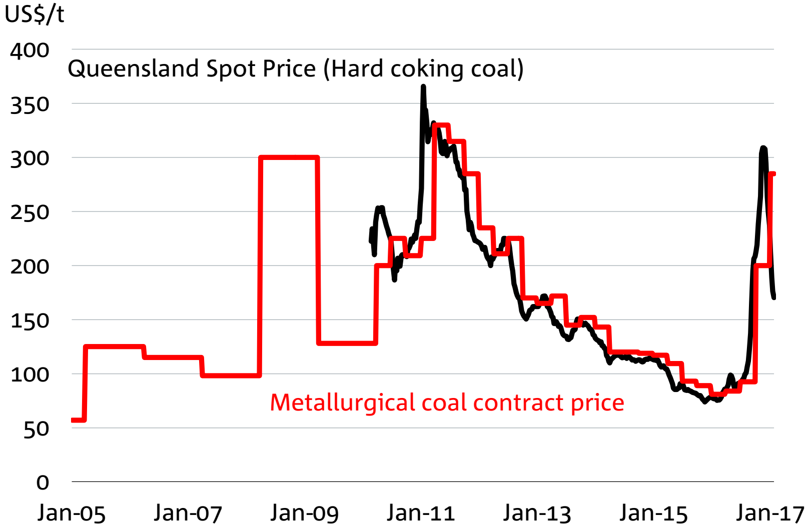
METALLURGICAL COAL

Prices have fallen as Chinese authorities ease imposed supply constraints

COKING COAL PLUNGES FROM NOVEMBER PEAKS

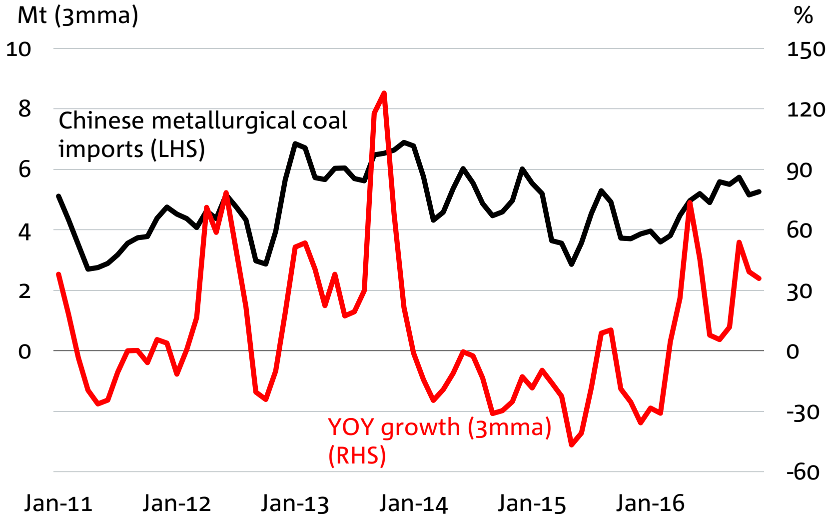
Greater Chinese supply has cooled global markets



Source: Bloomberg, Datastream, NAB Economics

CHINA'S METALLURGICAL COAL IMPORTS

Supply constraints sent steel mills back to global markets



Source: CEIC, NAB Economics

- Having peaked at over US$300 a tonne in November 2016, spot prices for hard coking coal have fallen rapidly, as an easing in Chinese supply constraints cooled global markets. In mid-January, spot prices fell to US$176 a tonne in late January – comparable to levels previously seen in late 2012.
- Chinese coal mining profits have plunged since 2011 which, combined with the highly indebted nature of the sector, inspired Chinese authorities to restrict the number of days mines could operate – notionally cutting supply by around 15%. This led to a sharp fall in domestic coal output, forcing coal consumers back to tightly supplied seaborne markets – driving global prices higher.
- In 2016, China imported 59 million tonnes of metallurgical coal, an increase of almost 24% – in stark contrast to the steep declines exhibited across 2014 and 2015, with imports peaking at 75 million tonnes in 2013.
- In mid-November, China's National Development and Reform Commission announced that it would ease the restrictions, allowing all mines to return to previous production levels until the end of the winter heating period in mid-March.
- Coal output in December was 311 million tonnes – marginally below the level recorded last year, but also the strongest level in 2016. **There remains some uncertainty for production levels beyond March 2017, but we expect any future production restrictions to be less severe – allowing hard coking coal prices to eventually settle closer to US$100 a tonne.**
- Global producers were slow to respond to the surge in Chinese demand – given the closure of high- cost capacity in the United States, Canada and Australia. US exports fell by over 15% year-on-year in the first eleven months of 2016, compared with falls of 0.6% yoy in Australia and Canada over the same period.
- **Quarterly hard coking coal contract prices for the first quarter of 2017 were settled at US$285 a tonne in mid-December. We expect stronger domestic coal production in China and weaker demand (reflecting slowing Chinese construction activity) to push prices lower across 2017 (with contract prices down to US$150 a tonne by year end). Further declines in 2018 (to US$100 by year end) are predicated on weaker steel output and less stringent restrictions on coal miners than those seen in 2016.**

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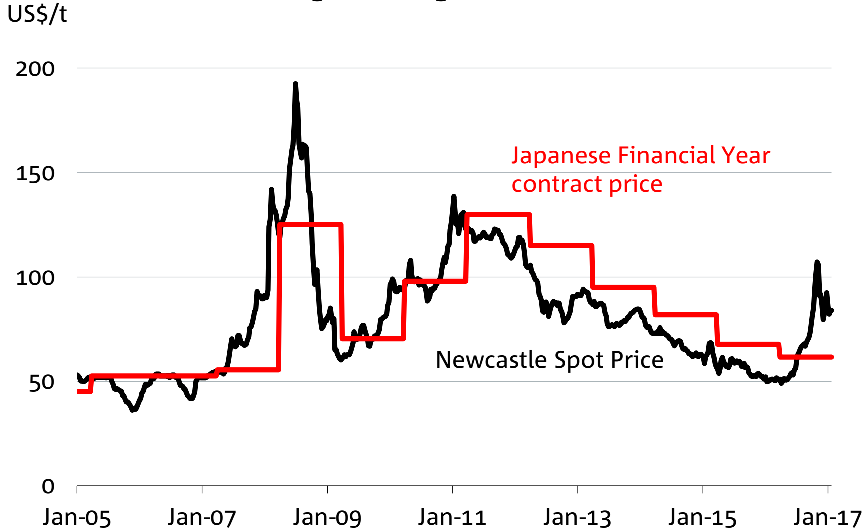
THERMAL COAL

Prices gradually decline as China's policy easing cools markets

THERMAL COAL PRICES STARTING TO EASE

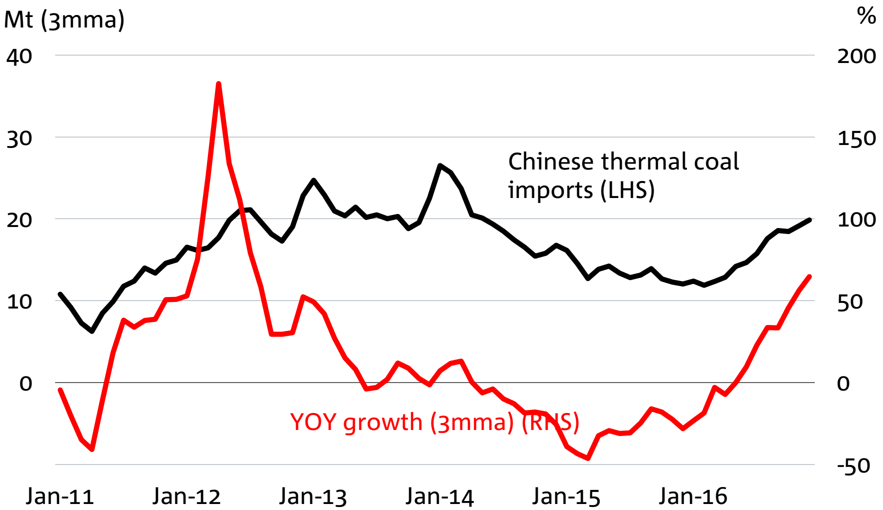
Prices followed coking coal higher



Source: Bloomberg, BREE, NAB Economics

CHINA'S THERMAL COAL IMPORTS SURGED IN 2016

Higher domestic production should cut import demand



Source: CEIC, NAB Economics

- Spot prices for thermal coal climbed rapidly in the second half of 2016 – albeit less significantly than the dramatic increases seen in metallurgical coal markets. In early November 2016, prices peaked at around US$110 a tonne, before retreating to the low-to-mid US$80s range, as supply pressures eased.
- In 2016, China produced almost 3.3 billion tonnes of coal (thermal and metallurgical), a decline of 8.7%. Coal output has fallen since a peak of almost 4.0 billion tonnes in 2013, with China's growing energy needs being met increasingly by oil (in transport), natural gas and renewables. This was exacerbated by the government imposed constraints on coal production introduced in 2016 – intended to improve domestic profitability.
- China's thermal coal imports surged across the year – as major coal consumers turned to seaborne markets to meet the shortfall from domestic producers. In 2016, China imported 196 million tonnes of thermal coal – an increase of 26%. We argue that this stronger trend for Chinese imports is likely to be a short- term one – given the decline in Chinese domestic demand for coal seen since 2013.
- Demand from other major importers has been weak – India's imports fell by around 9% in 2016 to 145 million tonnes (Bloomberg), as growing domestic coal production is increasingly meeting demand. Similarly, thermal coal imports in Japan fell by around 3.2% year- on- year in the first eleven months of 2016. There is little prospect for significant increases in coming years – given India's goal of eliminating coal imports completely.
- Australian thermal coal exports have weakened in 2016, down by 1.8% yoy in the first eleven months of 2016 to 180 million tonnes.
- **The uncertainty around China's domestic coal policy beyond March 2017 adds some uncertainty to our price forecasts . However, like metallurgical coal, we expect any restrictions to be less stringent than before. Current spot prices near US$80 a tonne add some upside risk to our forecasts – which are currently unchanged at US$65 a tonne for the next Japanese financial year (commencing April 2017).**

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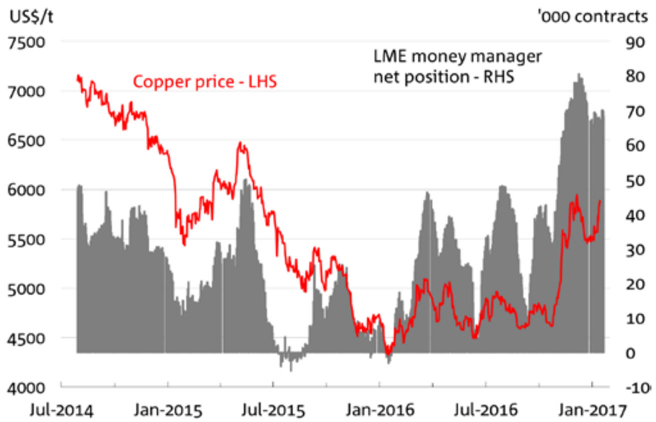
COPPER

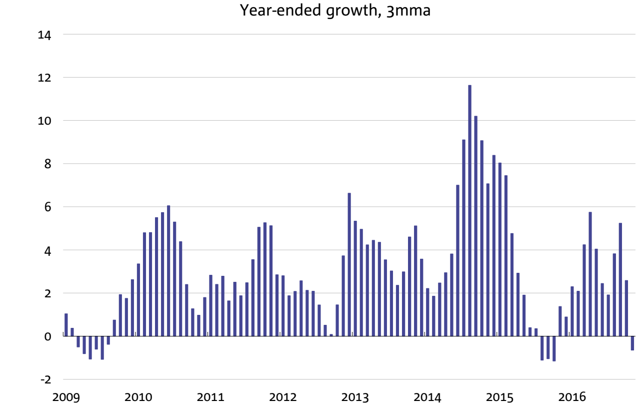
Prices surged on improved sentiment while downside risks remain

COPPER PRICES & POSITIONING



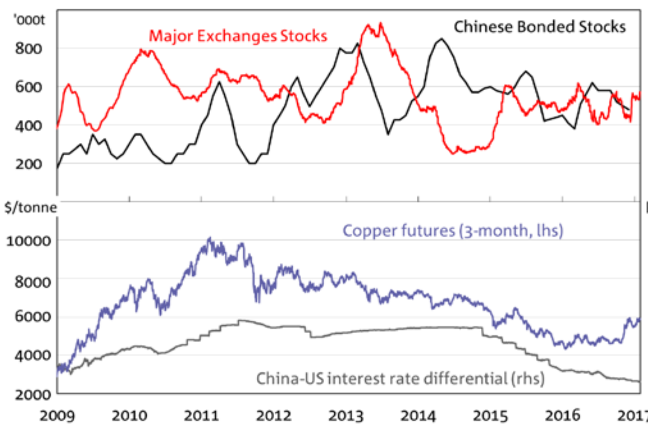
Sources: Bloomberg, NAB

GLOBAL REFINED COPPER PRODUCTION



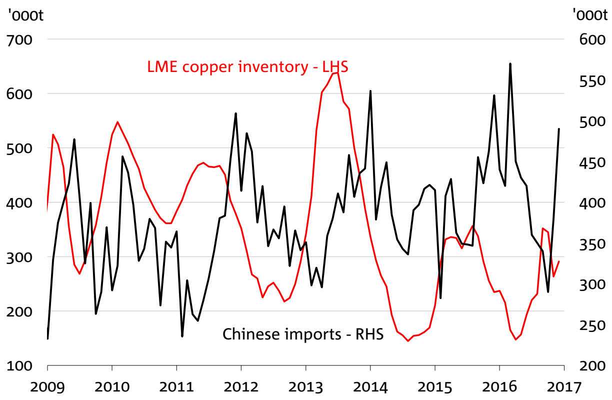
Sources: Bloomberg

COPPER FINANCING INCENTIVES



Source: Bloomberg, NAB

LME INVENTORY & CHINESE IMPORTS



Sources: NAB; Thomson Reuters

Base Metal Prices*

	Avg Price (US$/tonne) Dec-16	Sep-16 to Dec-16 % change, quarterly	Dec-15 to Dec-16 % change, annual
Aluminium	1728	8.5	15
Copper	5642	19.5	22
Lead	2195	12.7	28
Nickel	10916	7.1	25
Zinc	2655	15.8	74
Base Metals Index		13.7	28

* Prices on an LME cash basis.
Sources: LME; NAB

- **Copper prices surged in November on improved sentiment, as global commodity prices rose.** Prices were around $5800/t by the end of January, over 20% higher than October 2016 levels.
- The price surge followed improved sentiment in commodity markets, especially on Chinese demand and the new US administration's stimulus measures. Copper prices followed massive rises in coking coal, iron ore and zinc prices. While activity data showed Chinese economic growth picked up modestly in Q4, our forecasts remain unchanged at 6.5% in 2017 and 6.25% in 2018. The economy continues to shift towards the services sectors, although improved auto sales and the rising demand for electric vehicles could support underlying metals demand. The proposed increase in US infrastructure spending could also be a plus for commodities demand in general, but the lack of specifics makes the magnitude hard to assess.
- A significant risk to watch for remains the large scale copper carry trades. As the yuan continues to weaken, the prospect of the unwinding of these trades could release significant amount of metal into the market and depress prices. Traders however seem to remain bullish, with net open position at both the LME and COMEX reaching record highs, further contributing to price rises.
- On the supply front, global copper supply growth could slow to 1-2% in 2017 from around 4% in 2016, before increasing more rapidly in 2018 as more restarts come online, including the Glencore Kantaga project in the Congo. However, supply disruptions should be expected to remain an ongoing issue. The International Copper Study Group forecasts a small surplus in the copper market for 2017.
- **Overall, we forecast a largely balanced market for 2017 and a small surplus in 2018, with prices averaging $5670/t and $5620/t.**

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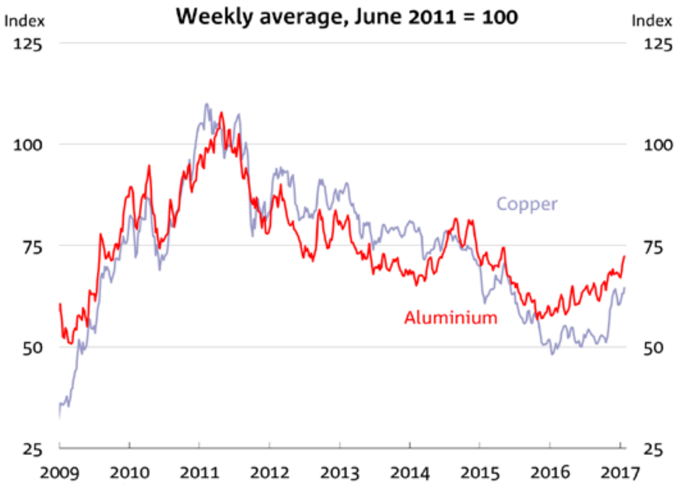
ALUMINIUM

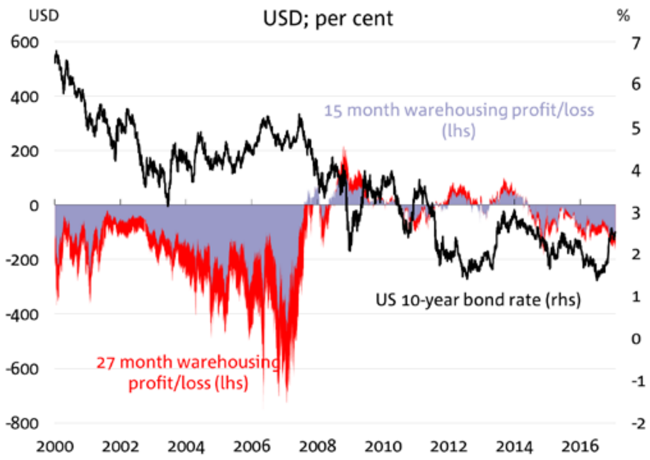
Over supply by China remains an issue

COPPER & ALUMINIUM PRICES (LME)



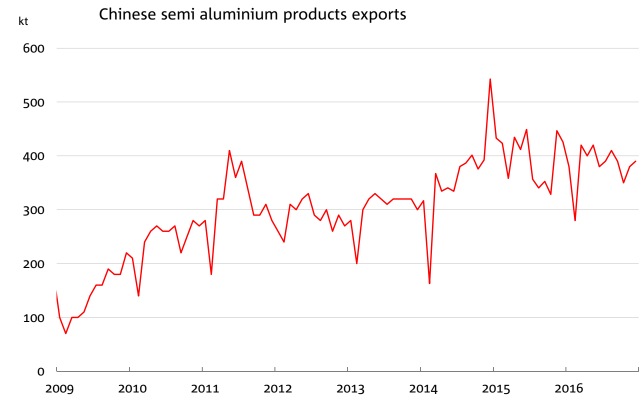
Sources: NAB; Thomson Reuters

ALUMINIUM WAREHOUSE INCENTIVES



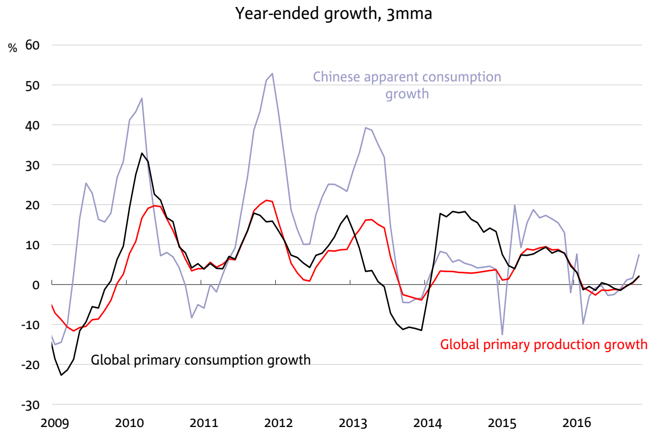
Sources: Bloomberg Industries; NAB

CHINESE SEMI ALUMINIUM EXPORTS



Sources: Bloomberg

ALUMINIUM PRODUCTION & CONSUMPTION



Sources: Bloomberg

- **Aluminium prices continued rising steadily, reaching a recent peak of US$1871/t in the fourth week of January 2017, but have since eased slightly to around US$1800/t. The aluminium market in 2017 will continue to be shaped by significant capacity additions in China, although government measures could curb supply growth.** While short term demand remains weak, the long term demand prospects are more promising as lighter- weight aluminium gains popularity in the car making and power sectors.
- Chinese producers are on track to add significant new smelting capacity in 2017, many of which have secured access to bauxite reserves from overseas and built captive coal mines with lower power costs. However, the government has singled out the industry in its new five year plan as having over-capacity and put in measures to curb supply growth. This combined with international pressure could see new supply growth slow down somewhat.
- Demand growth will continue to slow in China as the country moves towards a less resource-intensive growth model, while growth from the rest of the world is unable to offset these declines. However, some positive long-term trends exist for aluminium demand – the increasing use of aluminium sheets in car manufacturing and aluminium wire instead of copper in the power sector could boost underlying demand.
- Similar to the risks facing the copper market, the unwinding of metal carry trades could also release large quantities of aluminium into the market, especially as forward curves shift and the US interest rates rise.
- Overall, we forecast a well- supplied market in 2017, with prices averaging US$1779/t.

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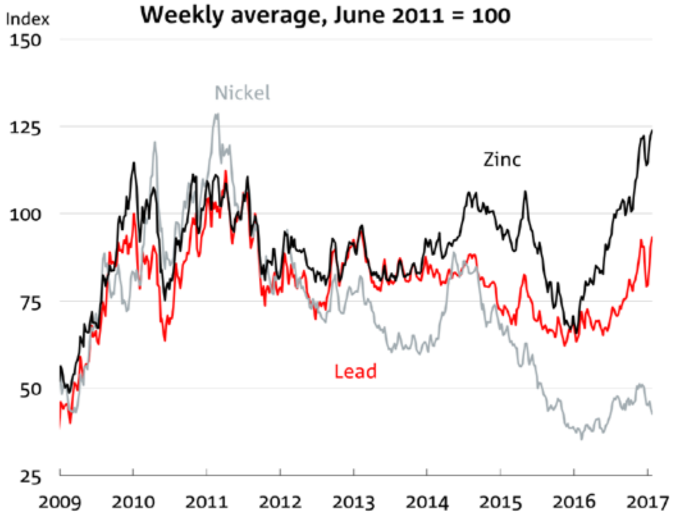
NICKEL, LEAD & ZINC

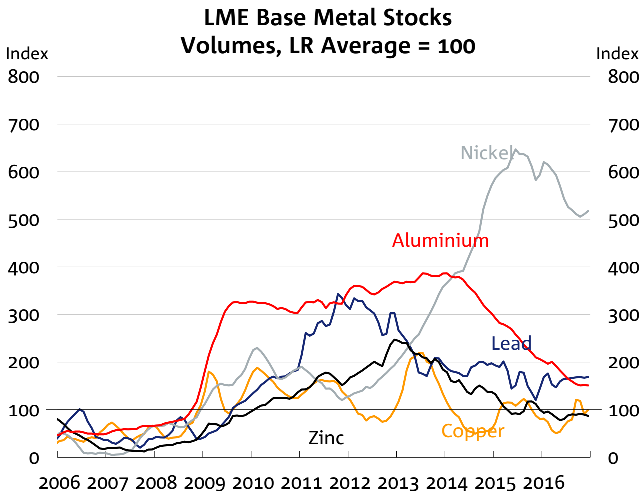
Zinc the best performer

NICKEL, LEAD & ZINC PRICES (LME)



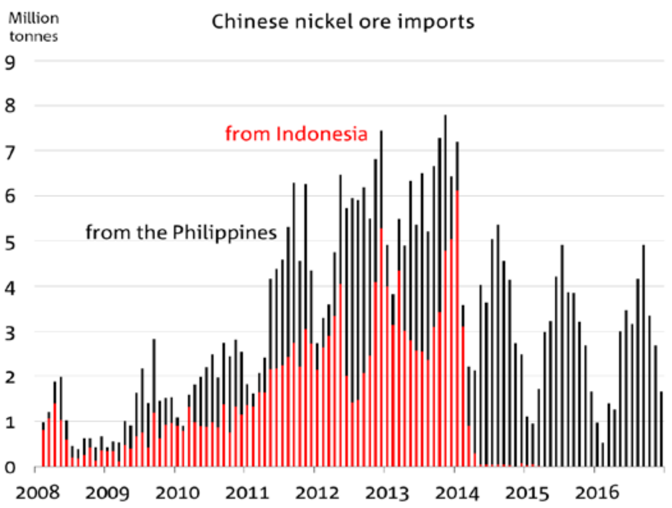
Sources: NAB; Thomson Reuters

LME STOCKS



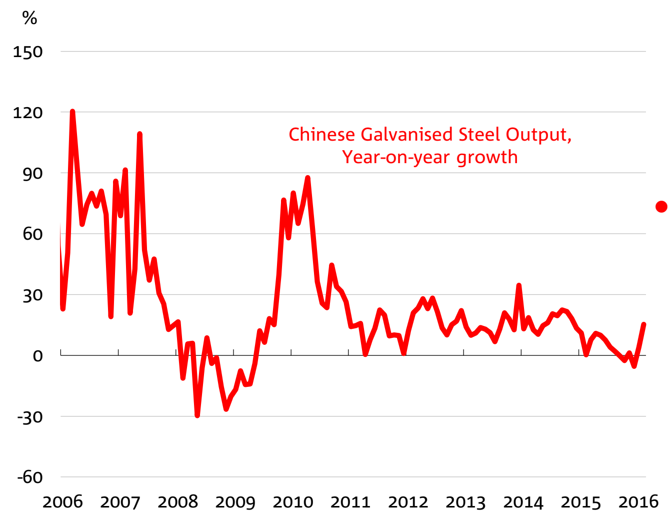
Sources: Datastream; NAB

CHINESE NICKEL IMPORTS



Source: Bloomberg; NAB Economics

CHINESE GALVANISED STEEL OUTPUT



Sources: Bloomberg; NAB Economics

- **Nickel** prices will remain susceptible to policy changes in major producing countries Indonesia and the Philippines. An earlier environmental audit of mines in the Philippines, and the subsequent announcement to shut a number of nickel mines, has seen prices surge, while stocks at the LME have been declining rapidly. However, Indonesia – who imposed export bans on raw ore exports in 2014 – has indicated it may relax its ban on nickel ore exports, fearing that it may lose market share to the Philippines. Ferronickel exports from Indonesia have also increased, as the country builds up its production capacity. Chinese nickel pig iron producers have also cut production, resulting in increasing ore stock levels at Chinese ports despite lower imports. A largely balanced market is expected for 2017, however supply risks remain.
- **Zinc** was the best performing base metal in 2016, driven by significant supply cuts. Production guidance by the biggest zinc miners: MMG, Glencore and Nyrstar, all pointed to supply reductions, which will tighten availability substantially. Demand from China, its biggest consumer, also held up. Overall, 2017 could see a significantly undersupplied market for zinc, while the deficit will narrow in 2018 with new supply being added in Australia and South Africa.
- **Lead** markets face weakening long- term demand prospects as its primary usage in batteries are increasingly being replaced by new materials including lithium and graphene, while tighter environment controls also weigh on its appeal. Supply is likely to continue weakening into 2017, as miners cut production in response to a period of depressed prices. However, new supply from countries including Russia could see the surplus rise again in 2018. On balance, the market will remain well supplied, especially after 2017.

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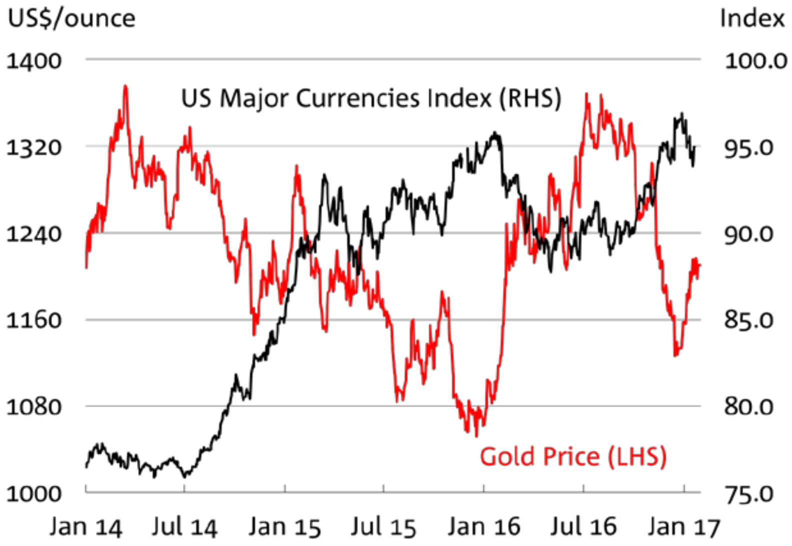
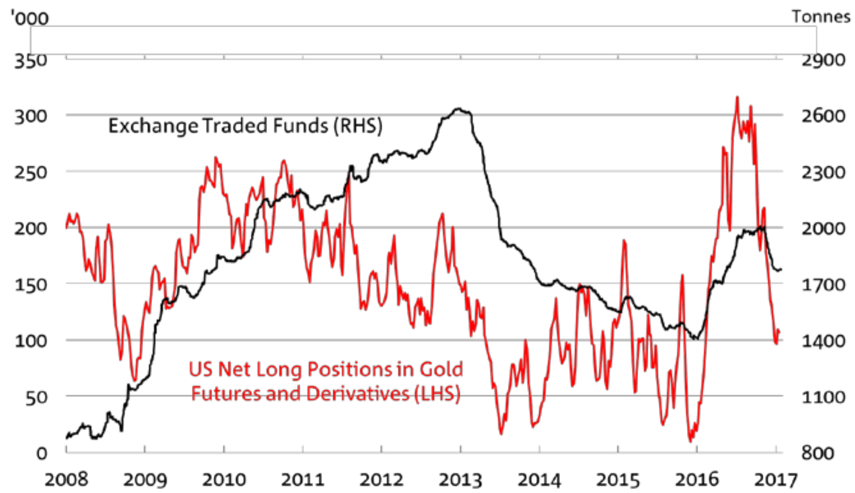
GOLD

Gold prices still expected to ease in 2017 despite higher geopolitical volatility

GOLD & USD INDEX



NET LONG POSITIONS IN GOLD FUTURES AND GOLD HOLDINGS INEXCHANGE TRADED FUNDS



Sources: Thomson Datastream, NAB

- Gold prices have been highly volatile in the past few months, falling sharply after Donald Trump's presidential win in response to a stronger USD, which was in turn driven by rising US Treasury yields on the back of the new President's hawkish and potentially inflationary election promises. However, it has rebounded sharply in the last couple of weeks as USD was jawboned lower by Trump's remarks that the USD is "too strong" during a pre-inauguration conference. At the same time, the uncertainty associated with Trump's unorthodox policies has also increased the appeal of gold as a safe-haven asset. Outside of the US, gold prices have also derived support from stronger physical demand by Chinese consumers ahead of Lunar New Year celebrations, which are associated with the gifting of gold jewellery. However, this driver appears to have dissipated as the holiday commenced last week. Over the past week, gold prices have lost their lustre slightly as near record-high US equity prices drew investors away from gold.
- It is fair to assume that US-driven geopolitical risk prospects have escalated this year due to the unconventional and protectionist policies that the Trump administration may undertake. This, combined with the uncertainty surrounding the terms of Brexit and the rise of populist politics in Europe in general, point to a broad-based rise in geopolitical risk aversion this year, which are likely to be a key upside driver of gold prices. Meanwhile, the overarching narrative of an expected acceleration in US Fed funds rate hikes this year, with Fed officials indicating three 25bps hikes before the end of 2017 (NAB is forecasting two 25bps hikes in the June and December quarters), will be the dominant force weighing on gold prices this year. Overall we believe that gold prices are likely to be more volatile this year, but characterised by a mild downward trend overall.
- The recent recovery in gold prices has witnessed a slowing in the net outflows from gold exchange traded funds (ETFs). The investment community is seemingly divided in their assessments of the implications of Trump's policies, with large mutual, pension and hedge funds subscribing to the views that Trump's proposed plans to increase fiscal stimulus are likely to be pro-growth and will benefit the equity markets (and hence bearish for gold). Meanwhile, retail investors' safe haven demand has picked up on concerns that Trump's protectionist policies will restrict trade and growth. The divergent views held by investors will again accentuate the short-term volatility of gold prices.
- **Overall, we continue to expect gold prices to follow a mild downward trend in 2017 and 2018 US as Fed monetary tightening gains pace, with prices easing to US$1140/oz by end-17 and US$1060/oz by end-18.**

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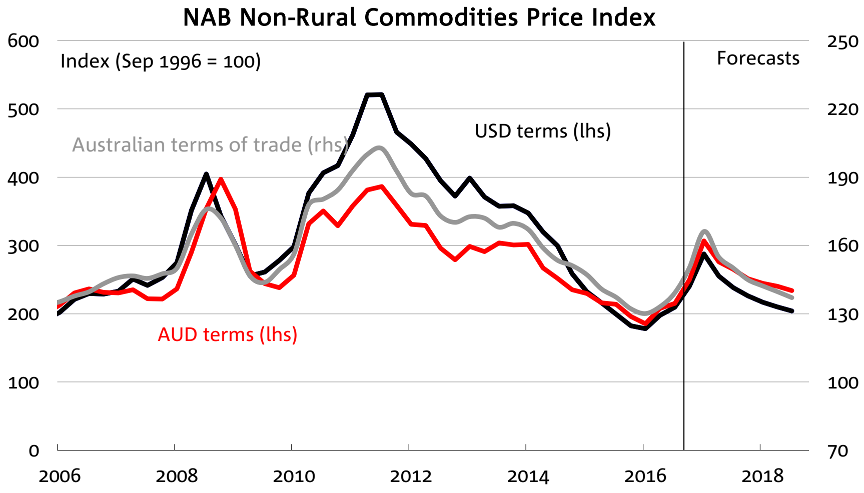
OUTLOOK

NEAR-TERM PRICES STRONGER THAN EXPECTED, BUT LONGER-TERM CORRECTION IS STILL EXPECTED

Index, September 1996 = 100



source: ABARES, ABS, Bloomberg, Thomson Datastream, NAB

- NAB's non-rural commodity price index is expected to rise a further 20% q/q in March 2017 (in US dollar terms), which follows a 14½% jump in the previous quarter – continuing the strongest rally in commodity prices since 2011. The rise in Q4 reflects increases essentially across the board, although gold and thermal coal retreated, while hard coking coal made by far the largest positive contribution.
- The USD generally strengthened against major currencies in the final quarter of 2016 – albeit losing some ground recently – but that seemed to do little to dissuade commodity market enthusiasm and took a back seat to generally improved expectations for fundamentals. Some economic indicators suggest an improvement in global demand prospects, while supply conditions have improved noticeably in some markets (such as crude oil). These developments have prompted us to revise up our near-term forecast for NAB's Commodity Price Index (see below).
- Despite the apparent improvement in fundamentals, there are still some significant uncertainties lingering in the background. General confusion over the implications of the Trump administration, including the magnitude of any potential infrastructure spending/fiscal stimulus, is particularly pertinent. Other events such as Brexit and policy changes in China are simply adding to the uncertainty.
- For Australia, the longer-term demand outlook from China is the most important, especially their need for steel inputs to production. NAB expects China's construction sector to experience some moderation in 2017, which will have flow- on consequences for bulk commodity markets.
- **Consequently, in annual average terms, the US dollar denominated NAB non-rural commodity price index is expected to fall by around 6% over 2017, although it will still be 22% higher than 2016 in annual average terms.** The run-up and subsequent correction in prices are almost completely driven by iron ore and hard coking coal.
- In Australian dollar terms, commodity price are somewhat more steady over 2017 due to USD appreciation as the US Fed resumed the gradual normalisation of monetary policy. **The trough for the AUD is still expected to be around the high USD 0.60s, occurring in mid- 2018. In annual average terms, prices are forecast to rise by 28% in 2017, following fairly flat prices on average in 2016.**
- **In light of these commodity price projections, NAB is forecasting the Australian terms of trade to rise again in Q1 2017, but will resume its gradual decline thereafter – at a slower pace than recent years. In annual average terms, the terms of trade are forecast to rise around 1% in average terms for 2017, but will be down 3½% over the year for December 2017.**

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NAB COMMODITY PRICE FORECASTS

	Unit	Spot 01-02-2017	Actual Dec-16	Forecasts Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18
WTI oil	US$/bbl	54	49	53	54	56	58	59	60	62	62
Brent oil	US$/bbl	57	51	55	56	58	60	61	62	64	64
Tapis oil	US$/bbl	57	52	56	57	59	61	62	63	65	65
Gold	US$/ounce	1203	1220	1180	1170	1150	1140	1130	1110	1090	1070
Iron ore (spot CFR)	US$/tonne	NA	70	75	66	63	60	58	56	54	53
Hard coking coal*	US$/tonne	n.a.	200	285	215	180	150	125	115	105	100
Semi-soft coal*	US$/tonne	n.a.	130	210	157	129	108	91	83	76	72
Thermal coal*	US$/tonne	86	62	62	65	65	65	65	60	60	60
Aluminium	US$/tonne	1811	1710	1790	1780	1780	1780	1790	1800	1840	1880
Copper	US$/tonne	5936	5270	5730	5670	5620	5620	5620	5620	5620	5620
Lead	US$/tonne	2329	2130	2230	2240	2250	2260	2260	2260	2260	2260
Nickel	US$/tonne	10193	10770	9980	9880	9880	9880	9880	9880	9880	9880
Zinc	US$/tonne	2873	2510	2700	2730	2760	2770	2780	2800	2810	2820
Aus LNG**	AUD/GJ	n.a.	6.86	7.28	7.93	8.28	8.54	8.93	9.19	9.32	9.45

* Data reflect NAB estimates of US$/ tonne FOB quarterly contract prices (thermal coal is JFY contract). Actual data represent most recent final quarterly contract price. ** Implied Australian LNG export prices

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