MINERALS & ENERGY OUTLOOK

MAY 2017

National Australia Bank

Key Points:

- **Supply-side factors played a larger role on prices in recent months for some commodities,** although not all these developments have been positive, or enduring. Better demand prospects in H2 2016 helped to improve market conditions across much of the commodity complex, and while the global demand outlook has hit some shaky ground more recently, the tone generally remains fairly upbeat – reflected in a number of 'soft' economic indicators, but is less clear in official measures of economic growth. Meanwhile, the USD remains elevated against the major currencies, although it was steady to slightly lower during Q1, minimising the impact on commodity prices. **Despite a number of uncertainties and temporary disruptions in some markets, the outlook for the commodity complex remains broadly consistent with our expectations from earlier in the year – prompting us to make only minimal changes to NAB's Commodity Price Index forecast. That said, it remains to be seen how the recent China rating downgrade by Moody's will impact commodities near-term.**
- **The NAB USD non-rural commodity price index is expected to rise by around 22% in 2017,** although this masks the correction in bulks prices; **the index is forecast to be down 7½% over the year to December 2017.** Given the anticipated USD appreciation, prices will be more stable in AUD terms. NAB forecasts the AUD to bottom at around 70 US cents by late 2017. **Overall, the Australian terms of trade is expected to resume its gradual descent in the second half of this year.**
- Following the OPEC and Russia agreement to limit production from late last year, US shale producers have taken advantage of higher prices to restart production, sending prices tumbling back into the low US$50s range for Brent. Meanwhile, the decision to extend production cuts a further nine months at the May OPEC meeting was met with some disappointment by the market, with prices falling, pointing to an expectation for the cuts to be deepened. **We see Brent recovering to mid-high US$50s by the end of 2017, climbing to mid-60s by the end of the decade.**
- With most Australian LNG export prices tied to the price of oil (and oil likely to remain subdued), **we do not expect major upside for export prices (around AUD8-9/GJ in the coming two years).** In contrast, Australian export volumes will increase significantly, although we have pulled back our expectations for 2017 somewhat. **We forecast that exports will total around 54.3 million tonnes in 2017 and 67.4 million tonnes in 2018.**
- Bulk commodities prices have retreated from recent peaks – following short term supply disruptions that impacted coal markets and a correction in iron ore markets (reflecting both ample supply and speculative pressure). Steel demand in China (the world's largest consumer) is expected to fall in coming years – impacting iron ore and metallurgical coal markets. **Iron ore is forecast to average US$68 a tonne in 2017 and US$60 a tonne in 2018, while hard coking coal is forecast to average US$200 a tonne in 2017 and $110 in 2018.** Evolving energy requirements are set to impact thermal coal demand in China and India, **with the 2018 Japanese financial year contract for thermal coal forecast to fall to US$65 a tonne** (from US$85 a tonne this year).
- **Copper prices** have fallen back after major supply disruptions were resolved, however strikes and supply disruptions will be an ongoing theme. Chinese demand continues to slow, especially as the government tries to cool the property sector. **Aluminium** was the best performing base metal over the past quarter, as Chinese government put in measures to curb capacity addition. **Nickel** is plentiful as Indonesia and Philippines both increase supply at a time of a stainless steel glut in China. **Zinc** is facing a deficit while **lead's** long term demand prospects are weakening.
- **Gold** has been one of the better performing commodities during 2017, with an 8.7% year to date increase. Rising geopolitical tensions have increased the lustre of gold, as the 'Trump rally' has gradually fizzled out. **We are expecting gold to hover around the USD1250 mark during 2017, with geopolitical tensions likely to be a key factor, in addition to any potential deviation in the US Federal Reserve's actions on the Fed Funds rate.**

CONTENTS

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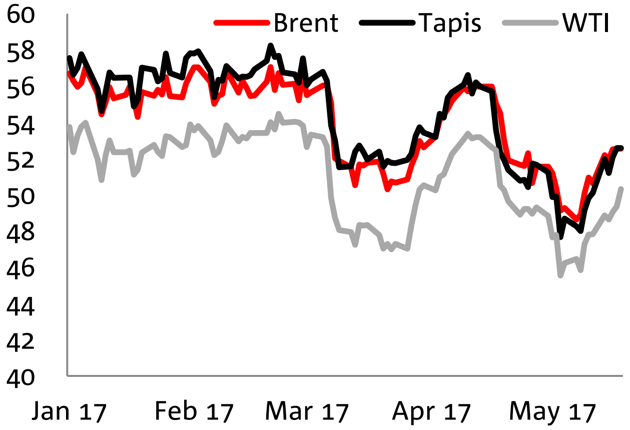
OIL

OPEC deal was extended a further nine months despite low prices

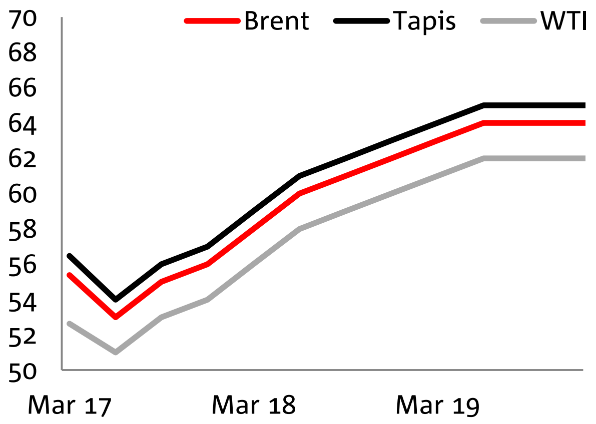
DAILY OIL PRICES 2017 YTD

USD/bbl



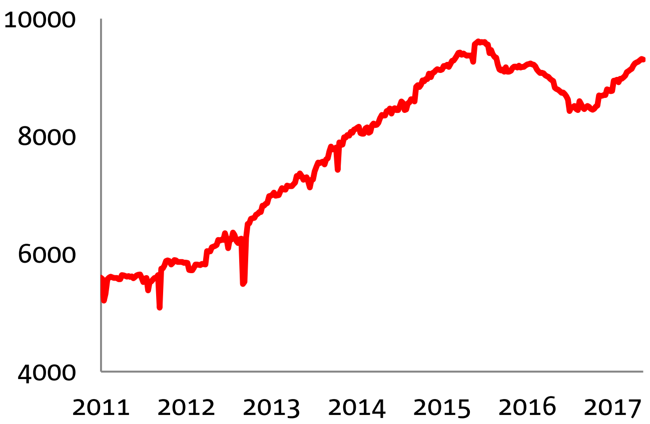
NAB OIL PRICE FORECASTS

USD/bbl



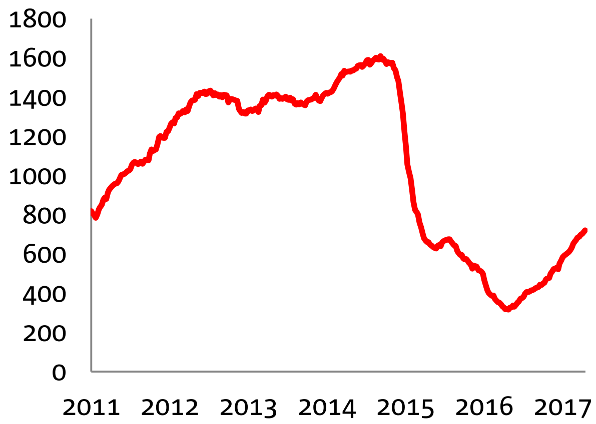
WEEKLY US FIELD PRODUCTION

Thousand barrels a day



US ROTARY RIG COUNT

Oil rigs only



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

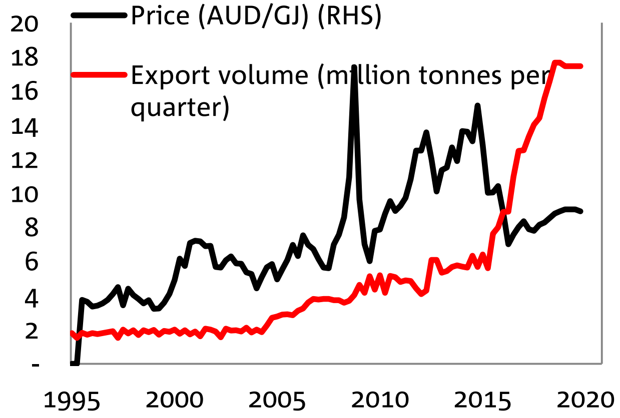
- Late last year, OPEC and Russia agreed to limit production to 1.8mb/day. The OPEC-Russia deal initially saw markets jump significantly, from mid-high US$40s to mid US$50s/bbl (Brent). However by March it had become clear that improved prices were helping US shale producers restart production and steal market share from OPEC, sending prices tumbling back into the low US$50s range for Brent.
- US production looks set to perform, having bottomed out in October last year. Latest EIA data show weekly US crude production exceeding 9.3 million bbl/day, the highest since August 2015. With rig counts heading upwards, it is likely that US production will continue to climb if prices hold steady.
- OPEC members decided this week to continue the production cuts another nine months. Despite the decision, however, much of the upside from the OPEC extension was already priced in, while a fall in prices following the decision possibly reflects some disappointment in the market that members failed to come to a last minute agreement to deepen the production cuts even further. Combined with the ability of US producers to restart production, major upside for oil prices will probably remain elusive.
- **We see Brent recovering to mid-high US$50s by the end of 2017, climbing to mid US$60s by the end of the decade.**

NATURAL GAS AND LNG

Impact of exports now felt in east coast gas and electricity markets

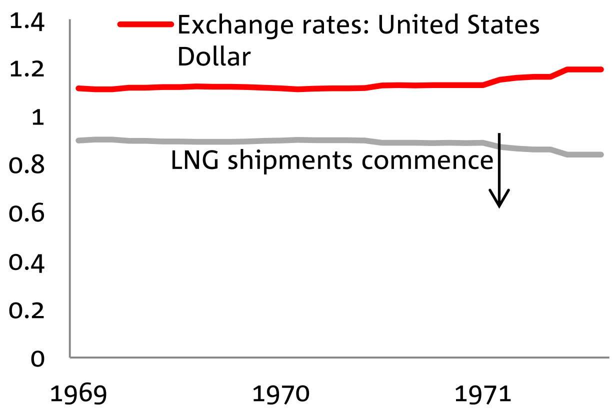
AUSTRALIAN LNG EXPORTS

Volume and average price (inc forecast)



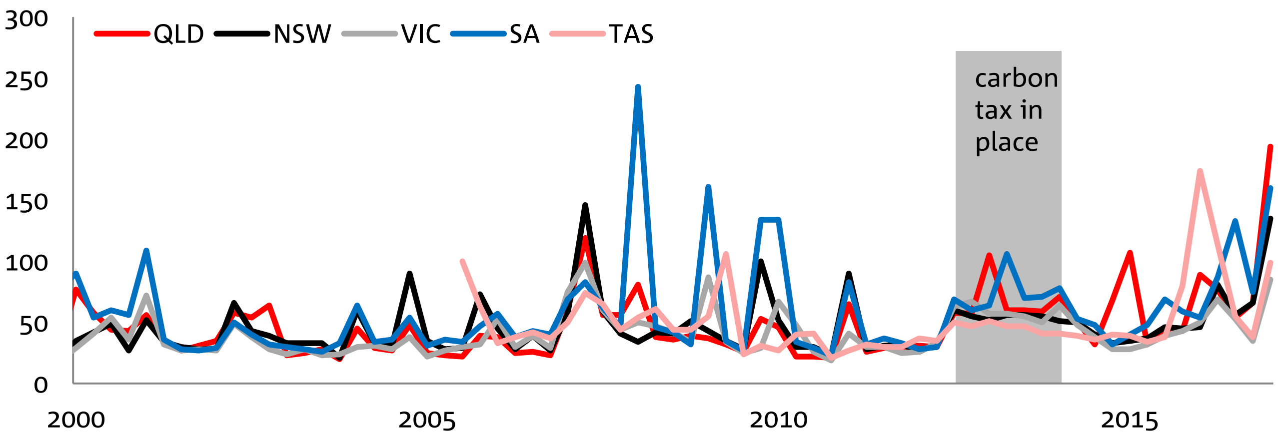
DOMESTIC NATURAL GAS PRICES

AUD/GJ, spot, quarterly average



WHOLESALE ELECTRICITY PRICES

AUD/MWh, spot, quarterly average



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

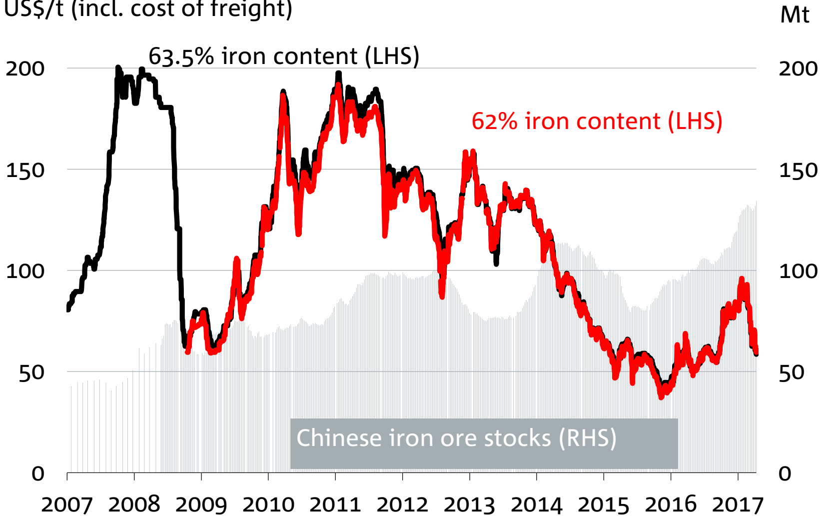
- The ramp-up in Australian LNG exports continues, with over 12.5 million tonnes shipped in Q1 at a total value of almost AUD5.8b. Prices remain low, averaging AUD8.36/GJ (NAB measure) in Q1. With most Australian LNG export prices tied to the price of oil (and oil likely to remain subdued), **we do not expect major upside for export prices (around AUD8-9/GJ in the coming two years).**
- A recent focus has been the impact of the Queensland terminals on the eastern Australian domestic gas markets. With CSG well production patchy and expensive, Queensland LNG terminals have been buying gas from the domestic market. Domestic spot prices now exceed export prices because of the shortage of gas and a need to meet export contracts. Given that gas is the primary fuel source for peaking electricity generators in the NEM (and that all bidders receive the price of the marginal bidder in the NEM bid stack), much higher gas prices are now causing a rapid increase in wholesale electricity prices. This has been compounded by the closure of the 1600MW Hazelwood power station. Without Hazelwood, expensive gas turbines will need to dispatch much more often.
- The Commonwealth has announced a scheme to hold LNG exports to meet domestic supply, on advice from AEMO and the AER that there is a shortage. It remains unclear how the measure would operate in practice.
- Australia exported 41.2 million tonnes of LNG in 2016. With further delays to Ichthys and Wheatstone, we have pulled back our expectations of LNG export for 2017 somewhat. **We forecast that exports will total around 54.3 million tonnes in 2017 and 67.4 million tonnes in 2018.**

IRON ORE

Prices sharply correct on record stockpiles and speculative pressure

IRON ORE PRICES HAVE CORRECTED SHARPLY

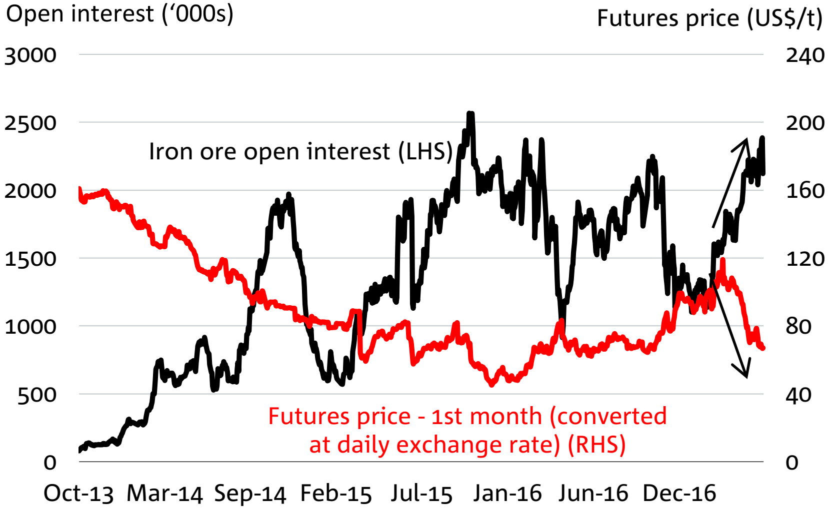
Chinese stockpiles to new record in mid-May



Source: Bloomberg, Thomson Datastream, NAB Economics

SURGING IRON ORE OPEN INTEREST

Speculators likely putting downward pressure on prices



Source: Bloomberg, NAB Economics

- Iron ore prices have sharply corrected in recent months – from levels in mid-March above US$90 a tonne (for benchmark 62% ore landed in China) to just under US$60 a tonne in mid-May. In part, this decline reflected the weight of record Chinese ore stockpiles and downward pressure from speculators.
- Iron ore supply in China has appeared plentiful in recent months – China's domestic iron ore production fell by 5.7% in 2016, but it rose in early 2017 – up by 9.8% yoy in the first four months of the year. Similarly, iron ore imports rose in the same period – up around 8.5% yoy.
- This resulted in the total volume of iron ore stocks at Chinese ports rising from around 80 million tonnes in mid-2015 to record levels of around 134 million tonnes in mid-May – roughly equivalent to the monthly usage of the country's blast furnaces in 2016. Over half of these stocks were imported Australian iron ore.
- Australian iron ore exports have recorded weaker growth in recent times – compared with the surging rates between 2012 and 2015. In Q1 2017, exports rose by 2.7% yoy to 193 million tonnes (compared with a relatively modest 5.6% growth rate in 2016). Almost 84% of Australia's iron ore exports in Q1 were delivered to China.
- There was little to suggest speculative pressure drove the upward trend in prices between October 2016 and February 2017. Open interest on the Dalian exchange fell and trading volumes slowed over this period as prices started to climb – consistent with the view that preference for higher grade ores was the major price driver in this period.
- In contrast, open interest has climbed rapidly in recent months (from around 1.5 million contracts in late February to 2.4 million in mid-May). This increase has coincided with a plunge in the futures price – down 44% at the time of writing, a larger fall than the spot price. That speculative pressure – rather than underlying fundamentals – appears to be driving prices at the present time and increases the risk of price volatility in the short term.

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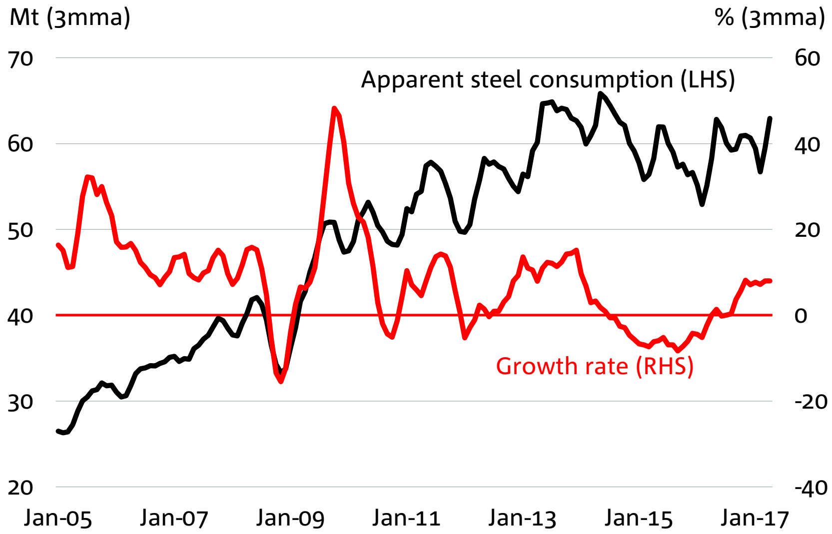
IRON ORE cont.

Weaker Chinese steel demand set to constrain iron ore markets

CHINESE STEEL CONSUMPTION

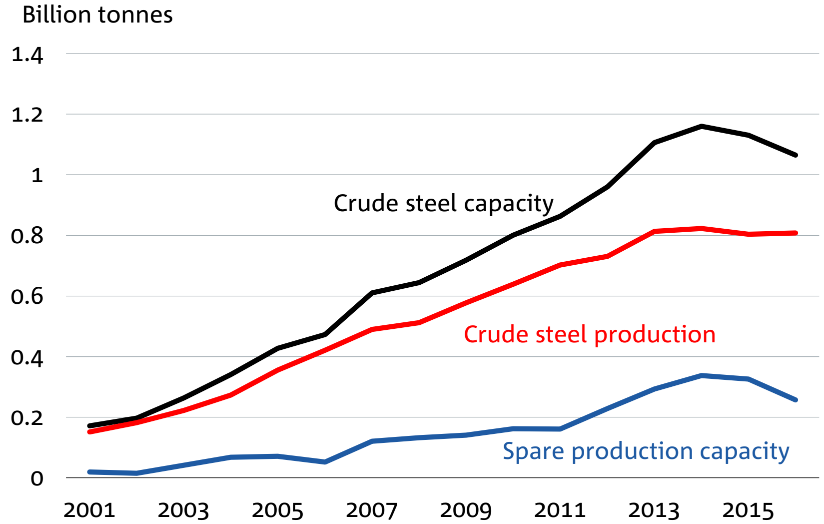
Rising recently but below 2013-2014 peaks



Sources: CEIC, Bloomberg, NAB Economics

CHINA'S STEEL SECTOR

Cuts have trimmed China's vast steel overcapacity



Source: CEIC, Reuters, NAB Economics

- Fuelled by a persistent construction boom and fiscal stimulus, China's apparent steel consumption has grown year-on-year since the second half of 2016, up around 8.0% yoy in April 2017. That said, despite the recent uptick, consumption has remained below the peaks recorded in 2013 and 2014.
- Tighter regulation around the residential property market has slowed house price growth but it is yet to have a significant impact on construction activity – which rose by 18% yoy in the first four months of 2017. That said, we expect slowing construction activity in coming months to impact steel demand (construction accounts for over half of China's steel consumption).
- The World Steel Association forecast global finished steel demand to increase by 1.3% in 2017 and a further 0.9% in 2018. Most of this growth is expected to occur in non-Chinese Asia– with Chinese demand flat in 2017, before falling by 2% in 2018. The China Iron and Steel Association argues that the country's steel demand peaked in 2014 and is now in an 'era of reduction'. The organisation expects China's steel consumption to fall by 1.9% in 2017, with further falls in following years.
- Global steel production rose in the first quarter of 2017 – up by 5.6% yoy to 410 million tonnes. China accounted for the largest share – at around 49% of the total – and China, India and Turkey recorded the largest increases. In line with softer Chinese steel demand, we expect steel output to decline in the second half of 2017.
- Chinese authorities are continuing the closures of excess steel mill capacity in 2017. Estimates suggest around 65 million tonnes was closed last year, and a further 50 million tonnes will close this year. The majority of this capacity is likely to be non-producing, meaning that this will not directly impact demand for iron ore, however it will improve the overall health of the steel industry (where excess capacity was estimated to exceed 300 million tonnes in 2015).
- China's steel exports contracted in the first four months of 2017 – likely reflecting the impact of tariffs imposed in the United States and Europe starting in May 2016. Exports totalled 27.2 million tonnes over this period – a decrease of over 26% yoy.
- Weaker prospects for Chinese steel producers from domestic and international markets should limit upside pressure to iron ore spot prices, while cost profiles for iron ore producers are likely to constrain the downside. **We forecast a relatively flat profile for prices – trending around US$60 a tonne across the second half of 2017 and 2018.**

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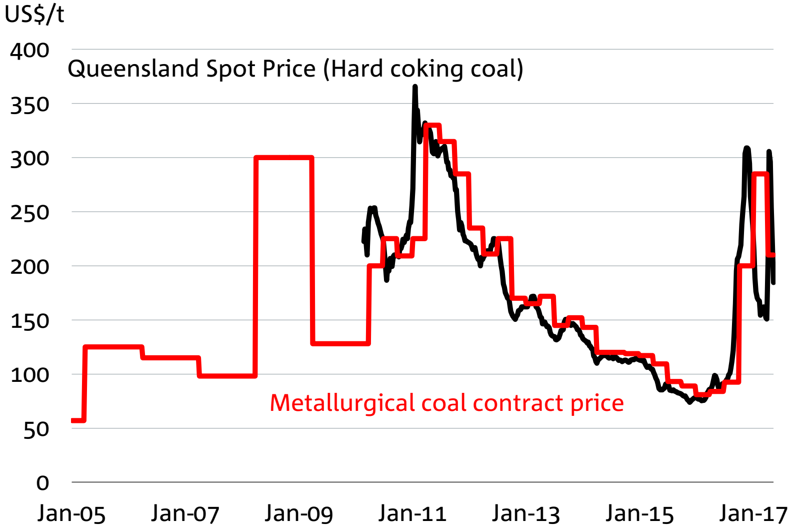
METALLURGICAL COAL

Prices set to ease following short term supply disruptions in Queensland

COKING COAL FALLING AS SUPPLY RESUMES

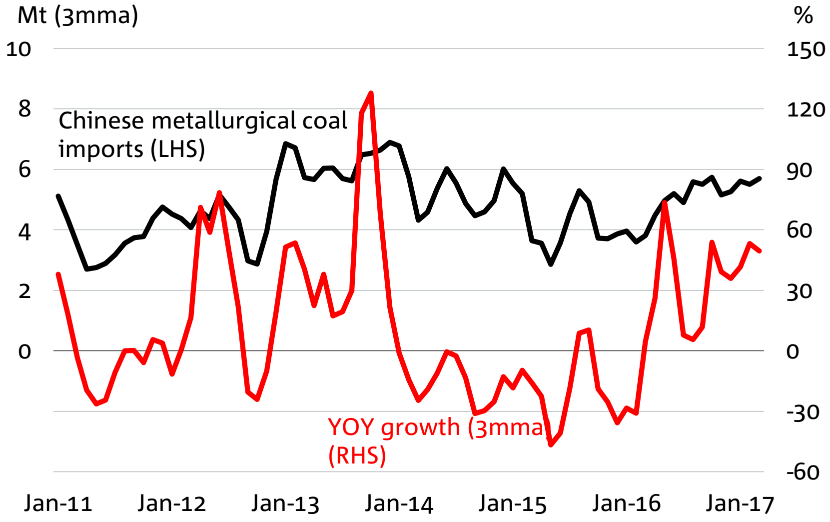
Volatility driven by China & Queensland constraints



Source: Bloomberg, Datastream, NAB Economics

CHINA'S METALLURGICAL COAL IMPORTS

Strong growth in Q1 2017, but expected to fade



Source: CEIC, NAB Economics

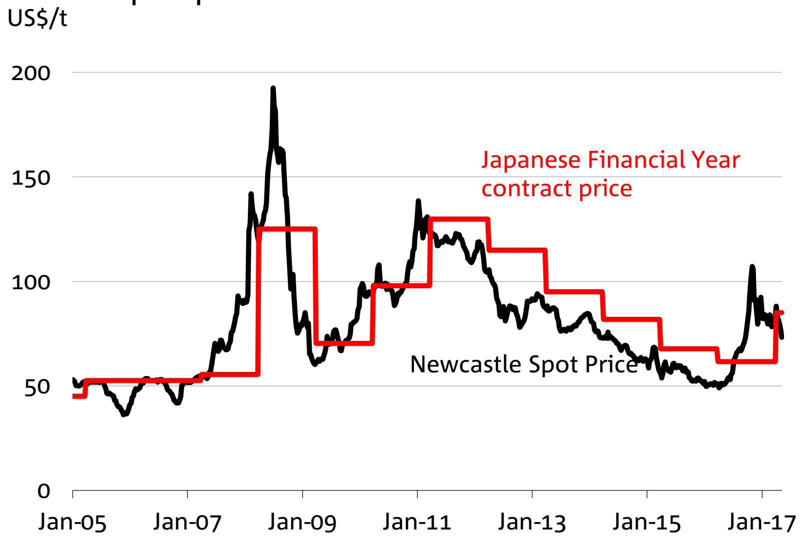
- Prices for hard coking coal have been highly volatile in recent months. Prices fell from a peak over US$300 a tonne in December 2016 as Chinese authorities eased policy restrictions on domestic coal output. However they surged back to these levels in the wake of Queensland's tropical cyclone disruptions in late May/early April. Prices have subsequently retreated – back to around US$160 a tonne at the time of writing.
- Cyclone Debbie struck central Queensland in late May/early April, with flooding and landslides damaging rail infrastructure between mines and the state's coal ports. The Goonyella system – which links mines in the Bowen Basin to two ports at Mackay – was closed for three and a half weeks before reopening with speed restrictions and reduced capacity. Rail operator Aurizon reported in late April that it would take over a month for the entire network to resume full operations – meaning that downward pressure on prices is likely to continue in coming months.
- This disruption delayed negotiations for contract prices in Q2 – which may be settled in coming weeks (although falling spot prices are likely to encourage consumers to delay for as long as possible).
- China remains the largest importer of metallurgical coal – having imported around 59 million tonnes in 2016 (higher than 2015 but well below peaks in 2013). Imports rose in the first quarter – up by 50% yoy to 17 million tonnes, however weaker steel production in the second half of 2017 should slow this rate of growth.
- Australian exports of metallurgical coal were weaker in the first three months of 2017 – with volumes falling by 3.7% yoy to 42.3 million tonnes. With Queensland's output disrupted in Q2 due to the impact of Tropical Cyclone Debbie, we expect exports will be lower for the full year.
- Spot prices for metallurgical coal have already retreated significantly from the post-Debbie peak, and are set to soften further, given the weak outlook for steel production – particularly in China. **Spot prices are expected to trend back towards US$100 a tonne by the end of 2018.**

THERMAL COAL

Weaker demand in China and India set to drive prices lower

THERMAL COAL PRICES EDGING LOWER

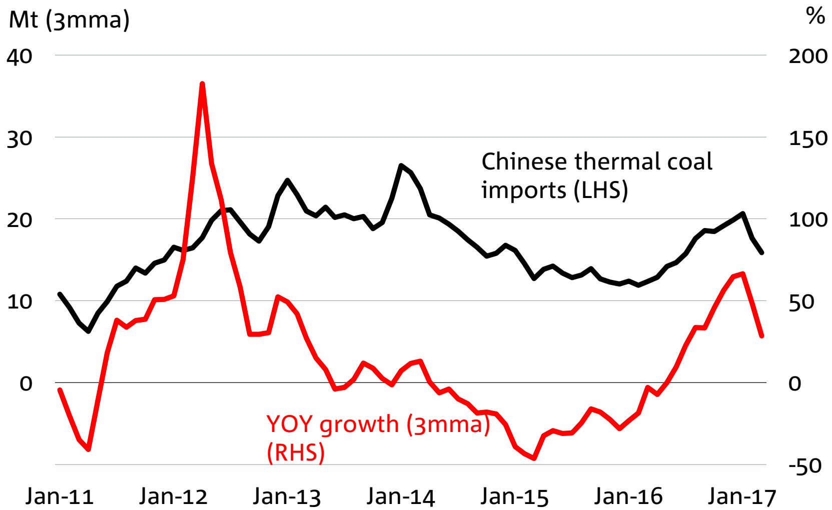
Demand prospects looked subdued



Source: Bloomberg, BREE, NAB Economics

CHINA'S THERMAL COAL IMPORTS

Imports down from recent peaks on domestic supply



Source: CEIC, NAB Economics

- Spot prices for thermal coal climbed modestly (compared with metallurgical coal) following Tropical Cyclone Debbie – up to US$89 a tonne in the first week of April, before retreating. At the time of writing, spot prices were around US$71 a tonne.
- The relatively elevated spot prices during March and April contributed to a sizeable increase in the Japanese financial year contract – which was settled between Glencore and Tohoku at US$85 a tonne.
- China continues to have a major impact on global coal markets. In the first four months of 2017, China's crude coal production rose by 2.5% yoy – following on from an 8.7% fall in 2016. Despite the increase in domestic coal production, China's thermal coal imports rose by 29% yoy in the first three months of 2017. However, reports in May suggest that China is attempting to curb low grade coal imports – which could reduce thermal coal imports by around 10% this year (SxCoal).
- China's energy sector is evolving – coal output has fallen since a peak of almost 4.0 billion tonnes in 2013, with the country's growing energy needs are being met increasingly by oil (in transport), natural gas and renewables. Chinese authorities are attempting to address excess capacity in the coal sector – forcing mergers among larger producers and closures of smaller mines. For the full year, capacity is set to be reduced by 150 million tonnes a year – with around 69 million tonnes shut down by mid-May.
- Elsewhere, thermal coal demand trends appear relatively weak. While Japanese imports have been slightly stronger – up around 4.9% yoy in the first three months of 2017, this has been overwhelmed by falls in India. Estimates of India's imports suggest volumes have fallen by around 25% yoy in the period from January to mid-May – with the ramp up in domestic coal production increasingly meeting demand. Further falls in Indian imports are expected – with India's government aiming for self-sufficiency next year.
- Australia's exports of thermal coal fell in the first quarter – down by 1.7 yoy to 47.7 million tonnes. While exports to both Japan and China rose (by 5.0% and 33% respectively), exports to all other markets fell by 17% yoy.
- **Given the weak demand prospects for thermal coal, we expect spot prices to drift lower across 2017. We forecast the 2018 Japanese financial year contract at US$65 a tonne, down from US$85 a tonne this year.**

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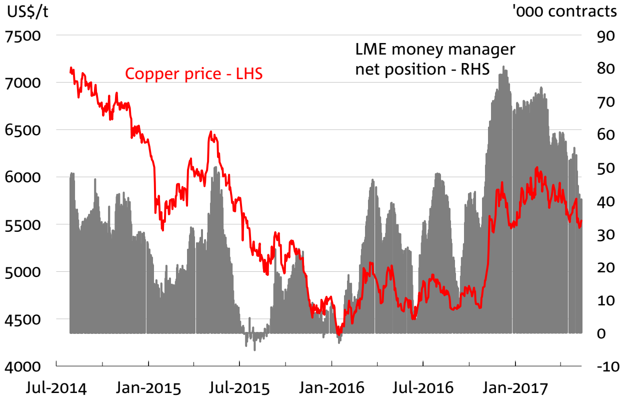
COPPER

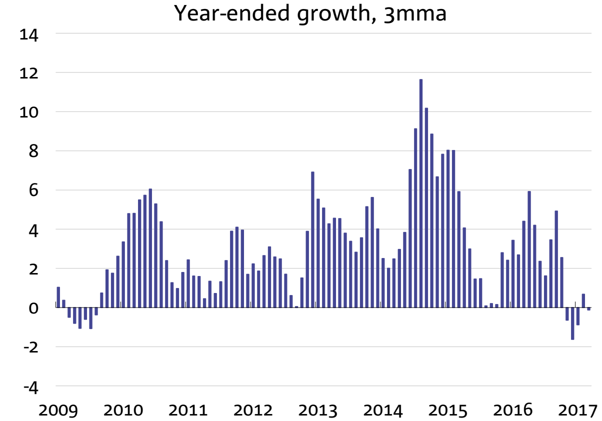
Supply disruptions an ongoing theme while demand gradually slows

COPPER PRICES & POSITIONING



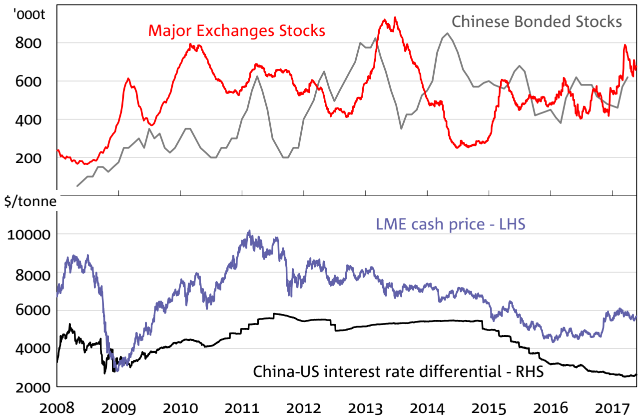
Sources: Bloomberg, NAB

GLOBAL REFINED COPPER OUTPUT



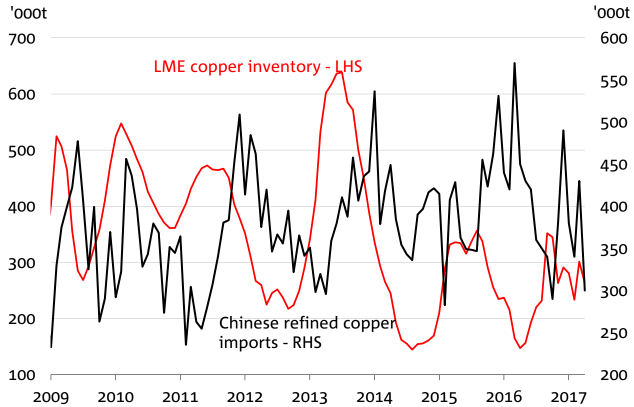
Sources: Bloomberg

COPPER FINANCING INCENTIVES



Source: Bloomberg, NAB

LME INVENTORY & CHINESE IMPORTS



Sources: NAB; Thomson Reuters

Base Metal Prices*

	Avg Price (US$/tonne) Mar-17	Dec-16 to Mar-17 % change, quarterly	Mar-16 to Mar-17 % change, annual
Aluminium	1901	10.0	25
Copper	5825	3.2	18
Lead	2281	3.9	27
Nickel	10205	-6.5	17
Zinc	2777	4.6	54
Base Metals Index		2.6	24

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

- **Copper prices have declined over the quarter, sitting at around $5700/t, down from the peak of around $6100/t in February**. The bullish sentiment following the US elections last year has abated somewhat, while the few major supply disruptions that provided support to prices in early 2017 have also been resolved.
- A six-week strike at Escondida, the world's biggest copper mine, ended in late March. Output was down 60% in the March quarter, with operations returning to full capacity in April. Strikes at Southern Copper's Peruvian mines and refinery were also resolved in two weeks, with limited supply disruptions as the company used temporary workers to maintain production. Freeport resumed exports in late April from its Grasberg mine in Indonesia, after being suspended by the government since mid January. However, union workers started a strike on 1st May over job security, which could last until the end of June. Output may have been reduced by half, as estimated by a union official. Supply disruptions in the copper markets due to worker strikes or weather conditions will remain an ongoing theme, as workers dispute contracts previously settled during a period of low prices and low profitability and now demand improved working conditions and better job security. This trend could see concentrates supply decline and provide support to prices, but has been largely expected and priced in.
- On the demand side, indicators continue to point to an easing in Chinese growth. Policies to control the housing market and the transition towards the services industries will see demand continue to gradually slow. Potential infrastructure spending in the US could improve demand, however little details have been revealed to date.
- **Overall, we forecast a largely balanced market for 2017 and a small surplus in 2018, with prices averaging $5720/t.**

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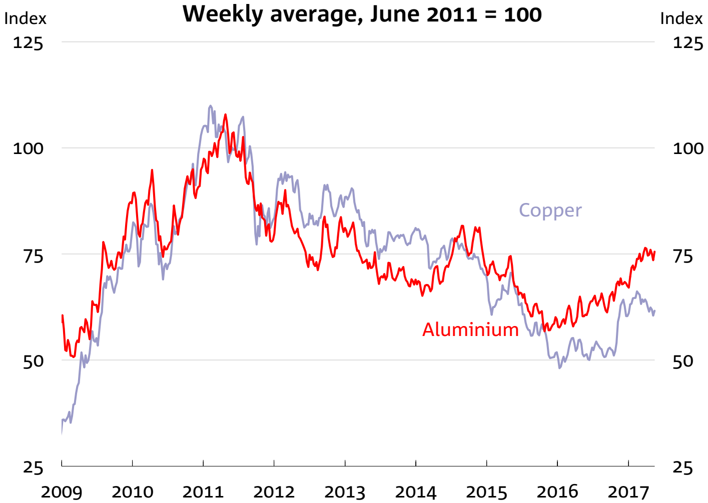
ALUMINIUM

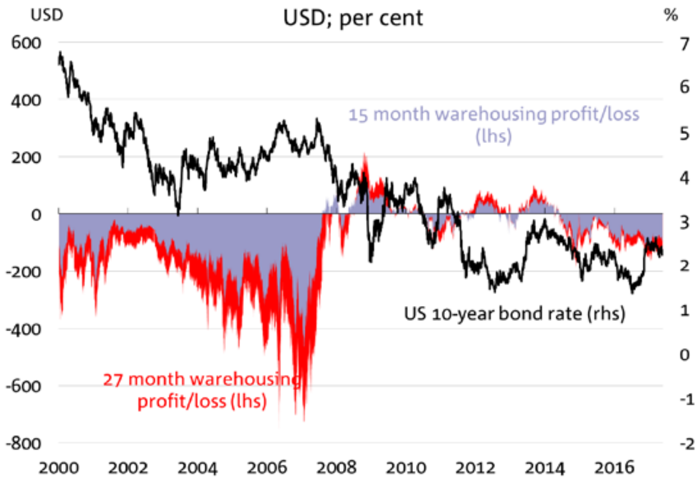
Will Chinese government commit to curbing excess production?

COPPER & ALUMINIUM PRICES (LME)



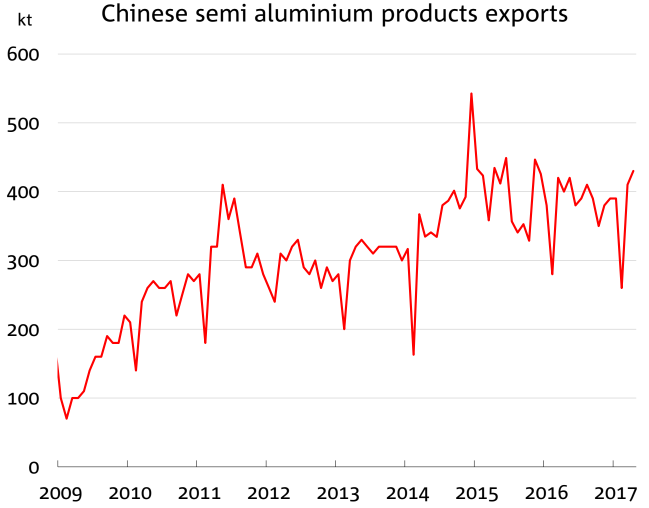
Sources: NAB; Thomson Reuters

ALUMINIUM WAREHOUSE INCENTIVES



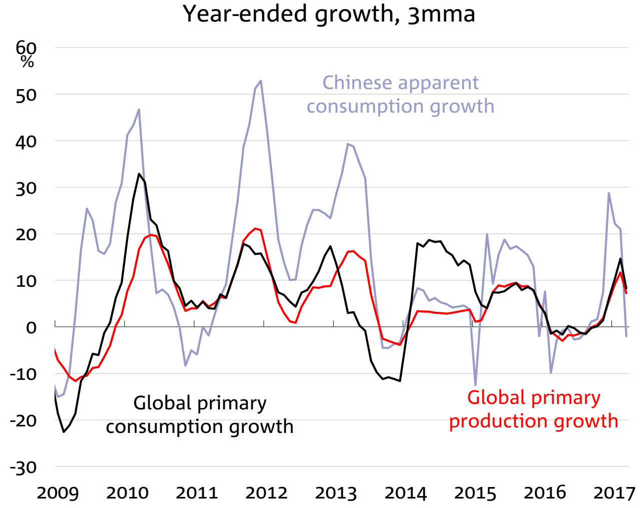
Sources: Bloomberg Industries; NAB

CHINESE SEMI ALUMINIUM EXPORTS



Sources: Bloomberg

ALUMINIUM OUTPUT & CONSUMPTION



Sources: Bloomberg

- **Aluminium has been the best performer in the base metals complex, with prices rising by around 7% since beginning of the year and now sitting at around $1940/t.**
- Fresh measures by the Chinese government to curb excess production have been welcomed by the market. In April, up to 2Mtpa planned capacity addition in the north-western region of Xinjiang was announced to be cut. Project delays have also been experienced at other projects across the country, especially as input costs rise, including prices for coal and prebaked anodes. In many instances the higher coal prices have been passed on as higher electricity prices, hurting smelter profitability. Tighter environment restrictions are also impacting production, especially at smaller smelters. Overall, these supply side constraints have eliminated some of the concerns over excess capacity in the sector and provided support for prices. However, producer actions may not always align with government directions and restarts could occur once input costs start to decline. Chinese semi aluminium exports remain at elevated levels.
- On the demand side, as the Chinese government continues its effort to cool the property sector, construction demand for aluminium products will continue to slow. Vehicle production grew by a smaller than expected 0.3% yoy in April, compared with double digit growth during H2 2016. On the other hand, electricity output has been strong and more aluminium wires will be demanded to substitute heavier copper wires. The long-term demand outlook also looks good, with lighter weight aluminium sheets being increasingly used in car manufacturing.
- **We forecast prices to stay ease to around $1900/t by the end of the year.**

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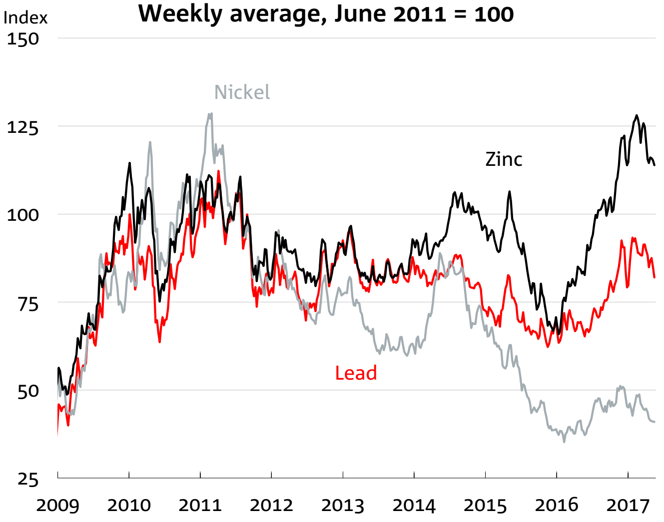
NICKEL, LEAD & ZINC

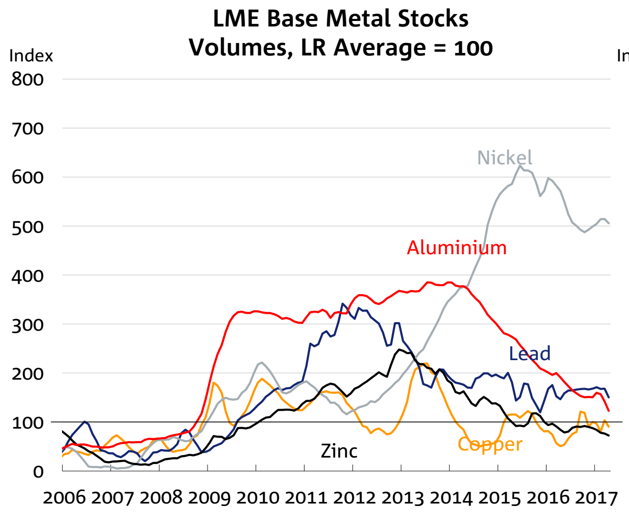
Nickel faces uncertainty while zinc outlook promosing

NICKEL, LEAD & ZINC PRICES (LME)



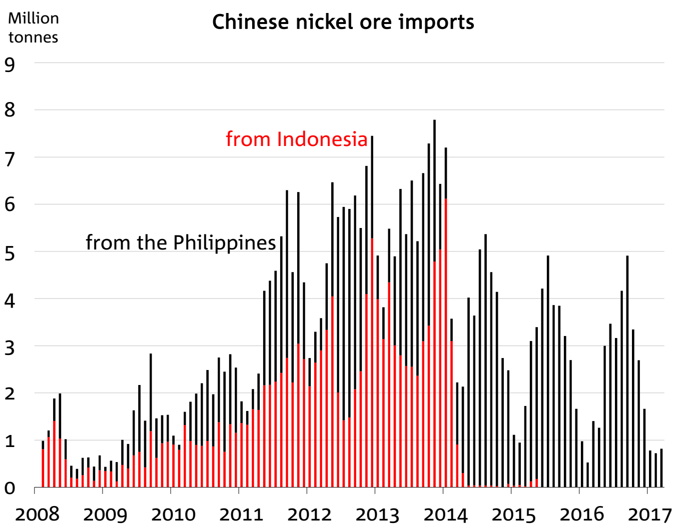
Sources: NAB; Thomson Reuters

LME STOCKS



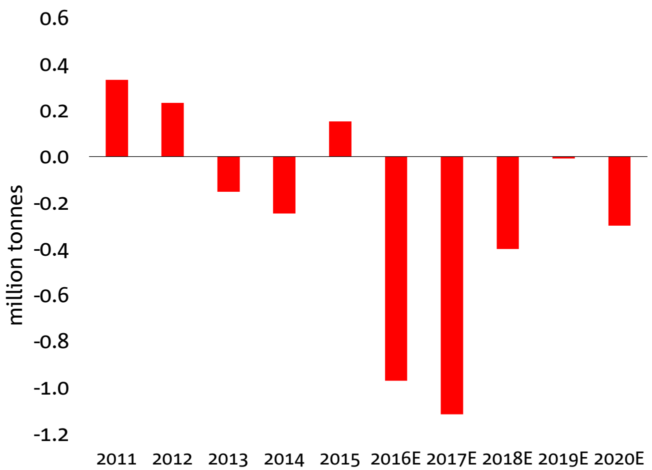
Sources: Datastream; NAB

CHINESE NICKEL IMPORTS



Source: Bloomberg; NAB Economics

REFINED ZINC BALANCE



Source: International Lead and Zinc Study Group, Bloomberg

- Nickel prices have fallen back to levels seen before the Philippines government introduced an environmental audit of mines in February 2017, which pushed up prices and depleted stocks. As expected in last quarter's note, the recommended closure of 23 mines did not eventuate and miners carried on with production. In the meantime, Indonesia has relaxed its ban on raw ores exports introduced in 2014, to allow domestic smelters to export excess supply and boost government revenue. Ferronickel exports from Indonesia have also increased as the country builds up smelting capacity. The improving supply outlook however is met with a slowdown in demand in China, as the country tackles a stainless steel glut and anti-dumping duties by the European Commission. As a result, China will slow down production in the June quarter to carry out maintenance and run down inventory. **Uncertainties remain in the nickel market and the forecast price for 2017 is $9910/t.**
- Zinc prices fell over the quarter on weaker demand from Chinese galvanised steel production, which is set to recover in the second half of the year. Stock levels at the LME and SHFE remain below long run average. The significant reduction in global mined supply in recent years is unlikely to be offset by new mines, while supply disruptions will bean ongoing issue, **resulting in a forecast deficit for 2017 and 2018.**
- Lead prices also declined over the quarter and LME stock levels remain above long-run average. Demand by lead-acid battery plants remains subdued, as new technologies using lithium and graphene are gradually replacing lead batteries. **We forecast a well supplied lead market in 2017 and 2018.**

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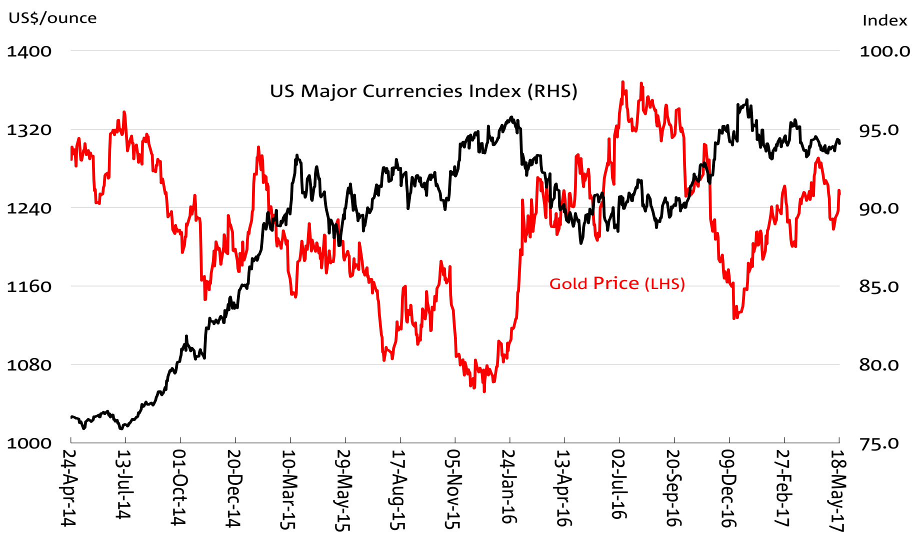
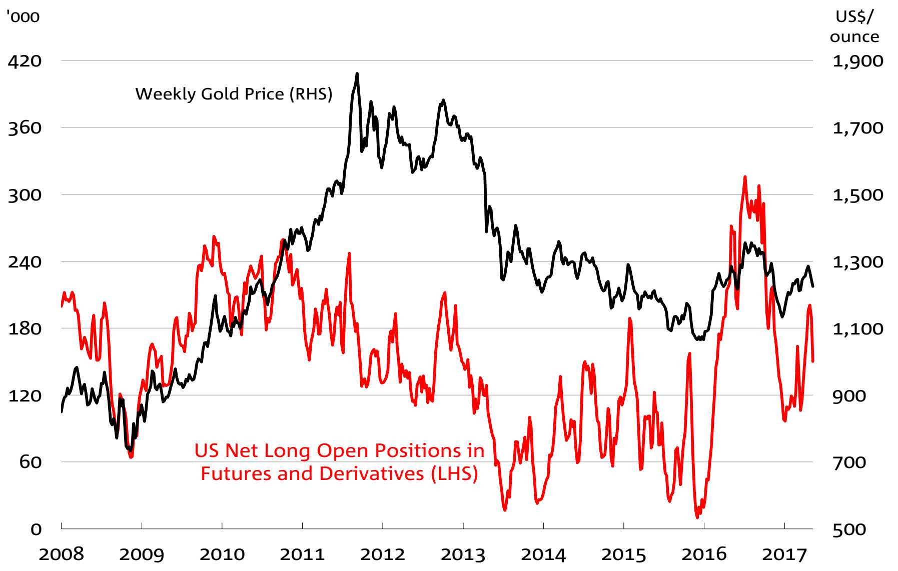
GOLD

Geopolitical tensions provide support

GOLD & USD NEGATIVELY CORRELATED



INCREASE IN LONG OPEN POSITIONS SINCE END-2016



Sources: Bloomberg; NAB

- Gold has been one of the better performing commodities during 2017, with the year to date (May 18) spot return of 8.7%.
- Following the election of the Trump administration, and expectations that it would be able to achieve its infrastructure agenda, the gold price fell to a recent low of USD1125/oz around December 2016. This period also witnessed a rise in equity markets and a stronger US Dollar.
- However, gold regained investor confidence during 2017, as doubts about the Trump's administration's ability to see through their policy agenda and political difficulties have emerged. Moreover, there has also been a number of geopolitical events such as European elections – the results in France and Netherlands have somewhat assuaged financial markets – and the flashpoint in the Korean peninsula.
- These trends have also been mirrored by the net long open positions in gold derivative markets. After having reached a recent low at the end of 2016, market participants have increased their net long position in gold derivatives in response to geopolitical uncertainties, although this has abated somewhat of late, due to higher gold prices.
- The spot price of gold jumped nearly 2% on the 17th of May, the most significant daily increase since the Brexit vote on May 2016. Political developments will be closely watched by the market, and could be a potential driver of additional uplift in gold prices going forward.
- Comments by St. Louis Fed President, James Bullard, that inflation remains subdued, and the Fed's interest rate expectations might be too aggressive, have also been supportive of gold.
- **We expect gold to be largely range-bound around the USD1250/oz level. More specifically, we are expecting the gold price around USD1254/oz, by the end of 2017, rising to USD1300 by the end of 2018.**

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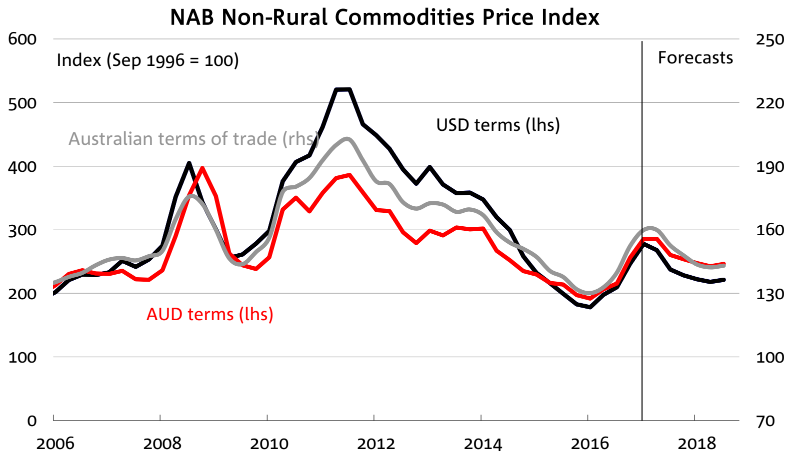
OUTLOOK

NEAR-TERM VOLATILITY IN SOME PRICES, BUT OVERALL OUTLOOK SIMILAR TO LAST QUARTER

Index, September 1996 = 100



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

- Reflecting a pull back in iron ore and metals prices, NAB's non-rural commodity price index is expected to drop 3.6% q/q in Q2 2017 (in US dollar terms), following a year of strong gains – the strongest rally since 2011. Iron ore made the largest contribution to the decline, weighed down by speculative pressure and record levels of stockpiles in China.
- The USD softened marginally against major currencies in the first quarter of 2017, doing little to influence most commodity prices – although the US TWI remains close to its highest level for a number of years. Demand fundamentals vary somewhat across the commodities complex, although the broader global outlook remains fairly upbeat despite some conflicting signals in the economic data. Supply side conditions have been more unpredictable, however, especially as disruptions following Cyclone Debbie caused a *temporary* spike in spot prices (namely coal). Despite this, our overall assessment of commodity prices is little changed since last quarter with on modest changes made to our forecast for the NAB Commodity Price Index (see below).
- That said, significant uncertainties continue to cloud the outlook. In particular, any reasons given to question the ability of the Trump administration to deliver on its infrastructures spending/fiscal stimulus promises will have a ripple effect through commodity markets. Other events such as Brexit and policy changes in China are simply adding to the uncertainty.
- For Australia, the outlook for China remains as important as ever. NAB continue to expect a moderation in China's construction this year, which will have flow-on consequences for bulk commodity markets.

- **In annual average terms, the US dollar denominated NAB non-rural commodity price index is expected to fall by around 7½% 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 supported somewhat over 2017 by an anticipated USD appreciation as the US Fed resumed the gradual normalisation of monetary policy. **The trough for the AUD is expected to be around USD 0.70, occurring in late- 2017. In annual average terms, prices are forecast to rise by 25% in 2017, following very modest price growth 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 flatten out in Q2 before resuming its gradual decline thereafter. In annual average terms, the terms of trade are forecast to rise around 12% in average terms for 2017, but will be down 3% over the year for December 2017.**

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NAB COMMODITY PRICE FORECASTS

	Unit	Spot	Actual				Forecasts			
		23-05-2017	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18
WTI oil	US$/bbl	51	49	53	51	53	54	56	58	59	60
Brent oil	US$/bbl	54	50	55	53	55	56	58	60	61	62
Tapis oil	US$/bbl	54	49	56	54	56	57	59	61	62	63
Gold	US$/ounce	1260	1220	1220	1260	1240	1250	1270	1280	1290	1300
Iron ore (spot CFR)	US$/tonne	n.a.	70	86	65	61	60	58	60	62	60
Hard coking coal*	US$/tonne	n.a.	200	285	210	160	140	120	110	105	100
Semi-soft coal*	US$/tonne	n.a.	130	210	153	114	101	87	79	76	72
Thermal coal*	US$/tonne	86	62	62	85	85	85	85	65	65	65
Aluminium	US$/tonne	1936	1710	1850	1910	1900	1900	1880	1860	1860	1860
Copper	US$/tonne	5689	5270	5840	5660	5660	5720	5720	5720	5720	5720
Lead	US$/tonne	2069	2130	2270	2210	2210	2210	2210	2210	2210	2210
Nickel	US$/tonne	9352	10770	10270	9760	9810	9810	9810	9810	9810	9810
Zinc	US$/tonne	2620	2510	2780	2640	2650	2660	2680	2690	2700	2720
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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