MINERALS & ENERGY OUTLOOK

FEBRUARY 2018

National Australia Bank

Key Points:

- **Stability in financial markets over 2017 and early 2018 came to abrupt end in recent weeks, with a surge in market volatility and big falls in equity markets and prices for many commodities.** However, it was partly encouraging news on wages in the US that triggered the reaction – given its implications for central bank tightening – with underlying fundamentals for most of the commodity complex remaining intact (assuming volatile conditions do not persist). That said, compositional shifts in global growth drivers – with the more advanced economies now leading the way – is likely to have significant implications for certain commodity markets, particularly for Australian exporters as demand from China shifts down a gear. The USD has also been less of a drag on commodity demand than previously expected, having actually depreciated against major currencies in the final months of 2017. Supply side factors have been relatively favourable for prices across much of the complex as well since late last year. **Overall, we have made some upward revisions to our outlook for commodity prices from three months ago, which partly reflects spot price movements since November despite oscillations in some markets more recently.**
- Global **oil prices** have rallied since mid-2017 but have retreated considerably since the start of February. Brent went from mid-40s in June to breaking $70/bbl in January before falling to around $62/bbl earlier this month. The OPEC-Russia deal has been a major driver of prices, although with the US shale tap turned back on and inventories building, the rally has been blunted. Higher oil prices will flow through to **Australian LNG** export prices, which is on balance bad news for domestic consumers. We see LNG export prices exceeding AUD11/GJ this year, which points to a potential return to double digits for domestic wholesale prices.
- **Bulk commodities** prices have trended higher in recent months – led by a sharp increase in metallurgical coal prices (due largely to short term supply constraints). Weaker prospects for China's steel industry should see prices for bulks decline across 2018. Spot prices for iron ore are forecast to ease from current levels (above US$75 a tonne) back towards US$60 a tonne by the end of the year. Metallurgical coal prices are forecast to fall from current peaks above US$200 a tonne, to around US$110 a tonne by the end of the year. Higher spot prices during the contract negotiation period could result in an increase in the Japanese financial year thermal coal contract – to US$90 a tonne (from US$85 a tonne).
- In the absence of much change in the underlying fundamentals, **base metal** prices have been driven more by USD movements and investor sentiment. As a result, prices could remain volatile for a while yet. For copper, the positive demand outlook and a lack of exploration efforts could mean the copper market goes into deficit in 2018. Aluminium prices will likely remain supported by Chinese capacity cuts, but prices might retreat in March post the Chinese New Year. Zinc continues to be our pick given supply shortages, while nickel and lead prices will be influenced by car battery demand, with nickel prices likely to remain volatile.
- **Gold:** Gold has recovered smartly, after falling to a recent low of around USD1240/oz in early December 2017, following the interest rate rise by the US Federal Reserve. US dollar weakness and doubts around alternatives (such as crytocurrencies) are generally supportive of gold, and we expect it to remain in the USD1300/oz range. NAB forecasts the year-end price at around USD1360/oz, with further upside momentum into 2019 and 2020.
- **The NAB USD non-rural commodity price index rose by around 25% in 2017,** although that outcome masks some of the volatility in bulks prices; **the index was up a more modest 2¼% over the year to December 2017. Declines are forecast to resume in 2018,** with the USD price index falling around 2¼% over the year. We now expect to see the AUD depreciate more gradually, and from a higher starting point, which means prices will fall by slightly less in AUD terms through 2018. **Overall, the Australian terms of trade is expected to lift slightly in the near-term, but will resume a gradual descent from mid-2018.**

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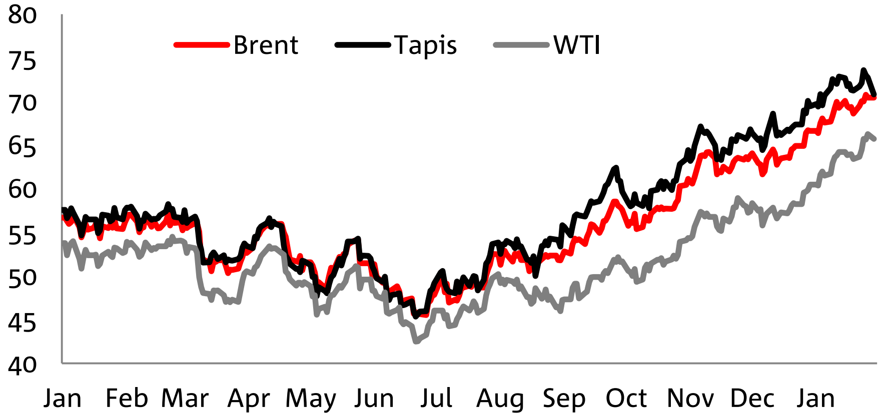
OIL

Prices up then down, where to now?

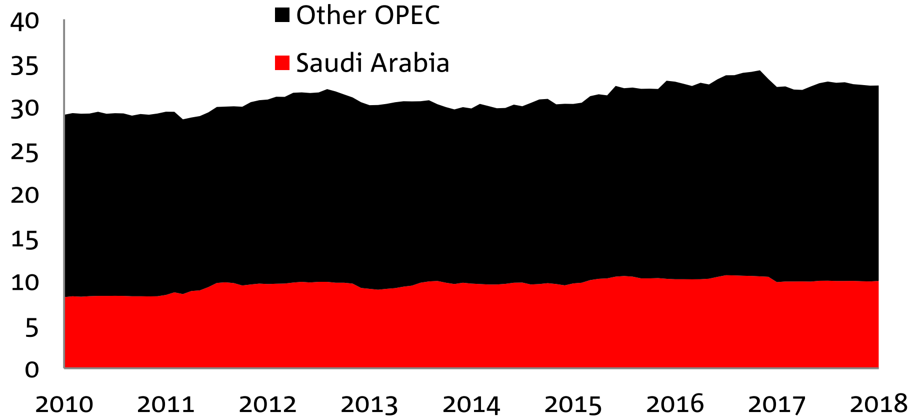
DAILY OIL PRICES JANUARY 2017 TO DATE

USD/bbl



OPEC AND CRUDE PRODUCTION

Million bbl/d, monthly



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

- Oil prices enjoyed a stellar run from mid-2017 up to last month, with Brent rising from mid-to-high 40s to having hit $70/bbl last month. Brent has since fallen and is hovering around $64-65/bbl. Meanwhile, while WTI also rose steadily, a more substantial Brent-WTI premium has emerged amid buoyant US shale production.
- A key driver of the rise in prices has been the OPEC-Russia deal to cut oil output. OPEC production has fallen from a peak of 34.1 million bbl/day in November 2016 to 32.4 million bbl/day in January 2018. In November last year, OPEC and Russia agreed to extend the deal until the end of 2018. A key motivation for Saudi Arabia – OPEC's biggest oil producer at around 8-10 million bbl/day – is the forthcoming float of state-owned Saudi Aramco. Higher oil prices are likely to boost the share price for the IPO.
- The other side of the coin is surging US shale production. We have included further detail on US shale production overleaf, but in summary it looks likely that the US will continue to expand production if WTI stays above $60/bbl. We see this as a major brake on further upside in crude prices.
- **Our forecasts point to Brent spending 2018 largely in the high-60s range**, although increased US shale production could challenge this forecast. Meanwhile, WTI is likely to trade at a higher discount to Brent – **we see WTI in the low-60s range throughout the year.**
- Australian fuel prices have been rising, although the surge in the AUD of late has blunted some of the impact. The outlook for 2018 is highly dependent on exchange rate movements. If the AUD remains elevated, any upside for domestic fuel should be limited. The AUD saw a significant run up in late 2017 and early 2018, breaking the 81c barrier for a time. Recent market turmoil has blunted the AUD's rise, although we have revised up our AUD forecasts from the 70-75c range to the 75-79c range for much of 2018. However, if the AUD falls faster than we expect there is potential upside risk. We see national petrol prices spending 2019 largely in the 130-135 Australian cents/litre range.

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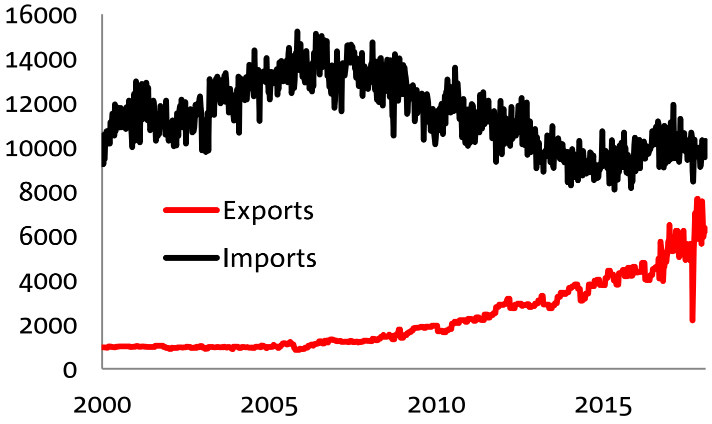
US SHALE OIL IN FOCUS

US production likely to expand with WTI over $60/bbl

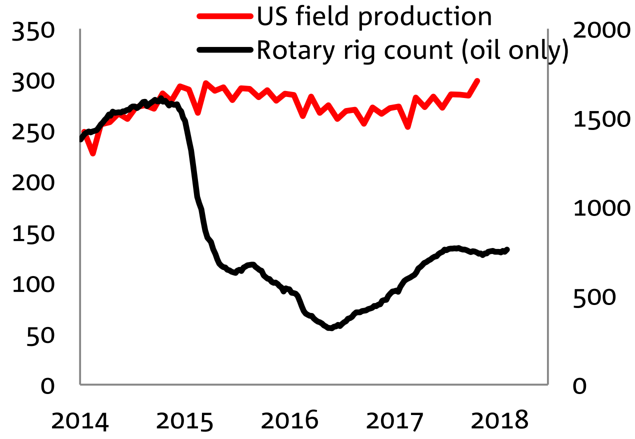
US CRUDE AND PETROLEUM TRADE

Thousand barrels a day, weekly data



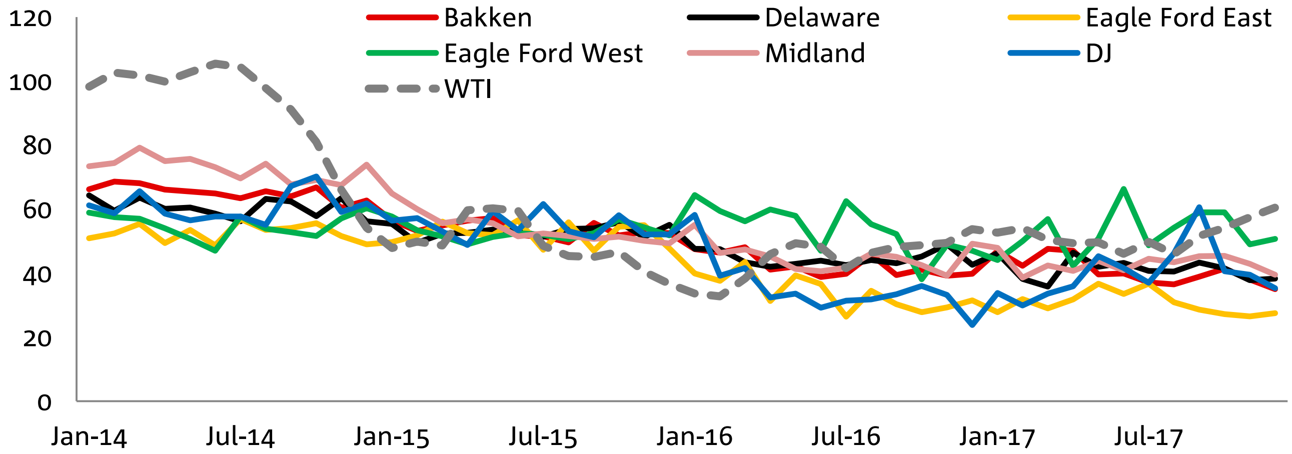
US FIELD PRODUCTION AND RIG COUNT

Million barrels, monthly LHS, no. (RHS)



US SHALE BREAKEVENS

USD/bbl



Source: Bloomberg, US Energy Information Administration and NAB Group Economics

- While OPEC's cuts have worked to drive up oil prices, the pressure from the US has been in the opposite direction. Shale drilling has revolutionised the US oil industry, notwithstanding some considerable pressure following the 2014 price rout. With prices now rising again, US shale production has surged once more. The latest US EIA data show that US oil production exceeded 10 million bbl/day in November 2017, the highest since 1970. US oil exports are also running hot and imports are well below their last peak in the mid-noughties.
- The outlook for US production is likely to be buoyant unless prices fall significantly. The US shale industry has reorganised and is in a substantially stronger position than it was two years ago and indicative data points to WTI now exceeding breakeven production costs in six major US shale plays. This is further underlined by a Dallas Fed survey, conducted late last year, in which respondents coalesced around $60/bbl as a key marker to turn the tap back on.
- Recent data showing US inventories building by 6.8 million barrels underlines the challenge to further price rises. If inventories keep building, the market could see some pressure.

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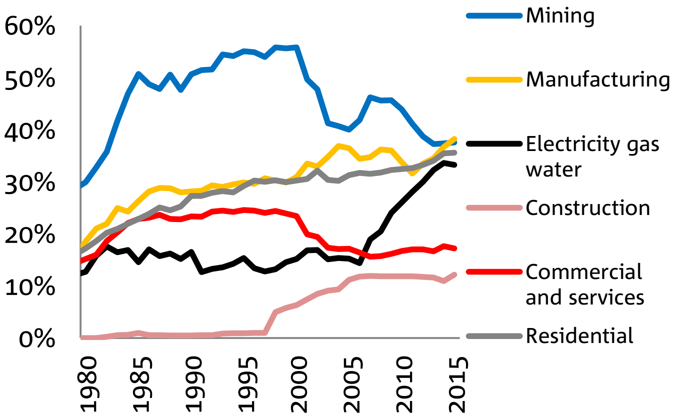
NATURAL GAS AND LNG

Impact of exports continues to be felt in east coast gas markets

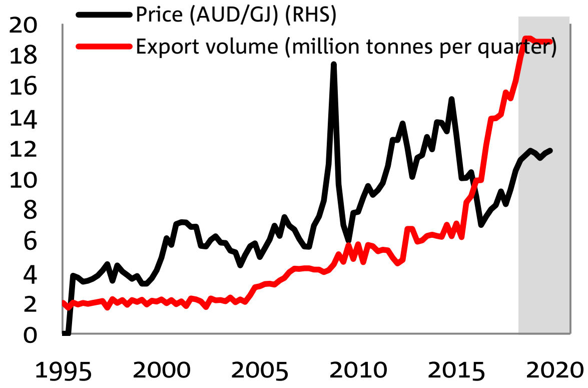
GAS SHARE OF TOTAL ENERGY USE

Share of total energy use by sector



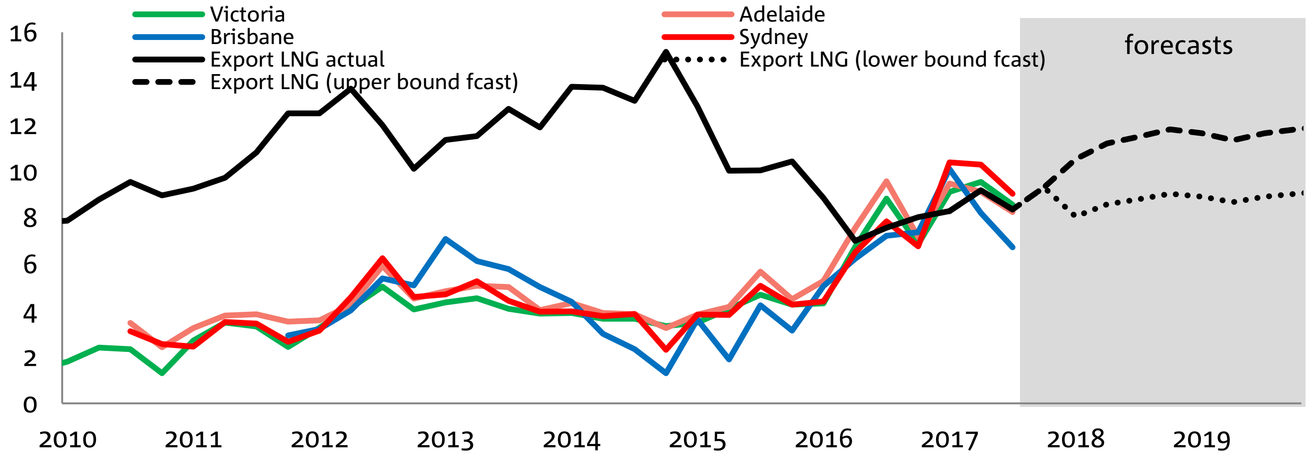
AUSTRALIAN LNG EXPORTS

Volume and average price (inc forecast)



DOMESTIC AND EXPORT GAS PRICES

AUD/GJ, spot (domestic), quarterly average



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

- The ramp-up in Australian LNG exports hit pause in Q4 last year, although this was largely due to a weak figure in the month of October. Nonetheless, volumes were still up 9.4% y/y. We expect the ramp-up to resume this year and volumes to be up 25.6% y/y by Q4 2018.
- Of perhaps greater interest to Australian gas and electricity consumers is the likely path of eastern Australian gas prices. Domestic spot prices have been generally lower since their peak in Q1 last year, perhaps reflecting restrictions on the market introduced by the Commonwealth Government. However, these changes have merely eliminated the premium over export that had existed – there is little prospect that prices will dip substantially below netback prices (export prices after allowing for the costs of transport and liquefaction).
- With most of our gas export contracts tied to the price of oil, the recent upturn in oil prices points to higher domestic gas prices, however this has been offset to great extent by the higher AUD. Nonetheless, the era of $2-4/GJ gas in eastern Australia is well and truly over. Domestic gas purchasers will be lucky to secure gas under $10/GJ in the medium term.
- With most Australian LNG export prices tied to the price of oil, **we now expect export prices to reach $11.50/GJ by Q3 2018.**

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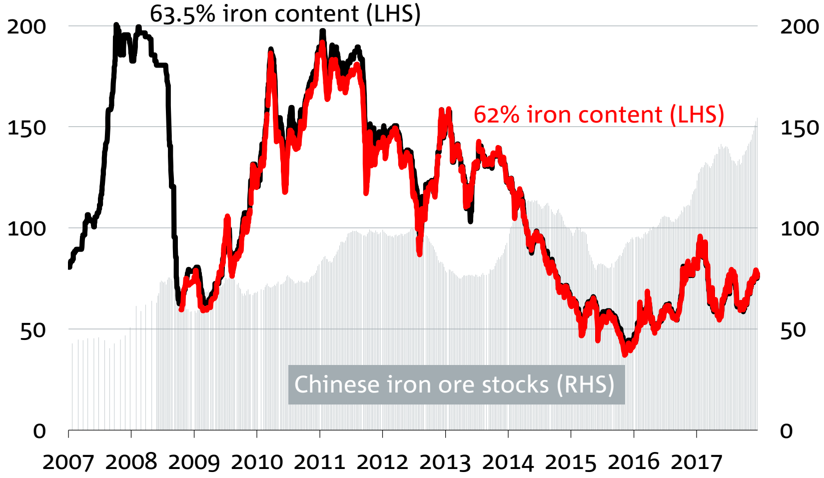
IRON ORE

Iron ore prices higher, despite record Chinese stocks and softer steel output

IRON ORE PRICES HAVE PUSHED HIGHER

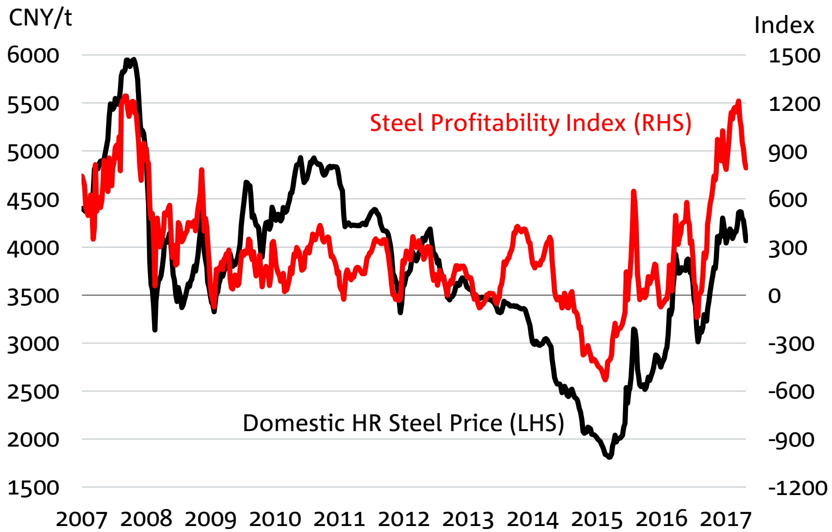
Stockpiles up to new record levels



Source: Bloomberg, Thomson Datastream, NAB Economics

CHINESE STEEL PRODUCER PROFITABILITY

Steel prices have driven profitability higher



Sources: Bloomberg, NAB Economics

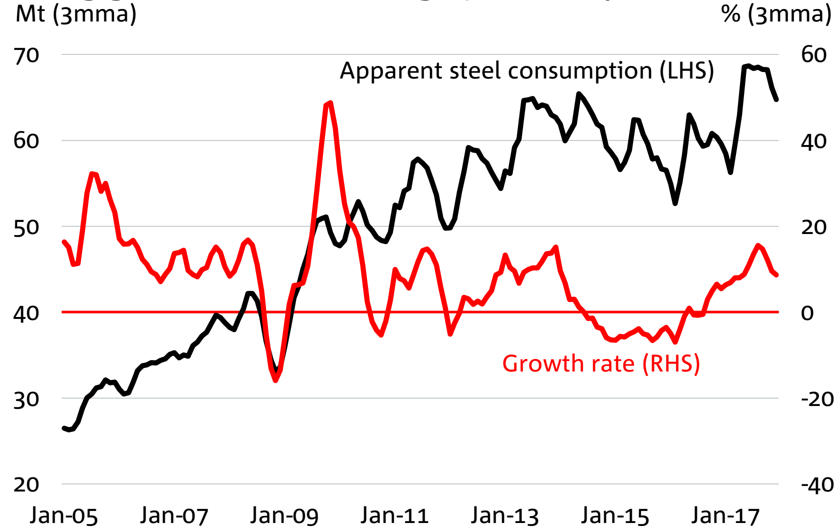
- Spot prices for iron ore (for 62% ore landed in China) trended higher from early November 2017, increasing from around US$60 a tonne to almost US$80 a tonne in early January 2018, before easing back to the mid-US$70s range at the time of writing.
- This increase has occurred despite further increases in Chinese port stockpiles – up from 136 million tonnes at the start of November to 154 million tonnes in mid-January – equivalent to around one and three-quarter months of consumption in the country's blast furnaces (at current output levels).
- China is by far the key economy for the global iron ore trade – accounting for around two-thirds of imports in 2016 (and likely a similar share in 2017). China imported a total of 1.075 billion tonnes of iron ore in 2017, an increase of 4.9% yoy. China's steel industry is increasingly reliant on imported ore – despite an increase in domestic ore production. Our estimate – which doesn't account for changes in stocks – suggests that almost 94% of blast furnace output was supplied by imported ore.
- China's steel production rose strongly in 2017 – up by 4.8% to 845 million tonnes (an all time high). That said, the strongest growth occurred mid year – with output dropping from around 74.6 million tonnes in August to 67.0 million tonnes in December – in part reflecting the impact of capacity closures across a number of key steel producing northern cities between November and March.
- Strong output has been supported by surging profitability for Chinese steel mills, which rose to decade long highs in early December. Steel prices in China have surged since April, rising from around RMB 3000 a tonne (for indicative hot rolled steel) to RMB 4000 a tonne. Rising raw material costs – particularly for metallurgical coal and scrap steel – have reduced profits more recently, but at the time of writing they remain high.
- China's steel output is expected to be weaker in 2018 – reflecting the impact of the capacity closures until March and expectations of softer demand from the construction sector (see over).
- China accounted for just over 50% of steel production in 2017. Overall non-Chinese steel production rose by 5.3% to 843 million tonnes. The largest increases were in India, Turkey, Iran and the United States.

IRON ORE cont.

Prices to fall as Chinese steel consumption falls

CHINESE STEEL CONSUMPTION

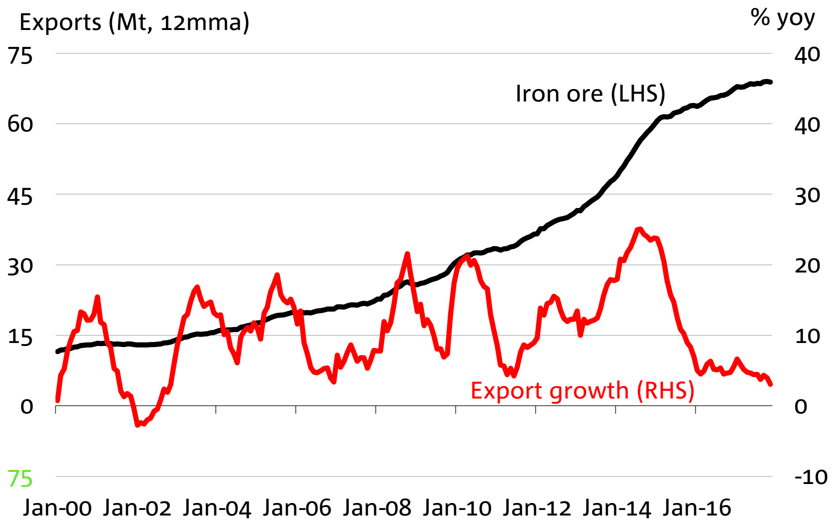
Strong growth in 2017, though potentially overstated



Sources: CEIC, Bloomberg, NAB Economics

AUSTRALIAN IRON ORE EXPORTS

Export growth more modest, dependent on China



Sources: Bloomberg, NAB Economics

- China's apparent steel consumption accelerated strongly across 2017 – increasing by 4.7% – pushing up to record levels mid year. In part, this reflected falling steel exports and strong domestic demand, however this growth may have been overstated – with the closure of illegally operating induction furnaces (which were not accurately reported in historical steel production data) increasing demand for conventional steel products. Accounting for this impact, the World Steel Association forecast 2017 growth at 3.0% in October.
- Construction accounts for over half of China's steel consumption, and the sector continued to grow strongly in 2017 – with overall building starts growing by 7.0% (in terms of area). Residential construction accounted for over 70% of this total, and residential starts increased by over 10%, despite concerns around a potential debt fuelled property bubble.
- We expect Chinese construction activity to slow in 2018 – reflecting a significant slowdown in house price growth and housing sales in the latter part of last year. Chinese authorities have gradually tightened policies around housing purchases and lending criteria – which should begin to impact new construction, and demand for steel. The World Steel Association forecast no growth in steel consumption this year, although weaker construction activity could see consumption fall.
- China's exports of steel products contracted in 2017 – down by 31% to 76 million tonnes. While some of this trend may reflect the strength of Chinese domestic demand, it also indicates the impact of growing protectionism. Exports to key Asian markets such as South Korea, Vietnam, Thailand and the Philippines have all fallen sharply. We see limited potential for increasing Chinese steel exports in 2018.
- Australia's iron ore export volumes rose by 2.5% in 2017 to 830 million tonnes. Growth has slowed considerably in recent years – compared with the double digit rates recorded between 2012 and 2015. Australian exporters have become increasingly dependent on China – accounting for over 83% of the total over this period. Exports to non-Chinese markets fell by 5.2% to 139 million tonnes.
- Weaker steel production in China should see iron ore prices soften over the course of 2018. We forecast spot prices to ease from current levels (above US$70 a tonne) back towards US$60 a tonne by the end of the year.

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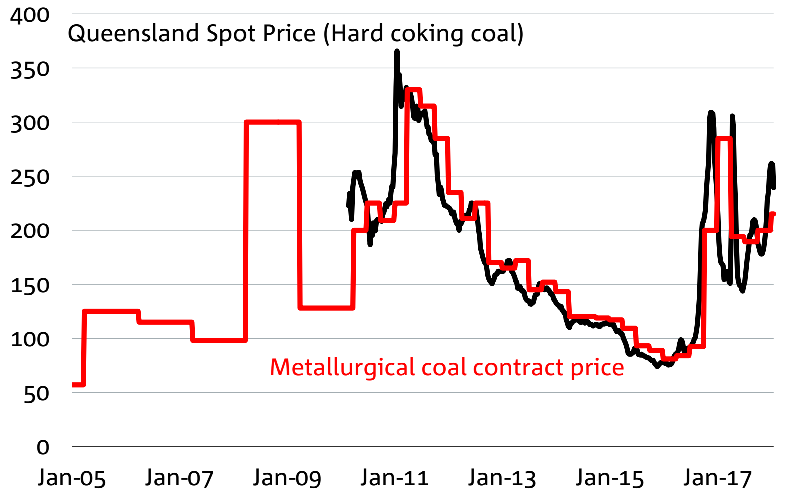
METALLURGICAL COAL

Prices to ease as short term constraints gradually fade

COKING COAL PRICES

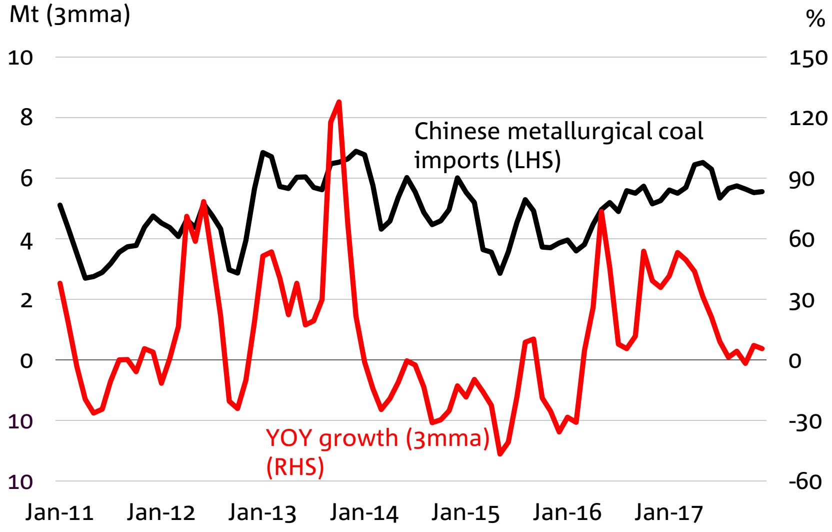
Volatility in spot and contract prices has continued



Source: Bloomberg, Datastream, NAB Economics

CHINA'S METALLURGICAL COAL IMPORTS

Import growth has slowed; imports could fall in 2018



Source: CEIC, NAB Economics

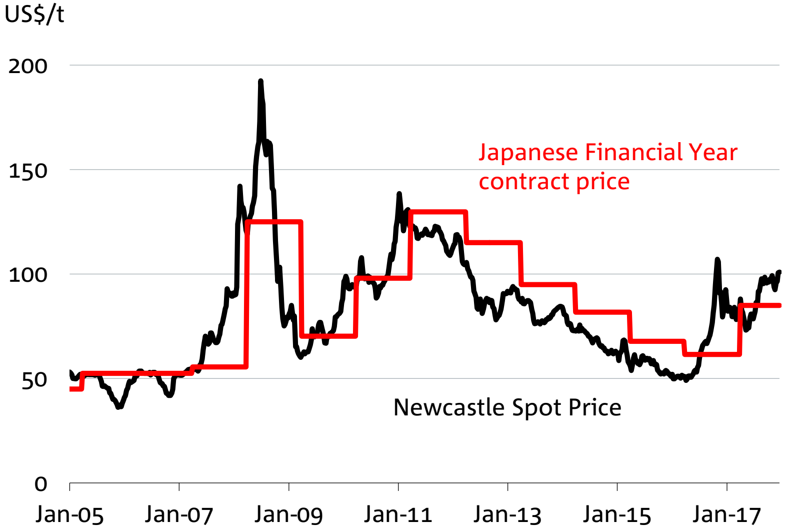
- Prices for hard coking coal have been particularly volatile across the past eighteen months, with prices spiking once again in late 2017 and into early 2018 on supply disruptions. Spot prices rose from under US$180 a tonne in mid October to over US$260 a tonne in early January, before starting to retreat – to around US$215 a tonne at the time of writing.
- The latest price spike largely relates to issues at the Port of Dalrymple Bay in Queensland – the state's largest export facility – where the queue of vessels waiting for loading rose to around 70 in mid December (compared with a normal range below 20). A range of factors have contributed to this outcome – including the challenges in recovering operations following the impact of Tropical Cyclone Debbie in late March, orders exceeding nameplate capacity in September and October and longer than anticipated maintenance at one of the port's loading berths. These constraints are expected to ease in coming months, expanding the supply of hard coking coal to global markets.
- Overall, Australia's exports of metallurgical coal were weaker in 2017 – reflecting the supply disruptions – with exports totalling 170 million tonnes, a decrease of 9.5%.
- The strength of Chinese imports in 2017 has also supported metallurgical coal markets – with total imports rising by 17.8% in 2017 to 69.9 million tonnes. That said, the majority of this growth occurred in the first half of the year, with monthly imports peaking in April. Weaker Chinese steel production in 2018 should see an overall decline in imports this year.
- The easing of supply constraints, allied with weaker demand from Chinese steel producers, should see prices fall across 2018 – with recent history highlighting the risk of a rapid correction when constraints ease. We expect prices to fall from current peaks above US$200 a tonne, to around US$110 a tonne by the end of the year.

THERMAL COAL

Short term supply constraints to see contract prices rise for 2018

THERMAL COAL PRICES

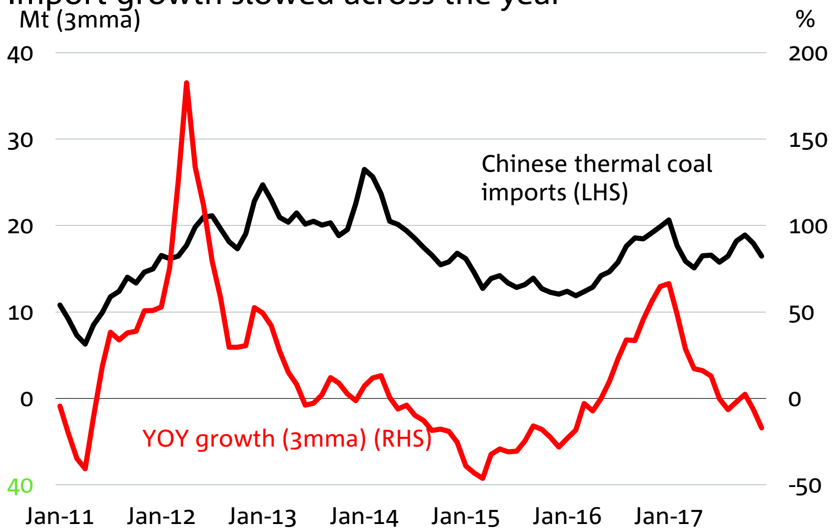
Short term factors elevate spot prices at present



Source: Bloomberg, BREE, NAB Economics

CHINA'S THERMAL COAL IMPORTS

Import growth slowed across the year



Source: CEIC, NAB Economics

- Spot prices for thermal coal have risen over the past few months – albeit far more modestly than metallurgical coal. Prices at the port of Newcastle rose to around US$107 a tonne in mid February (up from around US$90 a tonne in mid-November). This is above the annual Japanese financial year contract price – at US$85 a tonne – which expires at the end of March.
- Peak northern winter demand – with particularly cold weather across much of north Asia – has been boosted by shortages of natural gas in some Chinese regions, while supplies from Australia have been constrained by infrastructure constraints and labour disputes. These pressures should ease in coming months.
- China's domestic coal production rose slightly in 2017 – increasing by 1.0% to 3.4 billion tonnes. However, output remains well below the peak recorded in 2013 (almost 4.0 billion tonnes). Chinese coal consumption is expected to decline further in coming years, as other technologies (particularly renewables) are set to take a greater share of China's energy requirements.
- China's thermal coal imports rose modestly in 2017 – up by around 2.5% to 201 million tonnes. That said, monthly import volumes across the year were below the peaks of late 2016 – when government imposed production restrictions on domestic coal mines.
- Other Asian markets have exhibited different trends. Japanese coal imports (both thermal and metallurgical) increased by just 0.4% in 2017, while indicative Indian imports (based on port movements rather than customs data) fell by almost 14%. In contrast, total coal imports in South Korea rose by 10.2% yoy to 148 million tonnes. Prospects for coal imports in Korea are weaker longer term – with the government favouring further development around liquefied natural gas at the expense of coal.
- There was no growth in Australian exports of thermal coal in 2017 – with volumes remaining unchanged at 200 million tonnes.
- Spot prices are expected to ease in coming months – following the conclusion of peak winter demand and the easing of supply constraints – but may remain elevated during contract negotiations. As a result, we forecast for the 2018 Japanese financial year contract at US$90 a tonne (from our previous forecast of US$80 a tonne).

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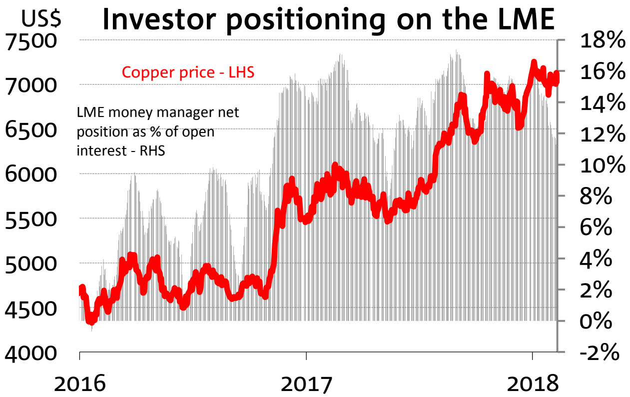
COPPER

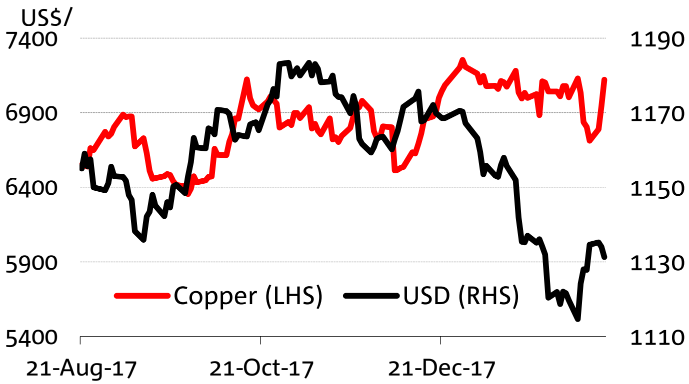
Small market deficits expected in 2018

COPPER PRICES & POSITIONING



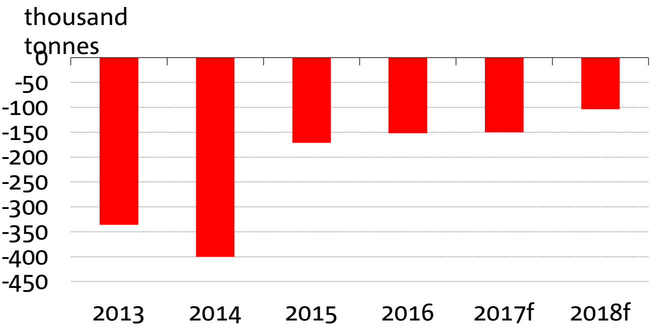
Source: Bloomberg

COPPER PRICE & USD TWI



Source: Bloomberg

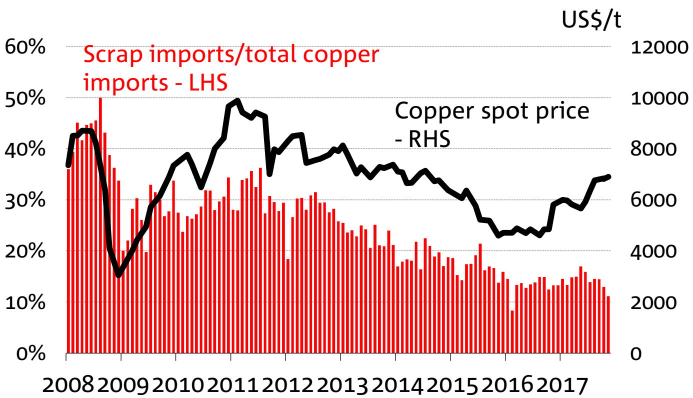
GLOBAL REFINED COPPER BALANCE



*China apparent usage basis

Source: International Copper Study Group, NAB

CHINESE SCRAP IMPORTS



Source: Bloomberg

Base Metal Prices*

	Avg Price (US$/tonne) Jan-18	Oct-17 to Jan-18 % change, quarterly	Jan-17 to Jan-18 % change, annual
Aluminium	2212	3.8	24
Copper	7072	3.9	23
Lead	2580	3.3	16
Nickel	12858	13.4	29
Zinc	3437	5.3	27
Base Metals Index		5.7	24

* Prices on an LME cash basis.

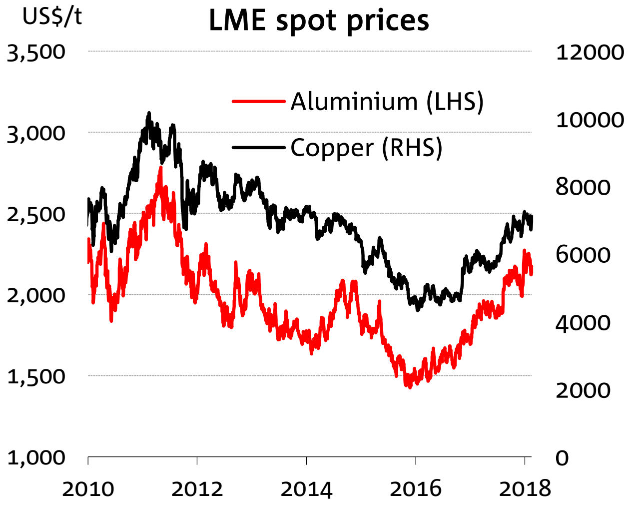
Sources: LME; NAB

- Copper prices temporarily dipped early this year, keeping with much of the volatility evident in equity markets. Prices are sitting at reasonably lofty levels, with the shape of the futures curve indicating that most of the price strength has been driven by the long end, i.e., expectations of price rises rather than imminent supply shortage as in the zinc market.
- While supply disruptions due to weather and labour disputes will remain a constant, we do not expect the impacts will be as severe as in early 2017. Combined with capacity restarts in the Demographic Republic of Congo and Zambia and to a lesser extent output from new projects/expansions, we expect to see world mine production increase slightly in 2018. However, depressed price levels in the past few years have resulted in a lack of exploration effort, and therefore no major new mines are on the horizon. Should demand pick up meaningfully, the global copper market could well slip further into deficit.
- China's top copper smelters lowered the indicative TC/RC for Q1 2018, signalling tight concentrates supply. From Q2, concentrates supply is expected to improve. The ban on hard waste imports since late 2017 is impacting on Chinese refined production from scrap, however there have been reports of smelters setting up factories in south east Asia to process copper scrap into blisters, to be further refined in China. While less scrap is being imported, the copper content seems to be finding its way eventually into the market, overall not having a substantial impact on supply.
- On the demand side, Chinese demand growth is expected to be slow but stable, while the pickup in global activity should also lend support. Downside risks remain around China's property market outlook, where lower population growth, tighter credit conditions and weaker price growth could see real estate investment growth slow.
- **Overall, we expect a small market deficit in 2018, with prices averaging $7020/t. There is a risk the deficit could widen beyond 2018 should currently proposed new mines not go ahead.**

ALUMINIUM

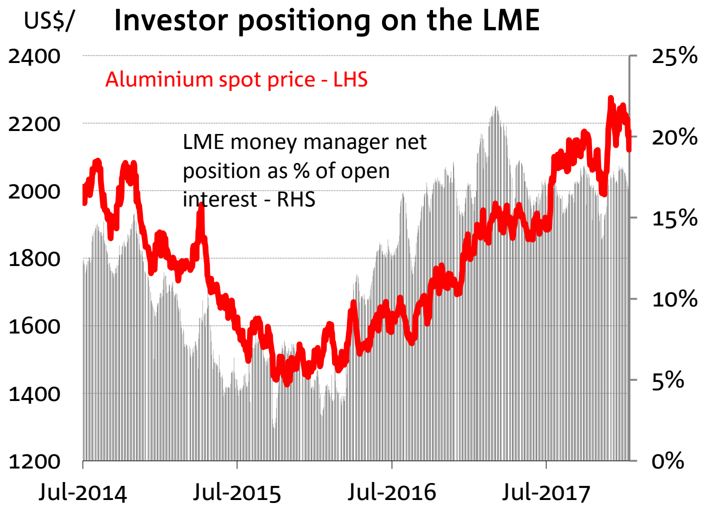
Prices continue to be supported by Chinese capacity curtailments

COPPER & ALUMINIUM PRICES



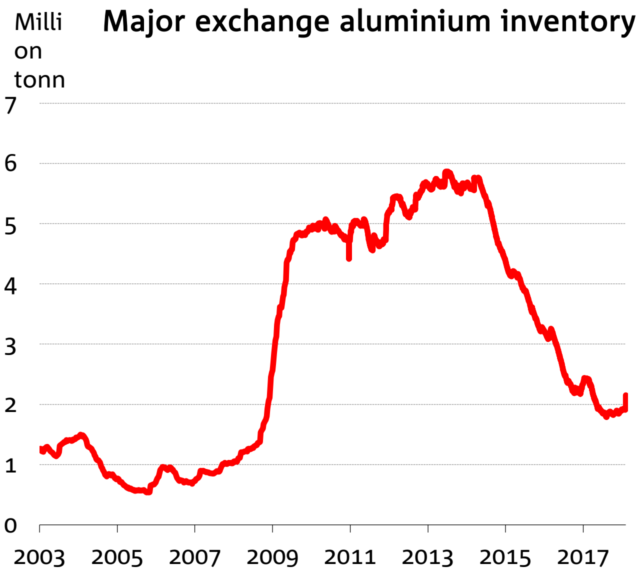
Source: Bloomberg

INVESTOR POSITIONING ON THE LME



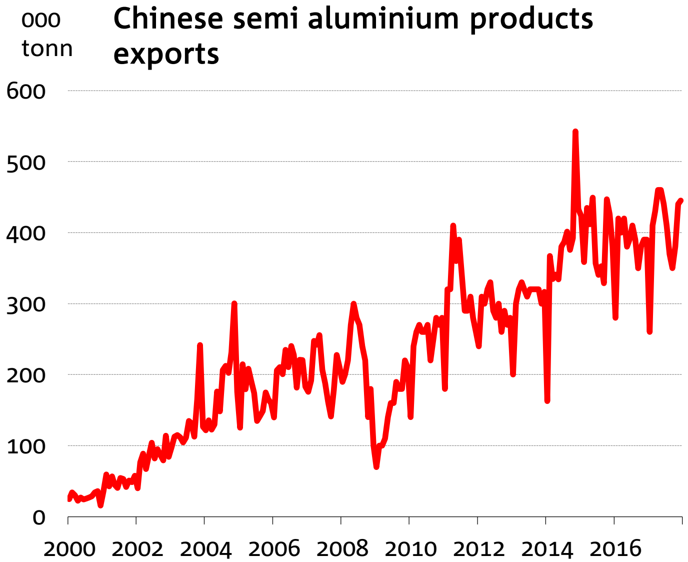
Source: Bloomberg

MAJOR EXCHANGE INVENTORY



Source: Bloomberg

CHINESE SEMI ALUMINIUM EXPORTS



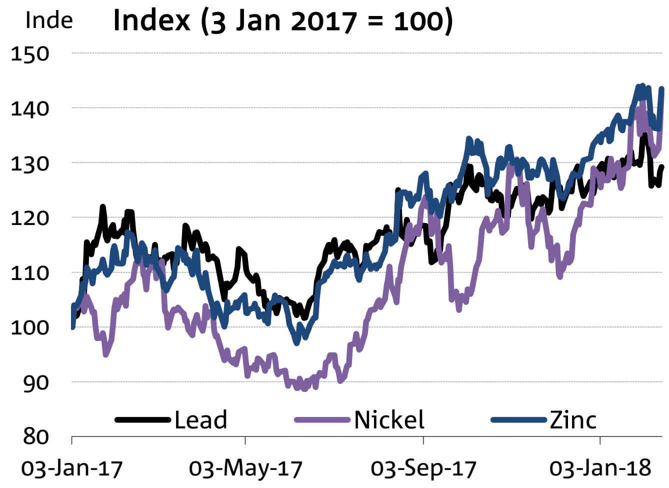
Source: Bloomberg

- Similar to copper, **aluminium prices saw a pullback at the beginning of 2018 before partially recovering. Looking through the volatility, price have received support from China's pollution control efforts during its winter heating season.**
- The rest of northern China joined north-eastern China by mid November in entering the winter heating season, a time often plagued by smog. Given increasing environmental concerns, the central government has implemented initiatives to improve air quality, which requires smelters and refineries in the policy-affected regions to curtail 30% of production capacity. As a result, short term aluminium prices will continue to receive support from winter production cuts, until March at least when China finishes its winter heating season and economic activity resumes full speed post the Chinese New Year. From March onward, we expect some price pullback as producers might look to re-capture market share and take advantage of the elevated prices, especially those with cleaner and more efficient technology.
- China remains heavily reliant on imported bauxite and the supply pipeline looks to have improved with both Indonesia and Guinea increasing their bauxite production. Indonesian bauxite exports have been steadily increasing since the government lifted the ores export ban in July. Chinese firms have also stepped up their investment in Guinea due to the depletion of domestic Chinese ores, with Guinea overtaking Australia as China's largest supplier of bauxite.
- The demand outlook remains positive, but while manufacturing PMIs continue to point to an expansion in activity, downside risks remain -- especially if softer house prices and sales will flow through into weaker construction activity in 2018.
- **Overall, the global aluminium market is expected to be largely balanced in 2018, with prices averaging $2250/t with downside risks.**

NICKEL, LEAD & ZINC

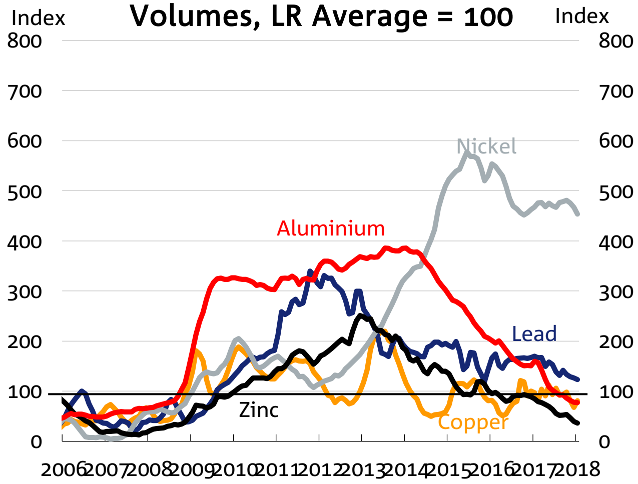
Zinc tipped to be the top performer, while nickel prices could be volatile

NICKEL, LEAD & ZINC PRICES (LME)



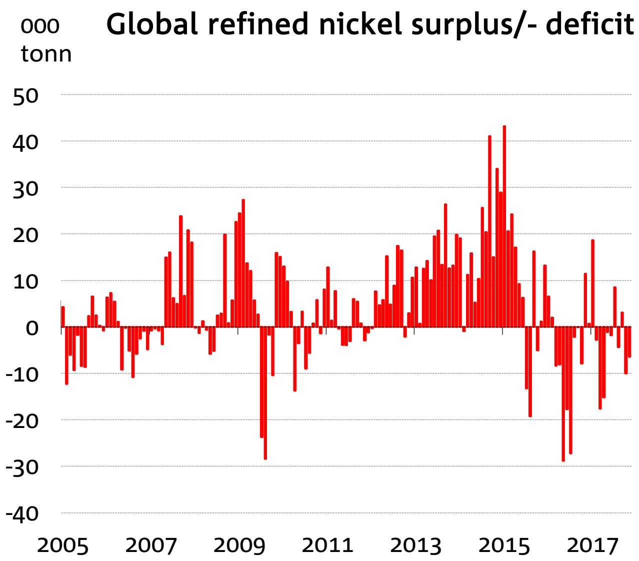
Source: Bloomberg

LME STOCKS



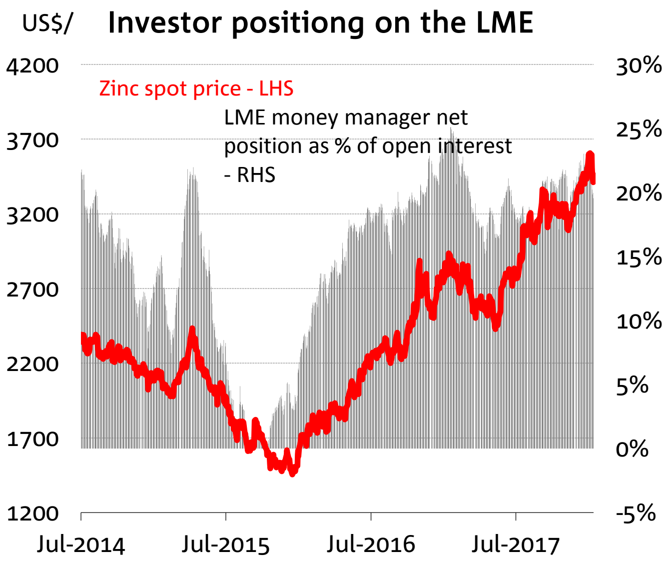
Sources: Datastream: NAB

GLOBAL NICKEL MARKET BALANCE



Source: Bloomberg

INVESTOR POSITIONING IN LME ZINC



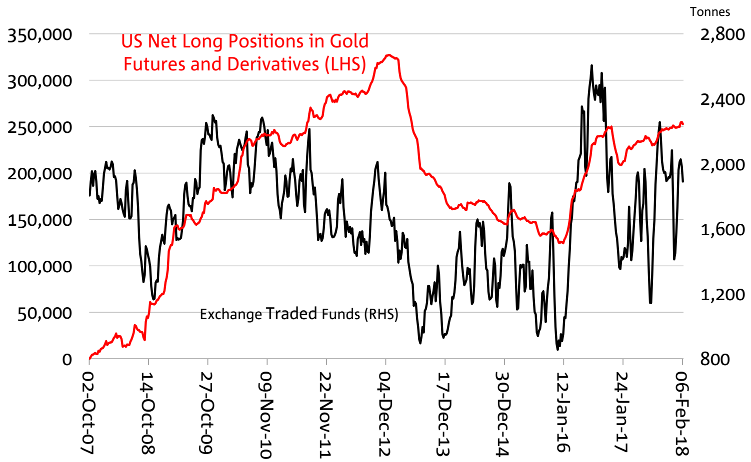
Source: Bloomberg

- Nickel, lead and zinc did not escape the recent volatility in markets, but have largely recovered in recent days – lead seeing the most muted rebound. However, this bout of volatility has not materially altered our view of the underlying fundamentals.
- The supply outlook for nickel seems much improved compared to this time last year, removing some support for prices. Indonesia has relaxed restrictions on raw ore exports, and increased its nickel pig iron exports. Although the Philippines is yet to lift its ban on open cut mining (as recommended by the new environment minister), the current ban only affects new projects. On the demand side, there have been encouraging developments, with demand from electric vehicle batteries the hot topic driving positive sentiment. However, battery demand for nickel is still comparatively low and unlikely to change the fundamental picture. Even though several governments have issued ambitious policies to promote electric cars, the uptake and eventual phasing out of traditional fossil fuel vehicles is likely to be a gradual process. In the meantime, demand from the Chinese stainless steel sector has declined, as capacity curtailments remain in place. In addition, nickel inventories remain high. **Overall, we forecast a surplus nickel market in 2018 with some price declines but concede that prices could be volatile again.**
- The zinc market remains in deficit. Chinese mined supply additions are expected to be small due to stricter environmental controls, while restarts by Glencore are also unable to offset previous capacity closures. Inventory levels remain low, with the AME estimating that deliverable stocks on the LME and SHFE now only cover around 3.3 days of demand. **We expect the tight market conditions to continue to support prices, averaging $3270/t in 2018.**
- The lead market will likely remain well supplied in 2018. LME inventory levels remain above the long-term average. While demand from the automotive sector will remain supportive for prices, new generation lithium-ion batteries will likely see lead batteries being phased out eventually. We expect prices to average around $2450/t in 2018

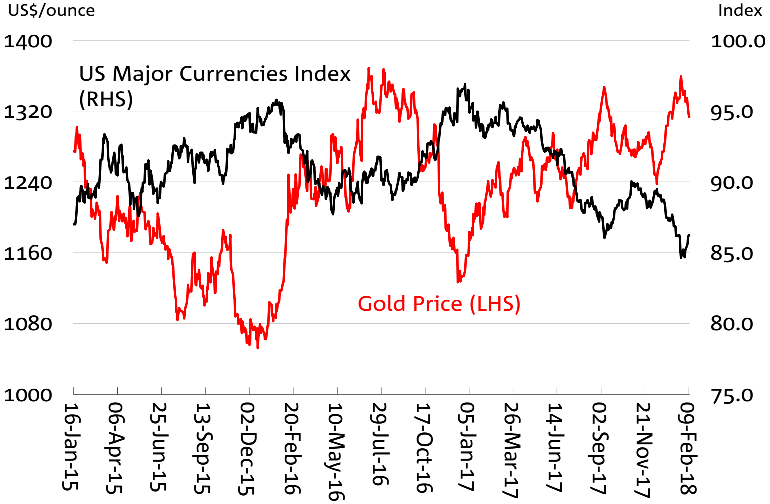
GOLD

Consolidation of recent gains; outlook generally positive

INCREASED INVESTOR INTEREST IN GOLD

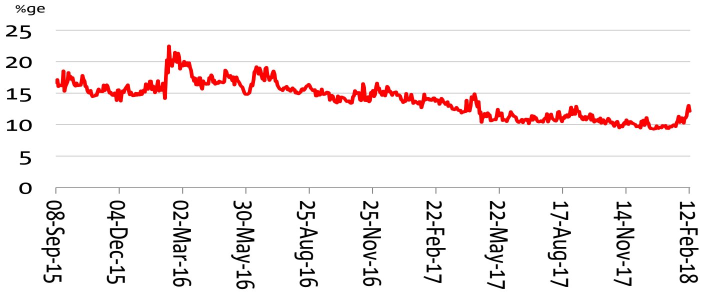


WEAKER USD HAS BOOSTED THE GOLD PRICE



Source: Thomson Datastream, NAB

PRICE VOLATILITY – SUBDUED, BUT OFF RECENT LOWS



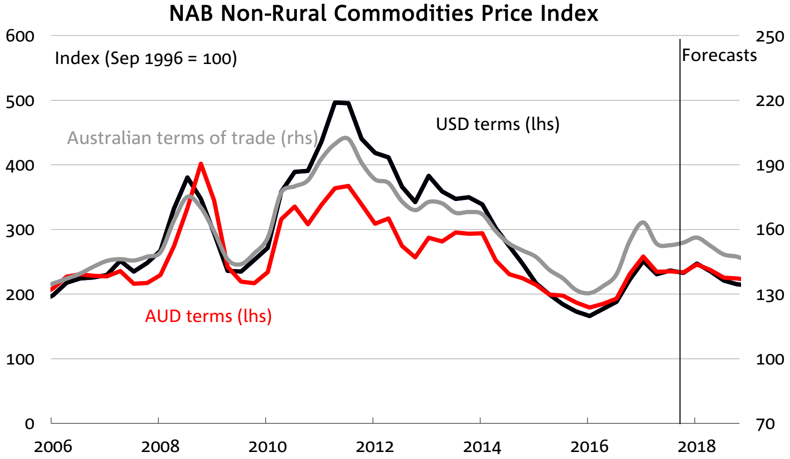
Source: Thomson Datastream, NAB

- From a recent low of USD1237/oz. in early December, following the interest rate hike by the US Federal Reserve, the price of gold has risen sharply, and has been trading consistently in the USD 1300/oz. range during early 2018. Gold prices rose by 3% in January, the strongest monthly outcome since August 2017. The price improvement has been accompanied by increased interest by financial speculators, although this has eased somewhat.
- US dollar weakness, concerns about Bitcoin as an alternatives to gold in light of recent scandals (e.g. Coincheck debacle in Japan), and the possibility of trade frictions have been supportive of the precious metal. The weakness in the dollar also received tacit support from Treasury Secretary Steve Mnuchin, although President Trump later downplayed such remarks.
- While the Federal Reserve held rates steady in January, it expressed confidence that inflation was on an upward trajectory, pushing up bond yields. The price of gold has ebbed and flowed with movements in the US dollar, as well as movements in bond yields stemming from activity and price changes and was last trading around USD1,350/oz. Gold price volatility has also risen of recent lows.
- Higher bond yields increase the opportunity cost of holding gold, exerting downward pressure on the price. Going forward, the expected rise in bond yields from future interest rate rises (NAB is predicting 3 hikes in 2018) will restrict the pace of future growth in the gold price. Conversely, rising inflationary pressures will increase the demand for gold and provide price support.
- Looking ahead, NAB Economics is forecasting a generally positive outlook for gold, with the precious metal expected to remain in the US 1300/oz. range, although it will be impacted by economic, financial (e.g. equities) and geopolitical developments.
- More specifically, we are forecasting the gold price to be around USD1360/oz. by the end of 2018, rising further into 2019 and 2020. Risks to our forecasts are evenly balanced.

OUTLOOK

RECENT SUPPORT FOR THE COMMODITY INDEX IS EXPECTED TO BE TEMPORATY

Index, September 1996 = 100



Source: BREE, ABS, Bloomberg, Thomson Datastream, NAB

- NAB's non-rural commodity price index is expected to jump 8½% q/q in Q1 2018 (in US dollar terms), partly reflecting broad based strength in prices witnessed late last year on the back of improved global growth sentiment (along with some supporting supply side factors). However, a rebound in iron ore prices accounts for much of the move, although we still expect underlying fundamentals will see bulk commodity prices resume their previous downward trend from around mid this year (see p5-6).
- Looking through some of the near-term volatility in financial markets, the global economic recovery is still anticipated to remain on track this year and next. However, we continue to hold the position that there will be a tempering in demand conditions for certain commodities nonetheless, particularly as support from Chinese buyers begins to wane – albeit with some offset from initiatives like 'One Belt One Road'. Additionally, fiscal risk stemming from the US has been an ongoing theme and is likely to remain a concern going forward, particularly on the back of any announcements around infrastructure spending. Other events stemming from the political situation in Europe, or policy changes – such as any deleveraging or environmental campaigns in China – are simply adding to the uncertainty.
- Developments in China remain critical to the demand for Australian commodity exports. Although the outlook for China's economy has improved in recent quarters, economic growth is increasingly being driven by the low resource-intensive services sector. NAB continues to expect weaker conditions in the construction sector – which will flow through to industrial demand and commodities (particularly iron ore and coal) – as authorities seek to control growing risk in the property sector.
- **The NAB USD non-rural commodity price index rose by around 25% in 2017**, although that outcome masks some of the volatility that was evident in bulks prices; the index was up a more modest 2¼% over the year to December 2017. **The index is then forecast to fall 2¾% in 2018 and a further 9% in 2019.**
- The AUD held up much better than expected late last year and into 2018. Commodity prices in AUD terms are still expected to see modest support later this year as the USD gains more traction with further US Fed monetary policy normalisation. Despite some upward shift to our AUD forecast profile – especially at the front end – **the AUD is expected to stabilise at a lower level around USD 0.75 over most of the forecast horizon (the previous forecast was for a trough at around USD 0.73 in mid-2018). In annual average terms, NAB's AUD commodity price index is forecast to decline by around 2¼% in 2018 (previously -6%) and fall a further 7¼% in 2019.**
- In light of these commodity price projections, **NAB is forecasting the Australian terms of trade to rise in Q4 2017 and Q1 2018,** but not by enough to fully unwind the declines from early last year. The terms of trade is then expected to resume **a gradual decline thereafter. In annual average terms, the terms of trade are forecast to rise around 11½% for 2017, but will be down ½% over the year for December 2017. We are forecasting a 3% decline in 2018.**

NAB COMMODITY PRICE FORECASTS

	Unit	Spot	Actual			Forecasts					
		14-02-2018	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
WTI oil	US$/bbl	61	54	60	61	61	60	59	60	61	62
Brent oil	US$/bbl	63	60	66	67	67	66	65	66	67	68
Tapis oil	US$/bbl	66	63	67	68	68	67	66	67	68	69
Gold	US$/ounce	1348	1280	1330	1320	1330	1360	1380	1370	1380	1390
Iron ore (spot CFR)	US$/tonne	n.a.	66	73	67	63	61	60	58	60	62
Hard coking coal*	US$/tonne	n.a.	200	215	175	130	110	101	99	100	100
Semi-soft coal*	US$/tonne	n.a.	144	156	126	94	79	73	71	72	72
Thermal coal*	US$/tonne	106	85	85	90	90	90	90	65	65	65
Aluminium	US$/tonne	2174	2110	2110	2090	2060	2060	2060	2060	2060	2060
Copper	US$/tonne	7121	6830	6760	6690	6630	6630	6630	6630	6630	6630
Lead	US$/tonne	2582	2490	2490	2460	2440	2410	2410	2410	2410	2410
Nickel	US$/tonne	14056	11620	11500	11390	11390	11390	11390	11390	11390	11390
Zinc	US$/tonne	3591	3230	3250	3260	3280	3300	3300	3300	3300	3300
Aus LNG**	AUD/GJ	n.a.	9.31	10.52	11.20	11.50	11.81	11.65	11.34	11.65	11.81

* 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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