MINERALS & ENERGY OUTLOOK

NOVEMBER 2017

National Australia Bank

Key Points:

- **There were very few consistent themes across the commodity complex this quarter.** The global economic recovery has remained broadly on track, albeit with lingering uncertainties around the political environment and various policy implications. However, **even as the recovery continues, the changing composition of global growth is expected to have a material impact on certain commodities going forward**, particularly as demand from China shifts down a gear. **Meanwhile, supply side conditions are mixed,** with production curtailments playing a major role in some markets. **Overall however, we have only made fairly modest changes to our outlook for commodity prices,** with most revisions merely reflecting recent movements in spot prices. The impact from currency movements was relatively muted in the September quarter, with the **USD index** broadly stabilising against the major currencies – although it generally strengthened in October. That said, the influence that US political factors are having on the USD is adding to the unpredictability of currency impacts on commodity demand.
- Global **oil prices** have strengthened greatly since their recent nadir in mid-2017. Brent has gone from mid-40s in June to touching $60/bbl of late – a more than 35% rally. With an extension of the OPEC-Russia deal likely to continue to at least late next year, prices have found ongoing support. There remains a risk, however, that an extended rally will see a strong supply response from US shale producers. Higher oil prices will flow through to **Australian LNG** export prices, which is on balance bad news for domestic gas consumers. The Commonwealth has agreed with gas producers to secure more supplies for the domestic market, but the days of $2-4/GJ gas in Eastern Australia are now well and truly over.
- **Bulk commodities** prices have exhibited differing trends in recent months – with iron ore prices rapidly retreating across September, metallurgical coal prices surging higher again (having been hugely volatile over the past year) and thermal coal remaining persistently high. Capacity closures in China's steel industry between November and March should impact demand for iron ore and metallurgical coal, with steel production expected to fall in 2018. Spot prices for iron ore are forecast to trend around US$60 a tonne in 2018. Hard coking coal contract prices are forecast to fall from around US$207 a tonne in 2017 to US$116 a tonne in 2018. The 2018 Japanese financial year contract for thermal coal is forecast to fall to US$80 a tonne, from US$85 a tonne in 2017.
- We forecast some retreat in **copper** prices in early 2018 from current high levels, as Chinese demand continues to moderate and supply disruptions are better managed, despite a small forecast deficit in the global refined copper market. Aluminium has received strong support from Chinese efforts to tackle overcapacity with a largely balanced global market expected for 2018. The nickel demand outlook is looking strong, although supply uncertainties could introduce price volatility. Zinc prices will continue to be supported by a lack of supply while the lead market looks well supplied in 2018.
- From a recent high of USD1,347/oz. in early September, the price of **gold** has eased to around USD1,270/oz. This easing has occurred in consonance with a stronger US dollar. Gold still maintains investor interest due to geopolitical risks and uncertainty surrounding the outlook for US core inflation, and by extension, interest rates. NAB Economics is forecasting a gold price of around USD1,262/oz. by the end of 2017, rising further to USD1,300/oz by late 2017. Risks to our forecasts are evenly balanced.
- **The NAB USD non-rural commodity price index is expected to rise by around 25% in 2017,** although this largely reflects actual price developments to date and masks volatility in bulks prices; **the index is forecast to be fairly flat over the year to December 2017. Declines are forecast to resume in 2018,** with the USD price index falling nearly 10%. Given our anticipated USD appreciation, prices falls will be slightly less in AUD terms. **Overall, the Australian terms of trade is expected to maintain a gradual descent into 2019.**

CONTENTS

CONTACT

Riki Polygenis, Head of Australian Economics and Commodities Research

James Glenn, Senior Economist

Gerard Burg, Senior Economist - Asia

John Sharma, Economist

Amy Li, Economist

Phin Ziebell, Economist

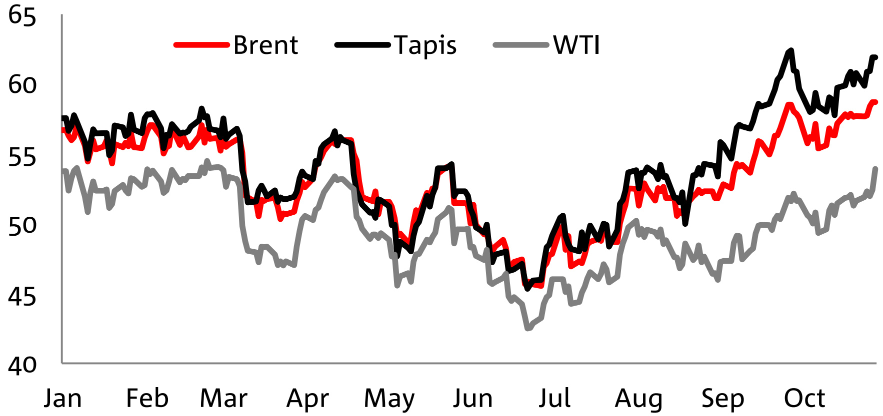
NAB Group Economics

OIL

Prices have recovered from June lows but how high can they go?

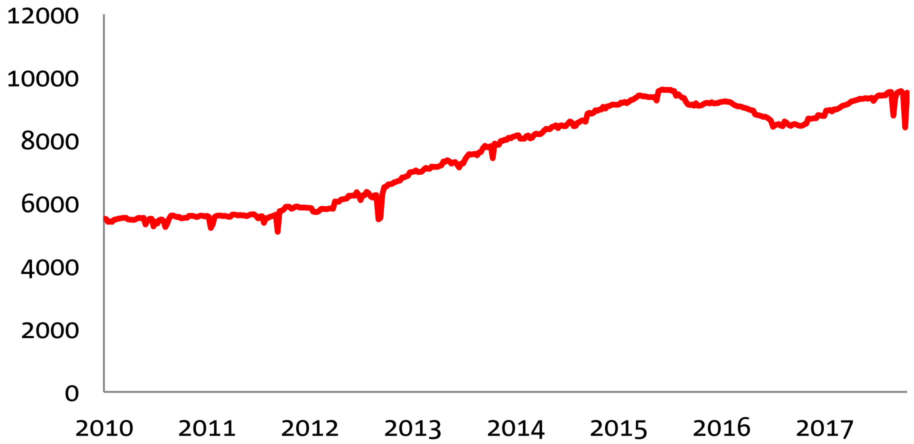
DAILY OIL PRICES 2017 YTD

USD/bbl



WEEKLY US FIELD PRODUCTION

Thousand barrels a day



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

- Global oil prices strengthened greatly since their recent nadir in mid-2017. Brent has gone from mid-40s in June to exceeding $60/bbl of late – a more than 35% rally. Meanwhile, Tapis (a more relevant benchmark for Australian consumers), has strengthened its premium against Brent.
- Brent has found support from two major factors: OPEC cuts and geopolitical risks in Iraq. OPEC-Russia cuts have been slow to support prices, but it appears that they are finally taking hold, with inventories now lower and prices rising. Recent comments from Saudi Arabia's Crown Prince Mohammad bin Salman point to Saudi support for agreed cuts to continue until at least late 2018. The cuts were to expire next March. Russian President Vladimir Putin has also expressed support for continued cuts.
- The recent conflict between Iraqi and Kurdish forces in northern Iraqi oil hub Kirkuk has caused some concerns. However, with most Iraqi production concentrated in the south of the country the implications for oil market fundamentals are relatively small.
- WTI has also gained, although at a much slower rate than Brent. Indeed, the Brent-WTI spread hit its highest level since 2015 in September and looks set to remain elevated. While US shale production growth looks to be proceeding at a more subdued rate, ultimately favourable global prices are likely to see the tap turn on further. We see this as something of a brake on a continued price rally. Ultimately, we **forecast Brent to trade in the 60s throughout 2018, starting the year around $60/bbl and rising to mid-60s by Q4.**
- Higher fuel prices, combined with our expectations for a lower Australian dollar, are likely to lead to higher fuel prices for Australian motorists. **The September quarter saw petrol average 123.3AUc/l, but we see petrol in the December quarter around 3.9% higher at 128.1AUc/l.** Our forecasts point to petrol being above 130AUc/l for most of 2018.

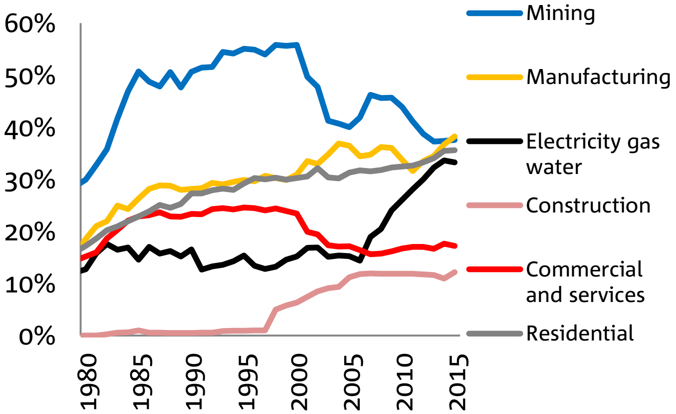
National Australia Bank

NATURAL GAS AND LNG

Impact of exports now felt in east coast gas markets

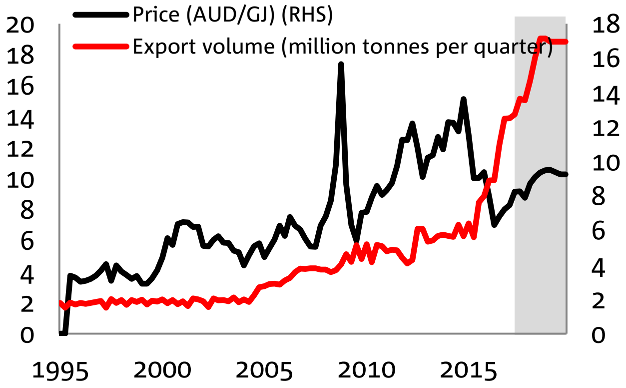
GAS SHARE OF TOTAL ENERGY USE

Share of total energy use by sector



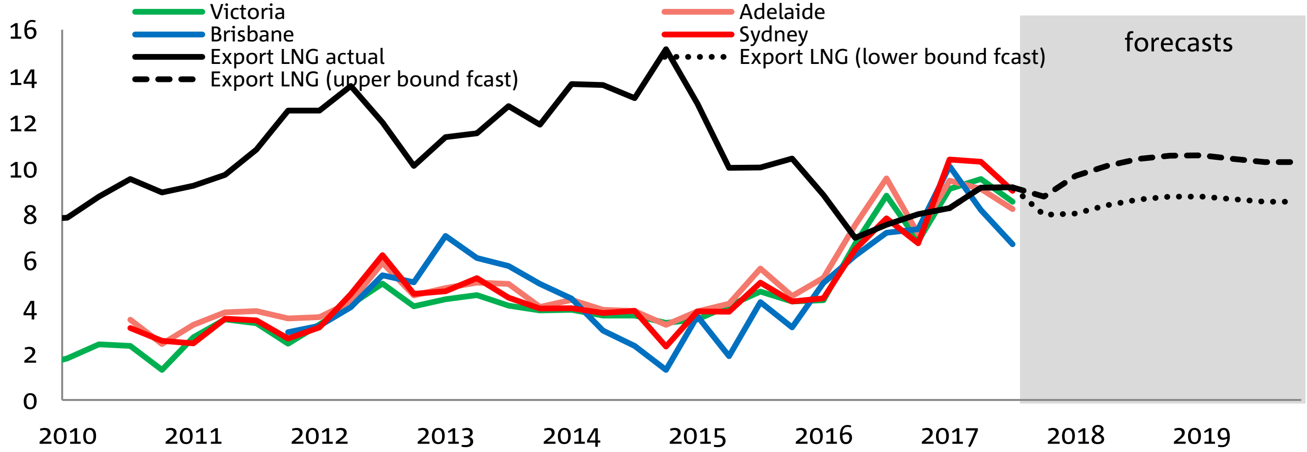
AUSTRALIAN LNG EXPORTS

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 continues (albeit at perhaps a slower pace than publically available contractual information would otherwise suggest). In Q3, Australian LNG exports were up more than 7% q/q and 25% y/y. We see export volumes essentially stable in Q4.
- Of much greater concern is the impact of world parity pricing on the eastern Australian gas market. Domestic spot gas prices have fallen somewhat since Q1, driven by lower temperatures reducing gas powered generation combined with a Commonwealth Government agreement with gas producers to make more Queensland coal seam gas available for the domestic market. Nonetheless, for parts of the year, domestic spot prices have exceeded export prices. From first principles, netback domestic prices should be lower than export prices due to the costs of liquefaction. Contract price information is not generally publically available, although reports suggest that contract offers have fallen somewhat in the last few months. 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.
- Summer will be a major test of eastern Australian gas markets, as demand spikes on hot days are generally covered by gas-intensive open cycle gas turbines. A long hot summer could see a lack of gas availability, or at the very least high prices, leading to higher electricity prices for consumers.
- With most Australian LNG export prices tied to the price of oil (and oil having increased), **we now expect export prices to exceed $10/GJ by mid 2018.**

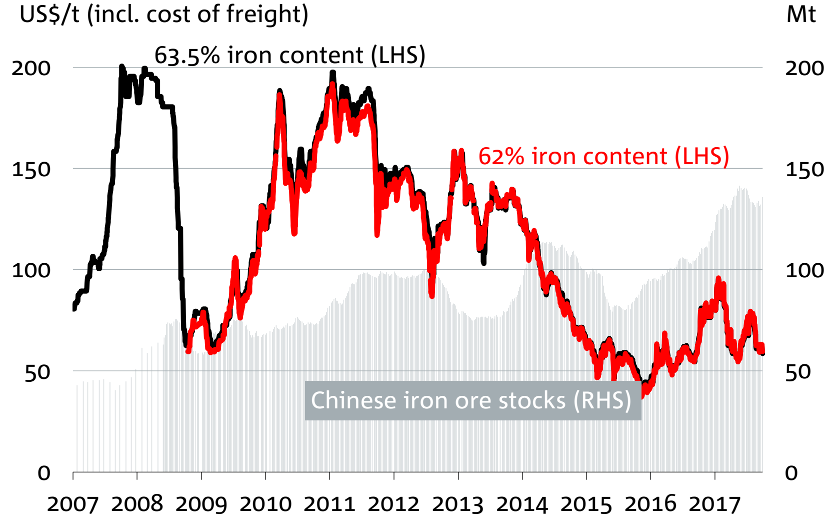
National Australia Bank

IRON ORE

Spot prices fall on weaker Chinese output ahead of capacity shutdown

IRON ORE PRICES RETREATED IN SEPTEMBER

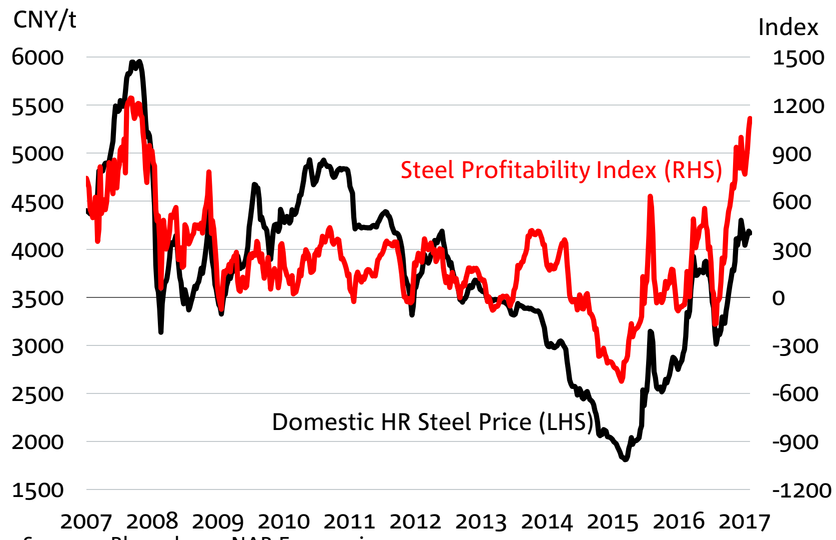
Stockpiles off peaks but remaining historically high



Source: Bloomberg, Thomson Datastream, NAB Economics

CHINESE STEEL PRODUCER PROFITABILITY

Profits push to decade long high



Sources: Bloomberg, NAB Economics

- Iron ore spot prices rapidly retreated across September – falling from around US$78 a tonne to around US$60 a tonne (for 62% ore in China) at the end of the month. Prices for lower grade ores have remained weaker – pointing to a preference for higher grade ores at Chinese mills. The rapid fall coincided with weaker orders from Chinese steel mills ahead of upcoming capacity closures, while sell side speculators appeared to return to the futures market (more details here). Prices remained relatively stable across October – trading in a range of around US$4 a tonne over the month.
- Growth in China's iron ore imports has slowed in recent quarters – increasing by 3.2% yoy in Q3 2017 (compared with 6.4% in Q2 and 12.2% in Q1). Despite this, iron ore imports rose to record levels in September – at 102.8 million tonnes.
- Slower growth in imports and soaring steel production resulted in a modest decline in China's iron stockpiles – down to 130 million tonnes (from a peak of around 141 million tonnes in late June), equivalent to just under one and half month's worth of demand from China's blast furnaces.
- China's steel production pulled back in September – to 71.8 million tonnes – away from record levels in August (74.6 million tonnes). For the first nine months of 2017, steel production rose by 5.8% yoy to 639 million tonnes.
- Surging profitability has been a driver of the stronger output trend. The steel profitability index rose from recent lows in April to its highest level in a decade in late October – as raw material costs have retreated from early year peaks and domestic steel prices have risen (reflecting both demand and speculative pressures).
- Some of the production surge in output may also represent production being brought forward. Production is set to fall in coming months, with authorities in Beijing ordering capacity closures (as much as 50% of the total) in 28 northern cities to reduce pollution over the winter heating months from November to March.
- China's steel output data may have been distorted by closures of out-dated capacity. Induction furnaces have been outlawed in China since 2000, however large scale production (which was either under or not reported in official statistics) continued until early this year. Demand previously satisfied by this induction furnace output is now being provided by blast furnace produced steel.
- In the first nine months of 2017, non-Chinese steel production rose by 4.7% yoy to 628 million tonnes. The largest increases over this period were recorded in India, Turkey, Iran and Brazil.

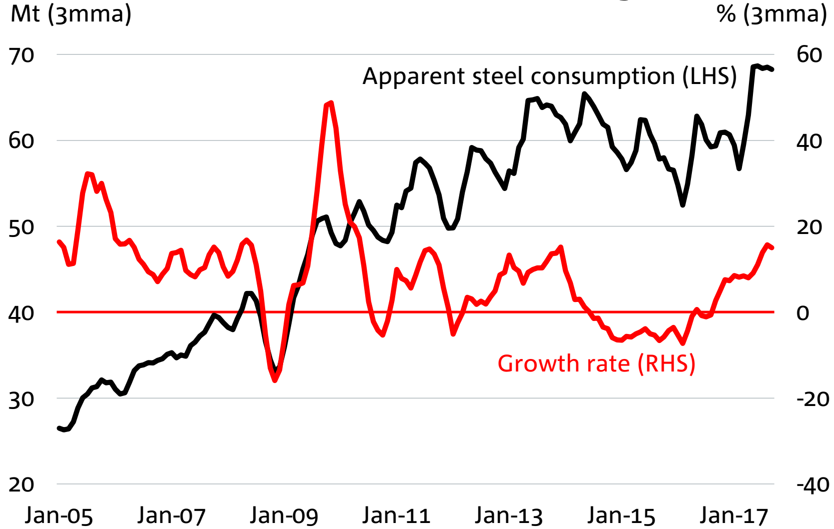
National Australia Bank

IRON ORE cont.

Chinese steel consumption set to retreat from current peaks

CHINESE STEEL CONSUMPTION

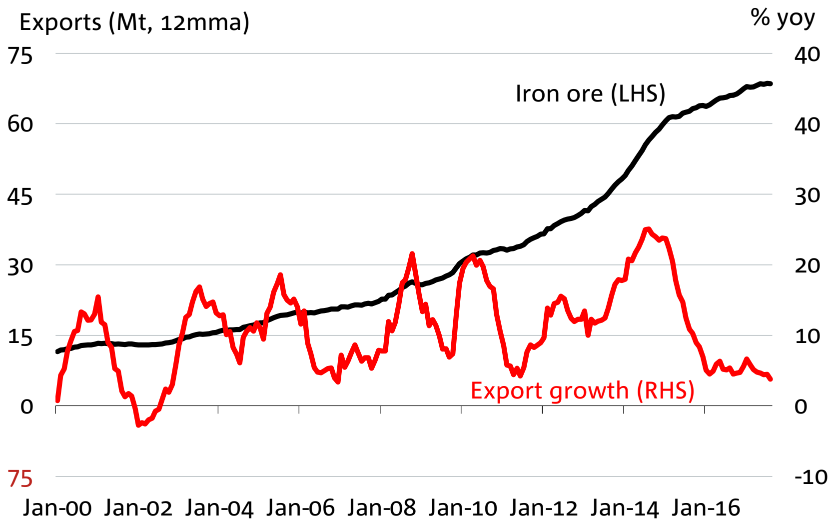
Construction boom has driven steel use higher



Sources: CEIC, Bloomberg, NAB Economics

AUSTRALIAN IRON ORE EXPORTS

Export growth beginning to taper



Sources: Bloomberg, NAB Economics

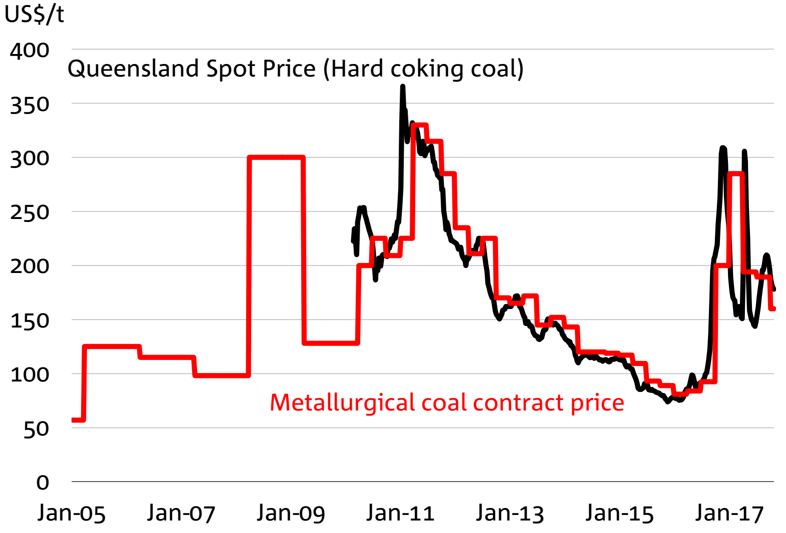
- China's apparent steel consumption has accelerated in recent months, having previously remained well below the previous peak levels from 2013 to 2014. From May onwards, apparent consumption – based on production, trade and stockpiles – pushed above 68 million tonnes a month – compared with the previous high of around 65 million tonnes in mid 2014. That said, under reported historic output (from induction furnaces discussed above) likely understates previous peaks.
- Chinese construction activity (which accounts for over half of Chinese steel consumption) accelerated from early 2016 – having declined across much of 2014 and 2015 as the previous property bubble deflated. Residential construction starts increased strongly across most of 2016 and the first half of 2017, while non-residential construction activity has stalled this year.
- We expect this construction activity to slow, and this should reduce steel demand. Recent data suggests house price growth has slowed significantly and construction starts may be cooling. Chinese authorities have tightened policies across a range of cities – including tighter eligibility requirements for purchasers and stricter lending policies. On a three month moving average basis, new residential starts rose by 4.7% yoy in September – the slowest rate of growth this year, and well off the double digit levels of the first half. A continuation of this trend should slow steel consumption growth in late 2017 and 2018.
- Global markets offer little opportunity for Chinese steel producers. In the first nine months of 2017, steel exports have dropped sharply – totalling 59.6 million tonnes – a year-on-year fall of 30%. While some of this trend may reflect strength in domestic consumption, it also reflects the growing impact of protectionist trade measures.
- The World Steel Association revised up its forecast for global steel demand in October – increasing by 2.8% in 2017 (allowing for Chinese induction furnace output) and 1.6% in 2018. It forecasts Chinese steel demand to remain unchanged next year; we argue that slowing construction activity could see consumption contract in 2018.
- In the first eight months of 2017, Australia's iron ore exports increased by 2.4% yoy (compared with double digit rates across 2012 to 2015). Over this period, almost 83% of export volumes were delivered to China. We expect only modest growth potential in the short term – given the outlook for Chinese steel.
- The rapid retreat of prices since the start of September has brought iron ore prices back to our forecast profile. We see the spot price trending around US$60 a tonne across the next year, given ample supply in global markets.

METALLURGICAL COAL

Prices to fall from volatile highs on weaker Chinese steel output

COKING COAL PRICES

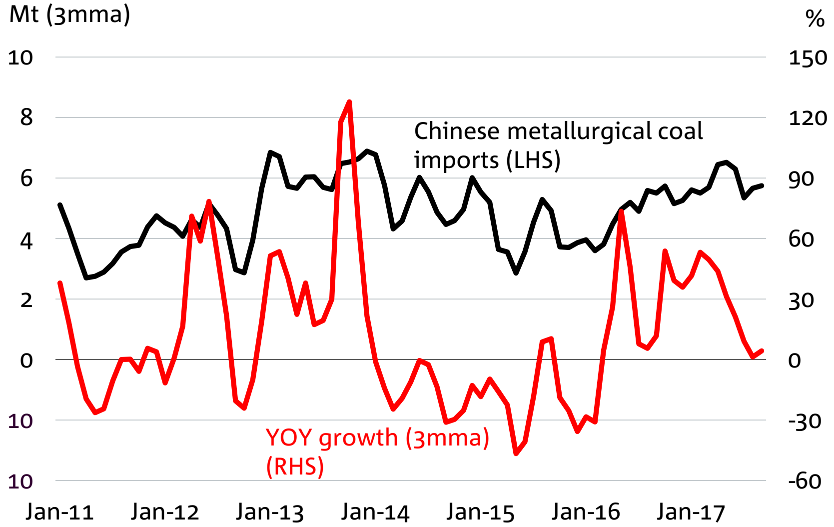
Incredible volatility over the past twelve months



Source: Bloomberg, Datastream, NAB Economics

CHINA'S METALLURGICAL COAL IMPORTS

Imports slowing as steel winds down; set to fall further



Source: CEIC, NAB Economics

- Hard coking coal prices have exhibited incredible volatility over the past twelve months – with spot prices twice spiking in excess of US$300 a tonne (in December 2016 and April 2017), before retreating to around US$150 a tonne. A third peak – in excess of US$200 a tonne – occurred in September, but has now started to fade, with prices back into the US$170 range at the time of writing.
- The quarterly contract price setting mechanism has changed significantly in 2017 – with Nippon Steel withdrawing from the process (reflecting Japan's declining importance in terms of global demand). As a result, prices are now determined by the quarterly average of price indices produced by Platts, Argus and the Steel Index.
- Demand for metallurgical coal has been strong in recent months – with Chinese steel output rising to record levels in July through August. However, the capacity closures between November and March should substantially lower steel production – and with it demand for metallurgical coal – during this period. The longer term outlook is also weaker – given the flat to falling profile for Chinese steel demand.
- Chinese imports of metallurgical coal increased strongly across 2016 and the first half of 2017, but have slowed considerably since this time. Over the first nine months of 2017, metallurgical coal imports totalled 53.2 million tonnes, a year-on-year increase of 22%. That said, the bulk of this growth occurred in the first quarter – with imports falling by 0.6% yoy in Q3.
- Australia's exports of metallurgical coal are gradually recovering, following the disruptions caused by Tropical Cyclone Debbie in late March. For the first eight months of the year, exports totalled 111.2 million tonnes, a year-on-year fall of 9.8%. That said, most of the impact to volumes was evident in April, and there was modest year-on-year growth in both July and August. We expect exports to recover in 2018 – back towards the levels recorded in 2016, however China's steel outlook will constrain further growth.
- Given the slowdown in Chinese metallurgical coal imports – and the expectations of falling steel production in 2018 – we expect spot prices to retreat across the next year. We forecast the Q4 contract price to decline to US$160 a tonne (from US$189 in Q3), and fall to around US$100 a tonne by the end of 2018.

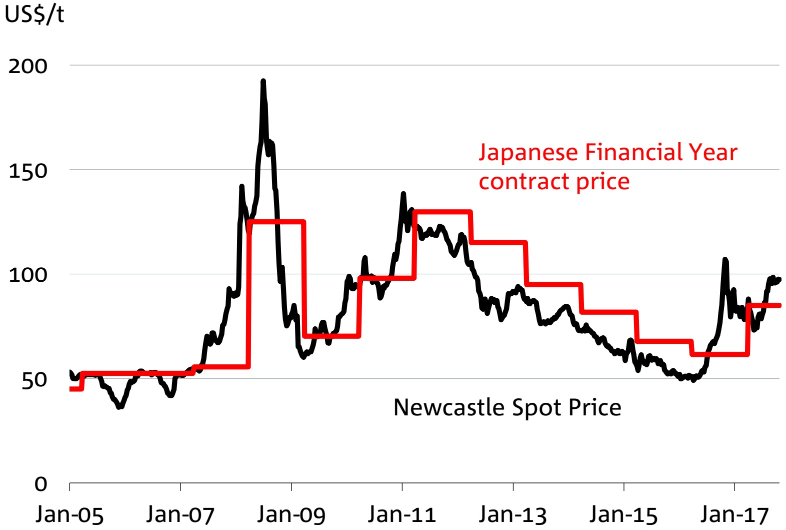
National Australia Bank

THERMAL COAL

2018 prices remaining high; weaker demand to impact longer term

THERMAL COAL PRICES HOLDING FIRM

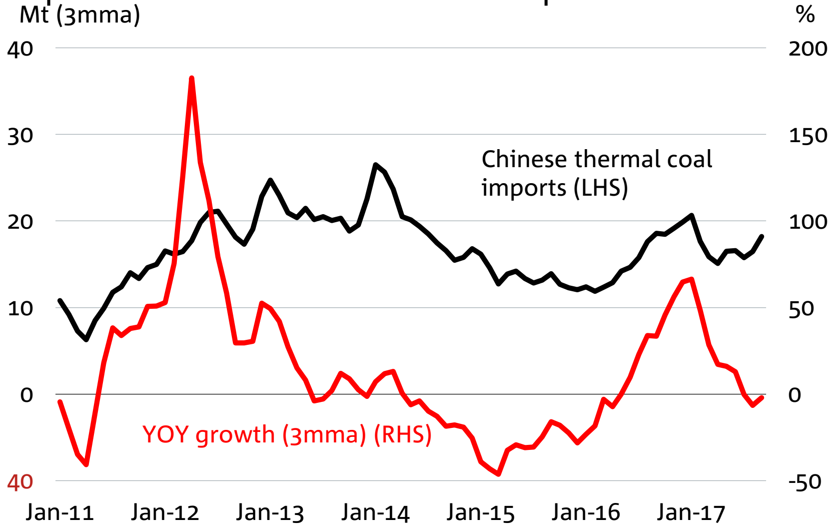
Spot prices elevated over contract levels



Source: Bloomberg, BREE, NAB Economics

CHINA'S THERMAL COAL IMPORTS

Import volumes weaker than earlier peaks



Source: CEIC, NAB Economics

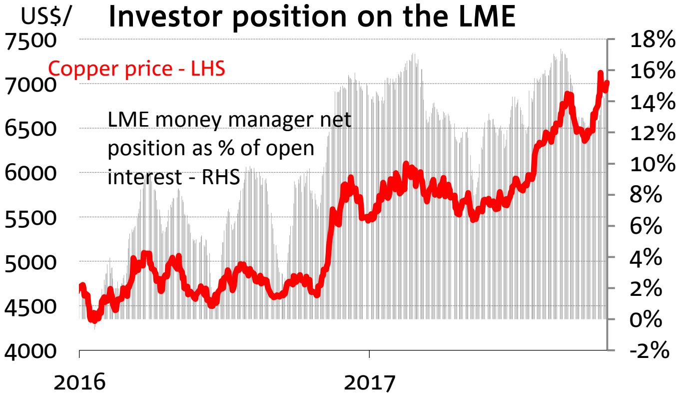
- Spot prices for thermal coal have remained persistently high in recent months – with prices at the port of Newcastle remaining in the mid-to-high US$90 a tonne range – well above the 2017 Japanese financial year contract (US$85 a tonne).
- A range of short term factors have contributed to this trend – with hot weather conditions across much of Asia during the northern summer boosting coal-fired electricity demand and supply disruptions due to labour disputes in the Hunter Valley and cyclone related infrastructure closures in Queensland.
- At a high level, thermal coal demand is trending lower – driven in a large part by China (the world's largest consumer). China's coal consumption peaked in 2013 and has declined since. While Chinese domestic production increased over the first nine months of this year – up by 5.5% yoy – it remains well below the levels of 2015. Coal usage is expected to decline further in coming years – with renewables gradually taking a greater share of China's primary energy consumption.
- China's coal imports have a outsized impact on global markets – in 2016, imports accounted for just 7% of Chinese coal consumption, but they were almost 19% of global trade. In the first nine months of 2017, China's thermal coal imports totalled 152 million tonnes – an increase of 11% yoy. That said, import volumes in 2017 have been weaker than the peaks of late 2016 and the trends between mid-2012 and 2014.
- Trends in other Asian markets differ considerably. South Korean thermal coal imports have risen strongly – up around 20% in the first nine months to 84 million tonnes. Japanese coal imports (both thermal and metallurgical coal) rose by 1.7% to 142 million tonnes. In contrast, indicators of Indian imports – which are based on port movements (due to a lack of reliable data) – suggest a decline of around 20% yoy – as the country continues to build its domestic capacity. Weaker Indian and Chinese demand is likely to drive the market in coming years.
- There has been minimal growth in Australian thermal coal exports in 2017 – with volumes increasing by around 1.8% yoy over the first eight months, to 132.5 million tonnes. Japan remains the largest market for Australian thermal coal – accounting for just over 40% of the total, while China's imports (21% of the total) have been growing fast – up 26% yoy over the first eight months. In contrast, exports to all other markets have fallen – down 11% yoy over the period.
- Persistent high spot prices are likely to impact negotiations for contract prices for 2018. Our forecast has been raised to US$80 a tonne (from US$65 previously).

National Australia Bank

COPPER

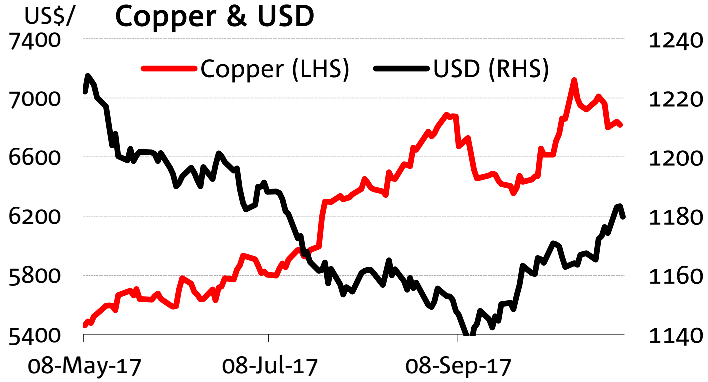
Market deficits expected in 2018

COPPER PRICES & POSITIONING



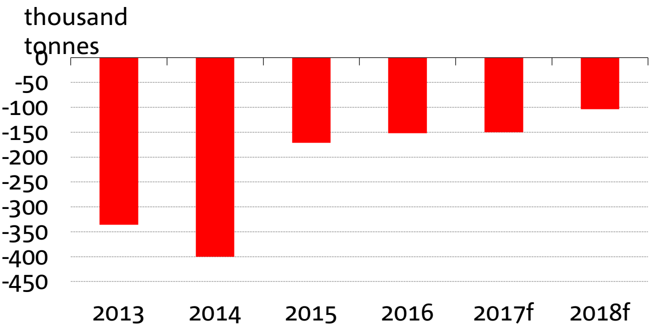
Source: Bloomberg

COPPER PRICE & USD



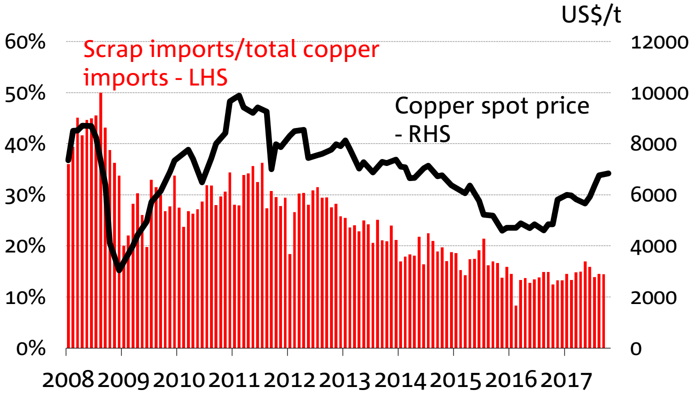
Source: Bloomberg

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) Oct-17	Jul-17 to Oct-17 % change, quarterly	Oct-16 to Oct-17 % change, annual
Aluminium	2131	12.0	28
Copper	6808	13.7	44
Lead	2498	10.1	23
Nickel	11336	19.4	10
Zinc	3265	17.1	41
Base Metals Index		14.4	31

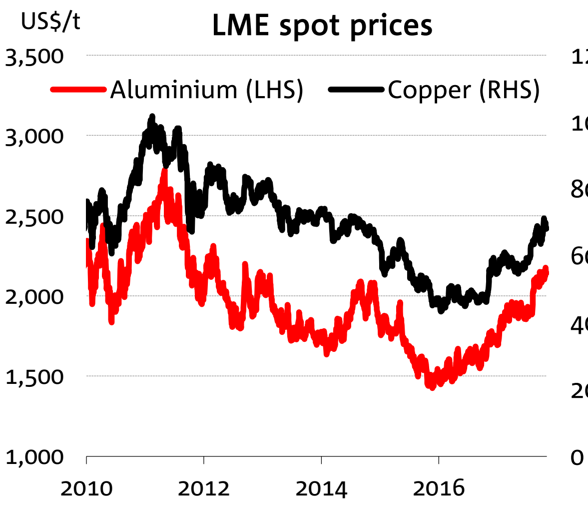
* Prices on an LME cash basis.
Sources: LME; NAB

- Chinese copper demand has proven resilient and is still expected to grow, albeit at a slower rate. We forecast Chinese GDP growth at 6.5% and 6.25% for 2018 and 2019 respectively, however the economy will continue its transition towards consumption-led growth. Industrial production grew by 6.6% yoy in September and the manufacturing PMIs remained at expansionary levels. However, new construction starts have slowed in recent months and are well off the peaks recorded in June, and house sales have also softened. The demand from housing construction is likely to weaken over time but copper will remain in demand for many other aspects of modern life while infrastructure investment in India and the US should also support copper demand.
- The outlook for concentrates supply is looking better for 2018 compared to a disruption-impacted 2017. Output should recover as labour disputes have been resolved, while restarts in the Democratic Republic of Congo and Zambia and to a lesser extent additional output from new projects/expansions should see world mine production increase.
- While treatment and refining charges (TC/RC) remain subdued, the latest guidelines set by the China Smelter Purchase Team for December has been raised from September levels, indicating improved concentrates supply. Historically China has increased scrap imports when concentrates supply was tight, but recent restrictions on scrap imports on environmental grounds have seen scrap imports levels subdued.
- Overall, the expected surplus in 2017 did not eventuate and the International Copper Study Group forecasts a global refined deficit of 151k tonnes in 2017 and a smaller deficit of 104k in 2018. **We expect some pullback in prices in early 2018 from current hi levels, with investors likely becoming less bullish, USD appreciation putting downward pressure on copper prices, and as industrial demand from China continues to moderate.**

ALUMINIUM

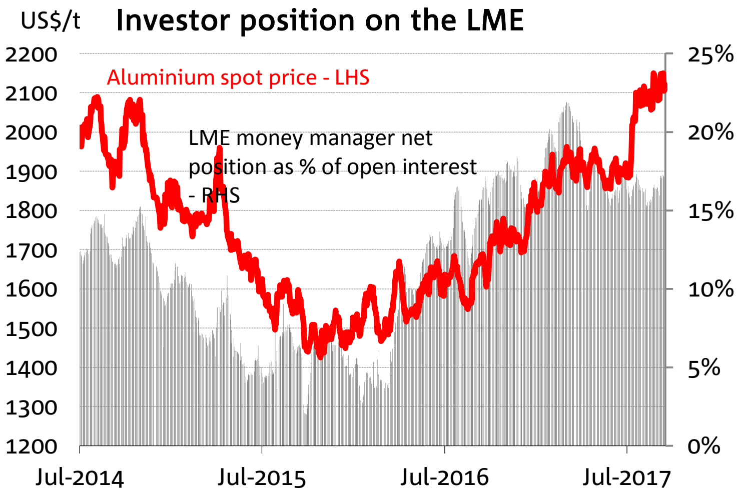
Chinese efforts to tackle overcapacity supporting aluminium prices

COPPER & ALUMINIUM PRICES



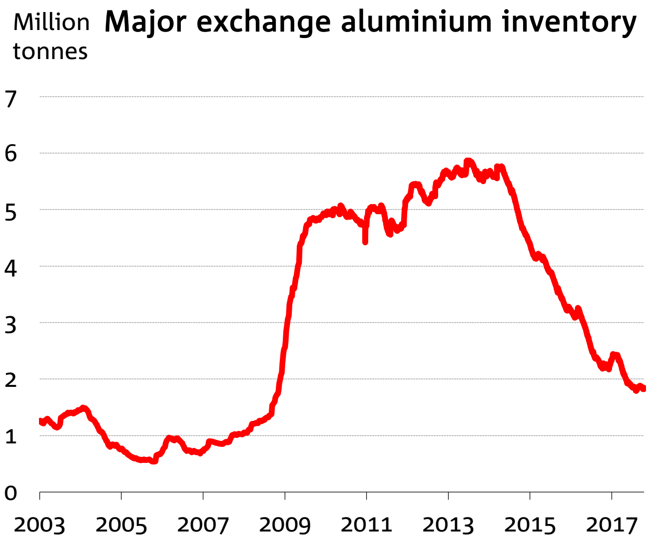
Source: Bloomberg

INVESTOR POSITIONING ON THE LME



Source: Bloomberg

MAJOR EXCHANGE INVENTORY



Source: Bloomberg

CHINESE SEMI ALUMINIUM EXPORTS

Source: Bloomberg

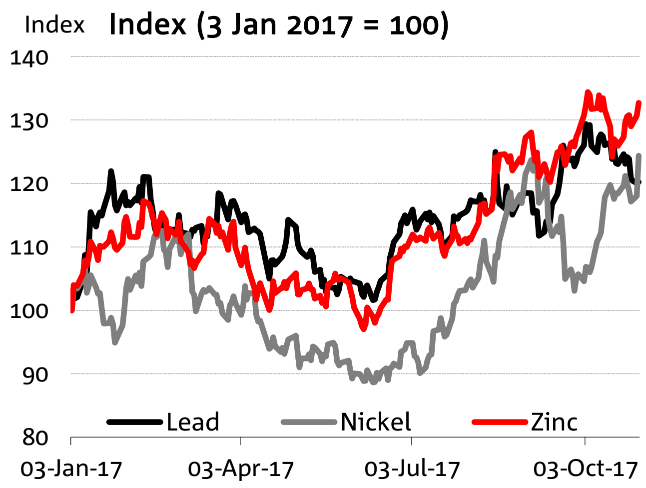
- **Aluminium prices continue to receive support from Chinese efforts to curb over-capacity,** especially as the country enters its winter heating season and as policy makers remain committed to production cuts and tackling pollution following the 19th Party Congress. The LME spot aluminium price surged 11.2% q/q in Q3 and was around $2125/t at the time of writing. The gains on the SHFE were even more pronounced, with prices reaching over 16,000 yuan/t.
- North eastern China entered into the winter heating season in late September, with other northern regions to follow by mid November. As a result, the government began more strictly enforcing smelter and refinery curtailments from September, with further curtailments likely to have occurred through October. Despite the heavy curtailments in the regions surrounding Beijing and other population centres, new projects and restarts have been reported in other provinces, mostly in the country's west. Firms that have cut capacity are also able to transfer production quotas to other more efficient smelters. While the government remains committed to tackling pollution, it may relax enforcement to ensure supply security. The exact extent of production cuts is hard to know, nonetheless the support on sentiment from such efforts remains strong. Rising costs of alumina and electricity have also supported aluminium prices.
- The demand outlook looks positive for aluminium, at least in the near term. Demand from power generation and transport is looking strong while demand from the real estate sector should slow over time as China aims to cool its housing sector. Investor positioning on the LME indicates overall bullish sentiment for aluminium, however net long positions have retreated somewhat from the March 2017 highs.
- **Overall we forecast a largely balanced global market with prices averaging $2100/t in 2018.**

National Australia Bank

NICKEL, LEAD & ZINC

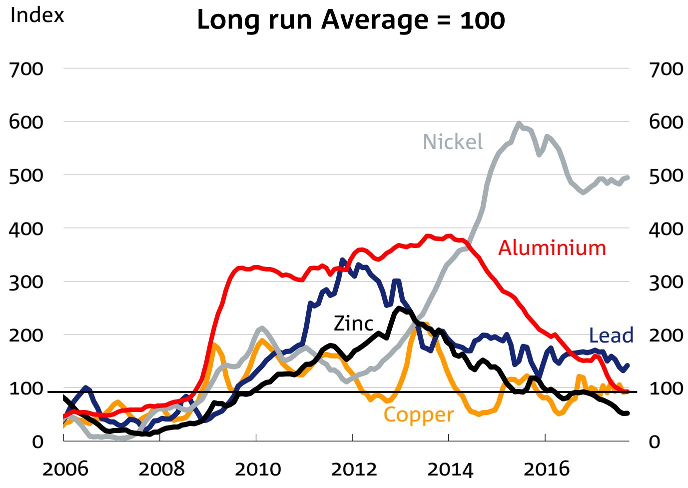
Nickel prices to remain volatile, while the zinc outlook is strong

NICKEL, LEAD & ZINC PRICES (LME)



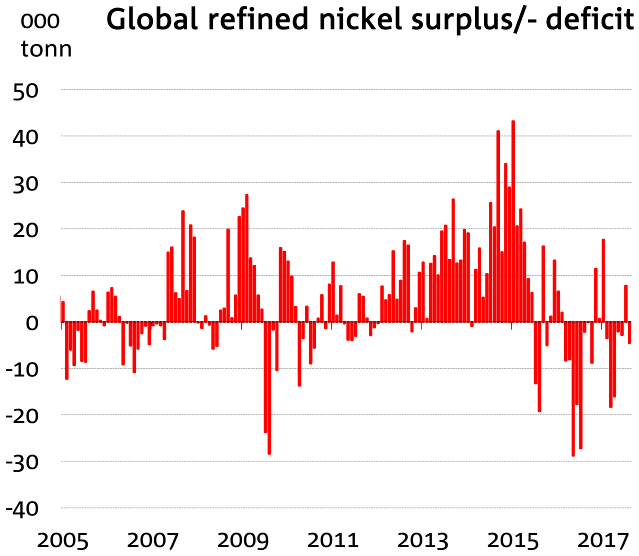
Source: Bloomberg

LME STOCKS



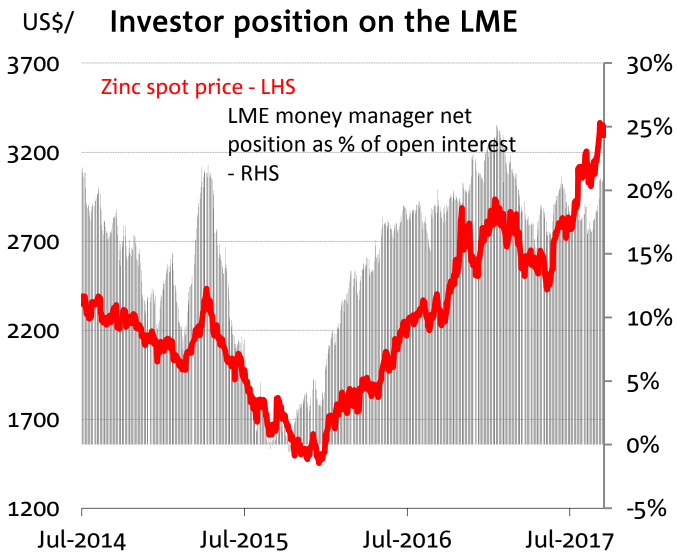
Sources: Datastream: NAB

GLOBAL NICKEL MARKET BALANCE



Source: Bloomberg

INVESTOR POSITIONING IN LME ZINC



Source: Bloomberg

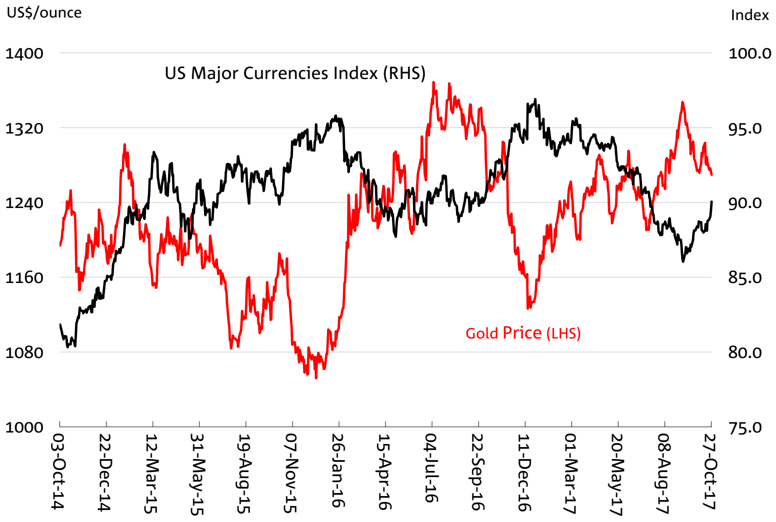
- Several new developments will likely make 2018 an interesting year for nickel. First on the supply side, Philippines' new environment minister might end the ban on open-pit mining by this year's end. It could see the development of new mines and increased exports. Indonesia's nickel pig iron exports have also ramped up, along with relaxed restrictions on raw ore exports. On the demand side, Chinese steel makers will likely cut production during the November-March winter heating season and medium-term demand will likely slow. The biggest emerging theme however has to be the anticipated significant increase in demand from car battery manufacturers, with some junior miners looking at nickel assets. Nickel inventory levels declined somewhat, but remained at high levels compared to the other metals. Current exchange stocks would satisfy around eleven weeks of demand. **We forecast further price growth in nickel with more volatility expected.**
- Market fundamentals continue to look strong for zinc, with prices reaching a ten-year high in early October. Stock levels rose slightly, but remain well below the long-run average. AME estimates that total visible stocks cover only 2.4 days of annual demand. Investor positioning has turned more bullish as environmental restrictions in China further limit production. **Overall, significant reduction in global mined supply and a strong demand outlook will continue to support zinc prices.**
- Lead prices rose with the base metals complex, up 11% in the September quarter. 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 forecast a well supplied lead market in 2017 and 2018.**

National Australia Bank

GOLD

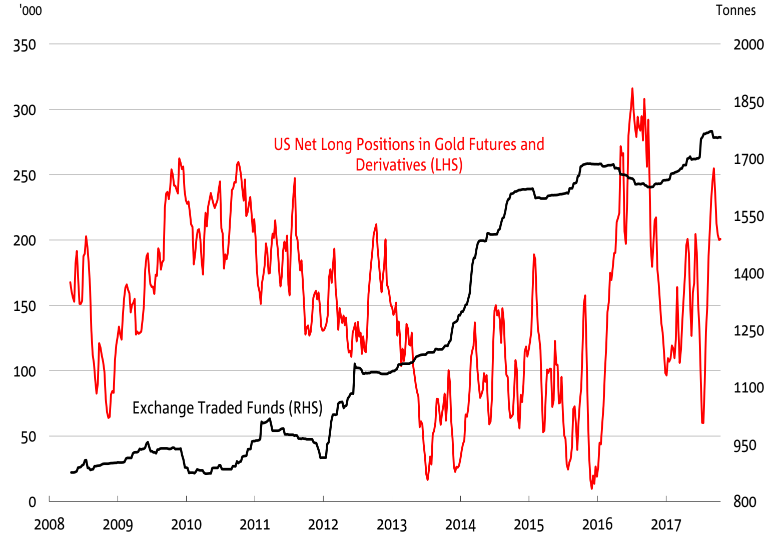
Near-term consolidation, but gradual improvement ahead

GOLD PRICE – EASING WITH HIGHER USD



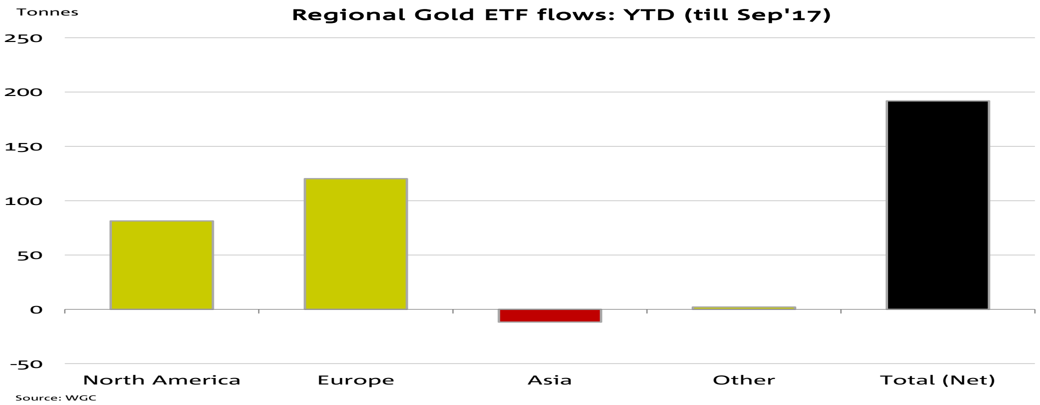
Source: Thomson Datastream, NAB

NET LONGS IN GOLD FUTURES OFF RECENT HIGHS



Sources: Thomson Datastream, NAB

ETF INFLOWS STRONG IN EUROPE & NORTH AMERICA



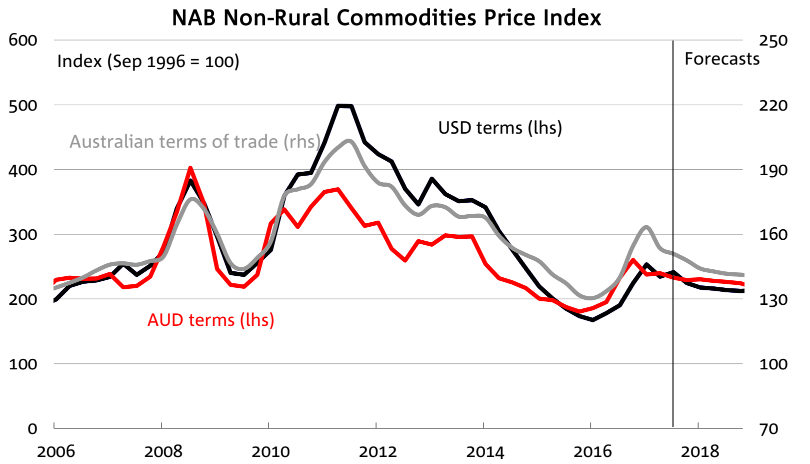
- Gold rose to a recent high of USD1,347/oz. in early September influenced by geopolitical events (primarily North Korea), as well as expectations of a moderate path of future US interest rate rises on account of low inflation outcomes. Since then, less-dovish comments from US Fed Chair Janet Yellen that rates need to be raised *before* inflation reaches 2%, a stronger US dollar, general strength in equities and less bellicose comments on North Korea have taken the sheen off the yellow metal. Gold has been last trading around the USD1,270/oz level, well off recent highs and below the critical USD1,300/oz threshold – although it has received some support due to recent events in Catalonia.
- The trend in the net long gold futures positions has largely been in sympathy with movements in the spot gold price, with hedge funds and money managers cutting their positions due to a lower gold price and a higher USD.
- Holdings in gold ETFs continued to rise during 2017, with 191.9 tonnes (net) flowing into gold ETFs during the January-September 2017 period. North American and European based funds experienced inflows, while Chinese and Indian-based ETFs recorded outflows.
- Looking ahead, NAB Economics is forecasting the gold price to end 2017 around USD1,262/oz, rising to USD1,300/oz during the end of 2018. The risks to our forecasts are evenly balanced.
- Expected rate rises in the US will exert downward pressure. Further, a successful passage of the Trump's administration's tax package would boost equities and negatively impact safe haven assets like gold. Conversely, potentially overvalued asset prices and geopolitical tensions could provide support.

National Australia Bank

OUTLOOK

A RETURN TO THE GRADUAL DOWNWARD TREND IN COMMODITY PRICES IS EXPECTED

Index, September 1996 = 100



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

- NAB's non-rural commodity price index is expected to drop 7% q/q in Q4 2017 (in US dollar terms), signalling the return to a downward trend in bulk commodity prices following their 2016 rally. Iron ore and coking coal are making the largest contribution to the quarterly decline, largely reflecting the anticipated closure of steel production capacity from November (along with some changes to contractual price setting).
- The USD stabilised somewhat against major currencies in the third quarter of 2017, having a minimal impact on commodity prices generally. Demand conditions tend to vary across the commodity complex, although the overall situation has so far been a little better than expected. Supply side developments have also been playing a major role in most markets, especially with capacity curtailments coming into the mix.
- Looking forward, the global economic recovery should remain on track, but we do expect to see a tempering in demand conditions for certain commodities, particularly as support from Chinese buyers begins to wane. Additionally, fiscal risks stemming from the US remain a concern and any reasons given to question the Trump administration's promises on infrastructures spending/fiscal stimulus will have a ripple effect through commodity markets. 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.

- The outlook for demand in China remains as critical as ever to the outlook for Australian commodities. NAB continue to expect a moderation in China's construction this year, which will have flow-on consequences for bulk commodity markets, although our GDP growth forecasts for China have been revised modestly higher for 2017 to reflect the recent strength in activity. Longer term, China's growth is increasingly being driven by services – which are far less commodity intensive than the 'old economy' heavy industrial sector.
- **The US dollar denominated NAB non-rural commodity price index is expected to be broadly flat over 2017, although it will still be 25% higher than 2016 in annual average terms.** Declines in prices for iron ore and coking coal over the year are being offset by rises elsewhere, with particularly strong gains coming from copper and oil prices.
- Despite the relative resilience of the AUD recently, commodity price in AUD terms are still expected to be supported somewhat over coming quarters 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 0.73, occurring in mid- 2018. In annual average terms, prices are forecast to rise by 22% in 2017, following very modest price declines on average in 2016, but a decline of nearly 6% is expected for 2018.**
- In light of these commodity price projections, **NAB is forecasting the Australian terms of trade to decline in Q3 2017,** albeit more modestly than the 6% drop seen in Q2, **and will maintain a gradual decline thereafter. In annual average terms, the terms of trade are forecast to rise around 10% for 2017, but will be down 4% over the year for December 2017. We are forecasting a 7½% decline in 2018.**

National Australia Bank

NAB COMMODITY PRICE FORECASTS

	Unit	Spot 31-10-2017	Actual Sep-17	Forecasts Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19
WTI oil	US$/bbl	54	50	52	54	56	57	58	58	58	58
Brent oil	US$/bbl	60	53	58	60	62	63	64	64	64	64
Tapis oil	US$/bbl	64	54	59	61	63	64	65	65	65	65
Gold	US$/ounce	1269	1280	1260	1270	1280	1290	1300	1310	1320	1330
Iron ore (spot CFR)	US$/tonne	n.a.	72	62	60	62	61	60	60	60	60
Hard coking coal*	US$/tonne	n.a.	189	160	140	120	105	100	101	99	100
Semi-soft coal*	US$/tonne	n.a.	135	115	101	87	76	72	73	71	72
Thermal coal*	US$/tonne	98	85	85	85	80	80	80	80	65	65
Aluminium	US$/tonne	2142	2010	2140	2120	2100	2100	2100	2100	2100	2100
Copper	US$/tonne	6817	6350	6800	6730	6660	6660	6660	6660	6660	6660
Lead	US$/tonne	2403	2330	2490	2470	2440	2420	2400	2400	2400	2400
Nickel	US$/tonne	12257	10540	11700	11700	11760	11820	11880	11880	11880	11880
Zinc	US$/tonne	3322	2960	3260	3280	3290	3310	3320	3320	3320	3320
Aus LNG**	AUD/GJ	n.a.	8.50	8.00	7.45	7.67	7.92	8.17	8.30	8.43	8.56

* 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

National Australia Bank

Group Economics
Alan Oster
Group Chief Economist
+61 3 8634 2927

Jacqui Brand
Personal Assistant
+61 3 8634 2181

Australian Economics and Commodities
Riki Polygenis
Head of Australian Economics
+(61) 475 986 285

James Glenn
Senior Economist – Australia
+(61) 455 052 519

Amy Li
Economist – Australia
+(61 3) 8634 1563

Phin Ziebell
Economist – Agribusiness
+(61) 475 940 662

Behavioural & Industry Economics
Dean Pearson
Head of Behavioural & Industry Economics
+(61 3) 8634 2331

Robert De Iure
Senior Economist – Behavioural & Industry Economics
+(61 3) 8634 4611

Brien McDonald
Senior Economist – Behavioural & Industry Economics
+(61 3) 8634 3837

Steven Wu
Economist – Behavioural & Industry Economics
+(613) 9208 2929

International Economics
Tom Taylor
Head of Economics, International
+61 3 8634 1883

Tony Kelly
Senior Economist – International
+(61 3) 9208 5049

Gerard Burg
Senior Economist – Asia
+(61 3) 8634 2788

John Sharma
Economist – Sovereign Risk
+(61 3) 8634 4514

Global Markets Research
Peter Jolly
Global Head of Research
+61 2 9237 1406

Ivan Colhoun
Chief Economist, Markets
+61 2 9237 1836

National Australia Bank