MINERALS & ENERGY OUTLOOK

AUGUST 2017

National Australia Bank

Key Points:

- **An improving demand outlook and USD weakness are lending support to much of the commodity complex.** The global economic upturn continues, despite some disappointing output data from the big advanced economies in early 2017. The business surveys and the timely monthly updates on industrial output and world trade show expansion continuing at a moderate pace. **Consequently, demand conditions have held up well, although not enough to prompt us to make significant upward revision to the outlook for commodity prices**. Meanwhile, the low level of the VIX "index of uncertainty" points to quiescent markets not pricing in much financial volatility at a time when there are still significant risks – namely geo-political risks associated with elections in big advanced economies and security in East Asia. Additionally, the influence that US political factors are having on the USD (the 'Trump discount') is adding to the unpredictability of currency impacts on commodity demand.
- **The NAB USD non-rural commodity price index is expected to rise by around 21% in 2017,** although this masks volatility in bulks prices; **the index is forecast to be down 7% over the year to December 2017.** Given our anticipated USD appreciation (albeit delayed), prices will be more stable in AUD terms. **Overall, the Australian terms of trade is expected to resume its gradual descent in the second half of this year.**
- **Oil prices** remain subdued, although have recovered from the mid-40s lows seen in June to reach a low 50s level. **We see Brent at USD53/barrel by the end of the year.** With the Australian dollar having risen recently, domestic fuel prices are enjoying some downside – national average petrol prices are in the low 120s range.
- Oil prices have a substantial bearing on **LNG export prices**, and consequently **we do not see major upside in export prices for the remainder of this year.** However, domestic gas prices are likely to remain elevated, although the Minister for Resources may yet declare 2018 a domestic shortfall year.
- **Bulk commodities** prices have edged slightly higher in recent months – largely driven by Chinese import demand (with steel output rising to record levels in June, while electricity demand has risen due to hot weather). **Steel demand is expected to slow, as the construction boom fades, placing some downward pressure on prices**. Spot prices for iron ore are forecast to average US$68 a tonne in 2017 and US$60 a tonne in 2018. Hard coking coal is forecast to decline from around US$195 a tonne in 2017 to US$110 a tonne in 2018. The 2018 Japanese financial year contract for thermal coal is forecast to fall to US$65 a tonne, from US$85 a tonne in 2017.
- **Copper prices** have surged, possibly on improved Chinese demand outlook and some supply disruptions. While **aluminium** sentiment has been supported by mandatory production cuts in China, although uncertainty over how long these cuts will be maintained has limited further upside to prices. Policy uncertainties in the Philippines cloud the price outlook for **nickel.** Market sentiment has turned more bullish for **zinc,** while the outlook for **lead** demand could improve.
- Weakness in the US dollar, combined with political uncertainty have recently pushed up **gold's** price to around USD1,270/oz., a seven week high. Chinese demand for gold bars remains solid against a backdrop of uncertain returns in Chinese equities and property markets. The recent upturn in the gold price – combined with cost control measures – has led to an improvement in the earnings of gold miners. Gold price volatility remains low, with prices largely range-bound in the USD1,200-1,300/oz. range. **NAB Economics is forecasting a 2017 year end gold price of USD1,244/oz. (previously USD1,232), rising to USD1,300/oz. by year end, 2018.**

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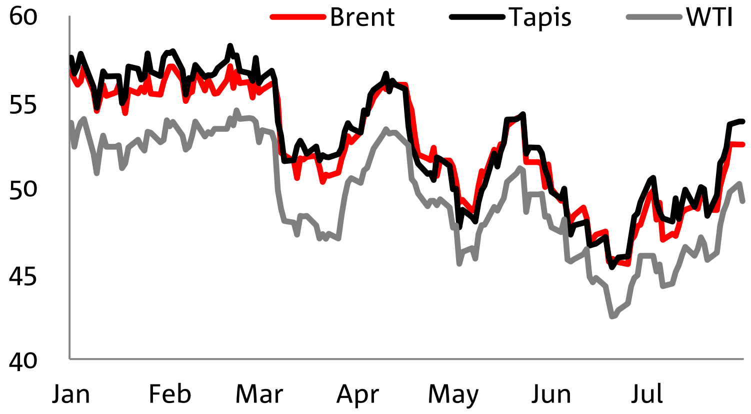
OIL

Prices have recovered from June lows but remain subdued

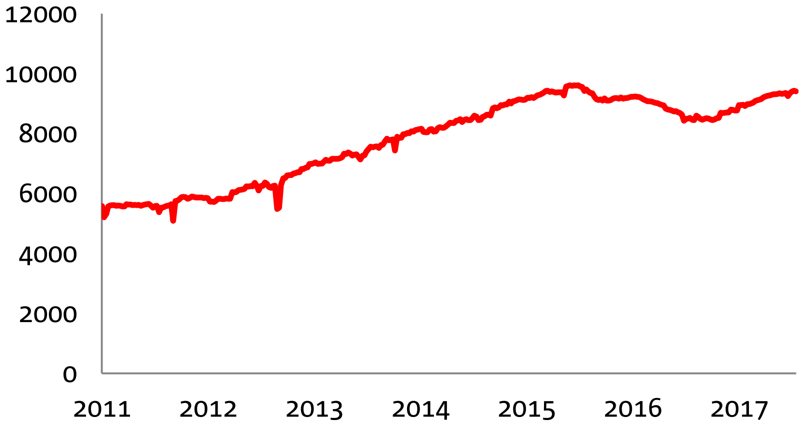
DAILY OIL PRICES 2017 YTD

USD/bbl



WEEKLY US FIELD PRODUCTION

Thousand barrels a day



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

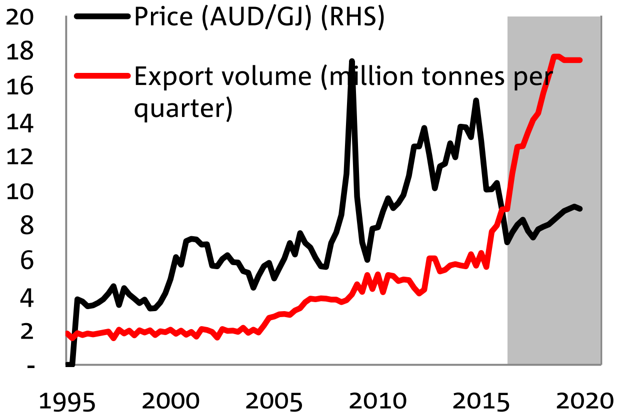
- The worst of the June slump (which saw Brent fall to mid-40s for a time) looks to be well and truly over, with optimism building in recent weeks that lower global supply could push prices higher. In late July, Saudi Arabia made further commitments to cut oil exports and US field production looked to be tapering off after steady growth for much of this year.
- However, developments this week have seen some pessimism return to markets amid analyst surveys pegging July OPEC production at higher than expected volumes in July. This news comes against EIA data showing continuing US inventory drawdown (albeit at somewhat lower levels than Bloomberg's survey of analysts) and very high refinery utilisation. With the US summer driving season well underway, US fuel demand has reached a record high.
- It can be difficult to distil broader trends amid a barrage of sometimes contradictory high frequency data, but ultimately our view of the oil market is that a major rally is unlikely in 2017.While there are some signs that US shale growth may be slowing, production remains at fairly high levels. Further, it is unclear that OPEC is in a position to maintain its cuts in perpetuity (especially given the incentives of uncapped members and the fiscal position of Saudi Arabia). Absent further production cuts or a sustained uptick in demand, prices are likely to remain in the low to mid 50s for the remainder of the year. **We forecast Brent to trade at around $53/bbl in Q4 2017. We still expect prices to climb to the mid US$60s range by the end of the decade.**
- Australian drivers have been enjoying somewhat lower fuel prices. Latest national data shows petrol prices at 122.6 cents/litre and diesel at 126.6 cents/litre. However, any depreciation in the AUD would see some upward pressure on fuel prices.
- This week also offered some hints of a potential oil-free future (at least for transport) with the release of Tesla's Model 3, intended as a mid-range and mass produced electric vehicle (unlike the previous low volume Model S and X) as well as the UK Government's announcement that it would ban the sale of all new petrol and diesel vehicles by 2040. While the Model 3 still represents electric vehicles in their infancy and 2040 is still 23 years away, should the technology prove popular there may be an emerging structural weakness in oil demand over the coming years. Nonetheless, we still expect almost all vehicles to be petrol or diesel fuelled for some years.

NATURAL GAS AND LNG

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

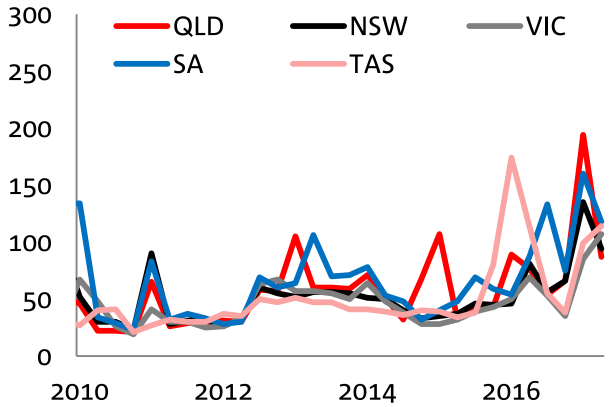
AUSTRALIAN LNG EXPORTS

Volume and average price (inc forecast)



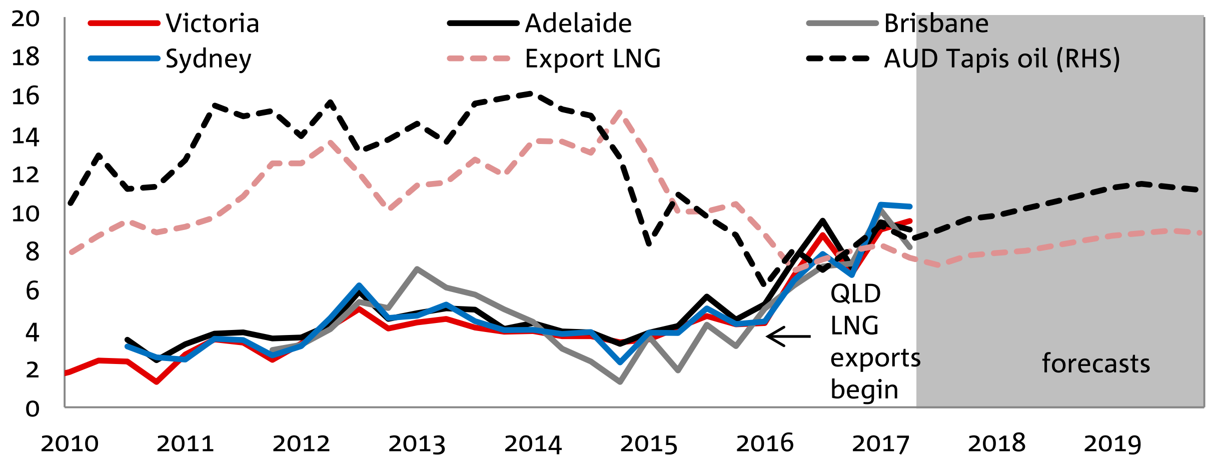
WHOLESALE ELECTRICITY PRICES

AUD/MWh, spot, quarterly average



DOMESTIC AND EXPORT GAS PRICES

GJ, spot (domestic), quarterly average



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

- With the ramp-up in Australian LNG exports continuing (albeit at perhaps a slower pace than publically available contractual information would otherwise suggest), the focus has turned to implications for the domestic gas market and the knock-on implications for electricity prices and indeed security of supply.
- Domestic spot gas prices continue to trend upwards – in many cases above export prices. In Q2 2017, spot prices in the four east coast mainland capitals ranged from $8.20/GJ (Brisbane) to $10.29/GJ (Sydney), compared $7.66/GJ for export (estimated). While earlier modelling indicated that Victoria should be paying less for gas than Queensland due to higher netback costs, the opposite seems to have occurred as gas remains scarce in Australia's largest domestic market. While contract prices are not publically available, some government and media reports peg them at up to $20/GJ.
- Earlier this year, the Commonwealth announced plans to intervene in the east coast gas market to ensure adequate supply for domestic consumers. In line with this intention the Minister for Resources is considering whether 2018 will be declared a domestic shortfall year. However, this process has been complicated somewhat by the resignation of the minister, Senator Matthew Canavan from cabinet amid revelations that he may be an Italian citizen.
- 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).**

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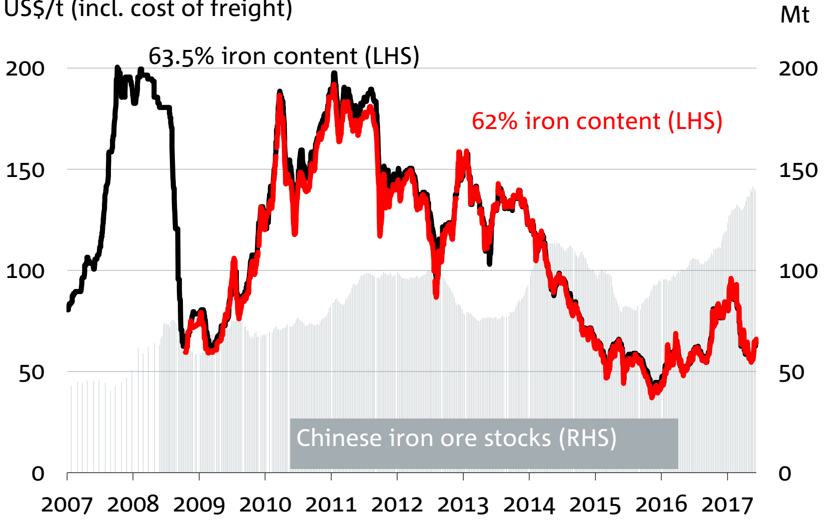
IRON ORE

Spot prices edge away from recent lows on strong Chinese steel output

IRON ORE PRICES EDGING HIGHER

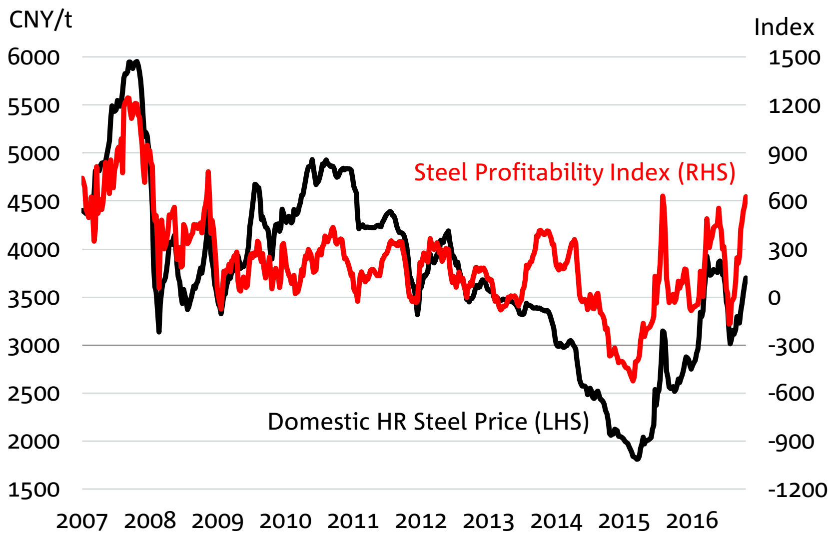
Chinese imports rise despite high stockpiles



Source: Bloomberg, Thomson Datastream, NAB Economics

CHINESE STEEL PRODUCER PROFITABILITY

Production surges as profitability nears multi-year highs



Sources: Bloomberg, NAB Economics

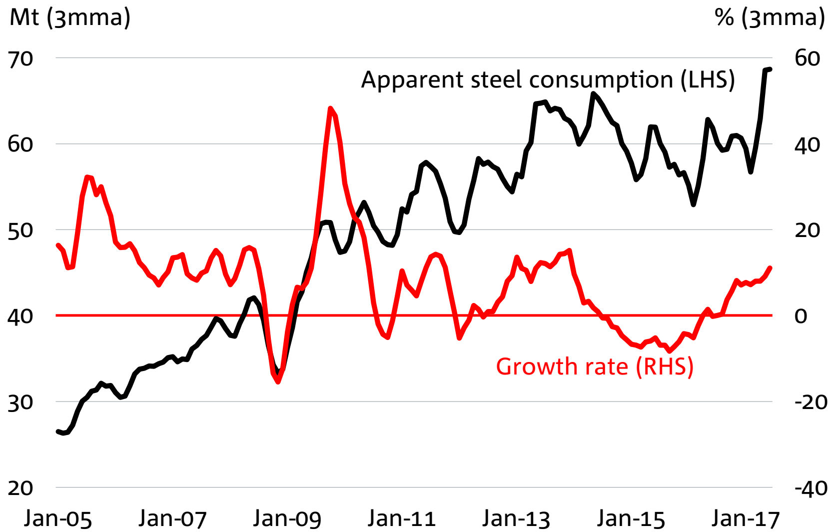
- Spot prices for iron ore have recovered somewhat since mid-June – rising from a recent low of US$54.50 a tonne to around US$73 a tonne (at the time of writing) – with stronger import demand from China contributing to this trend. That said, prices remain well below the recent peaks of February 2017, when prices neared US$100 a tonne.
- China's imports of iron ore rose by 16% yoy in June, to 94.7 million tonnes – the third largest monthly volume on record (just below the peak of 96.3 million tonnes in December 2015) – as steel producers ramped up output.
- The increase in both imports and spot prices came despite Chinese iron ore stockpiles remaining near all time highs. Ore stockpiles pushed up above 140 million tonnes in early June, and have subsequently dipped just below this level by mid July – equivalent to almost one and half month's worth of demand from China's blast furnaces.
- It has previously been suggested that a large proportion of China's iron ore stockpiles are lower grade material, and that steel mills are favouring higher grades at present. There is some support for the steel mill preference argument – with a wider than normal premium for higher grade ores – albeit this premium has narrowed since May.
- China's steel production rose to record levels in June – up by 5.4% yoy – to 73.2 million tonnes. For the first half of 2017, steel production rose by 5.1% to 420 million tonnes.
- China's steel output has risen on a sharp improvement in profitability in recent months – as raw material costs have retreated from early year peaks and domestic product prices have risen. In mid-July, our estimates of Chinese producer profitability were near the spike recorded in April 2016, and well above the trends recorded between 2009 and 2016.
- In the first half of 2017, non-Chinese steel production rose by 4.4% yoy to 416 million tonnes. The largest increases in non-Chinese steel output were in India, Turkey, Brazil and South Korea.

IRON ORE cont.

Chinese steel consumption to slow, placing downward pressure on iron ore

CHINESE STEEL CONSUMPTION

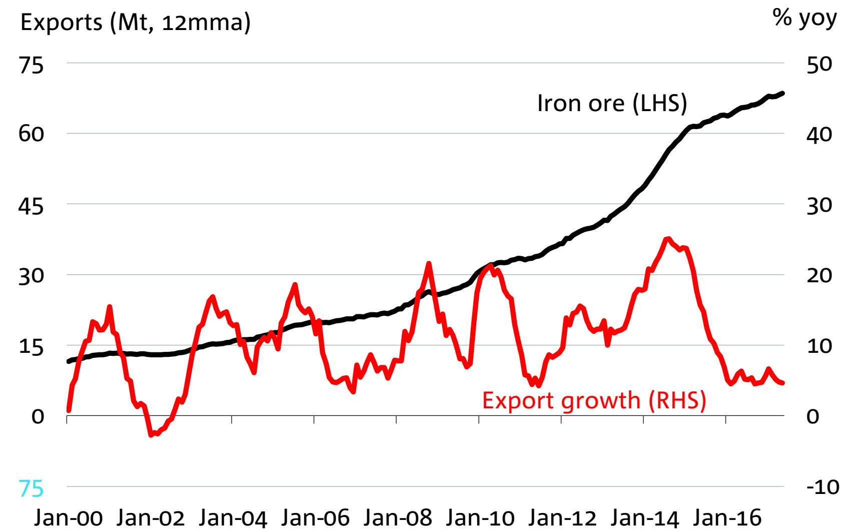
Apparent consumption above previous 2013-2014 peaks



Sources: CEIC, Bloomberg, NAB Economics

AUSTRALIAN IRON ORE EXPORTS

Growth has slowed but also stabilised



Sources: Bloomberg, NAB Economics

- China's apparent steel consumption jumped to record levels in May and June – passing the previous peak levels of 2013 and 2014. This reflects the increase in domestic steel production and the drop off in steel exports in 2017. Apparent consumption rose to 68.7 million tonnes in June (on a three month moving average basis) – an increase of 11% yoy.
- Activity in China's construction sector – which accounts for over half of the country's steel consumption – has continued strongly in the first half of 2017. Total new floor space starts rose by 10.6% yoy over this period – with residential construction rising by almost 15% yoy, while non-residential construction fell by 4.8% yoy.
- Regulations designed to cool the housing market have so far had a limited impact – with house price growth slowing in the largest tier 1 cities, but continuing strongly in lower level ones (providing incentives for further construction). We expect construction activity to slow in the second half of 2017 – however activity outpaced our expectations in H1 – flowing through into weaker demand for steel and slowing steel output.
- China's steel exports have contracted considerably in 2017. In the first half of the year, net exports totalled 34.2 million tonnes – equivalent to around 8.2% of China's steel production – a decrease of almost 33% yoy. Concerns around the political impact of large scale steel exports – along with the implementation of tariffs in the United States and European Union – may have contributed to this weakening trend.
- **According to the World Steel Association, global steel demand is forecast to increase by 1.3% and just 0.9% in 2018. The majority of this increase is expected outside China, although the increase in apparent consumption in early 2017 suggests some upside to this forecast.**
- Australian iron ore exports have continued to trend higher – albeit the growth has slowed considerably from the surging rate recorded between 2012 and 2015. Exports rose by 3.8% yoy in the first five months of 2017, to 334 million tonnes. Just over 83% of these exports were delivered to China.
- **Slowing steel output should impact global iron ore markets – placing downward pressure on spot prices. We forecast as relatively flat price profile – with prices trending around US$60 a tonne across the second half of 2017 and 2018.**

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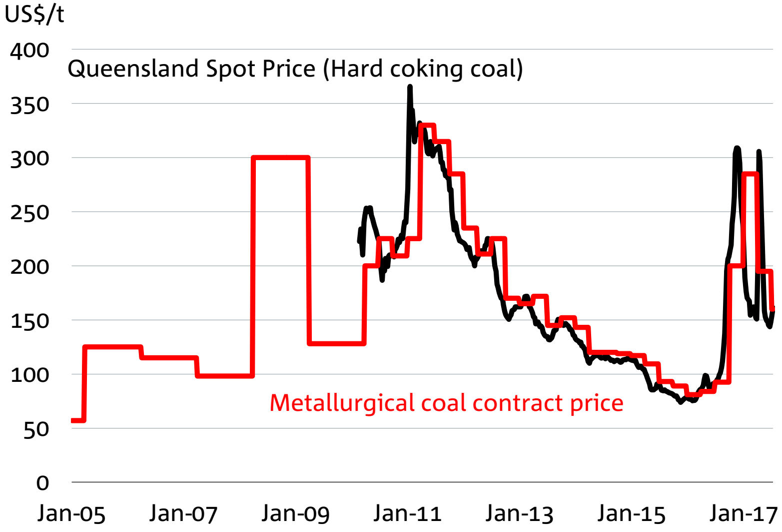
METALLURGICAL COAL

Supply side has driven recent spikes, weaker steel output to push prices down

COKING COAL HIGHLY VOLATILE RECENTLY

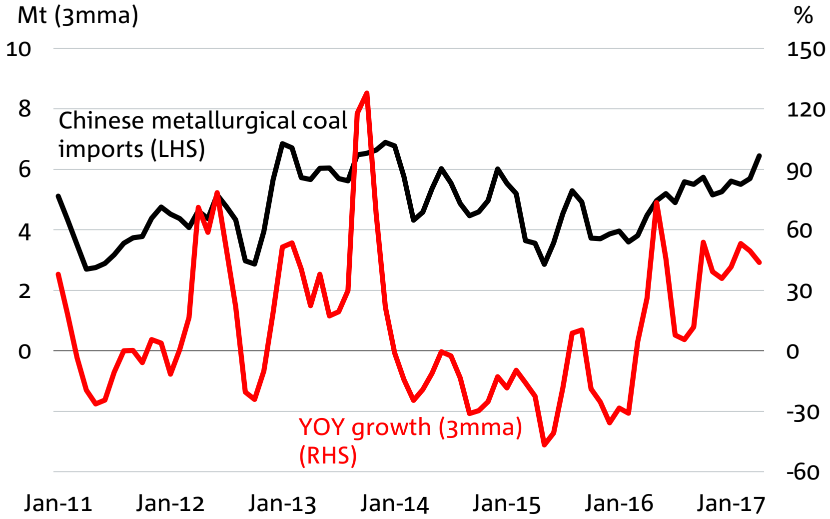
Supply side issues in China and Queensland driving spikes



Source: Bloomberg, Datastream, NAB Economics

CHINA'S METALLURGICAL COAL IMPORTS

Strong increases, but set to fade on steel outlook



Source: CEIC, NAB Economics

- Prices for hard coking coal fell sharply across May and June – as the short term constraints resulting from Tropical Cyclone Debbie gradually unwound. Spot prices have tracked higher more recently – up from a low near US$141 a tonne in mid-June to almost US$180 a tonne at the time of writing.
- The significant price volatility in the wake of Cyclone Debbie led to the collapse of the quarterly contract mechanism – with Nippon Steel (the key demand side negotiator) withdrawing from the process – in part reflecting Japan's declining importance in terms of global demand. Quarterly contract prices will now be determined based on the spot price indices produced by Platts, Argus and the Steel Index and applied retrospectively.
- China overtook Japan in 2012 to be the world's largest importer of metallurgical coal. In the first six months of 2017, China's metallurgical coal imports rose by 33% yoy to 36.0 million tonnes – however it is worth noting that the rate of growth has slowed in recent months, and the overall level of imports should slow in line with weaker steel production.
- Australian exports of metallurgical coal have fallen sharply – with the infrastructure disruptions caused by Tropical Cyclone Debbie further impacting weak conditions in Q1. For the first five months of 2017, exports fell by 16% yoy to 64.1 million tonnes – although these exports were sharply lower in April and largely recovered in May. Overall, Australia's metallurgical coal exports are expected to fall in 2017, however the recovery in output from Queensland should lower the rate of decline in the second half of 2017.
- **As Chinese demand starts to soften in the second half of the year, on the back of weaker steel output, we expect spot prices to retreat from current levels. Spot prices are forecast trend back towards US$140 a tonne by the end of 2017 and decline further to around US$100 a tonne by the end of 2018.**

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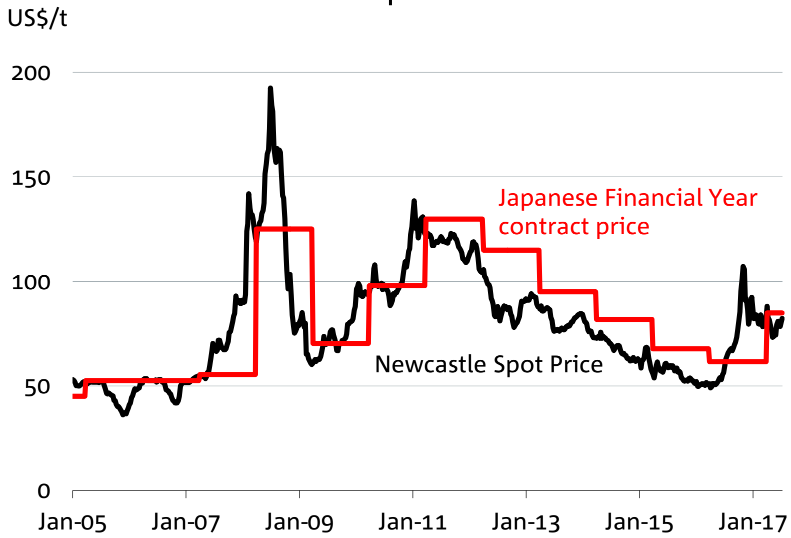
THERMAL COAL

Prices higher on short term factors, but set to fall on weaker demand trends

THERMAL COAL PRICES PUSH HIGHER AGAIN

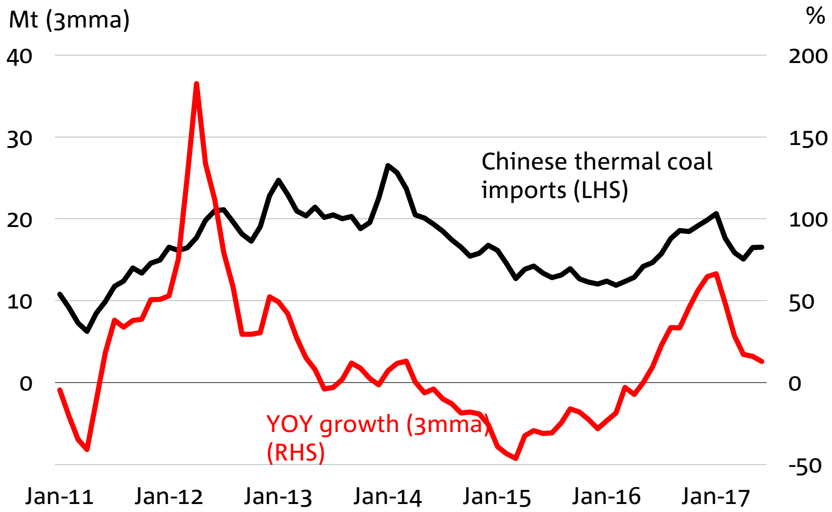
Short term factors elevate prices from recent lows



Source: Bloomberg, BREE, NAB Economics

CHINA'S THERMAL COAL IMPORTS

Imports down from late 2016 peaks



Source: CEIC, NAB Economics

- Thermal coal spot prices have risen in recent months – up from lows of around US$72 a tonne in mid-May to over US$80 a tonne in mid-July – just below the level of the annual Japanese financial year contract – which was set at US$85 a tonne.
- Short term demand factors – such as hot weather in China increasing electricity demand for cooling – at the same time as disruptions to alternatives, such as hydroelectric generation (which fell by 3.7% yoy in Q2 2017) have contributed to this trend. Recent industrial issues for Glencore mines in the Hunter Valley have also added upward pressure. Prices are likely to decline as demand eases following the end of the northern summer.
- China remains a major influence on global coal markets. In the first half of 2017, China's crude coal production rose by 5.0% yoy to 1.7 billion tonnes. Despite the increase in domestic output, China's imports of thermal coal have also risen – up by 20% to 97.3 million tonnes – though these have declined from late 2016 levels.
- China's consumption of thermal coal peaked in 2013, and has declined since. We expect further falls in both consumption and domestic coal output – which provides some uncertainty for global markets, as demand for imported coal could rise or fall depending on whether consumption or production falls faster. While imports accounted for just 7% of Chinese coal consumption in 2016, they accounted for almost 19% of global trade – highlighting China's outsized impact on markets.
- Demand for thermal coal in other key importing countries has appeared comparatively weak. In the first five months of the year, Japanese coal imports (both metallurgical and thermal) fell by 0.7% yoy. Similarly, India's coal imports have been falling in recent years. While there is a shortage of reliable data on Indian imports, indicative measures (based on port movements) suggest that coal imports fell by around 22% in the first six months of the year. India's government is aiming for self-sufficiency in coal in coming years, with domestic production increasing strongly.
- Australia's exports of thermal coal have been relatively flat in 2017 – increasing by 0.8% yoy to 80.6 million tonnes. The largest share of these exports was shipped to Japan (41%) followed by China (20%) – with exports to both of these markets increasing over the period, while export to all other markets fell.
- **As short term demand factors fade, we expect spot prices for thermal coal to drift lower across the year. 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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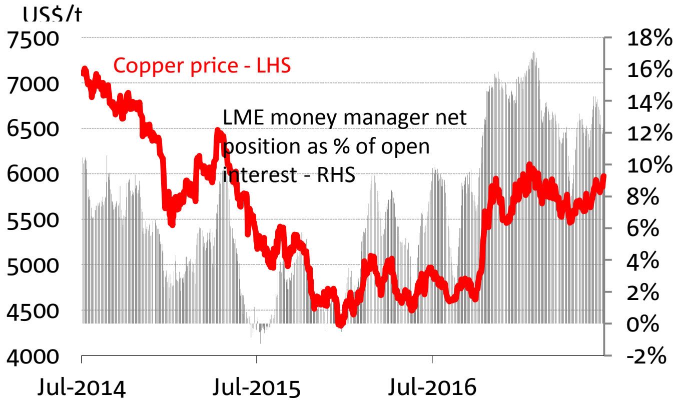
COPPER

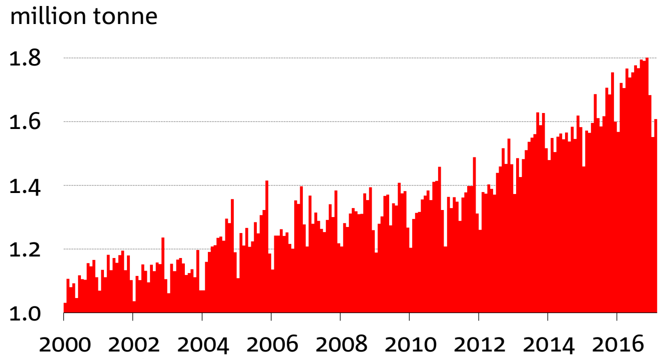
Price supported by further supply disruptions

COPPER PRICES & POSITIONING



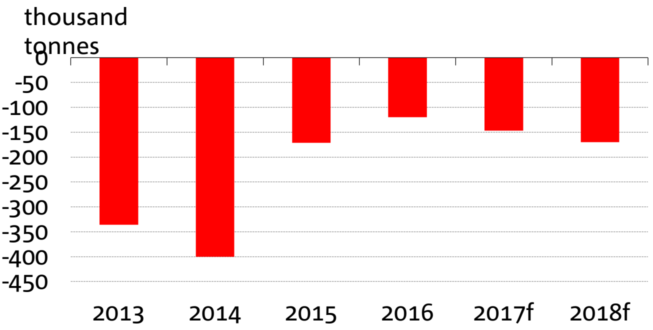
Source: Bloomberg

GLOBAL MINED PRODUCTION



Source: Bloomberg

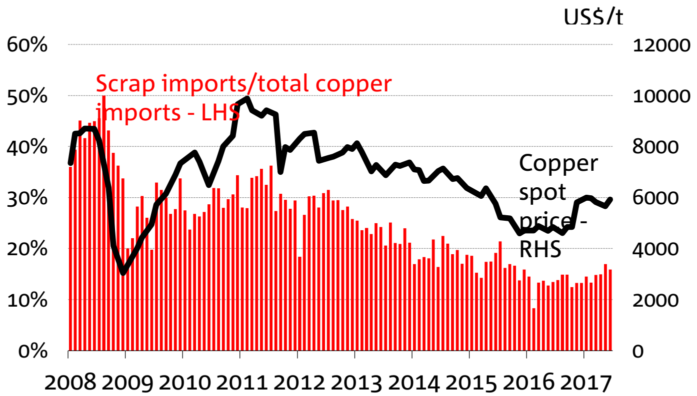
GLOBAL REFINED COPPER BALANCE



*China apparent usage basis

Source: International Copper Study Group, NAB

CHINESE SCRAP IMPORTS



Source: Bloomberg

Base Metal Prices*

	Avg Price (US$/tonne) Jun-17	Mar-17 to Jun-17 % change, quarterly	Jun-16 to Jun-17 % change, annual
Aluminium	1885	-0.9	18
Copper	5720	-1.8	23
Lead	2133	-6.5	25
Nickel	8932	-12.5	0
Zinc	2573	-7.3	27
Base Metals Index		-5.1	19

* Prices on an LME cash basis.

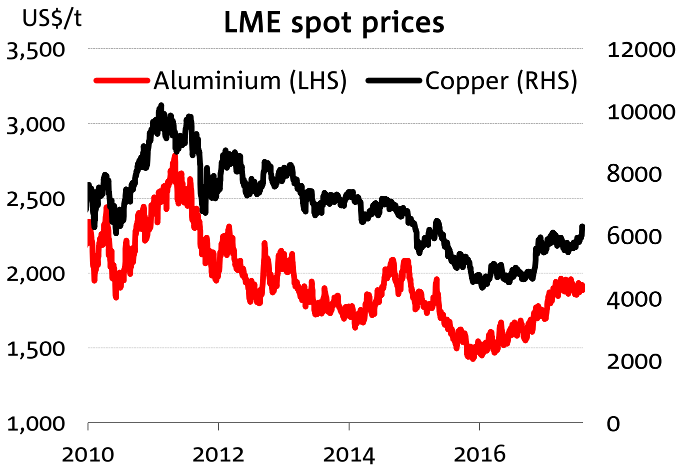
Sources: LME; NAB

- **Copper prices have rebounded from a May 2017 low, sitting at around $6300/t at the time of writing to be 15% higher since May.** Demand in China has turned out to be resilient, while a few more supply disruptions also supported prices.
- Chinese copper demand turned out to be somewhat stronger than expected. The latest July PMI showed resilience in the infrastructure and real estate sectors. While high debt levels remain a concern, the near term outlook is positive, especially with the Party Congress looming and the government keen to keep the economic conditions stable.
- Wild weather in Chile in June has caused further disruptions at the Escondida mine, with a few smaller mines also impacted. Fire in British Columbia in July also forced mine shutdowns and shipment disruptions. In addition, workers at Freeport-McMoRan's Grasberg mine in Indonesia extended their strike for a fourth month. While these disruptions are on a much smaller scale compared to the disruptions earlier this year, they appear to have supported market sentiment.
- China Smelter Purchase Team set a higher TC/RC floor for the September quarter than June, anticipating more favourable supply conditions. However in reality TC/RC remained subdued, indicating tightness in concentrates supply.
- Further, the Chinese government imposed tighter controls on scrap imports, including copper scraps. Scrap has been relied on in times of higher prices and this restriction could limit refined supply and support prices.
- **Overall, we forecast the refined copper market to be balanced (or in small deficit) in 2017 and 2018, with prices peaking in early 2018.**

ALUMINIUM

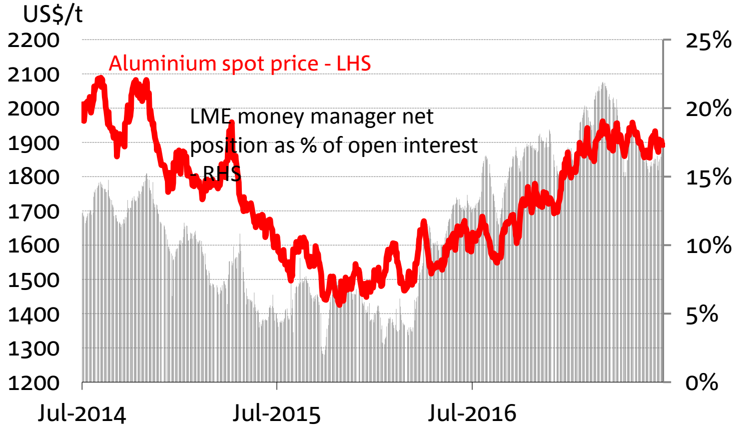
How committed are the Chinese production cuts?

COPPER & ALUMINIUM PRICES



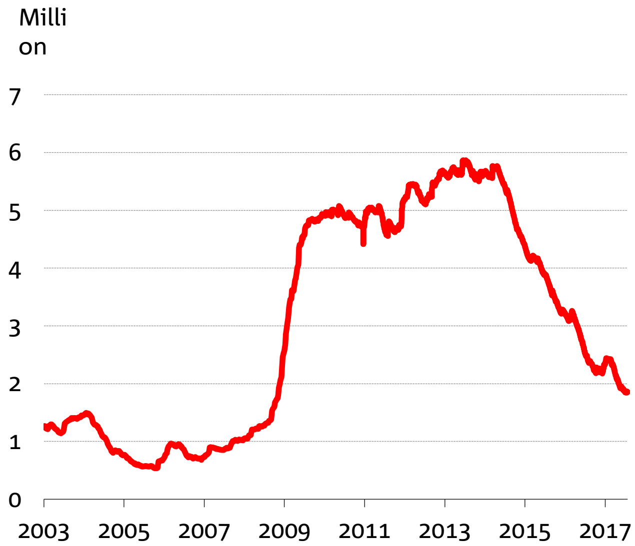
Source: Bloomberg

INVESTOR POSITIONING ON THE LME



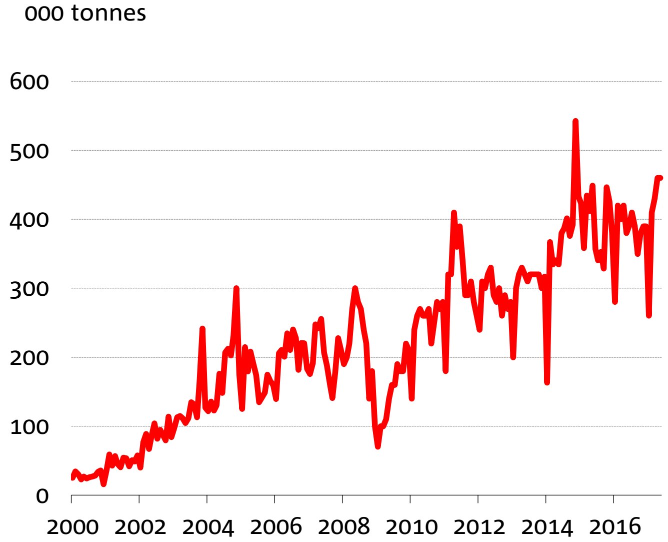
Source: Bloomberg

MAJOR EXCHANGE INVENTORY



Source: Bloomberg

CHINESE SEMI ALUMINIUM EXPORTS



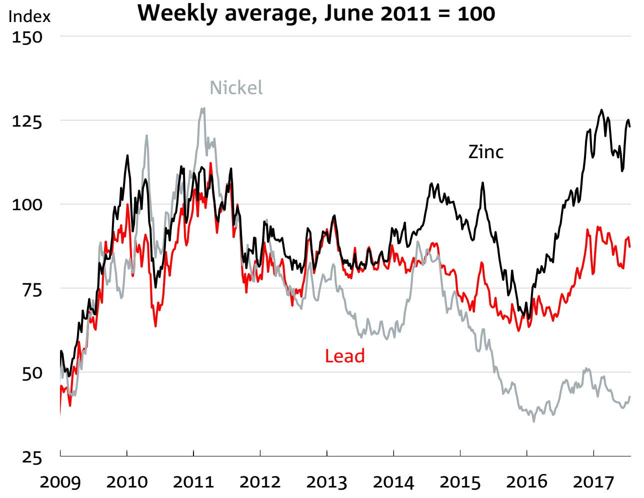
Source: Bloomberg

- **Aluminium market sentiment has been supported by cuts imposed on Chinese production, although there is increasing doubt over their enforcement.** Given China accounts for over half of global primary aluminium production, the future direction of Chinese government policies will continue to play an important role in driving underlying supply and market sentiment.
- LME spot price has traded range bound between $1850/t and $1950/t since March, but didn't join the price surge in the other base metals since July (which were largely supply driven). Major exchange inventory continued to decline but remains above pre-GFC levels.
- China continues to export record levels of semi aluminium products but has increasingly come under pressure to control over capacity. Environmental concerns have also risen on the policy agenda. As a result, Beijing has demanded any capacity additions be offset with cuts to older (more environmentally damaging) smelting capacity. Production cuts in regions around Beijing have also been mandated for the winter heating season. However there have been reports that June restarts have offset curtailments and that all of the resumed capacity uses older technology. So this is a worse outcome from an environmental perspective. Some closed "illegal" capacity also has the ability to apply for production permits retrospectively. Markets may have doubted the extent and seriousness of such cuts, explaining the limited movement in aluminium prices.
- China continues to rely on bauxite imports as domestic ore qualities decline. Indonesia has started its first shipment of bauxite since the export ban was imposed in January 2014.
- **Overall we forecast steady to slightly rising prices for the rest of 2017, as China approaches winter and the Party Congress. 2018 could see price start declining.**

NICKEL, LEAD & ZINC

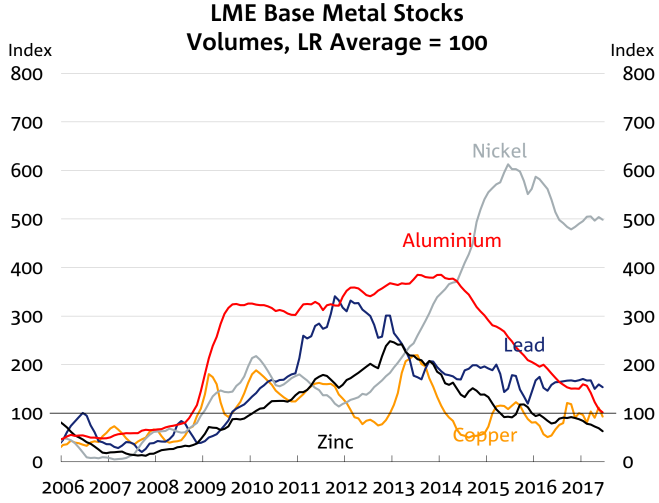
More uncertainties for nickel, lead steady, while zinc outlook positive

NICKEL, LEAD & ZINC PRICES (LME)



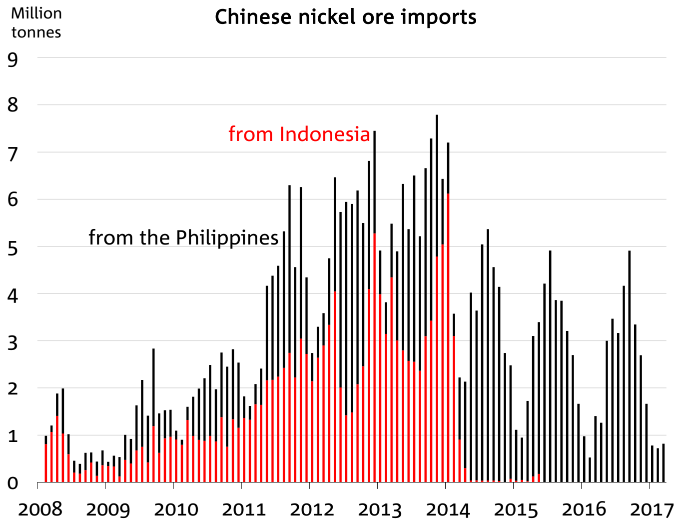
Sources: NAB; Thomson Reuters

LME STOCKS



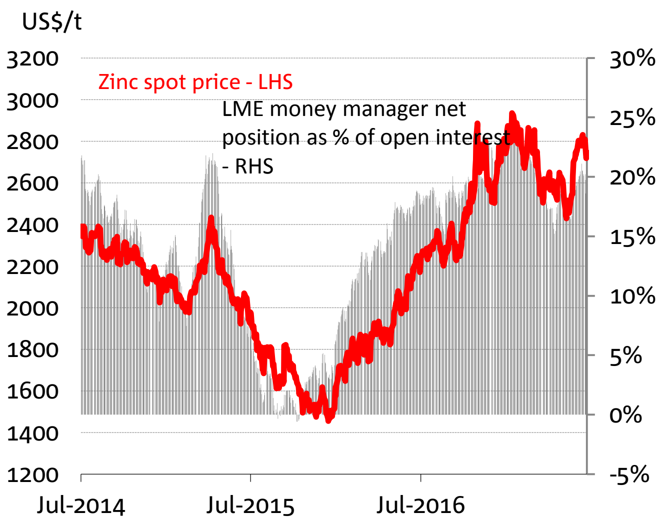
Sources: Datastream; NAB

CHINESE NICKEL IMPORTS



Source: Bloomberg; NAB Economics

INVESTOR POSITIONING IN LME ZINC



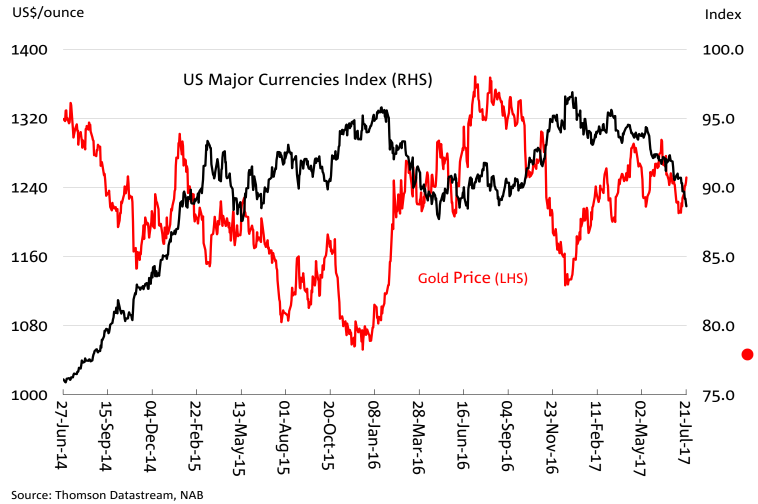
Source: Bloomberg

- Nickel prices surged again as a new environmental minister in the Philippines, the world's largest nickel producer, raised further uncertainty around the industry. The new minister reaffirmed the ban on open pit mining imposed in April but left the futures of 26 suspended mines open. We do not expect any new drastic measures from him, as the country strikes to balance mining (which is an important source of revenue) and the environment. LME nickel stock levels stabilised at a high level. Demand from China appears to have weakened, as scheduled maintenance by steel producers was carried out and some producers switched to carbon steel from stainless steel, to tackle the stainless steel glut. **The outlook for nickel remains uncertain, with average prices for 2017 and 2018 forecast at $9920/t and $9770/t respectively.**
- Zinc prices have recovered from the recent trough in June and are now back around levels seen earlier this year. LME stocks have continued to decline sharply, with the percentage of live warrants shrinking too. Investors have turned more bullish on zinc since June, driving up prices. Maintenance at Chinese smelters has also reduced supply in the near term. The significant reduction in global mined supply in recent years is unlikely to be offset by new mines. **Overall, the zinc market is forecast to remain in deficit in 2017 and 2018.**
- Lead prices rose with the base metals complex, up from a May 2017 low. LME inventory levels remained steady and above long-run average. Demand from electric vehicles could provide strong support to lead demand and prices, however new technologies using lithium and graphene could see lead batteries gradually being phased out. **We forecast a well supplied lead market in 2017 and 2018.**

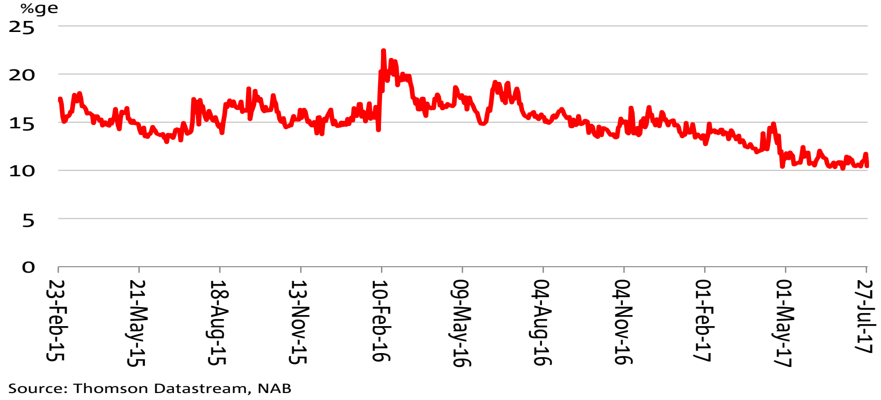
GOLD

Strong support from both economic and geopolitical factors

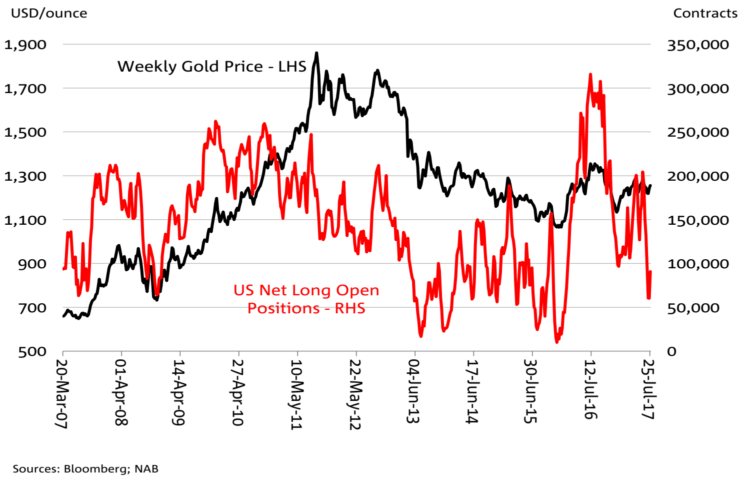
GOLD BENEFITTING FROM WEAKER USD



GOLD PRICE VOLATILITY SUBDUED



NET LONG POSITIONS PICK UP



- Gold has recently traded around the USD1,270/oz. level, a seven week high. There is a plethora of factors supporting the gold price at present, including a recent dovish Fed Statement (despite talk of commencing balance-sheet tapering), the subdued inflation climate, political uncertainties in the United States, North Korean missile tests and a US dollar failing to gain traction (due to the aforementioned weak inflation and political factors).
- Reflecting the improved optimism for gold, hedge funds boosted their net long positions in gold for the week ending July 25th - reflecting earlier weakness - according to CFTC (Commodity futures trading commission) data on non-commercial futures contracts.

  The recent upsurge in price, combined with cost control measures, appears to have boosted the earnings of some gold miners. The improved earnings performance has rekindled gold miners' interest in further exploration.

  Chinese gold consumption rose by 9.9% to 545.23 tonnes during the 1st half of 2017, according to the China Gold Association. Current and possible future RMB weakness, combined with uncertainties related to equity and property markets has led to a surge in demand for gold bars among Chinese investors, as they seek safe haven assets.

  Gold price volatility remains subdued, trading broadly in the USD1,200-1,300/oz. range as investors buy on dips (low prices) or engage in profit taking (higher prices).

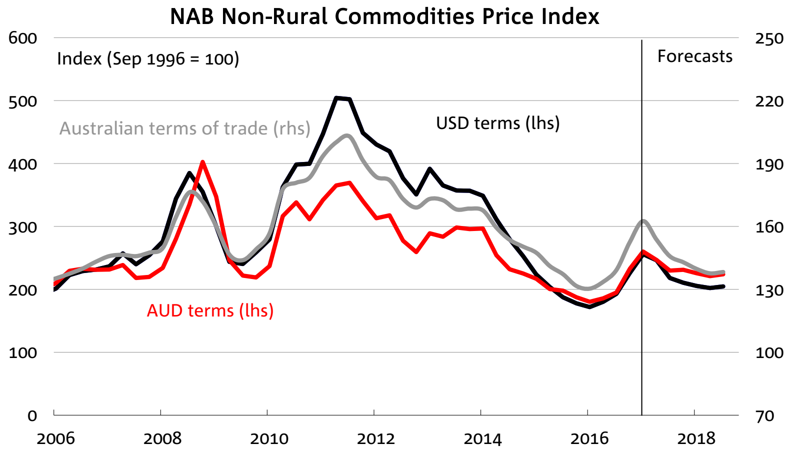
  NAB Economics is moderately optimistic on gold. While higher interest rates will act as headwinds, gold's safe haven status, and low correlation with other assets, e.g. equities, will ensure continued demand for the precious metal.
- **We are forecasting a 2017 year end gold price of USD1,244/oz. (previously USD1,232), rising to USD1,300/oz. by year end, 2018.**

National Australia Bank

OUTLOOK

A GRADUAL MODERATION IN COMMODITY PRICES IS STILL EXPECTED

Index, September 1996 = 100



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

- NAB's non-rural commodity price index is expected to drop 3.9% q/q in Q3 2017 (in US dollar terms), reflecting a further pull-back in bulk commodity prices from their 2016 rally. Iron ore is making the largest contribution to the quarterly decline, despite recent improvements in spot prices, while the peak in steel production is expected to limit any upside going forward.
- The USD has softened against major currencies in the second quarter of 2017, providing additional support to commodity prices on balance. Demand conditions appear to have held up better than expected across much of the commodity complex too, although supply side factors have varied. The broader global outlook continues to look reasonably upbeat, despite some indications of faltering growth in the US earlier in the year, and financial market volatility has also remained low.
- While a recent lift in spot prices for some industrial commodities suggests a degree of upside risk to our near-term forecasts, on balance our assessment of the long-term trajectory for commodity prices is little changed since last quarter.
- 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.

- 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 recently to reflect the recent strength in activity.
- **The US dollar denominated NAB non-rural commodity price index is expected to fall by around 7% over 2017, although it will still be 21% higher than 2016 in annual average terms.** The run-up and subsequent moderation in the commodity price index is mainly driven by iron ore and hard coking coal – although thermal coal also makes a material contribution.
- Despite the surprise resilience of the AUD recently, commodity price in AUD terms are still expected to be supported somewhat over late 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 22% in 2017, following very modest price declines on average in 2016.**
- **In light of these commodity price projections, NAB is forecasting the Australian terms of trade to decline in Q2 2017, following the sharp increase seen in Q1, and will maintain a gradual decline thereafter. In annual average terms, the terms of trade are forecast to rise around 9% for 2017, but will be down 6% over the year for December 2017.**

NAB COMMODITY PRICE FORECASTS

	Unit	Spot 01-08-2017	Actual Jun-17	Forecasts Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19
WTI oil	US$/bbl	49	49	50	51	52	54	56	58	60	62
Brent oil	US$/bbl	51	52	52	53	54	56	58	60	62	64
Tapis oil	US$/bbl	53	52	53	54	55	57	59	61	63	65
Gold	US$/ounce	1272	1260	1240	1240	1260	1270	1290	1290	1300	1320
Iron ore (spot CFR)	US$/tonne	n.a.	64	62	60	58	60	62	60	60	60
Hard coking coal*	US$/tonne	n.a.	195	160	140	120	110	105	100	101	99
Semi-soft coal*	US$/tonne	n.a.	142	114	101	87	79	76	72	73	71
Thermal coal*	US$/tonne	75	85	85	85	85	65	65	65	65	60
Aluminium	US$/tonne	1884	1910	1920	1930	1910	1890	1890	1890	1890	1890
Copper	US$/tonne	6313	5670	6150	6180	6120	6060	6060	6060	6060	6060
Lead	US$/tonne	2313	2160	2300	2310	2310	2310	2310	2310	2310	2310
Nickel	US$/tonne	10241	9240	10070	10120	9920	9720	9720	9720	9720	9720
Zinc	US$/tonne	2768	2590	2800	2820	2830	2840	2860	2870	2870	2870
Aus LNG**	AUD/GJ	n.a.	7.66	7.29	7.77	7.90	8.03	8.28	8.54	8.80	8.93

* 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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