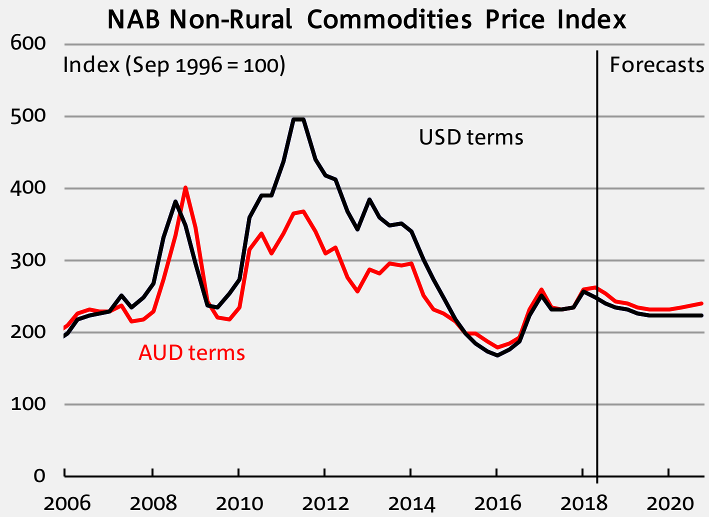
MINERALS & ENERGY OUTLOOK

JULY 2018

Key Points

- NAB's USD non-rural commodity price index declined by over 3% q/q in Q2 2018. This only partially reversed the large gain made in the previous quarter and, as a result, it is still 7.5% higher than a year ago. The fall in Q2 mainly reflected a decline in iron ore and metallurgical coal prices, although LNG export prices – linked to the price of oil – rose.
- We expect economic fundamentals will lead to further declines in overall USD commodity prices through to end-2019. While the global economy continues to grow at an above average rate, the acceleration seen in 2017 is no longer occurring and we think growth has peaked. China remains a key player in the global commodity markets, and its economy is expected to slow gradually in coming years, in part driven by a slowdown in the commodity intensive construction industry.
- That said, we see some upside to LNG export prices over the rest of this year. Reflecting supply-side issues we expect Brent oil prices to remain in the mid-to-high US$70s range in coming months. This will flow through to higher Australian gas export contracts as they are tied to the price of oil. However, the prospects of an increase in OPEC-Russia and US shale production should in-time lead to some moderation in energy prices.
- In part reflecting the broad strength in the USD, the AUD/USD exchange rate depreciated in Q2 2018. As a result, the NAB AUD non-rural commodity price index was largely unchanged in Q2. However, we expect the AUD will overcome its recent weakness to settle around the mid-70s level later this year, and the AUD non-rural commodity price index is also expected to track lower.
- A source of downside risk to most commodity prices – (gold being an exception) – are current trade tensions between the US and some of its major trading partners (particularly China, but also the EU, Canada and Mexico). An escalating cycle of tit-for-tat tariff and other trade barriers would have a negative impact on world growth, lowering demand for commodities (and commodity market expectations of future demand).



Sources: ABS, Bloomberg, Thomson Datastream, NAB Economics

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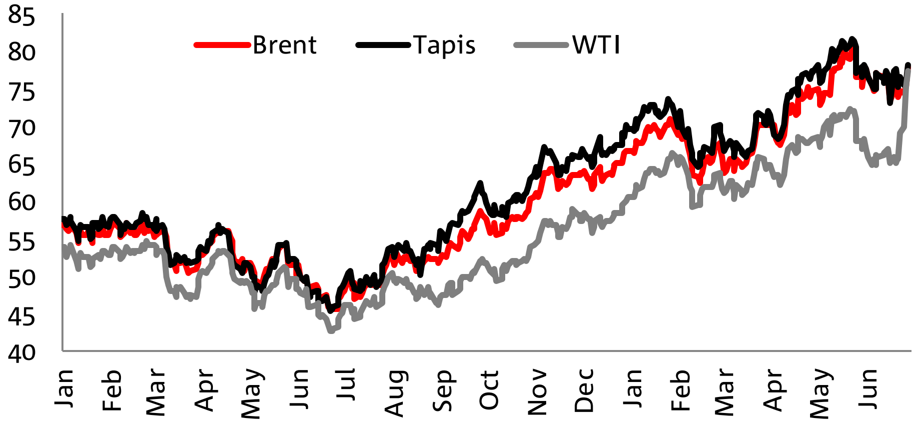
NAB Group Economics

OIL

Prices have rallied, but OPEC will be key

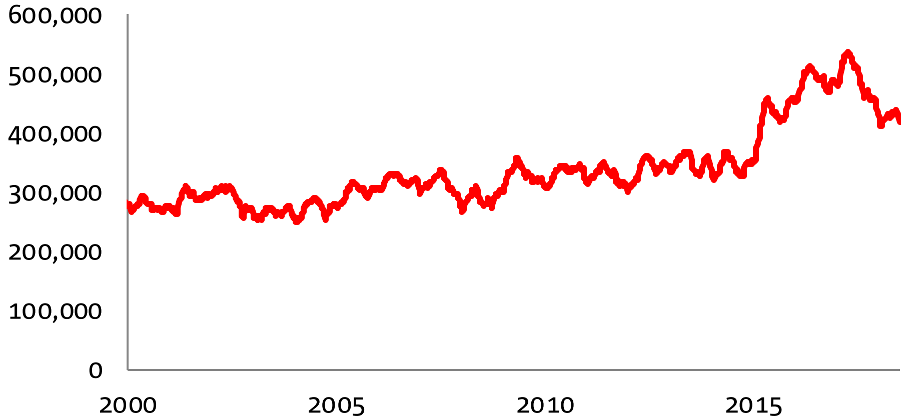
DAILY OIL PRICES JANUARY 2017 TO DATE

USD/bbl



US WEEKLY ENDING CRUDE STOCKS

Thousand barrels,



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

- Oil prices have reached a new level over the last few months, with Brent briefly touching US$80/bbl in May. This is the highest read for Brent since November 2014. The last month has seen prices moderately lower, generally in the mid-to-high 70s range. WTI has traded at a substantial discount, although this has evaporated over the last week amid unchanged US production but large inventory drawdowns.
- A key driver of the rise in prices has been the OPEC-Russia deal to cut oil output, compounded by collapsing Venezuelan production and the US decision to end the Iran deal.
- While Saudi Arabia – OPEC's biggest oil producer at around 8-10 million bbl/day – has now been signalling for some time that it will likely make more oil available, the forthcoming float of state-owned Saudi Aramco is likely to remain a high priority. Higher oil prices are likely to boost the share price for the IPO (which is now likely delayed until 2019).
- Another major consideration is the extent to which US shale production will respond to higher prices. Overall we still expect US shale to expand with prices around these levels, although it is fair to suggest that the pace of expansion has been slower than we expected.
- **Our forecasts point to Brent spending the next few months largely in the mid-to-high 70s range**, although meaningful OPEC-Russia output increases could push prices lower later in the year and higher US shale production should impose an upside limit on WTI.
- Australian fuel prices have been rising, most recently to the 145-155c/l range at a national average level. The lower AUD has sharpened the impact, although we do not forecast major downside for the AUD this year. At this stage, we see national fuel prices largely in the 140-145c/l range for the remainder of the year, although this will be very sensitive to crude oil prices and exchange rates.

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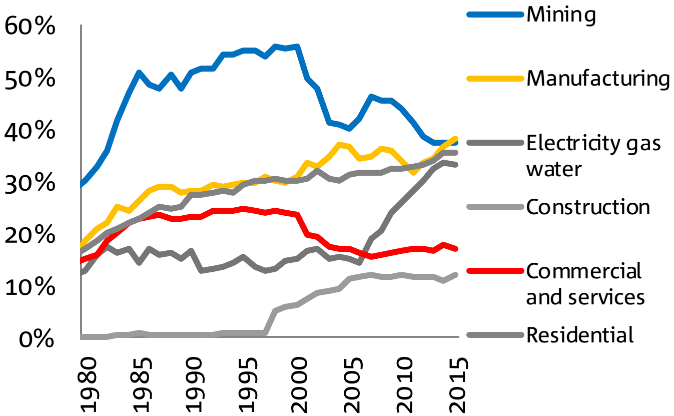
NATURAL GAS AND LNG

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

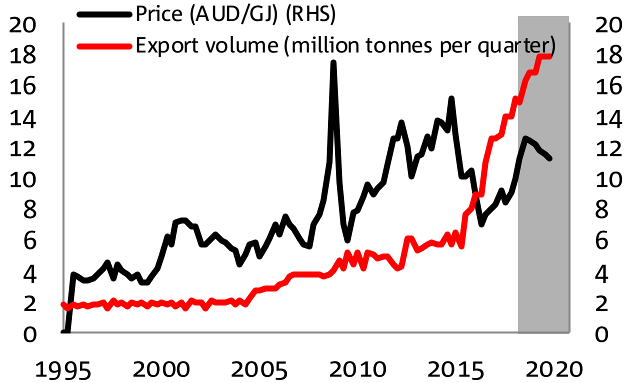
GAS SHARE OF TOTAL ENERGY USE

Share of total energy use by sector



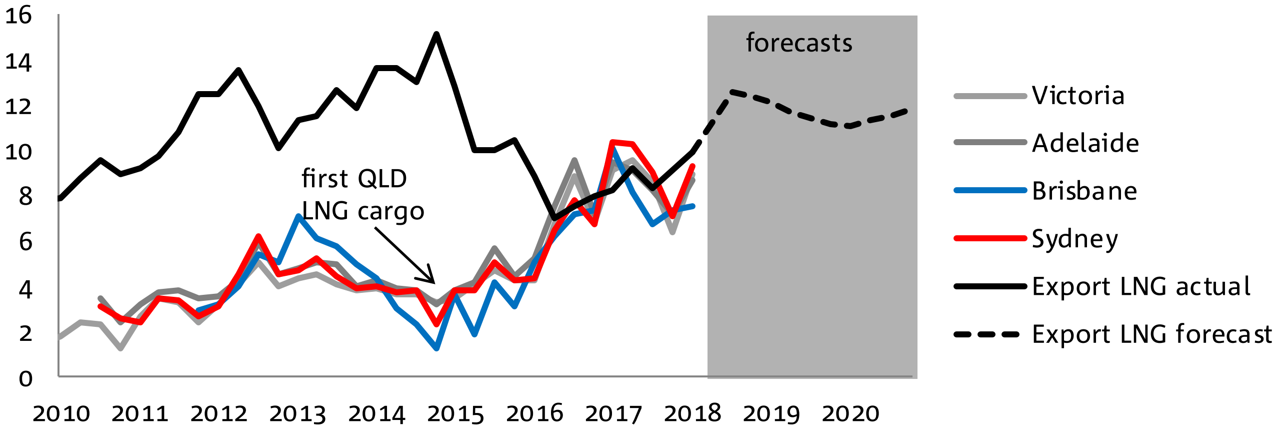
AUSTRALIAN LNG EXPORTS

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

- Australian LNG export volumes surged over 8% q/q in Q1 2018, reflecting the ongoing ramp up in Australian production. On a year ended basis, volumes are up almost 21%. More recent monthly data for April and May suggests that Q2 may be flat or even slightly lower, although the pace should pick up again in Q3.
- With many Australian gas export contracts tied to the price of oil, the recent surge in oil prices points to higher export prices. **Our Australian gas export price indicator hit double figures in Q1 to reach AUD10.08/GJ and we now see the indicator exceeding AUD12/GJ by Q4 2018.**
- This will put upward pressure on eastern Australia domestic gas prices. While restrictions imposed by the Commonwealth Government in the middle of last year led to some downward price pressure by reducing domestic spot premiums over export, it is difficult to see domestic prices remaining well below export parity (after accounting for transport and liquefaction costs). The era of $2-4/GJ gas in eastern Australia is well and truly over. Many domestic gas purchasers will be lucky to secure gas under $10/GJ in the medium term.
- There are some signs that further investment in domestic gas production and export terminal capacity may be forthcoming. The Northern Territory Government recently overturned its ban on fracking, which may see the development of coal seam gas fields. In Western Australia, Woodside is planning an expansion of the Pluto LNG plant.

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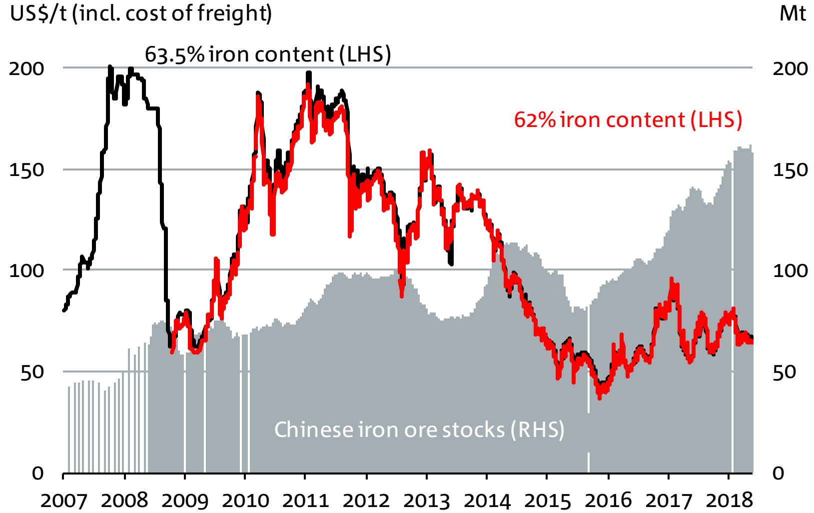
IRON ORE

Little price movement in a well supplied iron ore market

STABILITY IN IRON ORE PRICES

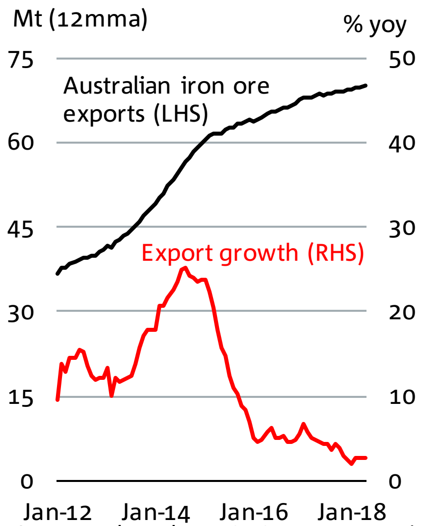
Stockpiles point to well supplied market

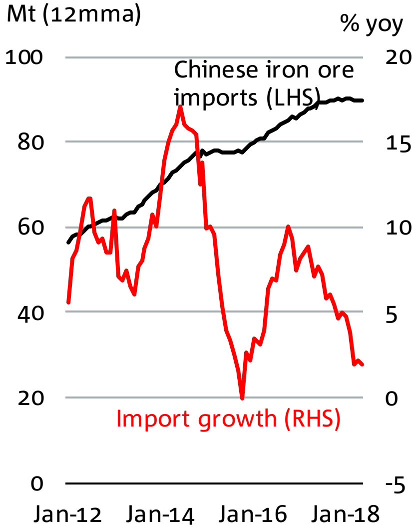


Source: Bloomberg, Thomson Datastream, NAB Economics

IRON ORE TRADE

Australian exports and Chinese import growth slowing





Sources: Bloomberg, CEIC, NAB Economics

- There has been little movement in iron ore spot prices in recent months – with 62% ore landed in China trading in the mid-to-high US$60 range since the second half of March.
- China is the world's largest iron ore importer, accounting for over two-thirds of global trade in 2017, meaning that developments in China have a critical impact on iron ore prices. Imports have only grown modestly in the first five months of 2018 – up by 0.6% yoy to 447 million tonnes.
- China produced just over half of global steel output in the first five months of 2018, with output totalling 369 million tonnes (an increase of 5.5% yoy). Profits for steel producers have remained strong, supported by the continued strength of construction demand and the closure of obsolete production capacity. That said, the share of blast furnace steel production in China has trended lower in recent years (from around 87% in 2014 to 82% in the first five months of 2018). This means that much of the growth in steel output is coming from recycled scrap (meaning that iron ore demand is increasing more slowly than steel output).
- We continue to expect China's demand for steel to slow – as the current construction boom unwinds. The World Steel Association expect China's demand to be unchanged in 2018 and fall by around 2% in 2019.
- Australia's iron ore exports rose by 3.8% in the first four months of 2018, to total 272 million tonnes. Growth in export volumes has slowed from the rapid rates recorded between 2012 and 2015. Australian suppliers have become increasingly dependent on Chinese steel mills, accounting for around 83% of exports in the first four months of 2018.
- Chinese iron ore markets appeared to be well supplied at present, with stockpiles at the country's ports rising above 160 million tonnes in May, before dipping back to around 156 million tonnes at the time of writing. This is equivalent to over one and a half months worth of consumption (based the first five months of the year).
- Slowing steel demand in China should flow through into weaker demand for iron ore over the next few years. We expect spot prices for iron ore to retreat back towards US$60 a tonne by the end of 2018, and remain near these levels longer term.

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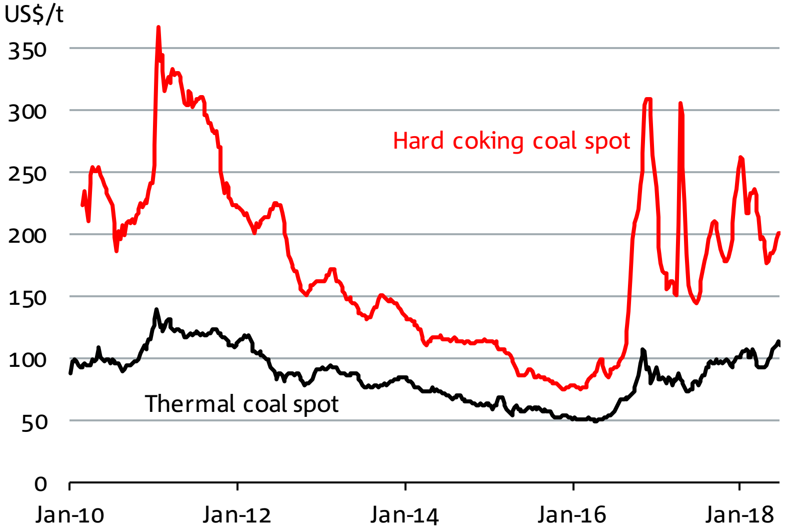
COAL

Coal prices have remained strong but are set to decline

COAL SPOT PRICES

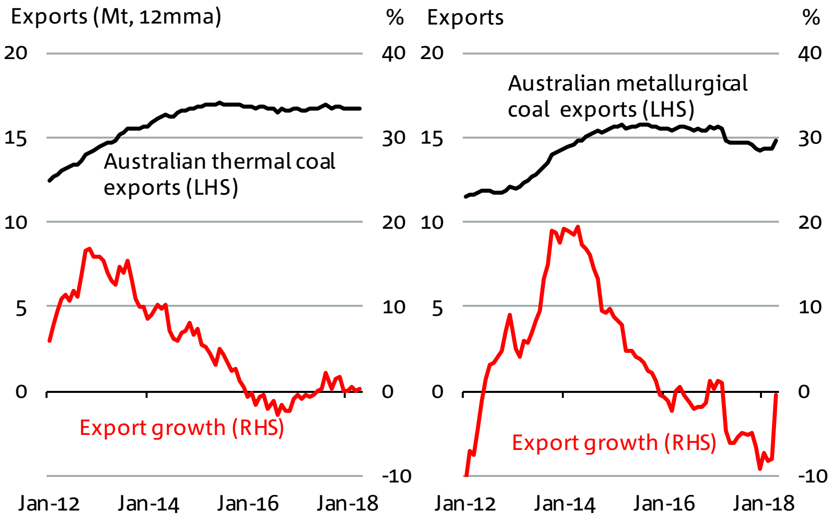
Prices trending higher recently on tighter supplies



Source: Bloomberg, NAB Economics

AUSTRALIAN COAL EXPORTS

Export growth near zero in early 2018



Sources: Bloomberg, NAB Economics

- Coal spot prices have been highly volatile in recent years, with an upward trend since recent lows in April 2018. Hard coking coal prices rose above US$200 a tonne in mid-June (due to port and rail maintenance issues), while thermal coal prices pushed above US$110 a tonne (the highest level since early 2012). Spot prices for thermal coal may become increasingly important – given the breakdown of the traditional Japanese financial year contract mechanism, with Tohoku Electric Power Co pulling out of negotiations with miner Glencore (the two parties who negotiate the agreement).
- Asia is the key region for seaborne coal demand – with China, India, Japan and South Korea accounting for almost 60% of global imports in 2017. The growth potential of the latter two is somewhat limited longer term (given the mature nature of their economies), while rapidly growing India is increasing its domestic supply, aiming to develop self-sufficiency in coal supply.
- China's coal import trends have been mixed in 2018. In the first five months, imports of metallurgical coal fell sharply – down 25% to 22.6 million tonnes, while thermal coal imports rose by 20% to 97.4 million tonnes. In a large part the latter reflected a particularly cold winter (boosting demand across January through March) and poor availability of natural gas.
- Short term supply issues have impacted coal markets in recent years – particularly hard coking coal exports from Queensland. A dispute between the privately owned rail operator and the Queensland Competition Authority regarding its regulated maximum allowable revenue between 2017 and 2021 could limit the state's coal exports in coming years – adding some upside risk to our price forecasts.
- Australia's total coal exports have increased strongly in the first four months of 2018 – albeit this reflects the recovery from Tropical Cyclone Debbie that severely disrupted metallurgical coal exports in April 2017. Thermal coal volumes rose by 0.8% yoy to 64.8 million tonnes, while metallurgical coal exports rose by 13% yoy to 55.6 million tonnes. That said, metallurgical coal exports remain well below the levels recorded in the first four months of 2014 through 2016.
- Coal prices are expected to ease from current levels – as a softening China's steel sector reduces coking coal demand and supply side concerns ease. We expect hard coking coal prices to average US$186 a tonne in 2018, a decrease of almost 15% (reflecting impact of supply shortfalls in 2017). In contrast, average thermal coal prices are forecast to increase by 12% to US$98 a tonne.

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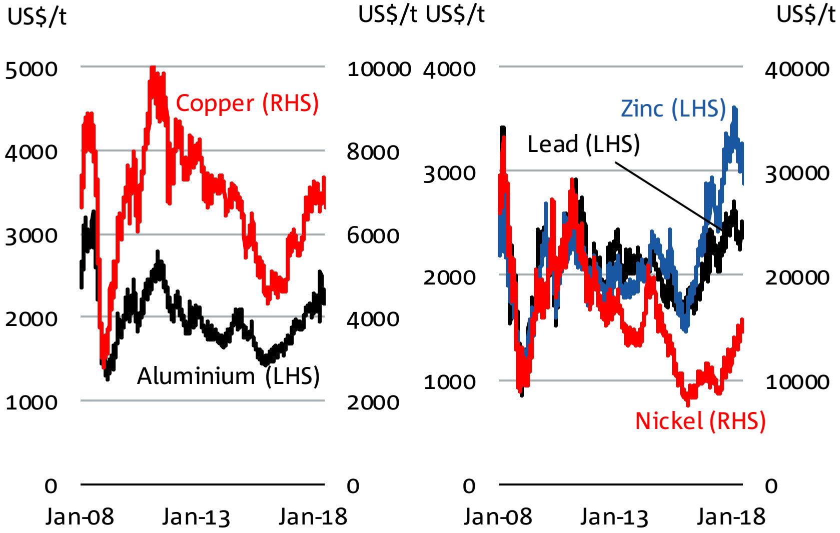
BASE METALS

Supply shortfalls keep prices elevated, but this should ease in coming years

BASE METAL PRICES

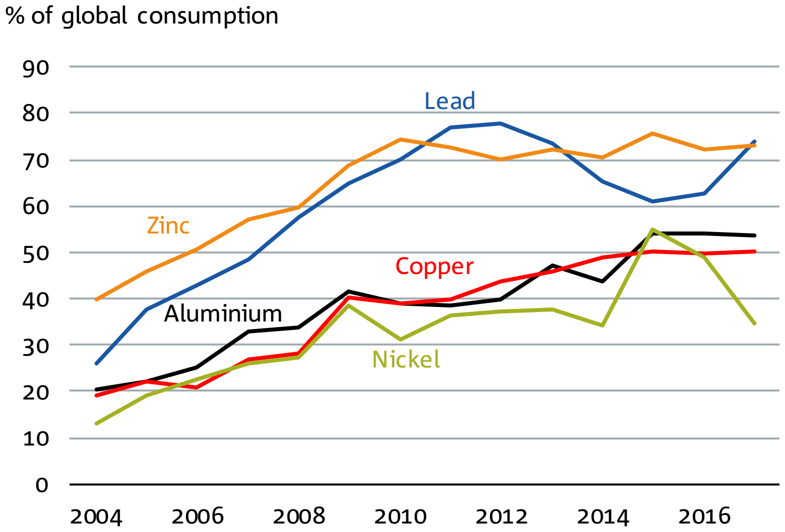
Mixed trends across the complex



Source: Datastream, NAB Economics

CHINA'S METAL CONSUMPTION

China has a dominant share of most metals



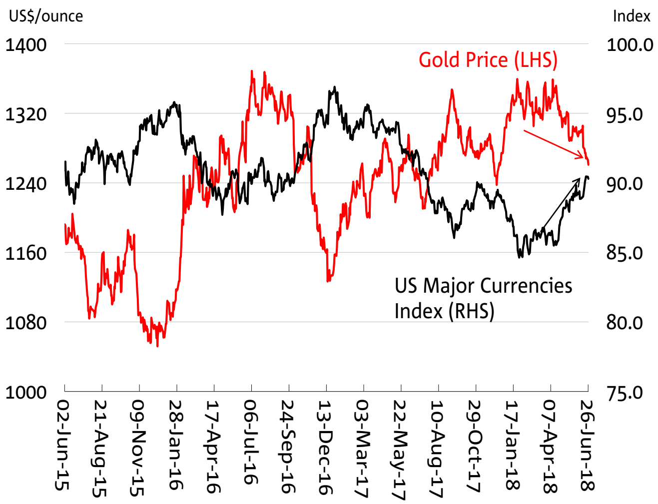
Source: CEIC, Australian Department of Industry, NAB Economics

- Recent price trends have differed across the base metals complex. Copper prices have generally drifted lower since the start of the year (with the exception of a short term spike in early June), as have zinc and lead. In contrast, aluminium prices have been comparatively stable and nickel prices have trended higher. Futures markets highlight the ongoing tightness in zinc markets – with a sizeable contango in the three month futures price, compared with backwardation in the nickel market.
- China is the dominant consumer of base metals – with the country accounting for over half of the major metals consumption (excluding nickel in 2017). Demand trends have been mixed in early 2018 – with apparent consumption of most metals falling in the first quarter (with the exception of a 6.1% increase in copper consumption).
- While China's economic growth remains relatively stable, this growth is being driven more by the low commodity intensive services sector (rather than the heavy industrial sector). The long anticipated slowdown in construction activity should impact demand for copper, while tightening domestic financial conditions and the prospect of US tariffs on Chinese goods (and the risk of further escalation) could be a negative for Chinese demand across the base metals complex.
- Trends in China are also likely to influence the supply outlook – with policy efforts to reduce excess production capacity and pollution constraining smelters and refineries. Short term disruptions (such as labour disputes at mines in a range of emerging market economies) and delays in restarting previously idled mining capacity (particularly in zinc) have impacted markets in recent months, and labour issues are likely to contribute to price volatility in coming quarters.
- Growth in refined supply of metals in 2018 is generally insufficient to return markets to surplus – with the exception of copper, where the International Copper Study Group anticipate a small surplus of around 43 000 tonnes (equivalent to about 0.2% of global consumption in 2017), before swinging back to deficit in 2019. This will continue to pressure global metal stockpiles and limit downward pressure on prices this year – however high prices will draw fresh supplies to the market in the outer years of our forecast.
- Reflecting these trends, we expect base metal prices to rise across the board in 2018 (in year average terms) – led by nickel (up 37% to US$14250/t), aluminium and copper (both up 10% to US$2170/t and US$6800 a tonne respectively). Prices are forecast to fall in 2019 (with the exception of copper) and 2020 – reflecting the gradual slowdown in China's economy and expansions in metal supply.

GOLD

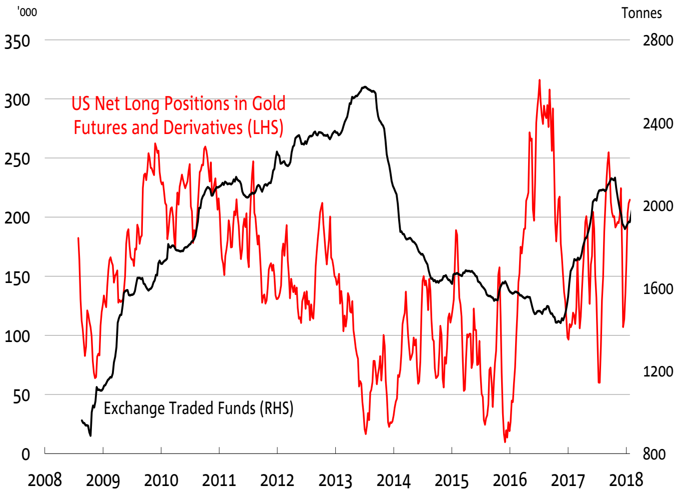
Near term weakness; outlook positive

STRONGER USD IMPACTING THE GOLD PRICE



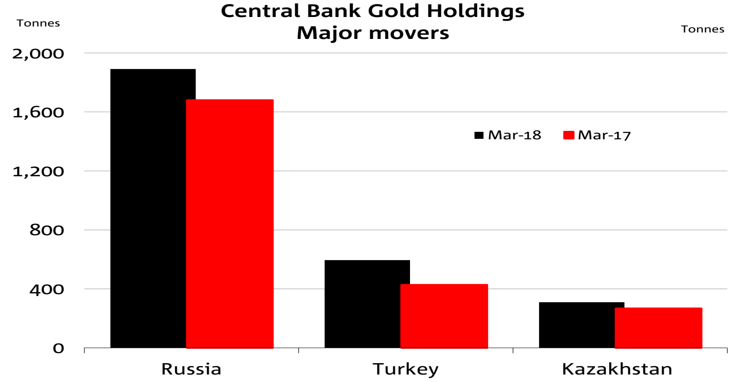
Source: Thomson Datastream, NAB

INVESTOR INTEREST IN GOLD WANING



Sources: Thomson Datastream, NAB

RUSSIA & TURKEY HAVE INCREASED THEIR GOLD HOLDINGS



Source: World Gold Council

- Gold has fallen to a yearly low, trading around US$1250/oz. at the time of writing. It lost around 4% in June itself (end-of period prices), contrasting sharply with the above $13000/oz. price performance in the early part of the year.
- A stronger US dollar and a contractionary monetary policy stance by the US Federal Reserve (Fed) have been key drivers of this weakness. NAB Economics is forecasting five more rate hikes by the Fed over the rest of this year and 2019, which would lift the top of the Fed Funds rate target range to 3.25% by Q3 2019.
- Investor interest in gold has also declined – in line with the fall in prices. Speculators have sharply cut their net long futures positions in the precious metal, while ETFs too have also cut back their gold holdings, particularly North-American based ETFs.
- The Russian, Turkish and Kazakhstan central banks have been active in augmenting their gold holdings. Russia's move can be seen as a move to counter US sanctions. Turkey is using gold to strengthen its sovereign balance sheet, being one of the more-exposed emerging market economies.
- Recently gold has failed to capitalise on its safe haven status, even during bouts of equity market weakness. Traders appear to be liquidating their gold holdings to cover their losses in equities. They also seem to be seeking safety in US Treasuries, as opposed to gold.
- In the near term, we expect weakness in gold to persist, before investors flock to gold's safe haven status in light of the ongoing trade and geo-political tensions – and the attendant negative consequences that might ensue.
- In particular, we are forecasting a year-end gold price of US$ 1314/oz., rising further into 2019 and 2020. Risks to our forecasts are evenly balanced. The outlook for trade, geopolitics and the US dollar are likely to be crucial factors underpinning the gold price.

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NAB COMMODITY PRICE FORECASTS

	Unit	Spot 2/07/2018	Actual Jun-18	Forecasts Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20
WTI oil	US$/bbl	74	68	70	68	66	64	62	61	62	63	64	64
Brent oil	US$/bbl	78	75	76	74	72	70	68	67	68	69	70	70
Tapis oil	US$/bbl	79	76	77	75	73	71	69	68	69	70	71	71
Gold	US$/ounce	1246	1310	1270	1310	1340	1360	1370	1380	1400	1400	1410	1420
Iron ore (spot)	US$/tonne	n.a.	67	63	61	60	58	60	62	63	61	58	60
Hard coking coal*	US$/tonne	n.a.	190	170	155	150	155	145	140	130	125	120	125
Thermal coal (spot)	US$/tonne	114	102	98	90	93	85	80	75	77	73	70	68
Aluminium	US$/tonne	2121	2261	2142	2125	2080	2055	2025	2000	1985	1962	1958	1955
Copper	US$/tonne	6525	6877	6642	6725	6825	6875	6950	7050	6900	6825	6725	6650
Lead	US$/tonne	2380	2383	2405	2395	2380	2340	2300	2300	2280	2260	2240	2220
Nickel	US$/tonne	14465	14456	15045	14235	14000	13750	13525	13025	13250	13500	13250	13000
Zinc	US$/tonne	2878	3112	2900	3000	3145	2895	2700	2600	2550	2500	2485	2465
Aus LNG**	AU$/GJ	n.a.	11.5	12.8	12.6	12.3	11.9	11.6	11.4	11.3	11.6	11.7	12.0

* Data reflect NAB estimates of US$/ tonne FOB quarterly contract prices. Actual data represent most recent final quarterly contract price.

** Implied Australian LNG export prices

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