MINERALS & ENERGY OUTLOOK

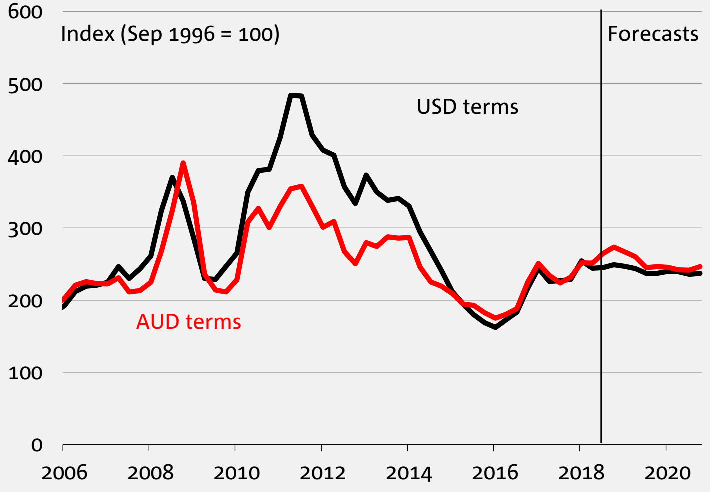
OCTOBER 2018

National Australia Bank

Key Points

- In US dollar terms, the NAB non-rural commodity price index rose marginally in Q3 2018 – increasing by 0.4% qoq. The strong upturn in the first quarter of this year contributed to a much more significant increase in year-on-year terms – up by 8.2%.
- That said, trends were highly divergent within the commodities space – with our base metals index falling by over 12% qoq. In contrast, prices for thermal coal and LNG grew strongly – up by 14% qoq and 11% qoq respectively.
- A sizeable depreciation in the Australian dollar in Q3 drove the overall index higher in AUD terms. Quarter-on-quarter, the index rose by 5.2%.
- The growing trade tensions between the US and China – culminating in the imposition of tariffs by both countries – appears to have impacted base metals most significantly (reflecting the higher intensity of these commodities in Chinese exports than iron ore or coal). Perhaps surprisingly, gold prices have also fallen during this period, despite the uncertainty created by the trade dispute.
- While global economic conditions have been relatively strong in recent quarters, growth has likely peaked and is set to decline over the next few years. The impact of the trade dispute on China (the largest consumer of commodities excluding oil) and emerging Asia remains somewhat uncertain – given the potential policy response by Chinese authorities (which could favour iron ore and metallurgical coal).
- A downturn in other emerging markets presents another downside risk to our forecasts. At present fears are largely focused on economies such as Turkey and Argentina, however financial contagion could spread elsewhere.
- Our commodity price index is forecast to decline modestly in 2019 – down around 2.8% in US dollar terms – but a weaker currency lowers the fall to 2.2% in AUD terms.

NAB Non-Rural Commodities Price Index



Sources: ABS, Bloomberg, Thomson Datastream, NAB Economics

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LINKS

Global Economic Outlook
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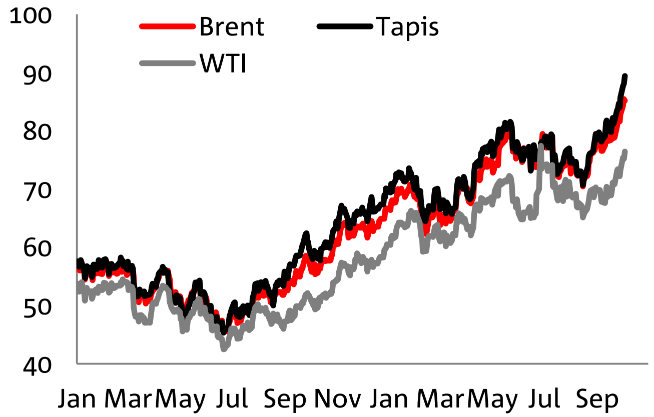
OIL

Prices highest in four years – where to from here?

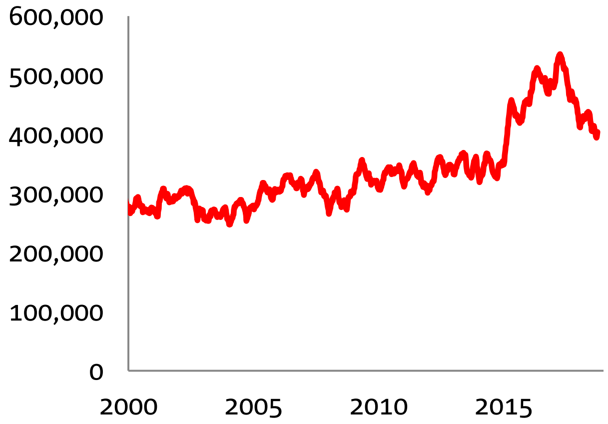
DAILY OIL PRICES

USD/bbl, Jan 17 to date



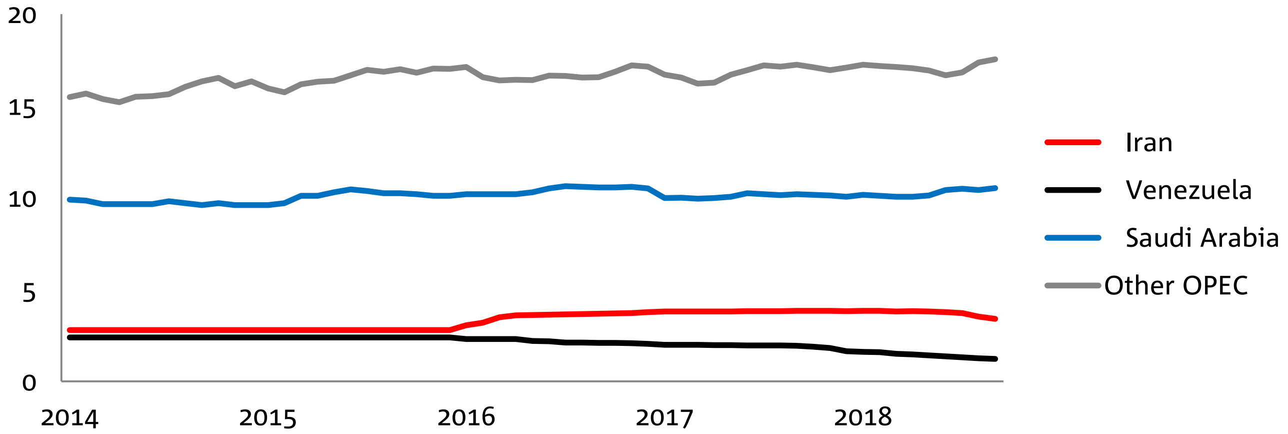
US WEEKLY ENDING CRUDE STOCKS

Thousands barrels



OPEC CRUDE OIL PRODUCTION

Million barrels per day



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

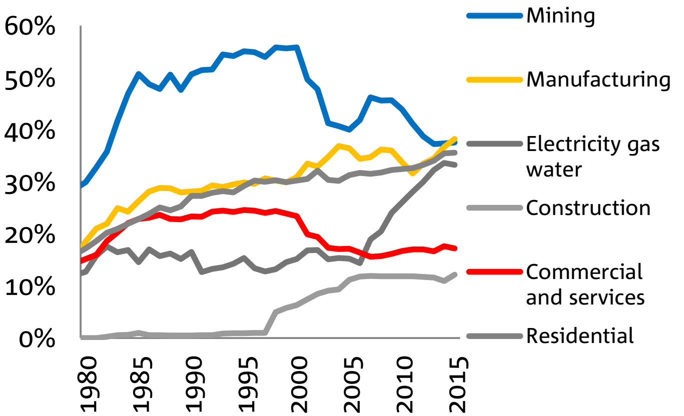
- Oil prices have been much higher recently, with Brent in the mid-US$80s range and WTI in the mid-US$70s.
- The US decision to walk away from the Iran deal and reimpose sanctions is having a serious impact on Iranian crude exports, and combined with ongoing severe malaise in Venezuela, has seen spare capacity in the global market shrink considerably. Saudi Arabia is moving to increase production but so far this has not settled markets.
- Another major consideration is the extent to which US shale production will respond to higher prices. The latest estimates from US EIA point to US crude production at 11.1m bbl/d in September, growing to 11.8m bbl/d next year. While this is represents decent growth, alone it may not be enough to offset potential falls elsewhere (e.g. Iran).
- Our forecasts point to Brent spending the next few months largely in the low-to-mid US$80s range, although if the US succeeds in stopping Iran from exporting oil there could be further upside.
- There is double trouble for Australian fuel prices, with the combination of a lower AUD and rising crude prices seeing higher prices at the pump. National petrol prices averaged 151c/l in September and have been quite elevated in October. Our forecasts point to petrol in the 155c/l range for the rest of the year, but a crude supply shock or a further downturn in the AUD could see prices break out higher.

NATURAL GAS AND LNG

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

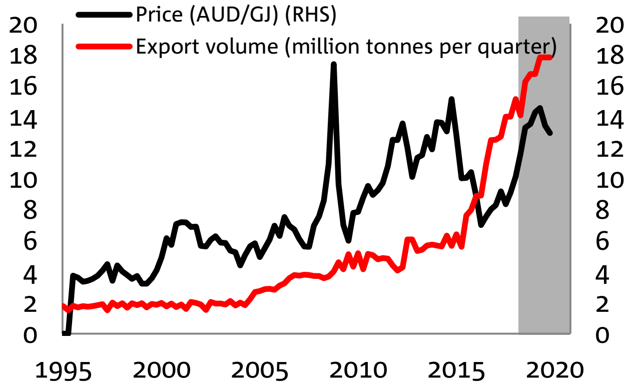
GAS SHARE OF TOTAL ENERGY USE

Share of total energy use by sector



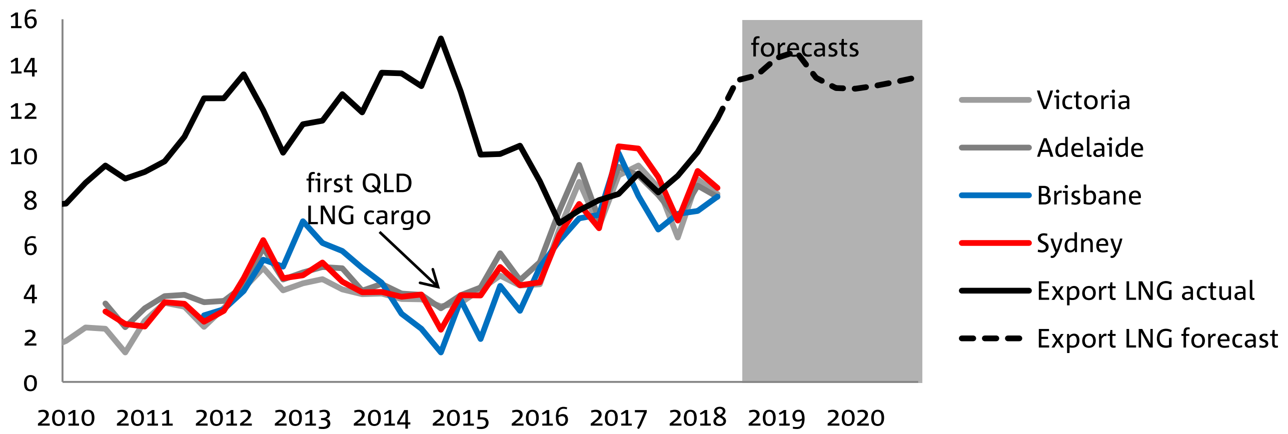
AUSTRALIAN LNG EXPORTS

Volume and average price (inc forecast)



DOMESTIC AND EXPORT GAS PRICES

AUD/GJ, spot (domestic), quarterly average



- Australian LNG export volumes were down 7.0% in Q2, although monthly data for July and August points to Q3 being much higher – up 15.4% m/m on our forecasts. On a year-ended basis, we see volumes up 16.0% to Q3. The big ramp up in Australian LNG production is now entering its final phase, having begun in earnest in late 2014. Ichthys announced its first shipment of condensate on 1 October, with LNG production to ramp up thereafter.
- 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 has been in double digits every month bar one in 2018. We see it reaching AUD13.52/GJ and we now see the indicator exceeding AUD14/GJ in 2019.
- This will put upward pressure on eastern Australia domestic gas prices, although the gap between export and domestic spot prices has been wider this year. 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, but it is hard to see how domestic prices can remain below export parity (after accounting for transport and liquefaction costs) for an extended period. 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.

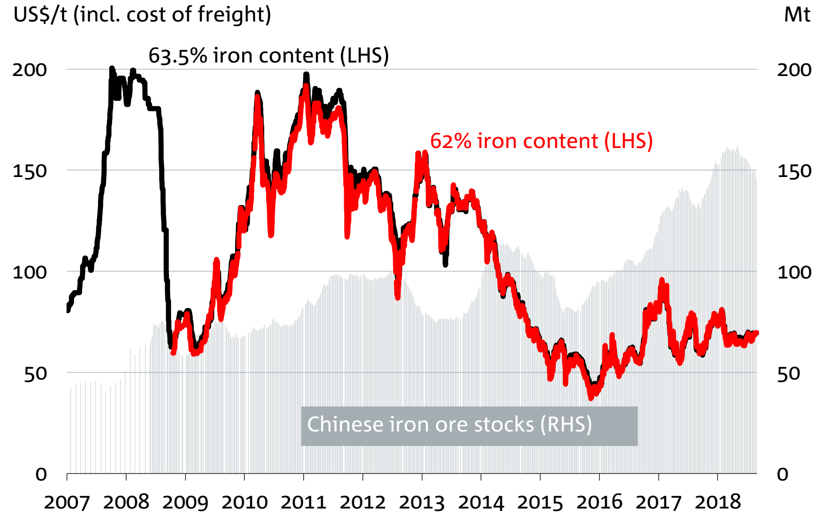
Source: Bloomberg, Poten & Partners, APPEA, Department of Industry, Australian Bureau of Statistics, Department of Industry, AEMO and NAB Group Economics

IRON ORE

Little movement in iron ore prices, as China's steel profits start to soften

IRON ORE PRICES RANGE BOUND

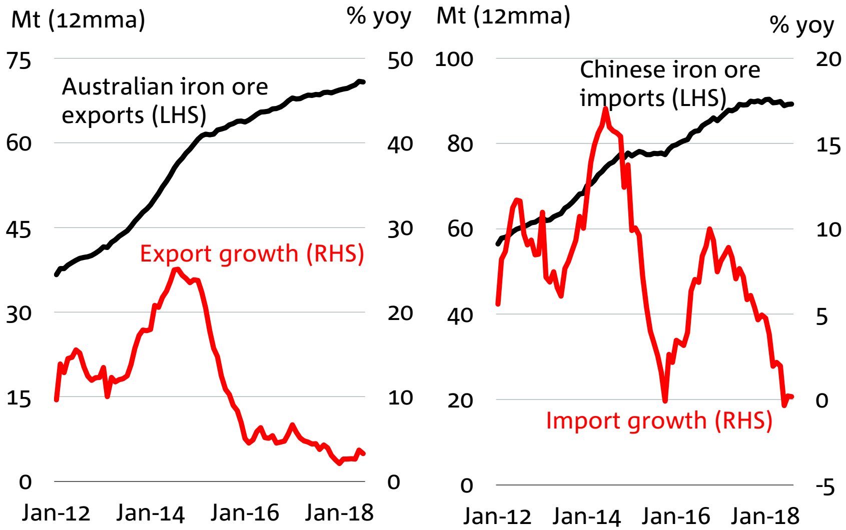
Stockpiles remaining historically high



Source: Bloomberg, Thomson Datastream, NAB Economics

IRON ORE TRADE SLOWING

Weaker growth in Australian exports and Chinese imports



Sources: Bloomberg, CEIC, NAB Economics

- Spot prices for iron ore have remained largely range bound – between US$60 a tonne and US$70 a tonne – since the second half of March 2018. At the time of writing, 62% ore landed in China has broken just above the upper bound of this range – at US$72 a tonne. This period of relatively low volatility is in stark contrast to trends exhibited over the past decade.
- China is the key market for iron ore – accounting for over two-thirds of global imports in 2017. That said, in the first eight months of the year, China's imports of iron ore have fallen by around 0.6% yoy. China's steel industry is slowly changing – with a growing (if currently small) share of output coming from electric arc furnaces (that use recycled scrap). The share of iron ore intensive blast furnace output in China's total steel production has fallen from around 87% in 2014 to less than 83% in the first eight months of 2018.
- China produced over half of global steel production in the first eight months of the year – totalling 610 million tonnes, an increase of 5.9% yoy. Profitability for steel makers was strong during the second quarter of 2018, but has declined sharply in recent months, as domestic prices for coal and iron ore have risen more strongly than steel prices (not helped by the depreciation in the Yuan).
- The outlook for China's steel demand has become increasingly uncertain, as authorities grapple with a range of policy responses to US tariffs on Chinese goods. One policy measure is a loosening in restrictions on infrastructure development – which could provide a boost for China's steel consumption in the short term. That said, this may only offset weaker demand from the rest of the construction sector.
- In the first seventh months of 2018, Australia's iron ore exports rose by 4.2% yoy to 488 million tonnes. Iron ore export volumes have grown far more slowly since the start of 2016, when compared with the rapid growth between 2012 and 2015. China is the critical market for Australian producers – accounting for around 82% of the total over this period.
- China's iron ore markets appear to remain well supplied – given low price volatility and sizeable stockpiles. Port stockpiles have fallen recently – down just below 150 million tonnes at the time of writing – but this is a level that remains historically high.
- Recent prices have been marginally higher than our forecasts, therefore we have raised our near term forecast to reflect this reality. Spot iron ore is forecast to average US$61.5 a tonne in 2019, compared with US$68.6 a tonne this year.

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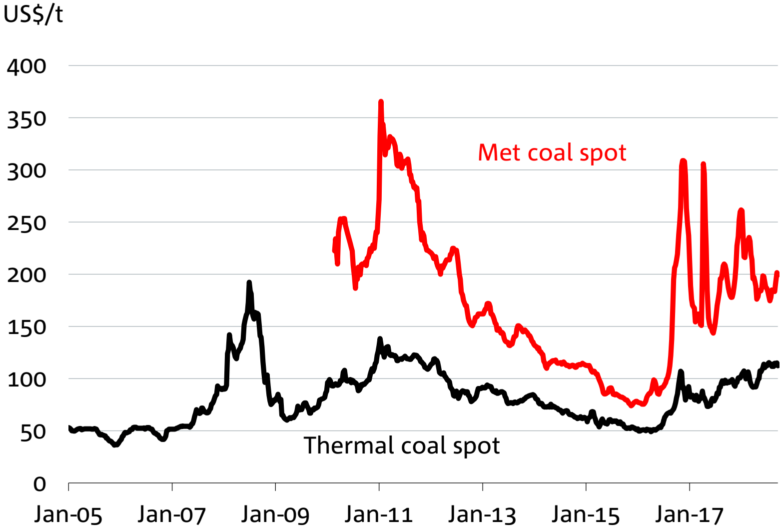
COAL

Strong benchmark prices may overstate the strength of the underlying market

COAL SPOT PRICES

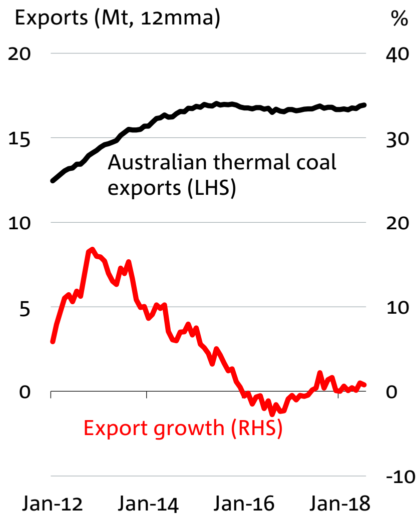
Is a rising benchmark thermal price accurate?

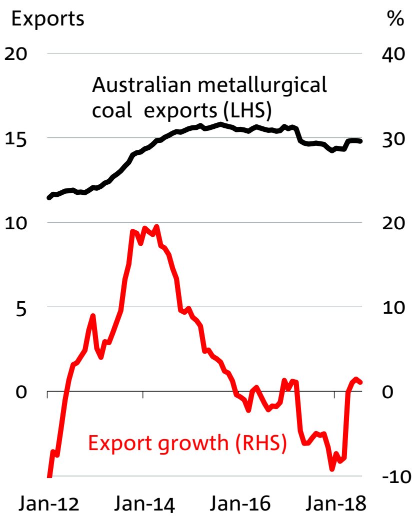


Source: Bloomberg, NAB Economics

AUSTRALIAN COAL EXPORTS

Volumes have fallen from 2015 peaks





Sources: Bloomberg, NAB Economics

- Spot prices for coal have generally trended higher in recent months, from recent lows around the start of April 2018. Prices for hard coking coal have risen back above US$200 a tonne in early October (from around US$175 a tonne), while thermal coal prices have trended above US$110 a tonne since early June.
- That said, there has been a widening spread between different grades of thermal coal. Benchmark 6000 kcal/kg coal prices from Newcastle have risen, while prices for lower grade 5500 kcal/kg coal have fallen since June – down to around US$66 a tonne at the time of writing. According to analysis by Bloomberg, the volume of trade for the higher grade coal on the globalCOAL platform – where the price is settled – has declined considerably since 2016, suggesting that this price may be less indicative of underlying market conditions.
- More generally, supply side issues have also contributed to an upward trend in coal prices. In China – the world's largest coal producer – output fell by 0.9% yoy in the first eight months of 2018, while demand (particularly over the summer period) was strong, given hot conditions and poor availability of natural gas. Imports of thermal coal rose by 22% yoy over the first eight months of the year to 160 million tonnes. In stark contrast, imports of coking coal fell by 8.2% yoy to 43 million tonnes.
- Growth in Australian exports has stalled in recent years – particularly for metallurgical coal, which has suffered the impact of cyclone related infrastructure disruption, along with regulatory constraints. A judicial review of the revenue dispute between private rail operator Aurizon and the Queensland Competition Authority is likely to delay any resolution until next year – adding some upside risk to our price forecasts.
- The recovery from Tropical Cyclone Debbie in 2017 is the main contributor to growth in metallurgical coal exports – which rose by 7.3% yoy in the first seven months. In contrast, thermal coal exports rose by just 2.7% yoy over the same period. Export volumes are generally weaker than the levels seen in mid 2015.
- Reflecting the recent strength in coal prices, and the limited capacity of producers – primarily in Queensland – to expand seaborne supply, our forecast for coal prices has been revised higher. Hard coking coal prices are forecast to average US$170 a tonne in 2019 (compared with around US$200 a tonne in 2018). Thermal coal spot prices are forecast to average US$102 a tonne in 2019 (a little below the US$107 a tonne we expect for this year).

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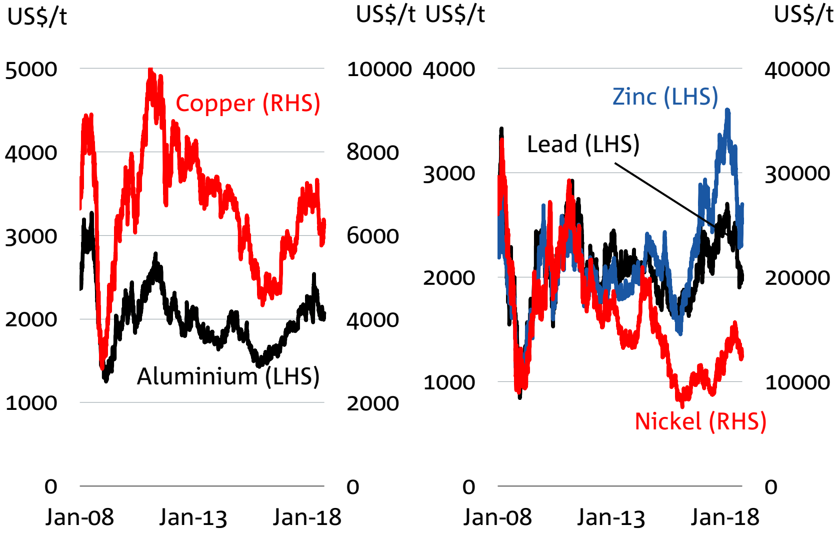
BASE METALS

US-China trade tensions push metal prices lower

BASE METAL PRICES

Prices have fallen since early June 2018

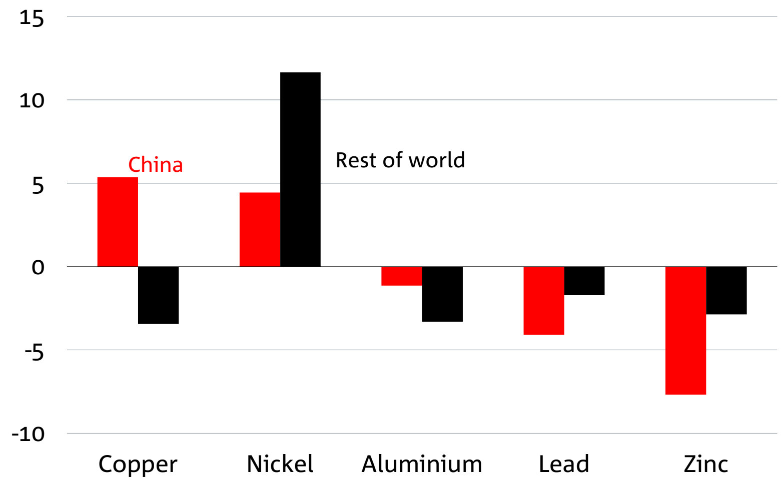


Source: Datastream, NAB Economics

METAL CONSUMPTION

Mixed trends in China; rest of world generally weaker

Growth in metal consumption: Jan-Jul 2018 (% yoy)



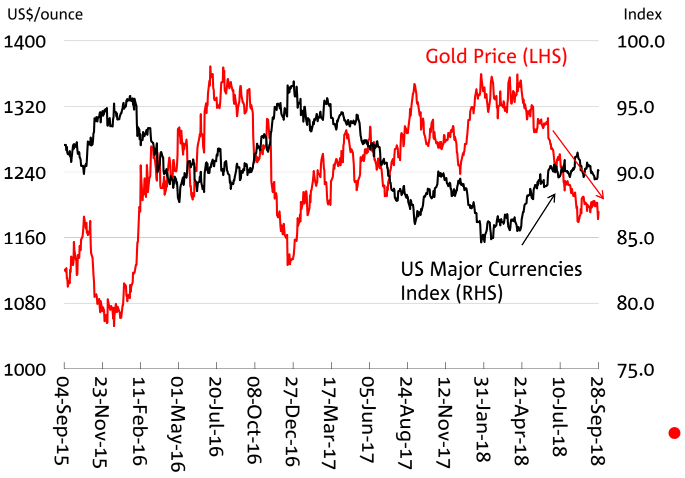
Source: WBMS, NAB Economics

- Base metal prices have fallen across the complex since early June – in a large part reflecting concerns that US tariffs on Chinese goods could reduce demand for metals, particularly in the country's manufacturing sector. Prices for zinc, lead and nickel fell the most over this period, down between 22% and 29% peak to trough (before recovering modestly), while copper and aluminium fell by 21% and almost 15% respectively.
- China remains the dominant consumer across the base metals complex. In 2017, China accounted for almost three quarters of global lead and zinc consumption, and over half of copper and aluminium and one-third of nickel usage.
- That said, China's consumption trends have differed considerably in 2018. According World Bureau of Metal Statistics data, copper and nickel consumption grew strongly in the first seven months of 2018 – up by 5.4% yoy and 4.4% yoy respectively – with nickel recovering this year after declining usage in 2017. In contrast, Chinese consumption for other metals fell over the same period – with aluminium consumption down 1.1% yoy, lead down 4.1% yoy and zinc down 7.7% yoy.
- The outlook for China's base metal demand in the short term is highly uncertain. Chinese authorities have loosened restrictions on infrastructure investment, which could provide some extra demand for base metals, to offset lower consumption in manufacturing to some degree. More generally, China's economic growth is being led by the low-metal intensive services sector
- The global supply of base metals has generally outperformed expectations in 2018 – with potential labour disruptions (most notably for Copper at Escondida in Chile) having been quickly resolved, while US sanctions on Russian alumina producer Rusal have contributed to surging alumina prices that are yet to flow through to aluminium markets. The net effect of supply trends on refined markets is that aluminium, copper and lead markets were in surplus in the first seven months of the year – in contrast to earlier forecasts of deficits in all markets excluding copper.
- Following the corrections across the base metals complex since our last review, we have revised our outlook for metals prices lower. We expect prices to fall across the complex in 2019 – although the declines for copper and nickel are comparatively small. Aluminium is forecast to average US$2040 a tonne in 2019 (down 4.5%), copper US$6538 a tonne (a fall of 0.2%), lead US$2173 a tonne (down 5.0%), nickel US$13575 a tonne (down 0.8%) and zinc US$2694 a tonne (a decline of 8.0%).

GOLD

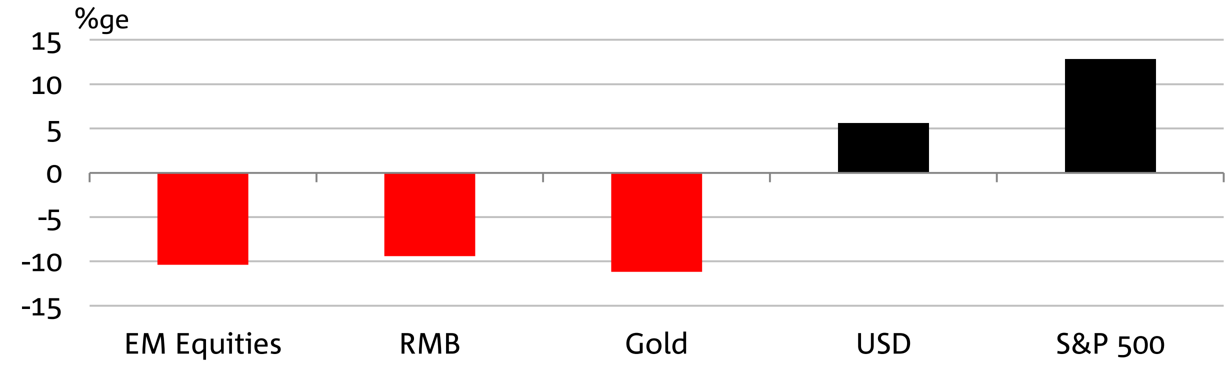
Near term moderate upside; further improvement ahead

FALLING GOLD PRICE AND STRONGER US DOLLAR



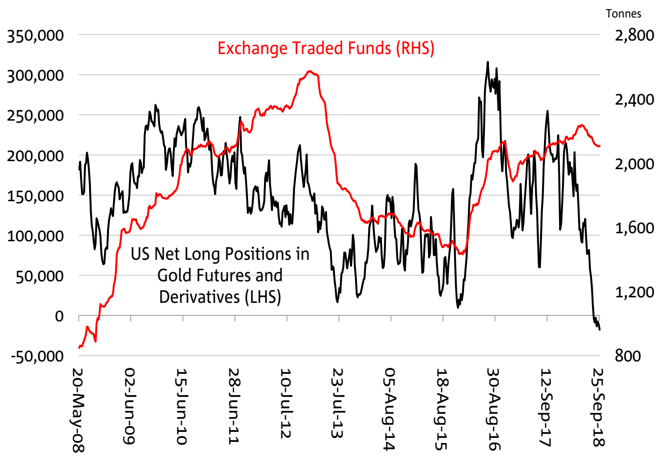
Source: Thomson Datastream, NAB

GOLD, EM EQUITIES AND CNY WEAK; US EQUITIES & DOLLAR STRONG



Source: Datastream

TRADERS & INVESTORS BEARISH



Sources: Bloomberg

- Gold has recently been trading in a narrow range between US$1180/oz and US$1210/oz. It fell around 17% between the peak in April and the trough in August, but partially recovered from those lows.
- Gold's decline has coincided with a stronger US dollar and weaker trends for other assets such as Emerging Market equities and the Chinese Renminbi. Investors have also been largely bearish towards the precious metal, with falling exchange traded fund holdings and a plunge in investor net long positions.
- So far, the US-China trade dispute does not appear to have benefitted gold much, although the recent rise above US$1220/oz may indicate a reversal. Recent budgetary tensions between Italy and the European Union have rattled equity markets and led to safe haven inflows into gold. This has receded with Italy committing to fiscal tightening from 2020 onwards, a commitment given by Economy Minister, Giovanni Tria.
- Further anticipated increases in the US fed funds rate, and accompanying strength in the US dollar, is expected to limit the upside for gold in the near term. However, investors covering their short positions, buying gold on dips, ructions in areas such as Italy, and increased Central Bank purchases will support prices. With regards to the latter, besides Russia, Turkey, Kazakhstan and India, there have also recently been purchases from the National Bank of Poland.
- Further, the expected worsening in the US fiscal position, US equity market uncertainty, as well as the effects of the ongoing US-China trade dispute are expected to lead to a rise in risk aversion, benefitting gold as we head into 2019 and 2020.
- In particular, we are forecasting a year-end gold price of US$1237/oz, rising towards US$1318 by end 2019, and to US$1410 by 2020. Risks to our forecasts are evenly balanced.

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NAB COMMODITY PRICE FORECASTS

	Unit	Spot 11/10/2018	Actual Sep-18	Forecasts Dec-18	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20
WTI oil	US$/bbl	71	71	76	79	74	71	72	74	74	74	74
Brent oil	US$/bbl	81	75	82	85	80	77	78	80	80	80	80
Tapis oil	US$/bbl	86	77	83	86	81	78	79	81	81	81	81
Gold	US$/ounce	1219	1210	1240	1270	1300	1300	1320	1340	1360	1380	1410
Iron ore (spot)	US$/tonne	71	67	68	63	60	61	62	63	61	58	60
Hard coking coal*	US$/tonne	n.a.	187	195	180	175	160	165	160	156	153	150
Thermal coal (spot)	US$/tonne	115	114	110	105	103	101	100	103	100	98	100
Aluminium	US$/tonne	2013	2055	2075	2080	2055	2025	2000	1985	1962	1958	1955
Copper	US$/tonne	6258	6119	6250	6350	6500	6600	6700	6750	6800	6800	6650
Lead	US$/tonne	2015	2096	2150	2200	2175	2160	2155	2150	2125	2100	2100
Nickel	US$/tonne	12602	13262	13750	14000	13750	13525	13025	13250	13500	13250	13000
Zinc	US$/tonne	2634	2537	2650	2750	2725	2700	2600	2550	2500	2485	2465
Aus LNG**	AU$/GJ	n.a.	13.3	13.5	14.3	14.6	13.4	13.0	12.9	13.1	13.2	13.4

* 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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