

Minerals & Energy Commodities Update

by NAB Group Economics

August 2014



National
Australia
Bank

Key Points:

- Global economic data sent divergent signals to commodity markets in August. China's outlook gave less comfort in comparison to the better US data. There was more movement in financial markets during the month. Meanwhile further sanctions on Russia were put on hold.
- Bulk commodities were a mixed bag - iron ore continued its downward trend as mining giants ramped up production in an oversupplied market. Chinese industrial indicators were weaker, signalling potential for weaker steel demand. The outlook for iron ore remains subdued and our forecasts revised downward. The spot prices for metallurgical and thermal coal were relatively stable.
- Month on month base metals prices were mixed in August, but the aggregated price index fell modestly. Copper and nickel were lower, while zinc, lead and aluminium were up – the last performing best as tight physical demand drove up premiums. Prices dropped in early September in response to USD strength, while recent Chinese economic data hinted at slowing demand. Nickel prices fluctuated in response to reports of a potential export ban in the Philippines (subsequently watered down).
- Investors continue to reduce their appetite for gold on the back of USD strength against major currencies and an apparent easing in the risk premium as geopolitical tensions ease.
- Ongoing geopolitical tensions flared in Ukraine, creating concern over natural gas supplies to Europe, although if the fragile ceasefire holds these concerns should be allayed.



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Economic overview

Geopolitical tensions continued to flare between Russia and Ukraine, putting downward pressure on emerging stocks

In financial markets, the VIX index of market volatility started off a touch higher in the month, but then trended downwards before hitting an all-time low. Capital flows to emerging markets slowed as investors increased their appetite for US bonds. Geopolitical tensions put downside pressure on emerging stocks, however this should moderate from the flow of monetary stimulus into the Eurozone by the Central Bank of Europe (ECB). Fighting in the Ukraine always runs the risk of threatening natural gas supplies, putting upward pressure on price. Meanwhile the EU continued to broaden sanctions on Russia, albeit stalling on execution – one of which relates to barring capital raising of defence and energy companies according to a report on Bloomberg. A ceasefire in eastern Ukraine is holding for now, contributing to downward pressure on gold.

Gold retreated as the US economy was revised upwards

The US economy appears more robust with revised GDP marginally higher at 4.2% (initially 4%). The Federal Open Market Committee (FOMC) signalled that interest rates will rise if the economy “continues to be more rapid than anticipated”, causing investors to flock away from gold as the US dollar strengthened. The safe haven asset dropped as investors searched for yield in equity markets. The stronger USD placed downward pressure across the commodity complex.

The ISM Purchasing Managers’ Index (PMI) also produced supporting data expanding at a faster rate from 57.1 in July to 59.0 in August – the most positive since March 2011 - all but one of industries surveyed reported growth.

Construction expenditure posted its largest monthly growth in two years. The increase in spending on housing should prop up demand for steel making commodities.

China’s economic outlook gave less comfort to commodity markets

Conditions look less optimistic in China as economic growth continued to expand at a slower rate, although mini stimulus was targeted at the rural sector.

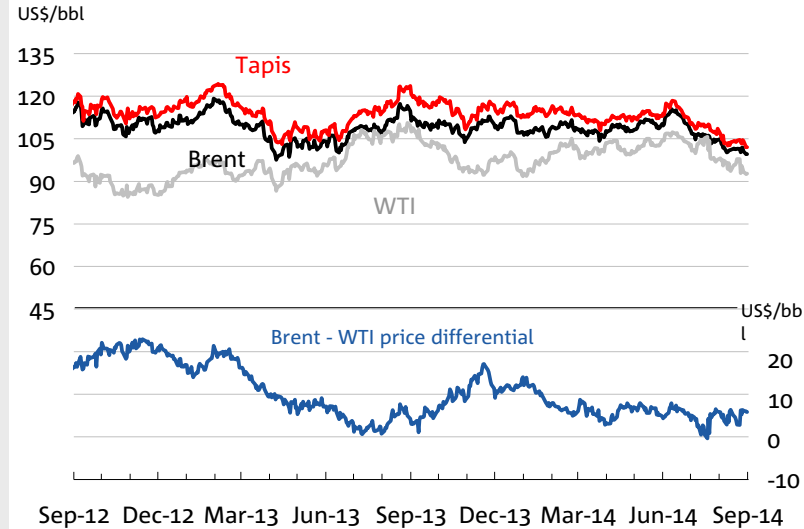
The outlook for Chinese domestic demand remains subdued adding downward pressure on commodity demand. China’s official PMI came in lower than anticipated at 51.1 and the HSBC Markit manufacturing PMI fell to a three month low of 50.2, expanding at a slower rate as manufacturing weakened. The recent data put downward pressure on industrial commodities. Credit conditions remain tight, reflected in slowing credit growth.

The slower pace of growth in China dampened demand for iron ore – this combined with a deepening global oversupply, weighed on prices as it dipped to its lowest level since 2009. The continued slowing of investment in Chinese real estate also contributed.

Oil

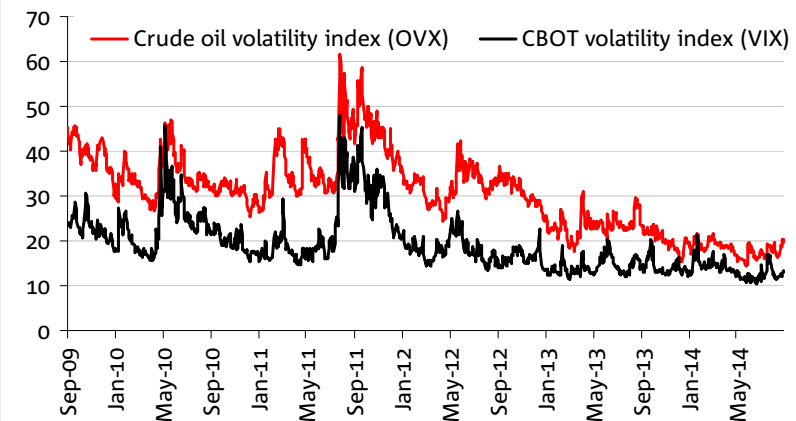
- Crude oil prices have consistently declined since their mid June spike as investors have placed greater emphasis on fundamentals than ongoing geopolitical tensions. Brent fell below US\$100/barrel on 8 September for the first time since May 2013 and WTI is now trading around US\$93/barrel. These dynamics are reflected in a downward revision to our forecasts for Brent, Tapis and WTI. While volatility has increased somewhat since June, it remains at a historically subdued level.
- Global supply remains strong, driven largely by non-OPEC growth, although renewed Libyan exports and mostly unaffected Iraqi supplies have lent to OPEC production. The US Energy Information Administration (EIA) reports that US crude oil production in August was the highest since July 1986. The EIA estimates that world inventories increased by an anomalous 0.5 million bb/d for the month.
- Global demand remains subdued, reflected in lower refinery runs. Weakness in Japan, stagnation in the Euro-zone and a hard landing in Latin America have resulted in a slowdown in the pace of global growth through the first half of 2014.
- While ongoing tensions in Iraq and Ukraine continue to loom large over global affairs, their impact on oil prices has been muted since July. Neither crisis directly threatens oil supplies at present. Should the ceasefire hold in Ukraine and US air strikes in Iraq and Syria weaken Islamic State militants, it is likely that geopolitical tensions will not lend support to oil prices in the short term.

Figure 1: Daily oil prices



Source: Thomson Datastream

Figure 2: Oil price volatility

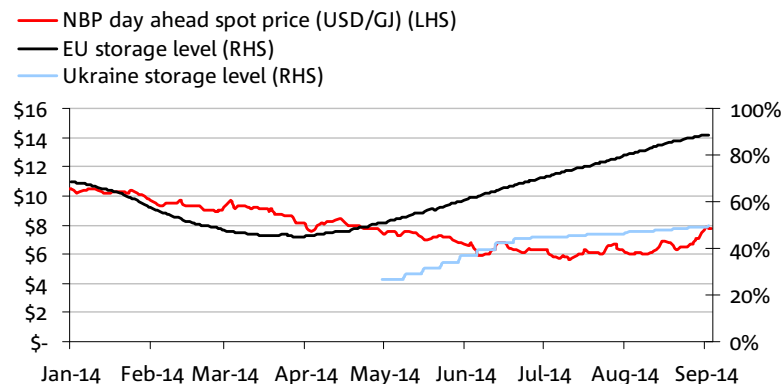


Source: Bloomberg

Natural Gas

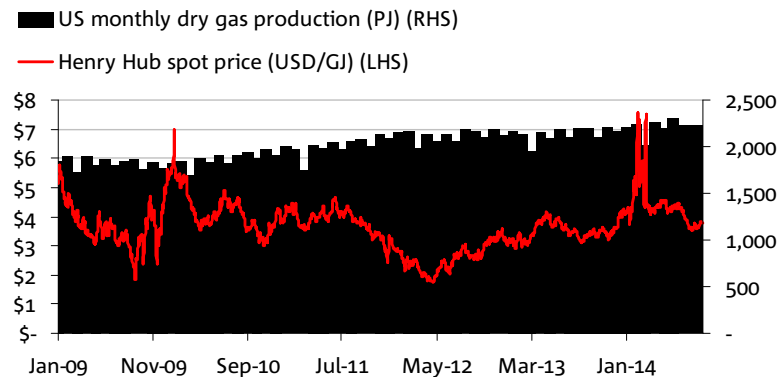
- European Union (EU) storage levels stand at almost 90% of capacity as a mild European winter left inventories higher going into spring and summer. Day ahead spot prices at the National Balancing Point have risen moderately since July but remain below US\$8/GJ as of early September.
- US natural gas prices have been falling for much of 2014 after price spikes in February and March caused by unusually harsh winter conditions. Prices began to rise moderately in July and now stand at US\$3.93/mmbtu.
- With the northern summer now coming to a close, mild weather should keep prices in check until the onset of colder winter conditions sees gas use increase.
- LNG import prices for Japan, South Korea and China declined moderately in the June quarter, while sales volumes were mixed. South Korean demand fell on mild summer conditions while Japanese and Chinese demand increased. With Japanese nuclear reactors likely to remain idle into 2015, it is likely that strong import volumes will continue for the remainder of the year.
- Eastern Australian wholesale spot prices declined in the June quarter while retail prices held steady. Although spot prices have declined, reports suggest that new long term contracts are being written at much higher prices than previously as producers look to receive netback world parity ahead of LNG export capacity coming online in Queensland.
- The medium term outlook for international LNG prices remains clouded. While demand in East Asia remains strong, forthcoming LNG export capacity in Australia and other areas combined with strong US shale gas supplies could place downward pressure on prices.
- **For more details see: [Natural Gas Market Update – August 2014](#)**

Figure 3: gas storage and National Balancing Point spot price



Source: Thomson Datastream, Gas Infrastructure Europe

Figure 4: United States natural gas production and Henry Hub spot price

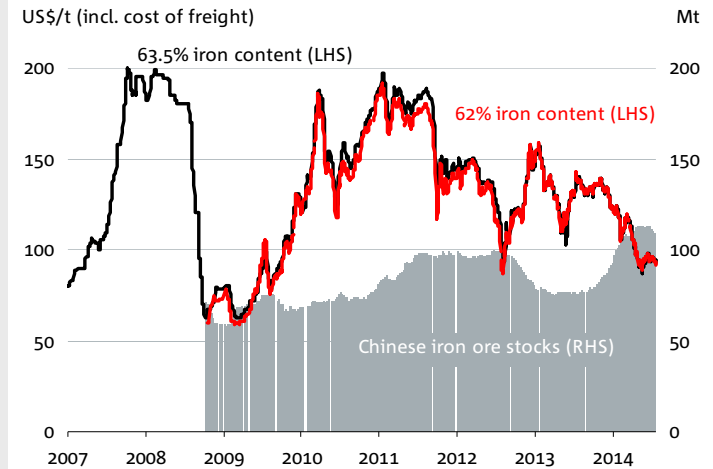


Source: US Energy Information Administration

Iron ore

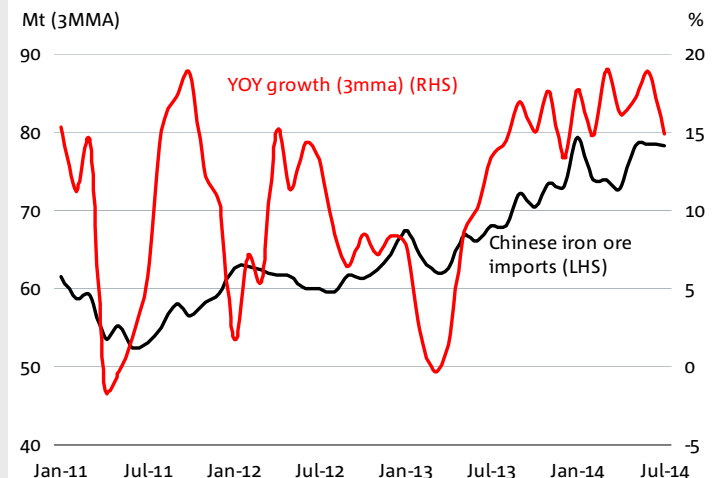
- Spot prices for iron ore have drifted lower over the past month. After regaining some strength in early July, prices peaked near US\$100 a tonne (from 62% fines landed at Tianjin), before pushing below US\$85 a tonne in early September – the lowest level in five years.
- China's imports of iron ore have continued to grow strongly – with imports across the first seven months of the year totalling 540 million tonnes, an increase of 18% yoy. Stockpiles at China's ports have pulled back slightly, down under 110 million tonnes for the first time since early May – that said, stocks remain historically high.
- China's domestic production of iron ore has also remained strong, rising by around 10% yoy over the same period – however the indicative quality of this ore has continued to fall. Based on pig iron production and the assumed quality of internationally traded ores, the average grade of Chinese iron ore fell to 10.8% in the twelve months to June 2014 – an all time low (compared with 62.5% for imported material).
- Reports suggest that the comparatively low spot prices have forced the closure of higher cost Chinese iron ore mines – although this has not been evident in production data to date.
- Estimates by MySteel Research suggest around 80% of China's iron ore capacity have cash costs between US\$80-90 a tonne. In contrast, Bloomberg suggest that around 75% of non-Chinese global capacity has costs below US\$70 a tonne.
- Reflecting recent market trends, we have revised down our iron ore price forecasts. Our hybrid price (a weighted combination of spot and contract designed to follow the prices received by Australian producers) is expected at US\$93 at the end of 2014 (previously US\$100), and US\$85 a tonne at the end of 2015 (previously US\$95).

Figure 5: Iron ore prices drifting lower in August but stocks have (marginally) pulled back from peak



Source: Bloomberg, Thomson Datastream, NAB Economics

Figure 6: Growth in iron ore imports have remained robust in 2014

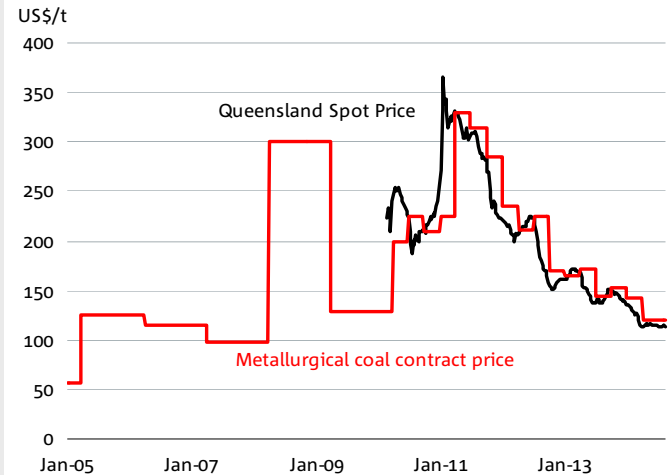


Source: CEIC, NAB Economics

Metallurgical coal

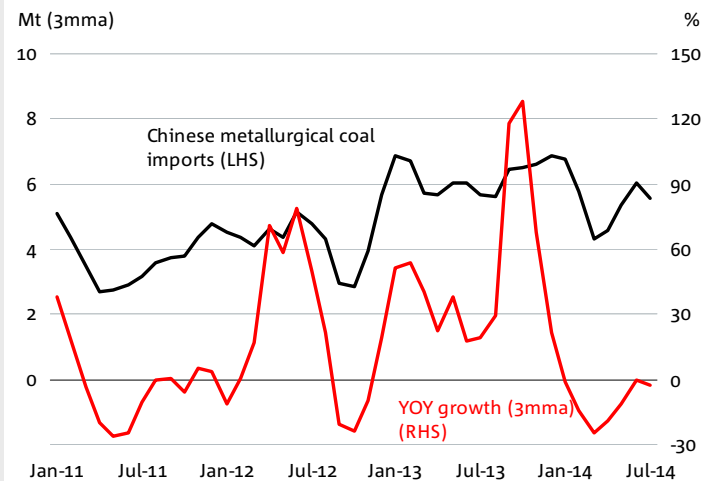
- The past two months have seen largely stable spot prices for metallurgical coal. Prices in early September were around US\$113 a tonne, with prices trading in a range of around US\$2 a tonne since the start of June (Energy Publishing).
- Spot prices remain at a discount to quarterly contract prices – which were rolled over in July, at US\$120 a tonne.
- In stark contrast to iron ore, Chinese imports of metallurgical coal have been comparatively weak this year. Over the first seven months of the year, imports have totalled 36 million tonnes, a decrease of around -12% from the same period last year. Reports suggest that domestic production of the material has expanded this year, with improved rail capacity boosting supply to key consuming regions.
- Weaker demand and falling prices have triggered major cutbacks in global production capacity. Bloomberg estimate that almost 21 million tonnes of annual capacity has been taken offline since the start of the second quarter – with most of the cuts coming from North America (particularly the United States). Sustained weakness in prices will likely impact on the development of new production capacity.
- The Chief Executive of Teck Resources’ (Canada’s largest metallurgical coal producer) suggested that an additional 10 million tonnes of capacity needs to be cut to bring the market back to balance – citing the large share of miners that are currently unprofitable. Based on Wood Mackenzie’s estimates of cash costs, over half of global production is unprofitable at current cash costs.
- Reflecting the weak profitability in the sector, we expect prices to recover from the current lows – albeit only relatively modestly – trending up to US\$150 a tonne (for hard coking coal) by the end of 2015.

Figure 7: Spot prices have remained stable – at low levels – over the past two months



Source: Energy Publishing, Bloomberg, NAB Economics

Figure 8: Weak Chinese imports have contributed to the softening in spot markets in 2014

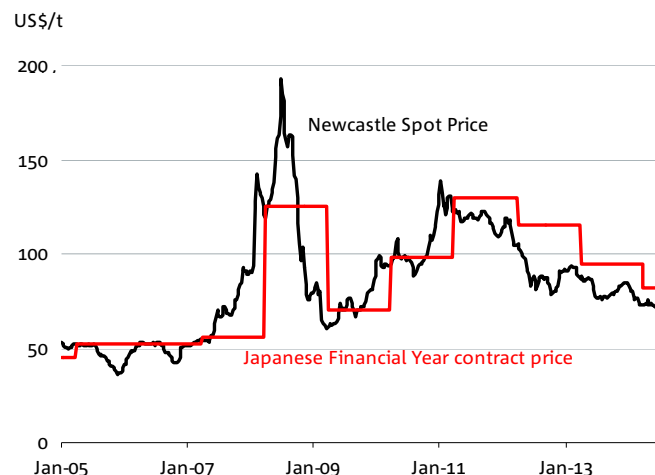


Source: CEIC, NAB Economics

Thermal coal

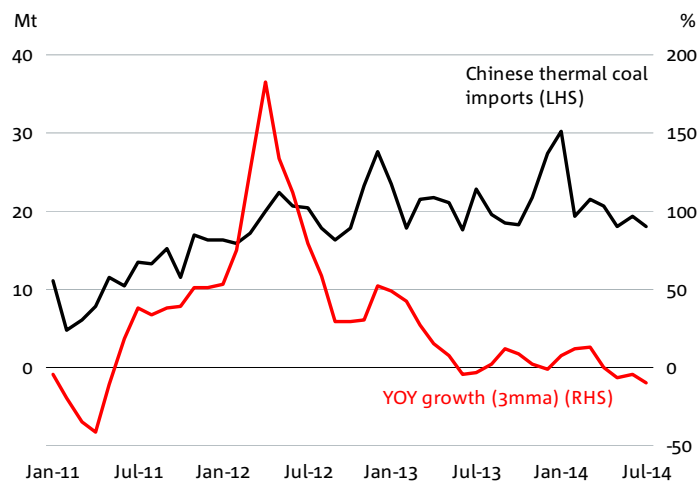
- Spot prices for thermal coal have edged marginally higher in early August – up from recent lows near US\$67 a tonne at the end of July, to US\$69 a tonne in mid August – before retreating back to weaker levels in early September. Recent spot market trends have been their weakest since the recovering from the GFC.
- Growth in Chinese imports of thermal coal have weakened considerably in recent months. China’s thermal coal imports were almost 10% yoy lower in the three months to July, and less than 1% yoy growth over the first seven months of the year.
- That said, stockpiles at Qinhuangdao – China’s largest coal port – have fallen considerably since the start of August and are now below the average levels recorded over the past four years. A period of destocking may explain recent weakness in import markets.
- Reports suggest that China will ban high ash/high sulphur coal from 1 September – in part an effort to address air pollution concerns. This may impact demand for lower grade Indonesian exports – assisting Indonesian government attempts to crack down on illegal mining activity.
- Other efforts to address Chinese pollution include the shutdown of coal fired electricity generation, and replacement with natural gas. In Beijing, the Gaojing Thermal Power Plant was shut in late July, replaced by two gas fired generators. Three further coal plants are scheduled to close by the end of 2016 (China Coal Resource).
- While spot prices remain weak, we expect limited further downside – reflecting the poor profitability for producers. Similarly, the increasing scale of idle production capacity should limit significant upside potential. Contract prices for the next Japanese financial year (commencing April 2015) are unchanged at US\$80 a tonne.

Figure 9: Thermal coal prices edged higher in August, but remain at comparatively weak levels



Source: McCloskey's, BREE, NAB Economics

Figure 10: China's thermal coal imports are weaker in year-on-year terms

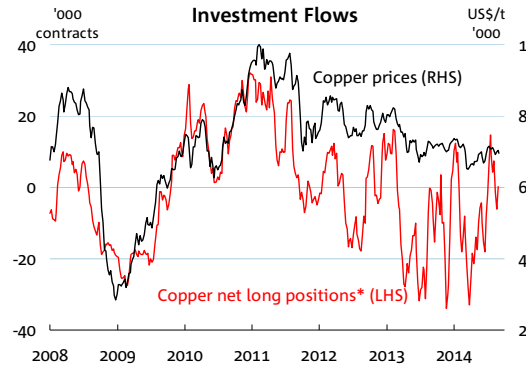


Source: CEIC, NAB Economics

Base metals: Copper

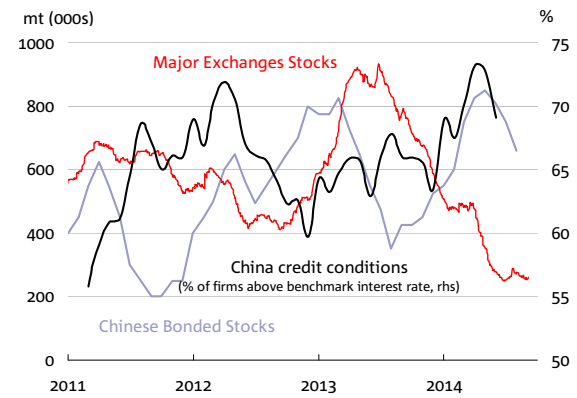
- Copper prices were relatively range bound, with average copper prices down just 1½% in August, to be around 3% lower over the year. But recent USD strength has weighed on metals prices, pushing copper to almost US\$6,850 per tonne – 4% lower than end-July.
- Global copper exchange inventories have stabilised at very subdued levels. An improving global economic backdrop – particularly in the US – and signs of a recovery in China’s industrial sector contributed to this trend. The ICSG estimate that the global deficit in refined copper reached 466,000 tonnes in the first five months of the year, down from a 251,000 tonne surplus at the same time last year. However, softer Chinese PMI’s recently and expectations for increased supply are capping price gains. Sluggish conditions in Europe and Japan are offsetting, but recent ECB easing could be construed as a positive – although resulting USD strength is constraining demand. Soft real estate indicators in China are another concern on the demand side.
- Bonded Chinese stocks are drawing down gradually as demand for metal in bonded zones responds to tighter lending terms (in light of the Qingdao scandal) – lower copper imports to China are also contributing to declines in inventories. Nevertheless, with credit conditions remaining tight, demand for alternative debt finance remains a risk. The soft demand season, and lower demand in bonded zones, has seen premiums ease back.
- New production capacity and USD strength will exert downward pressure on copper prices, but a good demand outlook and potential supply constraints could keep the market tight and prices close to current levels. A disruptive unwinding of financing deals is a risk, but remains unlikely.

Figure 11: Copper Prices & Investment



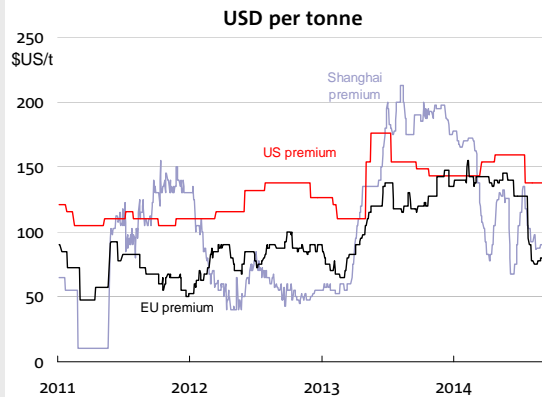
* Combined futures and derivatives net long positions for non-commercial traders

Figure 12: Chinese Copper Bonded Stocks



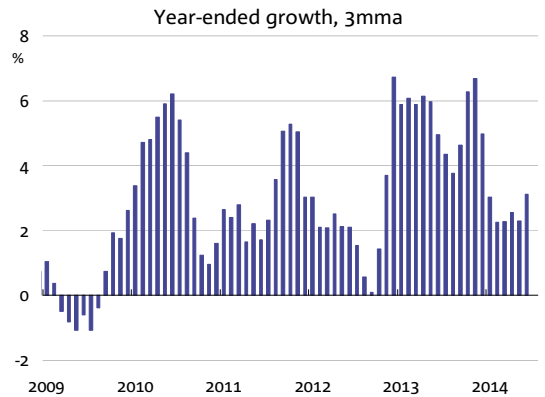
Source: Bloomberg, NAB

Figure 13: Copper Premiums



Sources: Bloomberg Industries

Figure 14: Refined copper production



Sources: Bloomberg Industries

Table 1: Base Metal Prices*

	Avg Price (US\$/tonne)	Monthly % change	Aug-13 - Aug-14
	Aug-14	Aug-14	% change
Aluminium	2032	4.3	12
Copper	7006	-1.5	-3
Lead	2238	2.0	3
Nickel	18603	-2.7	30
Zinc	2328	0.8	23
Base Metals Index		-0.4	10

* Prices on an LME cash basis.

Sources: LME; NAB

Base metals: Aluminium

- Average aluminium prices rose 4.3% in August, outperforming the complex due to favourable supply side characteristics. The current spot price is around 2% above end-July levels despite a drop in response to the higher USD.
- While inventories remain elevated, warehouse bottlenecks and financing deals are keeping physical demand tight and spot premiums elevated. The demand environment is also expected to improve, tightening up the long term market balance. With supply becoming more constrained due to Indonesia's ore export ban and smelter closures, market balances could remain tight this year – the World Bureau of Metal Statistics (WBMS) reported a supply deficit in H1 2014. On the other hand, sustained price rises run the risk of triggering restarts of curtailed capacity.
- The pace at which elevated premiums will be unwound is a major uncertainty, especially given failed attempts by the LME to reduce bottlenecks at warehouses. For volumes tied up in financing deals, warehousing incentives appeared to erode over August as contango eased – reflecting the tighter physical market – but contango is now widening again.
- Tight physical markets, bauxite supply constraints and better demand could push prices a little higher in the medium-term, although potential supply responses are a key risk. While ex-China production curtailments are keeping physical supply tight, reports suggest that Chinese production restarts and new capacity are contributing to supply – AME estimate around 500ktpa of capacity may have been restarted in recent months.

Figure 15: Copper & Aluminium Price (LME)

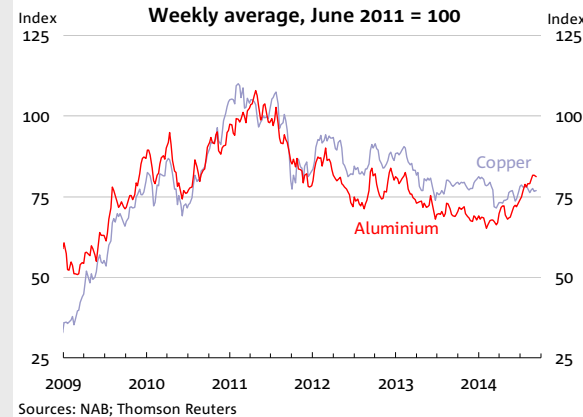


Figure 16: Aluminium Warehouse Incentives

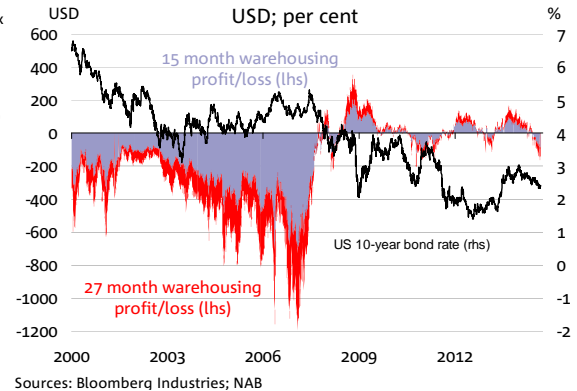


Figure 17: Aluminium Premiums

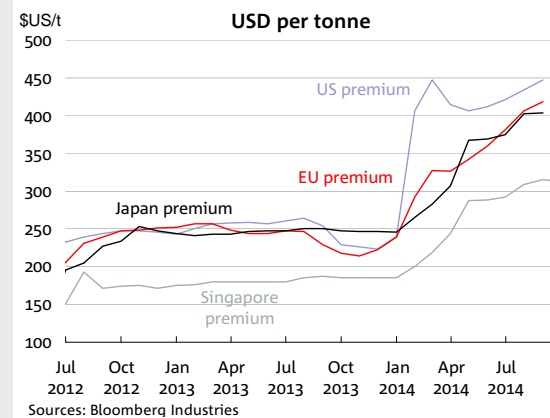
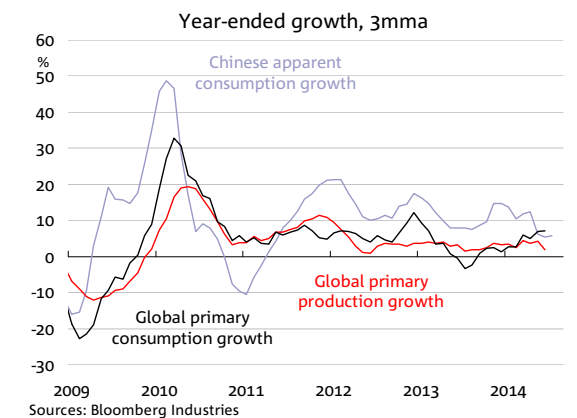


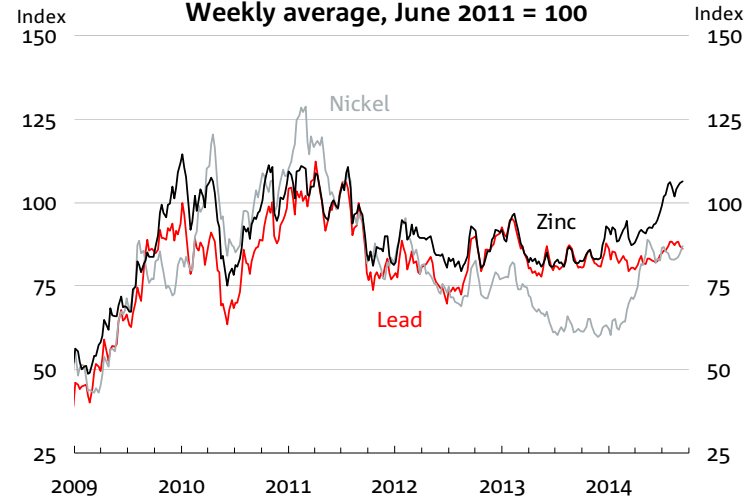
Figure 18: Aluminium Production & Consumption



Base Metals: Nickel, Lead, Zinc

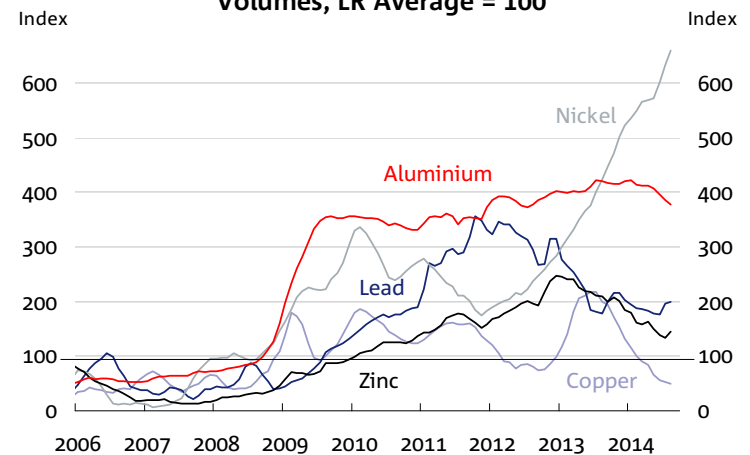
- Average nickel prices declined the most in August, down 2.7%, following a sharp and steady rise since late last year in response to supply concerns. This is just the second monthly decline in nine months. Nevertheless, prices are still up around 30% over the year as the Indonesian ore export ban continues to fuel concerns about future availability. Prices experienced a bit of a spike in September as the market responded to news that the Philippines – which has so far helped to fill some of the supply gap to China left by the Indonesian ban – are considering imposing a ban of their own. The price rallied around 7½% in the week to September 8th. However, since any potential ban is likely to be many years down the track, the rally has unwound even more sharply – assisted by recent USD strength. Turning to the fundamentals, LME inventories are at record highs and Chinese NPI production has merely slowed – rather than a severe drop – offset by an increase in nickel cathode production. However, reports indicate that Chinese stocks at ports and smelters have been in decline. Nevertheless ore bans are keeping the outlook uncertain.
- Zinc recorded modest growth in the month of August, with average prices up by less than 1%. Signs of stability in China's industrial sector (despite a fall in the PMI's) are supportive given its significance to zinc demand. Fundamentals for the metal remain positive. The market balance shifted into deficit in H1 and exchange inventories are down in 2014, although higher prices appear to be encouraging production (particularly in China), which is helping to stem the fall in stockpiles. Consistent with the broader complex, prices have dropped in response to USD strength
- Lead prices also recorded good gains again in August, with average prices rising around 2%. Fundamentals look relatively balanced, although the deficit from earlier in the year has been unwinding. Adequate supply growth and mixed demand is driving this trend, with the market becoming more balanced following a widening deficit over 2013. LME inventories have risen a little recently, but are still well down on last years peaks, keeping premiums elevated.

Figure 19: Nickel, Lead, Zinc Prices (LME)
Weekly average, June 2011 = 100



Sources: NAB; Thomson Reuters

Figure 20: LME Base Metal Stocks
LME Base Metal Stocks
Volumes, LR Average = 100



Sources: Datastream; NAB

Gold Market

- Geopolitical tensions remain a key support for the gold market and with western countries ramping up their involvement in trouble spots, there is scope to further fuel gold's risk premium. Nevertheless, market volatilities have so far remained contained.
- Geopolitical factors tend to have only a temporary impact on gold prices. Rather, it is the outlook for the economy and monetary policy that will determine underlying and medium term trends in the market. The steady flow of generally positive economic data out of the US appears to be firming up expectations that the Fed will complete QE tapering in October, with interest rates likely rising from mid-2015. At the same time, inflationary pressures/expectations remain subdued, limiting demand for gold as an inflation hedge.
- These factors are driving USD strength and contributed to gold prices hitting a 3-month low in early September. The average gold price dropped around 1% in August, but dropped more sharply in early September (currently below US\$1,260 per ounce).
- Despite an improving economy, US treasury yields have been declining, and other major central banks remain determined to keep interest rates low and liquidity high. This environment could increase gold's appeal to investors and drive up prices in Q4 (although we expect any gains to be modest and are forecasting yields to rise).
- Investors have been reluctant to run down their gold holdings as rapidly as they did in 2013, although ETF holdings did fall in August. Physical demand indicators are also a little softer, contributing to a rise in Comex gold inventories. Chinese net imports of gold from Hong Kong have also fallen considerably, consistent with WGC reports of a decline in consumer gold demand over the year to Q2 2014.
- Aside from the geopolitical risks, further unwinding of India's gold import restrictions, as external imbalances improve, poses a significant upside risk to gold prices. New stimulus measures from major central banks are also significant, but our expectation for US interest rates to rise is underlying our forecast for further gold price declines in the medium term.
- **For more details see: [Gold Market Update – August 2014](#)**

Figure 21: Gold & USD Index

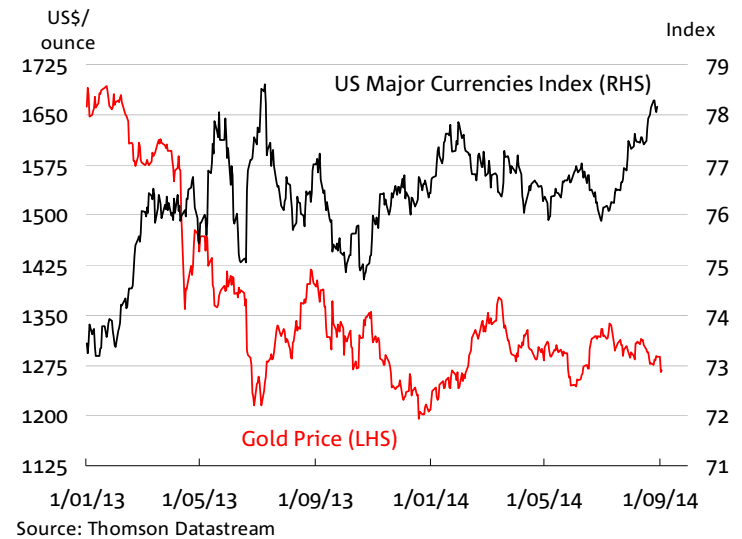
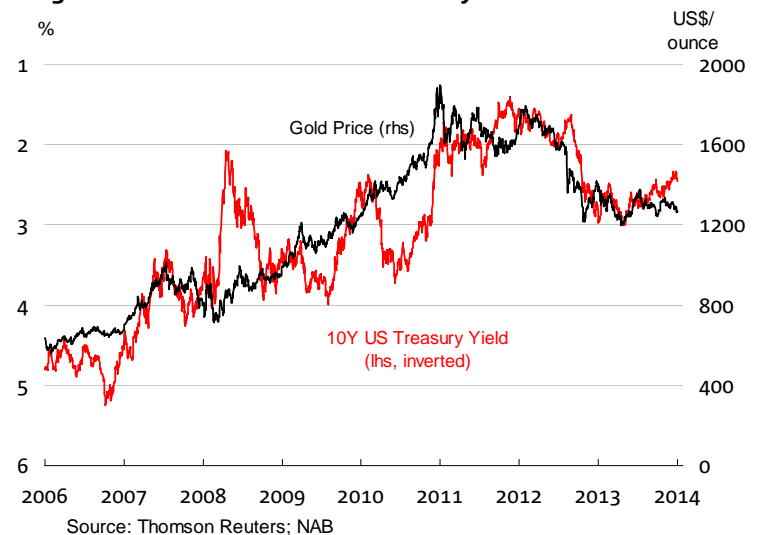


Figure 22: Gold Price & US Treasury Yield

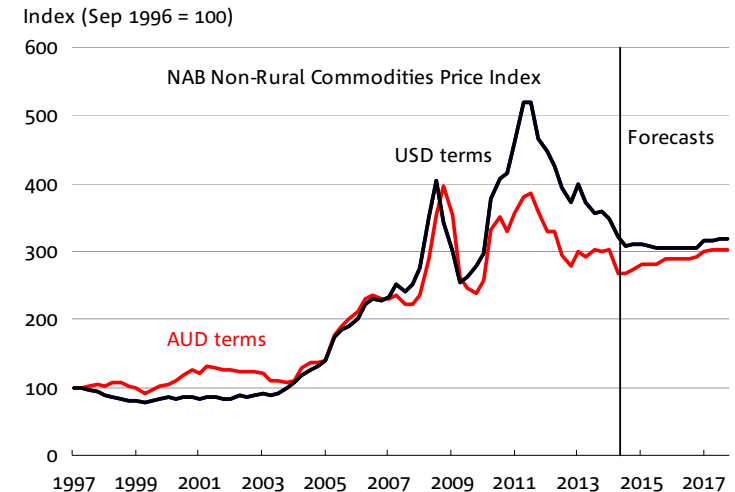


Outlook

- NAB's non-rural commodity price index is expected to fall by around 4.1% quarter-on-quarter in September (in US dollar terms) – following a 7% decline in June. A falls in the iron ore price – Australia's largest commodity exports) is a major driver of the decline, while base metal prices are generally a little higher for the quarter (despite sharp declines recently). Non-rural commodity prices are expected to fall 13½% over 2014, stabilising a little in 2015 to be 2% lower.
- In Australian dollar terms, commodity prices are forecast to rise a little across the remainder of 2014, before edging higher in 2015 (up by around 5¼ %) – largely reflecting depreciation of the Australian dollar as global interest rates (particularly in the US) start to normalise.

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Figure 23: Lower bulk commodity prices lead US index down, before stabilising in 2015



Sources: ABARES, ABS, Bloomberg, Thomson Datastream, NAB Economics

	Unit	Spot	Actual		Forecasts						
		Current	Jun-14	Sep-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16
WTI oil	US\$/bbl	93	103	98	99	100	100	101	102	102	102
Brent oil	US\$/bbl	97.7	110	104	105	105	105	105	105	105	105
Singapore gasoil	AUc/litre	0.78	0.86	79.00	76.00	0.76	0.76	0.76	0.76	0.76	0.76
Tapis oil	US\$/bbl	101	113	108	109	109	109	109	109	109	109
Gold	US\$/ounce	1239	1290	1290	1280	1210	1120	1060	1060	1060	1060
Iron ore*	US\$/tonne	82	103	97	93	93	91	88	85	85	85
Hard coking coal*	US\$/tonne	n.a.	120	120	125	135	140	145	150	150	150
Semi-soft coal*	US\$/tonne	n.a.	85	85	89	96	100	103	107	107	107
Thermal coal*	US\$/tonne	70	82	82	82	82	80	80	80	80	80
Aluminium	US\$/tonne	2003	1801	1990	1990	2010	2040	2050	2060	2060	2060
Copper	US\$/tonne	6860	6795	7030	6890	6820	6750	6690	6620	6620	6620
Lead	US\$/tonne	2107	2098	2200	2160	2150	2160	2180	2200	2200	2200
Nickel	US\$/tonne	18334	18469	18840	18650	18460	18790	19110	19690	19690	19690
Zinc	US\$/tonne	2253	2072	2320	2330	2340	2360	2370	2380	2380	2380
Henry Hub	US\$/mmbtu	3.93	4.59	4.00	4.20	4.20	3.90	4.10	3.90	3.90	3.90
Japan LNG**	US\$/mmbtu	n.a.	16.41	15.50	15.50	15.50	15.30	15.00	14.50	14.35	14.35

* 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.

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