Minerals & Energy Commodities Update

by NAB Group Economics

October 2014

Key Points:

- Divergent economic conditions around the world are having a net negative impact on commodity prices. Chinese GDP growth slowed to its lowest pace since early 2009, while parts of the economy that are key to industrial commodities remain comparatively weak (see, China Economic Update). In contrast, the US economy has maintained its recovery track, which is driving USD strength – a headwind for most commodities (for recent global trends, see Global & Australian Forecasts – November 2014).
- In addition to USD strength, falling commodity prices have been weighing on the AUD; the AUD eased another 1% against the USD, following a more than 6% depreciation over September. AUD devaluation, along with more subdued wage pressures, should help to buffer the impact of lower commodity prices on Australian mining operations.
- Prices for bulk commodities remain near five year lows. Iron ore prices have been driven lower by the large scale increase in supply (primarily from Australia), while both thermal and metallurgical coal prices have fallen on weaker imports from China. Over the first nine months of the year, China's thermal coal imports fell by 2.9% yoy, while metallurgical coal imports were 19% lower.
- Global crude oil prices continue to fall sharply amid ample supply and weak demand expectations. Gas prices were mixed with the US steady but Britain and Japan edging higher.
- Prices eased across the base metals complex in October in response to persistently soft demand (particularly in China). However, markets with more favourable supply conditions/outlook (eg. aluminium, zinc) are performing relatively better. Gold prices fell heavily again, affected by strength in other investor asset classes (e.g. USD and equities).

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Oil

- Global crude oil prices continue to fall sharply amid ample supply and weak demand expectations, combined with discounting of Saudi oil and a broad confidence that the US shale boom is set to continue.

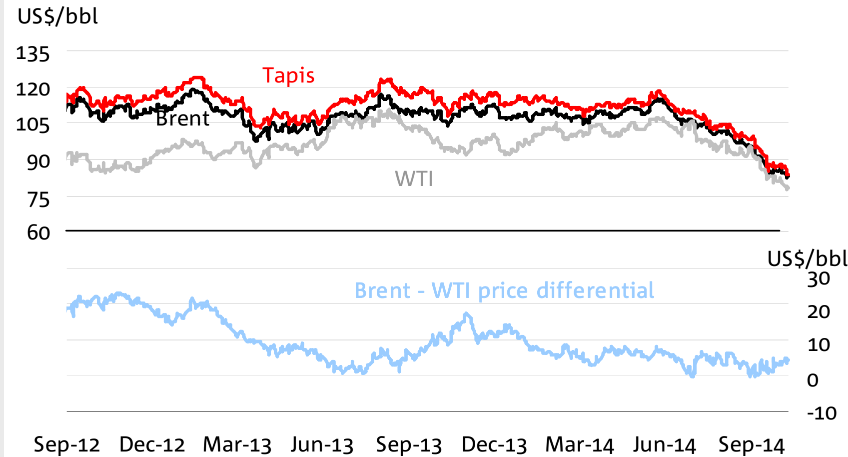
- Brent averaged US$87.58/barrel in October, down 10.5% for the month, while Tapis fell to US$90.09/barrel. WTI also declined, but at a slightly slower rate than Brent or Tapis, falling 9.7% to average US$84.40/barrel in September. Brent ended October trading at US$84.45/barrel, Tapis at US$86.82/barrel and WTI at US$80.53/barrel.

- Global liquid fuel supply has continued to increase, standing at 92.69 million barrels per day for September, up 2.7% from the same time in 2013. Growth has been led by increased non-OPEC production, in particular from the United States.

- In contrast to ample supplies, liquid fuel demand has been subdued for the last several months, reflected in higher inventories and lower refinery runs. Slowing economic growth in China, coupled with weakness in Japan and ongoing malaise in much of Europe continue to push expectations of demand lower, despite some optimism returning to the US, UK and India.

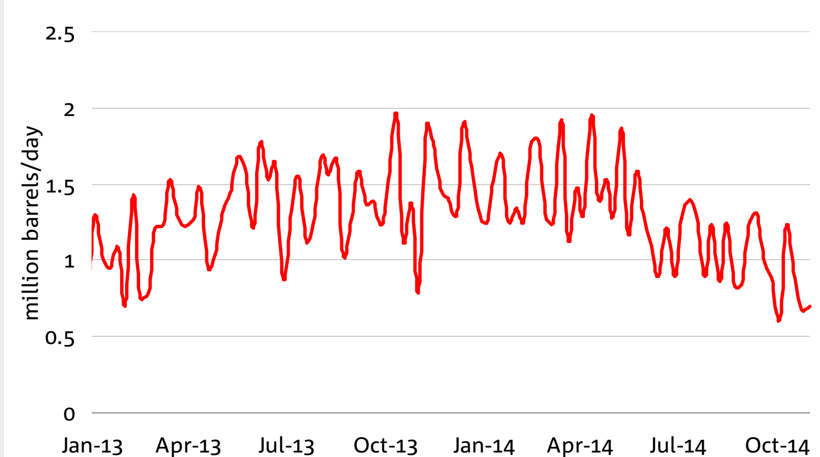
- In response to these factors we have further cut our forecasts for crude oil prices. We expect that that Brent will average US$90/barrel in Q4 2014 and US$101/barrel in 2015. Our forecasts for Australian retail fuel prices show underlying growth in line with a lower trending Australian dollar. We expect unleaded to reach 144.9 AUc/litre in Q1 2015, climbing to 153.1 AUc/litre by Q4 2015.

Figure 1: Daily oil prices



Source: Thomson Datastream and NAB Group Economics

Figure 2: US weekly oil imports from Saudi Arabia



Source: US Energy Information Administration

Natural Gas

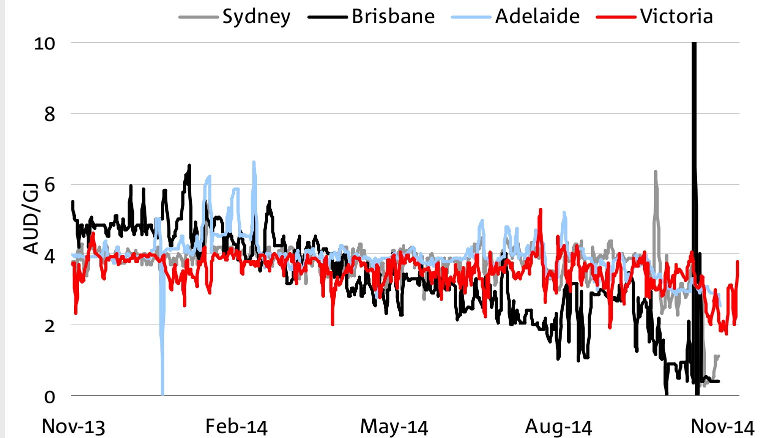
- Eastern Australian wholesale gas spot prices continued to fall in October, particularly in Queensland where increased coal seam gas extraction pushed prices below AU$1/GJ ahead of the opening of LNG export terminals on Curtis Island.

- However, these subdued prices are likely to be fleeting – when LNG export begins in early 2015, eastern Australia will be exposed to netback world parity prices. This is likely to see significantly higher local prices, already reflected in reports that new long term supply contracts are being written in the order of AU$9/GJ.

- International prices were mixed in October. US gas at Henry Hub was steady, averaging US$3.77/mmbtu for the month, despite indications that the northeast US could face another cold winter. European prices were up with the British National Balancing Point (NBP) rising 2.3% to average US$8.09 for October. NBP prices had fallen for much of the first half of 2014 on the back high inventories following a much milder than average 2014-15 winter. Japanese LNG prices were up 2.4% to US$17.77/mmbtu.

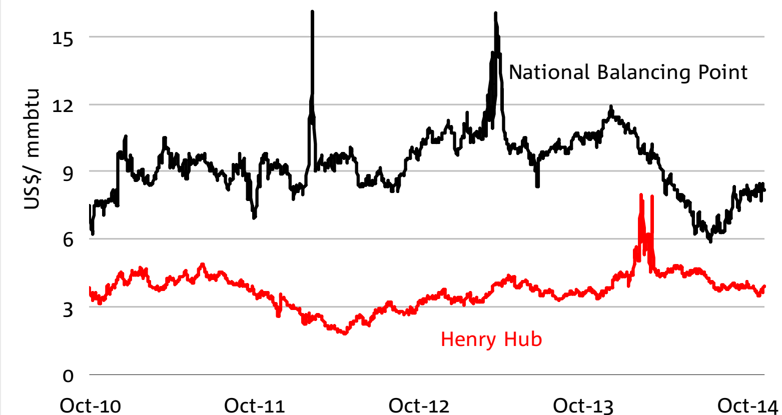
- Overall, our natural gas forecasts for Q4 2014 are slightly lower than our previous forecast for Henry Hub (US$4.00/mmbtu) and slightly higher for Japan LNG (US$16.00/mmbtu). In the medium term, we expect there to be downward pressure on international prices as new LNG export capacity from Australian and elsewhere boosts supply.

Figure 3: Australian east coast daily gas spot prices



Source: AEMO

Figure 4: Henry Hub and National Balancing Point spot prices



Source: US Energy Information Administration

Iron ore

- Iron ore markets were mixed in October. From mid-month, prices began to rally, pulling away from five year lows recorded in September. Spot prices at the port of Tianjin briefly exceeded US$83 a tonne, before retreating back below US$80 by the end of the month. Short term shutdowns in Hebei – aimed at reducing Beijing pollution during the upcoming APEC meeting – may have influenced this trend.

- The growth rate for China's iron ore imports has slowed in recent months. Over the first nine months of the year, China's imports of iron ore totalled 699 million tonnes, an increase of 16% yoy. This rate of growth has fallen across the year, with a year-on-year increase of just 12% for the three months ending September.

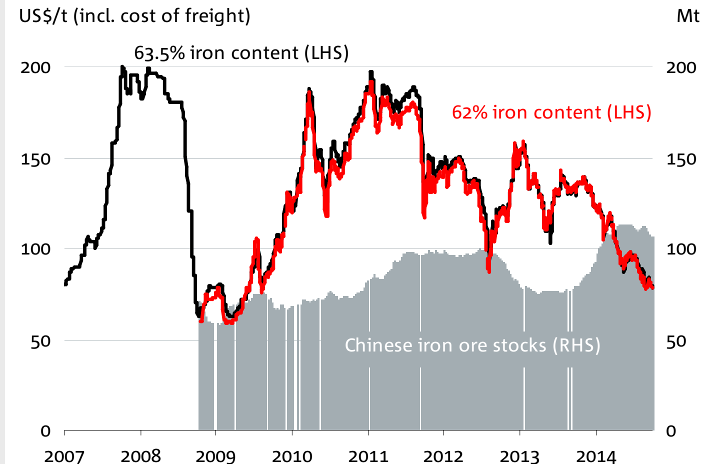
- Despite falling prices, there has been limited supply response from higher cost Chinese iron ore mines. According to MySteel Research, around 80% of Chinese iron ore mines have cash costs between US$80 and US$90 a tonne. An October BHP Billiton investor presentation noted that private producers have cut around 50 million tonnes of annual capacity, while state-owned operators continue to operate close to full capacity.

- China's domestic iron ore production was at record levels in June – at 139 million tonnes in the month – and it has only marginally eased since then, to around 137 million tonnes in August. That said, the average indicative grade of China's iron ore has fallen from around 13.2% in 2013 to 9.2% in the first nine months of 2014.

- Iron ore prices remain weak, and our hybrid iron ore price (which weights spot and contract prices) is expected to decline further – reflecting the growth of supply. We expect prices to fall to US$93 a tonne at the end of 2014 and further to US$85 by the end of 2015 (with current spot prices highlighting downside risk).

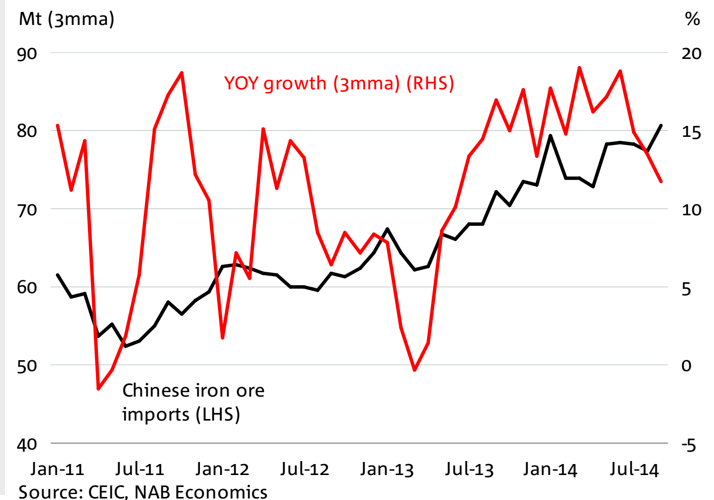
For more details, see this month's Bulk Commodities Update

After a modest rally in mid-October, spot iron ore prices fell back below US$80 a tonne by month end



Source: Bloomberg, Thomson Datastream, NAB Economics

Growth rate for China's iron ore imports has started to slow



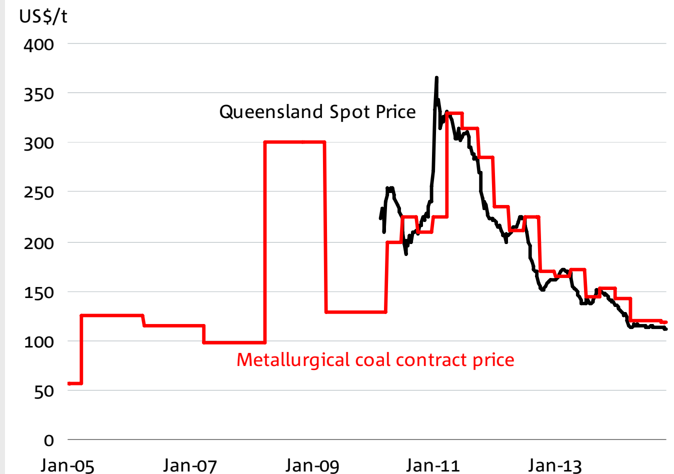
Source: CEIC, NAB Economics

Metallurgical coal

- Metallurgical coal spot prices continued to track sideways across most of October before drifting slightly lower, down to around US$111 at the end of the month. Since June, spot prices have been range bound, trading within a band of around US$4 a tonne. Cuts to production since the second quarter of 2014 appear to have stabilised the market.
- Low prices continue to be a problem for producers globally. Cost analysis by Wood Mackenzie suggests that over half of global output is unprofitable at current prices. A considerable share of higher cost capacity has been taken offline – equivalent to around 20 million tonnes a year since the start of April, mostly in North America (Bloomberg). Weak prices will also likely delay a range of new developments in Australia and overseas.
- China's metallurgical coal imports have remained weak. In the first nine months of 2014, imports totalled 44 million tonnes, a decrease of 19% when compared with the same period in 2013. Anecdotal evidence suggests that domestic production of the material has expanded this year, with improved rail capacity boosting supply to key consuming regions.
- That said, China's domestic coal industry is also struggling from the current low prices – with the China Coal Association estimating that around 70% of coal miners have made losses this year. The National Development and Reform Commission has called on local governments to cut output by around 12% yoy in the last four months (equivalent to around 150 million tonnes of coal) to address overproduction and illegal mining, in addition to the country's pollution concerns.
- The poor profitability conditions for metallurgical coal producers and a recovery in Chinese import purchases should allow prices to trend back from current lows. We continue to expect prices to trend back towards US$150 a tonne (for hard coking coal) by the end of 2015.

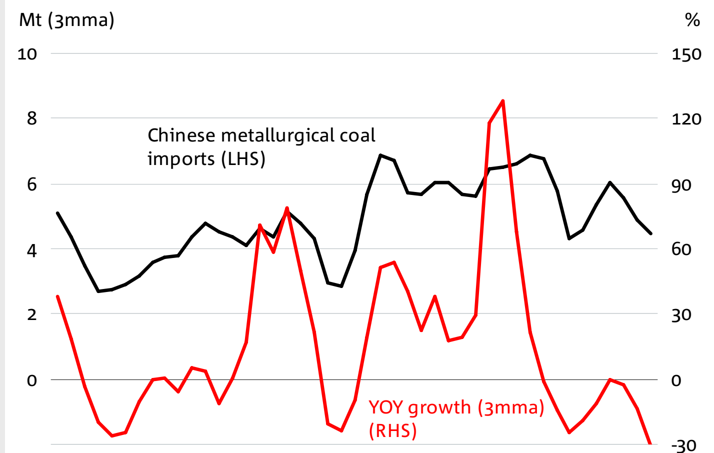
For more details, see this month's Bulk Commodities Update

Spot prices edged down in late October, but have been relatively stable since June



Source: Energy Publishing, Bloomberg, NAB Economics

China's imports have fallen in year-on-year terms, a major impact on global markets



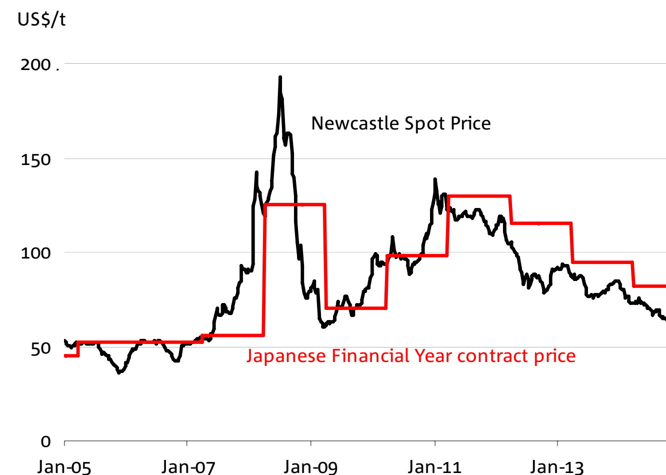
Source: CEIC, NAB Economics

Thermal coal

- Spot prices for thermal coal have continued to decline across October – drifting below US$65 a tonne late in the month (at the port of Newcastle) – the lowest spot price in over five years. There may be a seasonal component in this trend – given the lull in demand ahead of northern winter purchases.
- That said, recent trends continue to signal a market that is well supplied. Stockpiles at China's major coal ports remain adequate – around typical levels at Qinhuangdao and above the range for Guangzhou. Stocks tend to rise in November ahead of peak winter demand.
- China's imports of thermal coal have continued to weaken in recent months. In the three months to September, thermal coal imports were around 18% lower than the same period in 2013. In the first nine months of the year, imports were around 2.9% yoy lower.
- In early October, China's government announced two significant policy measures that could impact on coal demand and trade. The first was the imposition of a tariff on coal imports – 3% for metallurgical coal and 6% for thermal coal. Of concern for Australian exporters is that Indonesian suppliers are exempt – due to an existing free trade agreement with ASEAN.
- The second change is the potential introduction of resources taxes for coal miners. The Ministry of Finance announced it will allow provincial governments to impose coal resource taxes of between 2 and 10% - subject to final approval from the Ministry.
- The weakness in spot prices highlights the downside risk to our current contract price forecast. However, stronger seasonal demand, the impact of China's tariff and resources tax policies and production cuts could drive prices marginally higher in the short term. Our forecast for contract prices remains unchanged, with prices at US$80 a tonne for the 2015 Japanese financial year (commencing April 2015).

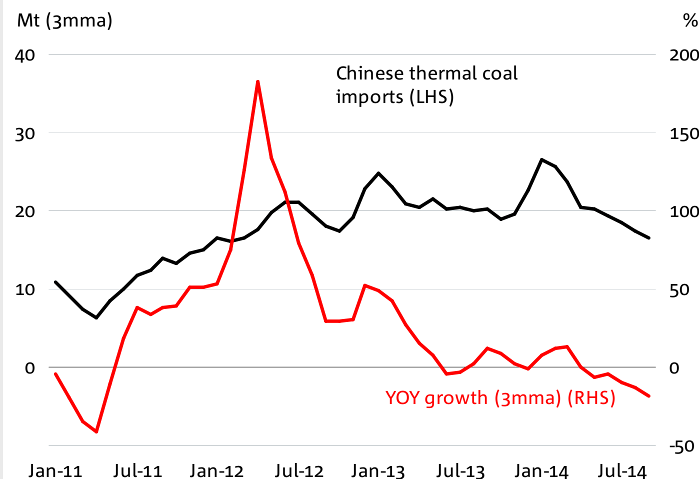
For more details, see this month's Bulk Commodities Update

Thermal coal prices continue downward trajectory, now at lowest levels in five years



Source: McCloskey's, BREE, NAB Economics

Weaker Chinese imports contributing to a well supplied global market

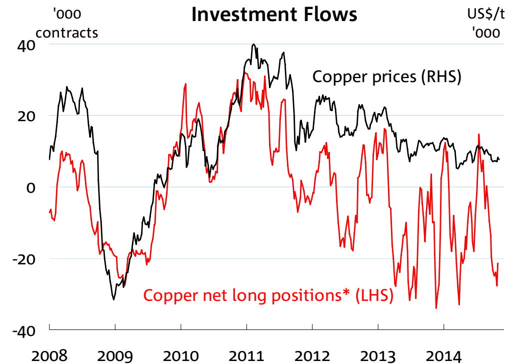


Source: CEIC, NAB Economics

Base metals: Copper

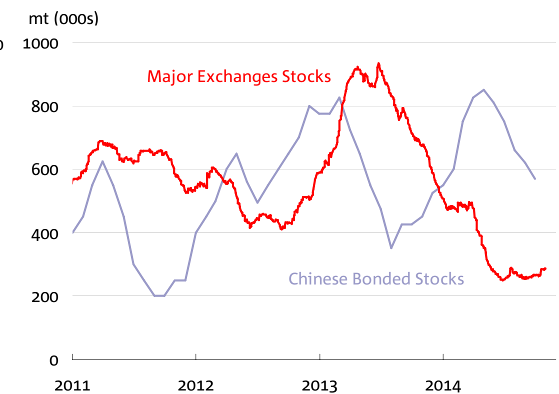
- Copper prices fluctuated during the month, but were still down more than 2% on average in October – 6% lower over the year. The threat of industrial action at the world's second largest copper mine contributed to the volatility. Soft demand conditions were worsened by a strong USD, which continues to adjust to the end of QE and recovering US economy. Spot prices are currently around US$6,720 per tonne, up modestly from end-September.
- Global copper exchange inventories stabilised at very subdued levels and started to tick a little higher. Global refined production growth has been strong, supported by record production in China. The ICSG reports that the global refined copper market tipped into surplus in July (60,000 tonnes), although the market remains in deficit for the year (512,000 tonnes excl. Chinese bonded stocks).
- Demand conditions remain soft. While US copper demand should improve along with the economy, keeping local premiums relatively elevated, some of the construction indicators continue to look mixed. Europe and Japan remain weak, with both central banks resorting to additional policy stimulus measures, while Chinese economic indicators continue to soften – no real signs of any significant stimulus plans in China this time around – although copper imports improved unexpectedly in October. Bonded Chinese stocks are drawing down, helping to alleviate some of the tightness in the market, keeping premiums low, although the pace of draw downs appears to be slowing according to ICSG data.
- New production capacity and USD strength will exert downward pressure on copper prices, but a good demand outlook and potential supply constraints (including industrial action) could keep the market tight and prices close to current levels.

Figure 11: Copper Prices & Investment



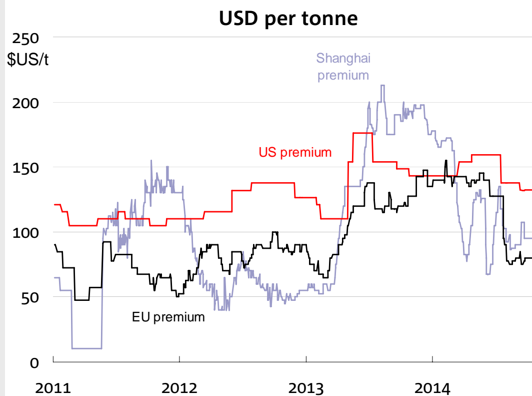
* Combined futures and derivatives net long positions for non-commercial traders

Figure 12: Chinese Copper Bonded Stocks



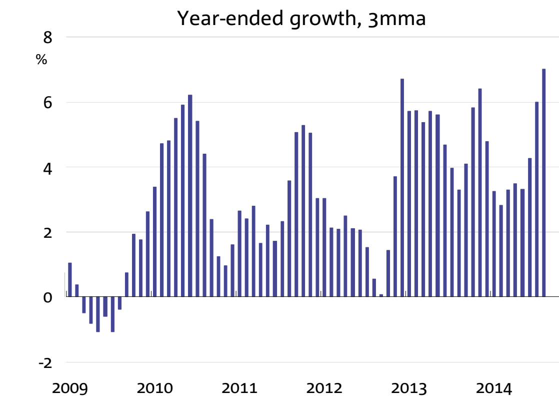
Source: Bloomberg, NAB

Figure 13: Copper Premiums



Sources: Bloomberg Industries

Figure 14: Refined copper production



Sources: Bloomberg Industries

Table 1: Base Metal Prices*

	Avg Price (US$/tonne) Oct-14	Monthly % change Oct-14	Oct-13 - Oct-14 % change
Aluminium	1946	-2.2	7
Copper	6737	-2.0	-6
Lead	2034	-3.9	-4
Nickel	15812	-12.3	12
Zinc	2277	-0.8	21
Base Metals Index		-4.9	3

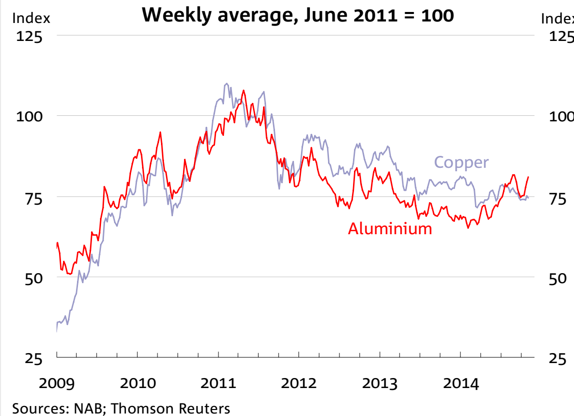
* Prices on an LME cash basis.

Sources: LME; NAB

Base metals: Aluminium

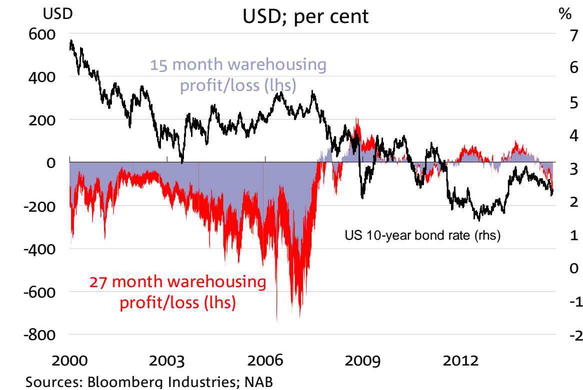
- Average aluminium prices fell 2.2% in October, although prices gained momentum from mid-month as expectations of a larger market deficit started to gain traction – the current spot price is around 6% above end-September levels. The average price in October was around 7% up on the same time last year.
- Concerns over a large market deficit has kept aluminium prices resilient during the recent metals sell-off. Long-run declines in prices have generated a supply response, and there is a possibility of further cutbacks from producers at a time when demand (particularly in the US, led by the auto sector) appears to be improving. However, there have been reports of smelter restarts and expansions in China (over 500ktpa expected within 12 months) – although more expansion deferrals and closures are expected as well.
- With the market in deficit, LME inventories have been dropping – down around 1Mt from early January – as are SHFE stocks. As a result, physical markets are tight – especially ex-China – which is keeping premiums at record highs.
- Warehousing incentives have unwound as time spreads flatten, which may be contributing to the draw down of (still elevated) inventories. To date, the decline in LME inventories has been relatively orderly, preventing a sharp correction in prices. Nevertheless, uncertainty lingers over these inventories as proposed LME load out rules (designed to address logjams and market distortions) are challenged by stakeholders – LME had a court victory last month over Rusal, which sought to block the rules.

Figure 15: Copper & Aluminium Price (LME)



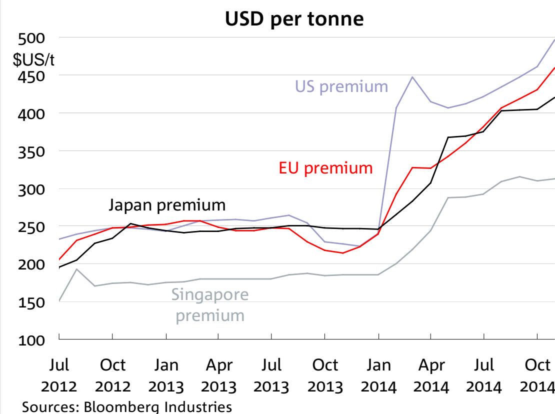
Sources: NAB; Thomson Reuters

Figure 16 Aluminium Warehouse Incentives



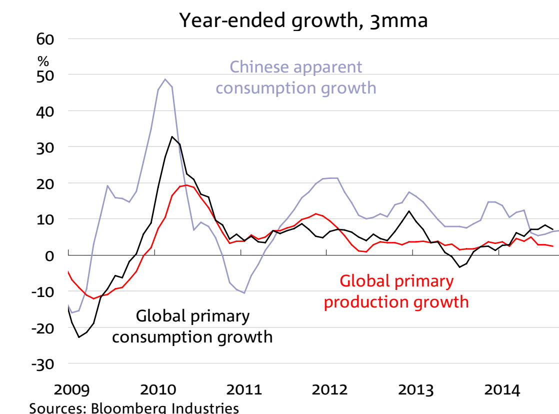
Sources: Bloomberg Industries; NAB

Figure 17: Aluminium Premiums



Sources: Bloomberg Industries

Figure 18: Aluminium Production & Consumption

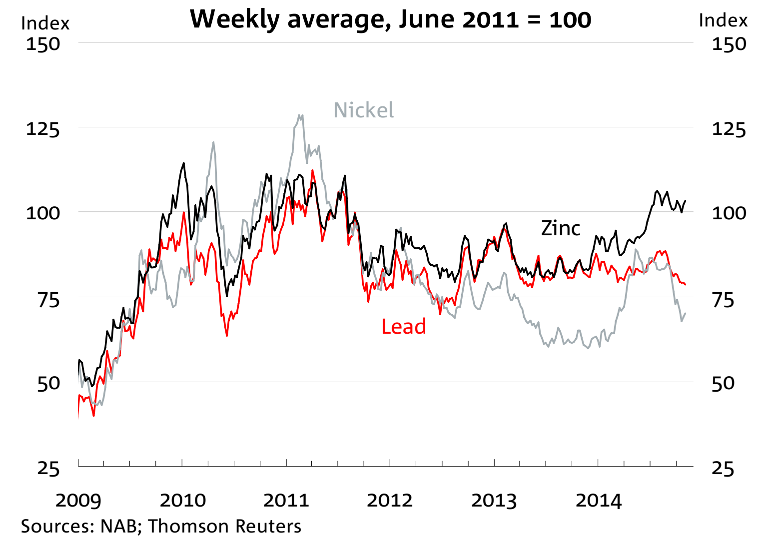


Sources: Bloomberg Industries

Base Metals: Nickel, Lead, Zinc

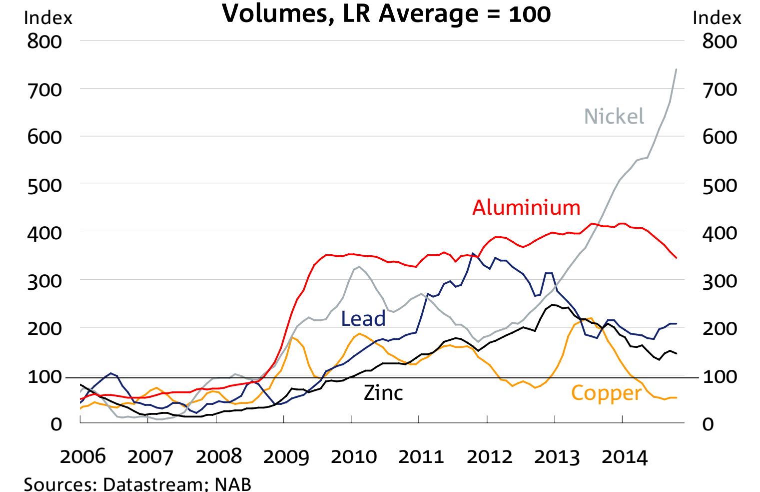
- Average nickel prices declined the most of the industrial metals in October, down more than 12%, further unwinding the sharp rise since earlier in the year that came on the back of supply concerns stemming from Indonesia's ban on ore exports. Despite the decline this month, prices are still up around 12% over the year. We have long suggested that the front-end fundamentals remain somewhat unfavourable and perhaps the rally had been a little overdone given the subdued demand environment. The fall in prices coincides with an acceleration of nickel inventories, which continue to hit record highs. Putting aside recent scares over Philippine production, Chinese NPI producers appear satisfied that supplies will remain adequate. Indeed, these producers have managed to successfully stretch out their high grade nickel inventories with Philippine (lower grade) ore supplies. However, declines in Chinese nickel inventories at port may suggest some stabilisation, although there still needs to be a significant lift in demand before we see a notable draw on refined nickel inventories.
- Zinc prices performed the best of the industrial metals in October, with average spot prices falling by less than 1%; up by around a fifth over the year. China's softening industrial sector and a rising USD are not helping the demand fundamentals, but it is the supply side that is (and will continue) dominating the zinc market. Mine closures are expected to keep zinc supplies tight over coming years, keeping the market in deficit; the market balance shifted into deficit in H1 according to Bloomberg data and exchange inventories are still well down on previous peaks – although LME stocks are up on the lows of early August. These favourable market fundaments are also fuelling investor demand, with managed money long positions on the LME reported to be larger for zinc than other traded metal.
- Zinc's sister metal, lead, has not fared as well with prices recording another noticeable drop in October. Average prices fell by around 4%, falling to its lowest level since mid 2013. The fundamentals had been relatively balanced this year, but appear to be easing – LME refined inventories have risen almost 20% since June, but remain well below previous peaks. We may still see some seasonal strengthening in demand due to restocking ahead of the northern winter months. Stronger seasonal demand may keep the market balance in deficit this year and see prices recover some lost ground.

Figure 19: Nickel, Lead, Zinc Prices (LME)



Sources: NAB; Thomson Reuters

Figure 20: LME Base Metal Stocks

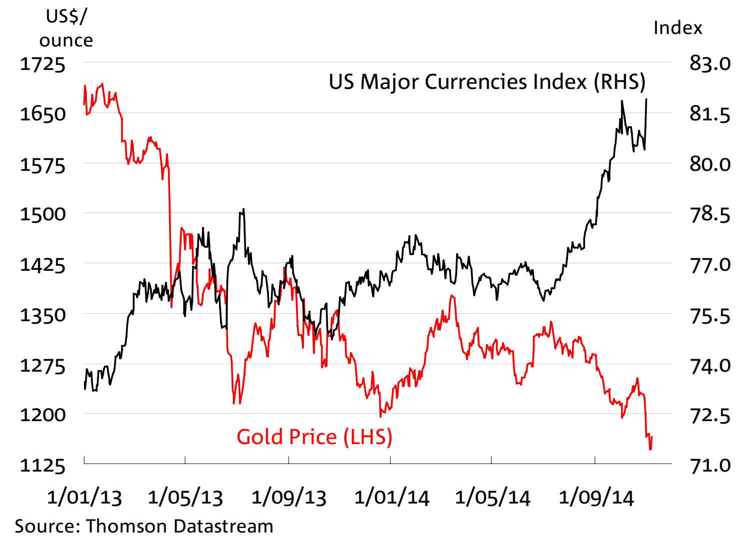


Sources: Datastream; NAB

Gold Market

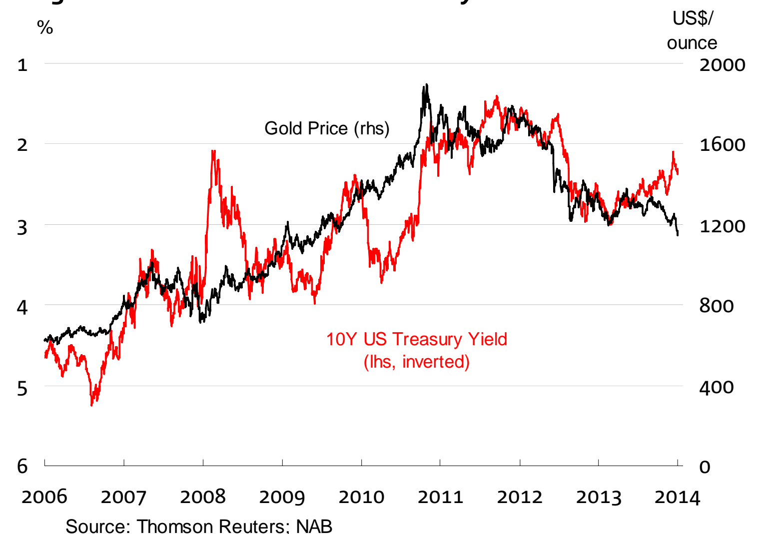
- The spot gold price declined sharply again in October and November, dropping back to its lowest level since 2010. Prices are adjusting to the strengthening US economy and USD, which is making gold much less attractive to investors (particularly in light of subdued inflation pressures). Unsurprisingly, the price of gold dropped heavily after a string of positive economic data in the US (including better than expected Q3 GDP and another strong labour market stats) and a more hawkish than expected US Fed monetary policy statement. Although declines in the gold price continue to come faster than we expect, we have long been forecasting a longer term downward adjustment to the gold price (dropping to around US$1,060 per ounce in the medium-term).
- Investors had been reluctant to run down their gold holdings as rapidly as they did in 2013, however ETF holdings have resumed a noticeable decline. Nevertheless, some physical demand indicators appear to have improved somewhat and Comex gold inventories fell further during October. Chinese net imports of gold from Hong Kong jumped in September, encourage by a low SGE premium over July and August and demand during National Day Golden Week, although imports remain well down on last years level.
- US bond yields have actually declined this year, while global inflation expectations generally remain subdued – weighing on demand for gold as an inflation hedge. Rather, it is the USD strength that has been the primary catalyst for gold price declines. The average gold price dropped 1¼% in October, while the current spot price (around US$1,160 per ounce) is 15% below this years peak.
- USD strength is expected to persist, although we expect to see some stabilization against major currencies in Q4 given the magnitude of appreciation to date. This suggests little positive momentum on the horizon for gold prices. We expect gold prices to continue their adjustment lower over the medium-term – in line with monetary ‘normalisation’ in the US. Mining costs are not yet a constraint on additional price declines.

Figure 21: Gold & USD Index



Source: Thomson Datastream

Figure 22: Gold Price & US Treasury Yield



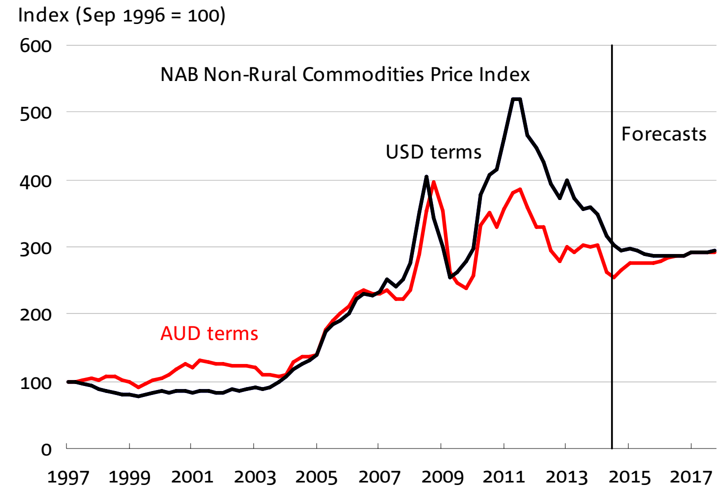
Source: Thomson Reuters; NAB

Outlook

- NAB's non-rural commodity price index is expected to fall a further 2.7% quarter-on-quarter in December (in US dollar terms) – following a 4.4% decline in September. Over the past twelve months, declines in the iron ore price – Australia's largest commodity export – have been the major driver of the index.
- In annual average terms, US dollar denominated non-rural commodity prices are expected to fall 15% in 2014, before easing a further 7% in 2015. Once again, iron ore is the main contributor, as well as gold.
- In Australian dollar terms, commodity prices are forecast to rise a little over the forecast horizon. After falling around 9% in 2014 (in average terms), prices should rise around 1½% in 2015 – reflecting expected depreciation of the Australian dollar as global interest rates (particularly in the US) start to normalise.

james.glenn@nab.com.au
Phin.Ziebell@nab.com.au
gerard.burg@nab.com.au
karla.bulauan@nab.com.au
rob.brooker@nab.com.au

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



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

	Unit	Spot Current	Actual Sep-14	Forecasts Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16
WTI oil	US$/bbl	77	98	85	90	95	98	100	101	102	102
Brent oil	US$/bbl	83.4	103	90	95	100	103	104	105	105	105
Singapore gasoil	AUc/litre	0.70	0.79	0.75	0.75	0.73	0.75	0.75	0.76	0.76	0.76
Tapis oil	US$/bbl	85	106	93	98	103	106	107	107	108	108
Gold	US$/ounce	1164	1280	1160	1100	1080	1060	1060	1060	1060	1060
Iron ore*	US$/tonne	76	109	93	93	91	88	85	85	85	85
Hard coking coal*	US$/tonne	n.a.	120	119	135	140	145	150	150	150	150
Semi-soft coal*	US$/tonne	n.a.	85	85	96	100	103	107	107	107	107
Thermal coal*	US$/tonne	66	82	82	82	80	80	80	80	80	80
Aluminium	US$/tonne	2060	1990	1990	2020	2060	2070	2080	2120	2170	2210
Copper	US$/tonne	6790	6997	6720	6680	6650	6620	6580	6550	6520	6490
Lead	US$/tonne	2030	2183	2030	1990	2010	2020	2040	2070	2080	2100
Nickel	US$/tonne	15367	18585	15800	15010	15460	15920	16400	16890	17400	17920
Zinc	US$/tonne	2241	2311	2250	2260	2280	2290	2300	2310	2320	2330
Henry Hub	US$/mmbtu	4.16	3.94	4.00	4.00	3.90	4.10	3.90	3.90	3.90	3.90
Japan LNG**	US$/mmbtu	n.a.	16.10	16.00	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.