

Minerals & Energy Commodities Update

by NAB Group Economics

February 2015



National
Australia
Bank

Key Points:

- Moderate sub-trend global growth continues with a diversity of economic conditions (solid expansion in US, UK, India and China, weakness in Euro-zone, Japan, Latin America). This has been reflected in lower prices for a number of industrial commodities. Falling oil prices should boost global activity, although the impact varies between oil exporting and importing countries (for recent global trends, see [Global & Australian Forecasts – January 2015](#)). Despite being a beneficiary of lower oil prices, the flow of economic partials in China have been soft of late (although Lunar New Year distortions may be in play) suggesting the slowing trend over 2014 has continued (see [China Economic Update](#)).
- The USD remains strong, reflecting economic and policy divergence between the major economies. Soft commodity prices and the recent interest rate cut has also seen the USD gain more ground against the AUD. The ongoing divergence in policy outlook and soft commodity prices are expected to see the AUD pushed lower from here – expected to bottom at around 73 cents in early 2016. This will help to buffer some of the impact of lower commodity prices on domestic mining operations.
- Bulk commodity markets remain weak – driven primarily by supply growth from Australia. Iron ore markets remain oversupplied (due to surprising supply strength from China’s domestic sector), resulting in a downward revision to our price forecasts. Metallurgical coal prices have remained stable, while there was a modest recovery in thermal coal prices (ahead of contract negotiations).
- Oil price indices started to exhibit some tentative signs of stabilisation since mid-January, aided by a temporary pause in USD appreciation, falling US rig counts and ongoing strikes in a number of US refineries. However, a sustained global oversupply of crude oil will weigh on prices this year and next.
- Prices declined across the base metals complex in January, driven by lower oil prices and demand concerns. Recent soft partials highlight the uncertain demand environment, but supply conditions are expected to tighten this year in some markets. Gold spot prices have strengthened on renewed safe haven demand, but the longer term expectation is still for further declines.



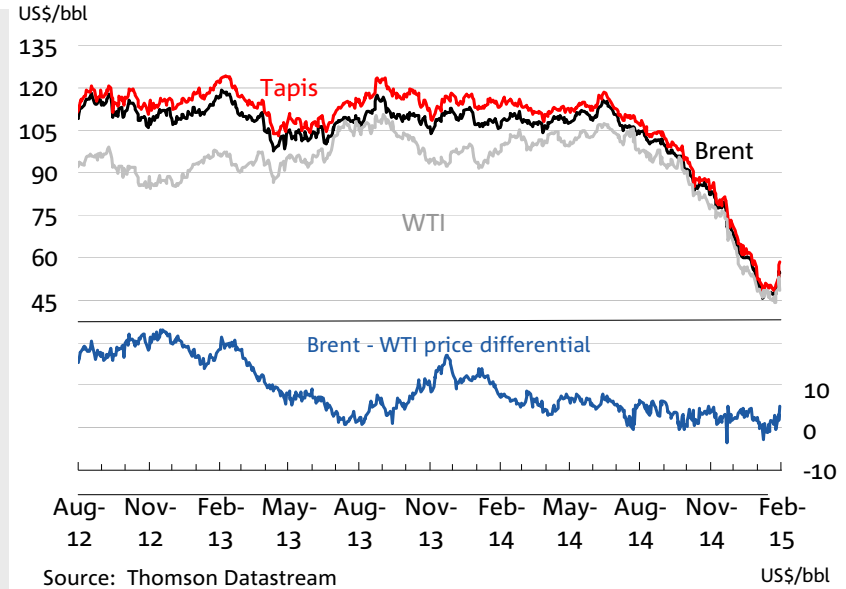
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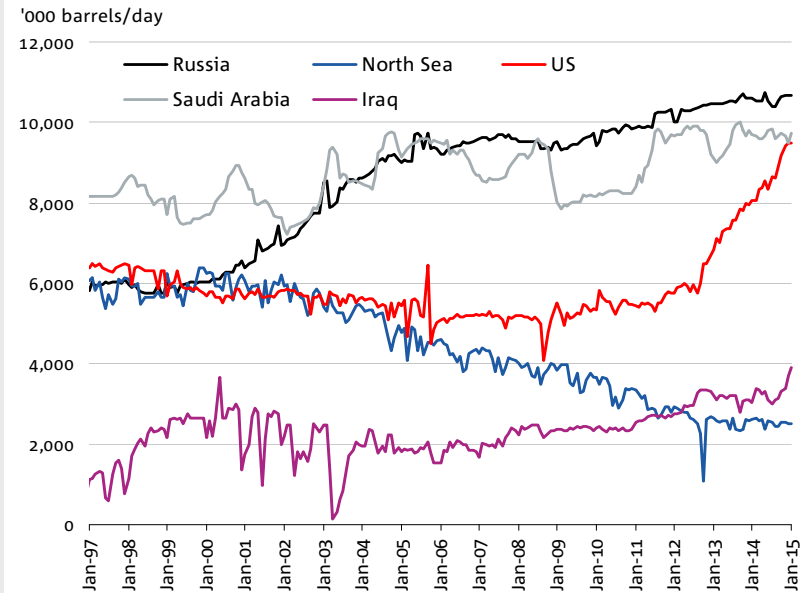
Oil

- After the drastic falls towards the end of 2014, oil price indices started to exhibit some tentative signs of stabilisation from mid-January. Prices traded mainly around mid to high USD40s a barrel in the second half of the month, before breaking decisively above USD50s in the first week of February, aided by a pause in USD appreciation and news of workers' strikes in a number of US refineries. These strikes, which are ongoing, are in response to plans by oil companies to slash spending following the 60% peak-to-trough fall in oil prices since June last year.
- In the absence of any concrete forward guidance by major oil producers on how the global glut can be addressed in the near term, the volatility in oil prices as indicated by the OVX index continued to track at historically-elevated levels, with the short-term trading patterns tending to be guided by any geopolitical news and economic data that would remotely indicate changes to the status quo of a heavily oversupplied global market.
- The oil futures curve has moved into a contango (where forward prices are higher than spot prices) since October 2014 and has steepened over time since then. This typically indicates excessive downward adjustments to spot prices relative to longer-term price expectations, within a short time. Periods of contango in commodity markets tend to be short-lived.
- The supply responses to the price falls to-date across oil producers have been highly variable and disorderly. A number of producer countries which are heavily reliant on oil revenue to fund their government expenditures, such as Russia and Iraq, have lifted output volumes in a bid to make up for income shortfalls. Meanwhile, US oil crude supplies continue to grow at a robust rate, despite a steady fall in its rotary rig count since mid-December.
- Against the backdrop of significant price retreat and a widening contango, there are signs of rejuvenation in short-term physical demand, particularly tanker storage demand by traders in Asia and stockpiling of reserves of major importing countries such as China and India, although not sufficient to make a meaningful dent to the supply overhang.
- Given the above, we have revised our oil price forecast profile lower through 2015 and 2016, with the recovery in oil prices expected to pick up pace in the second half of this year. For more information, please refer to the detailed [Oil Market Update- Feb 2015](#) report.

Daily oil prices (USD/barrel)



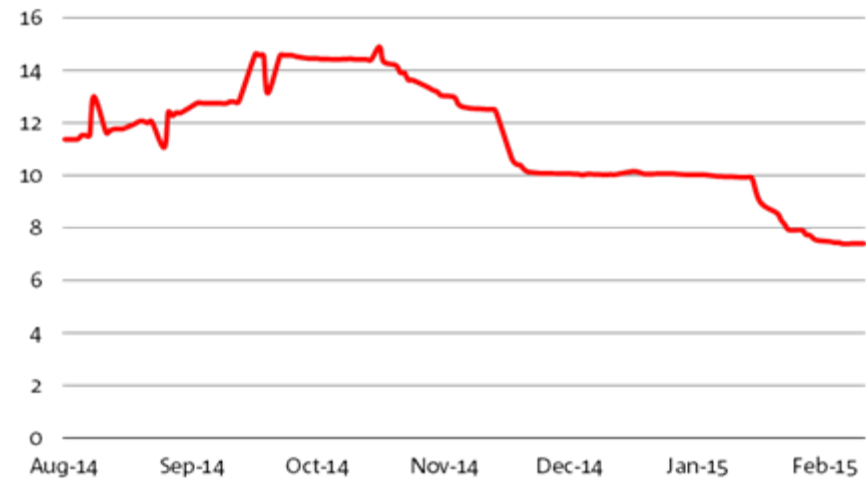
Crude Production by Major Countries (Monthly)



Natural Gas

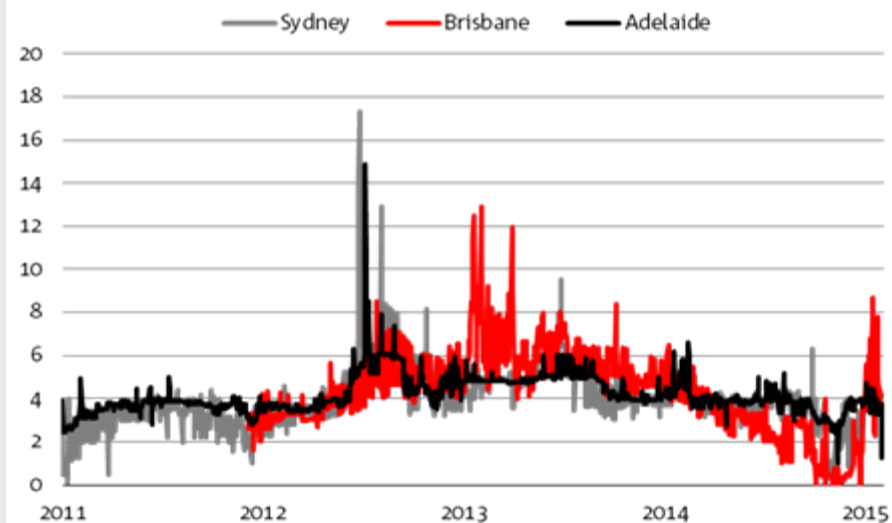
- Higher global LNG supply, combined with falling oil prices, have weighed on LNG price indices in recent months. The World Bank estimates that Japan LNG import prices fell 4.4% month on month in January 2015 to US\$14.31/mmbtu, below the same time in 2014 (US\$16.67/mmbtu). Spot cargo prices for Japanese and Korean LNG, which were almost US\$15/mmbtu as recently as October 2014, have fallen below US\$7.50/mmbtu. In response to the aforementioned considerations, we have revised down our Japanese LNG forecasts this month.
- Eastern Australian LNG exports began in January, with QCLNG at Curtis Island making its first shipments. The two other Curtis Island LNG terminals are scheduled to begin operation later this year – APLNG expects to begin shipments midyear and GLNG in the second half of the year.
- The start of LNG shipments has coincided with a considerable uptick in gas spot prices in Brisbane, which exceeded AU\$8/GJ in mid-January. This followed a period of suppressed prices in late 2014 as new coal seam gas came online in advance of LNG terminal capacity. While Brisbane prices have since returned to more ‘normal’ levels (similar to those experienced while Eastern Australia was a gas island – generally AU\$2-4/GJ) in recent weeks, it is likely that further LNG shipments will send prices higher, especially in the event of a recovery in oil prices.
- Elsewhere, while Henry Hub prices in the US remain somewhat isolated from global financial and trading movements, they have declined to around US\$2.60/mmbtu in the past week. This is likely to change once the US ramps up its export capabilities, with the first large export terminal, the Sabine Pass Liquefaction Project, scheduled to be completed in 2017. Prices at the UK’s National Balancing point are hovering around US\$7.40/mmbtu.

Japan-Korea generic 1st spot LNG (USD/mmbtu)



Source: Bloomberg

Eastern Australia spot price (AUD/GJ)



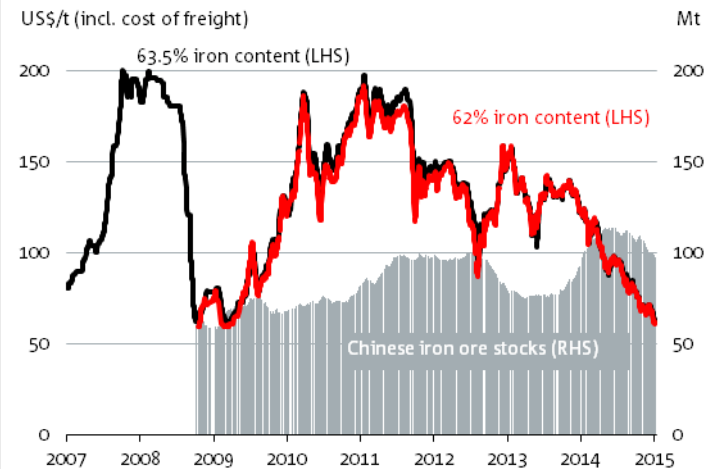
Note : Chart shows Short Term Trading Market Ex Ante prices. Outliers have been removed for 1/11/10, 22/12/13 and 17/10/14.

Source: Australian Energy Market Operator

Iron ore

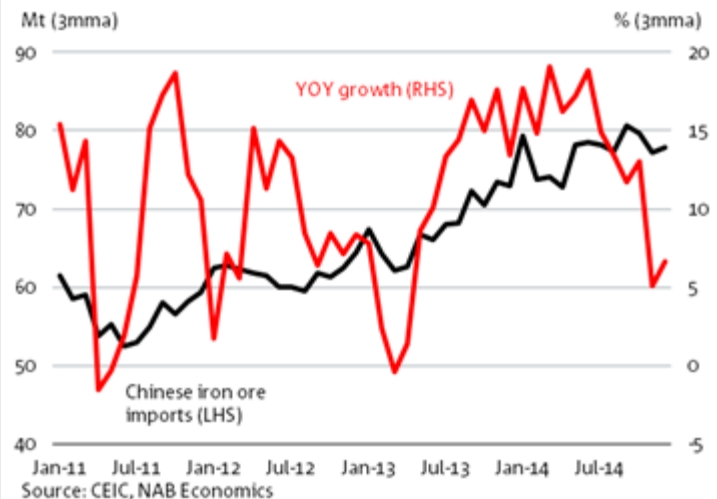
- After a brief recovery in late December, when iron ore prices rose back above US\$70 a tonne (for 62% ore at the port of Tianjin), prices drifted lower again in January – down to the low US\$60s in the latter part of the month – the lowest levels since May 2009. Reflecting the declines across 2014, prices in January were around half the level of twelve months ago.
- Falling iron ore prices across 2014 were driven by the rapid increase in global supply – with Australian producers providing the majority of the increase, as higher cost producers were forced out of the market. In the first ten months of the year, global trade expanded by around 102 million tonnes, while Australian exports rose by 119 million tonnes and Brazilian exports by 14 million tonnes. Other producers contracted exports.
- China has remained the key market for iron ore trade – although growth in imports slowed in the latter part of 2014. For the full year, imports totalled 933 million tonnes – an increase of almost 14% – however growth was considerably stronger over the first half of the year.
- The stocks at China’s ports have drifted lower across late 2014 – down to around 100 million tonnes at the end of the year, compared with an all time high of 114 million tonnes in early July. That said, compared with recent years, stock levels remain high.
- The viability of ongoing domestic ore production in China remains uncertain. Estimated cash costs, produced by Bloomberg Intelligence in late 2014, suggest that around three-quarters of the country’s mines are unprofitable at current spot prices. Producers in China may finally be responding to the price signals – with output in December down 4.2% yoy.
- Short term conditions for iron ore are likely to remain subdued – with weaker demand from China’s steel producers ahead of Chinese New Year. Reflecting the recent weakness in spot prices (and continued Chinese domestic production), we’ve revised down our price forecast. A recovery in steel output after the CNY could provide some short term support, however further growth in low cost supply and comparatively weaker steel demand in 2015 should drive prices gradually lower once again – with prices expected to be around US\$67 a tonne by year end.

Spot prices weaker again in January, following on from a minor recovery in late December



Source: Bloomberg, Thomson Datastream, NAB Economics

China’s iron ore import growth slowed across the second half of 2014 (following rising stockpiles)

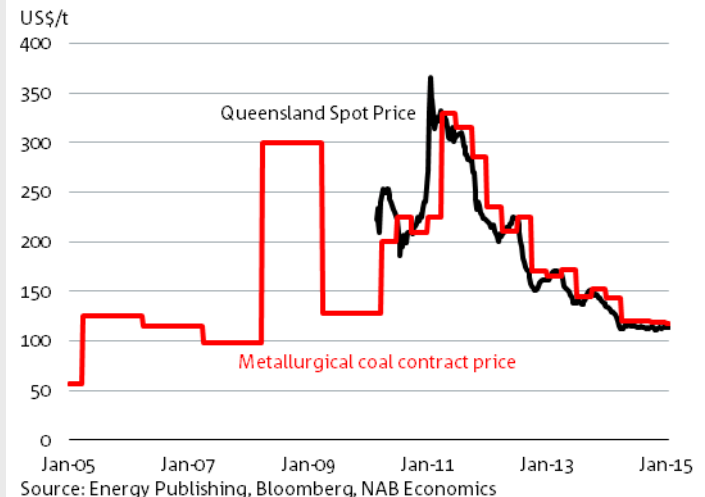


Source: CEIC, NAB Economics

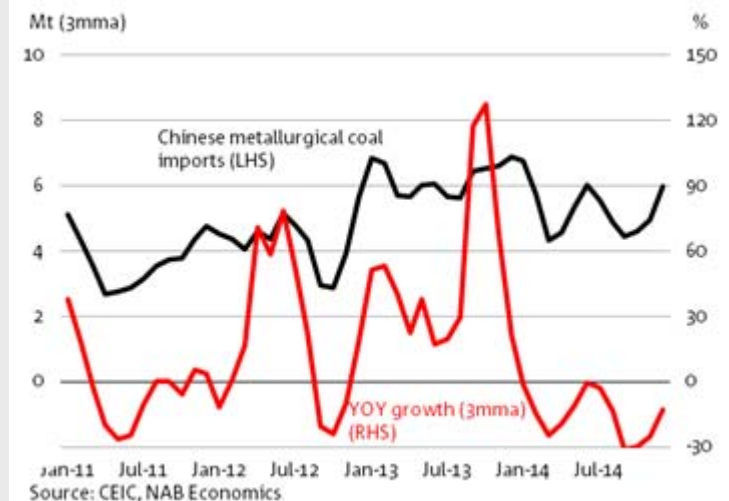
Metallurgical coal

- Prices for metallurgical coal have remained comparatively stable since March 2014 – trading in a range of around US\$5 a tonne. In mid January, the spot price was around US\$114 a tonne (for Queensland hard coking coal).
- Contract prices for the first quarter of 2014 edged marginally lower – down to US\$117 a tonne (compared with US\$119 a tonne for Q4 2014). Across the second half of the year, contract prices have held up at comparatively high levels – compared with the indicative level suggested by the lower spot price, with consumers likely to be paying a slight premium to ensure supply.
- The ongoing stability in metallurgical coal prices is evident of a well balanced market. In response to falling prices across the first half of the year, higher-cost producers – the bulk in North America – implemented production cuts. Bloomberg Intelligence estimates that around 20 million tonnes of annual capacity was removed from the market from the start of the second quarter.
- The cutbacks have impacted the balance of global trade. While Australian exports grew strongly in 2014 – contributing to the downward pressure on prices – exports from the United States fell by 5.8% yoy and Canada by 9.7% yoy in the first nine months of the year.
- A key contributor to the softening in prices has been the weak import conditions in China. In 2014 China imported a total of 62 million tonnes, a year-on-year decline of 17%. While the availability of domestic metallurgical coal has improved – due to large scale rail infrastructure projects – domestic producers have struggled for profitability as well.
- Sustained production cuts (reflecting the poor profitability conditions for producers that could drive out higher cost mines) are expected to support a modest (but limited) recovery in metallurgical coal prices. Prices are expected to trend marginally higher across 2015, to US\$125 a tonne by the end of the year.

The metallurgical coal spot price has tracked sideways since March 2014



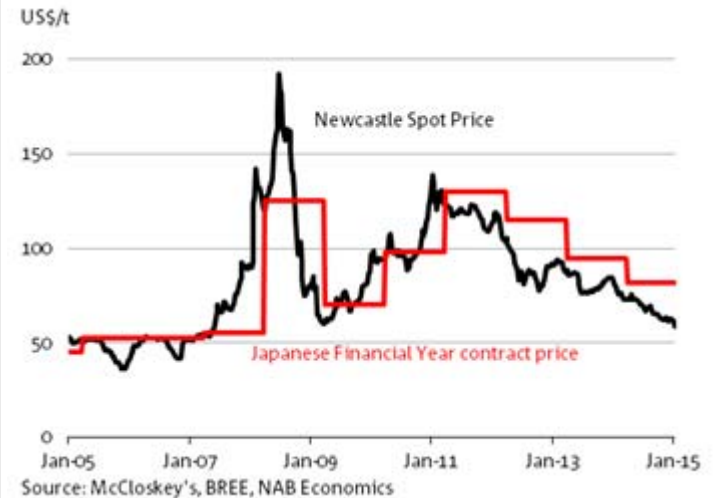
Weak Chinese imports have contributed to the soft market conditions



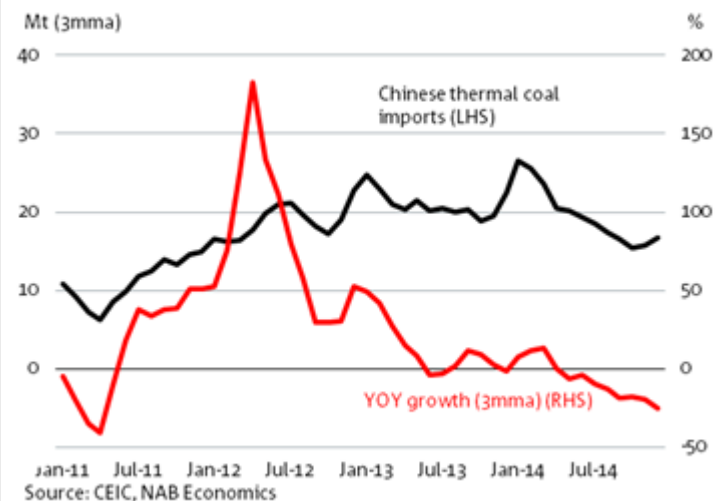
Thermal coal

- Spot prices for thermal coal have continued to drift lower. In mid January, prices at Newcastle dropped below US\$60 a tonne – the lowest level since June 2007 – before recovering slightly in February. Chinese domestic prices have remained stronger – meaning that the arbitrage between domestic and imported prices has widened to its largest level since mid-2012.
- China's imports of thermal coal slowed considerably in 2014. For the full year, imports totalled 229 million tonnes, around 9% lower than 2013. Lower imports appear to be in line with weaker demand – rather than stronger domestic supply. Data from the China National Coal Association suggests that domestic output was down around 2.1% yoy over the first eleven months of the year – indicating weaker apparent consumption.
- This trend was evident in China's electricity sector. Overall electricity generation rose by 3.2% in 2014 (the slowest rate of growth since 1998), however generation from thermal sources (primarily coal and natural gas, representing around 77% of total generation) fell by 0.4%. In contrast, there was strong growth in hydroelectric (18%) and nuclear generation (19%).
- Outside China, Japanese imports of coal were also weaker in 2014. Total coal imports (comprising both thermal and metallurgical coal) fell by 1.7% last year, to total 188 million tonnes. Japanese demand for thermal coal could fall further in 2015, with plans to restart nuclear generation.
- Profitability has become a growing issue for producers over the past two years as prices have fallen. According to data from China's National Bureau of Statistics, the country's coal mining industry saw profits fall by 46% in 2014 (having already fallen 38% in 2013).
- After plunging to seven year lows, there has been a minor rally in spot thermal coal prices. Negotiations for the Japanese financial year contract are likely to be protracted. These contracts typically settle at a premium to prevailing spot prices, meaning that for now our forecast is unchanged at US\$72.50 a tonne – however the risks are weighted to the downside.

Spot prices for thermal coal have continued to slide, with the market still oversupplied



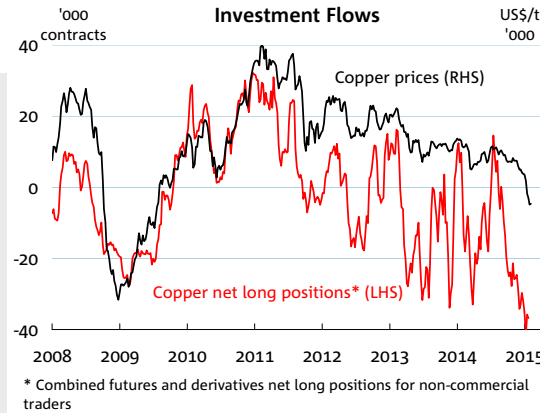
China's thermal coal imports fell away across 2014, on weaker consumption trends



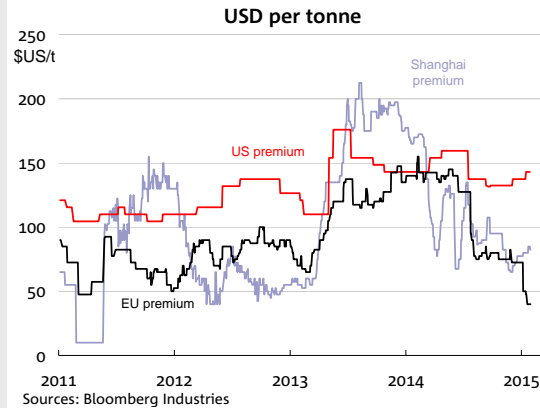
Base metals: Copper

- Copper prices continued declining into 2015. Average prices fell sharply in January, around 9.1% lower than December and down 20% yoy. Spot prices (at time of writing) of US\$5,670 per tonne are around 11% lower than that seen at the end of 2014.
- A rising USD, lower oil prices and a softening Chinese economy are keeping demand and copper prices depressed. Global economic growth outside of the US is also looking patchy. Given the lack of demand growth, traders continue betting on further declines of copper prices, contributing to the headwinds; non-commercial net long positions fell sharply in January. The recent drop in oil prices has exacerbated the situation, steering demand away from base metals towards safe haven assets.
- Data suggests ample supply in the market. While the International Copper Study Group reported a return to deficit in October 2014, soft global copper demand ex US and higher Chinese refined copper production has seen inventories increase sharply at major exchanges. Nevertheless, some upturn in local market premiums recently suggests some tightness may be returning.
- Refined production has risen steadily due to higher TC/RCs and rising concentrate supply. In 2015, copper supply will remain elevated by new and expanded projects. However, the potential for supply disruptions is significant. There has been some minor supply response to lower prices .
- Given the soft demand outlook, the consensus view is for a surplus copper market in 2015. This will further encourage buyers to remain on the sidelines. However, low oil prices and global stimulus measures could see demand (and prices) improve later in the year. Similarly, opportunistic restocking by China's SRB and potential supply disruptions are an upside risk.

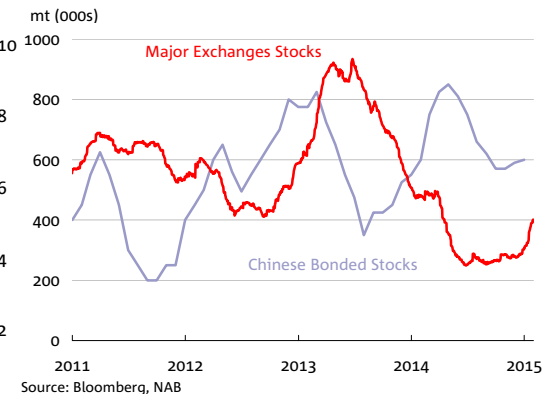
Copper Prices & Investment



Copper Premiums



Chinese Copper Bonded Stocks



Refined copper production

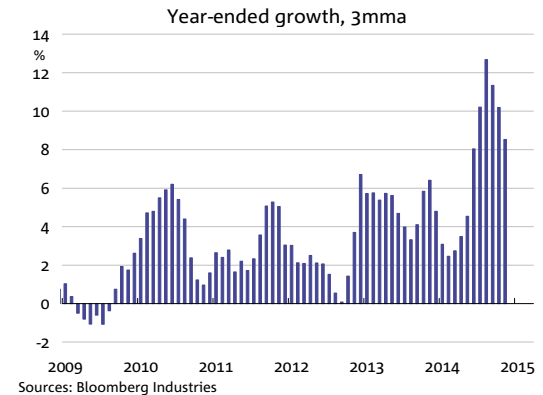


Table 1: Base Metal Prices*

Base Metal Prices			
	Avg Price (US\$/tonne)	Monthly % change	Jan-14 - Jan-15
	Jan-15	Jan-15	% change
Aluminium	1815	-4.6	5
Copper	5855	-9.1	-20
Lead	1843	-4.5	-14
Nickel	14859	-6.6	5
Zinc	2116	-2.7	4
Base Metals Index		-6.5	-8

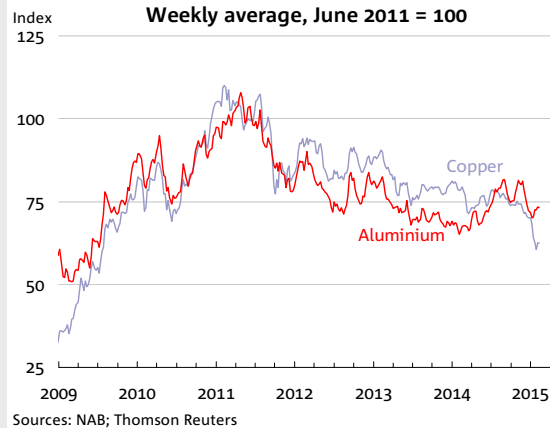
* Prices on an LME cash basis.

Sources: LME; NAB

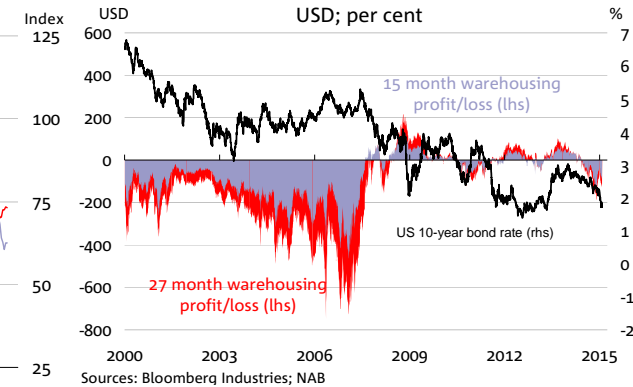
Base metals: Aluminium

- Despite holding on to some of the gains seen over the past year, aluminium did not manage to escape the rout seen across the base metals complex since the start of the year. The average spot price declined 4.6% in January, but is still 5% higher than a year ago.
- Aluminium enjoyed a much better year in 2014 in terms of prices as greater supply discipline and earlier de-stocking by consumers helped to support the market. However, while the ex-China market remains in deficit – keeping premiums elevated – fundamentals have deteriorated lately on the back of shifting regional balances caused by competitively priced exports and stock liquidations.
- This is particularly apparent in Europe where supply has been supported by increased exports out of Russia and the Middle East, as well as more aluminium product exports out of China. At the same time, very soft economic conditions are keeping demand muted. Consequently, premiums have started to drift down from their peaks.
- In 2015, China is set to add to over 90% of the world's new aluminium capacity. New projects in the north-western region of Xinjiang will have access to captive coal mines and power plants with significantly lower electricity costs, putting downward pressure on domestic prices.
- Consequently, improved availability of primary and secondary aluminium should help to alleviate market pressures, although an improvement in global demand later in the year could see spot prices rally.

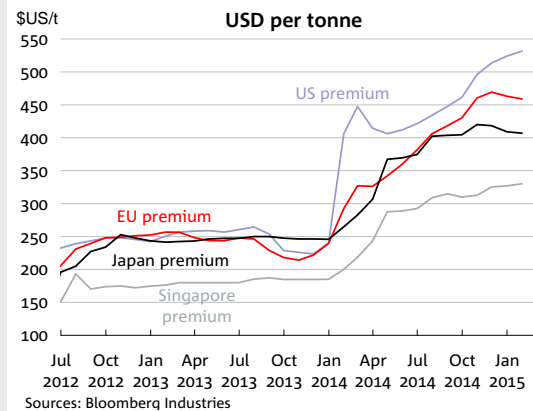
Copper & Aluminium Price (LME)



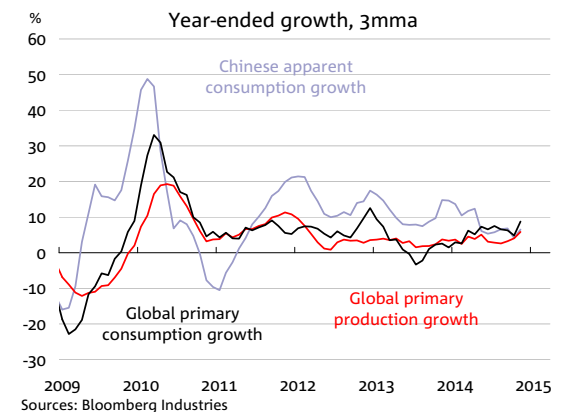
Aluminium Warehouse Incentives



Aluminium Premiums



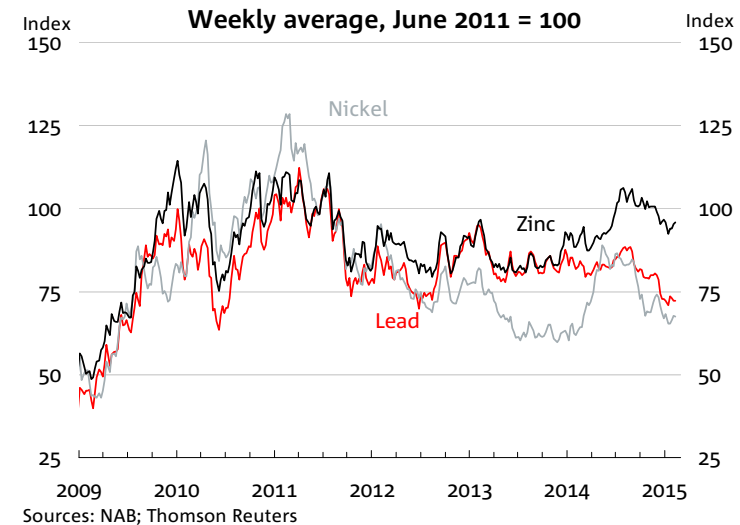
Aluminium Production & Consumption



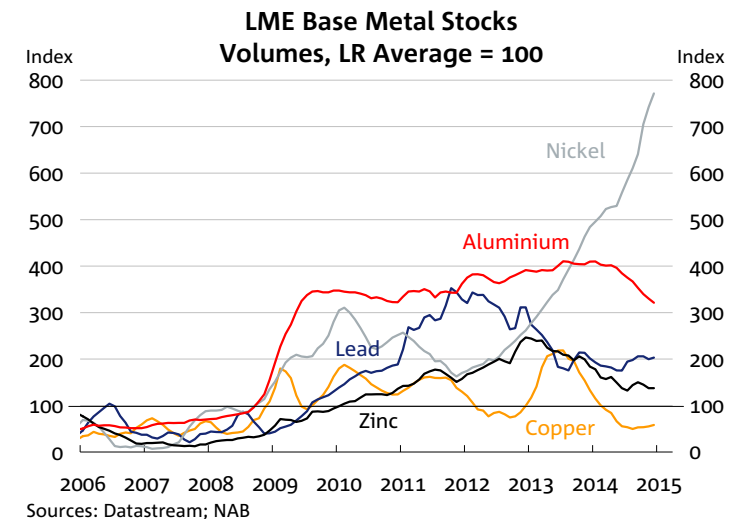
Base Metals: Nickel, Lead, Zinc

- Nickel prices have retraced most of the gains that followed the introduction of Indonesia's exports ban back in early 2014. The anticipated undersupply did not materialise as expected and growing global demand concerns are only fuelling the market headwinds. Nevertheless, the market remains poised on the edge of a shift in fundamentals that should bring considerable support to prices. In January, prices were down 6.6% month-on-month, to be only 5% higher than a year ago. A combination of soft demand and adequate supply has seen LME inventories lift to record highs. However, a depletion of higher quality ore stocks means that the increased reliance on lower grade ore (largely sourced from the Philippines over 2014) will soon reach its limits – lower-grade material needs to be blended with high-grade ore for use in NPI (nickel pig iron) production. Greater scarcity should see ore prices start to lift, weighing on NPI production – forcing steel producers to find new nickel supply. This adjustment may be exacerbated by any monsoon-related supply disruptions of low-grade ore from the Philippines through February. The timing for when high-grade ore will be sufficiently depleted is difficult to pick, but is expected to take place in the second half of the year.
- The zinc market was in deficit last year, although Bloomberg data suggest increased output from China helped to ease conditions late in the year. Nevertheless, relative market tightness remains evident in zinc stocks, with both LME and SHFE inventories drawing down noticeably in Q4 2014 and into the start of the year. However, zinc prices followed other base metals lower in January, although the decline was more contained than the rest of the complex. Average prices dipped 2.7% lower in January, but are still up 4% over the year. Supply side conditions will remain supportive this year with large mine closures still expected. On the demand side, there are good reasons to be cautious on Chinese demand given the trends in economic indicators, although galvanised steel production in China has continued to hit new highs – consistent with solid trends in Chinese automobile production and sales.
- Lead prices also dropped in January, falling around 4.5% on average (down 14% over the year). Fundamentals became somewhat less balanced during 2014, with the market moving back into surplus around mid year. However, later in the year the market looked to be more balanced, supported by solid demand from the US and Chinese auto industry – for use in new vehicle battery demand; ILZSG report a market deficit for October/November. Consistent with its sister metal, zinc, tighter supply suggests some upside potential prices later in the year, although the demand outlook is uncertain.

Nickel, Lead, Zinc Prices (LME)



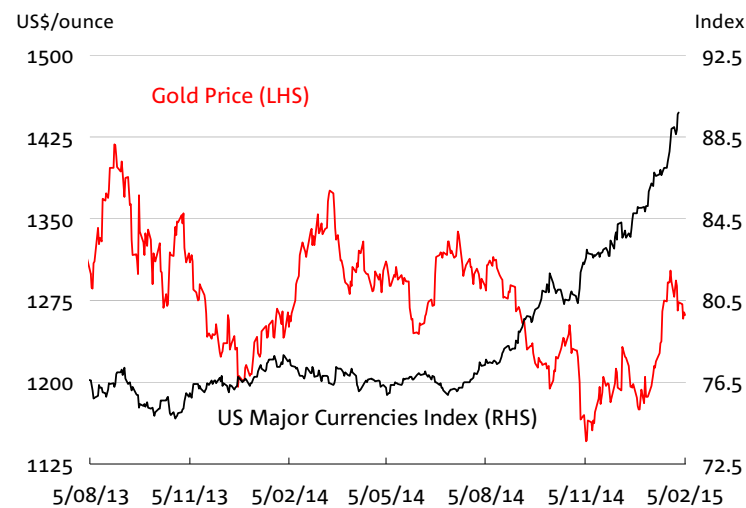
LME Base Metal Stocks



Gold Market

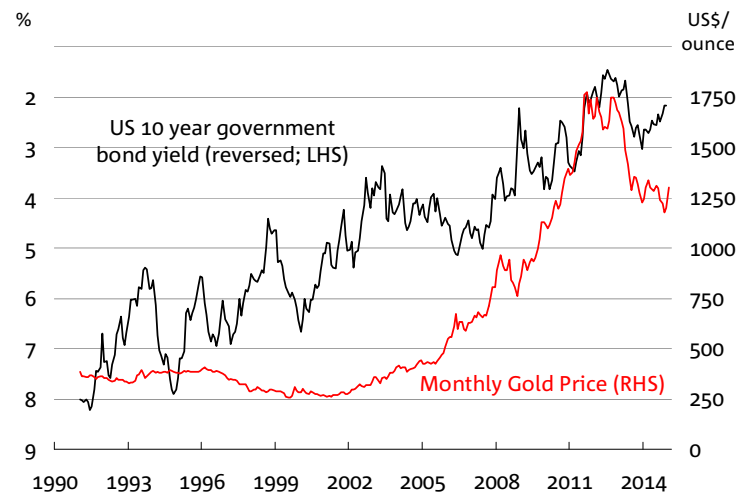
- Since November last year, spot gold prices started to embark on an upward trajectory after being entrenched in a bear cycle for close to eight months. This was mainly driven by mounting concerns about slowing global economic activity that helped fuel demand for safe haven assets.
- Sharp corrections in oil prices against a backdrop of weakening global demand (notwithstanding a steadily improving US economy) form the basis of a highly volatile global financial market, which precipitated a series of expansionary monetary policy changes by central banks around the world, some of which were not anticipated by financial markets and had a boosting effect on gold prices. The general elections win by the anti-austerity party of Syriza in Greece in late January introduced further risks of instability in the Euro zone already plagued by recessionary pressures.
- In November, People's Bank of China unexpectedly cut its benchmark interest rate by 40 basis points to 5.6%, followed by a more recent reduction in its liquidity reserves ratio last week. Gold prices also reacted positively to a surprise move by the Swiss National Bank to abandon its target exchange rate for the franc to the euro in mid-January. This was eventually followed by rate cuts in Canada, Australia and Denmark.
- Furthermore, official purchases remain resilient, with central banks in countries like Russia, India, China and Kazakhstan choosing to diversify their foreign exchange reserves portfolio so as to minimise further depreciation risks against the USD.
- Conversely, persistently low inflationary pressures/expectations are limiting demand for gold as an inflation hedge, and strong economic data emerging from the US which lead to firming expectations of an interest rate hike by the US Fed later this year also limit the prospects for a stronger rally in gold prices. The average gold price rose around 4% in January to average around USD1251/ounce, to be the highest since August 2014.

Gold & USD Index



Source: Thomson Datastream

Gold Price & US Treasury Yield



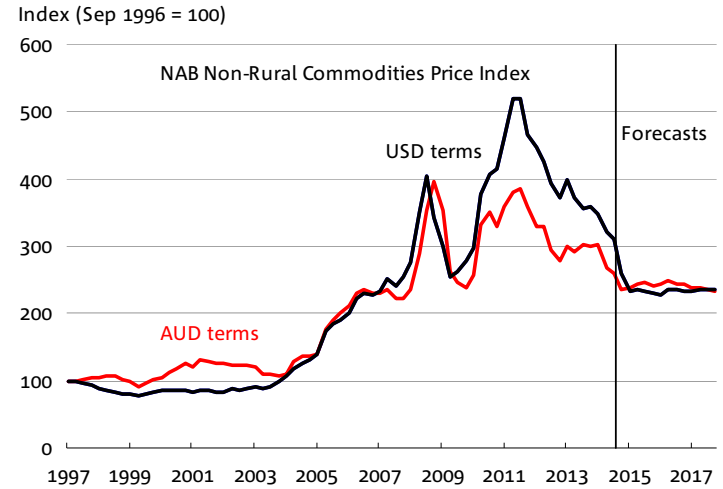
Sources: Bloomberg; Thomson Datastream; NAB

Outlook

- NAB's non-rural commodity price index is expected to fall a further 10% quarter-on-quarter in March (in US dollar terms) – following a 16% decline in December. Over the past twelve months, declines in the iron ore price – Australia's largest commodity export – have been a major driver of the index.
- In annual average terms, US dollar denominated non-rural commodity prices are expected to fall more than 20% in 2015, before stabilising in 2016. Once again, iron ore is the main contributor.
- In Australian dollar terms, commodity prices declines are slightly less substantial. After falling around 10% in 2014 and 9% in 2015 (in average terms), prices should rise around 1% in 2016 – the slightly more moderate rate of decline is a reflection of expected depreciation of the Australian dollar as the US monetary policy normalises.

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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						
		11-02-2015	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16
WTI oil	US\$/bbl	50	73	47	49	54	60	63	65	68	70
Brent oil	US\$/bbl	56.7	76	51	54	58	63	66	68	70	72
Singapore gasoil	AUc/litre	0.58	0.58	0.52	0.55	0.59	0.62	0.64	0.67	0.68	0.70
Tapis oil	US\$/bbl	56	79	53	55	60	65	68	70	72	75
Gold	US\$/ounce	1234	1200	1250	1220	1180	1120	1060	1060	1060	1060
Iron ore (spot)	US\$/tonne	62	74	66	71	69	67	65	69	67	65
Hard coking coal*	US\$/tonne	n.a.	119	117	118	122	125	131	138	144	150
Semi-soft coal*	US\$/tonne	n.a.	85	83	84	87	89	94	98	103	107
Thermal coal*	US\$/tonne	63	82	82	73	73	73	73	70	70	70
Aluminium	US\$/tonne	1856	1968	1850	1890	1900	1910	1940	1980	2020	2060
Copper	US\$/tonne	5670	6630	5770	5830	6000	6180	6150	6120	6090	6090
Lead	US\$/tonne	1839	1998	1880	1890	1930	1970	2010	2020	2040	2050
Nickel	US\$/tonne	15179	15840	14890	15490	16410	17400	18100	18820	19570	20350
Zinc	US\$/tonne	2153	2234	2120	2130	2180	2220	2260	2280	2290	2300
Henry Hub	US\$/mmbtu	2.63	3.74	3.00	3.00	3.50	3.80	3.80	3.80	3.80	3.80
Japan LNG**	US\$/mmbtu	n.a.	14.62	11.00	11.00	11.00	11.00	12.00	12.00	12.00	12.00

* 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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