Commodity Update – Minerals and Energy

National Australia Bank

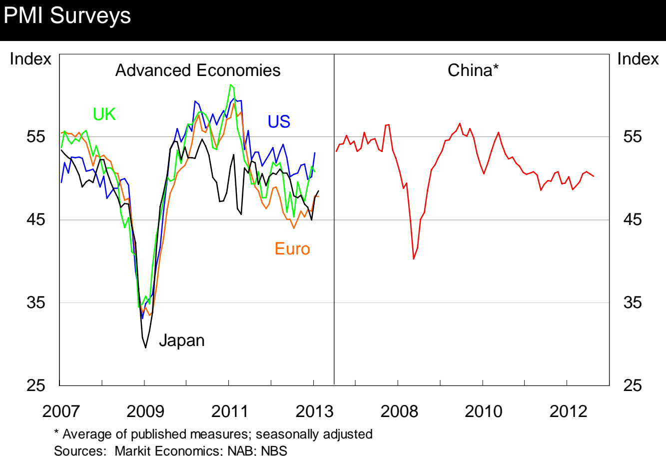
- **Once again, movements in commodity prices have been dominated by events in China and growing speculation over the timed withdrawal of QE stimulus by the US Fed. With market participants on the sidelines throughout most of February due to many of the Asian economies celebrating the Lunar New Year, prices of most of the commodities were relatively steady over the first half of the month, although most industrial commodities prices have pulled back a little more recently.**
- **Iron ore prices have remained somewhat more resilient than expected, remaining above $150 per tonne, although some of the support has come from concerns over supply disruptions. Temporary factors underlying the price rally should soon work out of the market causing prices to steadily ease over coming months.**
- **With improving economic conditions causing a shift in asset holding preferences towards riskier assets and away from gold, the price of gold has experienced its longest run of monthly consecutive price falls in 16 years.**
- **Concerns over the likely impact the recently imposed 'sequester' will have on the US economy as well as future impacts of fiscal resolutions will continue to influence markets over coming months. Other factors, some of which are temporary in nature (eg. cold weather, floods and cyclones), are likely to boost near-term prices. In the medium to longer term, however, prices in most markets will generally ease as production begins to ramp up.**

Monthly Commodity Prices

Current global economic conditions are looking OK amid increased optimism that has infiltrated financial markets over recent months. Encouraging signs are emerging out of the US, with manufacturing activity continuing to expand, housing activity strengthening and jobless claims falling. While data confirm that conditions are still recessionary in Europe, there are signs that Germany, Europe's biggest economy, is recovering. Activity also appears to be improving in China, although news out of Asia has been relatively limited (and difficult to interpret due to inconsistent seasonal patterns) over the past month or so with much of the region winding down for Lunar New Year celebrations.

The recent release of PMI indicators for the major economies suggest that manufacturing activity has generally strengthened into the New Year. The US ISM PMI indicated that manufacturing activity expanded at its highest level since June 2011 in February. China's PMIs in February were softer, opening up the prospect that growth may have eased a touch, though with the Lunar New Year in February that could have also distorted the readings lower. While PMI indicators in Japan and the Euro-zone remain poor, they have improved over the first two months of 2013. One positive for the Euro-zone is the recent recovery in Germany; German PMI indicators are strengthening and the unemployment rate unexpectedly fell in February. Reports on housing sectors have generally been positive, with US existing home sales rising by 0.4% in January complemented by a pick up in core durable goods orders, which are a positive indicator of future housing activity. Chinese property prices are also tracking higher, although authorities have indicated that they may extend trial property taxes and implement other measures to prevent a potential price bubble, which could take steam out of the construction sector. Nonetheless, auto sales outside of Europe have improved more recently, which is encouraging for base metals and energy prices.

PMI Surveys

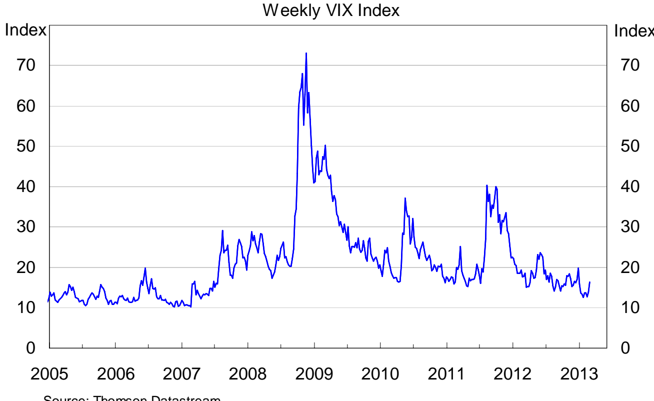


* Average of published measures; seasonally adjusted
Sources: Markit Economics; NAB; NBS

A significant area of uncertainty at present is the impact the recently imposed 'sequester' will have on the US economy. This sequestration will be spread out over the next decade with roughly $85 billion in cuts due to kick in during the first fiscal year. It is our view that the impact of the sequester will be much smaller than the 'fiscal cliff' would have had on the US economy at the beginning of the year (had it not been resolved). Expectations around the possibility of QE being withdrawn have also increased more recently, but Bernanke at his recent Congressional testimony continued to sell the benefits of how QE has already supported the economy, and that the Fed can exit its QE smoothly. Indeed, we see QE continuing until at least the end of 2013. There remain fiscal issues to deal with, including the expiration of the continuing resolution (which authorises discretionary spending) in late March and the need to increase the debt limit (suspended until mid-May). If handled badly, either of these issues could cause a loss of confidence and damage the economy.

Consistent with concerns about US public debt as well as ongoing worries about the preservation of Euro-zone finances, market volatility has picked up a touch over the past week. Nonetheless, financial markets remain buoyant and sentiment is certainly better than it was at the end of 2012, which is keeping the overall level of the VIX index close to six year lows. The Bank of Japan is facing continuing Government pressure to shift toward easier money involving a higher inflation target and more asset buying to hold down interest rates, which should help to keep volatility out of financial markets.

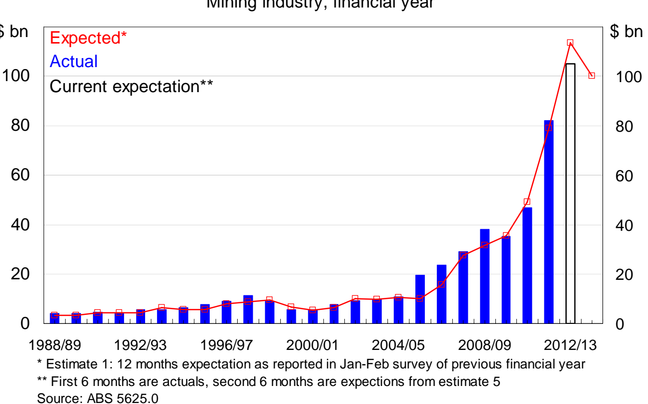
Market volatility has remained subdued



Source: Thomson Datastream

The latest ABS New Private Capital Expenditure Survey showed a pull back in total capital expenditure of 1.2% in the December quarter, reflecting declines in both buildings & structures (down 0.6%) and equipment, plant & machinery (down 2.3%). By industry, mining capital expenditure rose by 2.9% in the quarter, but this was more than offset by falls in spending in manufacturing and 'others' (down 2% and 7.5% respectively). Of particular interest in this survey was the first estimate of mining capital spending in mining for 2013-14. Using five year average realisation ratios, the December quarter survey implies that mining capex is expected to increase by 12.5% in 2012-13, which is lower than the 17.6% expected in the September quarter survey. The addition of December quarter actual data, combined with short-term expectations for the March and June quarters implies that the September quarter expectation for mining capex in 2012-13 was overly optimistic (see Graph). Overall, this outcome suggests that mining investment will remain reasonably buoyant in 2013-14, but the numbers look superficially positive and mask considerable downside risk.

Capital survey year-ahead expectations and actuals



* Estimate 1: 12 months expectation as reported in Jan-Feb survey of previous financial year
** First 6 months are actuals, second 6 months are expections from estimate 5
Source: ABS 5625.0

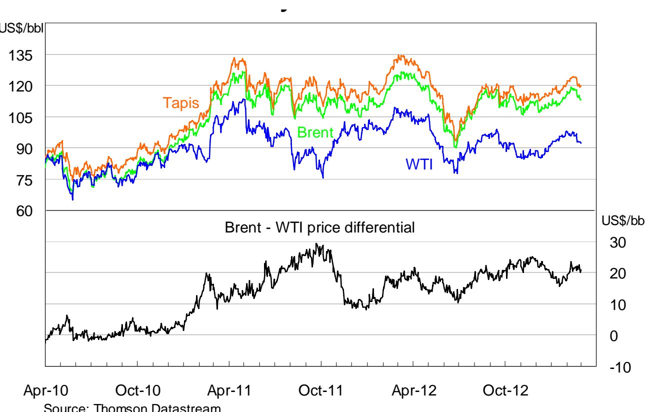
With market participants on the sidelines throughout most of February due to many of the Asian economies celebrating the Lunar New Year, prices of most of the commodities were relatively steady over the first half of the month, holding onto gains in the preceding month or so. More recently, there has been a slight pull back in prices of the base metals and iron ore, but prices generally remain elevated compared to levels at the end of last year. Coking and thermal coal prices generally edged higher, but remain relatively low compared to history. Weather related factors causing supply disruptions in some regions are expected to continue to influence prices of the bulk commodities in March. With improving economic conditions causing a shift in asset holding preferences towards riskier assets and away from gold, the price of gold has experienced its longest run of monthly consecutive price falls in 16 years.

Summary of Price Developments

Oil

Oil prices have generally strengthened over February, assisted by an improved outlook for the US and China, continued optimism in financial markets as well as colder temperatures in the Northern Hemisphere. The recent improvement in market sentiment has been particularly supportive for Brent and Tapis oil prices, which in early February rose to nine-month highs. Despite improved demand side conditions, WTI prices eased back through the remainder of February; the lack of pipeline capacity in the US Midwest to shift a surge in US oil production has caused a glut in WTI, which has weighed on prices more recently. As a result, the spread between WTI and global benchmarks has widened considerably (up from around US$16/bbl in mid January, to almost US$23/bbl currently). Over more recent days, worries about QE coming to an end in the US, plentiful supply combined with more bearish sentiment about the outlook for Europe in response to concerns arising from the partial election results in Italy, have lowered energy demand. Although strong US economic data for durable goods and home resales did provide a little added support to WTI prices at the end of last week. Currently, WTI prices ended February 2¾% below the average level over January, to be currently trading at around US$92/bbl, compared to an increase of between ½-1¼% for both Tapis (current price of US$120/bbl) and Brent prices (around $113/bbl). Overall prices continue to fluctuate on mixed economic data and persistent concerns over potential geopolitical and other supply risks.

Oil Prices – Daily nominal terms



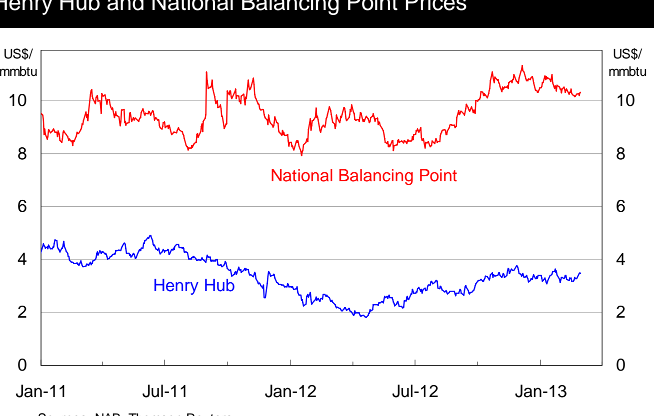
Source: Thomson Datastream

Market participants remain relatively optimistic about the outlook for oil prices, with technical and economic indicators pointing to more robust demand compared to last year. However, prices are generally expected to come off their current peaks, partly reflecting improved supply side factors, with stronger production from non-OPEC countries expected to more than offset reduced supply as a result of continued geopolitical tensions. The EIA estimates US total crude oil production to increase to 7.3 million barrels per day (bbl/d) in 2013, after averaging an estimated 6.4 million bbl/d in 2012. With a softer expected increase in consumption than last year, the EIA see prices fall to $109 per barrel in 2013, down from an average of $112 per barrel in 2012. Concerns over Europe appear to have eased, although problems in the region are still a long way from being resolved and fiscal austerity measures will continue to contribute to soft energy demand throughout 2013.

Natural Gas

Natural gas prices continue to be influenced by prevailing weather conditions. On average, Henry Hub prices have risen a little over the past month; after rising sharply from late December to mid January, prices fell back to more normal levels by mid February, but they subsequently recovered in the last week of the month. Henry Hub prices are currently trading at around 4% above January averages (current price is around US$3.48/mmBtu). Industry estimates suggest that a price of over US$3.50/mmBtu erodes the competitiveness of gas as a substitute for coal energy generation in the US. Natural gas prices in the UK have continued to ease over February, to currently be around 3% lower than the average price over January. Prices in the two key Asian import markets – Japan and Korea – for January have lifted, particularly Japanese prices, but both remain well below mid-2012 peaks.

Henry Hub and National Balancing Point Prices

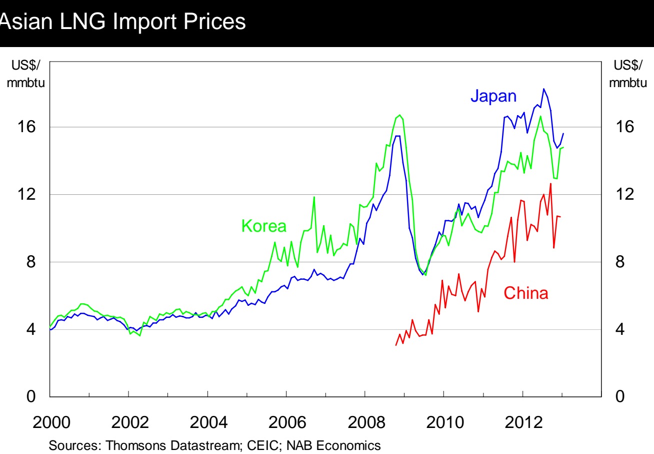


Sources: NAB; Thomson Reuters

In the week ended 14 February, Henry Hub prices eased a little due to warmer than average temperatures, according to a weekly report by the US Energy Information Administration (EIA). Heating degree-days in the US in the week ending 14 February were 7.8% below normal and 10% below average levels last year. Working natural gas in storage declined by 127 Bcf over the same period – the sixth straight week of draws greater than 100Bcf – although inventories were 361 Bcf (17.7%) greater than the 5-year average. More recently, prices have risen a little in response to colder than average temperatures, which increased natural gas demand and eased the bursting stockpiles of the home-heating fuel. Fundamentals for the US natural gas market have loosened a little, with high gas production running the risk of creating storage congestion. Prices will remain under pressure as the market will need to absorb the huge inventories that have been built up over the past year or so. In the near term, prices may moderate further, with traders selling gas futures on rising expectations that the coldest days of winter are now behind us.

Asian natural gas prices have risen modestly over January, reflecting the effect of increased demand in response to a much colder than normal winter, as well as the reliance of these regions on gas imports. LNG-receiving terminals in Japan are currently operating at full capacity in order to meet rising demand, while most of the country's nuclear power plants remain offline. Ministry of Finance data show that LNG imports rose by one percent over the year to January, to 8.2 million metric tonnes, which is the highest level ever. Prices of Japan's LNG imports remain the highest of the major markets, reflecting lingering impacts of the nuclear power plant disaster in 2011. The Japanese economy is expected to see a noticeable recovery over the medium term, with the new leadership looking to encourage growth. They are also prompting the BoJ to do the same by ramping up asset purchases and raising the inflation target. In February, the government of Japan announced that it is considering a multi billion dollar loan for projects to secure cheap natural gas. This move has been prompted by rising energy costs following the Fukushima disaster in 2011. Loan guarantees would make it possible for Japanese companies to invest into extraction projects in the US, Russia, Australian and Africa, which would lower the cost of deliveries when the production phase gets up and running. There is also the chance that the power costs may be lowered if the country's nuclear capacity is brought back online in coming years.

Asian LNG Import Prices



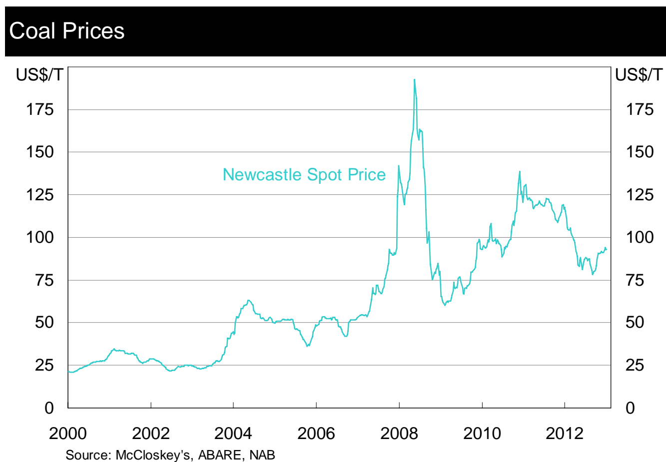
Sources: Thomsons Datastream; CEIC; NAB Economics

Prices of natural gas in the Korean gas market, like many of the Asian markets, are linked to oil prices, meaning that gas prices are much less competitive than they could otherwise be if they instead reflected local gas demand and supply fundamentals. Higher oil prices over January/February may contribute to further strength in gas prices, although in the longer term it is expected that pricing contracts may be less closely pegged to fluctuations in oil prices as they are currently. Also expected to lift prices in the near term is the South Korean Ministry's decision to lift domestic rates of gas by 4.4% on average from 22 February – the first price increase since June 2012. According to the Ministry of Knowledge Economy, the decision to increase prices is aimed at improving the local gas provider's financial health and to support a stable supply of gas into the country.

Coal

The Lunar New Year in February kept activity in bulk commodity markets relatively quiet for much of the month as Chinese buyers remained on the sidelines. The subsequent return of Chinese buyers saw an initial surge in prices, but it appears as though demand may not be enough to sustain the gains – even with the threat of adverse weather conditions.

Coal Prices

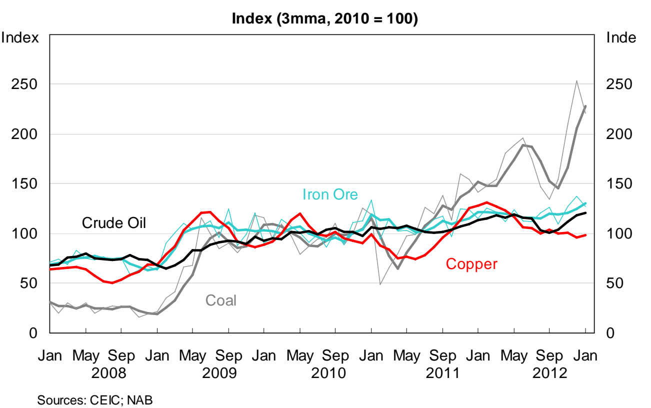


Source: McCloskey's, ABARE, NAB

The price of thermal coal has remained above US$90 per tonne (Newcastle FOB) since early December, recovering from a low of US$78 per tonne in mid October. The average spot price of thermal coal shipped from Newcastle (FOB) in January rose 2% in February, the fourth consecutive month of price rises. This is

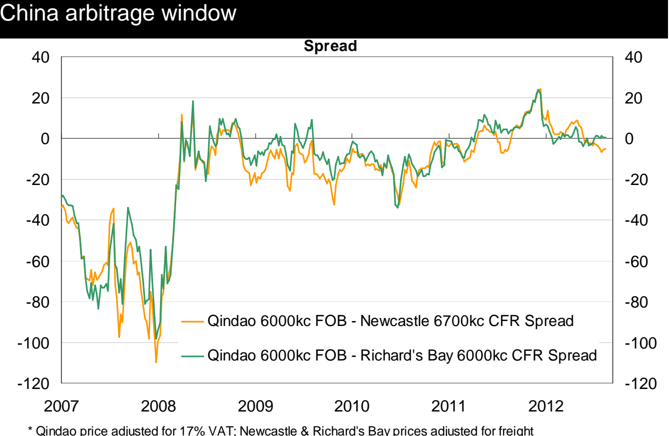
consistent with the solid rise in coal shipments to China since late last year – China's thermal coal imports were up almost 70% y-o-y to January (although January numbers are inflated by LNY effects). Looking forward however, China's import demand may come under pressure now that higher prices have caused the arbitrage window to close. Recent reforms to China's resource markets may work to keep the arbitrage window closed by putting downward pressure on domestic spot prices, although the reforms will also help to drive out high cost producers, simultaneously raising demand for lower cost seaborne coal. The reforms have encouraged bumper coal contracts among China's coal and electricity companies, which have signed up for a total of 1,870Mt of thermal coal for 2013; 56% higher than the previous year. However, high coal inventory from coal producers and coal price uncertainty for electricity companies may also be driving the increase.

China Commodity Import Volumes



Sources: CEIC; NAB

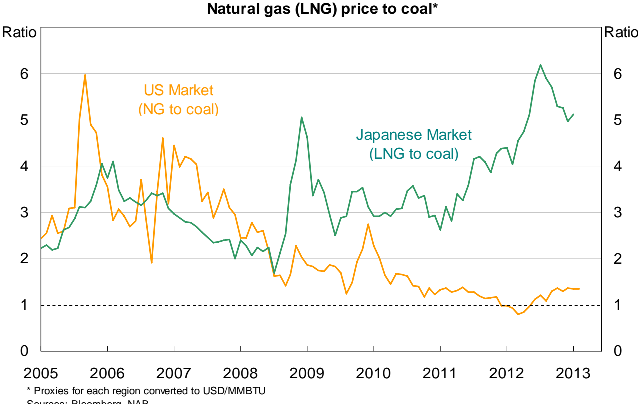
China arbitrage window



* Qindao price adjusted for 17% VAT; Newcastle & Richard's Bay prices adjusted for freight
Sources: McCloskey; Bloomberg Industries

Coal prices have not rallied as much as iron ore prices have since the end of last year, but they have managed to gradually tick higher due to the cutting back of marginal production by mining companies. Supplies have also been disrupted by bad weather on Australia's east coast and from the Currejon mining venture in Columbia due to industrial action – marred by an attack on four mining trucks using explosives. 5000 workers walked of the job on February 7 and the company report that the strike is costing $US3 million per day. Nevertheless, coal supplies remain plentiful which is limiting the degree of upside to prices, and will continue to do so over the medium-term. China's cold winter (contributing to heating needs) and strengthening manufacturing production has bolstered demand for thermal power generation and helped cap the build-up of thermal coal stockpiles. European demand has also improved early this year due to a shift back to thermal power generation in response to a more elevated price for natural gas.

China Commodity Import Volumes

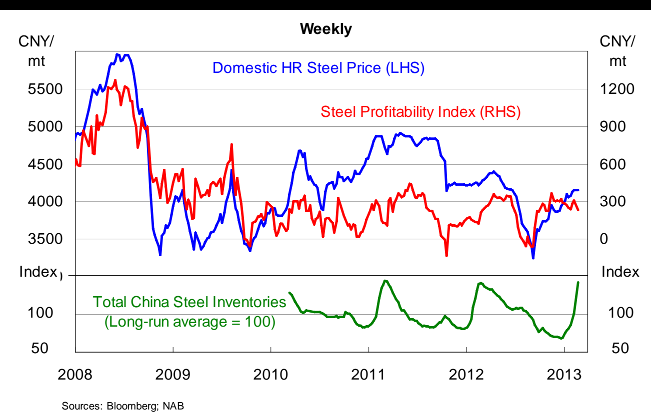


* Proxies for each region converted to USD/MMBTU
Sources: Bloomberg, NAB

Despite recent improvements in the spot price to US$93 per tonne FOB, this is still well below the JFY negotiated contract price of US$115 per tonne FoB, as well as the negotiated annual October contract price of US$97 per tonne (FOB) between Xstrata and Japanese utilities. This suggests that there may be some downside risk to our expectation of US$100 per tonne for next JFY (expected to be negotiated in the first week of March), although Japanese utilities normally pay a premium to the spot for prime coal. A potential headwind to thermal prices is the recent announcement by Chinese officials to cap national energy consumption. Authorities set the target growth rate of annual average consumption at 4.2% from 2011-2015; down from 6.6% between 2006 and 2010.

Both iron ore and coking coal are primarily used in the production of steel products so are driven by very similar fundamentals. Prices for both of these materials have received support since late last year from expectations for stronger growth in the Chinese and other emerging Asian economies. A pick-up in demand for motor vehicles (outside of Europe) and signs of more positive trends in US housing and manufacturing, has helped to improve the prospects for steel production. China's Iron and Steel Association report that daily steel production picked up noticeably in early February and ticked up to 2.006 million tonnes by mid-month. This follows a 2.9% rise in steel production for the month of January according to official statistics, although seasonal adjustments suggest a 1½% decline. Steel mills have increased production in response to higher steel prices and improving orders. However, with steel inventories rising significantly since the start of the year, there is a risk that production is outstripping demand. Nevertheless, Chinese rebar prices remain more than 5% above the average for December despite a recent decline – steel mill profitability has held up at reasonable levels despite higher input prices.

China's steel market conditions

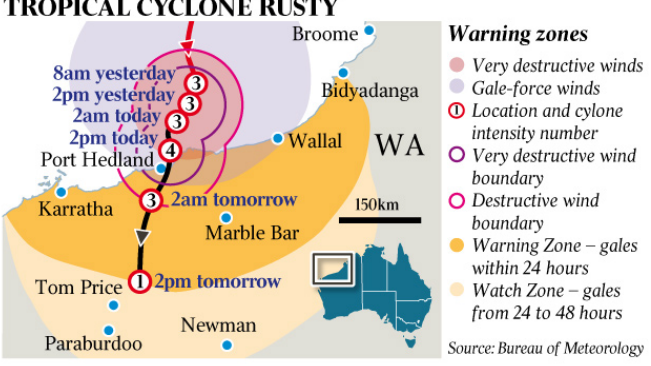


Sources: Bloomberg; NAB

The average spot price for premium Queensland hard coking coal was US$170 per tonne FOB in February, 4% higher in the month. Recent supply constraints from both Australia and Mongolia have helped to raise spot prices for Queensland coking coal (FOB) to around US$170 per tonne (FOB), above the contract price of US$165 per tonne (FOB) set for the March quarter. Demand conditions are expected to improve in the near term in line with continued spending on infrastructure in China and signs of a turnaround in the real estate sector, although the threat of additional curbs on real estate by Chinese authorities could create headwinds. Prices of coking coal are expected to gradually increase this year in response to supply curtailments and slightly stronger global steel production that is expected to outstrip new additions to mining capacity.

Iron Ore

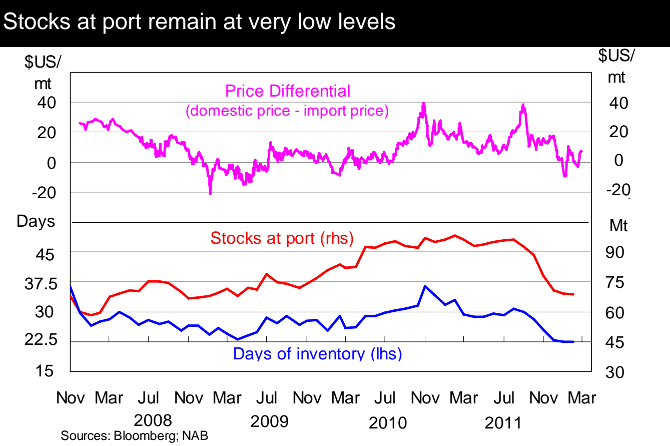
Port closures due to tropical cyclone Rusty



Source: Bureau of Meteorology; The Australian (Dated 28 Feb)

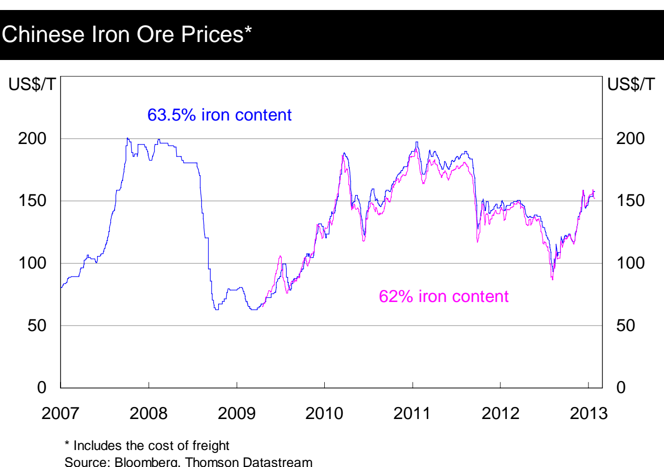
Iron ore prices have remained somewhat more resilient than expected, although some of the support has come from concerns over potential supply disruptions from tropical cyclone Rusty, which recently touched down close to Port Hedland (accounting for half of Australia's seaborne iron ore). While it may take some time to determine the extent of any long term damage from flooding, the backlog of shipments due to the closure of ports is expected to take weeks to work through. By comparison, the weaker storm system that passed the region in January – forcing the closure of three shipping terminals – contributed to a 15% decline in iron ore loaded for export at Port Hedland. However, that (milder) weather event saw iron ore prices rise by around 5% late in the month, while spot prices have actually declined 4½% from the post-LNY peak, suggesting that demand may now be easing despite the low volume of inventories currently held at Chinese ports.

Stocks at port remain at very low levels



The average price for iron ore (62%) is estimated to have been around US$142 per tonne FOB in February, up from an estimated US$138 per tonne in January. Iron ore prices rallied strongly late last year and into January 2013, but remained steady at elevated level as the market wound down for LNY. After reaching a peak of US$158.9 per tonne (CFR, Tianjin) in the days following LNY, prices have eased back a little but continue to fluctuate. The longevity of the recent price rally has been a little better than expected, but prices tend to ease after the first quarter of the year once steel mills conclude their restocking activities. Nonetheless, the sub index of the official Chinese PMI for the steel sector jumped to 58.9 in February, from 49.3 in January pointing to further upside potential, though some of this strength may have been exaggerated due to the Chinese New Year effect. Other temporary factors underlying the prices rally should soon work out of the market causing prices to steadily ease over coming months. In addition to weather disruptions, bans on Indian iron ore production and exports have been contributing to market tightness. This distortion to the market may persist for longer than previously thought as officials are expected to only allow a handful of iron ore mines to resume production over the next year. This suggests some additional upside risk to our price outlook.

Chinese Iron Ore Prices*

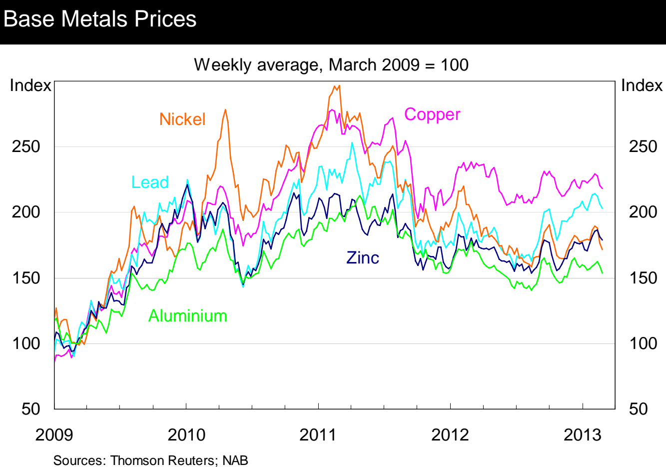


* Includes the cost of freight
Source: Bloomberg, Thomson Datastream

Base Metals

The base metals market continued to strengthening into the middle of February, riding the wave of financial market exuberance that has washed over markets since mid November. However, growing speculation that the US Fed will put an end to QE sooner than previously anticipated, which saw demand for metals decline over the second half of the month. Nonetheless, base metals prices over February remained higher than average prices over the December quarter.

Base Metals Prices



Sources: Thomson Reuters; NAB

The base metals market strengthened over the first half of February, largely reflecting an improved outlook for the macroeconomy, but early gains were washed away over the second half of the month. The seasonal impacts from the Chinese

Lunar New Year holiday have clouded demand side fundamentals over the past month or so making it difficult to interpret price movements. Looking through Chinese volatility, it appears that underwhelming data outcomes and various announcements by policy makers, especially the US Fed, have contributed to the recent retraction in prices. Data confirmed that activity in Europe contracted in the final quarter of 2012, implying a low starting point for the current year, prompting the EU to lower its growth outlook for 2013. Fed Chairman Ben Bernanke is also showing a greater willingness to start normalising monetary policy later this year, which appears to have prevented further price rises in the base metals market, while speculation that Chinese authorities may extend property taxes to try to prevent a housing bubble have also softened the outlook for metals demand. Aside from these speculations, the global macroeconomic outlook appears better than it was in the closing months of 2012, which should provide support to prices over the year ahead. However, this is largely expected to be offset by modest increases in base metals supply as production of most metals ramps up – perhaps with the exception of zinc, where some older mines are approaching the end of their lives, and aluminium, where mine closures have occurred in response to prices falling to unsustainably low levels.

In aggregate, base metals prices on the London Metal Exchange (LME) were marginally higher over February, after recording no growth over January, to be 5% lower over the year. A strengthening financial sector and improved outlook for activity in the US and China has lifted metals prices from their November lows. Despite prices fluctuating modestly throughout the quarter, on average prices were a little higher over February; zinc prices were 5% higher over the month, while aluminium, lead and nickel prices were around 1% higher and the price of copper was unchanged.

Base Metal Prices

	Avg Price (US$/tonne) Feb-13	Monthly % change Feb-13	Feb-12 - Feb-13 % change
Aluminium	2054	1	-7
Copper	8061	0	-5
Lead	2366	1	12
Nickel	17690	1	-13
Zinc	2129	5	3
Base Metals Index		1	-5

* Prices on an LME cash basis.

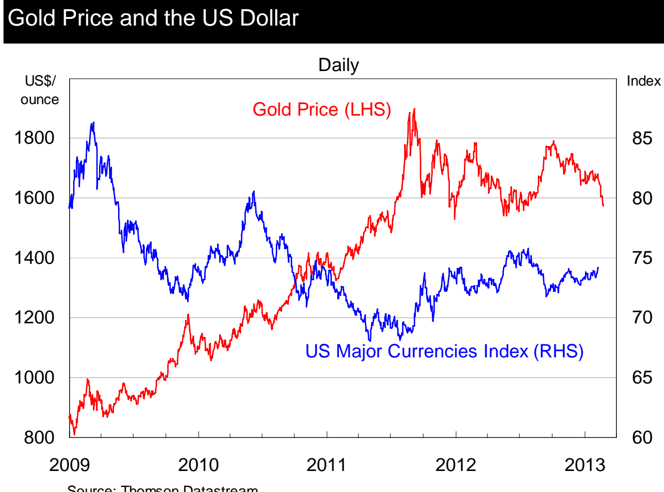
Sources: LME; NAB

Gold

Demand for gold continued to rise in the final quarter of 2012, with solid growth in jewellery and central bank demand more than offsetting moderate falls in demand for investment and technology. Indian gold demand strengthened considerably – particularly for jewellery – boosted by a strong upturn in Indian consumer sentiment, buoyant demand during the fourth quarter wedding season and stock building prior to the anticipated increase in import duties on gold (duties increased from 2% to 6% on 21 January 2013). Part of the strength in overall gold demand has been the building of gold reserves by central banks, particularly those in developing economies; Brazil, Russia and South Korea accounted for almost half of central bank demand in the quarter. Uncertainty in the direction of the gold price over the December quarter was evident in investor behaviour, with investor demand weakening. Furthermore, poor consumer sentiment in key markets saw demand for technology decline. The was particularly evident in the dental sector, which continues to lose market share to base metals and ceramic substitutes, while healthy demand for electronic tablets and smart phones outweighed a deterioration in demand for personal computers and ultrabooks. Combined with broadly unchanged supply over the quarter, still strong demand for gold kept the price of gold relatively elevated, with the price averaging around $1,718 per ounce in the quarter.

More recently, prices for gold have softened markedly, with the current price hovering around $1,580 per ounce. The softer price over February represented the fifth consecutive monthly decline, ending the worst performance since 1997. Driving factors of the recent price moderation have been the reduced reliance on safe-haven gold following a surge in global confidence, the recent rally in equity markets, which has encouraged investment back into equities, as well as the recent appreciation of the US major currencies index, which has increased the attractiveness of holding US currency based assets compared to gold.

Gold Price and the US Dollar



Source: Thomson Datastream

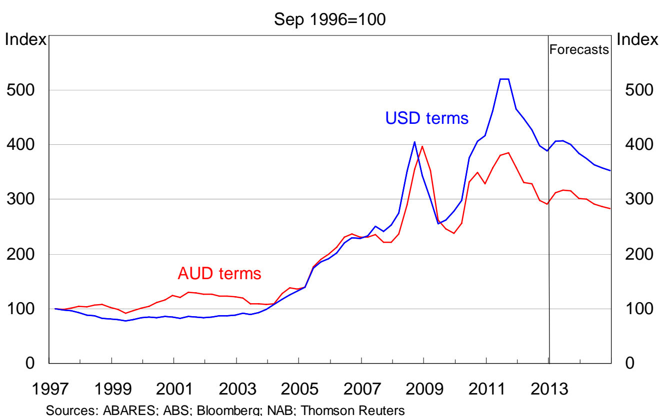
The near-term price of gold is not expected to rise much above its current level, so long as the recent bout of improved confidence is sustained and the rally in equity prices is reflective of fundamentals rather than purchasing by over-exuberant market participants. We expect central bank purchases by the emerging economies to provide continued support to prices over the remainder of the year as will continued strong consumer demand from India and China. However, these factors will be offset by gradually improving economic conditions, which will see investors become even more confident about the outlook for global growth, resulting in further diversification into riskier assets and away from gold. Demand from India is also expected to moderate as a result of the government's recent decision to increase the import duty on gold in order to reduce a record current account deficit. On the supply side, gold production is anticipated to increase solidly in the medium to longer term, which will place further downward pressure on prices. Overall, the price of gold is likely to be influenced by monetary policy and currency movements. We see the price of gold easing by around 12% through 2013, to be around US$1,510 per ounce by the end of the year, before easing an additional 10% through 2014.

Outlook

Once again, movements in commodity prices have been dominated by events in China and growing speculation over the timed withdrawal of QE stimulus by the US Fed. Asian economies were largely absent from commodities markets over the first half of February due to the Lunar New Year holiday, keeping price movements broadly steady. More recently, there have been indications that industrial activity has been mixed, which has seen prices become more volatile over the second half of the month. Nevertheless, expectations for industrial activity in the emerging Asian economies remain relatively upbeat. The US continues to experience a modest recovery. The US manufacturing sector has started to improve into the new year, the housing sector continues to strengthen, complemented by a recent pick up in core durable goods orders, while financial market sentiment has also become much more upbeat. Concerns over the likely impact the recently imposed 'sequester' will have on the US economy as well as

future impacts of fiscal resolutions remain at the fore, and will continue to influence markets over coming months. Other factors, some of which are temporary in nature (eg. cold weather, floods and cyclones), are likely to boost near-term prices and we have adjusted our near-term forecasts accordingly. In the medium to longer term, however, prices in most markets will generally ease as production begins to ramp up.

NAB Non-Rural Commodities Price Index



Sources: ABARES; ABS; Bloomberg; NAB; Thomson Reuters

In US dollar terms, the NAB non-rural commodity price index fell by almost 17% over 2012. We are expecting another slight decline of around 1¼% in 2013, before falling by a further 8% over 2014 (see Graph). Given our forecast for the AUD/USD over the remainder of the forecast horizon, AUD prices are expected to rise by 3¾% through the year to December 2013, before falling by around 6¼% over 2014. In aggregating the index, iron ore, thermal coal and metallurgical coal have a combined weight of around 55%.

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Glossary and handy stuff

bcf - *billion cubic feet*

mmBtu - *million metric British thermal units*

Quarterly Price Profile

Oil Price Forecasts – Quarterly Average

	Actual	Forecasts							
	Dec-12	*Mar 13*	*Jun 13*	*Sep 13*	*Dec 13*	*Mar 14*	*Jun 14*	*Sep 14*	*Dec 14*
Brent US$/bbl	110	113	114	116	117	118	118	120	121
WTI US$/bbl	88	94	96	102	105	106	107	109	110
Tapis US$/bbl	115	119	120	120	120	120	120	121	121
Petrol AUc/L*	135	139	149	147	147	143	141	139	138

Source: AAA, Datastream, NAB Economics

*Estimate as full quarter not yet available

Natural Gas Price Forecasts – Quarterly Average

	Actual	Forecasts							
US$/mmbtu	Dec-12	*Mar 13*	*Jun 13*	*Sep 13*	*Dec 13*	*Mar 14*	*Jun 14*	*Sep 14*	*Dec 14*
Henry Hub	3.40	3.30	3.50	3.75	3.95	4.10	4.15	4.25	4.35
Japan LNG	14.97	15.50	15.25	14.70	14.60	14.40	14.25	14.05	13.00
Brent Oil	110	113	114	116	117	118	118	120	121

Source: Datastream, CEIC, NAB Economics

Quarterly Contract Price Profile ($US/T)

	Actual	Forecasts							
	Dec-12	*Mar-13*	*Jun-13*	*Sep-13*	*Dec-13*	*Mar-14*	*Jun-14*	*Sep-14*	*Dec-14*
Iron Ore*	114	132	136	125	120	110	103	100	100
Hard Coking Coal	170	165	175	175	180	180	170	160	150
Semi-soft Coking Coal	117	110	115	115	120	120	115	105	100
Thermal Coal	115	115	100	100	100	100	95	95	95

Source: NAB

Base Metals Price Forecasts – Quarterly Average

	Actual	Forecasts							
US$/MT	Dec-12	*Mar-13*	*Jun-13*	*Sep-13*	*Dec-13*	*Mar-14*	*Jun-14*	*Sep-14*	*Dec-14*
Aluminium	1929	2040	2080	2100	2120	2120	2120	2120	2120
Copper	7729	8090	7920	7880	7880	7880	7880	7880	7880
Lead	1987	2360	2290	2300	2300	2300	2300	2300	2300
Nickel	16384	17570	17570	17620	17660	17700	17700	17700	17700
Zinc	1892	2070	2090	2070	2050	2050	2050	2050	2050
Base Metals Index	289	310	310	310	310	310	310	310	310

Sources: Thomson Reuters; NAB Economics

Gold Price Forecasts – Quarterly Average

	Actual	Forecasts							
	Dec 12	*Mar 13*	*Jun 13*	*Sep 13*	*Dec 13*	*Mar 14*	*Jun 14*	*Sep 14*	*Dec 14*
Gold - US$	1718	1630	1580	1540	1510	1470	1430	1400	1360
Gold - AU$	1654	1620	158	1560	1520	1510	1490	1470	1450

Sources: Thomson Datastream; NAB

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