

# Commodity Update – Minerals and Energy

## National Australia Bank

- **Commodity markets remain bearish following disappointing global economic data outcomes in the US, China, and Europe. However, weaker growth has increased expectations for policy stimulus.**
- **Bulk commodity prices have continued to ease in line with difficult conditions in global steel markets and increases in global supplies. End user demand for steel remains low, although a modest recovery during the course of the year remains a possibility. Expectations for supply to increase over coming years will see additional slack enter the market, providing headwinds to prices.**
- **Gold demand fell sharply in the first half of April on news of soft US inflation, slowing Chinese growth as well as fears that highly indebted European countries like Cyprus may resort to selling gold reserves. Prices partially recovered over the second half of the month, as purchases of gold coins and bars at mints across the globe surged following a 14% price tumble in two days in mid-April.**
- **Reflecting recent downside surprises, we have lowered our near-term forecasts for some commodities, but held on to our expectation of a modest recovery in demand conditions over the forecast horizon. Nevertheless, concerns over declining growth activity in the US, Europe, and emerging markets will linger for some time, adding to market volatility. Overall, prices in most markets will generally ease in the current demand environment as production begins to ramp up.**

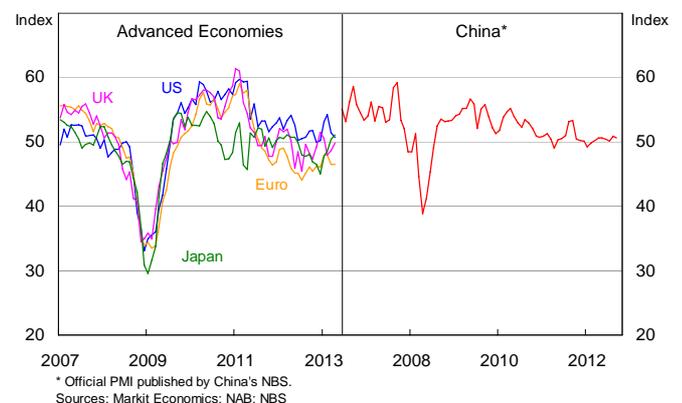
## Monthly Commodity Prices

Global economic indicators over the last month have been relatively disappointing, with GDPs of major economies coming in below expectations. Conditions in emerging markets – a major driver of commodity demand in recent years – look mixed, as opposed to the clear-cut acceleration in demand that was expected to materialise this year. Although the recent string of disappointing economic data has weighed heavily on prices of most commodities, declines have been limited as a result of market expectations for ongoing policy stimulus in developed economies.

Nevertheless, attention appears to have shifted slightly away from financial market jitters – particularly surrounding Europe – and more towards the disappointment surrounding a lack of traction in the global economic recovery. Of most significance to industrial commodities has been the apparent deterioration in industrial activity. The US ISM Manufacturing PMI revealed the weakest manufacturing of the year in April, at 50.7, even though production and new orders picked up. The Official Chinese PMI was slightly below expectations in April, falling to 50.6, down from an 11 month high of 50.9 in March. The fall was driven by lower levels of new export orders. The Euro-zone continues to see contractions in its manufacturing sector, with Markit's Flash

Eurozone Manufacturing PMI falling to a four month low of 46.8 in April. In contrast, PMI indicators for Japan improved. The Japanese Markit/JMMA Japan PMI climbed to 51.1 in April, up from 50.4 in March, driven mainly by growing export volumes as a result of a weaker Yen.

### PMI Surveys



In response to some of the softer economic outcomes, we have revised down our growth expectations for some key commodity consuming economies. US GDP for 2013 is now forecast to grow by 2.1% (was 2.4%), although there is still a large amount of uncertainty surrounding the outlook, including the lingering issue of the government's debt ceiling. The US Treasury declined to release detailed figures that shed light on how long the US government can stay within the debt limit once it resets in mid-May. This leaves much uncertainty on future tax levels and timing of receipts and payments. On a more positive note, weekly initial jobless claims continue to trend down indicating further job growth while the housing market continues to improve.

The Euro-zone economy remains weak with the unemployment rate rising to a fresh high of 12.1% in March. Inflation had slowed faster than expectations to the lowest in three years, prompting the European Central Bank (ECB) to cut its interest rate for the first time in 10 months, to record low 0.50%, in a bid to revive its economy. In the face of lower than expected inflation, the ECB may move to introduce further policy tools beyond interest rates to prevent further falls in inflation. The IMF has urged European governments and the U.K. in particular to reconsider their austerity approach in favour of policies that would promote growth – and commodity demand.

As for Asia, demand conditions have been relatively mixed across the region. Japan has turned more positive, suggesting that the economy may have bottomed out. The economy appears to be seeing some of the benefits from monetary stimulus and currency appreciation – the BoJ has pledged to inject USD\$1.4 trillion into the economy by end-2014. Exports and industrial activity have picked up and unemployment rates improved. Momentum from the stimulus is likely to build up in the second half of this year as public and capital spending increases and exports grow as a result of a weaker Yen. However, a weaker Yen may have negative impacts on competing economies within Asia

(particularly Korea, Taiwan, and to a lesser extent China), some of which have already exhibited softer activity over recent months.

Chinese GDP in the March quarter was well below expectations; real GDP growth eased to 7.7% yoy – down from 7.9% in the previous quarter. While rapid credit growth and a delay in investment projects point to some acceleration in growth later in the year, authorities appear more willing to sacrifice near-term growth for a more balanced economy. However, subdued price inflation provides authorities with scope to stimulate if necessary. Nevertheless, concerns over overcapacity – particularly in heavy industries (eg. steel, cement etc) – could potentially cap the impact of government stimulus while adding to the already rapid accumulation of debt (including that held by local governments) in the economy. The government's clamp down on asset bubbles – most notably in real estate – will also be an ongoing theme for the economy and commodity markets. Finally, negative impacts of the recent depreciation of the Yen could reduce China's export recovery.

Overall, the string of relatively downbeat economic news has had a negative impact on most commodity prices, pushing prices lower in April. Price gains recorded by many commodities since late last year have largely been unwound as demand faltered and buyers became more uncertain. Metals prices have come under significant selling pressure of late, and most base metals are expected to be in surplus this year as softer demand growth fails to offset additional supply. Bulk commodity prices have eased recently, although iron ore prices remain relatively resilient in the face of uncertain steel demand. Energy prices have also eased on prospects of weaker than expected demand, although WTI oil held up better on an easing in the supply glut at Cushing. Henry Hub gas has also received support from unseasonably cold weather. Much of gold's appeal over recent months has diminished due to the relative strength of other financial assets, including equities, which have gained strongly since mid-November 2012. Prices also fell heavily in the month on reports that European countries would need to resort to selling off gold reserves to secure bail-out funding.

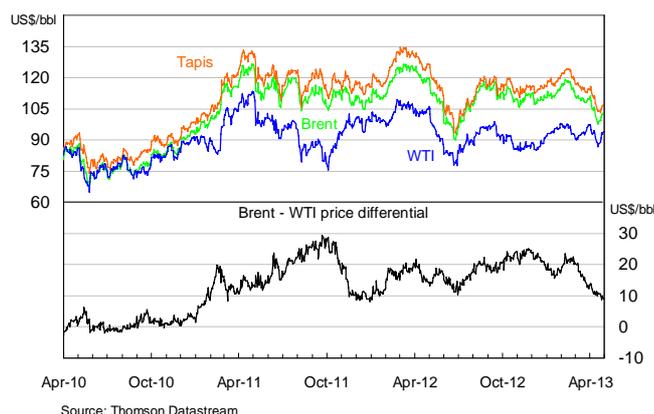
## Summary of Price Developments

### Oil

In April, average [oil prices](#) continued the declining trend witnessed in March, partly reflecting weaker global sentiment from an extended run of softer-than-expected economic data from China and the US. Average prices of Brent and Tapis fell by around 6% over the month; prices have declined further over the first week of May, while the average price of WTI eased by a more modest 1% over the same period. More recently, weak PMI data in China and the US have triggered a more than 2% dive in major oil price indexes in just a day.

Stoking market concerns in particular in April were the first quarter GDP data of the US and China, which both came in below market expectations, suggesting that the growth outlook in the world's two largest oil consumers is looking more tepid compared to the projections earlier this year. Heavy refinery maintenance in China, South Korea and several other fast-growing Asian nations has also weighed on oil demand in recent months. However, this has been partly counterbalanced by tightening global excess inventories over the last two months which has lent a floor to the falling prices.

### Oil Prices – Daily nominal terms



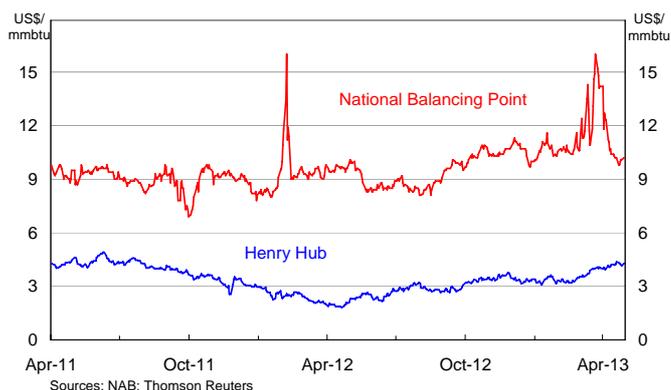
In relative terms, WTI has been holding up better than Brent, as evidence of an easing supply glut at Cushing, Oklahoma, the delivery point for US crude futures, and the most recent weekly update by the US Department of Energy showing a significant downgrade in gasoline inventories, have provided an underlay of support to the benchmark. On the other hand, Brent prices have been underperforming due to a more comfortable supply side from restored production in the North Sea as well as uncertainties around the EU demand. As a result of these relative shifts, the Brent-WTI spread narrowed to below US\$10/bbl for the first time since January 2012.

Despite the slides in oil prices in the past two months, we remain reasonably positive about the near-term outlook for oil. Demand for oil is likely to pick up from the second half of 2013 as the economy of the US and Japan gain further traction from loose monetary policies. The resumption in operation by a number of refineries across Asia currently under maintenance will also benefit crude oil demand and prices. There is also evidence suggesting that demand for distillate used for farm machinery and vehicles is likely to gain pace as the US recovers from its worst drought in more than 50 years. In its latest monthly report, the US Energy Information Agency has projected a little changed annual global demand for 2013 at 90.6mb/d, with a lower OECD and EU demand expected to be offset by a strong growth in Asia. Nonetheless, the effect on prices of stronger demand is likely to be partly counteracted by improving production from non-OPEC countries. In light of the recent price developments, we have revised down our forecasts for Brent, with the expectations that the gap between Brent and WTI prices will gradually narrow over the year ahead. Overall, we see the price of WTI rising to around US\$98/bbl over 2013, while the price of Brent is expected to lift to around US\$109/bbl by the end of the year.

### Natural Gas

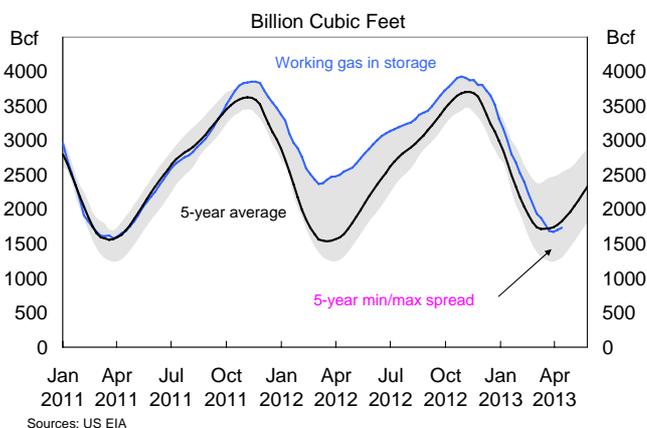
After rallying sharply in March, [natural gas](#) prices continued to track notably higher in April, spurred by the continuation of cold weather conditions in the northern hemisphere while a supply-side response to the higher prices has yet to materialise, with an unusually cold spring slowing inventory injections. For the week ending April 6, the weather in the US was 50.0 percent colder than last year and 11.5 percent colder than normal. By the end of the month, Henry Hub prices had surged comfortably past the US\$4/mmBtu resistance level to be at around US\$4.28/mmBtu, resulting in a monthly average that is around 9% above the March average of US\$3.82/mmBtu.

**Henry Hub and National Balancing Point Prices**



Increased gas consumption from the unseasonably cold March and April and generally flat production over recent months has put pressure on supply conditions. Seventeen straight weeks of net withdrawals have brought total US natural gas storage to 1.734 trillion cubic feet as of last week, 32% lower than last year at this time and 5.1% below the five-year average for this time of year. Inventory restocking is likely to progress at a more rapid pace with the arrival of milder spring weather in the next two weeks. Gas use usually hits a seasonal low with spring's mild temperatures, before warmer weather increases demand for gas-fired electricity generation to power air conditioning. That said, gas prices are likely to moderate gradually from the current level once demand pressures abate.

**Working gas in underground storage**

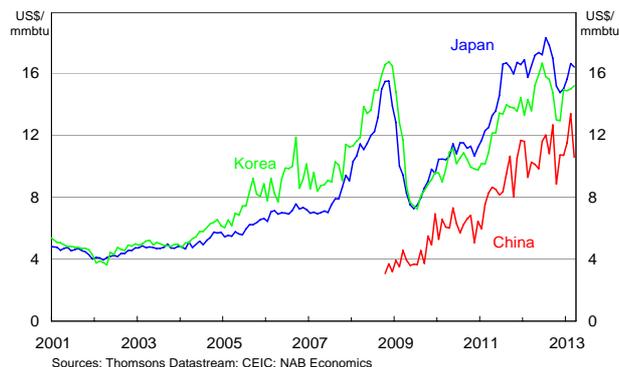


In the UK, since the advent of the natural gas shortage “scare” that caused the National Balancing Point prices to spike in the second last week of March, supply pressure has now ameliorated with deliveries from Qatar and restored production in Norway helping to replenish stocks. The incident has highlighted the fragility in the UK energy policy which relies predominantly on imports, further exacerbated by the intense competition from higher paying Asian buyers absorbing supplies from Qatar and the Atlantic Basin.

Import prices of liquefied natural gas (LNG) in the two key Asian import markets – Japan and Korea – for March remain elevated, although there are signs that there could be some moderation on the way along with higher inventory levels across these markets. As temperatures turn milder with the arrival of spring, demand for LNG softens with buyers tending to take the opportunity to build their stockpiles and stay away from the spot market ahead of summer. Utilities in Japan were reported to have used 6.3% less natural gas in March than a year earlier as reduced heating demand and energy-saving measures helped to curb power generation. Similarly, South Korea’s state-run Korea Gas Corp

(Kogas) said its domestic gas sales in March fell 3.5% year on year.

**Japanese looking for cheaper natural gas for the long term**

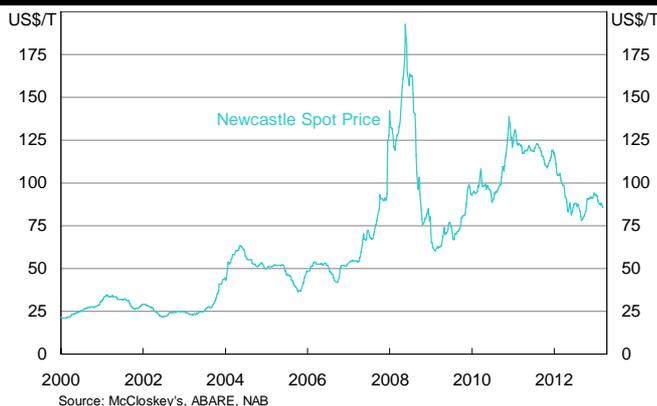


The Asian natural gas market is currently dominated by long-term contracts indexed to oil prices. This has kept Asian LNG prices much higher than those in other parts of the world. High LNG import bills have prompted Japan, the largest LNG importer in the world, to lead a push in securing cheaper supply for the longer term. In particular, Japanese authorities have their gaze fixed on the shale revolution currently taking place in the US, and have already announced about US\$11-billion in loan guarantees to fund direct investments by Japanese companies in US shale gas. Meanwhile Prime Minister Abe Shinzo has been pushing to join negotiations for the Trans-Pacific Partnership with the US, as the current US laws only allow LNG exports to nations with which it has a trade agreement. In what appears to be some progress in this direction, TEPCO (Japan’s largest buyer of natural gas) managed to secure its first LNG contract linked to prices at the Henry Hub delivery point in the US. The Japanese Development Bank estimates that cheaper imports from the US could shave as much as 20% off the Asian giant’s LNG import costs by 2020. China and India, the second-and third-fastest growing LNG markets after Japan, are also looking to raise domestic production and diversify gas imports. Meanwhile Korea is working on a proposal to secure long-term pricing for natural gas in tandem with its Asian counterparts.

In the near-term, moderating oil prices and seasonally low demand may alleviate some of the pressure on Asian gas prices. That said, recent signs of improving activity and business confidence in Japan might fuel stronger demand for LNG, and hence prices, in the medium term, although this may be partly offset by weaker activity in Japan’s competitors such as Korea and Taiwan of which currencies have strengthened substantially against the yen recently.

**Coal**

**Coal Prices**



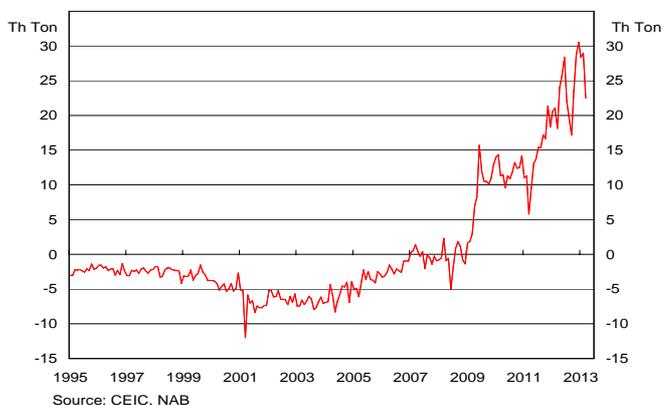
Coal prices lost steam in April from weak industrial activity in major coal importers and a surge in supply on the market. Spot price of thermal coal shipped from Newcastle (FOB) fell by 3½% in April, to around US\$85 per tonne – the lowest since last November – and have remained below US\$90 per tonne since mid-March. Soft spot prices caused annual price contracts with Japanese utilities to drag out last month as parties struggled to settle on a price. Nevertheless, reports indicate that Xstrata and TEPCO settled on a benchmark price of US\$95 per tonne, down 17% from last year (although well above the current spot). AME estimate that around 25% of Australian thermal coal is uneconomic at this price.

Given the few factors available that could drive prices much higher, spot prices are unlikely to pick up; this is especially so with weaker Chinese April PMI levels, weak sentiments about the global economy and a regional supply glut. However, the arbitrage window is still slightly in favour of imports and could help to support seaborne prices despite abundant supplies.

Nevertheless, new Chinese coal transport infrastructure capacity, expected to start operating later this year, could reduce domestic prices; transport capacity is set to increase by 136 million tonnes annually, bringing the new total to 1.4 billion tonnes annually.

Chinese coal import data appears to have cooled since end 2012. Thermal coal demand lagged in the past month, bringing down import expectation for the 2nd quarter. This may threaten to further weaken benchmark Australian coal prices. With that said, demand is still strong relative to previous years seeing that total coal import volumes (excluding lignite) grew 26% yoy to 64 million tonnes in the March quarter. China's coal imports from Indonesia have improved, largely driven by higher demand for low sulphur sub-bituminous coal used for blending purposes. Coal imports from Australia rose 55.7% yoy in to 5.65 million tonnes in March.

#### Chinese Coal Imports



Indications from some other major coal importers have looked relatively positive. Japan released results showing record import volumes of thermal coal for the fiscal year ending in March, up 4½% from the previous year. This is mainly attributable to uncertainties surrounding the country's nuclear program post Fukushima that has resulted in greater reliance on thermal power generation. Moreover, recent increases in Japan's manufacturing PMI points to signs of recovery as recent stimulus measures start kicking in. India, the world's fourth largest coal importer, is looking to import almost 165 million tonnes of coal in the 2013/14 financial year as coal demand surges above domestic output levels, according to the state minister for coal. Indian buyers tend to build up their inventories in anticipation of the monsoon season (typically begins in June). However, it appears that Indian buyers are holding back purchases in expectation of weaker prices to come.

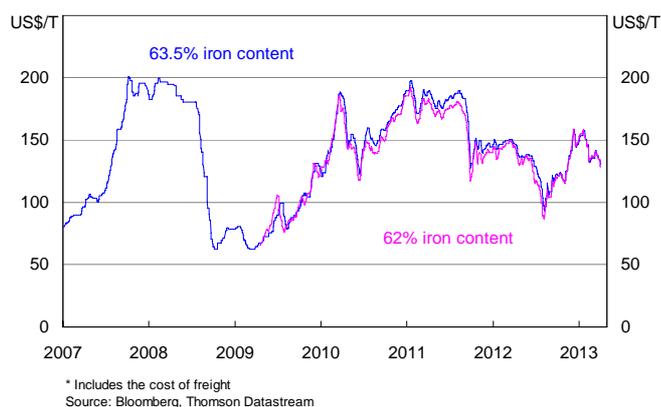
Prices for raw materials used in steel production have also come under pressure from soft demand for the metal that has pushed steel prices to low levels. Steel prices are unlikely to recover in May seeing that conditions in the steel market appear weak from Chinese producers' increasing reluctance to invest amid weak demand, high steel inventory levels, and uncertain global environment. The PMI indicator for China's steel industry saw slight improvements to 45.1 for April (up from 44.6 last month), but is showing continuing contraction in the industry. Inventory levels of five major steel products (including rebar) remain high, exceeding 21 million tonnes in mid-April – only slightly lower than the record level of 22.5 million tonnes in mid March. Chinese banks have also started cutting loans to steel traders due to rising debts and declining profitability, putting more pressure on the steel sector. Delays in the release of the government's new urbanisation plans are also creating uncertainty.

In the last month, we have seen increases in coking coal supply in global markets. Mongolia's Tavan Tolgoi resumed coking coal exports to China in late April after a 4 month disruption. Anglo American, South Africa's biggest coal producer, saw record levels of 1st quarter coking coal exports at 4.6 million tonnes after operational efficiency improvements. In light of these factors, average spot prices for premium hard coking coal fell further from last month to US\$150.4 per tonne FOB – well below the reported US\$172 per tonne (FOB) contract price set for the June quarter between BMA and Japanese steel producers.

#### Iron Ore

Towards the end of April, iron ore prices steadied at 6 week lows, with Chinese holidays further draining market liquidity levels. Overall, prices have fallen by almost 20 percent from their peak in late February, easing to around US\$128 per tonne (CFR) following a sharp sell-off after the three day holiday in China last week. The average price for iron ore (62 per cent) is estimated to have been around US\$127 per tonne (FOB) in April. Recent declines in prices are attributed to weaker demand due to the softer steel outlook – including headwinds from Chinese policy measures – and increased availability after declines in shipments due to weather conditions in Australia and Brazil at the beginning of the year.

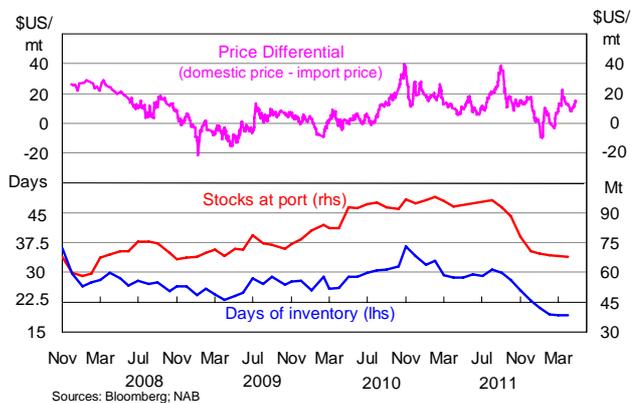
#### Chinese Iron Ore Prices\*



Global iron ore imports are struggling to see increased volumes even though peak demand traditionally occurs during the 2nd quarter of the year as construction activities recommence post winter. Nevertheless, many Chinese steel mills have been maintaining high levels of production, preventing steep falls in iron ore demand, despite soft steel demand. Crude steel output for the March quarter grew 10% yoy to 191.7 million tonnes and average daily output remained elevated (2.12 million tonnes) in mid-April according to CISA. Daily Chinese steel production has been exceeding 2 million tonnes since mid-February.

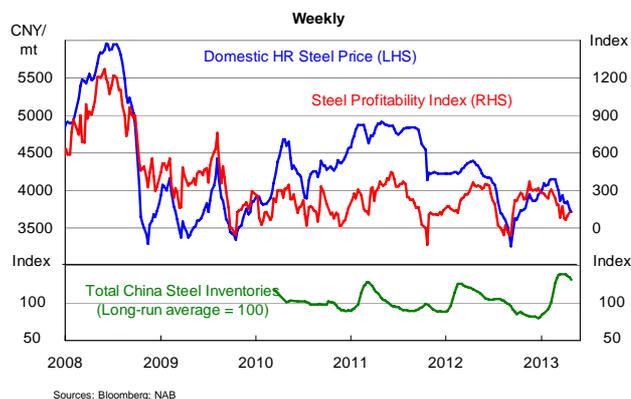
Iron ore stockpiles at ports appear to be low relative to history and production levels, due to lower import levels and strong activity in steel production. The Chinese stock-to-use ratio implies that there are currently approximately 19 days of iron ore available: lowest since 2007. However, there has been an ongoing trend of slowing demand for iron ore with buyers taking on smaller volumes, while small and mid-sized firms who generally buy iron ore at spot prices have also been limiting their inventory levels.

### Chinese Iron Ore Stocks at Port



Decreasing profitability of steel production has prompted high-cost producers to sell their excess iron ore to maintain cash flow – iron ore prices have fallen less than steel, making this an attractive prospect. Larger steel mills, that tend to produce products with higher raw material costs, are most likely to resell iron ore; CISA data suggests larger firms may be reducing steel production quicker in response to lower steel prices. For example, Baosteel, based in Shanghai and the second largest steel mill in the world after ArcelorMittal, has typically been an iron ore buyer, but has recently turned to unloading its iron ore imports onto the market through trading units.

### Chinese Steel Market Conditions



Overall, even though China is still growing at a strong pace and the global economy is to gradually recover, steel prices are expected to remain low due to weak demand expectations for May as downstream demand conditions remain uncertain. The significance of the recent 6.6 magnitude earthquake that struck Sichuan province on 20th April on the demand for iron ore is unclear at this stage. Spot markets have yet to react, although it is possible that we may see a temporary rise in the months to come as building materials demands rise to reconstruct damaged buildings and infrastructure. On the supply side, seaborne supply is slated to increase over the next few months as production resumes in cyclone hit and rain disrupted mines in Australia and Brazil, which affected their 1st quarter output. In the longer term, more iron ore is expected to come onto the market in the years to come as the largest iron ore producers (including Vale S.A., BHP Billiton and Rio Tinto) have made plans to invest \$250 billion in new mines. Bloomberg recent reported that the future supply of

seaborne iron ore will exceed demand by 100 million tonnes by 2015 and such shipments would likely displace Chinese domestic iron ore production, which tends to be of higher marginal cost.

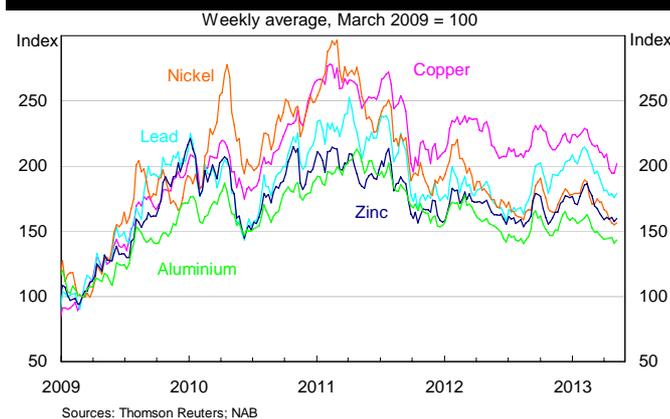
### Base Metals

	Avg Price (US\$/tonne)	Monthly % change	Apr-12 - Apr-13
	Apr-13	Apr-13	% change
Aluminium	1862	-3	-9
Copper	7234	-5	-13
Lead	2027	-7	-2
Nickel	15673	-6	-13
Zinc	1856	-4	-7
<b>Base Metals Index</b>		<b>-5</b>	<b>-11</b>

\* Prices on an LME cash basis.

Sources: LME; NAB

### Base Metals Prices



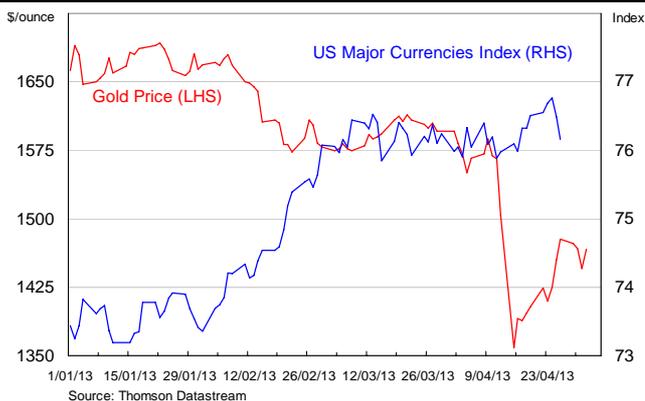
Prices have eased across the base metals complex in the past month on the back of some softer than expected economic data, weak manufacturing PMI, and concerns over the Chinese property market. In aggregate, base metals prices on the London Metal Exchange (LME) eased by 5% over April, following a 6% rise over March, to be almost 11% lower over the year. It appears that demand-side factors are back in the driver's seat, with growing surpluses pushing metals prices towards their lowest levels since the global financial crisis. Average prices of **lead** and **nickel** for the month were both around 6% below their March averages, while **copper** and **zinc** prices were down 5% and 4% respectively. **Aluminium** prices were slightly more resilient (down 3%), with declines limited by capacity closures and elevated production costs.

Expectations for demand in the March quarter generally missed the mark, contributing to a surplus in the metals market, and the apparent weakening of the industrial sector has weighed heavily on prices. **Copper** and **nickel** stocks at LME warehouses have continued to build over the past month, although new **copper** additions have slowed from the rapid pace seen in March. LME stocks of **lead** have gradually been drawn down from their elevated levels, while stocks of **zinc** have stopped rising but remain at high levels. Overall, Chinese **aluminium** stocks have continuously risen since the middle of last year, while **copper** stocks have remained elevated. **Zinc** stocks, while elevated, have been drawn down to around their lowest levels since 2010. High stock levels are limiting any upside to physical prices, although the low interest rate environment, further monetary easing and steep contango are all working to bolster financial sector appetite for metals (which may see inventories trend higher). We have seen a recent surge in cancelled warrants for some metals, suggesting improvements in physical demand even though temporary supply disruptions will also contribute to the rise of cancelled warrants. In particular, **copper** has seen a sharp increase in cancellation in recent weeks, which could in effect reduce the supply of metal available to consumers and provide some support to prices.

In spite of expectations of global recovery this year that have kept prices at relatively elevated levels, the outlook for metals points to a surplus in markets for the year ahead. Surging stockpiles of metals – particularly those held in Chinese warehouses – are signalling weakness in end-user demand in the near term and are likely to cushion metals markets and prevent an abrupt recovery in prices once demand improves. We have revised our near-term price forecasts lower in response to greater than expected declines in metal prices recently and downward revisions to our growth forecasts for some countries (notably China). However, we expect to see market conditions tighten later in the year, pushing prices higher.

**Gold**

**Gold Price and the US Dollar (Daily)**



At the end of last year, the price of gold was hovering above US\$1,700 per ounce – much higher than the current price of around \$1,470 per ounce. A lot of water has gushed under the bridge since late 2012. Expectations for central bank stimulus were scaled back sooner than previously anticipated in the US and a surge in equity prices, which saw investors flock towards riskier assets, sent the spot price to a low of \$1,336 an ounce at one point in the middle of April, which is more than 20% below the average price in November. In fact, the price of gold tumbled by 14% in just two days in mid-April, representing the largest two day decline since 1983. Part of the decline was driven by news of soft inflation in the US, slowing Chinese growth as well as fears that highly indebted European countries like Cyprus may resort to (rapidly) selling its gold reserves – valued at around 550 million Euros in February 2013 – in order to secure bailout funding. During the sell off, institutional investors indicated their expectation for prices to remain low relative to recent levels, with sales of exchange traded products rising rapidly, spurring further price declines.

The price of gold has recovered somewhat over the past two weeks, largely reflecting renewed interest in physical purchases as consumers take advantage of relatively low prices. Sales of the US Mint’s smallest American Eagle gold coin, weighing one 10th of an ounce, were suspended after demand more than doubled. The price for American Eagle gold coins is benchmarked against the London ‘fixing’ price used by some mining companies to sell output, and can vary from week to week. Physical gold purchases have also strengthened in other parts of the globe, with sales by the Perth Mint in Australia doubling and retail purchases across China tripling. A surge in jewellery and coin demand in India ahead of the Indian wedding season prompted jewellers to offer premiums on imports of gold of up to US\$10 per ounce to allow supplies to keep up with demand.

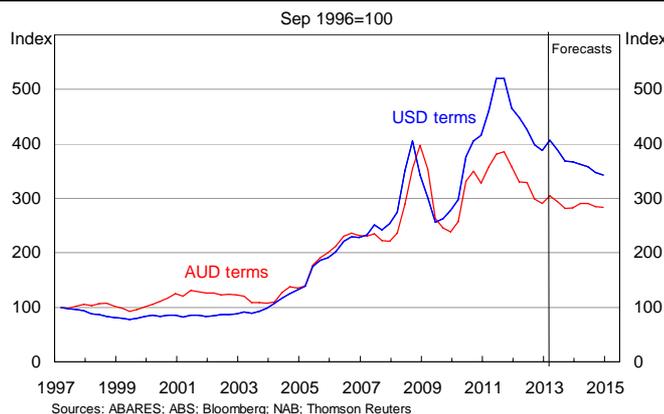
It is likely that gold market participants have overreacted to recent news of a slowing Chinese economy, soft US inflation and expectations for US stimulus to wind up more quickly than

previously anticipated. A continuation of the US Federal Reserve’s bond buying program as well as strong central bank gold buying should provide support to the price of gold over much of this year. Physical demand is also likely to remain firm until the price recovers sufficiently to limit further purchases to more normal levels. However, offsetting risks remain prevalent, with soft inflation in the advanced economies and a shift in demand towards better performing equities likely to weigh on prices. We expect gold’s final resting place at the end of 2013 to be around US\$1,470 an ounce, which is below levels recorded at the end of last year (gold averaged US\$1,684 an ounce in December 2012). Looking further ahead, we generally expect the price to moderate to around US\$1,300 an ounce by the end of 2014, as growth in the major advanced economies regains momentum and investors increase their demand for riskier assets.

**Outlook**

Commodity markets continue to languish from a clear lack of demand from major advanced and emerging economies. Prices across most commodities deteriorated further in April, although improved fundamentals in some markets have limited the extent of price declines. While the risks to the pace of recovery in the likes of the US, Japan and Europe are clearly to the downside, authorities remain willing to stimulate on signs of weakness, providing support to financial and equity markets. While the Chinese economy has experienced some weakness over recent months, it is anticipated that growth will accelerate in the second half of this year, assisted by the desire of the new leadership team to maintain stability in its first year on the job. Despite the anticipated support from various authorities, the balance of risk has shifted slightly lower over the past month or so, prompting us to revise price forecasts lower for the industrial commodities. The potential for a sharp (policy induced) correction in Chinese real estate remains a possibility, although signs of slack in the US economy during April may also be cause for concern. Finally, in the face of uncertain demand, robust supply growth will see conditions in many commodity markets loosen over the outlook period, helping to drive prices lower.

**NAB Non-Rural Commodities Price Index**



In US dollar terms, the NAB non-rural commodity price index fell by almost 17% over 2012. We are expecting another decline of around 5½ % in 2013, before falling by a further 6½% 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 2¾% through the year to December 2013, before rising by around ½% 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**

mmBtu - *million metric British thermal units*

## Quarterly Price Profile

### Oil Price Forecasts – Quarterly Average

	Actual	Forecasts						
	Mar-13	Jun 13	Sep 13	Dec 13	Mar 14	Jun 14	Sep 14	Dec 14
Brent US\$/bbl	113	103	105	108	107	105	102	101
WTI US\$/bbl	94	93	96	99	97	96	95	94
Tapis US\$/bbl	118	109	112	114	113	110	108	106
Petrol AUc/L*	139	149	147	147	143	141	139	138

Sources: NAB Economics; RACQ; Thomson Datastream

\*Estimate only; full quarter not yet available

### Natural Gas Price Forecasts – Quarterly Average

US\$/mmbtu	Actual	Forecasts							
	Mar-13	Jun 13	Sep 13	Dec 13	Mar 14	Jun 14	Sep 14	Dec 14	Mar 15
Henry Hub	3.49	4.10	3.75	3.90	3.80	3.60	3.50	3.75	3.85
Japan LNG	16.21	15.75	14.80	15.20	15.60	15.30	15.00	14.50	14.35
Brent Oil	113	103	105	108	107	105	102	101	102

Source: Datastream, CEIC, NAB Economics

### Quarterly Contract Price Profile (\$US/T)

	Actual	Forecasts							
	Mar-13	Jun-13	Sep-13	Dec-13	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15
Iron Ore*	128	126	115	110	105	103	100	100	100
Hard Coking Coal	165	172	155	165	170	170	160	150	150
Semi-soft Coking Coal	116	121	105	110	115	115	105	100	100
Thermal Coal	115	95	95	95	95	95	95	95	95

Source: NAB

### Base Metals Price Forecasts – Quarterly Average

US\$/MT	Actual	Forecasts							
	Mar-13	Jun-13	Sep-13	Dec-13	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15
Aluminium	2000	1880	1908	1937	1966	1996	2026	2056	2097
Copper	7918	7205	7205	7277	7387	7423	7461	7498	7498
Lead	2290	2129	2140	2151	2167	2183	2199	2216	2233
Nickel	17296	15912	15992	16112	16192	16233	16395	16559	16725
Zinc	2029	1897	1897	1907	1921	1935	1955	1974	1994
Base Metals Index	304	280	282	284	287	289	291	294	296

Sources: Thomson Reuters; NAB Economics

### Gold Price Forecasts – Quarterly Average

	Actual	Forecasts							
	Mar 13	Jun 13	Sep 13	Dec 13	Mar 14	Jun 14	Sep 14	Dec 14	Mar 15
Gold - US\$	1632	1560	1510	1470	1430	1380	1340	1300	1290
Gold - AU\$	1571	1520	1480	1450	1470	1440	1410	1380	1400

Sources: Thomson Datastream; NAB

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