

# Bulk Commodities Market Update

## National Australia Bank

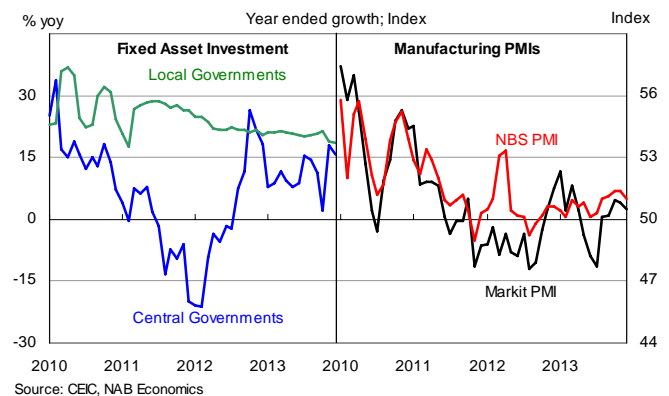
- Bulk commodity prices softened in January, driven by the end of the restocking phase and seasonally weak steel production – which contributed to weaker demand trends for coal and iron ore.
- Expanding rail freight capacity in China could impact the country's demand for seaborne coal – particularly thermal material. This could effect longer term prospects for thermal coal markets – where China has switched from being a major exporter to the world's largest importer in the space of a decade.
- Global steel production increased by 4.5% in 2013, to 1.6 billion tonnes, with China the key contributor to growth. Excess production capacity in China continues to impact on profitability, with steel prices drifting down in late 2013, despite relatively stable raw material costs.
- Iron ore prices eased slightly in early January, reflecting a period of weak steel production as well as the end of restocking. Increased supply and modest growth in consumption should place downward pressure on prices from the second half of 2014.
- Hard coking coal contracts for the first quarter of 2014 have fallen to US\$143 a tonne (down from US\$152 in Q4) – the lowest in the (short) history of quarterly coal contracts.
- Softer seasonal demand and adequate stockpiles at ports and electricity generators have contributed to an easing in thermal coal spot prices in early 2014. Relative weakness in spot prices signals likely declines in Japanese financial year contract prices.
- Our commodity price forecasts for iron ore and thermal coal have been left unchanged this month, while the profile of hard and semi-soft coking coal is marginally weaker across the first half of 2014 (reflecting a slightly larger than expected fall in first quarter contract prices).

Bulk commodity prices softened in January, driven by the end of the restocking phase and seasonally weak steel production – which contributed to weaker demand trends for coal and iron ore. Reflecting a larger than expected decline in contract prices for hard coking coal for the first quarter of 2014, we have revised our forecast marginally lower, while our other forecasts are largely unchanged.

Demand for bulk commodities in 2013 remained underpinned by China's economic growth – which was largely driven by investment (despite the Central Government's intention to rebalance the economy towards consumption). A mini-stimulus package commenced mid-year, boosting industrial production and fixed asset investment, ensuring economic

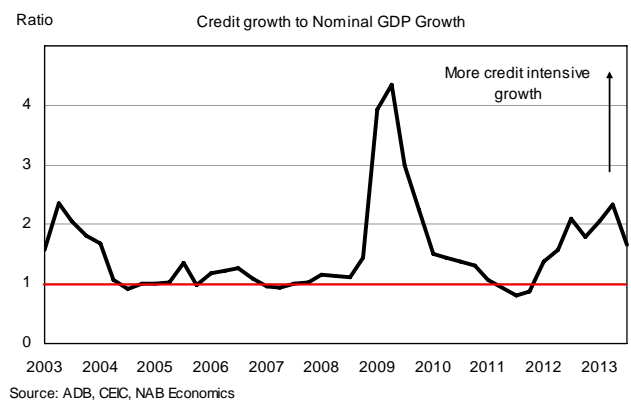
growth exceeded the 7.5% target. That said, this came with a massive ramp up in credit growth.

### Mini-stimulus boosted bulk commodity demand in mid 2013



Late in the year, industrial production started to ease – with growth at 9.7% yoy in December (down from the peak of 10.5% in August). The slowing trend was also evident in market surveys – with both the official NBS PMI (which is weighed more towards the large, state owned enterprises) and HSBC Markit PMI (which has a greater representation of small to medium sized manufacturers) pulling back from the recent highs of October. Fixed asset investment also slowed in December. Across the majority of 2013, growth in government influenced fixed investment was stronger than private investment – boosted by a strong pickup in Central Government funded infrastructure projects.

### Credit intensity increased in the first half of 2013



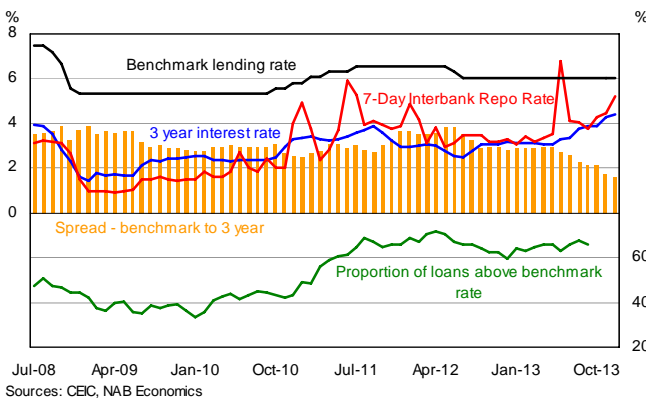
The credit intensity of growth in 2013 is a major concern for Chinese policy makers. The ratio of credit growth to nominal GDP growth accelerated in early 2013, peaking at 2.3 times GDP growth in the second quarter of the year – the highest level since 2003 (excluding the period of emergency stimulus during the Global Financial Crisis). In Q3, this ratio pulled

back to 1.6 – a level still quite high when compared with the past decade.

The People's Bank of China is attempting to manage credit growth via passive tightening in liquidity – allowing market rates to rise without any direct intervention. Market interest rates trended higher across 2013, and the central bank is gradually liberalising the money market – which should eventually lower speculative investment and shadow financing. Higher borrowing costs are likely to have a negative impact on longer term commodity demand.

Tighter liquidity may be having an influence on current commodity market conditions – with some unusual movements in inventories (from a seasonal perspective) – particularly iron ore stocks at Chinese steel mills. This may indicate the impact of a short term credit squeeze, and we should have a better appreciation of market conditions when operations resume full production following the Chinese New Year holidays.

Passive liquidity tightening via higher market rates

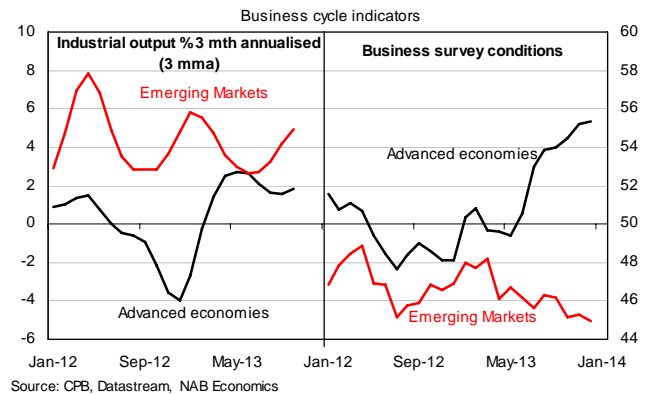


The slowing trend for China's economy is expected to continue into 2014, as the government becomes increasingly focussed on its reform agenda. A clear signal as to this focus should come at the National People's Congress in March, when the official growth target is announced. There is speculation that the target could be cut to 7%, which would likely signal weaker growth prospects for the year. Our expectations remain unchanged at 7¼%. This slower rate of growth is likely to contribute to softer growth in commodity demand in 2014.

Outside of China, global growth trends remained moderate in the second half of 2013, with global GDP growth at around 3% yoy (supported by trade volumes which expanded by around 5% yoy and industrial production growth of 2.5% yoy during the period).

We anticipate global growth to lift in 2014 to around 3.5% (compared with 3.0% in 2013) – driven by a pickup in the advanced economies. Emerging economies are expected to record similar growth trends this year (at around 5¼%), while advanced economies are forecast to grow by around 2¼% (compared with 1¼% in 2013). The stronger growth in advanced economies will have a muted impact on demand for bulk commodities – reflecting the less commodity intensive nature of these markets.

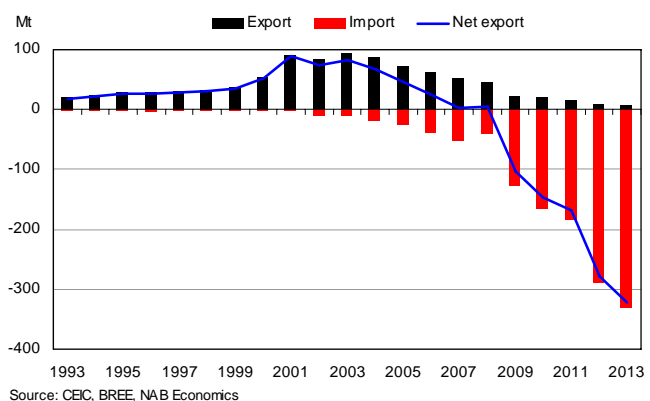
Business confidence improving in advanced economies



Special focus: China's coal demand and its sizeable impact on global markets

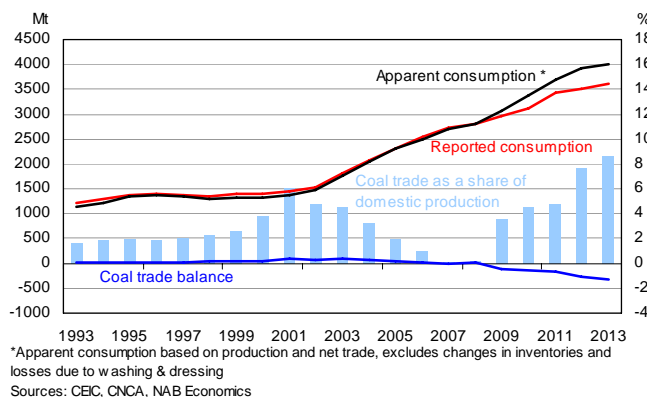
A decade ago, China was a major net exporter of coal, with exports increasing across the late 1990s and early 2000s. At the time, the expansion of Chinese coal exports was a major concern for Australian producers, given China's close proximity to key coal import markets such as Japan and South Korea.

China's shift from exporter to net importer



However, over the past decade, we have observed major changes in China's coal trade – as first export constraints (such as the imposition of export quotas) and the rapid growth of domestic demand (primarily in electricity generation, steel production and cement) shifted the balance. Compared with net exports of 88 million tonnes in 2001, China is now the world's largest coal importer – with net imports totalling 320 million tonnes in 2013. This level is around a quarter of global coal trade, and comes despite China being by far the world's largest coal producer, at around 3.7 billion tonnes in 2013 (raw coal, which excludes losses from washing and dressing).

**Rising share for imports in China's domestic market**



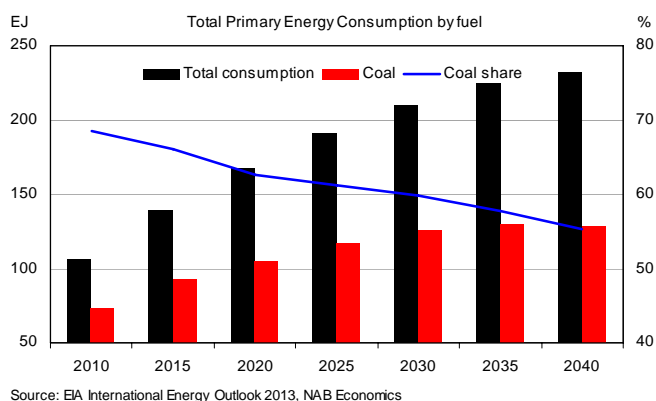
Coal consumption has risen strongly over the past two decades, with the China National Coal Association (CNCA) estimating that the country consumed around 3.6 billion tonnes in 2013. Despite the rapid growth in imports, the share of imported fuel was only around 9% of total consumption last year.

Previous growth in imports does not imply continued growth into the future. Demand for imported coal reflects a range of factors – such as a relative lack of the highest quality metallurgical coal required in the country's steel industry, as well as constraints in infrastructure. Domestic rail capacity has been insufficient to completely supply coal – which is largely produced in the northern and western provinces – to the fast growing coastal regions.

In particular, rail constraints in the southeast of the country mean that domestic coal is frequently transported by rail to northern ports, and then shipped along the coast. These constraints have impacted on the competitiveness of domestic coal against imported material – which despite the cost of seaborne freight, has frequently been cheaper than domestic coal.

Rail capacity has been expanding – in 2013, China's railways transported 2.3 billion tonnes of coal, an increase of 2.6%. By December, the rate of growth increased to 3.4% yoy (China Coal Resource). In early 2014, new capacity was brought on line in Shaanxi province, where passenger and freight services have been separated on key lines. This year, nine expansion projects in Inner Mongolia, two in Shanxi and one each in Xinjiang, Ningxia and Gansu should be completed (Bloomberg Industries).

**Coal to remain the dominant fuel longer term**



China's coal consumption is expected to increase in coming years, rising to 4.8 billion tonnes by 2020 (CNCA). This forecast increase is despite efforts to diversify the country's energy mix away from coal.

Long term rail capacity is likely to remain the key uncertainty, with potential to expand the country's coal mining capacity to meet this demand. China's raw coal production capacity was estimated at 4.1 billion tonnes in 2012. Expansion plans could add around 860 million tonnes of mine capacity in the five years to 2015.

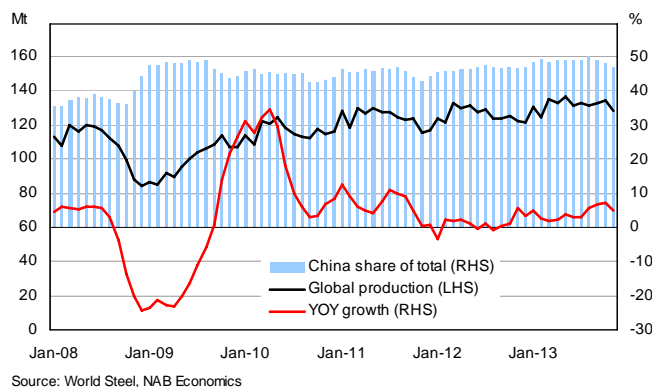
As a result, there is no guarantee that China represents a long term growing market for major coal exporters – particularly for lower rank thermal coal. That said, pollution concerns could lead to substitution away from Indonesian brown coal in favour of higher quality Australian product.

Efforts to address pollution could also impact on the competitiveness of imported versus domestic coal. There is currently a ban on new coal fired electricity generation projects in the regions around Beijing, Shanghai and Guangzhou. Attempting to combat chronic pollution in major cities – a growing concern within China – could result in an increasing share of generation capacity moving inland. This could increase the freight costs for seaborne coal, reducing its appeal to Chinese consumers.

**Steel Production**

Global steel production increased by 4.5% in 2013, to 1.6 billion tonnes. The key contributor to this growth was China – with global production excluding China increasing by only 0.3% to 804 million tonnes (a level that has remained lower than the ex. China peak of 2007).

**World and Chinese Steel Production**

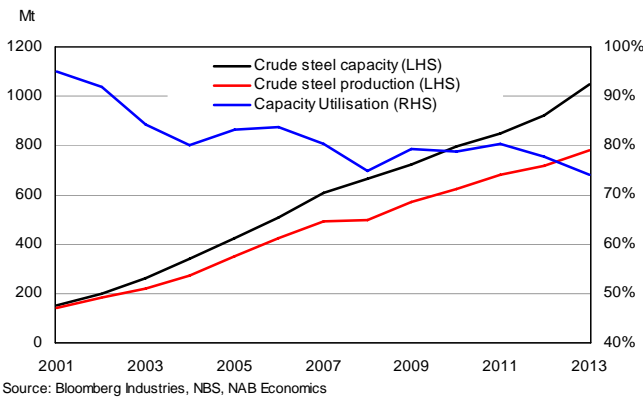


China's steel output expanded by 9.3% in 2013, to 775 million tonnes (World Steel). Continued growth in infrastructure, construction and manufacturing has supported the increases in steel output, however concerns around the scale of excess steel making capacity remain. Bloomberg Industries estimated average excess capacity at 271 million tonnes in 2013 – with capacity utilisation at 74% for the full year – contributing to the relatively weak conditions for domestic steel mills.

Chinese authorities are attempting to address overcapacity – having commenced a demolition program in Hebei (the country's largest steel making province. Under the proposals, 60 million tonnes of annual production capacity is to be

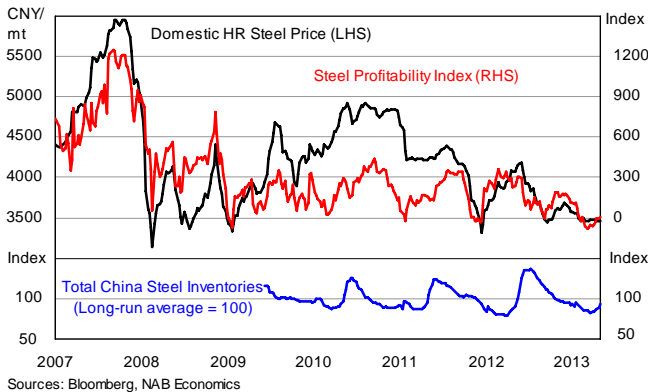
demolished by 2017. In Tangshan, the largest single steel producing city, the target is 40 million tonnes (representing 40% of current capacity).

Excess steel capacity a growing issue for China



Chinese domestic steel prices have trended downwards since late August – from around RMB 3679 a tonne to RMB 3454 a tonne in late January. In contrast, raw material prices (iron ore and coke) have remained relatively stable, contributing to weakening profitability over this period. Steel inventories are within the typical ranges over the past few years, and have trended up ahead of the Chinese New Year.

Conditions remain tight for Chinese mills

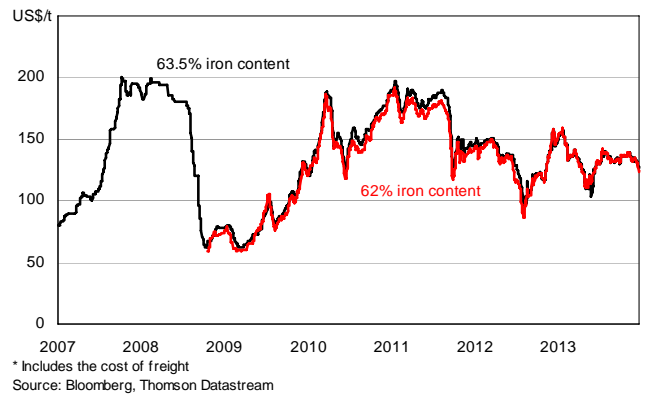


The China Iron and Steel Association forecast steel production to rise to 810 million tonnes in 2014 – an increase of around 4%. The organisation expects steel production to peak between 860 and 880 million tonnes in the next three to five years.

Iron Ore

Iron ore prices eased slightly in early January, reflecting a period of weak steel production (which commenced ahead of the northern winter) as well as the end of the restocking phase that had inflated seaborne demand across the latter part of 2013.

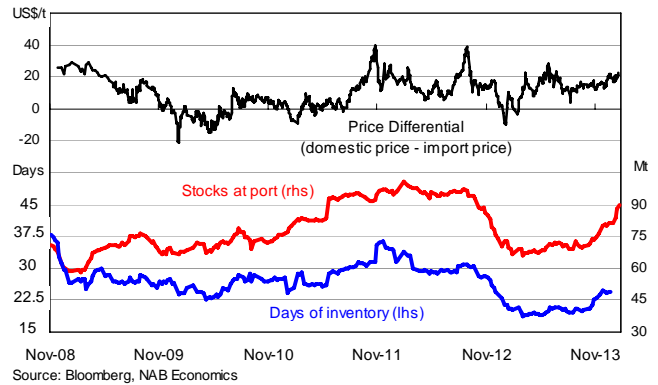
Chinese Iron Ore Prices\*



Chinese spot prices at the port of Tianjin drifted down to US\$123 a tonne CFR (for 62% fines) in late January, compared with prices near US\$140 a tonne in early December. That said, spot prices remain considerably stronger than the recent lows recorded in mid-2013.

Despite comparatively weak steel production in the lead up to winter, Chinese iron ore import demand remained strong at the end of 2013 – supported by a restocking phase. Stocks at China's major ports began to climb from mid-October, rising to almost 90 million tonnes in late January. However, reflecting the growth in steel production over the past few years, this represents a considerably lower level of inventory in days of consumption terms.

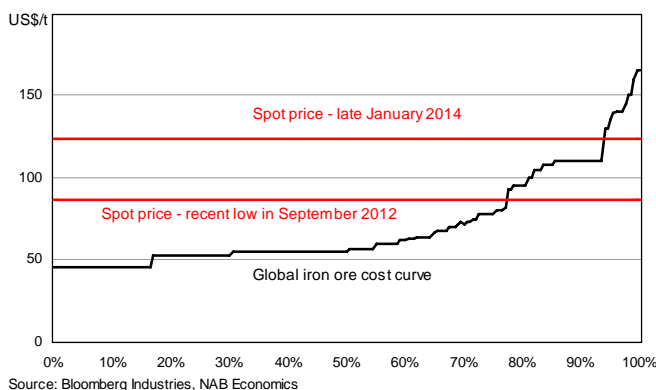
Chinese Iron Ore Stocks at Port



Chinese iron ore imports rose strongly in 2013 – increasing by 10% to 820 million tonnes. Since August, the arbitrage window has increasingly favoured imports over domestically produced material – with imports around US\$20 a tonne less expensive than domestic ore in the second half of January.

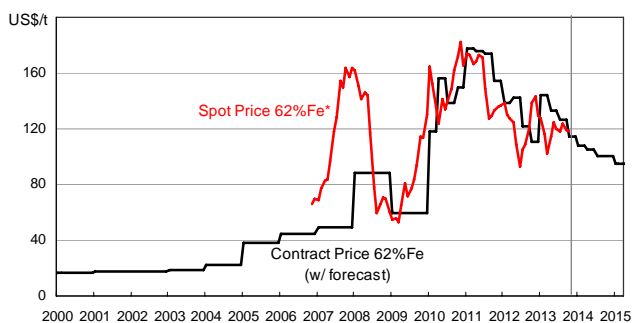
Production of iron ore is expected to increase significantly in 2014 – with Bloomberg Industries estimating an increase in capacity (outside of China) of around 104 million tonnes. The bulk of supply additions in both 2014 and 2015 are expected in Australia, as BHP Billiton, Rio Tinto and Fortescue add new capacity in Western Australia. The new supply is expected to add downward pressure to iron ore prices from the second half of 2014.

### Over 90% of iron ore producers profitable at current prices



There remains some uncertainty around Indian iron ore, with the potential to influence spot markets. Indian ore is typically lower grade than either Australian or Brazilian material, but with lower freight costs to China, it has also been a comparatively inexpensive alternative. However, exports fell sharply in both 2012 and 2013, as higher taxes and railway freight charges, along with court ordered mining bans, limited deliveries. In the short term, we expect Indian exports to remain weak (in part due to the softer price outlook).

### Iron Ore Prices



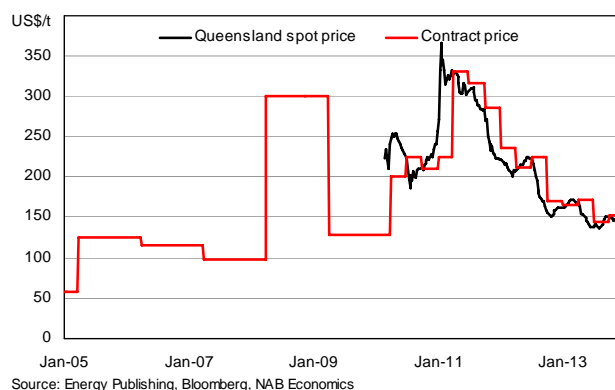
\* Spot price is calculated on an FOB basis by subtracting Port Dampier to Qingdao shipping rates from the cost and freight price. 62% Fe spot price is an estimate from published 63.5% price.

In the short term, iron ore prices are likely to be relatively range bound, with the pickup in steel production in coming months to offset current softness in spot prices. Increased supply and modest growth in consumption should place downward pressure on iron ore prices from the second half of 2014 – trending down to around US\$100 a tonne by the end of the year.

### Metallurgical Coal

Prices for metallurgical coal have continued to ease in early 2014. According to Freight Investor Services, Chinese spot prices declined to US\$124.50 a tonne in late January (compared with around US\$133.80 a tonne in December). Slowing steel production in the latter part of the year has placed downward pressure on spot prices.

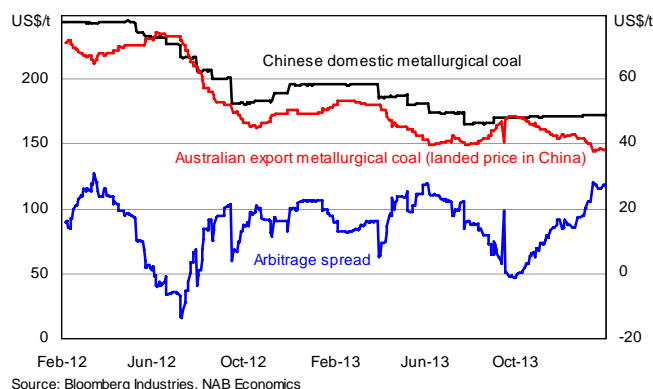
### Metallurgical coal prices drifting lower in early 2014



Weaker spot prices have flowed through into easing contract prices. Hard coking coal contracts for the first quarter of 2014 have fallen to US\$143 a tonne (down from US\$152 a tonne in Q4 2013). This level is the lowest in the (short) history of quarterly coal contracts – and the lowest since the 2009 Japanese financial year.

There has not been a noticeable decline in Chinese domestic prices for metallurgical coal – with prices comparatively stable across the second half of 2013 and into the new year. This has led to a large increase in the differential between imported and domestic coal – up to almost US\$27 a tonne in late January. This likely signals some upside to spot prices when steel making demand picks up post-winter.

### Metallurgical coal prices drifting lower in early 2014



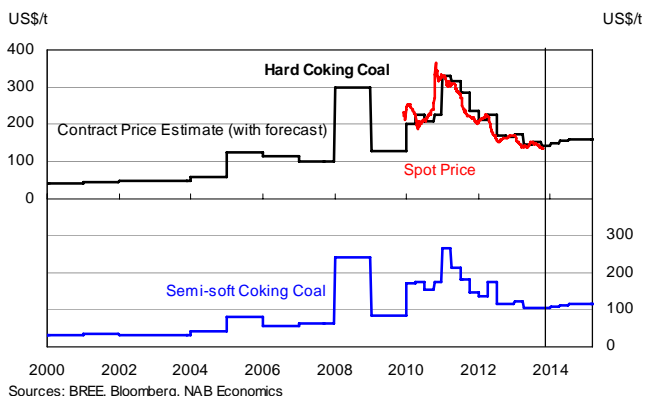
The pullback in prices was driven by growth in seaborne supply, with Australian exports providing the bulk of the increase. Global trade in metallurgical coal expanded by around 30 million tonnes in 2013, with 25 million tonnes coming from Australia – driven by new developments brought online, as well as a recovery in production from previous flood related disruptions. Take-or-pay contracts with infrastructure providers limited the capacity of Australian producers to reduce shipments in response to weaker prices.

Expansions in production capacity are likely to be more modest in 2014, with the bulk coming from developments in Queensland – such as Rio Tinto's Kestrel project and BHP Billiton Mitsubishi Alliance's Daunia and Caval Ridge mines. According to Bloomberg estimates, seaborne supply could be boosted by around 13 million tonnes (or 4.5%). Lower prices

have pushed out higher cost producers, particularly those in the United States.

Metallurgical coal prices are expected to improve from the current soft levels, driven by the recovery in steel production from current seasonal lows, however new supply additions should provide a limit to upside pressure. Hard coking coal prices are forecast to trend up to US\$160 a tonne by the end of 2014.

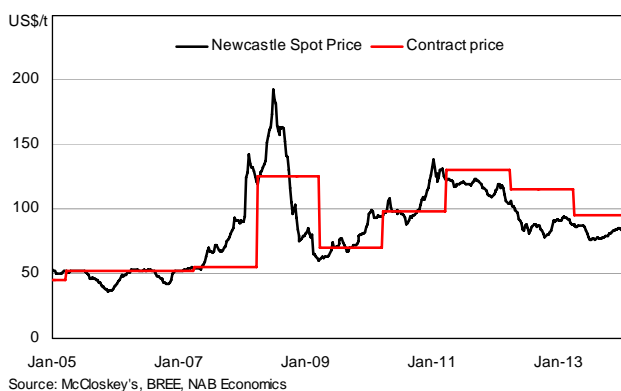
### Metallurgical Coal Prices



### Thermal Coal

Softer seasonal demand and adequate stockpiles at ports and electricity generators have contributed to an easing in thermal coal spot prices in early 2014. Relative weakness in spot prices signals likely declines in upcoming Japanese financial year contract prices.

#### Thermal coal prices softening in early 2014



Spot prices at the port of Newcastle have softened in January, down to US\$80.40 a tonne FOB in the week ending 24 January (compared with a six month high of US\$84.60 a tonne in late December).

Chinese domestic prices also declined, reflecting the weaker demand for coal deliveries among the country's key consumers. Prices at Qinhuangdao (China's largest thermal coal port) were around RMB 582 a tonne FOB (excluding VAT) in late January (compared with RMB 616 a tonne in mid December).

Recent term contract settlements also point to softer contract prices for the upcoming Japanese financial year (JFY). Prices were settled between Japanese utility TEPCO and Glencore Xstrata for calendar year 2014 at US\$87.40 a tonne FOB in

late December – representing a premium of around US\$3 a tonne above prevailing spot prices. We expect JFY contract prices will be lower – at US\$86.50 a tonne (compared with US\$95 a tonne under the current contract).

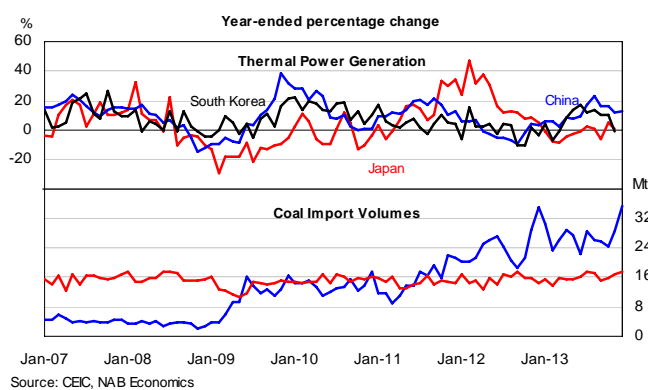
Falling prices have had a significant impact on mine profitability. Based on cash costs estimated by Bank of America Merrill Lynch, over 20% of global thermal coal producers are running below cash costs (given current spot prices). This is likely to limit further downward pressure on prices as well as delay future plans for mine expansions or new developments.

That said, current supply conditions are likely to limit the upside risk to prices as well. There is considerable excess capacity to supply seaborne coal markets – reflecting recently developed projects in major exporting regions (in response to earlier high coal prices), along with rail infrastructure investment in China, which has improved the competitiveness of domestic coal in coastal markets (see above). Bloomberg Industries estimates new developments will add around 31 million tonnes, equivalent to 3.5% of total seaborne trade – with major projects such as the BHP/Glencore/Anglocoal Cerrejon joint venture in Colombia, Glencore's Ravensworth North mine and Whitehaven's Maules Creek mine in New South Wales.

Idle production capacity includes cutbacks in Australian projects (such as Yancoal's Duralie and Stratford mines in New South Wales) while US exports fell noticeably in the latter part of 2013 (related in part to the considerable cost disadvantage that US producers face with regard to freight costs to Asia).

Idle thermal coal capacity may increase in Indonesia, if domestic and international policies are successfully implemented. Indonesia's government is attempting to crackdown on illegal mining and port operations as well as increase royalty payments. In addition, Indonesia's Energy and Mineral Resources Ministry announced in December that coal miners would not be permitted to increase production in 2014, in an effort to increase prices. China's government may introduce minimum coal quality standards, as part of efforts to address growing pollution concerns. This would likely impact on demand for Indonesian brown coal exports – which have expanded rapidly in recent years.

#### China leads growth in thermal power generation



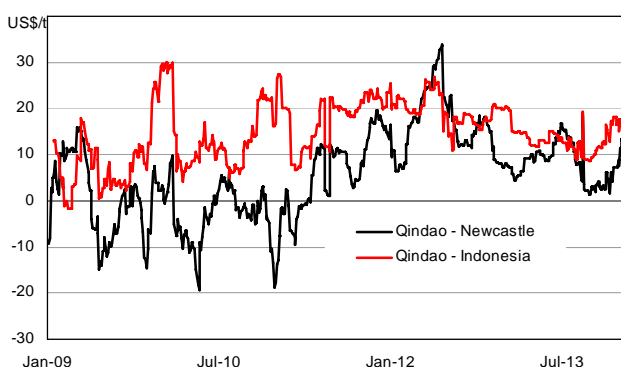
Growth in demand for seaborne thermal coal was largely driven by increased electricity generation in China and (to a lesser extent) South Korea – albeit growth in South Korea largely offset falls in 2012. Japanese thermal generation

remains elevated by the total shutdown of the nuclear power sector – however there was little to no growth across 2013, with little likelihood of increases in this year.

Longer term growth in Chinese thermal coal imports could be limited by efforts to improve energy efficiency and addressing pollution, along with the improved availability of domestic coal in coastal provinces.

That said, the arbitrage window for imported coal has remained favourable in January – with prices for traded coal from Indonesia and Australia falling more rapidly than the domestic product. In mid-January, Australian coal (at the port of Newcastle) was around US\$13 a tonne cheaper than Chinese coal (the widest range since August 2013), however this differential narrowed to US\$9.85 near the end of the month.

#### China arbitrage window narrows slightly in late January



Source: Bloomberg Industries, NAB Economics

## Outlook

Our commodity price forecasts for iron ore and thermal coal have been left unchanged this month, while the profile of hard and semi-soft coking coal is marginally weaker across the first half of 2014 (reflecting a slightly larger than expected fall in first quarter contract prices).

Our global economic forecasts are unchanged – with improving conditions in advanced economies offset (from a bulk commodities perspective) by marginally weaker growth in China. As a result, our views around demand for bulk commodities in 2014 are also stable.

Longer term Chinese demand trends could be unfavourable for thermal coal – if rail capacity can expand sufficiently to meet an increasing share of demand with domestic supply.

Strong growth in supply for iron ore and thermal coal will add downward pressure in prices – with excess supply capacity in thermal coal a major factor in the current comparative weakness in the market. For iron ore, the growth in output from the second half of the year is expected to place downward pressure on prices.

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#### **Commodity update release dates\***

February 2014: Overview, Gold and Natural Gas–3/3/2014

March 2014: Overview, Oil & Base Metals – 31/3/2014

April 2014: Overview & Bulks– 5/5/2014

\* Reports to be released by these dates.

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

	Actual				Forecasts				
	Dec-13	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15
Iron Ore*	125	114	108	105	100	100	95	95	95
Hard Coking Coal	152	143	150	155	160	160	160	160	160
Semi-soft Coking Coal	106	104	107	110	114	114	114	114	114
Thermal Coal	95	95	87	87	87	87	87	87	87

Source: NAB

\* Calculated using weighted average of quarterly lag formulation and spot prices. Weights reflect industry information on ongoing composition changes to the contract portfolios of major Australian miners.

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