Minerals & Energy Outlook

by NAB Group Economics

March 2016

National Australia Bank

Key Points:

- The USD has stabilised somewhat in recent months, helping reduce the strain on commodity markets, but the focus remains very much on **the impact rising supply** is having on some commodities, especially in the context of **a weaker outlook for emerging market demand**.
- **Financial volatility suggests there is a high degree of uncertainty around the outlook for commodity prices.** However, assessment of the fundamental drivers suggests that commodity markets could see relatively more stable prices in 2016 and 2017 – although still expected to fall in aggregate. **The NAB USD non-rural commodity price index is expected to fall more than 20% in 2016, but only a further 2% in 2017**, with iron ore and energy prices leading the way. **Despite stalling of late, USD appreciation will continue to help partially offset price declines in AUD terms for 2016 – reversing in 2017.** NAB forecasts the AUD to bottom at around 67 US cents by late 2016, but stabilise at around the mid-70s by late 2017. **Overall, these trends suggest the Australian terms of trade will continue to trend lower, although at a slower pace than in recent years.**
- Short term supply disruptions have driven iron ore prices higher, but this trend is unlikely to be sustained – with weak steel demand and falling production in 2016. This is forecast to drive both iron ore and metallurgical coal prices lower this year. Similarly, thermal coal prices are set to soften, on weaker Chinese and Indian demand. **Iron ore spot prices are expected to stabilise at an average US$42 per tonne in 2016, while hard coking coal contract prices will average US$80.8 a tonne. Our forecast for thermal coal for the Japanese financial year are lower, at US$58 a tonne.**
- In February, **global oil market volatility continued** to track at elevated levels, although it eased slightly towards the end of the month. There are tentative signs of cooperation between OPEC and non-members to stabilise the market, but the probability for coordinated output cuts remains slim. As such we expect the global oil oversupply to last into 2017, **keeping prices below USD 40/bbl for most of 2016 before rising to USD 50/bbl by end-2017**. Lower global oil prices continue to affect East **Asian LNG markets**, although the lower AUD has provided some support to AUD denominated prices.
- **Base metal** prices have stabilised at the beginning of 2016, as producers have announced **significant supply cuts** and worries about global financial conditions wanes. We forecast price recoveries in 2016 for all base metals, stronger for copper, zinc and lead with robust market fundamentals and more subdued for aluminium and nickel whose markets remain well supplied
- Since its recent low in mid-December, gold prices have surged by more than 15%, overshadowing the returns of other major asset classes to be one of the best performing major commodities in the year-to-date. While there could be further upside to gold prices in the short term, **we expect gold prices to resume a moderate downward trend in H2 2016 in conjunction with gradual US monetary tightening.**

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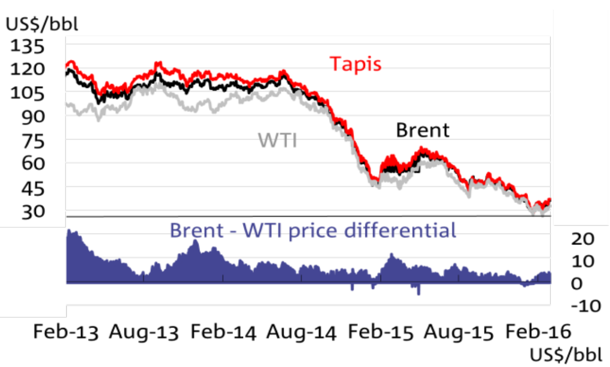
Oil

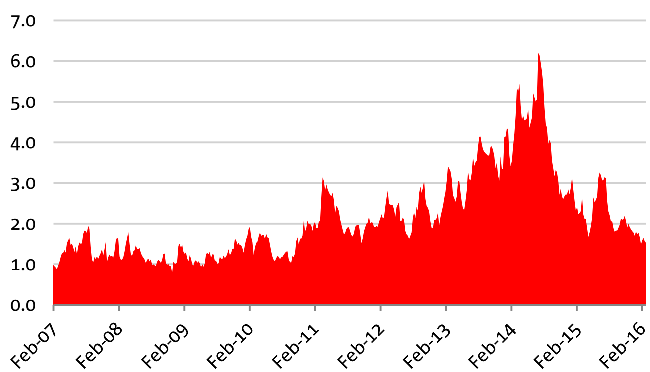
- **In February, global oil market volatility continued to track at elevated levels, although it eased slightly towards the end of the month. Oil prices, while volatile in percentage terms due to the low base, have been fluctuating within a relatively narrow band of high USD20s to low USD30s a barrel in absolute dollar terms.**
- While investors' concerns about China's economic slowdown remain heightened, the Chinese authorities' efforts to stabilise the renmibi to date, combined with further policy stimulus from Japan, China and the ECB, have helped to assuage investors' nerves to an extent. That said, investor sentiment remains bearish overall, as demonstrated by the still-high market volatility and low net long futures position in the managed money market.
- **After recording significant declines in January, growth in average oil prices was mixed in February. Brent and Tapis rose moderately by 4% and 1% respectively to USD34 and USD33 a barrel. Meanwhile, West Texas Intermediate (WTI) fell by 6% to average USD 30/bbl in the month, reflecting the continuous accumulation of commercial crude inventories in the US to record-high levels.**
- **In terms of fundamentals, global oil production continues to outpace consumption, contributing to a build-up of inventories around the world.** Post-sanctions Iran ramped up its oil output by close to 80,000 barrels a day in January to be around 3mb/day, significantly higher than its low point in mid-2014 of 2.4mb/day. On the 16th of February, Russia, Saudi Arabia, Qatar and Venezuela reached an accord to freeze their output at the January levels -- the first concrete sign of cooperation between OPEC and non-members to stabilise the oil market since the advent of the oil price crash. However, the deal was poorly received by financial markets, which were hoping that major producers would commit to a cut in production instead of merely freezing output at their historically elevated levels. Given only a gradual slowdown in US production to-date, OPEC's present output level will continue to contribute to an oversupply overall, currently estimated to be in the order of around 2mb/day. The success of the agreement is also contingent on the agreed participation by Iraq and Iran, but the two countries have since resisted joining the deal. Russia and Venezuela have also raised prospects of a meeting between OPEC members and non-members in March, but the possibility of a decision involving a coordinated cutback in production between the participants from the meeting remains slim.
- We have left our price forecasts unchanged following the detailed oil update last month. Oil prices are expected to fluctuate between USD30 to 35 a barrel in H1 of 2016, before reaching USD 40/bbl by end-2016 and USD 50/bbl by end-2017.

Daily oil prices (USD/barrel)



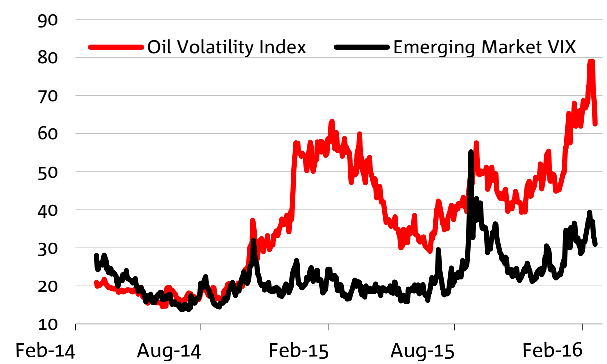
Source: Thomson Datastream

NYMEX futures long-to-short ratio



Source: Bloomberg, NAB Group Economics

Oil and emerging market volatility indices



Source: Bloomberg, NAB Group Economics

Oil – Supply and Demand Factors

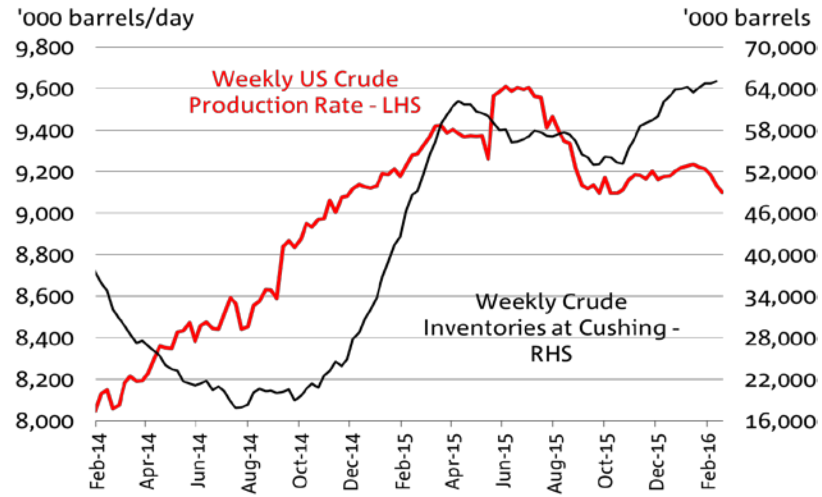
US

- **US crude production continued to ease in recent months at a gradual pace, but unseasonably low demand for finished petroleum products in the last few months witnessed an accumulation of commercial inventories.**
- Based on the weekly production data, US crude production averaged around 9.1mb/day in February, from the peak of 9.6mb/day in June last year. After the significant falls in rig count in 2015, rig count has largely stabilised in the major shale plays of Bakken, Eagle Ford, Niobrara, and Permian. **Falling costs and sustained improvement in technology and processes are helping to keep up the rates of well completions and production higher than other parts of the country. This suggests that crude production in these regions is likely to stay relatively resilient.**
- **US crude stocks reached a second consecutive record high in the third week of February from lower refinery rates, which were in turn discouraged by weak refining margins.** Crude stocks at the delivery hub of Cushing remained at record highs for the fourth straight week at 65.1mb, to be at 89% of total working capacity of 73mb. Storage constraint could become a more pressing issue if refinery rates do not pick up, but signs of a recovery in gasoline demand of late may spur refining activity going forward.
- Based on our oil price forecast of less than $40 for most of 2016, we expect US production to continue to moderate gradually. The EIA estimates that US crude production to average 8.69mb/day in 2016, compared to 9.43mb/day in 2015.

OPEC

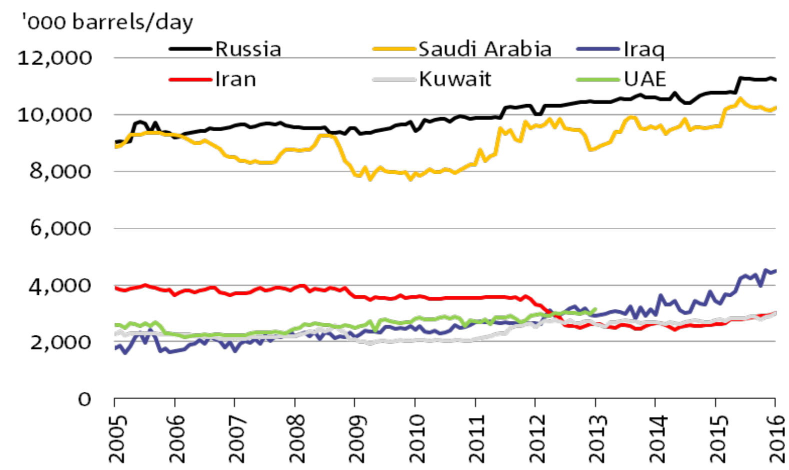
- **OPEC crude output gained momentum in January to hit 33mb/day, the highest level in recent history.** In a sign of continued strong competition amongst OPEC members in defending their market shares, most major OPEC members increased their output in the month, with UAE and Saudi Arabia contributing the most to the overall gain. Iraq, Iran and Saudi Arabia have been the main contributors to the growth in OPEC output since H2 2014, with cumulative output growth of 1.5mb/day, 4.5mb/day and 4mb/day respectively.

US Crude, Distillate and Gasoline Inventories



Source: EIA, NAB Group Economics

Output by Russia and Selected Major OPEC Producers



Source: Bloomberg, NAB Group Economics

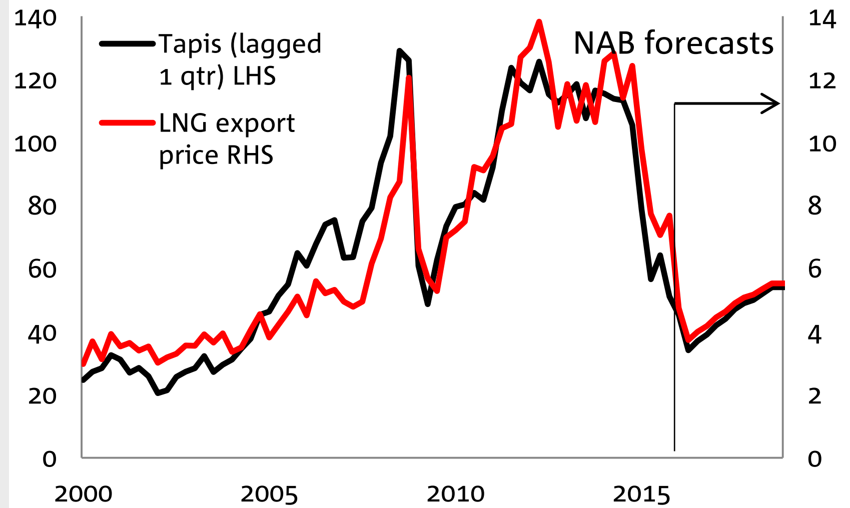
Natural gas

- **Lower global oil prices continue to affect East Asian LNG markets**, in which many contracts are tied to the price of oil, although the lower AUD has provided some support to AUD denominated prices. The NAB Australian LNG export price indicator, which is based on the value of Australian export cargoes, stood at AUD10.05/GJ in Q4 2015 and little support is expected well into 2016 due to the lagged impact of lower oil prices. We forecast the NAB LNG export price indicator to fall to AUD6.60/GJ in Q1 2016 and AUD5.25/GJ in Q2 2016.

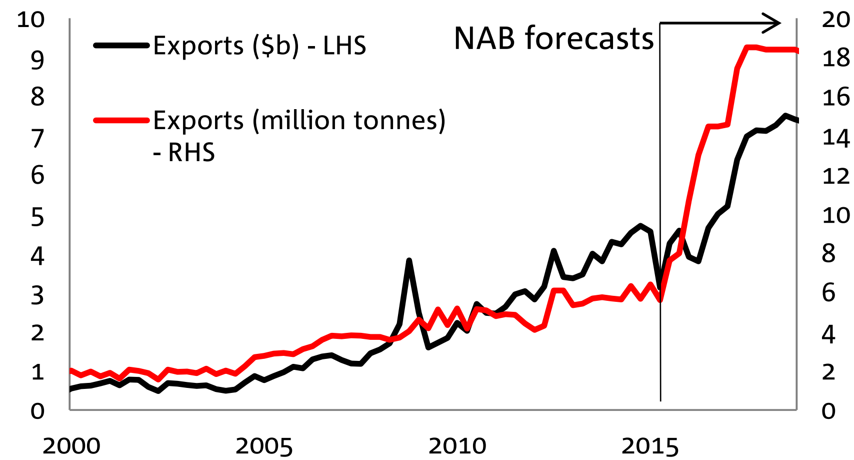
- The **Australian natural gas industry continues to undergo major transformation as significant new LNG export capacity nears completion**. Australian LNG terminal capacity will increase to around 85 million tonnes per annum by 2017. Even if prices stay low, the volume increase will see the value of LNG exports increase considerably over coming years. **However, in the short term, the price collapse will offset of the increased supply.** We see the value of Australian LNG exports at around AUD17.3 billion in 2016, a slight (AUD830 million) increase on 2015.However, the value of exports should begin to climb again in 2017.

- The linking of Eastern Australia to export markets for the first time (through the construction of three LNG terminals at Curtis Island in Queensland) will greatly transform Eastern Australia's gas markets. Although domestic gas prices have increased across Australia over the past 15 years following a period of relative stability in the 1990s, they had remained underpinned by low wholesale prices struck through stable long term contracts. These contacts are confidential and public price data is not available, however it is generally considered in the industry that wholesale gas was contracted at around AUD2-4/GJ. With LNG export now an option, the price of long-term contracted gas for eastern Australian domestic customers is facing significant upward pressure, as prices converge to reflect global netback prices. Although current spot prices are low, long term contracts reflect sellers' long-term expectations for much higher netback prices. AEMO's projections show that gas fired electricity generation will contract in the coming years. This will be particularly acute for combined cycle gas turbines (largely located in Queensland), which will face higher gas prices and subdued wholesale electricity prices outside of peaks on hot summer days.

NAB's Australian LNG export price indicator shows lower prices this year



But the value of LNG exports is forecast to grow steadily as new supply comes online (quarterly data shown)



Iron ore

- **Iron ore prices have trended higher in recent months**, having recovered from a spot market era low of US$37 a tonne (for 62% ore in China) in early December 2015. In late February, prices briefly pushed back above US$50 a tonne – despite continued subdued demand conditions. Short term supply disruptions have been the main driver. We don't believe that this rally can be sustained, due to the weakness in market fundamentals.

- Environmental concerns triggered a court-imposed closure at Vale's Port of Tubarão in January – a facility which accounts for more than one-third of the company's annual exports. While there remains legal uncertainty around the port's short term future, we don't believe Brazilian exports will be impacted long term.

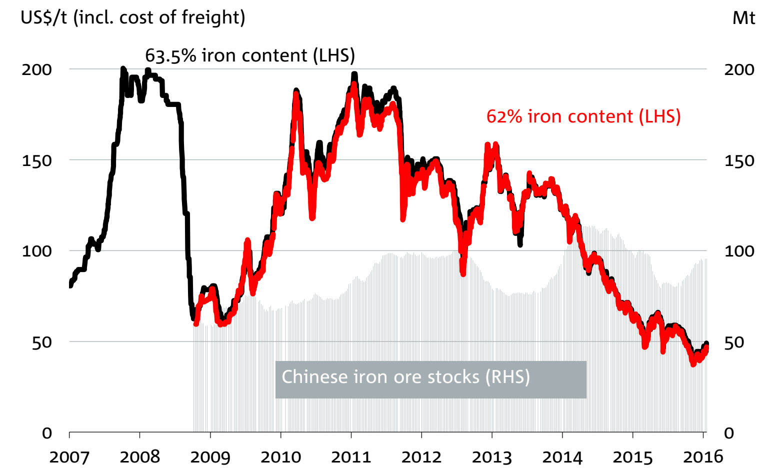
- **Trends in China's steel sector remain the main influence for global iron ore markets** – with China the world's largest consumer and importer of iron ore. However, China's steel consumption fell by around 5.3% in 2015 and is unlikely to recover in 2016.

- China's construction sector is the key consumer of China's steel – accounting for over half of the country's steel demand. In 2015, residential construction starts fell by almost 15%, while office and other commercial building construction both fell by around 10%.

- While housing prices have recovered in China's largest cities, the bulk of construction activity occurs in lower level tier 3 and 4 cities – where price trends have been far more negative. This means construction activity and steel demand should remain weak in 2016 – with the World Steel Association's Short Range Outlook (released in October 2015) tipping a further fall of 2% in Chinese steel consumption.

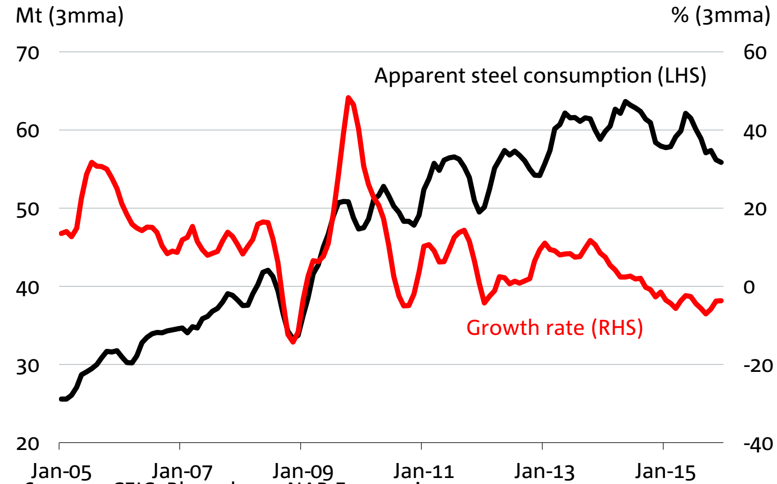
- **Outside China, the World Steel Association expect an increase in consumption – by around 2.9% – driven by growth in non-China Asia.** With ongoing weakness in the global economy and the Asian region more generally, **this forecast appears overly optimistic.** We expect global steel consumption to fall again this year.

Iron ore prices have pushed back above US$50 a tonne despite rising Chinese stock levels and weak prospects



Source: Bloomberg, Thomson Datastream, NAB Economics

China's steel consumption contracted in 2015 on weak construction activity and should fall again in 2016

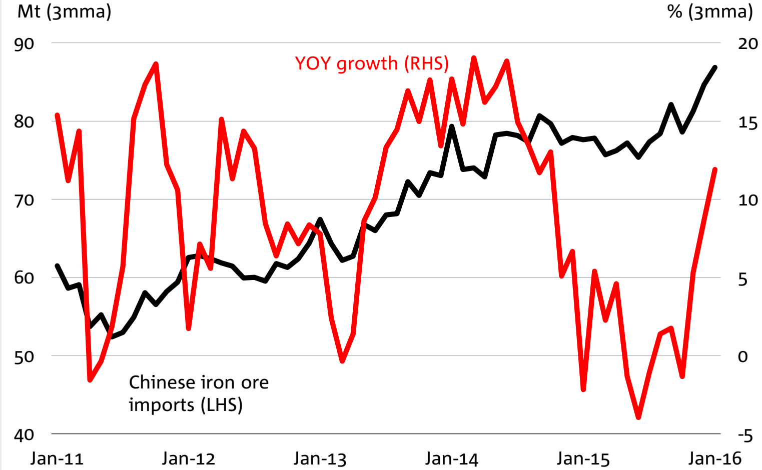


Sources: CEIC, Bloomberg, NAB Economics

Iron ore cont.

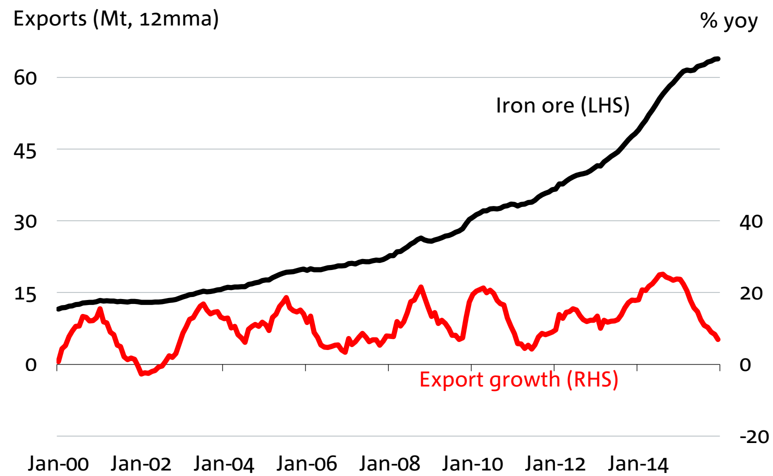
- Global steel production contracted in 2015 – falling by around 2.9% to 1.6 billion tonnes – reflecting falling prices and weak global demand. China's steel production fell by around 2.3%, to total 804 million tonnes – just over half of the global output – with non-Chinese production falling by 3.5%.
- The China Iron & Steel Association expect steel production to fall again in 2016 – down by around 2.9% - and believe that there is little potential for increase in the longer term – with output tipped at 780 million tonnes in 2020 (24 million tonnes lower than 2015). China has excess steel capacity of around 300 million tonnes, with China's State Council announcing plans in February to cut 100-150 million tonnes of capacity over the next five years.
- **Declining Chinese steel production will mean further weakness in iron ore demand – however so far the impact has been more significant in terms of China's domestic ore production** – which fell by 8.2% in 2015, compared with a 2.2% increase in ore imports. **That said, with falling steel production, seaborne iron ore imports are unlikely to record growth in 2016.**
- Outside China, there were considerable steel production declines in the United States and Japan – respectively the fourth and second largest producers globally – with a modest increase in Indian production (enough for India to overtake the United States to be the third largest producer). Weak domestic demand and subdued trade activity is likely to keep Asian production constrained in 2016, while the US economic recovery is likely to remain less commodity intensive than growth in emerging markets.
- Australian iron ore exports rose across 2015, although the rate of growth slowed later in the year. For the full year, exports totalled 767 million tonnes, an increase of 6.9%. The slowing trend for exports is likely to continue in 2016, with only modest expansion (at best) likely. This is despite lower estimates for iron ore breakeven points as oil prices have declined. Similarly, we see little prospect for a significant increase in Brazilian iron ore exports, with Vale having cut its production guidance in December.
- **Our forecast for iron ore prices is unchanged, with the weak market conditions unlikely to support a sustained recovery in prices. We forecast spot prices to average US$42 a tonne in 2016, before easing marginally to US$40 a tonne in 2017.**

Chinese steel makers relying more heavily on imports, with a slight increase in 2015



Source: CEIC, NAB Economics

The slowing trend in Australian exports is likely to continue in 2016, with only modest increases possible



Sources: Bloomberg, NAB Economics

Metallurgical coal

- Spot prices for hard coking coal have tracked broadly sideways since mid-November 2015 – with the active Asia Clear Australian contract at around US$75 a tonne. The benchmark quarterly contract price for Q1 was settled considerably lower at US$81 a tonne – down from US$89 a tonne in Q4.

- **Metallurgical coal producers have been hit by the weakness in global steel output – which has impacted seaborne coal demand.** This has been particularly noticeable in China – where imports fell by around 23% in 2015 to 48 million tonnes. With China's steel output likely to fall further in 2016 (see pages 5-6), there seems little prospect for a recovery in metallurgical coal imports.

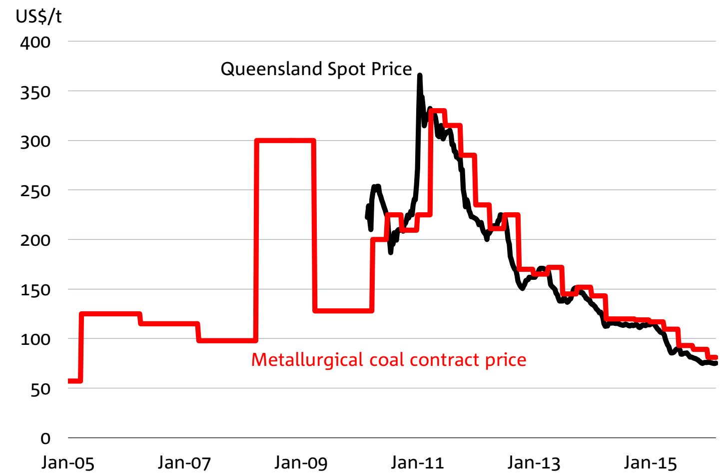
- Chinese steel production appeared to have been more reliant on domestic coal in 2015 – with metallurgical coal imports having fallen faster than pig iron production (-3.7%). Our estimate of China's domestic coal consumption fell by just 1.3% in 2015 – with domestic material providing 91% of steel mill requirements (up from almost 89% in 2014).

- **Further price weakness – as demonstrated by the recent contract settlement – may force further supply cuts.** Producers in North America have cut considerably across the past eighteen months – with US metallurgical coal exports totalling almost 42 million tonnes in 2015 – down around 27% – the lowest level since 2009 (Platts). Similarly, Canadian metallurgical coal exports fell by 10% to 28 million tonnes in 2015. Weak seaborne demand and low prices are likely to keep North American exports constrained in 2016.

- Australian metallurgical coal exports slowed across the last quarter – with the total level for 2015 at 185.7 million tonnes – a slight decline (-0.4%) from 2014. **Given the weakness in global steel production, prospects for 2016 are modest at best, with the potential for another fall.**

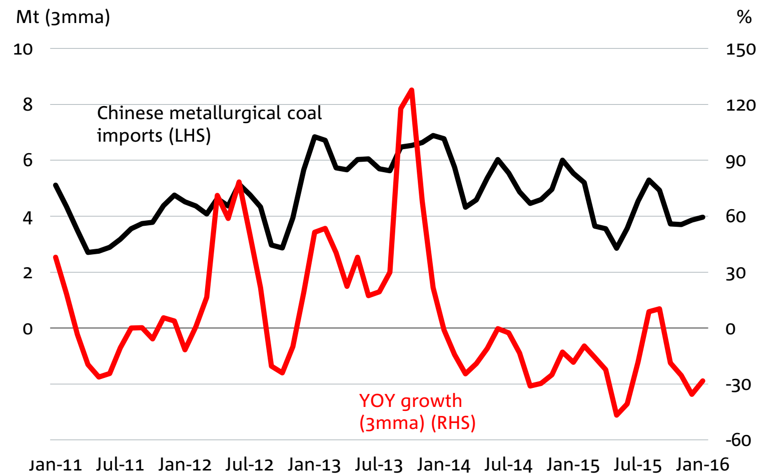
- Given the sharper than expected decline in contract prices for Q1, **we have revised down our forecast for 2016 – to US$80.8 a tonne (from US$83.50 previously) (benchmark hard coking coal). A modest pickup in global steel output is expected to support a marginally higher average price of US$84 a tonne in 2017 – but risks appear weighted to the downside.**

Weak spot market has dragged metallurgical coal contract prices to the lowest levels since early 2005



Source: Bloomberg, NAB Economics

Weaker Chinese steel production has seen domestic coal take a greater share of the market – hitting imports

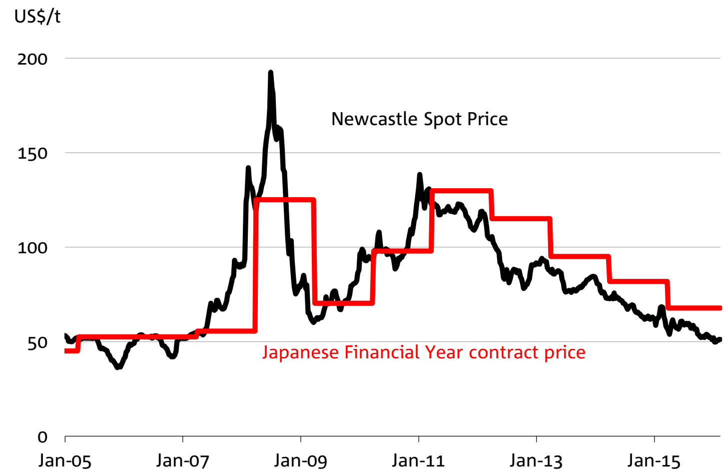


Source: CEIC, NAB Economics

Thermal coal

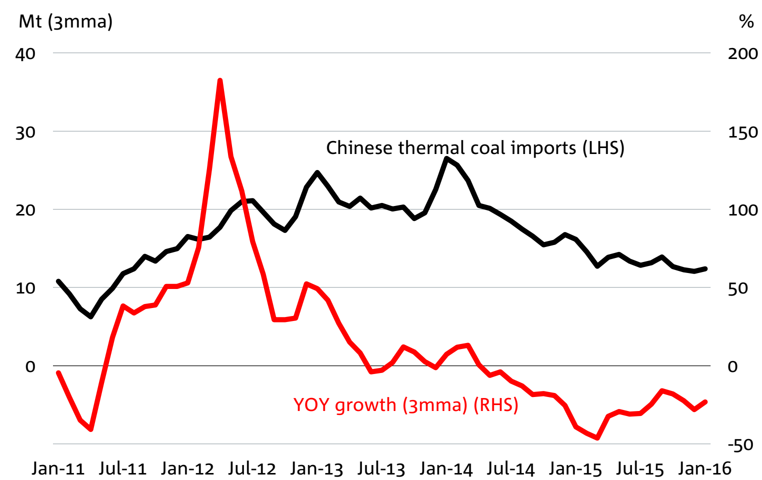
- **Thermal coal spot prices have continued to soften in recent months** – with the active Newcastle contract on the Intercontinental Exchange briefly dipping below US$50 a tonne in mid-January (the weakest level since November 2006) before edging back over the US$50 mark.
- The key driver of weaker market conditions has been declining demand from key thermal coal importers. China's imports of thermal coal fell considerably in 2015 – down by 32% to 156 million tonnes (the lowest level since 2010). Weak conditions in the industrial sector – particularly electricity generation and cement manufacturing – and pollution concerns are continuing to impact and are likely to constrain thermal coal imports in 2016.
- In India, growth in domestic coal production is impacting imports, which have been a key contributor to global seaborne demand growth in recent years. On average, India is opening a new coal mine each week, towards a target production level of 1.5 billion tonnes in 2020 (a little under three times 2014's output). Given this increase, India's energy minister argues that imports will be unnecessary from 2017 onwards.
- **Japanese imports will remain constrained in 2016 by weak electricity demand and LNG's inroads in the country's fuel mix.**
- Higher cost producers have been gradually forced from the market since 2013, and further cuts from major exporters are likely given the weakness in demand. Indonesia's domestic consumption is increasing while many producers are struggling for profitability in the lower price environment. The Indonesian Coal Mining Association suggest that exports will fall below 300 million tonnes in 2016 – continuing a decline that started in 2014.
- Australian exports of thermal coal were almost unchanged in 2015 – increasing by just 0.4% to 201 million tonnes. **The rate of growth declined across the year, and the weak market conditions across Asia are expected to restrict export growth in 2016.**
- **Lower than expected spot prices in recent months are should place downward pressure on contract prices in upcoming negotiations – with the new Japanese financial year commencing in April. Contract prices are forecast to fall to US$58 a tonne (from US$67.80 a tonne this year).**

Thermal coal prices have continued to soften in the early months of 2016



Source: Bloomberg, BREE, NAB Economics

China's thermal coal imports are continuing to trend lower, contributing to the softer market

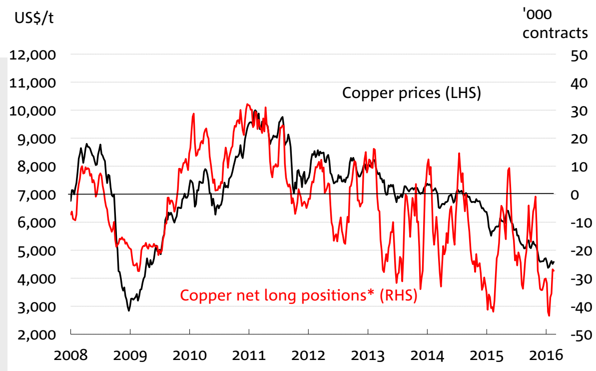


Source: CEIC, NAB Economics

Base metals: Copper

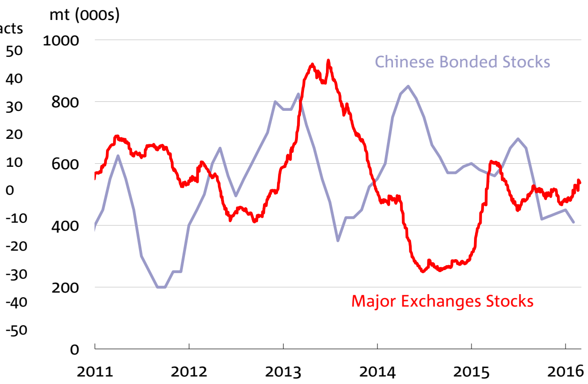
- Copper prices stablised in the first few months of 2016, hovering at around $4715/tonne at the end of February.
- Sharply falling prices in 2015 have seen a range of producers cut production or completely suspend output. In addition, a few scheduled expansions and potential new projects have also been pushed back. The announced production cuts by ten Chinese smelters will reduce world refined supply by approximately 1.5 per cent in 2016. Similar cuts by Glencore and Freeport have also reduced forecast world supply. The previously forecast strong increase in supply for 2016 has been pushed out to 2017 or later, in light of significantly lower prices.
- In the short term, inventory remains abundant. While Chinese bonded stocks continue to fall, inventory has increased at major exchanges. Premiums at major exchanges remain depressed.
- With the economic slowdown continuing across many emerging markets and ongoing moderate growth in the advanced economies, global demand for commodities is likely to remain weak in 2016. The trend slowdown in China and the structural shift towards less resources-intensive sectors of the economy will see demand for base metals continue to weaken.
- The reversal of copper carry trades is continuing into 2016, with a depreciating yuan and lower Chinese interest rates making such trades unprofitable. Albeit happening at a slower rate, these reversals will continue to add to copper supply and limit price growth.
- The latest International Copper Study Group press release shows the refined copper market would likely have been a balanced market in 2015. Its latest forecast released in October predicts a small deficit in 2016, having incorporated a downward revision to global usage and even bigger downward revision to production.
- **Overall, we forecast copper prices to gradually recover in 2016, given the small deficit market forecast, averaging at $4700/tonne in 2016 .** However downside risks remain should global economic conditions deteriorate and risk sentiment worsen significantly.

Copper Prices & Investment



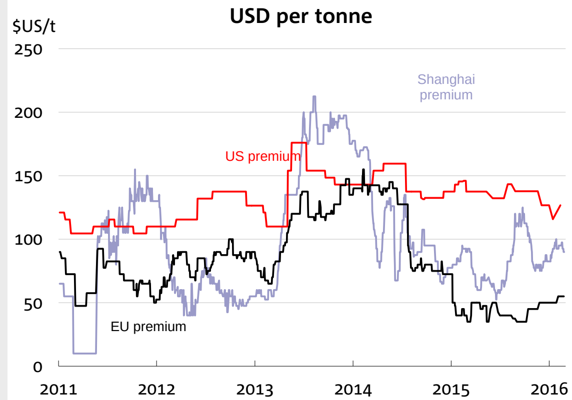
* Combined futures and derivatives net long positions for non-commercial traders
Sources: CFTC; NAB

Copper inventories

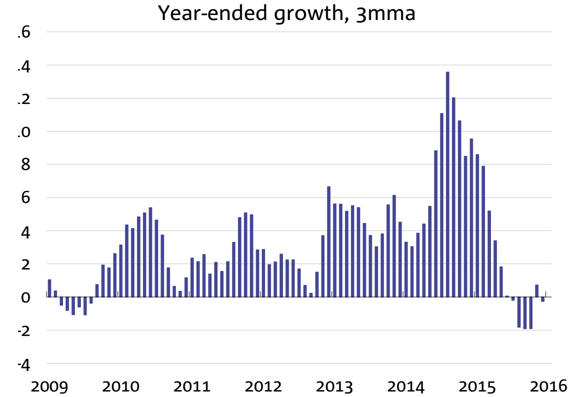


Source: Bloomberg, NAB

Copper Premiums



Refined copper production



ırces: Bloomberg

Base Metal Prices*

	Avg Price (US$/tonne) Feb-16	Nov-15 to Feb-16 % change, quarterly	Feb-15 to Feb-16 % change, annual
Aluminium	1530	4.3	-16
Copper	4599	-4.2	-20
Lead	1765	9.1	-2
Nickel	8297	-10.2	-43
Zinc	1710	8.0	-19
Base Metals Index		-1.0	-23

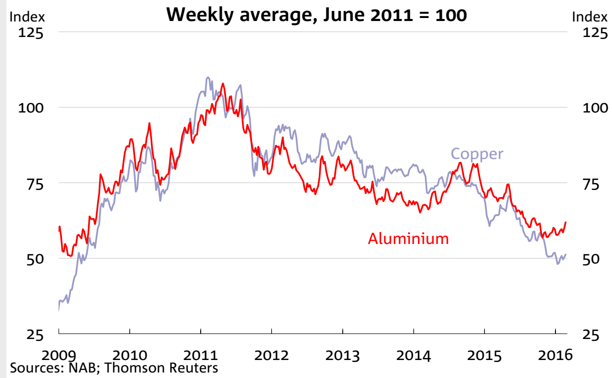
* Prices on an LME cash basis.

Sources: LME; NAB

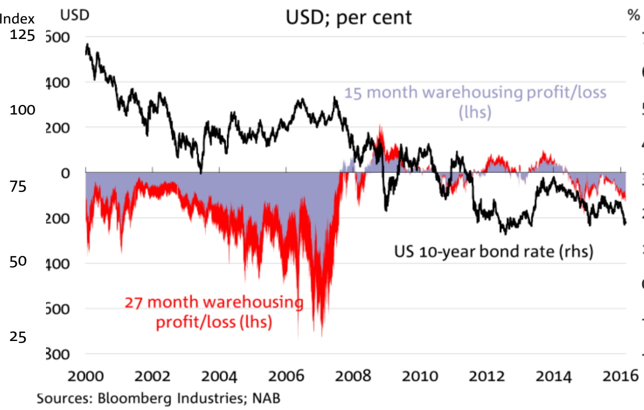
Base metals: Aluminium

- Aluminium prices have also stablised in recent months, rising 4.3% in the three months to February, albeit remaining 16% lower than a year ago.
- Sharp falls in aluminium prices have prompted producers to rethink their production strategies. It is reported that over 70% of aluminium capacity in China is not profitable, with the country producing more than half of the global aluminium supply. As a response to the domestic price falling to its lowest level since 1996, 14 major Chinese smelters met in December 2015 and agreed to cut production in a concerted effort. Since the cost of restarting potlines is high, it is also unlikely this idled capacity will be restarted soon. As a result, these decisions will likely curb supply in a meaningful way and provide support to aluminium prices.
- In the medium term, a significant amount of new aluminium capacity is still scheduled to be added in 2016 in China. The new projects located in the Xinjiang region will especially enjoy access to captive coal mines and off-grid power plants with significantly lower electricity costs. The aforementioned 14 Chinese smelters have also agreed to not start running their added new capacity in a year's time. When these new projects become fully operational will remain dependent on the price trajectory and 2017 might see a glut of new supply coming on line.
- Outside China, the aluminium market remains in deficit and the metal deficit is widening in the US with more producers curtailing capacity and LME inventory continues to decline. However a significant cancellation of warranted aluminium in November 2015 is added to the loadout queue. The added stocks in the short run will keep prices depressed.
- **While we forecast some price recovery in 2016, it is unlikely to be substantial given planned new capacity in China. Overall prices are forecast to average $1530/tonne in 2016**

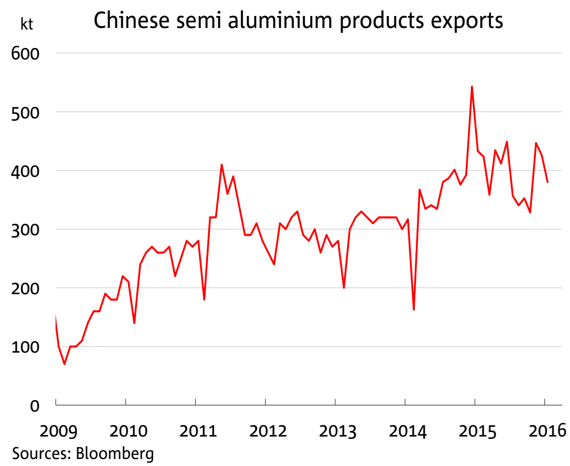
Copper & Aluminium Price (LME)



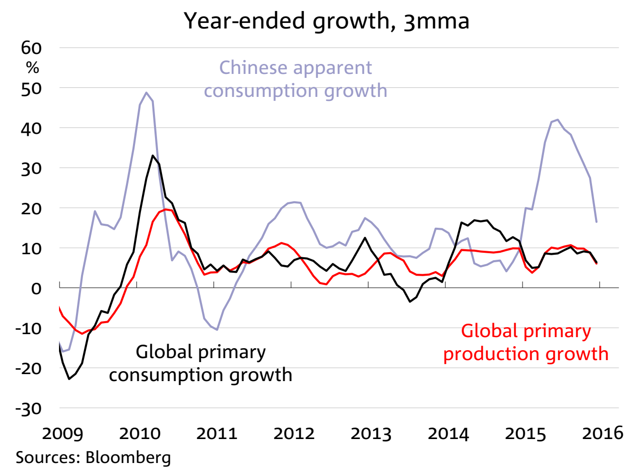
Aluminium Warehouse Incentives



Chinese aluminium exports



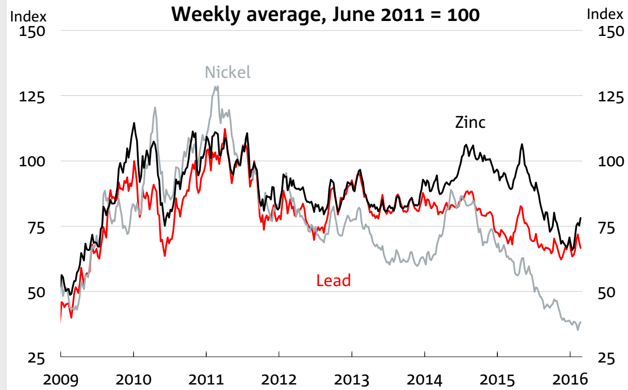
Aluminium Production & Consumption



Base metals: Nickel, Lead, Zinc

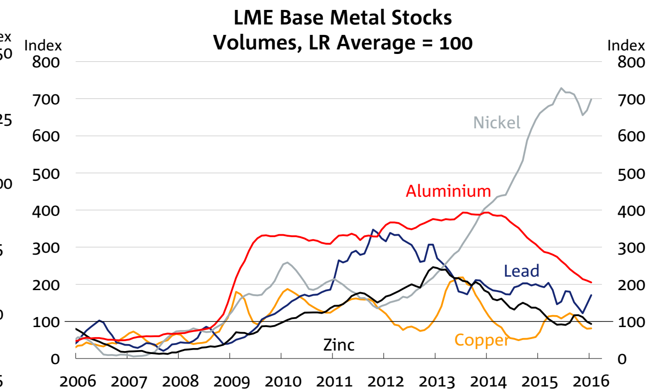
- The nickel price may have reached a support level however it remains the worst performer among the base metals complex. At this price level, it is estimated that around 80% of nickel producers are operating at a loss. The strong decline in Chinese finished nickel production may be an indication that high cost Chinese production is being forced out of the market, however some of that will be replaced by Chinese-commissioned output from Indonesia. The drawdown in LME stocks in 2015 was short-lived, dampening hopes that the market was finally moving away from over supply. Looking ahead, production cuts will continue for high cost producers while demand growth will be slow to improve. **Overall we forecast a balanced market in 2016 before 2017 potentially becoming over supplied again. Prices are forecast to average $8800/tonne in 2016.**
- Zinc prices have recovered on the back of strong fundamentals, rising 8% in the quarter to February. Significant supply cuts by Glencore and a consortium of Chinese smelters will provide continuing support to zinc prices. **We forecast a market deficit for 2016 and an average price of $1820/tonne.**
- There have been more fluctuations in lead prices than in other base metals. While demand has weakened, supply growth has fallen more sharply. Electric bike sales in China, which accounts for 15% of global lead usage, declined sharply from previous years but volumes are expected to remain strong given the size of the market. Supply will likely remain tight as China is enforcing stricter environmental controls and shutting down aged facilities with older technology and high emission levels. **Overall we forecast a small market deficit in 2016 and prices recovering to around $1750/tonne.**

Nickel, Lead, Zinc Prices (LME)



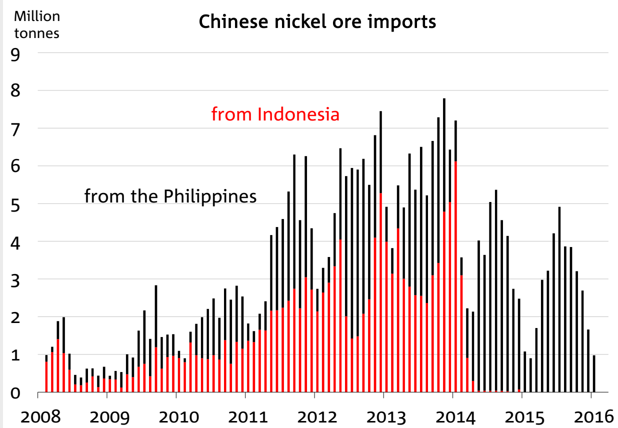
Sources: NAB; Thomson Reuters

LME Base Metal Stocks



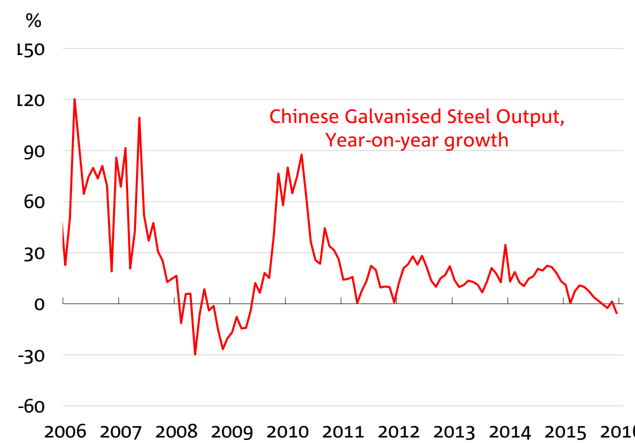
Sources: Datastream; NAB

Chinese Nickel Imports



Source: Bloomberg; NAB Economics

Chinese Galvanised Steel Output, YoY Growth

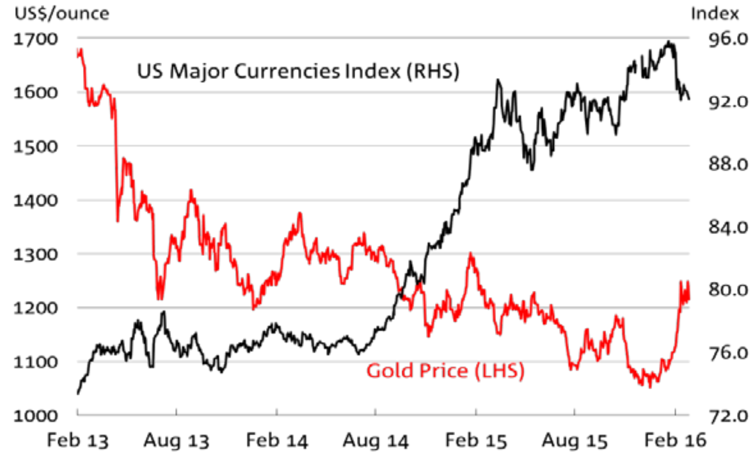


Sources: Bloomberg; NAB Economics

Gold Market

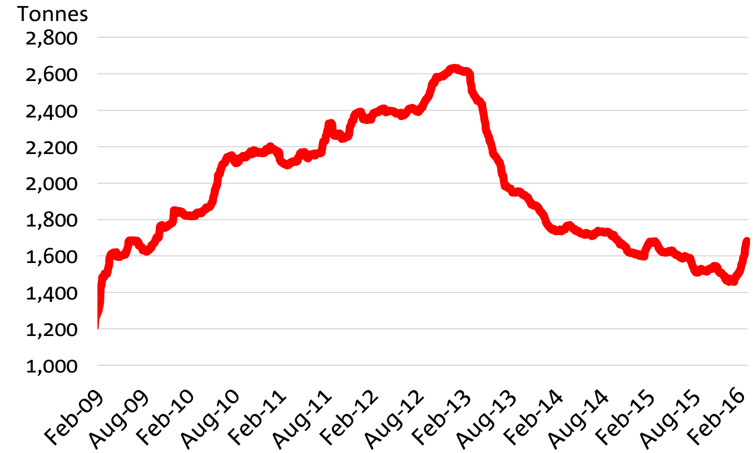
- **After being entrenched in a bear market for more than three years, gold prices staged an impressive surge in recent months as intensifying global financial market uncertainty increases the demand for safe haven assets. A move into deeper negative rates by the ECB and the subsequent adoption of negative rates by the BOJ (albeit consumer deposit rates are still zero) also increased the appeal of gold investment by reducing the opportunity cost of ownership (as gold does not offer any interest returns).** Since its recent low in mid-December, gold prices have surged by more than 15%, to be one of the top-performing major commodity in year-to-date terms. In February alone, gold prices rose by over 9%, the largest monthly gain in more than 4 years.
- **The rebound in gold prices over the period corresponded with a decline in the USD Index.** The USD index softened notably in February on the back of poor domestic data and gyrations in stock markets led by bank and energy stocks, which fuelled expectations that the US Federal Reserve would undertake a more gradual monetary tightening process than previously anticipated. In the meantime, we have pushed out our forecast for the next Fed funds rate hike from June quarter 2016 to September quarter 2016. While there could be further upside to gold prices in the short term, we expect gold prices to resume a moderate downward trend in H2 2016 in line with further US monetary tightening.
- **The return of bullish investors' sentiment was clearly demonstrated by the sharp increase in money managers' net long positions in non-commercial gold futures.** The net-long position in non-commercial gold futures rose for the fourth consecutive week in the week ended February 23 to be the highest since October 2015, according to US Commodity Futures Trading Commission.
- **As a sign of strong investment demand in gold, holdings backed by gold in Exchange Traded Funds (ETFs) reached an inflection point in early January, rising to the highest level in a year as of late February.**
- The strong rally in gold prices has dampened physical demand for gold in recent weeks, with large discounts offered by suppliers in India to attract consumers, while Chinese demand was also relatively soft post-Lunar New Year, which is typically the peak buying season. According to the latest report by World Gold Council, gold holdings by central banks and other institutions accelerated notably in H2 2015. While this reflects the ongoing reserve asset diversification trend amongst central banks, the commencement of regular reporting by China of their gold purchases to the IMF in July last year also contributed to the significantly larger volumes of reported gold-buying activity among these institutions.
- **In light of the stronger-than-expected price performance by gold since the start of the year, we have revised our gold price forecasts upwards slightly. We now expect gold above USD1100/oz for most of this year, ending 2016 at USD1063/oz before moderating to USD960/oz by end-2017. These forecasts assume no resurgence in widespread financial market volatility to the same extent as witnessed earlier this year, although downside risks have increased in recent months.**

Gold & USD Index



Source: Thomson Datastream

Gold Holdings in Exchange Traded Funds

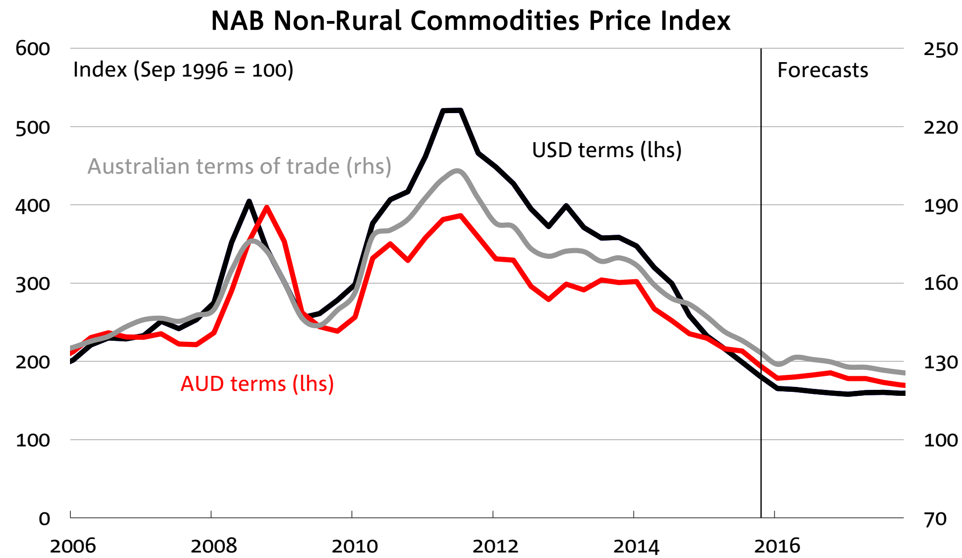


Source: Bloomberg, NAB Group Economics

Outlook

- **NAB's non-rural commodity price index is expected to fall a further 9% q/q in March (in US dollar terms)** – following a similarly sized decline in the December quarter. The forecast decline for the March quarter has been reduced slightly, reflecting the resilience of metal prices relative to ongoing weakness in other commodity markets.
- The USD has also become less of a hindrance to commodity markets as softer economic data out of the US pared back expectations for rate hikes this year. Nevertheless, **commodity prices are generally expected to remain subdued given ongoing concerns over emerging market (especially China) demand, coinciding with additions to supply capacity for many commodities.** Over the past twelve months, declines in iron ore prices – Australia's largest single commodity export – have been a major driver of the index. A number of other commodities have also experienced significant declines, with falls in oil making a notable contribution to the index decline.
- In annual average terms, the **US dollar denominated NAB non-rural commodity price index is expected to fall more than 20% in 2016, followed by a much more moderate decline in 2017 (down around 2%).** Once again, iron ore is the main drag, although energy prices are expected to make a meaningful contribution to the decline as well.
- **In Australian dollar terms, commodity price declines in 2016 are slightly less substantial due to USD appreciation** as the US Fed resumes normalising monetary policy. However, the expected path for AUD depreciation has been delayed, hitting a low of USD 0.68 by late 2016. After falling nearly 20% in 2015 (in average terms), prices should decline a further 15% in 2016 and a more moderate 4% fall in 2017.
- In light of these commodity price projections, **NAB is forecasting the Australian terms of trade to stabilise relative to the declines of recent year, but maintain a modest downward trajectory.** In annual average terms, the terms of trade are forecast to fall around 7% in 2016 and a further 2½% in 2017.

Lower bulk commodity prices lead US index down. USD strength supporting AUD prices near term



source: ABARES, ABS, Bloomberg, Thomson Datastream, NAB

	Unit	Spot 26-02-2016	Actual Dec-15	Forecasts Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17
WTI oil	US$/bbl	32	42	32	34	36	39	40	43	45	47
Brent oil	US$/bbl	33.9	44	33	35	37	40	42	45	47	48
Tapis oil	US$/bbl	35	45	34	37	39	42	44	47	49	50
Gold	US$/ounce	1216	1100	1160	1150	1100	1060	1040	1020	990	970
Iron ore (spot)	US$/tonne	49	46	43	44	42	41	40	41	41	40
Hard coking coal*	US$/tonne	n.a.	89	81	79	81	82	83	84	85	85
Semi-soft coal*	US$/tonne	n.a.	68	62	62	63	64	65	66	66	66
Thermal coal*	US$/tonne	49	68	68	58	58	58	58	60	60	60
Aluminium	US$/tonne	1577	1495	1510	1520	1540	1560	1590	1620	1650	1680
Copper	US$/tonne	4715	4886	4590	4730	4870	5020	5070	5120	5170	5220
Lead	US$/tonne	1749	1683	1700	1730	1760	1800	1810	1810	1810	1810
Nickel	US$/tonne	8465	9420	8430	8600	8860	9210	9580	9960	10360	10780
Zinc	US$/tonne	1755	1612	1680	1780	1870	1960	1980	1990	2000	2010
Henry Hub	US$/mmbtu	1.66	2.50	2.50	3.00	3.50	3.50	3.50	3.50	3.50	3.50
Aus LNG**	AUD/GJ	n.a.	10.51	6.60	5.25	5.79	6.24	6.45	6.61	6.80	6.96

* Data reflect NAB estimates of US$/ tonne FOB quarterly contract prices (thermal coal is JFY contract). Actual data represent most recent final quarterly contract price. ** Implied Australian LNG export prices

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