Commodity Update – Minerals and Energy

榉 National Australia Bank

- Commodity markets have turned bearish again following softer than expected economic data outcomes and concerns over a government crack down on Chinese real estate. The Cyprus banking crisis has also dampened confidence, while the terms of the EU bailout, and subsequent rhetoric has seemingly raised more questions than answers. Nevertheless, the market reaction may have been overplayed and, barring additional shocks, we do not see much additional downside to prices in the near term.
- Bulk commodity prices have eased over the past month or so in line with difficult conditions in global steel markets. End user demand for steel has not yet recovered as expected following Lunar New Year (LNY) period, although a modest recovery during the course of the year remains a possibility. Expectations of additional supply of bulk commodities in coming years will see additional slack enter the market, providing headwinds.
- Gold notched up its fifth consecutive monthly price decline in March; 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, and the US dollar, which is strengthening in line with the modest recover in the US economy.
- Reflecting recent downside surprises, we have lowered our near-term forecasts for some commodities, but hold on to our expectation of a modest recovery in demand conditions over the forecast horizon. Nevertheless, concerns over US and European debt and Chinese real estate policies 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

The influence on demand from the global economy has been relatively mixed over the past month. The banking crisis in Cyprus reminded market participants that Europe's problems are far from over. Even though a deal for funding of the Cypriot banking system was eventually struck between parliament and international organisations, the structure of the bail-out (and subsequent jawboning by authorities) has elevated concerns over the security of deposits in the region.

In the US, despite expected headwinds from fiscal drag this year, economic indicators are pointing to a noticeable pick-up in GDP growth in the March quarter, although recent indicators are suggesting a slowing in momentum towards the end of the quarter. Of particular significance to the industrial commodity markets were the upbeat housing data and improved trend in orders of US capital goods. Fundamentals are also looking better for the US consumer with household wealth strengthening due to rising equity prices and a steadily improving housing market, with the highest annual price growth reported in more than six years in January. However, US consumer confidence was volatile in March, after rising sharply in the previous month; the March outcome probably reflected the implementation of the government's sharp sequester budget cuts, although it appears that confidence lifted towards the end of the month as concern over the sequester effects faded.



In Japan, disappointing export data along with still-depressed survey indicators pose some downside risk to the anticipated economic recovery, although we are holding on to this expectation and should start to see more signs of a robust expansion as stimulus measures and the devalued Yen helps to boost the economy and export demand.

The <u>Chinese</u> economy continues to be a relative bright spot, although early indications are that the anticipated recovery for H1 of this year may not be as robust as previously thought. In particular, we are seeing very few signs that private demand will ramp up enough to support growth later in the year as the impact from the recent public investment stimulus starts to wash out. However, there have been some positive trends in certain parts of the economy of late. Export demand appears to be in recovery and consumer confidence is at its highest level since mid 2010. It also appears that we may have seen the bottom in China's real estate sector with investment and the real estate climate index both picking up. The potential fly in the ointment is how authorities are likely to respond to the apparent turn around in the real estate market.

Overall manufacturing activity (outside of Europe) appears to have stabilised according to PMI indicators. Nevertheless, the US ISM PMI surprised the market to the downside when it came in at (a still expansionary) 51.3 during March, down from 54.2 in February. China's PMI for March was also (slightly) below expectations, but improved from February – February's PMI may have been adversely affected by LNY due to fewer trading days. PMI indicators for Europe remain poor. Japan reported an improved PMI, reaching expansion levels for the first time in 10 months – expansion was strongest in the investment goods sector. PMIs are pointing to further expansions elsewhere in Asia during March, although the pace of expansion slowed in Hong Kong and India. In contrast, Taiwan and Korea both recorded an acceleration in manufacturing activity.

PMI Surveys Index Index China' Advanced Economies Uk 119 55 55 45 45 35 35 25 25 2007 2009 2011 2013 2008 2010 2012 Average of published measures; seasonally adjusted Sources: Markit Economics; NAB; NBS

A significant area of uncertainty is the degree to which the recent Cyprus bailout will impact market confidence, which had been improving in line with global equity markets. The announcement of the unprecedented levy to be imposed on Cyprus bank deposits in order to secure bailout funding from the EU saw an immediate pull back in demand for many commodities, as market participants grappled with the potential consequences of such a move on other already fragile euro-zone economies. The euro fell against the US dollar in response to the news, further reducing the appeal of commodities. However, pressures to dilute the terms of the bank levy prevailed, with the levy to now only affect deposits greater than 100,000 euros not guaranteed by the state under EU law. While the softening of these terms may have been expected to result in a partial unwinding of commodity price declines, this did not happen, with market participants remaining wary on the knowledge that European authorities are willing to take away individuals' assets to help recapitalise the banking system. Nevertheless, market volatility has remained surprisingly muted; the VIX index has remained close to six year lows.

Euro Banking crisis impact on commodity (copper) markets European Banks & Speculative Positions in Metal Markets Contracts Index 000s 20 600 500 10 400 0 300 -10 200 -20 100 -30 Copper (rhs) 0 -40 2008 2009 2013 2010 2011 2012

Despite all this, a small rise in CDS premia for European sub financials suggests that the market sees only limited systemic risks stemming from the Cyprus bailout. In contrast, the timing and extent of the dramatic shift in speculative positions in the copper market shows that pressures on industrial commodity prices are likely stemming from concerns over announcements from Chinese authorities that they will be stepping up curbs on the real estate sector; Chinese construction industry is a major consumer of copper and other raw materials and metals. Overall, following a string of relatively mixed economic news, markets appear to be turning more bearish with prices across most commodities trending lower over March, unwinding previous monthly gains. Nevertheless, prices generally remain above the lows recorded last year when Chinese growth fell to its lowest rate in 21/2 years, and concerns over the US fiscal cliff were approaching their apex. Bulk commodity prices have eased recently, although iron ore prices remain stubbornly resilient in the face of uncertain steel demand. Energy prices have also eased on prospects of weaker than expected demand, although WTI oil and Henry Hub gas have been the exception. WTI has been supported by a decline in inventories, while balances at Henry Hub have also tightened on flat production and robust demand due to 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, and the US dollar, which is strengthening in line with the modest recovery in the US economy.

Summary of Price Developments

Average <u>oil prices</u> retreated heavily in March despite a price recovery towards the end of the month. The decline in average oil prices followed four months of consecutive rises. Average prices of Brent and Tapis fell by around 6% over the month; prices have declined further over the first week of April to around US\$105/bbl and US\$112/bbl respectively. The average price of WTI eased by a more modest 2% over March, but fell sharply to US\$93/bbl in the first week of April. The relative strength of WTI compared to Brent over the past month has largely reflected the decline in oil reserves at Cushing – the delivery point for the US benchmark – even despite an overall rise in US stockpiles. Furthermore, European refinery maintenance has lowered demand for Brent, while a surge in North Sea production has also weighed on price. As a result of these relative shifts, the Brent-WTI spread narrowed to its lowest level since July 2012, to around US\$12/bbl.



Demand for energies dissipated over most of March, with renewed fears of a worsening European crisis weighing on the outlook for the global economy. The initial announcement of the bailout terms in Cyprus saw an immediate pull back in demand for oil, as market participants grappled with the potential consequences. The euro fell against the US dollar in response to the news, reducing the appeal of crude oil, while WTI prices dropped by as much as 1.8%. However, the reworked terms for the bailout did very little to unwind the declines with market participants remaining wary of the potential consequences of the bailout. More recently, prices of WTI have fallen sharply on the back of weaker than expected US payrolls, while the US ISM manufacturing report posted an unexpectedly large drop in March, suggesting the road ahead may be volatile.

Looking through some of the recent weakness in economic data, we remain relatively optimistic about the outlook for oil prices, with technical and economic indicators pointing to more robust global demand compared to last year. However, recent price movements and the backwardation of futures markets indicate a degree of downside risk to our near-to-medium term outlook. On the supply side, improving production from non-OPEC countries is expected to more than offset reduced supply as a result of continued geopolitical tensions, which will dampen price rises. We have kept our forecast for Brent prices unchanged from a month ago. We expect to see continued conflict from the Gaza strip adding to Brent prices in the near to medium term, but worries about a potential European crisis following the recent flare up in Cyprus as well as the impact of austerity on activity in many of the advanced economies will keep prices somewhat contained. We expect inventories at Cushing to recover over time but WTI prices may continue to benefit from a shortage in the near term. The gap between Brent and WTI prices is expected to gradually narrow over the year ahead. Overall, we see the price of WTI lifting to around US\$103/bbl over 2013, while the price of Brent is expected to lift to around US\$117/bbl by the end of the year.

Natural Gas

Henry Hub and National Balancing Point Prices



The continuation of cold weather conditions in the northern hemisphere, and relatively stagnant production have helped to keep <u>natural gas</u> prices elevated. On average, Henry Hub prices rose sharply in March, resuming the rally in prices that stalled late last year. Prices have held steady in recent weeks around the US\$4/mmBtu resistance level, and spot prices are currently around 61/2% above the March average of US\$3.82/mmBtu. Aside from seasonal (weather related) demand, fundamentals supporting underlying demand for gas have also improved in line with a moderate expansion in industrial activity in the US. However, with Henry Hub prices briefly breaching US\$4/mmBtu in March, we are likely to see less support from coal-fired generation displacement.

Supply conditions have tightened in recent weeks largely in response to cold weather and generally flat production over recent months; the supply/demand balance has been in deficit since late last year. In the week ending March 28, heating degree days in the US were 30.2% above normal and 158.5% above last year, holding up heating demand late in the season. Working natural gas in storage declined by 94 Bcf over the same period, which is down from the average rate of 143 Bcf per week in February, but is the largest net withdrawal for this time of year since the data series began in 2002. Sixteen straight weeks of net withdrawals have brought inventories down to 1687 Bcf, which is just 37 Bcf (2.1%) below the 5-year average – the first deficit since September 2011. The current trajectory in gas stocks and

low rig count will help to support prices in the near term going into the injection period – higher prices will be needed to encourage sufficient restocking.





Natural gas prices in the UK picked up in the second half of March due to extreme cold and low storage levels resulting from North Sea production outages and the diversion of LNG to other markets; long-term contracts in continental Europe and premium prices paid in Asia make these markets a priority for suppliers. However, National Balancing Point (NBP) prices have eased in the past week with Norwegian production holding up better than expected and British storage levels receiving an injection over the Easter long weekend – weather conditions are also expected to turn milder. Prices in the two key Asian import markets – Japan and Korea – for February remain elevated, particularly Japanese prices which picked up further in the month, widening the premium to Korean prices.

Japanese utilities to shift to cheaper coal supplies



Tight market conditions in February have generally lifted liquefied natural gas prices in Asian markets, reflecting supply disruptions, solid demand and diversions of LNG to South American markets. Solid seasonal demand and the closure of the country's nuclear power plants are both keeping prices of LNG elevated in Japan and at a premium to other Asian markets. Ministry of Finance data show that LNG imports fell by almost 2% over the year to February, to 7.5 million metric tonnes, although this is largely a reflection of fewer working days in the month compared to last year. Prices of Japan's LNG imports rose by around 61/2% in February, widening the spread to Korean prices to US\$0.76. However, elevated energy prices, along with the cheaper Yen, are now pushing Japanese buyers towards substituting LNG and oil for cheaper coal imports. Similarly, we saw signs of a shift away from traditional oil-linked pricing in February with TEPCO (Japan's largest buyer of natural gas) securing its first LNG contract linked to prices at the Henry Hub delivery point in the US. Japanese

importers hope that this shift in market pricing will secure lower prices, acknowledging expectations of a long-term gas glut.





Prices of LNG shipped to Korea during February were broadly unchanged from the previous month, despite a pick up in import volumes and oil prices during the month; prices of natural gas in the Korean gas market are also linked to oil prices. The more moderate increase in LNG prices may have reflected a decline in industrial activity which fell almost 1% in the month (sa); electricity consumption declined by a similar amount in the month after seasonal adjustment. Lower oil prices over March may help to alleviate some of the pressure on Asian gas prices, although in the longer term it is expected that pricing contracts may be less closely pegged to fluctuations in oil prices than they are currently. Nevertheless, we are now entering a seasonally low demand season and Asian markets appear adequately supplied under long-term contracts, which should also help to cap price pressures in spot markets.





The recovery in thermal coal prices lost some steam in March despite supply disruptions from floods in Mozambique and an industrial dispute at Columbia's Cerrejon mine (reported 3 million tonnes in lost production). Softer than expected industrial activity in major coal importers is also weighing on thermal energy production and keeping coal stocks elevated. Spot prices dipped back below US\$90 per tonne (Newcastle FOB) this month after reaching US\$94 per tonne in early February. Spot prices at these levels will mean quite a bit of downside risk to our long held expectation of US\$100 per tonne FOB for Japanese Financial Year (JFY) coal contracts, although Japanese contracts often settle at a premium to the market.

Looking through the daily volatility, the average spot price of thermal coal shipped from Newcastle (FOB) fell by $3\frac{1}{2}\%$ in March,

more than reversing the rise seen in the previous month. There appear to be very few factors at play that are inclined to drive spot prices much higher from current levels, although a better Chinese manufacturing PMI index for March sends a more positive signal. Nevertheless, LNY and elevated coal stocks at port and power stations have weighed on China's thermal coal demand with imports falling for the second consecutive month in February. The arbitrage window is also turning more in favour of domestic producers, but while recent reforms to China's resource markets may work to keep the arbitrage window closed by putting downward pressure on domestic spot prices, the reforms will also help to drive out high cost producers, simultaneously raising demand for lower cost seaborne coal. China has also recently released plans for further reforms to the coal market that will include eliminating excess production capacity (64.18mt of capacity at 1,256 mines will be shut down, upgraded or consolidated per year).



Demand from Japan may improve this year and into 2014 as aggressive fiscal stimulus and supportive monetary easing gain traction to drive economic growth. However, the future of Japan's nuclear program remains a major unknown for the coal industry. Demand for coal has grown in the years following the 2011 Tsunami that disabled Japan's nuclear capacity. The government is likely to bring some additional nuclear capacity back on line some time in the future, although the recent scrapping of plans to build the Namie-Odaka plant (from 2016) suggest that opposition to reopening existing plants is still effective. In contrast, the outlook for Indian thermal coal demand is relatively bright. In its most recent commodity outlook, the Bureau of Resource & Energy Economics (BREE) project India's coal consumption to increase substantially over coming years as coal fired electricity generating capacity is expanded significantly, while domestic coal production is not expected to be sufficient to meet the added demand.

The same demand factors tend to drive both iron ore and coking coal given their primary use in the production of steel products. Prices for both of these materials rallied from late last year in response to expectations for stronger growth, particularly in China. However, the rally in prices appears to have stalled with both coking coal and iron ore prices giving back some of their recent gains. Prices have experienced headwinds as the temporary factors underpinning the recent rally have washed out and confidence in China's economic recovery is starting to waver. Conditions in steel markets have remained loose. Even though steel production has been relatively robust, the apparent lack of end-user demand has seen steel inventories hit record highs, weighing on demand for raw materials. Nevertheless, the cost of raw inputs has remained elevated relative to steel prices, which saw steel mill profitability dip to its lowest level since around August last year when concerns over a hard landing in China

were still prevalent. The PMI indicator for China's steel industry recovered briefly in February to 58.8 (from 49.3), but has subsequently fallen sharply to below 45 – consistent with other signs of weakness in demand and the sector more generally.

China's steel market conditions



Spot prices for premium hard coking coal have now fallen well below the reported US\$172 per tonne FOB contract price set for the June quarter between BMA and Japanese steel producers; the current spot price is 81/2% below contract. European buyers have expressed disagreement with the settled contact price, which may see the push towards monthly pricing gain momentum. According to AME, spot prices for premium hard coking coal were around US\$157 per tonne FOB in late March, 81/2% lower than the February average. Conditions in the steel market are expected to remain subdued for some time, and stockpiles of coking coal may limit demand for imports. However, changes to railway allocations for coal and domestic coal pricing in China will help to bolster the near-term appetite for coal imports. China's coking coal imports fell in February, but when taken together with January, were 55% up on last year. The delayed impact of the investment stimulus in China should assist prices back toward US\$175 per tonne late next year.

Iron Ore

Chinese Iron Ore Prices*



Spot prices have fallen from their February highs, easing to around US\$135 per tonne (CFR), with the uncertain outlook for steel demand in China encouraging buyer caution in iron ore markets; prices peaked at nearly US\$160 per tonne in mid February. Nevertheless, spot prices remain 50% above the low recorded in early September and appear to have stabilised (and have started to rise) recently on reports that mills are starting to (slowly) rebuild their depleted ore stocks. Demand for seaborne iron ore is also starting to receive support from a favourable price differential to domestic ore. Nevertheless, stocks of iron ore held at Chinese ports remain at very low levels due to robust steel production and lower imports. The stocks-to-use ratio implies there are currently around 20 days of iron ore available at the current pace of steel production; the lowest since 2007. Despite this, mills are likely to remain cautious with their restocking activities so long as demand for steel is modest and steel stocks remain at high levels.





The average price for iron ore (62%) is estimated to have been around US\$132 per tonne FOB for March, down from US\$142 in February. Although we could still see some near-term tightening in the iron ore market from additional restocking, prices are not likely to return to their most recent highs and we expect market conditions to loosen during the remainder of the year. Regarding demand conditions, our central forecasts still encompass a gradual recovery in the global economy later this year, and stronger Chinese growth in H1 - this is underpinning expectations of a modest improvement in steel production this year. However, some softer than expected economic data out of China (and Japan) in recent months could mean that a disappointing recovery in (or lack of) demand is still a possibility. Additional headwinds include elevated steel inventories, excess production capacity, uncertainty over potential changes to China's real estate policies, and ongoing difficulties in Europe (most recently in Cyprus). These demand side factors, in combination with significant additions to supply - partially mitigated by constraints on Indian exports - will keep conditions difficult for both steel and raw material producers - we expect to see iron ore prices trend lower over the remainder of the year.

Base Metals

Base Metal Prices							
	Avg Price (US\$/tonne) Mar-13	Monthly % change Mar-13	Mar-12 - Mar-13 % change				
Aluminium	1910	-7	-13				
Copper	7646	-5	-10				
Lead	2169	-8	5				
Nickel	16725	-5	-10				
Zinc	1926	-10	-5				
Base Metals Index		-6	-8				

* Prices on an LME cash basis

Sources: LME; NAB

In aggregate, <u>base metals</u> prices on the London Metal Exchange (LME) fell sharply over March, after recording modest growth over February, to be 8% lower over the year. Prices declined across the entire base metals complex during the month, although falls were most pronounced for zinc which fell by 10%, after rallying by around 17% since last August. Similarly, lead prices fell 8% last month following a strong rally (17%) since mid last year. Aluminium prices fell by 8% last month, while copper and nickel prices both fell by 5%.



Prices have eased across the base metals complex in the past month on the back of some softer than expected economic data, concerns over the Chinese property market, and a return of Euro concerns in the wake of the Cyprus banking crisis. More recently, softer than expected US payrolls data suggest there may have been additional slack in the economy during March. Nevertheless, we have seen some supporting demand factors as well, such as the continued green shoots in US residential construction, further improvement in the auto sector and additional monetary stimulus announced in Japan. Real estate investment in China has also improved noticeably, but market reactions appear to have been more than offset by uncertainty surrounding Chinese policies on speculative investment. For metals that are tied into the outlook for steel markets - such as nickel and zinc - these trends suggest that we are likely to see ongoing volatility in prices. Nevertheless, stronger consumption growth in the US and policies designed to boost household consumption in China may help to support demand for stainless steel.





Although prices of some metals may have been oversold to the recent string of negative news, we only expect prices to recover modestly in the near term. Even the ongoing industrial disputes and news of protests at a Chilean port – potentially affecting 60% of copper shipments – was not enough to arrest the decline in copper prices last month. Further to this, the sharp reversal in speculative demand for copper recently may suggest significant downside risk to copper prices in the near term. However, with the global demand outlook still looking more upbeat compared to last year, the shift in sentiment may only be temporary preventing a permanent shift in copper prices much below current levels. Tight market conditions are expected to remain for copper, but production growth is set to outstrip demand going forward, removing some of the support to prices over the outlook horizon.

In the face of soft demand, which has included a disappointing return to the market by Chinese buyers post LNY, most metal markets have been running at a surplus causing inventories to rise from already elevated levels. Stocks held at LME warehouses increased heavily for copper, while lead was the only metal that did not record an increase in stocks. High stock levels are limiting any upside to physical prices, although the low interest rate environment, further monetary easing and steep contango particularly in aluminium - are all working to bolster financial sector appetite for metals (which may see inventories trend higher). The risk for metals markets lies in how these inventories are run down over time. An orderly reversal in monetary expectations that is offset by a return of demand is the optimal scenario, but there is still potential for volatile swings in prices. In contrast to LME, rising stocks at the Shanghai futures exchange particularly in aluminium and copper - are likely signalling inadequate demand to soak up rising production.

Gold

Gold notched up its fifth consecutive monthly price decline in March, with the price of the shiny metal currently more than 12% below its most recent peak of almost \$1,800 per ounce, recorded six months ago. The price of gold, at around \$1,580 per ounce, is close to one year lows. 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, and the US dollar, which is strengthening in line with the modest recover in the US economy. While the price of gold has generally softened over the past five months, the decline has not been without volatility. The announcement of the unprecedented levy to be imposed on Cyprus bank deposits in order to secure bailout funding from the EU saw investors flock towards gold to shield their investments from the potential consequences of such a move on other already fragile euro-zone economies. While a subsequent decline in the price of gold may have been expected following changes to conditions on Cyprus deposit holders, this did not happen as investors remained wary that the rescue deal for Cyprus may be used as a template for other indebted European economies in distress. More recently, however, the price of gold has moderated as investors shift their focus back towards the gradually strengthening global economic recovery. A key driver of this recovery has been the exceptional amount of unconventional stimulus provided by central banks in the US, Japan and Europe. While there is some concern that this may lift inflation in the advanced economies, which would boost gold's appeal, there is no evidence of this happening at present. Providing some offsetting support to the price of gold has been the continued building of gold reserves by central banks, particularly those in developing economies.

Gold Price and the US Dollar



We continue to expect the price of gold to moderate over the year ahead, as growth in the major advanced economies recovers and the downside risks dissipate. Partly offsetting this is our expectation for central bank purchases by the emerging economies to provide continued support to prices over the remainder of the year, along with continued strong consumer demand from India and China. As global economic conditions improve further, we expect investors to diversify further into riskier assets and away from gold. Demand from India is also expected to moderate as a result of the government's recent decision to increase the import duty on gold in order to reduce a record current account deficit. On the supply side, gold production is anticipated to increase solidly in the medium to longer term, which will place further downward pressure on prices. Overall, the price of gold is likely to be influenced by monetary policy and currency movements. We see the price of gold easing by around 13% through 2013, to be around US\$1,500 per ounce by the end of the year, before easing an additional 9% through 2014.

Outlook

Commodity markets have turned relatively bearish following a string of mixed economic news in recent weeks. Prices across most commodities turned lower during the month of March, unwinding much of the gains seen since late last year. However, despite all the apparent headwinds, prices have probably overcorrected in some markets where fundamentals have improved. There have been a few signs that global manufacturing activity - outside of Europe - has stabilised, while green shoots in US construction is a positive signal for future US demand. The Chinese economy is also expected to maintain robust growth as the new leadership seek to maintain stability in their first year on the job. However, the various uncertainties have tilted the risks slightly further to the downside, prompting us to revise price forecasts lower for industrial commodities. The potential for a sharp (policy induced) correction in Chinese real estate is most acute, although signs of slack in the US economy during March may also be cause for concern. The handling of the Cyprus

Glossary and handy stuff

bcf - billion cubic feet mmBtu - million metric British thermal units bailout may have raised more questions than answers and is a timely reminder of the ongoing volatility we are likely to see from the Euro crisis. 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 slight decline of around 1% in 2013, before falling by a further 8¼% 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 1¾% through the year to December 2013, before falling by around 1½% over 2014. In aggregating the index, iron ore, thermal coal and metallurgical coal have a combined weight of around 55%.

james.glenn@nab.com.au alexandra.knight@nab.com.au rob.brooker@nab.com.au

Quarterly Price Profile

	Actual				Forecasts			
	Mar-13	Jun 13	Sep 13	Dec 13	Mar 14	Jun 14	Sep 14	Dec 14
Brent US\$/bbl	113	114	115	117	118	118	119	120
WTI US\$/bbl	94	97	100	103	105	106	107	108
Tapis US\$/bbl	119	119	119	119	120	120	120	120
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

	Actual Dec-12	Forecasts							
US\$/mmbtu		Mar 13	Jun 13	Sep 13	Dec 13	Mar 14	Jun 14	Sep 14	Dec 14
Henry Hub	3.40	3.50	3.80	3.75	3.95	4.10	4.15	4.25	4.35
Japan LNG	14.97	15.50	14.90	14.70	14.60	14.40	14.25	14.05	13.00
Brent Oil	110	113	114	115	117	118	118	119	120

Source: Datastream, CEIC, NAB Economics

Quarterly Contract Price Profile (\$US/T)

	Actual Mar-13				Foreca	sts			
		Jun-13	Sep-13	Dec-13	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15
Iron Ore*	128	127	119	115	110	103	100	100	100
Hard Coking Coal	165	172	175	175	175	170	160	150	150
Semi-soft Coking Coal	110	115	115	115	115	115	105	100	100
Thermal Coal	115	97	97	97	97	95	95	95	95
Source: NAB									

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

Base Metals Price Forecasts – Quarterly Average

US\$/MT	Actual				Fore	casts			
	Mar-13	Jun-13	Sep-13	Dec-13	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15
Aluminium	2000	1940	1980	2020	2050	2080	2110	2140	2170
Copper	7918	7600	7680	7680	7660	7640	7620	7600	7580
Lead	2290	2130	2140	2150	2170	2180	2200	2220	2230
Nickel	17296	16950	17120	17250	17330	17380	17460	17550	17640
Zinc	2029	1910	1910	1920	1930	1950	1970	1980	2000
Base Metals Index	304	290	300	300	300	300	300	300	300

Sources: Thomson Reuters; NAB Economics

Gold Price Forecasts – Quarterly Average

	Actual				Fore	casts			
	Mar 13	Jun 13	Sep 13	Dec 13	Mar 14	Jun 14	Sep 14	Dec 14	Mar 15
Gold - US\$	1632	1570	1530	1500	1460	1430	1390	1360	1350
Gold - AU\$	1571	1520	1500	1480	1510	1490	1470	1450	1470

Global Markets Research

Peter Jolly Global Head of Research +61 2 9237 1406

Australia

Economics Rob Henderson

Chief Economist, Markets +61 2 9237 1836

Spiros Papadopoulos Senior Economist +61 3 8641 0978

David de Garis Senior Economist +61 3 8641 3045

FX Strategy

Ray Attrill Global Co-Head of FX Strategy +61 2 9237 1848

Emma Lawson Senior Currency Strategist +61 2 9237 8154

Interest Rate Strategy

Skye Masters Head of Interest Rate Strategy +61 2 9295 1196

Rodrigo Catril Interest Rate Strategist +61 2 9293 7109

Credit Research

Michael Bush Head of Credit Research +61 3 8641 0575

Ken Hanton Senior Credit Analyst +61 2 9237 1405

Equities

Peter Cashmore Senior Real Estate Equity Analyst +61 2 9237 8156

Jenny Khamphet Senior Real Estate Equity Analyst +61 2 9237 9538

New Zealand

Stephen Toplis Head of Research, NZ +64 4 474 6905

Craig Ebert Senior Economist +64 4 474 6799

Doug Steel Markets Economist +64 4 474 6923

Mike Jones Currency Strategist +64 4 924 7652

Kymberly Martin Strategist +64 4 924 7654

UK/Europe

Nick Parsons Head of Research, UK/Europe, and Global Co-Head of FX Strategy + 44 207 710 2993

Gavin Friend Markets Strategist +44 207 710 2155

Tom Vosa Head of Market Economics +44 207 710 1573

Simon Ballard Senior Credit Strategist +44 207 710 2917

Derek Allassani Research Production Manager +44 207 710 1532

Group Economics

Alan Oster Group Chief Economist +61 3 8634 2927

Tom Taylor Head of Economics, International +61 3 8634 1883

Rob Brooker Head of Australian Economics +61 3 8634 1663

Alexandra Knight Economist – Australia +(61 3) 9208 8035

Vyanne Lai Economist – Agribusiness +(61 3) 8634 0198

Dean Pearson Head of Industry Analysis +(61 3) 8634 2331

Robert De lure Senior Economist – Property +(61 3) 8634 4611

Brien McDonald Economist – Industry Analysis +(61 3) 8634 3837

Gerard Burg Economist – Industry Analysis +(61 3) 8634 2778

John Sharma Economist – Sovereign Risk +(61 3) 8634 4514

James Glenn Economist – Asia +(61 3) 9208 8129

Tony Kelly Economist – International +(61 3) 9208 5049

Important Notice

This document has been prepared by National Australia Bank Limited ABN 12 004 044 937 AFSL 230686 ("NAB"). Any advice contained in this document has been prepared without taking into account your objectives, financial situation or needs. Before acting on any advice in this document, NAB recommends that you consider whether the advice is appropriate for your circumstances. NAB recommends that you obtain and consider the relevant Product Disclosure Statement or other disclosure document, before making any decision about a product including whether to acquire or to continue to hold it.

Important Notices

Disclaimer: This document has been prepared by National Australia Bank Limited ABN 12 004 044 937 AFSL 230686 ("NAB"). Any advice contained in this document has been prepared without taking into account your objectives, financial situation or needs. Before acting on any advice in this document, NAB recommends that you consider whether the advice is appropriate for your circumstances. NAB recommends that you obtain and consider the relevant Product Disclosure Statement or other disclosure document, before making any decision about a product including whether to acquire or to continue to hold it. Products are issued by NAB unless otherwise specified.

So far as laws and regulatory requirements permit, NAB, its related companies, associated entities and any officer, employee, agent, adviser or contractor thereof (the "NAB Group") does not warrant or represent that the information, recommendations, opinions or conclusions contained in this document ("Information") is accurate, reliable, complete or current. The Information is indicative and prepared for information purposes only and does not purport to contain all matters relevant to any particular investment or financial instrument. The Information is not intended to be relied upon and in all cases anyone proposing to use the Information should independently verify and check its accuracy, completeness, reliability and suitability obtain appropriate professional advice. The Information is not intended to create any legal or fiduciary relationship and nothing contained in this document will be considered an invitation to engage in business, a recommendation, guidance, invitation, inducement, proposal, advice or solicitation to provide investment, financial or banking services or an invitation to engage in business or invest, buy, sell or deal in any securities or other financial instruments.

The Information is subject to change without notice, but the NAB Group shall not be under any duty to update or correct it. All statements as to future matters are not guaranteed to be accurate and any statements as to past performance do not represent future performance.

The NAB Group takes various positions and/or roles in relation to financial products and services, and (subject to NAB policies) may hold a position or act as a price-maker in the financial instruments of any company or issuer discussed within this document, or act and receive fees as an underwriter, placement agent, adviser, broker or lender to such company or issuer. The NAB Group may transact, for its own account or for the account of any client(s), the securities of or other financial instruments relating to any company or issuer described in the Information, including in a manner that is inconsistent with or contrary to the Information.

Subject to any terms implied by law and which cannot be excluded, the NAB Group shall not be liable for any errors, omissions, defects or misrepresentations in the Information (including by reasons of negligence, negligent misstatement or otherwise) or for any loss or damage (whether direct or indirect) suffered by persons who use or rely on the Information. If any law prohibits the exclusion of such liability, the NAB Group limits its liability to the re-supply of the Information, provided that such limitation is permitted by law and is fair and reasonable.

This document is intended for clients of the NAB Group only and may not be reproduced or distributed without the consent of NAB. The Information is governed by, and is to be construed in accordance with, the laws in force in the State of Victoria, Australia.

Analyst Disclaimer: The Information accurately reflects the personal views of the author(s) about the securities, issuers and other subject matters discussed, and is based upon sources reasonably believed to be reliable and accurate. The views of the author(s) do not necessarily reflect the views of the NAB Group. No part of the compensation of the author(s) was, is, or will be, directly or indirectly, related to any specific recommendations or views expressed. Research analysts responsible for this report receive compensation based upon, among other factors, the overall profitability of the Global Markets Division of NAB.

United Kingdom: If this document is distributed in the United Kingdom, such distribution is by National Australia Bank Limited, 88 Wood Street, London EC2V 7QQ. Registered in England BR1924. Head Office: 800 Bourke Street, Docklands, Victoria, 3008. Incorporated with limited liability in the State of Victoria, Australia. Authorised and regulated in the UK by the Financial Services Authority.

USA: If this document is distributed in the United States, such distribution is by nabSecurities, LLC. This document is not intended as an offer or solicitation for the purchase or sale of any securities, financial instrument or product or to provide financial services. It is not the intention of nabSecurities to create legal relations on the basis of information provided herein.

Hong Kong: In Hong Kong this document is for distribution only to "professional investors" within the meaning of Schedule 1 to the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) ("SFO") and any rules made thereunder and may not be redistributed in whole or in part in Hong Kong to any person. Issued by National Australia Bank Limited, a licensed bank under the Banking Ordinance (Cap. 155, Laws of Hong Kong) and a registered institution under the SFO (central entity number: AAO169).

New Zealand: This publication has been provided for general information only. Although every effort has been made to ensure this publication is accurate the contents should not be relied upon or used as a basis for entering into any products described in this publication. To the extent that any information or recommendations in this publication constitute financial advice, they do not take into account any person's particular financial situation or goals. Bank of New Zealand strongly recommends readers seek independent legal/financial advice prior to acting in relation to any of the matters discussed in this publication. Neither Bank of New Zealand nor any person involved in this publication accepts any liability for any loss or damage whatsoever may directly or indirectly result from any advice, opinion, information, representation or omission, whether negligent or otherwise, contained in this publication. National Australia Bank Limited is not a registered bank in New Zealand.

Japan: National Australia Bank Ltd. has no license of securities-related business in Japan. Therefore, this document is only for your information purpose and is not intended as an offer or solicitation for the purchase or sale of the securities described herein or for any other action.