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AMMA RESOURCE INDUSTRY EMPLOYER GROUP

AMMA RESOURCE INDUSTRY Market Outlook

Spring 2015 edition

Introduction

Welcome to the first edition of *AMMA's Resource Industry Market Outlook*.

This new quarterly report from Australia's resource industry employer group, AMMA, has been developed to meet member demand for a dedicated regular update on investment, economic and financial matters impacting the Australian resource industry.

It answers questions around commodity price volatility; domestic and international market trends; and importantly, provides valuable data and insights to assist organisations in commerical and operational planning. Prepared by AMMA's experienced policy team, this document provides a critical analysis of the overall health of the Australian resource industry.

This data includes:

- Commodity price forecasts;
- Exploration activity;
- The pipeline of new project growth;
- Confidence levels (business and investor);
- Financial market volatility; and
- Other economic considerations, including feature pieces on key developments impacting on the resource industry.

Given the breadth of AMMA's membership base across the whole gamut of the resource industry, this diverse publication covers developments as they relate to mining, hydrocarbons, transport, infrastructure, engineering and the array of servicing and support sectors.

This first report in September 2015 comes as the resource industry digests the unexpected voracity of the recent investment and commodity price down-swing, coupled with persistent market volatility and uncertainty.

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Tristan Menalda's portfolio at AMMA focusses on resource industry policy, advocacy and economics. Tristan has over ten years of domestic and international experience in the resource industry. He has held a number of roles focussing on government policy, strategy, international relations, stakeholder management, investment, economics, risk, governance, audit and accountancy. He was previously the senior advisor, corporate relations to the Managing Director of Rio Tinto Australia and prior to that was at Ernst & Young.

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Summary

The price boom may be over, but the mining boom is not – the key now is volume growth.

While the resource industry is highly cyclical, the forecast long-term duration of suppressed conditions make the current swing unique.

This low point in commodity prices has put an end to the two-speed economy and exposed those sectors and businesses that were overly reliant on the previous strength of the resource industry. The enormity of this swing has forced resource organisations to urgently review their priorities, cut costs and focus on core activities to protect margins and maintain competitiveness.

Moving forward, with considerable corrections and heightened volatility in global markets, mindsets must adjust to a new paradigm where resource profitability in the short to medium term will be based on increased volume growth at squeezed margins, rather than on insatiable commodity prices.

With the recent unstable commodity price boom widely believed to be a once-in-a-lifetime event, Australia cannot rely on history to repeat itself and for another commodity price boom to reappear. It must be accepted that the world has changed and the Australian resource industry is impacted by a growing number of global competitive pressures and events, including:

- Extremely mobile capital increasing international competition for investment;
- New market entrants driving fierce competition and greater production (Brazil, Mongolia, Saudi Arabia and Russia);
- Speculation of a US interest rates rise affecting currency markets and US-denominated commodity prices;
- Recent and unexpected devaluation of the Chinese yuan;
- General volatility in the Chinese stock market;
- New Australian and foreign free trade agreements and alliances;
- Rising political/terror risk in the Middle East impacting commodity prices, energy stocks and others;
- EU-US finance and energy sanctions on Russia; and
- The global push towards renewable energy investment.

Regardless of the turbulence, the majority of the commodities produced by the Australian resource industry will remain essential now and into the future. The world's energy and minerals demand is not abating:

- It is forecast that from 2015 until 2050, mankind will use more energy than in all of previous human history;
- Globally, there are more than 1.1 bn people without access to electricity - 400m people alone in India;
- The United Nations estimates 100m people are homeless worldwide and as many as 1 bn lack adequate housing;
- The OECD predicts the global middle class will increase from 1.8 bn people in 2009, to 3.2 bn by 2020 and 4.9 bn by 2030. The bulk of this growth will come from Asia;
- Ongoing development and urbanisation will drive various intensities of demand and production for different mineral and energy commodities; and
- This is in addition to the existing energy and mineral requirements of current consumers.

The resource industry commodity price boom has moved past its peak, however the 'mining boom' is far from over with strong opportunities for recovery and new activity on the horizon for those countries and producers able to seize them.

Commodity prices

Spot, periodic, long term contracts as well as futures (commodity prices) are subject to a large number of determinants and predictions.
As a result, financial modelling valuations as well as bull and bear speculation differs between analysts, commodities and between resource companies.

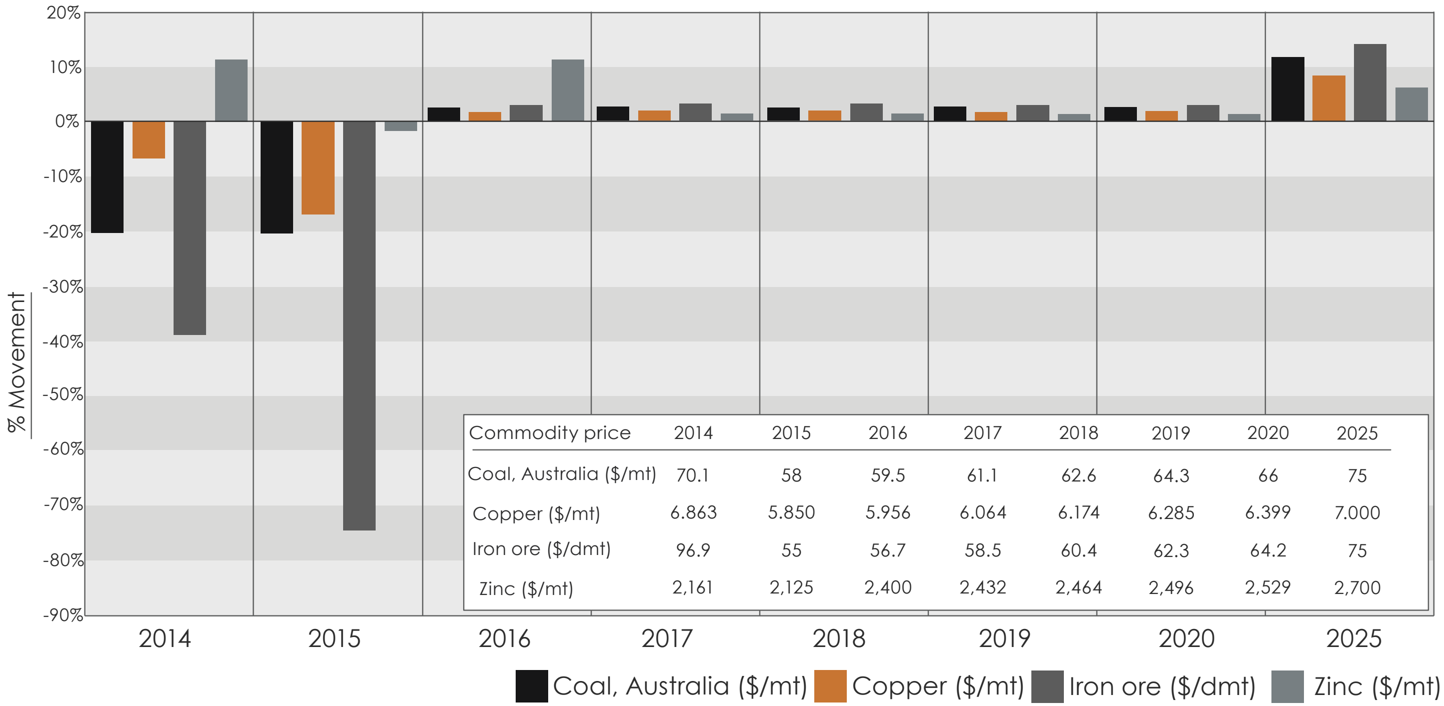
AMMA forecasts above average volatility to continue with flat-lining prices continuing throughout the remainder of 2015. We do, however, expect slightly more buoyant conditions with marginal compound average price and volume growth rates expected in Australia's three leading resource exports: iron ore, LNG and coal from 2013-2014 to 2019-2020.

Note the data in figures 1 a, b and c from World Bank.

Figure 1a: Actual and forecast commondity prices of Coal, Copper, Iron ore and Zinc resource exports

Price forecasts based in nominal U.S. dollars

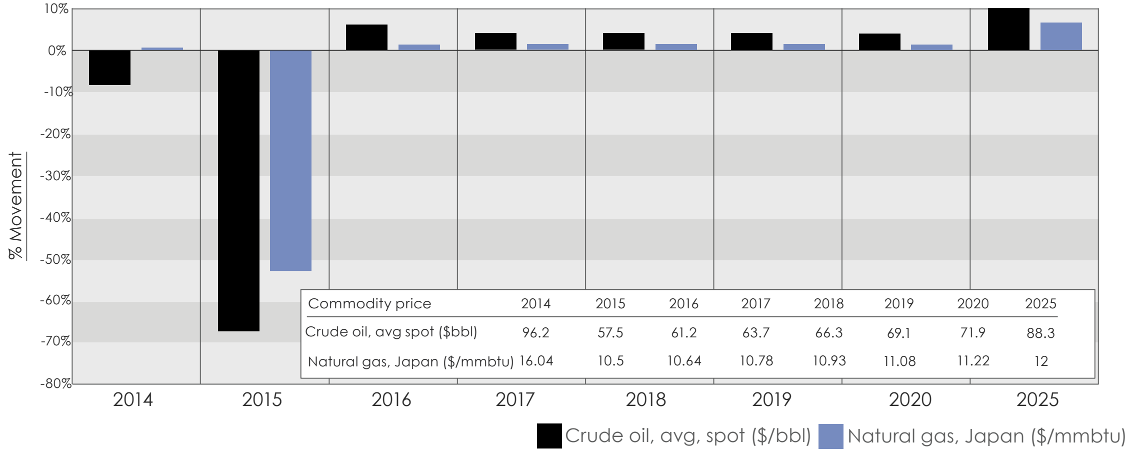
Source - World Bank, Commodity markets outlook July 2015



Commodity price	2014	2015	2016	2017	2018	2019	2020	2025
Coal, Australia ($/mt)	70.1	58	59.5	61.1	62.6	64.3	66	75
Copper ($/mt)	6.863	5.850	5.956	6.064	6.174	6.285	6.399	7.000
Iron ore ($/dmt)	96.9	55	56.7	58.5	60.4	62.3	64.2	75
Zinc ($/mt)	2,161	2,125	2,400	2,432	2,464	2,496	2,529	2,700

Figure 1b: Actual and forecast commodity prices of Australian Crude Oil and Natural Gas resource exports - *Price forecasts based in nominal U.S. dollars*

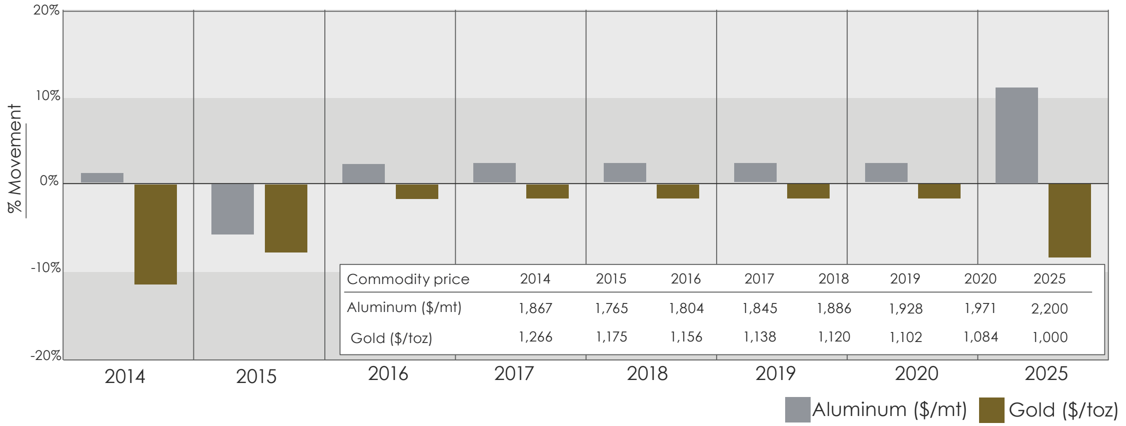
Source - World Bank, Commodity markets outlook July 2015



Commodity price	2014	2015	2016	2017	2018	2019	2020	2025
Crude oil, avg spot ($bbl)	96.2	57.5	61.2	63.7	66.3	69.1	71.9	88.3
Natural gas, Japan ($/mmbtu)	16.04	10.5	10.64	10.78	10.93	11.08	11.22	12

Figure 1 c: Actual and forecast commodity prices of Australian Aluminium and Gold resource exports - *Price forecasts based in nominal U.S. dollars*

Source - World Bank, Commodity markets outlook July 2015



Commodity price	2014	2015	2016	2017	2018	2019	2020	2025
Aluminum ($/mt)	1,867	1,765	1,804	1,845	1,886	1,928	1,971	2,200
Gold ($/toz)	1,266	1,175	1,156	1,138	1,120	1,102	1,084	1,000

Of particular interest in Figure 1c is the forecast commodity price projections for gold and aluminium, and how the World Bank's predictions differ to that of the Australian Department of Industry Office of the Chief Economist (refer Figure 2).

Both of these commodities have been subject to intense debate, which may have impacted price, demand and supply projections. For example, aluminium is an energy-intensive, trade-exposed industry and is subject to issues around energy availability, the cost of fuel sources, and until recently, the renewable energy target (RET) scheme.

As the debate around the future of aluminium and its potential role within an RET played out, the commodity's price fluctuated and so too did the valuation of aluminium producers.

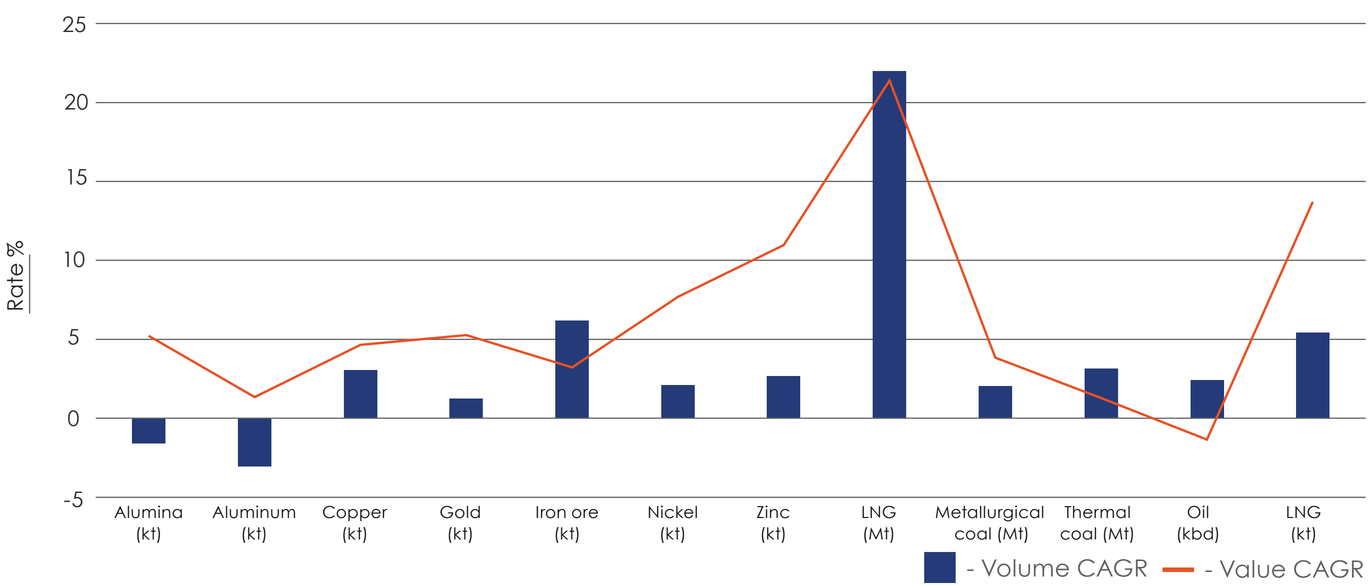
The notion of gold acting as a safe haven asset has also recently been questioned. For example, last November there was a resounding 77.3% 'no' vote in a referendum on increasing the Swiss (SNB) Central Bank's gold reserves from 7% to 20%. With this and other factors at play, the notion of gold as a safe haven asset were questioned.

However, recent developments suggest the market has reverted back to its long-term position of gold being a safe haven asset commodity. For instance, the gold price rose following the recent fall in the Shanghai composite index; while the gold price fell during recent market speculation of a rise in US interest rates.

AMMA forecasts increased merger and acquisition activity in gold in the short-term, as well as marginally higher compound average growth price rates and volumes over the next five years for both these commodities, particularly from 2018.

Figure 2: Australia's 2013-14 to 2019-20 Compound Average Growth Rates (CAGR) per commodity

Source: http://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/Pages/Resources-and-energy-quarterly.aspx# Commodity data



Exploration

Resource exploration has fallen to critical levels.

Australia's mining exploration has fallen by 62% since 2012 to hit a near decade low of $381m in March 2015.

Specifically over this three year period, gold and copper exploration spend fell by 68%; iron ore by 69%; nickel/cobalt by 70%; and coal by 75%. In dollar terms, exploration spend has fallen by more than $550m.

The decline in exploration spend has come as both greenfield and brownfield opportunities are either removed or put on hold as a result of falling commodity prices, high operating costs and a challenging Australian policy environment that is impacting investment in the Australian resource industry.

Figure 3a: Australia: Annual percentage movement in mineral exploration expenditure

Source: ABS Cat. 8412. Table 5.

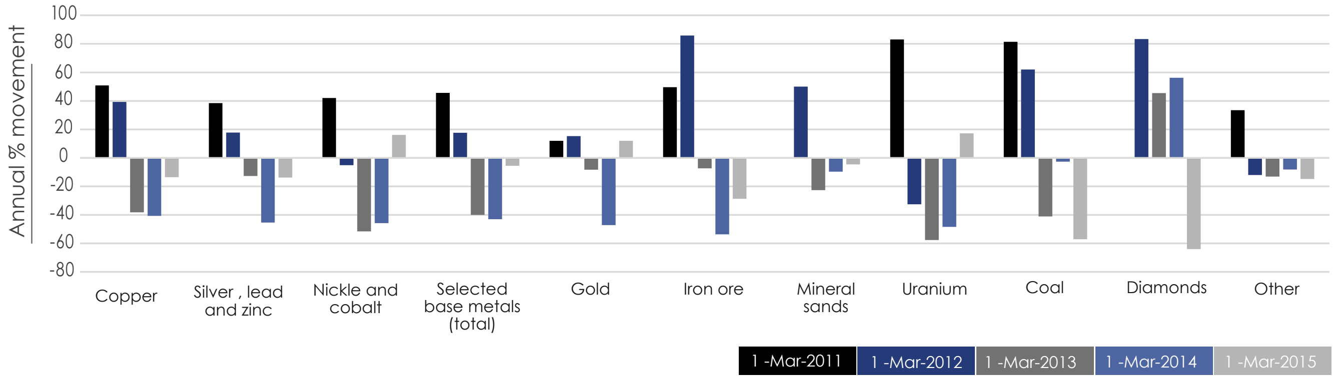
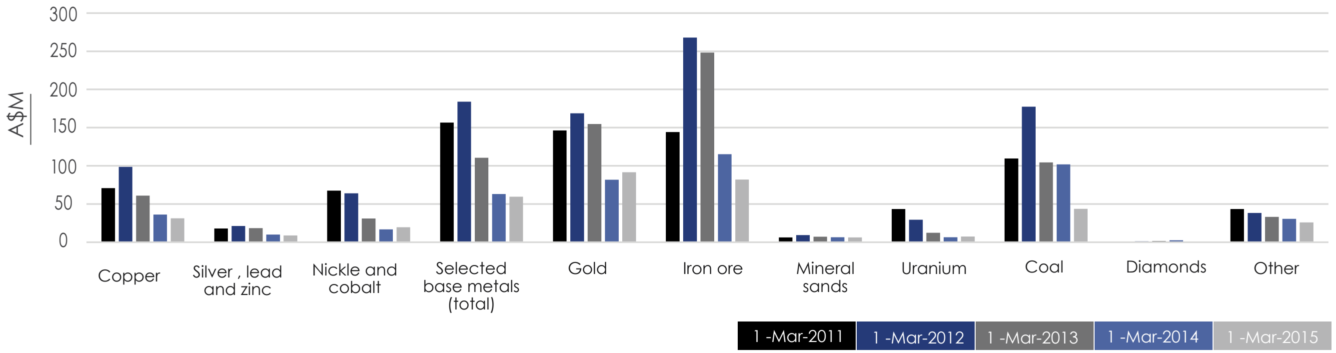


Figure 3b: Australia: Annual mineral exploration expenditure

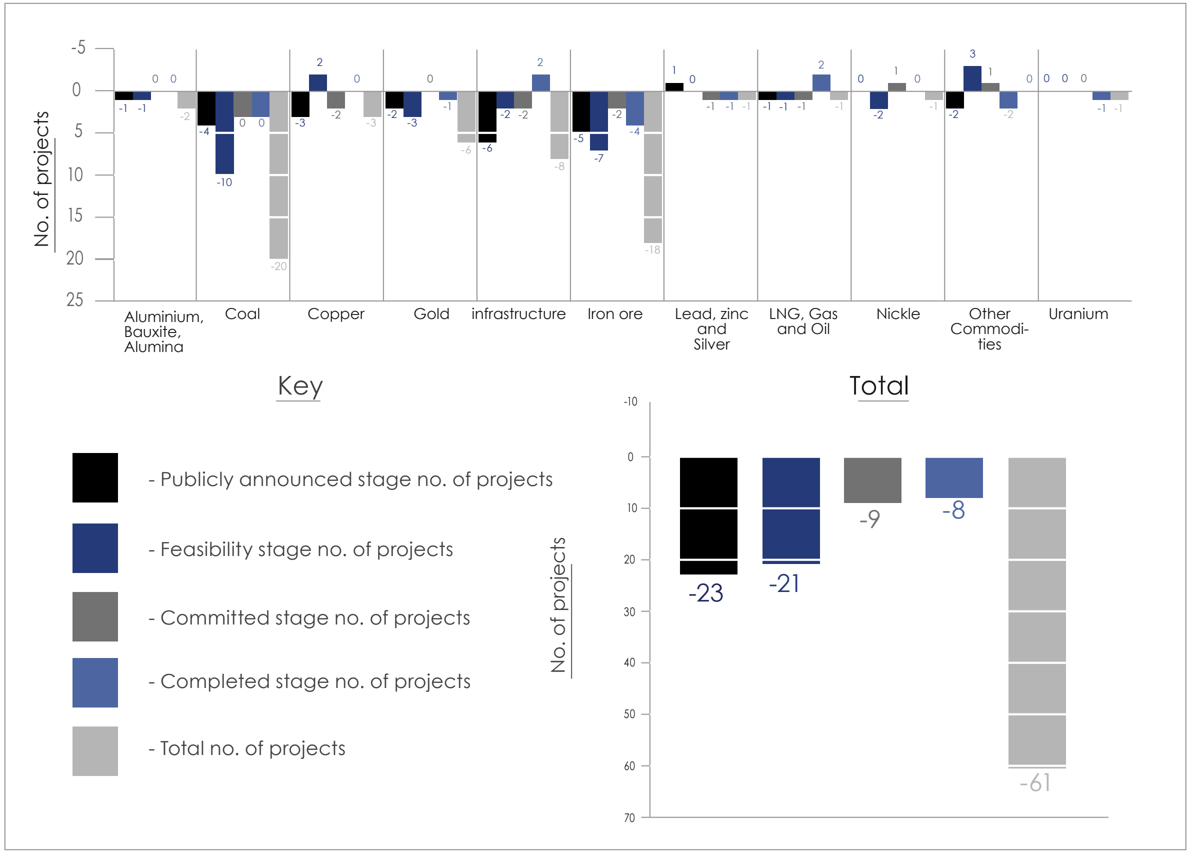
Source: ABS Cat. 8412. Table 5.



Pipeline of growth

Figure 4: 12 month analysis: Net increase/decrease of projects by commodity
April 2014 to April 2015

Source - Office of the Chief Economist - Resources and Energy Major Projects



The latest federal government data on Australia's new major resource projects clearly shows that our country is failing to attract and maintain previous levels of investment.[1]

At the end of April 2013, Australia had 381 major resource projects in the pipeline. One year later, the number of potential major projects had dropped to 293 and by April 2015, further declined to 232. As at April 2015, there were 37 fewer major projects in coal, 26 fewer in iron ore and 18 fewer in gold compared to two years prior.

In dollar terms, from 2014 to 2015, the value of the major resource projects pipeline declined in the range of $80.4bn to $106.5+bn. This represents a significant loss for the country. The conservative value ($80.4bn) is more than the 2015-2016 Federal Health Budget (estimate spend), and the higher ranging value ($106.5+bn) is more than the combined 2015-2016 Federal Education, Defence and General Public Services Budget (estimate spend).

When extrapolated over two years, the value of the pipeline of pending major resource projects declined in the range of $197.4bn to $246.8+bn. The conservative value ($197.4bn) is more than the 2015-16 Federal Social Security and Welfare Budgets plus the combined 2014-15 to 2017-18 Transport and Communication Budget (estimate spend).

It is clearly in our national interest to sustainably foster and attract new and ongoing major project investment into this country.

[1]Source - Office of the Chief Economist bi-annual publication on resources and energy major projects in Australia

Investor confidence

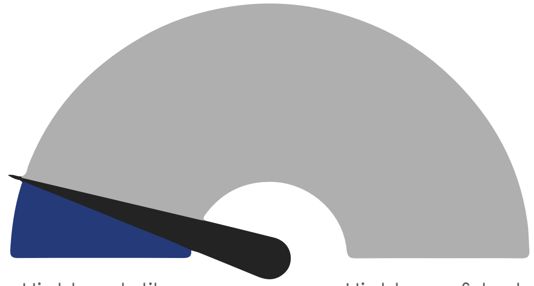
AMMA's volatility index is a forward looking short-term tracker that gauges the level of volatility/confidence investors have in resource stocks. This is an important metric as the level of volatility is typically inversely related to resource-related share market performance, noting the exception of safe-haven traded commodities.

Further, the level of volatility in recent years can be directly correlated to the pipeline of growth or contraction in major resource and energy projects. Given the current state of major economic indicators (terms of trade, unemployment etc.) alongside specific resource industry developments such as depressed commodity prices, rising global competition, falling margins and share market volatility, it is unsurprising to see the level of volatility being measured at a five year high i.e. highly volatile.

From investment in stocks to actual projects, a recent Fraser Institute Global Report[2] shows the key resource states of Australia are falling out of favour with resource executives and investors globally, and other smaller states such as Victoria are seen as less attractive investment destinations than Russia, Nicaragua, Ivory Coast and the Democratic Republic of Congo.

Other key findings from the Fraser Institute's Survey of Mining Company 2014 includes:

Figure 5: Volatility Index



- 45%, 40% and 37% of global respondents reported that minerals production regulation (including land use restrictions) is a mild, strong or severe enough factor not to pursue investment in Victoria, Tasmania and New South Wales respectively;
- 61%, 60% and 56% of global respondents reported that uncertainty regarding the administration, interpretation, and enforcement of existing regulations is a mild, strong or severe enough factor not to pursue investment in Victoria, Tasmania and New South Wales respectively;
- 81%, 61%, 59%, 58% of global respondents reported uncertainty concerning environmental regulations is a mild, strong or severe enough factor not to pursue investment in Tasmania, New South Wales, Queensland and Victoria respectively;
- 75%, 64%, 62%, 59% of global respondents reported that regulatory duplication and inconsistencies (includes federal/provincial, federal/state, inter-departmental overlap, etc.,) is a mild, strong or severe enough factor not to pursue investment Tasmania, Victoria, Queensland and New South Wales respectively;
- At the very minimum, 36% of global respondents reported that the taxation regime (including personal, corporate, payroll, capital, and other taxes, and complexity of tax compliance) is a mild, strong or severe enough factor not to pursue investment in any Australian state or territory;

[2] Source - http://www.fraserinstitute.org/uploadedFiles/fraser-ca/Content/research-news/research/publications/survey-of-mining-companies-2014.pdf.

- 50% of respondents reported that uncertainty concerning disputed land claims is a mild, strong or severe enough factor not to pursue investment in the Northern Territory; and

- At the very minimum, 23% of global respondents reported that all Australian states and territories have labour regulations/employment agreements and labour militancy/work disruptions that create mild, strong or severe enough barriers to pursue investment in our country. Of 25 American states and Canadian provinces assessed, only one state and one province was equal to or above this figure.

A final leading short-term metric used to assess volatility/confidence, this time by resource organisations themselves, is to analyse future expected capital resource expenditure.

While the past six months has seen some buoyancy with Australian resource companies expected to increase 2016 capital expenditure by $222m to $53.8bn, this is a remarkable 55% below 2013 levels ($118.9bn expenditure).

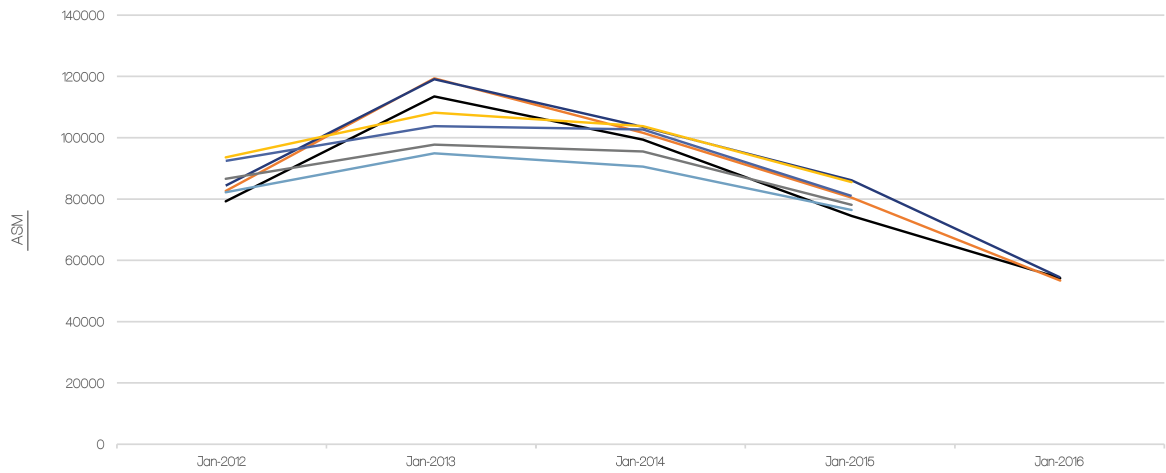
As capital investment falls resource companies have had little choice but to hold their current capital assets for longer. According to the ABS[3] in 2011-12, 3.3% of total annual capital expenditure of mining assets were disposed of. This escalated to 3.61% in 2012-13 but fell to 2.24% in 2013-14.

This shows that mining companies are concerned about the current economic climate. In the short term, this will impact asset depreciation rates (impacting income statements and balance sheets), and longer-term, could see aging assets impact multifactor productivity and thereby profitability levels in parts of the industry.

[3]ABS. Cat 8415.0 - Mining Operations, Australia, 2013-14, Table 5

Figure 6: Expected capital resource expenditure - 2016

Source: ABS Cat 5625, Table 12A



Jun-2012	Jun-2013	Jun-2014	Jun-2015	Jun-2016
79004	113396	99224	74199	53820
82380	119290	101482	80201	53058
84137	118984	103379	85927	54072
93377	108065	103608	85327	
92248	103622	102528	80752	
86370	97587	95365	77832	
81997	94710	90393	76133	

Major economic parameters

Australia is a trade-exposed nation with the resource industry generating more than 50% of all export earnings. When the resource industry obtained above-average commodity prices, organisations were better positioned to absorb higher costs and entrenched productivity deficiencies through their bottom line.

However, times have changed. The combination of increasing labour costs, falling productivity and the high cost of capital have made Australia increasingly uncompetitive on a global scale.

According to the 2014-15 Federal Budget, from now until 2017-18 the wage price index (WPI) is projected to surpass the consumer price index (CPI). In other words, Australia could further price itself out of the market as above average percentage wage growth is added to an already significantly high wage growth baseline, thus making Australian labour costs and thereby unit costs less competitive internationally.

Since the release of the budget, a number of notable events such as China's 'Black Monday' market crash have further tested our economy.

There are now mounting economic forecasts of negative or flat real wage rises over coming years. Given that the year-to-date CPI is 1.5%, it would be of no surprise to see a revised downward WPI trend and corrections or jobs and living standards come under further pressure.

A recalibration of market wages alongside a rise in labour and multi-factor productivity in the resource industry would make it more internationally competitive and attractive to investors. Translated into additional committed resource projects, this will help stimulate future employment growth and generate further taxation revenue for state and national economies.

Figure 7: Major economic parameters(a)

Source: 2014-15 Australian Budget, ABS cat. no. 5206.0, 6202.0, 6345.0, 6401.0 and Treasury.

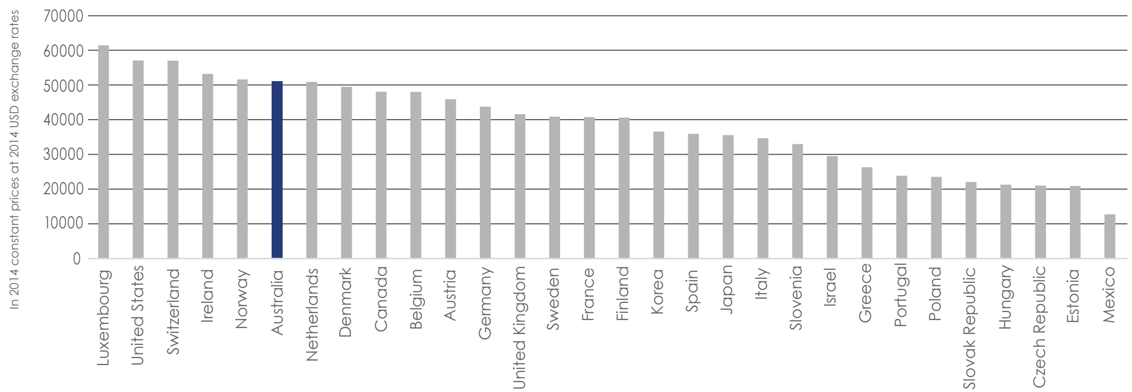
Major economic parameters(a)

	Outcomes	Forecasts		Projections		
	2012-13	2013-14	2014-15	2015-16	2016-17	2018-19
Real GDP	2.6	2 3/4	2 1/2	3	3 1/2	3 1/2
Employment	1.2	3/4	1 1/2	1 1/2	2 1/4	2
Unemployment rate	5.6	6	6 1/4	6 1/4	6	5 3/4
Consumer price index	2.4	3.25	2.25	2.5	2.5	2.5
Wage price index	2.9	2.75	3	3	2.75	3
Nominal GDP	2.5	4	3	4.75	5	5

(a) Year average unless otherwise stated. In 2013-14, 2014-15 and 2015-16 employment, wages and the consumer price index are through the year growth to the June quarter and the unemployment rate is the rate for the June quarter.

Figure 8: Average annual wages by country

Source: https://stats.oecd.org/



Governance and corruption

Investors, project principals and contract operators perform due diligence prior to investing and committing capital and resources to resource projects. An essential element is assessing a nation's sovereign risk, particularly the governance standards and corruption levels, adherence to law as well as security factors such as physical security of personnel and the security and stability of a mining lease.

Figure 9: Governance and Corruption Index

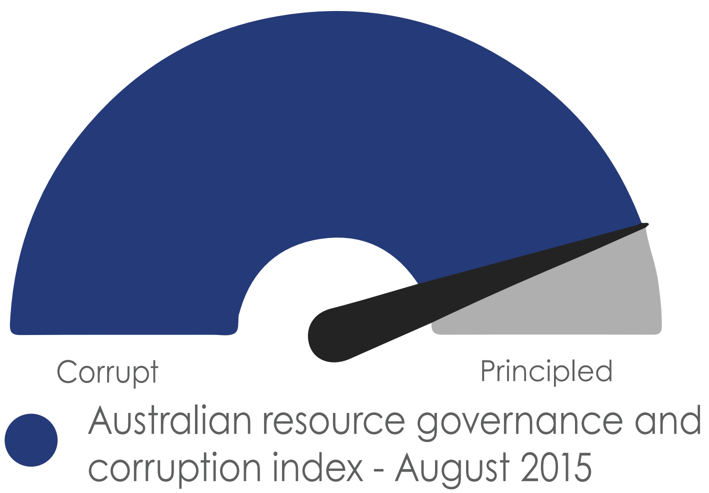


Figure 9 rates the Australian resource sector from a governance and corruption perspective.

This is important because Australia only has a limited proportion of the world's resources and reserves, and other countries with significant mineral and/or energy wealth may be located in areas that are more prone to risk of physical attacks - whether that be from changing demographics in regional and remote areas, terrorists groups, criminals, and/or organised crime and guerrilla groups. Alternatively, resource operations may be located in an area prone to kidnapping, ransom, extortion, bribery and/or corruption.

In some countries that have high or high-potential mineral resource wealth, ransom payments may be required to safely return individuals from illegal captivity. Dependent on the region, facilitation payments may be demanded to retain peace at a mine site or to provide a passage of inventory to a mine (e.g. payment to militants at roadblocks). It is not uncommon for a percentage of company profits to be demanded by militant groups or corrupt governments to secure ongoing operations.

Where this is the case, these countries have vastly higher levels of sovereign risk but typically operate with a comparatively lower cost base than Australia. As investors, project principals and contract operators typically make long-term, multi-billion dollar investment decisions, they tend to be risk averse and favour investment in conservative markets and safe environments. In other words, investors and project operators are usually willing to pay an implied premium in countries like Australia to reduce risk and protect their investment.

However, if Australia's resource governance and corruption risk rises, the Australian resource industry runs the risk of reducing the premium investors are willing to pay to secure their investment. Importantly, there is also a point where cost can outweigh risk. We must ensure Australia does not prove so costly and uncompetitive that investors prefer riskier and more dangerous options.

Notably, Australia and its corporations have strong governance regimes and operate with a no-tolerance approach to corruption. This is highly regarded by the global investment community.

Junior mining activity and capital raising

The resource industry typically relies on equity markets to provide the substantial capital required to construct and operate resource projects.

In the year to July 2015, no junior mining companies were floated on the Australian Stock Exchange (ASX). For the entire resource sector, there has only been one junior mining or energy company that has floated this year.

To put this into perspective, between 2009 and the end of 2014, investors championed more than 270 new junior resource floats on the ASX.

With a number of juniors holding quality reserves but being cash-constrained, various and alternative capital raising strategies are being implemented. Access to international debt capital markets has been tightened to borrowers with strong equity valuations and balance sheets, thereby locking many juniors and some mid-tier miners out of this essential capital. This is driving a trend for juniors to offer bonds with higher coupon rates, some that secure the debt against the company's assets, offer convertible notes or raise equity with a follow-on offering.

Alternatively, miners have also entered into profit sharing agreements with major construction/logistic companies, where they receive a percentage entitlement of applicable positive net operating cash flows in exchange for investments, such as shares, cash or lower contracting rates in the company. With depressed commodity prices likely to remain for the near-term we expect to see an increase in joint ventures and profit sharing resource companies including juniors realise synergies and cost savings.

In addition, we expect there to be more acquisitions, as buyers and major global mining houses acquire quality assets at bargain basement prices to secure supply in response to projected greater demand for commodities as a result of a rising middle-class in Asia, higher rates of urbanisation and comparatively strong GDP growth in our major trading partners.

So what can resource companies do to attract more investment in Australia?

- Mining companies reviewing and refining their sustainable mine optimisation model;
- Showcasing and promoting their high quality resources and reserves;
- Rightsizing their business and workforces;
- Reviewing workforce planning arrangements;
- Prioritising and focusing on core activities;
- Minimising all but essential spend;
- Optimising productivity;
- Displaying strong corporate governance;
- Maintaining their social license to operate; and
- Major mining companies have announced that will review test samples of junior miners with an ultimate view to an alliance dependent on the results.

At the policy and regulatory level, macro and micro economic reforms are also vital to boost investment, which will positively reflect on the entire Australian mining industry and open up greater access to equity markets.

For example, modest changes to the workplace relations framework modelled by KPMG in 2015 could result in increased investment in the resource sector of up to 8%.

Such a boost could ultimately prove the difference between a mine receiving investment and the go-ahead to construct and produce in Australia, instead of the investment going offshore to our international competitors.

Conclusion

AMMA's vision is for Australia to be the resource exporter of choice and the premier resource nation to invest, do business and create jobs. Australia needs to become more globally competitive to realise this vision.

AMMA provides a united voice for the resource industry and has been advocating and lobbying regulatory bodies, and state and federal governments on a variety of issues critical to stimulating growth in the resource industry.

While the commodity price boom may be over, the 'mining boom' is not. Australia has a real opportunity to capture the next wave of investment, if we are prepared for it.

Australia is fortunate to have a large amount of high quality resources and reserves as well as being geographically situated next to key Asian trading partners. To capture investment, Australia needs to secure stable and predictable policy reforms that endure across changes in government.

Further, all policy reform must be internationally competitive, and entice rather than hinder further investment in the resource industry and the national benefits that flow from it.

Future updates

The Summer 2015/16 edition will provide an update on movements and developments in commodity prices, exploration activity, pipeline of growth, confidence levels, volatility levels, as well as other notable developments impacting the resource industry and the economy.

Feedback

AMMA would like to hear from members about other economic or resource-related issues you would like covered in this update. Refer to contact details on the insert page.

If you would like to be added to our mailing list to receive this publication, please contact: tristan.menalda@amma.org.au

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