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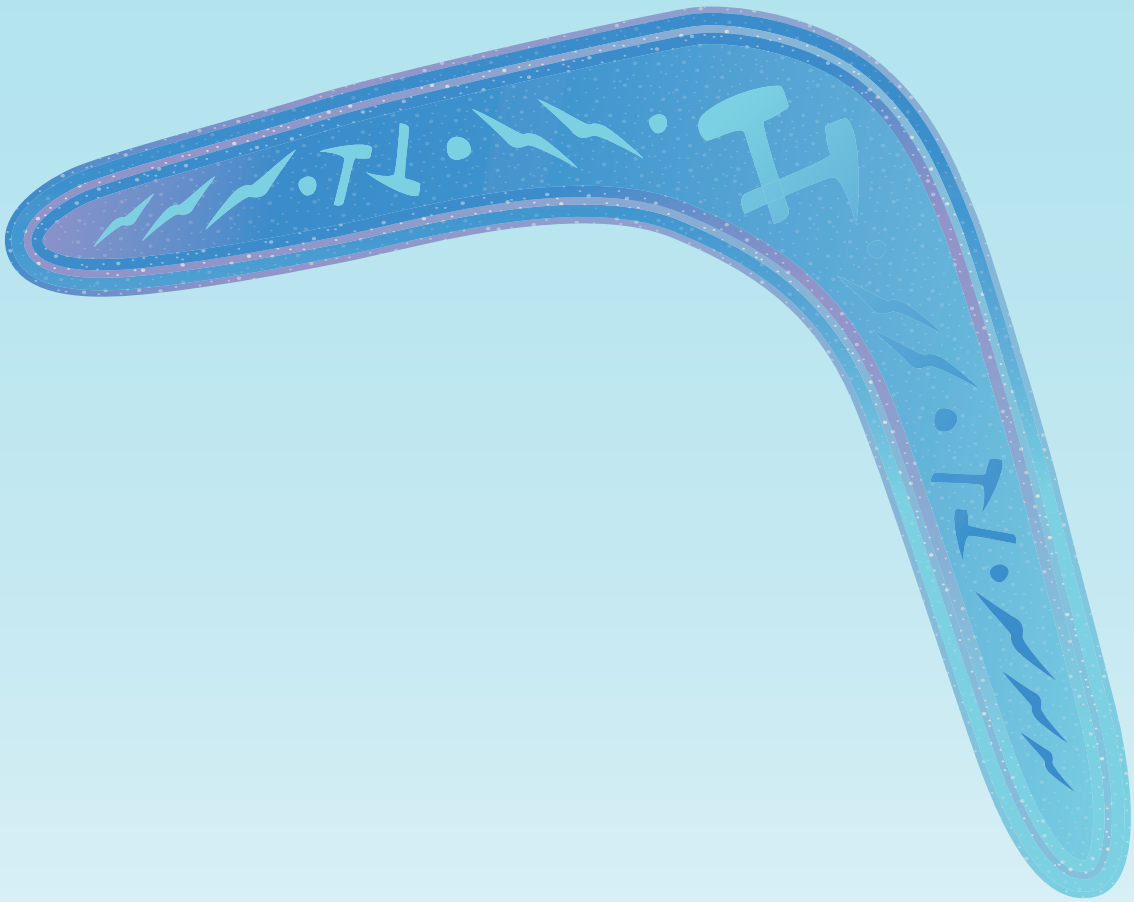
INDUSTRY EXPLORATIONS



AUSTRALIA POWER & WESTERN AUSTRALIA MINING

2014

Economy | Transmission and Generation | Exploration and Production | Finance

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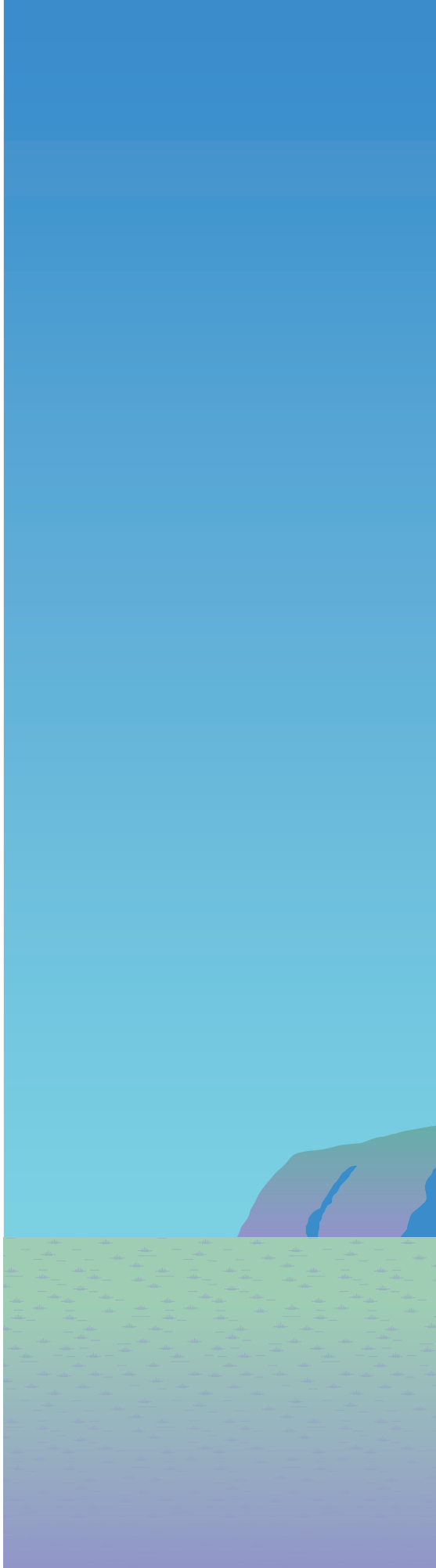

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An Introduction to Australia

A brief overview of the country and economy

2013 marked the 21st consecutive year of growth by the Australian economy. Since the country last suffered a recession in 1991, it has sailed smoothly through the 1997 financial crisis in nearby East Asia, emerged from the 2009 global financial crisis with a few minor bruises – it saw the best growth in the OECD in 2009 – and recorded 2.8% GDP growth in 2013: a year in which the economies of Western Europe and the North America, for the most part, remained stagnated with growth rates of between 0% and 2%.

This performance is attributed to a range of causes. Cynics have pointed to the geographical isolation of Australia and claimed that this has, in some way, shielded them from troubles in the rest of the world. The proximity of the country to the China and Southeast Asia – and the links between Australia and Asia due to high levels of immigration – has allowed it to access these growth markets easier than Western Europe. It is the booming commodity prices of the past few years, and the seemingly insatiable demand for commodities in Asia, that has brought prosperity to Australia's resource-rich economy. Many of those pointing to these reasons will go further, claiming that Australia has won its wealth through luck – geological and geographical – that has allowed it to ignore structural problems. When growth in China slows, they say, Australia will suffer.

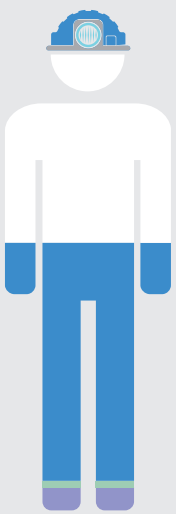
There is no doubt that Australia has benefitted from Asian growth and its natural resource wealth. Mining has been the country's primary economic driver for years. Yet 2013 did see falling commodity prices and a slow down in China, where GDP growth fell to its lowest level since 1991 (still a healthy 7.6% though). Australia, despite struggles in the mining sector and some related areas of the economy, still posted positive growth. Its previous successes owe more to government policies – which in 2009 included a $50 billion fiscal stimulus package and a cutting of interest rates to historic lows – than luck.

While the natural resources of Australia historically played a major role in shaping the country's economy and still account for a significant portion of the country's GDP, the country is not as single-sector dependent as some would claim. A boom in manufacturing, particularly after the Second World War, and the development of a sophisticated financial sector in the late 20th century has led to Australia now enjoying a diversified and prosperous economy. The depreciation of the Australian dollar from its heights of 2011, 2012 and the start of 2013 – during which it generally remained above the US dollar – has supported export-orientated industries. Advanced manufacturing, such as the automotive industry, aerospace, defense, medical and electronics), has increasingly taken a leading role, supported by increased spending on research and development and well protected intel-

POPULATION AND WORKFORCE INFORMATION

Source: CIA World Factbook, CAPP

Population 2014
22,507,617



- Labor Force 2013: **12,400,000**
- Unemployment 2014: **742,200**
- Mining Employment 2013: **261,800**
- Manufacturing Employment 2013: **938,800**
- Construction Employment 2013: **1,045,000**

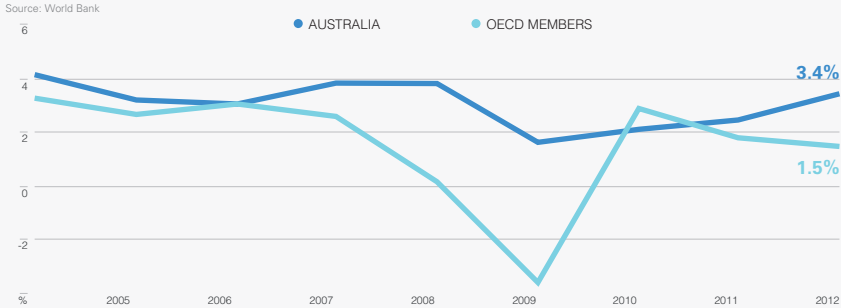
AUSTRALIA AT A GLANCE

Source: CIA World Factbook

Population: 22,507,617 (July 2014 estimate)
Capital: Canberra
Head of Government: Prime Minister Anthony John Abbott
Currency: Australian Dollar (AUD)
GDP: $1.488 trillion (2013 estimate)
Growth Rate: 2.5% (2013 estimate)
GDP per Capita: $43,000 (2012 estimate)
Economic sector breakdown: agriculture: 3.8%, industry: 27.4%, services: 68.7% (2013 estimate)
Exports: $251.7 billion (2013): coal, iron ore, gold, meat, wool, alumina, wheat, machinery and transport equipment
Imports: $245.8 billion (2013): machinery and transport equipment, computers and office machines, telecommunication equipment and parts; crude oil and petroleum products
Major Trade Partners: China, Japan, USA, South Korea

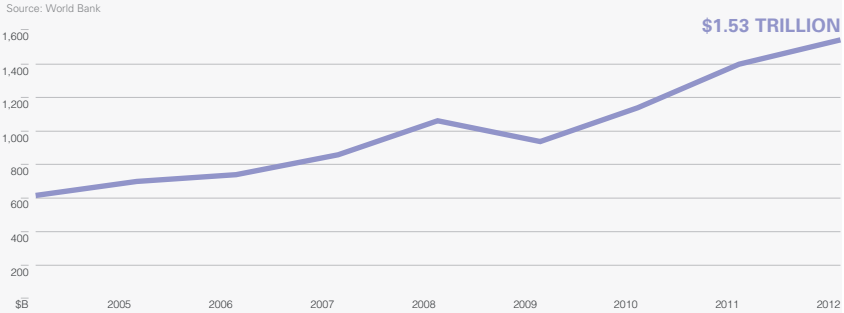
GDP GROWTH RATE

Source: World Bank



GDP (CURRENT US DOLLARS)

Source: World Bank



lectual property. Tourism numbers and receipts have steadily increased over the past two decades. The country's financial center is arguably the hub of the Asia Pacific region, fighting for the title with Singapore and Hong Kong.

The country is certainly not free from worries. Labor productivity has slowed over the past decade and the population, like that of many developed countries, is aging. Australia stands to suffer particularly heavily from climate change: being, as it is, the driest country on earth. This danger was aptly demonstrated in 2011, when floods of coal mines caused coal export revenue losses of between $5 billion to $9 billion. These challenges will not be easily solved by lowering interest rates or other fiscal policies. The issues they raise – carbon taxes, encouraging immigration, and so on – are politically controversial. Yet they must be dealt with if Australia is to continue its impressive run of success. •

Russell Marsh

Policy Director
CLEAN ENERGY COUNCIL

Could you provide us with a brief introduction to the Clean Energy Council?

The Clean Energy Council is the peak industry body for clean energy distributors, which include energy efficiency and renewable energy providers. The Clean Energy Council exists to serve its 550 members and looks after their interests on a global scale. The Clean Energy Council is solely focused on energy efficiency and renewable energy and has no affiliation with gas, nuclear or coal industries.

What are some of the main objectives that the Clean Energy Council is currently involved with?

The Clean Energy Council is currently focused on the review of the government's renewable energy targets. The current target was increased in 2009 to produce 20% of electricity generation by renewable energy sources by 2020. The federal government set up a Climate Change Authority that has the responsibility to review energy targets and to establish whether objectives are being effectively met. The Renewable Energy Target is the single piece of legislation that affects all of our membership and is the most important policy for the renewable energy industry in Australia. Policy reviews create uncertainty throughout the entire industry so it is important that the Clean Energy Council ensures that all of our members remain unscathed. There are seven recommendations that suggest some form of change to the design of the energy target. The Clean Energy Council is focused on the possible impact of any potential changes on the industry and our members.

Why is the amount of power generated in Australia from renewable energy sources so low compared to other countries?

The power generated from renewable energy in Australia is 10.5%, which is due to the late implementation of renewable energy targets and policies to drive the deployment of renewable energy in Australia. The original target was introduced in 2000 for 9,500 GW, which was 2% of electricity generation. Since 2004 the industry has developed slowly because of the lack of growth targets. In addition, Australia has its energy systems based around fossil fuels; the country has hundreds of years of coal and gas reserves, which has resulted in less of a focus on renewable energy.

Is the target for 20% of power generation to be generated from renewable energy sources by 2020 achievable?

Australia has more than enough resources in the form of solar, wind and wave resources that will allow Australia to meet the target. However, the challenge is from the uncertainty regarding regulatory issues and state planning policies that are not particularly favourable to renewable energy resources in general. The federal government sets targets for renewable energy resources, although the delivery of these targets is affected by the policies that the state government control. The state governments are involved in planning regulations and the management of the grid. Australia's three main states now have a liberal coalition government, which has a different view to the federal government with regards to global matters and renewable energy. New South Wales and Victoria are looking to introduce new planning regulations that are more stringent to deploy wind energy in Australia. The Queensland government and the New South Wales government have both spoken publicly of their lack of support for the new energy targets. There is tension between the federal and state governments surrounding the delivery of the energy targets, which require the corporation of the state, creating another challenge over the next few years.

What has been the public reaction to renewable energy targets in Australia?

The deployment of renewable energy needs to be competitive, although the average Australian household is currently paying $100 annually towards the Renewable Energy Target, which should decrease to $60 by 2020. There is evidence to demonstrate that renewable energy in the energy business is keeping wholesale energy prices lower than what they would otherwise be. South Australia gets 25% of its energy from wind and the wholesale price is $10 lower than what it could be. The retail cost of electricity has increased slightly, although this is balanced by the decreased wholesale price of energy due to wind and solar in the grid. The Bureau of Resources and Energy Economics carry out the Australian Energy Technology Assessment every two years that examines the cost of 59 different generation technologies. The 2012 review found that two out of the five lowest cost technologies to Australia were renewable energy sources, which included onshore wind. By 2030, the lowest cost electricity generation technologies in Australia will be renewable.

What type of investment is needed from the private sector into Australia?

There has been A$18 billion investment into the Australian renewable energy sector from large international players in the power sector. By 2030, it is expected that there will be over A$30 billion of investment made into the renewable energy sector in Australia, which will benefit the general economy. •

An Introduction to Western Australia

A brief overview of the state and economy

WESTERN AUSTRALIA AT A GLANCE

Australian Bureau of Statistics

Population: 2,517,200 (December 2013 estimate)
Capital: Perth
Head of Government: Colin Barnett (Liberal)
GSP: A$252.999 billion (2013 estimate)
Growth Rate: 5.1% (2013 estimate)
GSP per Capita: A$102,232 (2013 estimate)
Exports: A$122.705 billion (2013 estimate): iron ore, gold, natural gas, crude petroleum, wheat
Imports: A$43.550 billion (2013 estimate): crude petroleum, refined petroleum, passenger motor vehicles
Major Trade Partners: China, Japan, Singapore, United States

If Australia is known as "the lucky country," then Western Australia could be considered the luckiest of its five states and two territories. The nickname, coined by Australian professor Donald Horne in the 1960s, was largely inspired by the abundance of natural resources that punctuate the country's landscape. Western Australia is a vast area that covers nearly one-third of Australia's total surface and is home to some of the world's largest iron ore deposits, as well as over 50 other metals and minerals. Queensland may have coal, Victoria may have gold, but Western Australia has a culture and history deeply rooted in mining and resources, which it has used to its benefit.

Western Australia can claim impressive economic credentials. In 2012/2013 it claimed the second-highest gross state product (GSP) growth after the Northern Territory, at 5.1% (NT showed growth of 5.6%): driven by the mining sector, which contributed 3.6%. In the period between 2001/2002 and 2012/2013 it boasts the highest average annual GSP growth, at 4.9%: substantially higher than the next highest, NT, at 4.1%. Unemployment is below the Australian average and GDP per capita is above the Australian average. Mining and resources have always been the backbone of Western Australia's economy. In 2012/2013, the value of the state's mineral and petroleum sector was A$101.8 billion, which is the second-highest total in history, behind the record A$108 billion in 2011 according to the Department of Mines and Petroleum. Western Australia and the national economy continue to benefit from the growth in the resources sector. Confidence has returned to the market on the back of solid price rises in iron ore. As of September 2013, committed capital expenditure on major projects in Western Australia increased by 8.1% to A$146 billion from the $135 billion at the end of April 2012. A further A$97 had been identified for planned and possible projects.

West Australian resources companies total market capitalization at the end of November 2012 stood at A$86 billion, an increase of 2.1% from the end of August 2012. This growth has strengthened post-election, with strong results posted by majors BHP Billiton, Fortescue Metals Group and Rio Tinto. This looks to translate into strong, stable growth in the coming period. BIS Shrapnel, a market forecasting service, has forecast mineral production in Australia to increase by 41% over the next five years: a far cry from the dim results predicted in the first half of 2013.

However, Western Australia's mining industry must now solve a series of structural problems, the answers to which will define the face of the industry moving forward. Western Australia has grown fat off its "luck," but the rise of the Pilbara and the country's oil and gas industry have come at a cost. Mines and their ore bodies have been spared: their miners, spoiled. Mine productivity has hit a historic low as wage rates have hit a historic high. Compounded with a downturn in global commodity prices, this dynamic has led some to question the economics of West Australian mining. Yet West Australian mining remains viable. From the beating which global commodity markets have inflicted on the industry, a better industry is now emerging: innovative and lean. •

The Hon. Bill Marmion

Minister of Mines and Petroleum
DEPARTMENT OF MINES AND PETROLEUM WESTERN AUSTRALIA

The Liberal Government of Western Australia has been commended on its mining agenda. What are some of your key near-term priorities?

One of the key initiatives our government has put in place is streamlining the approvals process. We would like to implement an online tracking system across all of the departments, similar to what is already in place within the Department of Mines and Petroleum. Having an online system will alleviate any miscommunications across departments that slow down the approvals process. The Liberal government has allocated funds in order to achieve this goal. Another initiative is to capture and store environmental information into a database similar to what we already possess for the mineralogy of the region, so that a mining company can access historical environmental information. These two initiatives will help to make the approvals process smoother, and also highlight whether there is a bottleneck.

What is the state doing to address the increasing cost of doing business in Western Australia?

There is a range of initiatives that the state government is trying to enact in order to reduce the cost of labor in Western Australia, but it must be done with the cooperation of the federal government. We need skilled labor in Western Australia, which is dependent on the accessibility of Section 457 visas that allow temporary skilled workers to immigrate to Australia. The problem, however, is not so severe in the eastern states. Unfortunately Western Australia only has three members of parliament represented federally, so there is not a strong incentive to really address this issue. In the state, the Minister for Training and Education is trying to promote trades in order to meet the demands of the resources industry. We are going through a period of expansion in the iron ore industry, as well as LNG projects coming onstream; as the demand for labor eases over the next few years, we hope to see a softening of labor pressures and associated costs.

We have seen a troubling trend of declining exploration expenditure in Australia. How well can state incentives such as the Exploration Incentive Scheme address this issue?

It is extremely important for the government to offer exploration incentives to companies, because without exploration there will be no mines. The Liberal government will continue with the A$100 million Exploration Incentive Scheme, which currently goes through 2015; however, we are very keen for the scheme to continue. Data shows that there is a genuine multiplier effect with such schemes in place, so this is a worthy investment in Western Australia. Hopefully the Exploration Incentive Scheme will help to increase Western Australia's competitiveness in what is a very global mining industry; recent data suggested that nearly 75% of companies exploring in Africa are Perth-based.

How is the government working to diversify Western Australia's mineral production?

Western Australia is one of the biggest iron ore producers in the world, but we also possess vast nickel, copper, gold and bauxite deposits, as well as mineral sands, rare earths and even garnets. The Ministry of Environment has recently approved the first new uranium mine in Western Australia, which is very good news for the state's economy; this will hopefully open the path to other minerals becoming more prevalent in Western Australia. We have extensive data on every type of mineral in the state, and will be very supportive of any company exploring and developing. We are seeing lots of magnetite iron ore development of the highest quality as well. While we are making efforts to diversify our commodity base, we also pride ourselves on the level of expertise that companies in Western Australia have developed over decades of mining iron ore, from the technology to the infrastructure and logistics.

What is your longer-term vision for Western Australia's mining industry?

Western Australia has such a large landmass, most of which is still unexplored. Every week there seems to be new mineral discoveries. There is still so much more to discover in the state, especially with the current technology available, vast amounts of historical data and exploration grants. Deposits that were never considered viable in the past all of a sudden are economic due to new mining techniques and methods of extraction. Western Australia's entire economy has always been based around mining and the state has developed a strong mining culture as a result. While there are more environmental constraints on mining and exploration, the industry is exceptional at meeting these conditions and succeeding as a result. Western Australia is still a great place to explore and there is a lot of geological data available for companies. One only needs to see the success of the major companies operating in the region in order to understand how much potential exists in the state. Western Australia will continue to be a good place to do business, and Perth will always be a hub of mining activity around the world. •

Eddie Grieve

Senior Listings Manager
AUSTRALIAN SECURITIES EXCHANGE (ASX)

How important are mining stocks to the overall health of the Australian Securities Exchange (ASX)?

The importance of mining stocks to the ASX is evident using different metrics; by market capitalization, the proportion of mining stocks is 34%, while the number of mining stocks as a proportion of total listed companies is closer to 50%. In the late half of the last century, this figure dropped to 10% and in 2007 was as high as 42%, which is still a very significant figure. The ASX has a long history of listing mining companies, since 1851 when the Melbourne exchange was established with the gold rush in Victoria. Since then, the Australian market has acted as a platform for mining exploration and development companies. As a result, we have entry requirements that encourage small, junior exploration companies. The minimum requirement to list is for a company to have net tangible assets of at least A$3 million, of which at least A$1.5 million must be working capital. We have rules that allow for companies that are raising money for companies to explore and develop, not to have a track record of revenue.

How does the ASX compare to similar global exchanges in terms of raising mining capital?

It is important to remember that you cannot create a vibrant mining market overnight; it is something that takes many years. Both the ASX and the TSX have been around for a very long time in the mining space, and the capital markets have developed an ecosystem around which well-informed investors, a community of analysts and professional groups who understand mining. This is one of the main benefits of the ASX; we are a well-developed, reputable international exchange in a country that has a strong focus on mining as an industry. We also offer real opportunities for junior companies, whereas the exchanges in London are more geared towards larger mining companies. The Hong Kong and Singapore exchanges have made moves to make their rules more inclusive to mining companies; previously they required companies to have a track record of revenue or profits, but these requirements have now relaxed. At this stage, however, neither of these exchanges are markets for junior companies.

There has been some talk about creating a flow-through shares structure similar to that of Canada's, but so far nothing has emerged in Australia. As many juniors speak of the need to have a similar program, why has the idea not taken hold in Australia?

We have certainly examined the possibility of creating a similar structure here in Australia, but after canvassing our investor base we found that most people were happy with a single market. Nevertheless, it was clear that we needed to make some changes within that market to be more accommodating to smaller companies. One of those changes was to make it easier for companies to raise capital by effectively increasing our 15% cap per annum to 25% for companies under A$300 million market capitalization. Our approach has been slightly different in that we have retained one market but made changes to recognize the difference in capital needs of companies. For many years, the ASX required that a company that wished to raise more than 15% of its capital in a 12-month period either had to receive shareholder approval, or issue those shares pro-rata to its shareholders. For smaller, capital-hungry companies, this did not address their specific needs; now for companies under A$300 million, they are able to receive shareholder approval to increase their capital from 15% to 25%.

How ripe is the climate for mergers and acquisitions for resources companies in Australia?

At the beginning of the century, there was a significant amount of mergers and acquisitions activity that did result in a lack of mid-tier miners on the exchange, but that has since been replenished. We now have a good representation of mining companies in the A$250 million – A$1 billion valuation range. This is also an area that we have focused attention on in terms of helping companies access the global financial markets. Our Spotlight Series allows companies to better access the financial markets in London, New York, Hong Kong and Singapore, and this has been very successful.

What are the key advantages for mining companies listed on the ASX?

What distinguishes the ASX from other major platforms for capital raising is that we are in the Asian region. We are increasingly becoming global in our outlook, with over 200 mining companies listed on the ASX with projects in Africa and over A$6 billion raised for African projects over the last five years. Global investors are quite comfortable about getting exposure to mining opportunities in developing regions through an ASX-listed company, which provides them with the security needed to invest in emerging markets. We are a reputable exchange with robust regulations in terms of mining disclosure. This is the future for the ASX, as more exploration takes place around the world. •

Iron Ore

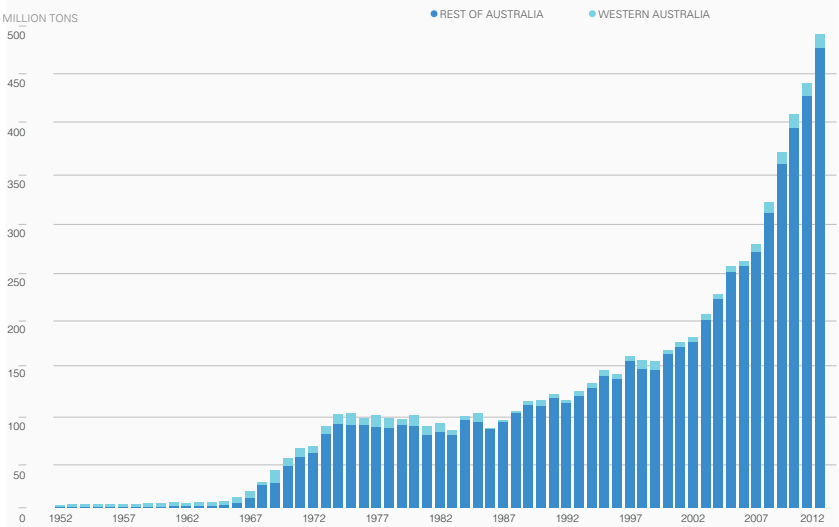
New Frontiers

IRON ORE PRICES

Source: Western Australia Department of Mines and Petroleum

IRON ORE QUANTITY

Source: The Steel Index



Iron ore continues to be the driver of Western Australia's mining industry. Nearly 93% of Australia's iron ore deposits are found in the state, with most of these being located in the world-class Pilbara region, home to mining giants Rio Tinto, BHP Billiton and homegrown Fortescue Metals Group. However, a new iron ore region is emerging in the Midwest, with large hematite deposits ready to be mined as soon as port and rail challenges are solved.

Most iron ore is shipped from the port of Esperance, on the southern coast, or Port Hedland in the north, but these two main hubs are already operating over capacity. A much desired A$6 billion development of the Oakajee port in the western part of the state held promise, but was recently suspended due to a lack of interest from potential joint venture partners; leaving a slew of juniors —and investors— in limbo, whose development depends on regional investment.

Some, however, view the region's development as only a matter of time. Padbury Mining, a fellow member of the Geraldton Iron Ore Alliance, which has 1 billion mt of JORC-compliant magnetite and 11.5 million mt of direct shipping ore in the Midwest region, took the unusual step of acquiring the intellectual property from a failed Chinese-backed bid for the development of Oakajee's infrastructure. The intellectual property itself is held in a subsidiary, which Padbury's CEO, Gary Stokes, hopes to divest to an infrastructure development company.

"Peak Hill's region could absolutely become the next Pilbara," said Stokes. "We believe there are 50 billion mt there; already 21 billion mt, JORC-compliant, have been identified. The Midwest is set to grow exponentially, just as soon as the infrastructure developments go ahead. China has an exposure of perhaps $5 billion in the Midwest, so it is not just going to sit and watch." •

> "If contextualized and compared against previous cycles that Australia's mining industry has experienced, this current downturn is not unusual – granted this past cycle has been stronger (both on the upside and downside) than many that we have seen in recent times. For BC Iron though, the success or failure of a business is determined more by its fundamentals than market conditions. While management, and in particular cost management, become more important during a market downturn, strong fundamentals for a project are difficult to devalue.
>
> **- Morgan Ball, Managing Director, BC Iron Ltd**