The Belt and Road Initiative
and Australian Mineral Industry

丝绸之路经济带和21世纪海上丝绸之路

Vladimir David
Acknowledgement to the Traditional Owners the the Gadigal people

- This SMEDG meeting is being held on the lands of the the Gadigal people and I wish to acknowledge them as Traditional Owners.

- I would also like to pay my respects to their Elders, past and present, and Aboriginal Elders of other communities who may be here today.
The Belt and Road Initiative? Reviving the Silk Road

- The Belt and Road Initiative (BRI), also known as the One Belt One Road (OBOR) (Chinese: 一带一路) or the Silk Road Economic Belt and the 21st-century Maritime Silk Road (Chinese: 丝绸之路经济带和21世纪海上丝绸之路).

- Project is a global development strategy adopted by the Chinese government involving infrastructure development and investments in 152 countries and international organizations in Asia, Europe, Africa, the Middle East, and the Americas.

- President Xi Jinping launched China’s BRI in 2013 with the stated aim to connect major Eurasian economies through infrastructure, trade and investment.
Silk Road and Marco Polo

The Silk Road was an ancient network of trade routes that connected the East and West. It was central to cultural interaction between the regions for many centuries and the life time journey. The Silk Road primarily refers to the terrestrial routes connecting East Asia/Southeast Asia with West Asia, South Asia, East Africa and Southern Europe.

Venetian merchant and adventurer Marco Polo travelled from Europe to Asia from 1271 to 1295. He wrote ‘Il Milione,’ known in English as ‘The Travels of Marco Polo.’ Marco Polo was born in 1254, in the Venetian Republic on Island Korcula (today Croatia).
The Belt & Road Initiative

- “Silk Road Economic Belt,” - primarily land-based and is expected to connect China with Central Asia, Eastern Europe and Western Europe.
- “21st Century Maritime Silk Road,” – a sea-based based route expected to connect China’s southern coast to the Mediterranean, Africa, South-East Asia and Central Asia.

Six economic corridors

1. New Eurasian Land Corridor that connects North China to Eastern Russia via Mongolia and the subsequently to Europe,
2. China – Central Asia – West Asia Corridor that connects Western China to Turkey via Central and West Asia,
3. China – Indochina Peninsula Corridor that connects Southern China to Singapore via Indo-China,
4. China – Pakistan Corridor that connects South Western China through Pakistan to Arabia sea routes,
5. China - Myanmar - Bangladesh – India Corridor that connects Southern China to India via Bangladesh and Myanmar.
6. The Maritime Silk Road connects coastal China to the Mediterranean via Singapore-Malaysia, the Indian Ocean, the Arabian Sea and the Suez Canal.
7. Additionally, Africa railways and ports infrastructure.
Framework of the BRI

BRI is to promote regional economic development, through creation of win-win cooperation and joint prosperity, (Yiping Huang, 2016).

**BRI follows four principles:**
1) openness and cooperation;
2) harmony and inclusiveness;
3) market-based;
4) mutually beneficial and win-win for all countries.

**BRI emphasises five key areas of cooperation:**
1) coordinating development policies;
2) forging infrastructure and facilities networks;
3) strengthening investment and trade relations;
4) enhancing financial cooperation; and
5) deepening social and cultural exchanges.

However, the main attention of the initiative is infrastructure such as railways, roads, ports, energy systems and telecommunications networks.
BRI - 2013

60 countries - 62% world population, 39% world area and 30% of world GDP
The main aim of China’s Belt & Road Initiative is a planned network of railways connecting China to Western Europe.

Once completed, it will provide a high capacity alternative for bulk-consumer goods transport. It will offer valuable freight time savings over ship transport.
Power, railways, pipelines and other transport projects account for 70 per cent of the total investment; The Asian Development Bank (ADB) estimates that Asia requires US$26 trillion in infrastructure investment by 2030. That implies US$1.7 trillion in spending per year. The ADB highlights that funding infrastructure is likely to be split 40/60 between public and private sectors.

US$1.3 trillion of projects having already been initiated under the One-Belt One-Road banner, the program is more than seven times the size of the Marshall Plan. Marshall Plan triggered the reconstruction and then recovery of war-torn Europe almost 70 years ago.
BRI – Where money will come from?

AIIB's vice-president and corporate secretary in Beijing, Danny Alexander, says six multilateral banks had signed up to finance BRI projects:

• **Asian Infrastructure Investment Bank (newly established);**

• Export-Import Bank of China;

• World Bank;

• Asian Development Bank;

• European Bank of Reconstruction and Development; and

• European Investment Bank.

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One Belt One Road Initiative, Vladimir David, SMEDG July 2019

Financial Review May 23, 2017
The Asian Infrastructure Investment Bank (AIIB)

- AIIB is a multilateral development bank with a mission to improve social and economic outcomes in Asia.
- Headquartered in Beijing, operations began in January 2016 and have now grown to 97 approved members worldwide.
- The role of AIIB - investing in sustainable infrastructure and other productive sectors in Asia and beyond to connect people, services and markets that over time.
BRI update 2019

Today, Project has expanded to 115. The second BRI Forum was held in Beijing from 21st to 27th of April 2019. It was intended by 5000 delegates from 150 countries, including 40 heads of government and representatives of 90 international organisations.

China Development Bank reportedly said it would invest almost $900 billion into more than 900 projects.

Asia Infrastructure Investment Bank is widely expected to support the initiative with a considerable share of its $100 billion in lending.

The Economist magazine reported that more than $1 trillion in “government money” would be spent on the initiative.

BHP study estimates figures of up to $US1.3 trillion in the first decade of the initiative.
1. Back in 1820, China was by far the world’s largest economy with GDP was twice that of India’s, the world’s second-largest economy at the time, six times as large as Britain’s, and almost 20 times of the United States.

2. China’s economic decline in the second half of the 19th century was, in part, the result of the devastation of China’s agricultural lands following the Opium Wars and the Taiping Rebellion. In addition, China also lost ground economically in the 19th century as Western nations grew wealthier from the Industrial Revolution.

3. However, after three decades of economic reforms, by 2019 China is the second largest economy with GDP of $16 T (20% of the total world GDP) where manufacturing represent 30% (World Bank Data).

**Driver of BRI – China’s Economy**

China is the number one consumer of energy and mineral resources.
BRI in World Bank research

- World Bank Group has produced empirical research and economic models that assess the opportunities and risks of BRI projects.

- Since May 2018, the World Bank Group has produced a series of 19 background papers and one summary report that provide independent analysis of the BRI’s links to trade, investment, debt, procurement, environment, poverty reduction and infrastructure.
Macroeconomic outlook

The global economy is forecast to grow by 3.5% in 2019.

USA – GDP $ 24.2 T - forecast growth 2.5%;
China – GDP $ 16.0 T - forecast growth 6.2%;
EURO – GDP $ 15.9 T - forecast growth 2.0%;

Australia – GDP $ 1.7 T - forecast growth 2.8%;

Risks - Trade tension between the US and its trading partners (China, Europe); China’s economic slowdown, Brexit, Middle East tension.

Data World Bank, 2019
• Mining contributes 8% in Australian GDP;
• BRI markets for Australian energy and resource export in 2018-19 represents more than 65%;
• BRI markets resource only represents 70% (in 2007-2008 it was 36%);
• US market representation felt below 1%.
Principal Australian commodities identified to be critical for BRI project:

1. Iron ore;
2. Copper;
3. LNG;
4. Metallurgical Coal;
5. Thermal Coal;
6. Bauxite/Alumina;
7. Nickel;
8. Zinc.

Australia’s major resource & energy exports

Disappearance in the ABS data:
- Economy $1,815 B;
- Only Export major commodities $250 B;
- Official percentage from mining in GDP is 8% but numbers presented on this graph show more than is more than 13% of GDP is generated with export of major mineral resources.
Iron Ore

- The most valuable Australian commodity with export value for 2018/2019 of more than $80 B;
- Australia has more than 50% of the global share of iron ore export;
- The major customer of Australian iron ore is China with more than 80% share.
Iron Ore – production

Iron ore mine production worldwide from 2010 to 2018 (in Mt)

- China is by far the largest consumer, and importer of iron ore.
- In 2018 China imported 1,075.4 Mt of iron ore.
- In 2018, China had produced around 930 Mt of crude steel using 55% of global ore production.

- Australia is the largest producer and the biggest exporter.
- In 2018 Australia produced 846 Mt which represents more than 26% of the global output.
- Brazil is second world’s largest iron ore mine producer producing 490 Mt (2018) and second exporter – 25% of the world’s total iron exports.

https://www.statista.com/topics/1919/iron-ore/
Iron Ore – Resources

World resources of iron ore as of 2018 (in Mt)

- Australia and Brazil hold a large portion of the world’s iron ore reserves (47% of the known resources).

[Bar chart showing iron ore resources by country]

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Iron Ore – consumption forecast

China market

Forecast - China demand for iron ore is going to be flat?

Southeast Asia

Forecast - iron ore demand in Southeast Asia is going to increase for more than 100 Mt by 2024.
Copper

• Australia is 7th largest producer and 3rd largest exporter of copper in the world.

• China is No 1 Market for Australian copper.
Copper – global production

In 2018, there was about 21 Mt of copper produced in mines worldwide.

Chile, the world's leading copper producer by far, with an estimated copper mine production 5.8 Mt followed by Peru with 2.4 Mt.

The world's third-largest copper producer from mines is China with 1.6 Mt.

In 2018, an estimated 23.8 Mt of copper was consumed worldwide with annual increasing rate of 2.7%.

The world's largest consumer of refined copper in 2018 was China. In that year, China consumed more than 48% of the global copper consumption.


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Copper – global resources

World resources of copper as of 2018 (in Mt)

Chile has the world's largest copper resources of any country by far, with 170 million metric tons as of 2018.

Australia has the world's second largest copper resources with 88 Mt metals as per 2018.

China copper resources are limited and – only 26Mt of what is less than what needed for 3 years of consumption.

Natural Gas

- Australia is second largest gas exporter covering 22% of market share according to ASB;
- Japan is the largest market for Australian gas (45%) followed by China (33%) and South Korea (13%).


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The highest demand for natural gas is in China and Emerging Asian countries.

The most unpredictable competitor is US – putting political pressures to control the market.
Metallurgical Coal

- Australia is the largest exporter of metallurgical coal totaling 178Mt with a value of $41 B (2019).
- BRI demands for the more than 50% of world market share;
- Australia exports 47% of metallurgical coal to BRI countries (India and China).
Metallurgical Coal - forecast

Potential Market

Import countries

Export countries

Potential Competitors

Competitor based on political pressure

Market Competitors

China is going to import less Australian metallurgical coal, but market will be offset by increased Indian imports.

Potential market competitors in metallurgical coal market are Canada, Mongolia, Russia and Mozambique. USA became serious competitor through recent trade war.
Thermal Coal

- Australia is the second largest exporter of thermal coal – in total of 208 Mt with a value of $26B.

- BRI demands for the more than 33% of world market share;

- Australia exports 24% (38% including South Korea) of thermal coal to BRI countries;

- Chinese thermal coal market:
  - 58% Indonesia;
  - 24% Australia;
  - 10% Russia.
Thermal coal market is flat with a forecast to fell in next decade except in emerging economies of Southeast Asia.

Competition is strong - competitors in thermal coal market are Indonesia, Russia and South Africa.
Aluminum

Australia is:
- Largest bauxite producer;
- Second largest alumina producer;
- Largest alumina exporter
- But very small producer of refined aluminum.

Australia exports 32 Mt metals (bauxite-alumina) to China which represents 69% of total Aus exports.

- China produces 49% of world aluminum;
- China consumes 48% of world production,
- But imports bauxite and alumina from Australia for more than 80% of produced metal.
Nickel

- Global mine production of Nickel is 2,300 kt and China consumes 1,197 kt – more than 50% of world production;
- Australia is 5th in the world nickel producer with production around 200 kt;
- Australia has one of the world’s largest resources at 19 Mt;
- Globally, there are known resources of 78 Mt nickel metal.

Focus Economics, October 2018


Global nickel consumption

China consumes 45% of the world production

Focus Economics, October 2018
Zinc

- Global mine production of zinc is 14.7 Mt and China consumes 8.25 Mt – more than 50% and produce 5.4 Mt Zn more than 37% world production;
- In 2017, Australia produced 1Mt Zn (2017) and also has the largest world's resources (> 200 Mt, Large at all, 1990).

Zinc Resources worldwide 2017

- Australia
- China
- Peru
- Mexico


Zinc Producer worldwide 2016

- China
- Peru
- India
- Australia
- USA
- Mexico
- Bolivia
- Kazakhstan

BRI commodities demand
Iron ore/steel

In 2018, China had produced 930 Bt of crude steel (worldsteel data)

BRI would drive significant demand for construction materials and equipment, leading to an increase in direct and indirect demand for steel.

BRI projects could result in up to 150 MT of incremental steel demand. Of that amount, 80 per cent would be used in structures and reinforced concrete, with 20 per cent going into machinery and other equipment (BHP report).

The 68 BRI countries and regions have an average steel consumption intensity of 130 kg per capita per annum, well below levels in China and in the developed world. They are also short of domestic steel making capacity.
BRI commodities demand
Iron ore/steel

**Option 1 (BHP prediction)**

- **150 Mt steel**

**Option 2**

120 kg per capita ➔ 250 kg per capita ➔ 130 kg x 3.4 billion peop. ➔ **440 Mt steel**

**Projected demands**

- **Option 1**
  - 260 Mt Iron ore
  - 120 Mt Metallurgical coal
  - 0.20 Mt Ni (Co and Cr) projections
  - 0.5 Mt Ni (Co and Cr) stainless steel
  - 1.5 Mt Zinc projections

- **Option 1**
  - 733 Mt Iron ore
  - 352 Mt Metallurgical coal
  - 0.5 Mt Ni (Co and Cr) stainless steel
  - 4 Mt Zinc galvanised steel

Australia
Brazil
CSI countries
West Africa
South Africa

Mongolia
Australia
CSI countries

Indonesia
Philippines
Australia

Domestic supply

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BRI commodities demand
Copper

- Around 70 per cent of the new copper demand that BHP had identified comes from over 100 power projects. The 115 BRI countries and regions have an average copper consumption intensity of 1.35 kg per capita per annum, well below the world average of around 4 kg.

- BRI projects could add up to an incremental 1.6 million tonnes of refined copper demand, equivalent to 7% of annual demand in 2017.

- Power sector accounts for 70% of BRI copper demands.

Only 30 of the countries in the BRI have indigenous copper fabricating capability, and even then, 10 of those 30 are still net importers of copper cathode. This implies that much of the incremental direct and indirect demand for refined copper generated by the BRI will need to be meet by an increase in cross-border trade.

BRI commodities demand
Copper

70% into power projects

1.35 kg Cu per capita → 4 kg Cu per capita → 2.65 Cu kg x 3.5 B people → 9.3 Mt copper

Current production 21 Mt Cu - projected demand 30 Mt Cu

Leading countries in Cu resources:
• Chile;
• Peru;
• Indonesia;
• Australia;
• Zambia and DRC;
• Russia;
• Iran;
• Pakistan.

Focus Economics, October 2018
Giant Yamal gas project (Krasnoyarsk oblast – Russia) with two pipelines to China makes Russian gas very competitive, but there is still space for gas market.

Decrease in use of coal fired power station and cheaper coal from more proximal counties (Mongolia, Russia, Indonesia) make this market very competitive.
BRI benefits and challenges to participants

**BENEFITS**

- Project will fill gaps in infrastructure projects for developing countries. Afghanistan and Pakistan see it as a "path out of poverty".
- Enable economic growth.
- Increased trade and faster transit of goods.
- International cooperation.
- Peace building.

**CHALLENGES**

- Lack of trust between China and some countries involved.
- Two out of three countries involved have a sovereign credit rating below investment grade.
- Some countries are unstable, which poses security risks to Chinese companies and workers.
- Some Chinese bankers are worried about the risks of investing, such as the feasibility of some projects and political instability.
- Critics fear China is seeking economic and strategic domination, and human rights and environmental standards could be undermined.
- There's concerns poor countries could be left laden with massive debts.
- It's unclear who is in charge of One Belt One Road initiative.
BRI and Australia

A controversial trillion-dollar BRI push by China is being resisted by “senior national security figures” who warn of serious "strategic" consequences if Australia formally signs up.

Supportive to BRI

- Big business (mining, construction and agriculture);
- Big banks;
- Law firms and
- Academic community.

Resistant to BRI

- Defense departments and Department of Immigration and Border Protection:
- Including Dennis Richardson ex-ASIO boss and Michael Pezzullo Secretary of the Department of Immigration and Border Protection.

Australia risks missing out on China’s One Belt One Road
Conversation May 16, 2017 12.44pm AEST


One Belt One Road Initiative, Vladimir David, SMEDG July 2019

Photo: Mike Pezzullo and Dennis Richardson
BRI and Victoria

- Victoria has formally pledged to sign up to China's controversial One Belt, One Road initiative in a deal the state hopes will generate more trade and jobs.
- Victoria is the first Australian state or territory to pledge its allegiance to the project.
- Premier Daniel Andrews and Chinese ambassador to Australia Cheng Jingye finalised a memorandum of understanding.
- The MOU talks mostly about 'friendship' and cooperation between China and Victoria.
- It is not legally binding and can be terminated by either party.
- Canberra is against signing up to the 1B1R and is cautious of China's activity in the Pacific.

In the last four years **Victoria has tripled its share of Chinese investment** in Australia, and **nearly doubled Victorian exports to China**, according to Mr Andrews.

BRI benefits to Australia

• “Australia’s financial services, professional and management consulting, and technical, trade-related businesses offer both excellent reputations worldwide and embedded participation in Southeast Asia, which could play an important role in implementing mutually acceptable Belt and Road projects,”


OPPORTUNITIES FOR AUSTRALIA

• Even though Australia isn't geographically located on the Belt and Road the initiative aligns with the federal government's plans for developing northern Australia.
• There could be opportunities for Australian industries such as engineering, architecture and finance as well as services such as hospital management, education, tourism and aged care.
• There could be scope for Australia to increase investment in China or third countries.

(Sources: Chinese government, Lowy Institute Peter Cai report, BHP briefing, PwC, APH Library, The Economist and Reuters)
Political threats to BIR and Australian position

Unpredictable economic policy of USA:
- Military provocations;
- Trades wars;
- US sanction politics;
- Using US dollar as payment - political purposes and pressure.

Behavior of Australian government:
- Provocation with freedom of navigation;
- Hypocrisy in human rights;
- Taking side in trade war imposing risk to Australian trade;
- Not able to distinct national interest.

Guardian, 22nd July
Conclusion

I think the rise of China is one of the great events of all economic and human history, and I think this will be overwhelmingly a positive thing for the region and the world.

Paul Keating

Capital is money, capital is commodities. By virtue of it being value, it has acquired the occult ability to add value to itself. It brings forth living offspring, or, at the least, lays golden eggs.

Karl Marx