Australian Mining Industry

Key Economic Issues

There’s more to Australian Mining

Mining is an essential part of Australia’s economic success

Sources: Australian Bureau of Statistics, Deloitte Access Economics

Contribution to GDP growth, 2008-09 to 2018-19

A$273 billion in exports – 58% of total exports in 2018-19

Over 1.1 million jobs in mining and its supply chains

Average wages of A$140,000+ – the highest in Australia

A$18 billion in company tax

A$13 billion in royalties

A$248 billion of investment in mining over the last 10 years
Australia’s resources exports
Higher production is driving record resources exports

The mining boom was initially driven by higher commodity prices that lifted export values.

But substantial investment by the mining industry after 2009 led to growth in production volumes.

In 2018-19 Australia’s resources exports were worth a record high $273 billion and 58% of total exports.

World demand for mineral resources
Australia is the world leader in minerals and metal trade

Source: The Royal Institute of International Affairs, www.resourcetrade.earth
Risk #1
Australia’s resources export revenue is highly dependent on China, iron ore and coal

Revenue by country, 2018-19

China accounts for 37% of Australia’s resources export revenue

Revenue by commodity, 2018-19

Iron ore and coal account for 54% of resources export revenue

Missed opportunities
Our market share of many commodities has declined

Share of world production 2000 2017

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2000</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>Alumina</td>
<td>30%</td>
<td>16%</td>
</tr>
<tr>
<td>Bauxite</td>
<td>39%</td>
<td>30%</td>
</tr>
<tr>
<td>Copper - mined</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Copper - refined</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Iron ore</td>
<td>18%</td>
<td>43%</td>
</tr>
<tr>
<td>Gold</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>Nickel</td>
<td>14%</td>
<td>9%</td>
</tr>
<tr>
<td>Zinc - mined</td>
<td>16%</td>
<td>6%</td>
</tr>
<tr>
<td>Zinc - refined</td>
<td>6%</td>
<td>3%</td>
</tr>
</tbody>
</table>
World demand for resources will increase in the 21st century

### Metals that support industrialisation & urbanisation

<table>
<thead>
<tr>
<th></th>
<th>World Consumption 2018</th>
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<tbody>
<tr>
<td>Steel</td>
<td>1,788 million tonnes</td>
</tr>
<tr>
<td>Aluminium</td>
<td>66 million tonnes</td>
</tr>
<tr>
<td>Copper</td>
<td>24 million tonnes</td>
</tr>
<tr>
<td>Zinc</td>
<td>14 million tonnes</td>
</tr>
<tr>
<td>Lead</td>
<td>13 million tonnes</td>
</tr>
<tr>
<td>Nickel</td>
<td>2.3 million tonnes</td>
</tr>
</tbody>
</table>

### Resources needed for clean energy and modern technologies

<table>
<thead>
<tr>
<th></th>
<th>World Consumption 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rare earths</td>
<td>180,000 tonnes</td>
</tr>
<tr>
<td>Uranium</td>
<td>85,000 tonnes</td>
</tr>
<tr>
<td>Cobalt</td>
<td>140,000 tonnes</td>
</tr>
<tr>
<td>Lithium</td>
<td>250,000 tonnes</td>
</tr>
<tr>
<td>Vanadium</td>
<td>95,000 tonnes</td>
</tr>
<tr>
<td>Manganese</td>
<td>16,000,000 tonnes</td>
</tr>
</tbody>
</table>

Demand for these metals will continue to grow as highly populated economies continue to develop and urbanise. The shift to new sources of clean energy and demand for advanced electronics will drive higher demand for these resources.

**Sources:** Department of Industry, Innovation and Science; Geoscience Australia; United States Geological Survey

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**Critical minerals**

Essential to modern technology, but have supply chain risks

![Critical minerals chart]

**Market share of largest producing countries**

- Niobium
- Tungsten
- Rare earth elements
- Antimony
- Graphite
- Cobalt
- Lithium
- Vanadium
- Rhenium

![Market share chart]

0% 20% 40% 60% 80% 100%

Sources: Department of Industry, Innovation and Science; Geoscience Australia; United States Geological Survey
Electric vehicles
Impact on mineral demand of 100% EV production

Risk #2:
The trade war: impact on world economic growth and commodity prices
Commodity prices are closely linked to world GDP growth

A trade war could lead to lower USD commodity prices

Source: International Monetary Fund, World Economic Outlook database.

Lower commodity prices will curtail company profits – and tax revenue

Source: ABS cat. no. 5676 Business Indicators

The minerals industry paid $19 billion in company tax (22 per cent of total) and $12 billion in royalties in 2017-18.

Note: Mining industry includes oil and gas under ABS industry classifications.
Risk #3
Commodity prices determine exploration investment

Source: ABS, cat. no. 8412, Mineral and Petroleum Exploration; International Monetary Fund, World Economic Outlook database.

Exploration expenditure, A$ million
Metal price index (RHS)

Australia is still under-explored
Operating mines in Australia

Large parts of Australia remain under-explored.

Exploration is more focused on existing sites, but greenfields exploration is the key to unlocking the next wave of mining investment in Australia.

Government programs such as Geoscience Australia’s Exploring for the Future are working towards improving geological data in some areas, but more needs to be done.

Exploration is expensive and risky.

New technologies that reduce costs and improve results are essential.
Risk #4
The need for new investment

Mining industry capital expenditure

Source: Australian Bureau of Statistics, cat no. 5625 Private New Capital Expenditure and Annual Expenditure

The need for productive reforms
Australia’s largest export industry cannot sustain another decade of negative productivity growth

Multifactor Productivity growth in Australian industries, 2007-08 to 2017-18

Policy settings can only be regarded as good for productivity if they encourage firms to invest in capital and allow them to manage the use of that capital efficiently.
Investor perceptions of Australia are down

Costs, excessive regulations and approval uncertainty are deterring new investment in Australia

Source: Fraser Institute, Survey of Mining Companies 2017

Policy priorities

1. Maintain the EPBC Act’s objective to promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources.

2. End the duplication and overlap between respective state and federal processes and introduce risk-based assessment approaches.

3. Implement reforms to prevent frivolous and vexatious legal challenges to approved projects.

Australia’s complex and duplicative project assessment and approval processes generate unnecessary delays and uncertainty, presenting a barrier to attracting investment.

Competitive taxation

Australia currently has the 3rd highest company tax rate in the OECD

Source: KPMG, Corporate tax rate table

Policy priorities

1. Maintain Australia’s longstanding, equitable approach to credit off-road fuel excise.

2. Reduce company tax to an internationally competitive level.

3. Australia’s tax integrity and debt deduction rules should be consistent with OECD measures.

4. Extend the Fringe Benefits Tax for remote communities to all rental accommodation for residential workforces for simplicity and fairness.

A competitive taxation system is critical for investment in capital-intensive, highly prospective and long lead time industries such as the mining industry.
Risk #5
Declining university enrolments

![Graph showing declining university enrolments](image-url)