



Australian Government
Department of Industry,
Innovation and Science

Office of the
Chief Economist

3rd ASIA PACIFIC
PRECIOUS METALS
CONFERENCE

9-11 June 2019

PARKROYAL on Beach Road, Singapore

Australian Gold Industry, Trade & Markets

Thuong Nguyen

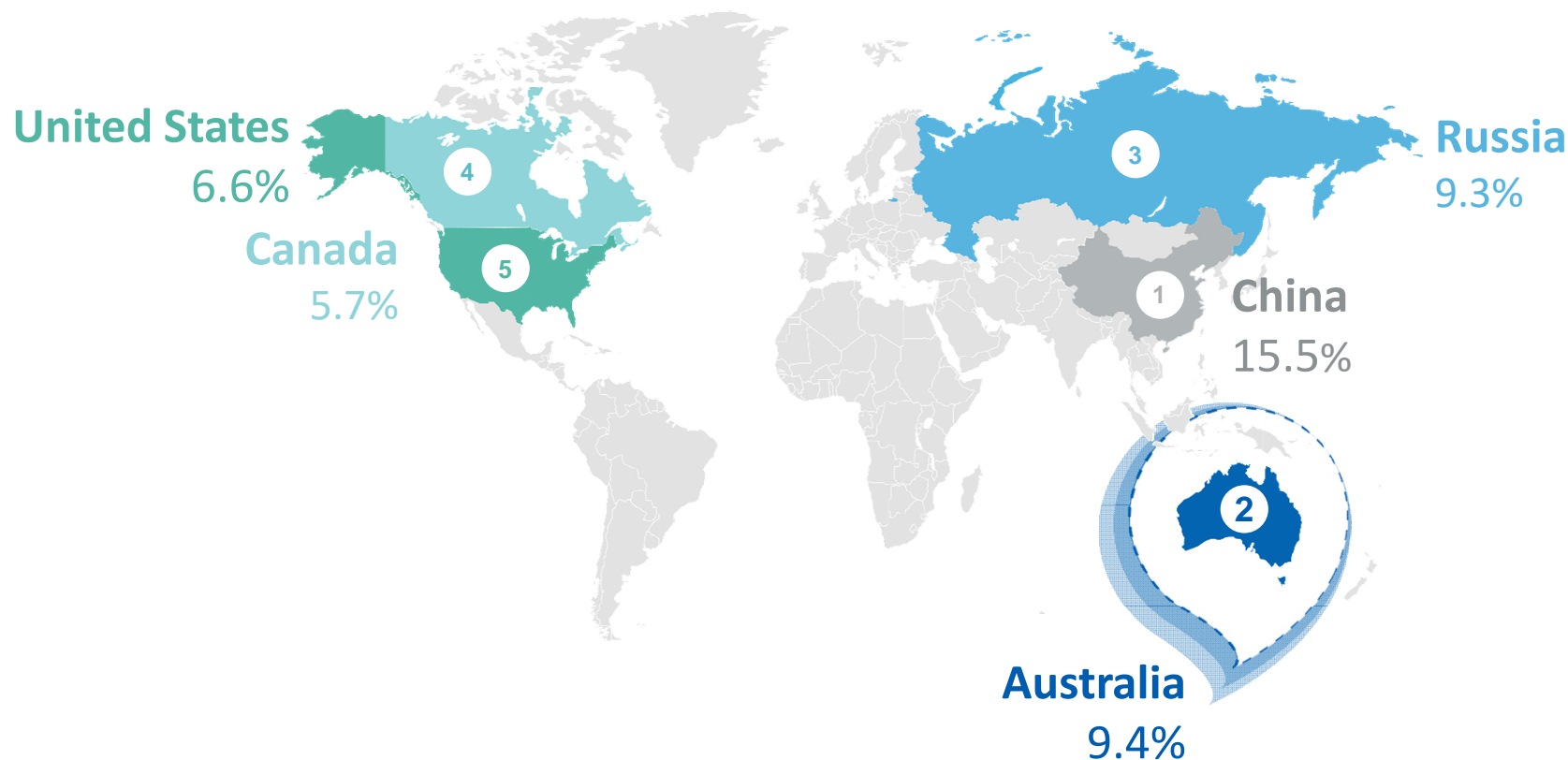
Economist

Office of the Chief Economist

June 2019

Gold mined production, 2018

Australia is the **World's 2nd largest gold producer**, mining more than 315 tonnes of gold in 2018



Source: AME (2019); Australian Government Department of Industry, Innovation and Science (2019)

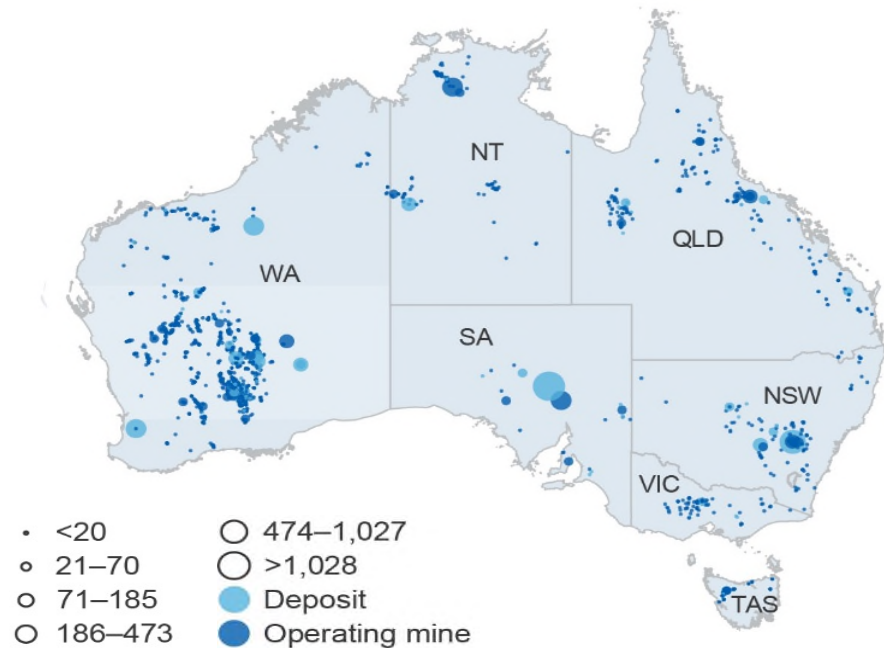
Australia's operating gold mines

71 operating gold projects (some containing multiple individual gold mines)

Across all Australian states and the Northern Territory.

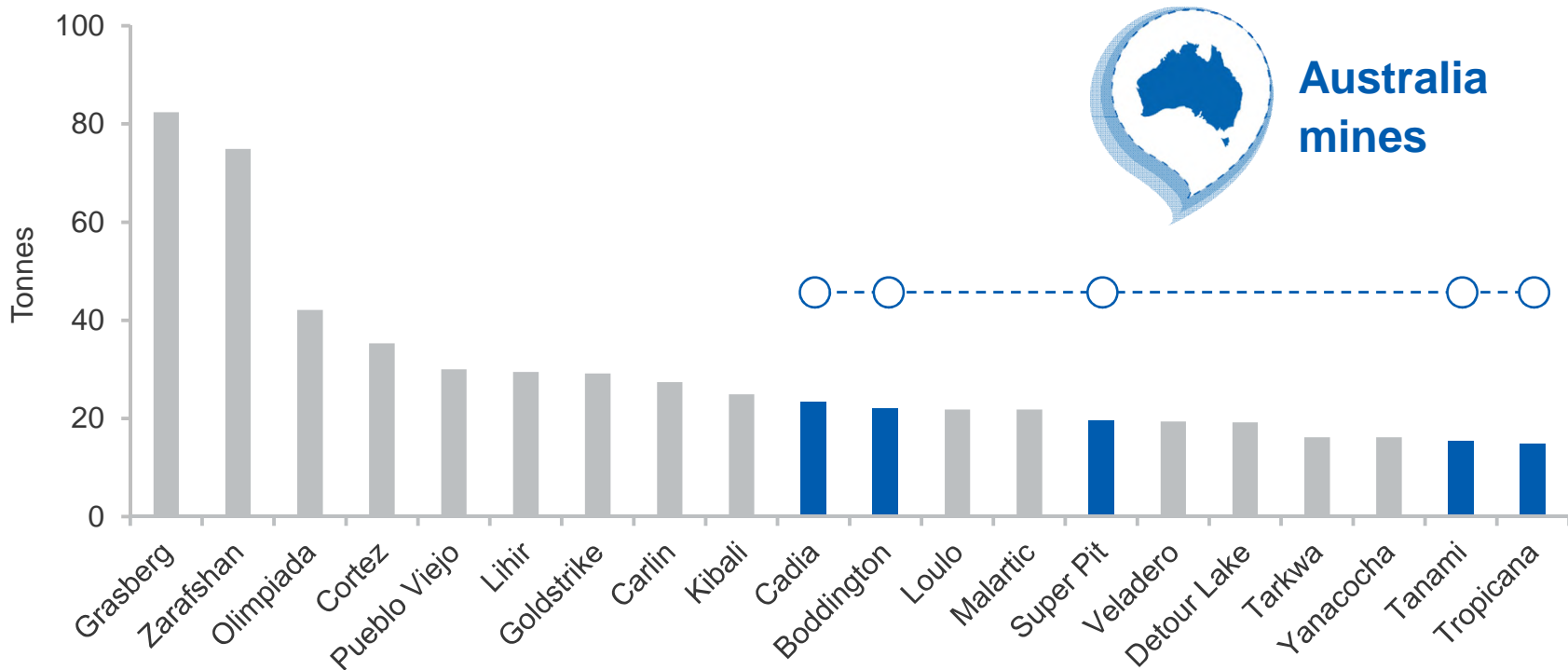
Western Australia leads production, with 68% (or 218 tonnes of gold).

Major Australian gold deposits (tonnes)



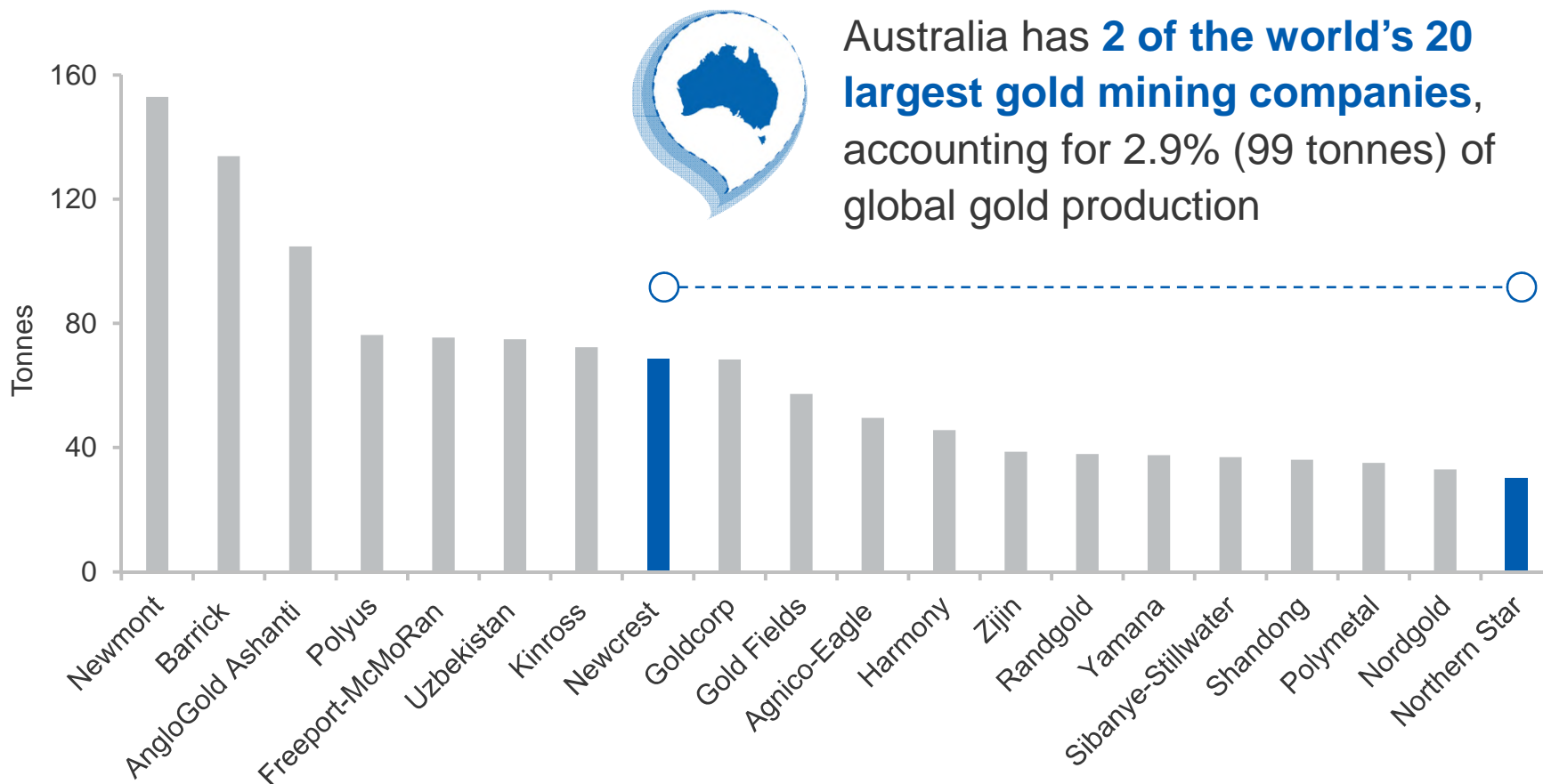
World's top 20 gold mines, 2018

Australia has 5 of the world's 20 largest gold mines, accounting for 2.8% (95 tonnes) of global gold production



Source: AME (2019); Australian Government Department of Industry, Innovation and Science (2019)

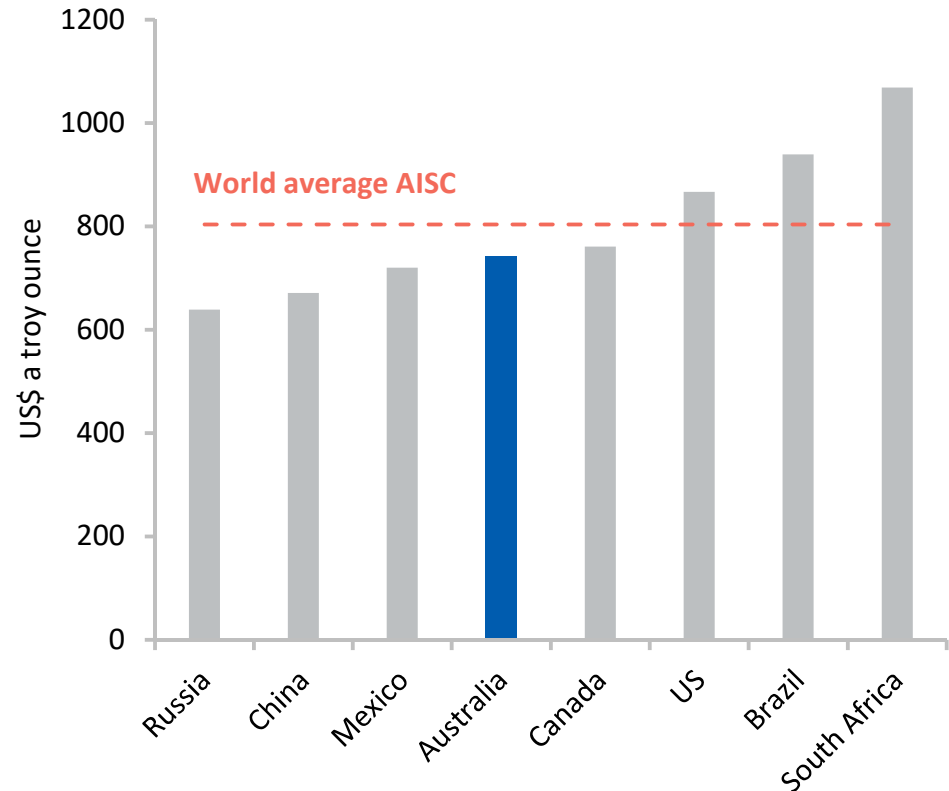
World's top 20 gold mining companies, 2018



Source: AME (2019)

Gold production All-In Sustaining Costs by countries

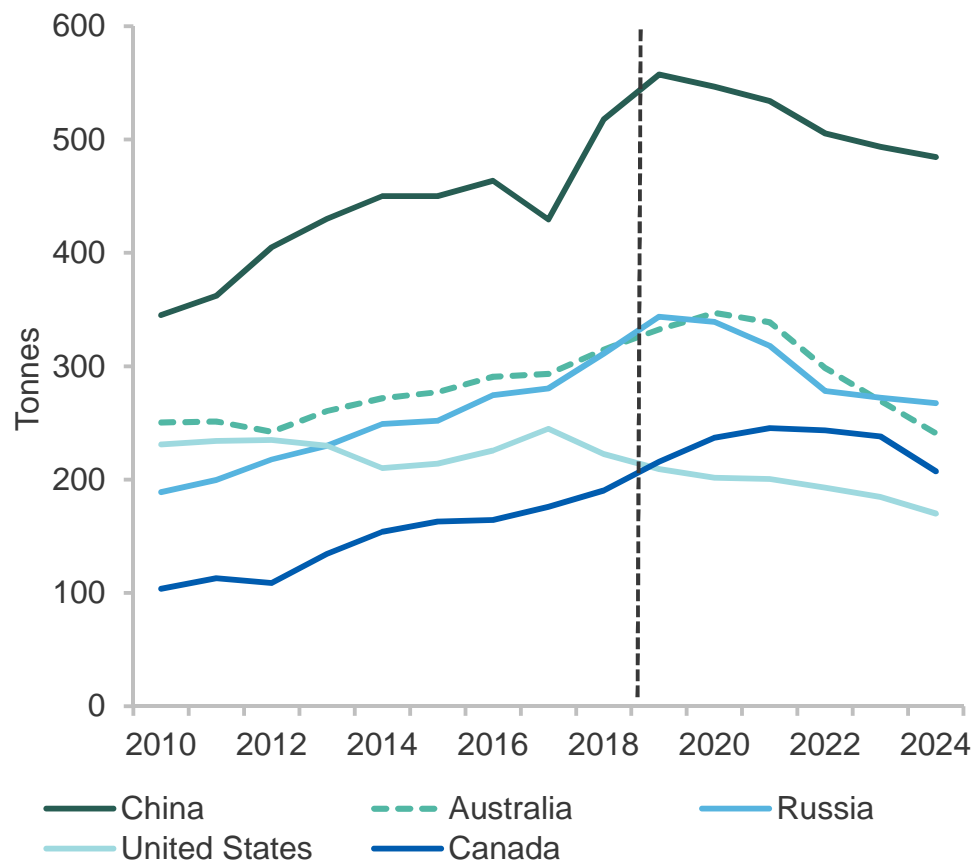
- Australia's average all-in sustaining cost (AISC) is **US\$742 a troy ounce**, which is below the world AISC average of US\$804 a troy ounce.
- Australian gold producers are more competitive than producers in Canada, US, Brazil and South Africa, but less competitive than those in Russia, China and Mexico.



Source: AME (2019)

Gold mined production 2019 to 2024

- Australia is expected to remain the **world's top three largest gold producer over the 5 years outlook.**
- After reaching a record production of 347 tonnes in 2020, Australian gold mine production is projected to decline to 241 tonnes in 2024.
- It is estimated that around 153 tonnes of gold mine capacity (at 2018 production rates) in Australia will be closed between 2019 and 2024.



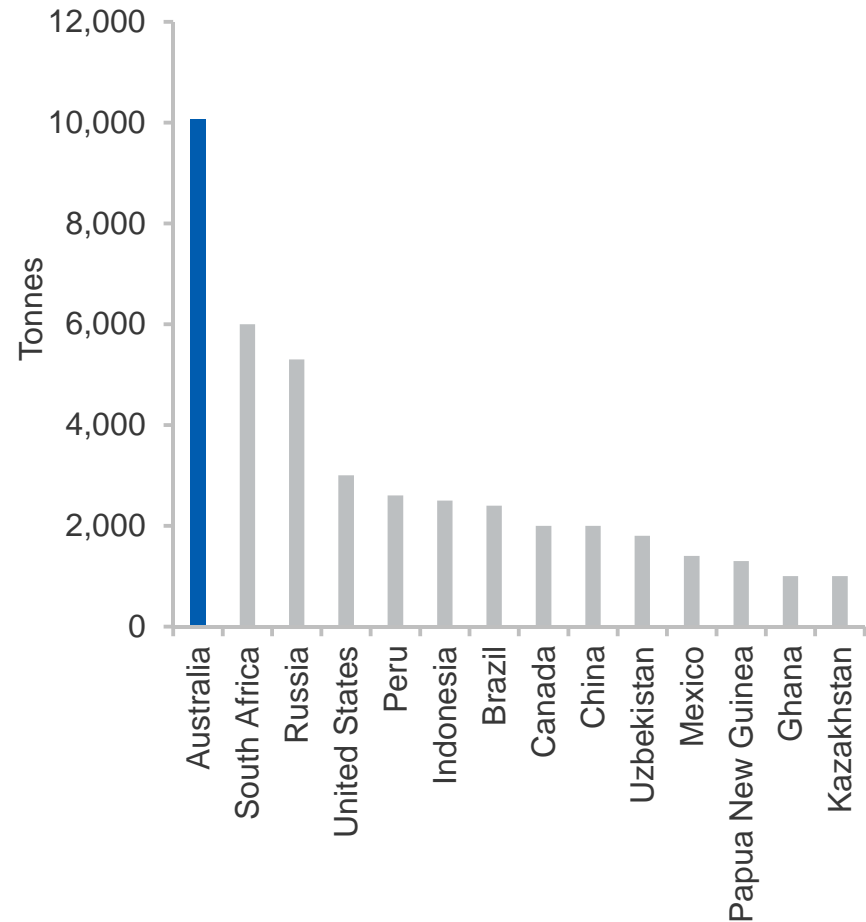
Source: AME (2019); Australian Government Department of Industry, Innovation and Science (2019)

Economic demonstrated resources of gold

Australia has the world's largest EDR of gold:

- 10,070 tonnes or 18% of the total global EDR
- followed by South Africa (11%), Russia (10%), United States (6%).

Australia's gold resources could last another 30 years (at the 2018 rate of production)



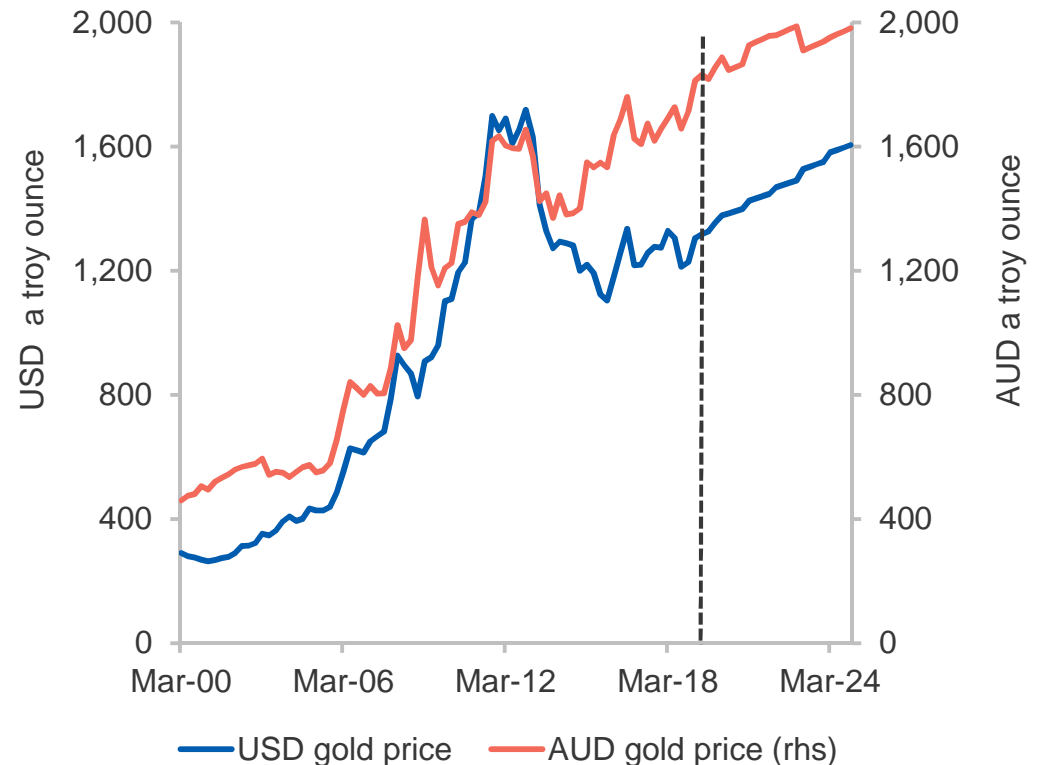
Source: Geoscience Australia (2019); Statista (2019) World mine reserves of gold by country 2018, estimated

Australia's domestic gold prices

Presently, the Australian gold industry is enjoying favourable market conditions, with high gold prices in Australian dollar terms.

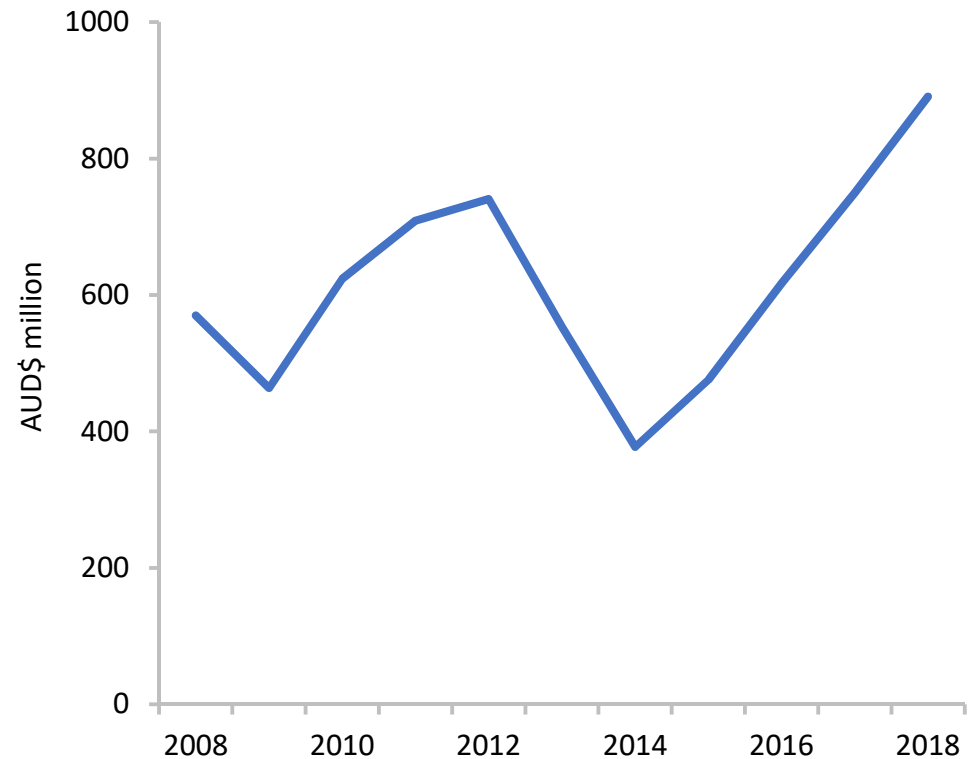
Both Australian and US dollar gold prices have trended up over the last few years.

An upward trend is expected to continue over the five years outlook.



Australia's gold exploration expenditure

- Gold exploration expenditure has increased in the four years to 2018, with spending average AUD\$684 million a year over that period.
- In 2018, expenditure on gold exploration was AUD\$891 million. This represented 41% of total Australian minerals exploration expenditure



Source: Australian Bureau of Statistics (2019)

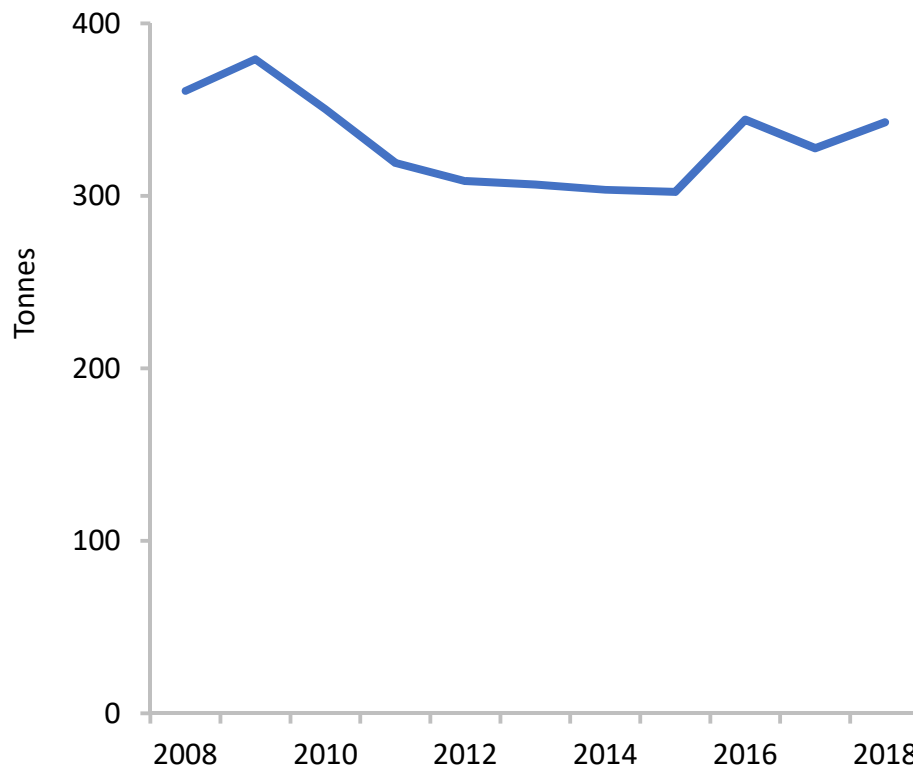
Australia's gold refining industry

Perth Mint

- One of the largest refineries in the world
- refines over 94% of Australian gold mined and imports from PNG
- refining 343 tonnes of gold in 2018.

ABC Bullion

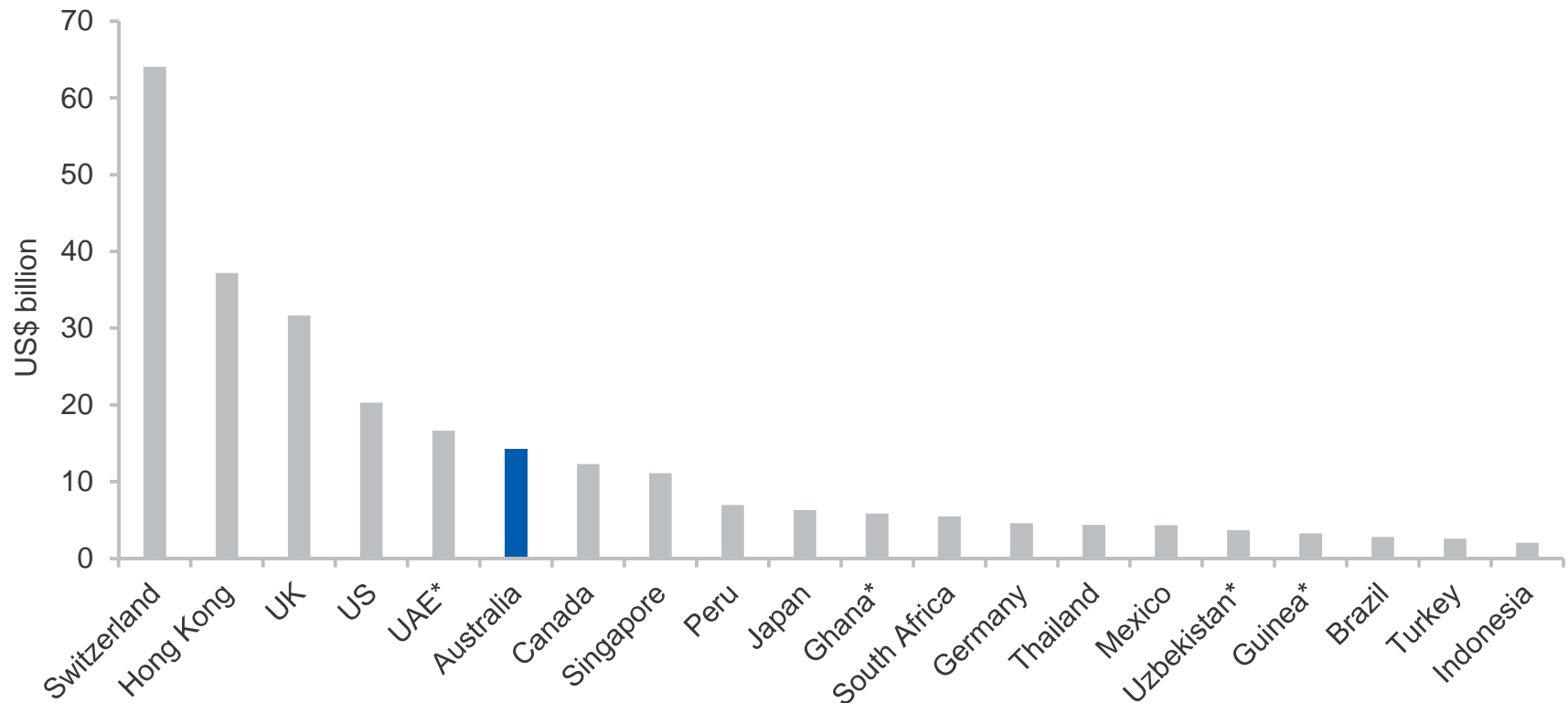
- Only independent refinery in Australia accredited by the Shanghai Gold Exchange and the London Bullion Market Association.



Source: Perth Mint Refinery, Australia (2019)

Gold exports, 2018

- Australia is the **world's sixth largest gold exporter**
- Exported US\$14 billions worth of gold in 2018



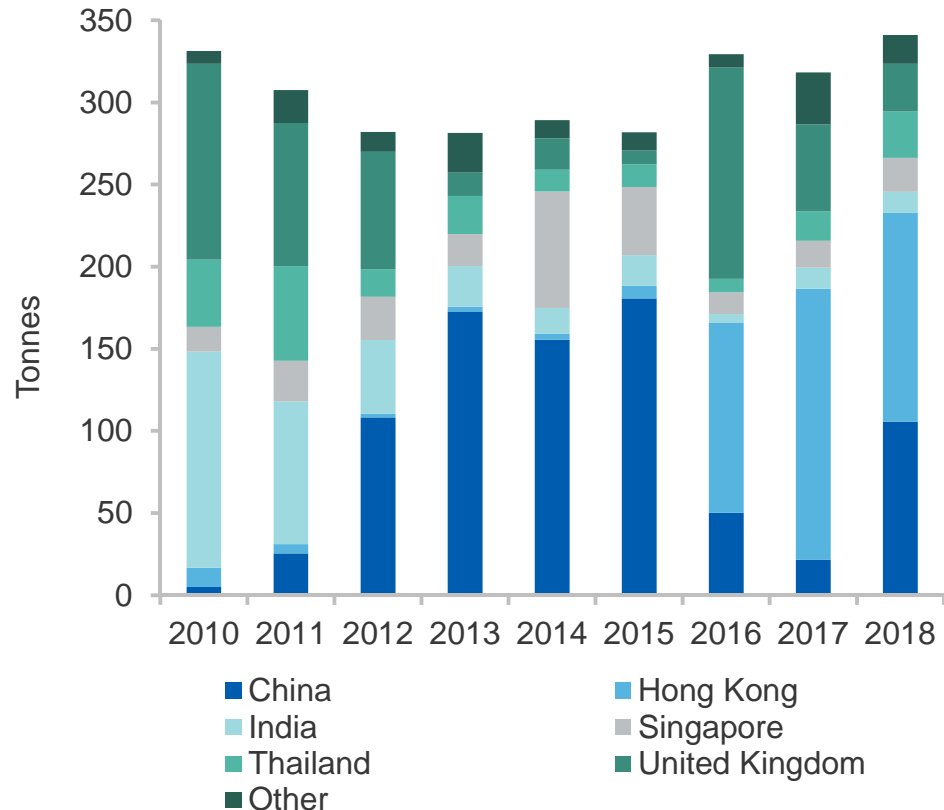
Note: *2017 figure

Source: International Trade Centre (2019) Trade Map; Australian Government Department of Industry, Innovation and Science (2019)

Australia's refined and unrefined bullion exports

Exported 341 tonnes in 2018, of which:

- Hong Kong (37%)
- China (31%)
- UK (9%)
- Thailand (8%)
- Singapore (6%)
- India (4%)



Source: Australian Bureau of Statistics (2019)

Contribution to the Australian economy

**Exported AUD\$19 billion in 2018
(4th largest export commodity)**

**22,600 people employed in gold
mining in 2018**

Export volumes:

- **2019: 360 tonnes**
- **2024: 280 tonnes**

Export earnings:

- **2019: AUD\$21 billion**
- **2024: AUD\$18 billion**



Source: Australian Bureau of Statistics (2019)

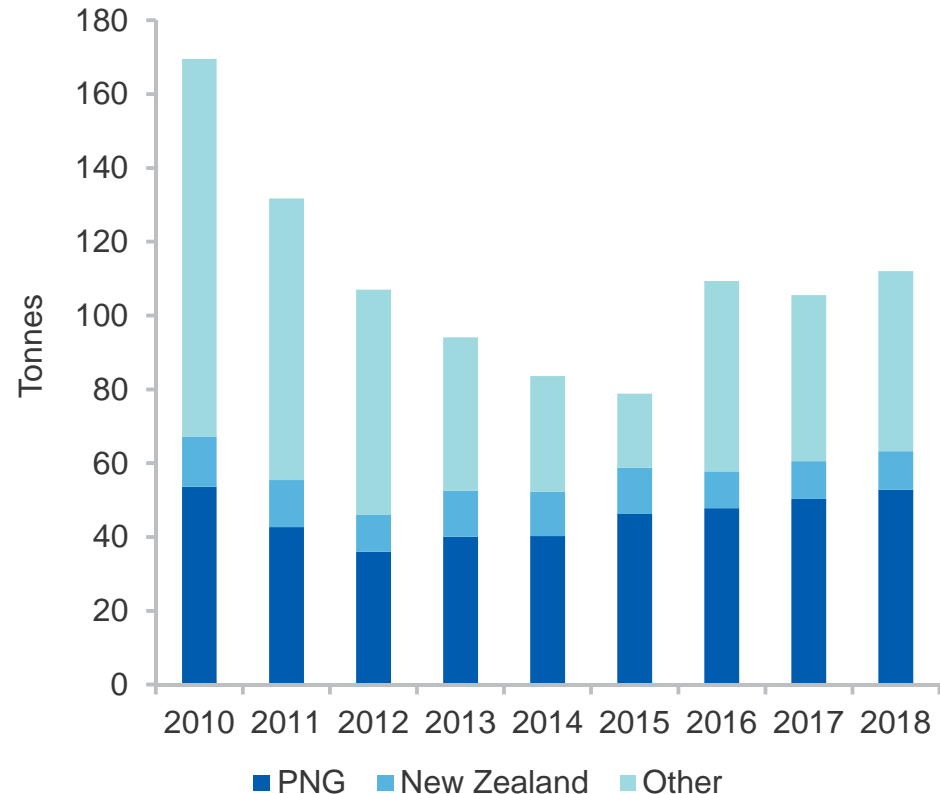
Australia's gold import

Australia imported 112 tonnes of gold in 2018, valuing AUD\$6.1 billion

- PNG (47%)
- New Zealand (9%)
- Other countries (44%)

PNG imports:

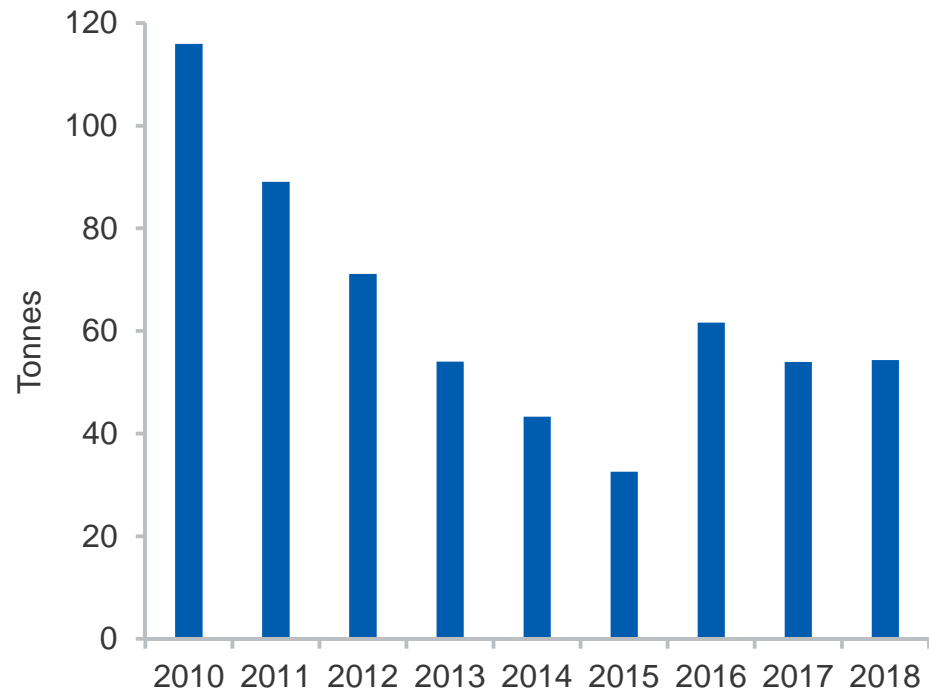
- Gold ores from PNG are shipped to Perth Mint refinery for further processing and re-export



Source: Australian Bureau of Statistics (2019)

Australia's domestic gold market

- Consumed 54 tonnes of refined and unrefined gold bullion in 2018.
- Down significantly from levels at the start of the decade.
- 2010 – safe haven demand associated with the GFC.
- The rise in the Australian dollar gold price since 2010 has adversely impacted domestic consumption.

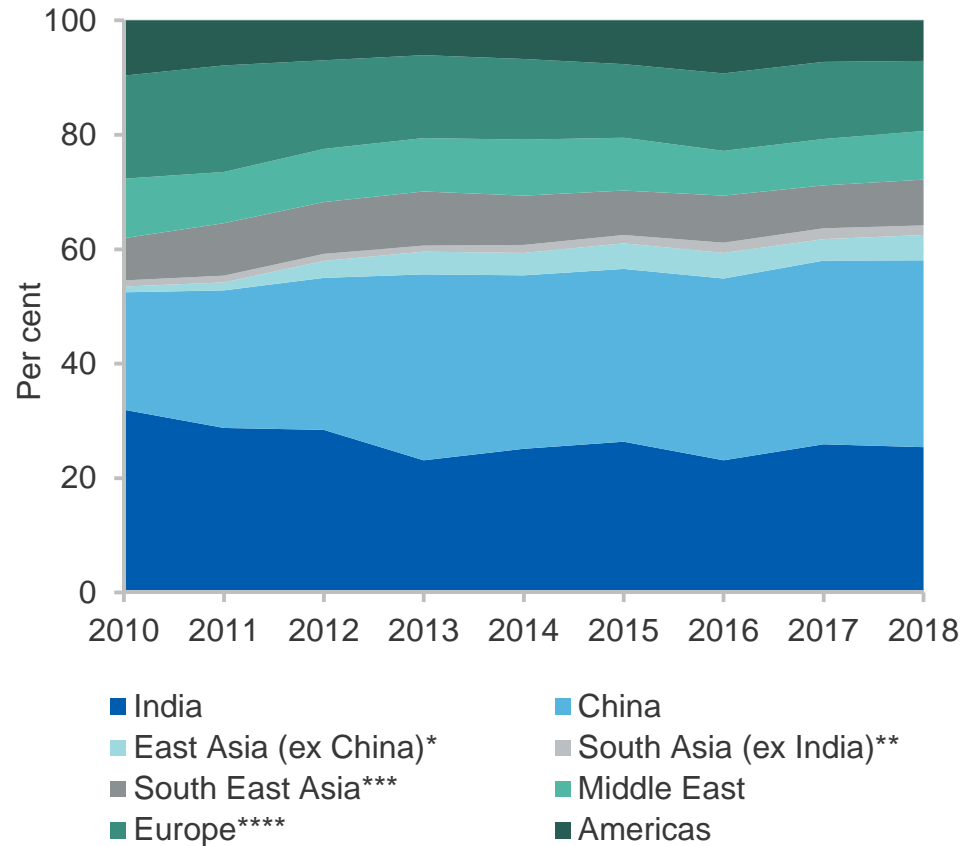


Source: Australian Government Department of Industry, Innovation and Science (2019)

Opportunities

Asian countries consume 80% of global gold, of which:

- China: 32%
- India: 25%
- Middle East: 9%
- South East Asia: 8%
- East Asia (ex. China): 4%
- South Asia (ex. India): 2%



Notes: *South Korea, Japan, Taiwan, Hong Kong; **Pakistan, Sri Lanka; ***Indonesia, Malaysia, Singapore, Thailand, Vietnam; ****incl. Turkey and Russia

Source: World Gold Council (2019)

Challenge: World's second largest gold producer

Innovation partnerships: CRC Ore and Mining3

- Examples of collaborations between the government and the industry that address the challenge of extracting gold from lower grade ore and developing ways of separating gold from extracted materials.
- Enable the industry to discover new resources, improve productivity, protect the environment, and support local communities.
- Innovation is also a means to overcome Australia's depleted gold resources – the running down of resource deposits.

Exploration initiative: UNCOVER Australia

- Brings together geoscience researchers in governments, industry and academia, to explore and uncover Australia's hidden minerals.

www.crcore.org.au/
www.mining3.com/
www.uncoveraustralia.org.au

Government program

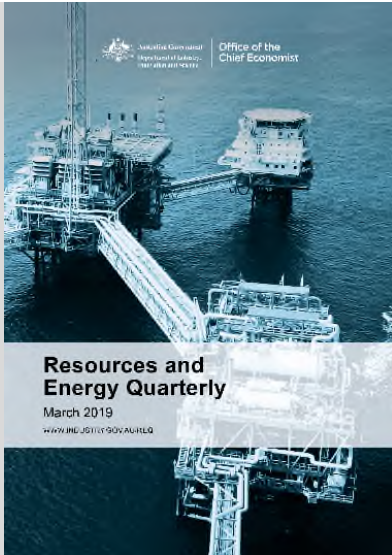
The Exploring for the Future program:

- provides \$100 million over four years to produce new geoscience data to boost long-term exploration investment.
- AEM Survey (the **world's first innovation and largest airborne electromagnetic survey**)
 - uses aircraft-mounted equipment to map the electrical conductivity below the earth's surface to a depth of several hundred metres
 - AEM Northern Territory and Queensland survey – completed
 - AEM Northern Territory and Western Australia survey - underway
 - when completed, both surveys will cover more than one million square kilometers – an area larger than France and Germany combined – to help identify potential new mineral deposits buried under cover.

Further information

Follow us [@economist_chief](https://twitter.com/economist_chief)

www.industry.gov.au/oce



Resources and Energy Quarterly

- forecasts value, volume and price of Australia's major resources and energy commodity exports
- an outlook for global commodity prices, demand and supply
- up-to-date global production and consumption data
- reviews of relevant topics and issues
- detailed statistical tables.



Thank you

Thuong Nguyen

Economist

Office of the Chief Economist

**Australian Government Department
of Industry, Innovation and Science**

Phone: 61 2 6243 7491

Email: thuong.nguyen@industry.gov.au