# Gold

**Resources and Energy Quarterly September 2019**

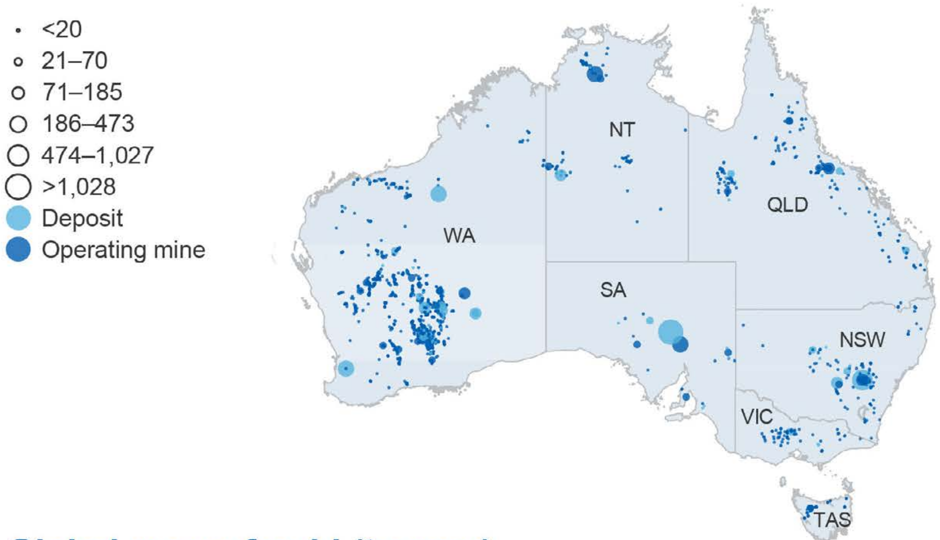
Australia is the
**2nd largest**
producer of gold
in the world

## 321 tonnes
of gold produced by Australia in 2018-19

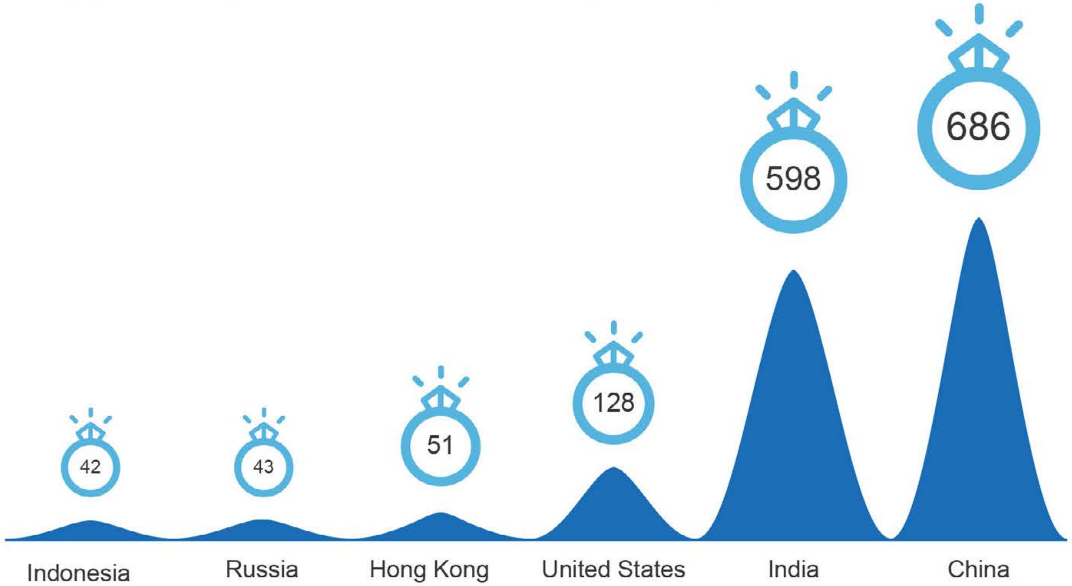
## 9%
of world mine gold supplied by Australia in 2018

## world record find
Australia holds the record for the world's largest gold nugget weighing 72 kg, found in Victoria in 1869

## Major Australian gold deposits (tonnes)

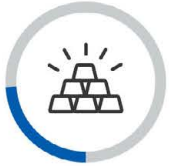



## Key jewellery consumer markets (tonnes)




## Global uses of gold (tonnes)

**51%**
Jewellery



**25%**
Gold coins and bars

**15%**
Central Bank Reserves

**7%**
Electronics and Industrial

**1%**
Global Backed Exchange Traded Funds

**1%**
Dental and medical

## 10.1 Market summary

- Australian gold prices are forecast to rise to a record annual average high of A$2,042 an ounce in 2020, due to trade tensions and geopolitical risks and a low Australian dollar.
- Australia's gold exports are forecast to hit a record high of $25 billion in 2019–20, reflecting expected rises in gold prices and a rise in export volumes to 368 tonnes.
- China's restrictive gold import licence policy represents a notable risk to gold exporters such as Australia.

## 10.2 Prices

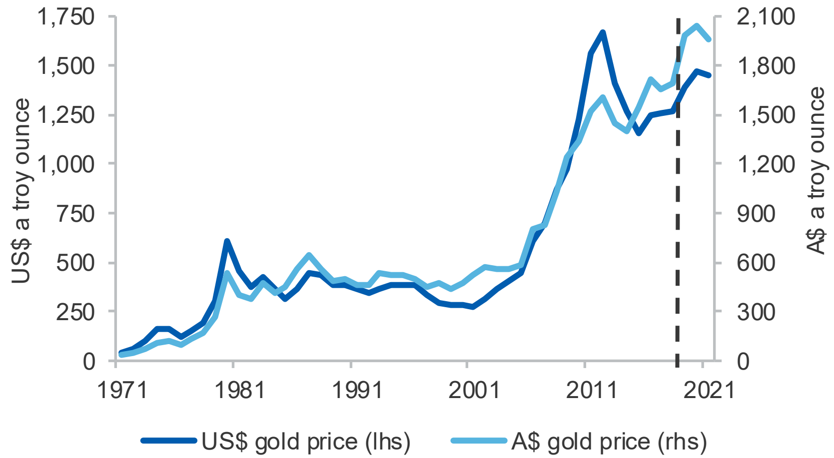
### Australian gold prices hit a record high in August 2019

The London Bullion Market Association (LBMA) gold price reached a six year high of US$1,547 an ounce on 3 September 2019, propelled by an escalation of trade tensions between the US and China (see the *Macroeconomic chapter*). The trade tensions pushed the Australian dollar to an 11-year low of US$0.67 on 2 September. The lower Australian dollar, in combination with higher US dollar gold price, has pushed the Australian dollar gold price to a new record level of A$2,289 an ounce on 3 September 2019 (Figure 10.1).

Gold is expected to perform well over the remainder of 2019, as markets respond to ongoing trade tensions and geopolitical problems. The Brexit uncertainty has risen following the United Kingdom Parliament's vote to block a 'no deal' Brexit on 4 September 2019. Civil unrest in Hong Kong shows no signs of ending. The stalled US and North Korea nuclear talks pose a risk to regional (east Asia) and global security, while the confrontation between the US and Iran has the potential to escalate. Other uncertainties include a change of government in Italy and the rapid plunge of the Argentine Peso after the country's presidential election in August 2019.

Reflecting these issues, the US gold price is forecast average US$1,390 an ounce in 2019, with the Australian gold price forecast to be A$1,980 an ounce.

**Figure 10.1: US dollar and Australian dollar gold prices, Yearly average**




Source: LBMA (2019) Gold price PM and Australian gold price AM; Department of Industry, Innovation and Science (2019)

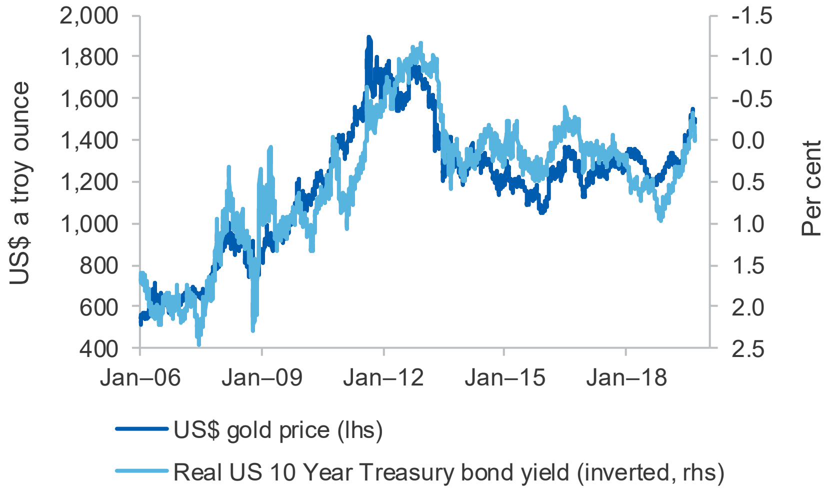
### Gold is forecast to perform well in 2020 and 2021

Trade tensions are expected to continue having flow-on impacts to consumer and business confidence over the outlook period. The global economy faces a higher recessionary risk as signalled by the inverted yield curve (Figure 10.2). A correction in global equity markets could potentially result in a flow of funds into gold.

Central banks' gold purchases are likely to support gold prices over the next few years, with a forecast increase of 11 per cent in 2019, to 732 tonnes. Purchases are expected to stay above 700 tonnes in 2020.

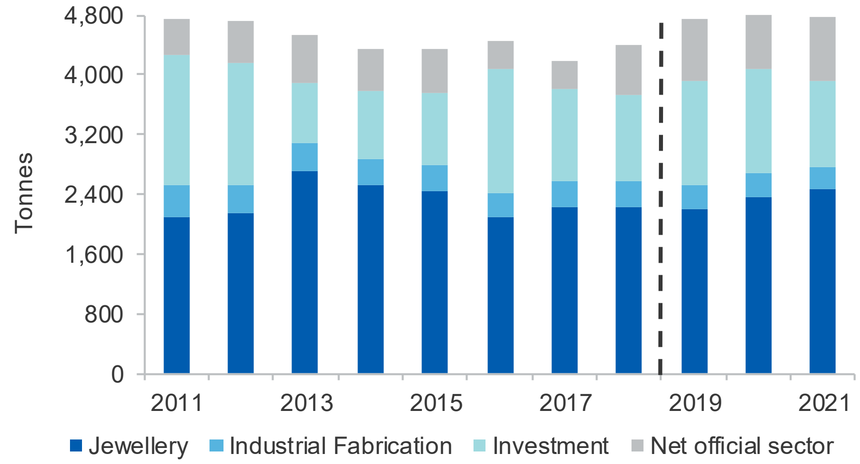
As gold faces higher demand as a safe haven asset, gold prices are expected to lift to an average US$1,470 an ounce in 2020, before falling to an average US$1,450 an ounce in 2021. The Australian gold price is forecast to average A$2,040 an ounce in 2020, before falling to an average of A$1,960 an ounce in 2021.

**Figure 10.2: US dollar gold prices and Real 10-Year bond yield**




Source: Bloomberg (2019)

**Figure 10.3: World gold consumption**




Source: World Gold Council (2019); Department of Industry, Innovation and Science (2019)

## 10.3 Consumption

### World gold consumption increased strongly in the first half of 2019

World gold consumption increased by 7.9 per cent in the first half of 2019 to 2,182 tonnes, propelled by central bank buying and inflows into gold backed exchange traded funds (ETFs).

Demand from the official sector — central banks and other institutions — rose by 57 per cent year-on-year to 374 tonnes. Economic uncertainty, due to trade tensions and a desire to diversify out of the US dollar, appears to have been the catalyst for central banks' growing appetite towards gold. According to the World Gold Council, nine central banks — Poland, Russia, China, Kazakhstan, India, Ecuador, Colombia, Turkey and the Kyrgyz Republic — all increased their gold reserves by at least a tonne in the first half of 2019.

Gold-backed ETF holdings increased by 77 per cent year-on-year in the first half of 2019, with over 108 tonnes (or US$1.9 billion) of global inflows. Volatile equity markets and the shifting stance of the US Federal Reserve — which has now begun to cut interest rates — supported demand for gold backed ETFs.

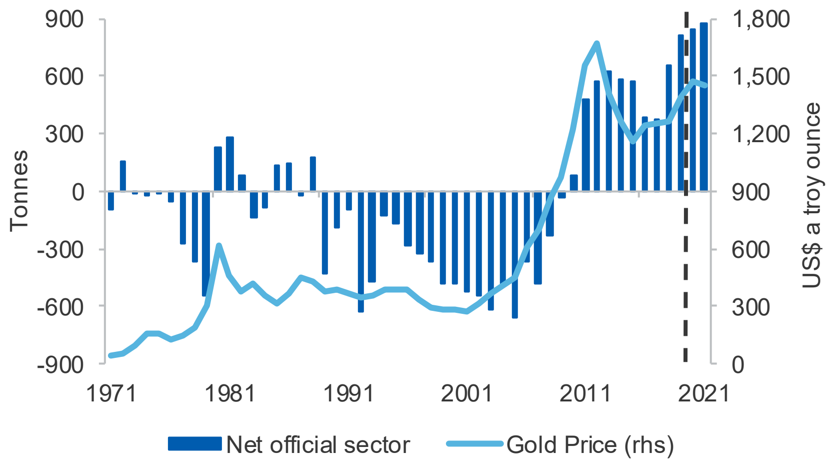
Gold jewellery consumption increased by 1.3 per cent year-on-year in the first half of 2019, to 1,062 tonnes, mainly driven by increased demand from India — the world's second largest jewellery consuming nation. The growth in Indian demand was due to lower prices during the wedding season, and more auspicious (lucky) wedding days in 2019 compared to 2018. Jewellery consumption in the United States — the world's third largest jewellery market — was at a ten-year high of 53 tonnes in the first half of 2019.

The outlook for global gold consumption for the remainder of 2019 remains positive, driven by central bank buying. After 20 years and three renewals, the Central Bank Gold Agreement (CBGA) — the European Central Bank (ECB) and 21 central banks in Europe — is expected to end in September 2019. The CBGA restricted the tonnage of gold sold in any year for member central banks. As a result, world gold consumption is forecast to grow by 7.9 per cent in 2019, to 4,745 tonnes.

### World consumption to rise in 2020 and 2021

World gold consumption is forecast to grow by 3.7 per cent in 2020 and 1.2 per cent in 2021 (Figure 10.3). The growth is expected to be largely driven by central banks' gold buying, which is forecast to increase by 3.5 per cent a year over the next two years, reaching over 872 tonnes by 2021 (Figure 10.4). The official sector purchases will reflect a desire to diversify central bank reserves.

**Figure 10.4: Net official sector consumption and Gold prices**




Source: World Gold Council (2019); Department of Industry, Innovation and Science (2019)

Outside of Europe, the People's Bank of China (PBoC) — China's central bank — has been a regular buyer of gold, and is expected to continue buying gold over the outlook period. As at June 2019, the PBoC had added to its gold reserves in seven consecutive months, bringing its gold inflow to over 84 tonnes since December 2018.

Retail investment is expected to drive up global gold demand. Retail investment is forecast to rise by 7.3 per cent in 2020, and by a further 3.0 per cent (to 1,297 tonnes) in 2021. This reflects the impact of trade tensions, the global economic slowdown, and political uncertainty in Europe, Venezuela and the Middle East. In China, escalating trade tensions with the US are likely to boost gold demand, as retail investors seek to buy gold as a hedge against the depreciation of the Renminbi.

Jewellery demand is forecast to rise by 7.5 per cent (to 2,364 tonnes) in 2020, and by a further 4.6 per cent (to 2,473 tonnes) in 2021. Demand from China — the world's largest jewellery consumer — is expected to remain strong, supported by safe haven demand and the Chinese government's monetary and fiscal stimulus. In addition, jewellery production innovation — which has resulted in a widening product offering — will provide consumers with greater choices and potentially support higher demand for gold. In India — the world's second largest gold jewellery consumer — strong demand growth is expected, driven by economic growth, ongoing urbanisation, rising incomes, and improved consumer sentiment.

## 10.4 Production

### World gold supply increased in the first-half of 2019

World gold supply rose by 2.1 per cent year-on-year in the first-half of 2019 to 2,324 tonnes, driven by rising mine production and increased recycling. Gold mine production grew by 0.3 per cent year-on-year to 1,720 tonnes, as several projects in major gold producing countries ramped up production. Output increased from the Cadia gold mine in Australia, the Natalka mine in Russia, and the Brucejack, Rainy River and Moose River mines in Canada. However, production in China — the world's largest gold producer — continued to decline, falling by 4.0 per cent year-on-year in the second quarter of 2019. Environmental reforms introduced in 2017 have continued to impact the country's gold production. The shift of Indonesia's Grasberg gold mine's operations from open mine to underground has also reduced production volumes.

Gold recycling grew by 6.5 per cent year-on-year in the first half of 2019, reaching 602 tonnes. This was driven by a surge in gold prices, with China being the main driver of the growth, as low cost and convenient online gold recycling platforms boosted gold buy-back activities. Outside of China, recycled gold supply rose modestly in the Middle East, India and ASEAN countries, as gold consumers adopted a wait-and-see approach in anticipating further gold price increases in the short term.

World gold supply is forecast to grow by 2.5 per cent in 2019 to 4,769 tonnes, as gold producers ramp-up production to maximise the benefits of high gold prices.

### World gold production expected to rise over the outlook period

World gold supply is forecast to increase at an average annual growth rate of 1.8 per cent in 2020 and 2021, reaching 4,939 tonnes in 2021 (Figure 10.5). Supply growth is expected to be driven by stronger mine and scrap output. Global mine production is forecast to increase by 2.0 per cent (to 3,608 tonnes) in 2020 and by 1.6 per cent (to 3,665 tonnes) in 2021. An expected short term upward movement in gold prices — in both US dollar and other major currencies — and solid project pipelines in Australia, Russia and Canada — are all likely to drive higher global gold mine output, with miners focusing on expansion, and extending mine life.

**Figure 10.5: World gold production**


Source: World Gold Council (2019) Supply Trends; Department of Industry, Innovation and Science (2019)

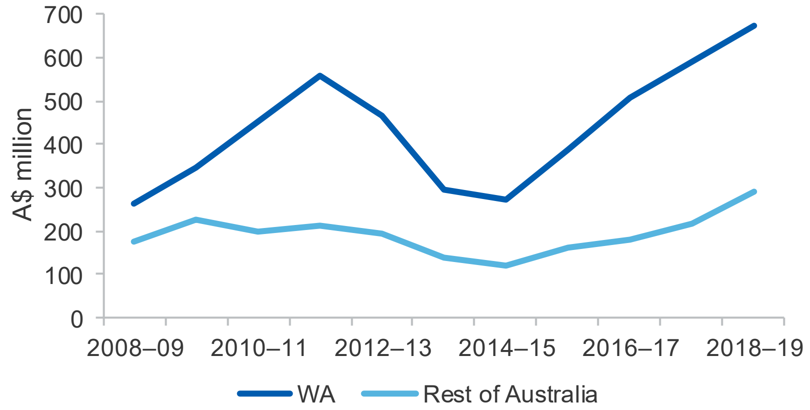
In the latter part of the outlook period, Grasberg — the world's largest gold mine, located in Indonesia — is expected to ramp-up its underground production. China's gold output is expected to be more stable, as Chinese gold producers adapt to stricter environmental regulations. In Australia, encouraged by all-time high Australian dollar gold prices, Gruyere joint-venture partners Gold Fields and Gold Road Resources have begun ramping up development at the Gruyere gold mine in Western Australia.

## 10.5 Australia

### Gold exploration expenditure rose strongly in 2018–19

Australia's gold exploration expenditure rose by 19 per cent in 2018–19, to $964 million, driven by higher Australian gold prices. Western Australia remained the centre of gold exploration activity in Australia, accounting for 70 per cent (or $673 million) of total gold exploration expenditure (Figure 10.6).

**Figure 10.6: Australia's gold exploration**

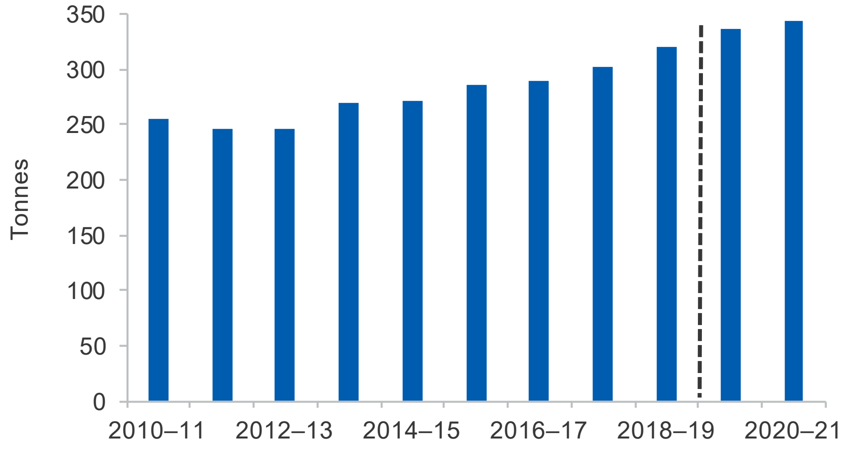



Source: ABS (2018) Mineral and Petroleum Exploration (cat. no. 8412.0)

### Australian gold mine production increased in 2018–19

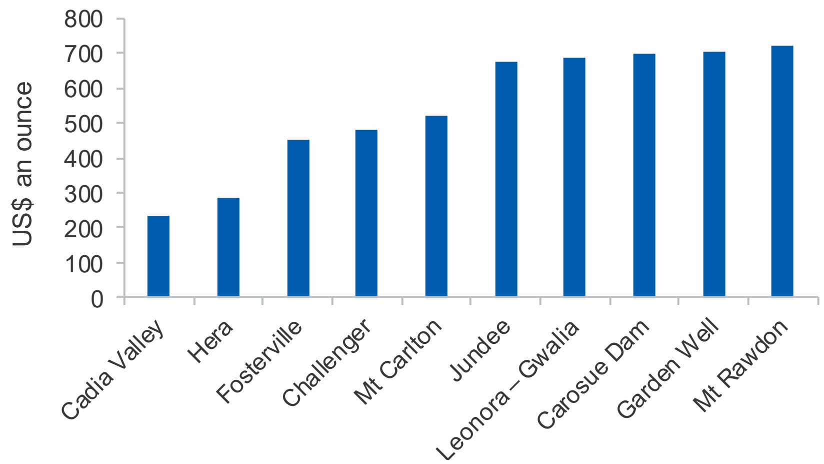
Australia's gold mine production increased by 6.3 per cent in 2018–19, to 321 tonnes (Figure 10.7), propelled by increased production in several large gold mines in New South Wales and the Northern Territory.

**Figure 10.7: Australia's gold production**




Source: Deparment of Industry, Innovation and Science (2019)

**Figure 10.8: Australia's top ten lowest all-in sustaining costs gold mines in 2018**




Source: AME (2019)

Newcrest's NSW Cadia Valley production rose by 52 per cent, to over 28 tonnes (the mine's largest ever annual gold production), driven by improved mill production time and throughput. The strong growth in output entrenched Cadia as Australia's largest gold producing mine in 2018–19. Newmont's Tanami production increased by 13 per cent, to over 16 tonnes, driven by an improvement in ore grades. However, production at Newmont's Boddington gold mine in Western Australia fell by 6.0 per cent, to 21 tonnes, due to lower ore grades. Newmont and Barrick's joint-venture Superpit gold mine in Western Australia saw its production decrease by 36 per cent, to 15 tonnes, with a rock fall incident in mid-May 2018 leading to increased processing of lower grade stockpiles — due to limited access to mining areas.

Figure 10.8 shows the top ten lowest all-in sustaining cost (AISC) gold mines in Australia in 2018. Newcrest's Cadia Valley was the lowest cost mine, with an average AISC of US$236 an ounce of gold, followed by Aurelia's Hera mine in NSW (AISC of US$286 an ounce) and Kirland Gold's Fosterville mine in Victoria (AISC of US$453 an ounce).

## Australian gold mine output forecast to grow in the short term

Australia's gold mine production is forecast to grow by 4.8 per cent in 2019–20, to 337 tonnes, and then by a further 2.2 per cent to 344 tonnes in 2020–21. The growth is expected to be driven by a number of new mines. Gold Roads' Gruyere gold mine in Western Australia (with an annual production of 8.4 tonnes) poured its first gold in July 2019. Regis Resources' McPhillamys mine in NSW (annual production of 6.2 tonnes) is expected to commence production in early 2021. Capricorn Metals' Karlawinda gold mine project in Western Australia (annual production of 4.0 tonnes) is expected to be commissioned in March 2021.

The Australian gold industry is experiencing a production revival, fuelled by repetitive record Australian gold prices. Some Australian gold producers have decided to reopen gold mines previously on care and maintainance, or which were on suspended production at lower prices.

In Victoria, the Stawell mine operated for 35 years until it closed in 2016. However, with record high gold prices, Arete Capital Partners (the mine's new owner) decided to restart the mine in January 2019. Production at the Victorian Morning Star gold mine also restarted in April 2019.

### Australian gold exports fell slightly in 2018–19

Australia's gold exports decreased by 0.9 per cent in 2018–19, to under $19 billion (Figure 10.9), due to a 6.5 per cent fall in export volumes. Exports to Hong Kong — Australia's largest gold export market — fell by 48 per cent, as the Chinese government's decision to curb gold imports reduced gold imports from Hong Kong, and subsequently, demand for Australian gold.

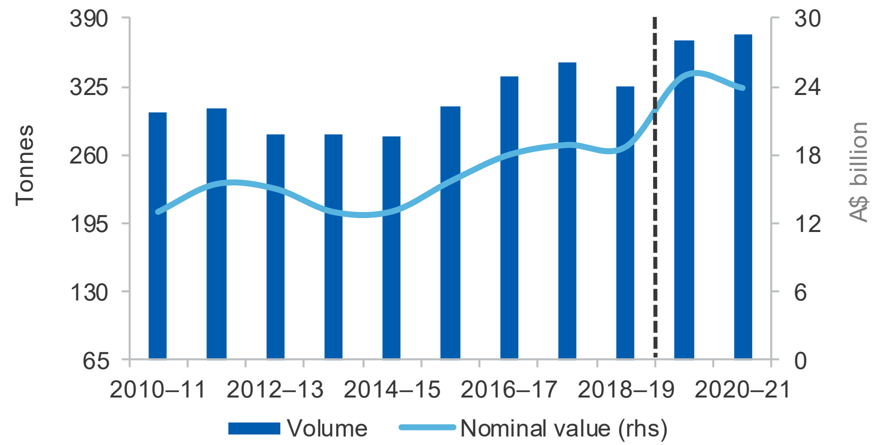
In the period between 2008–09 and 2018–19, demand for Australian gold was largely dominated by China, Hong Kong, the United Kingdom and India. China started to import Australian gold in 2010–11, and it reached a record high of $8.1 billion in 2013–14. The need to diversify central bank reserves was the key driver of the People's Bank of China's growing appetite towards gold. Australian gold exports to Hong Kong accelerated from 2015–16, as the Special Administrative Region's close links to China and the collaboration between the Shanghai Gold Exchange and the Chinese Gold and Silver Exchange increased physical gold trading activities. India was Australia's largest gold export market in 2009–10, at $7.1 billion. However, exports have fallen since 2009–10, due to increased imported duties and increased gold refining capacity in India (Figure 10.10).

### Gold exports to hit record in 2019–20

Australia's gold export earnings are forecast to increase by 33 per cent in 2019–20 to $25 billion (Figure 10.9) — a record gold export value — driven by higher gold prices and export volumes. After a large jump in 2019–20, Australia's gold export values are forecast to fall by 4.2 per cent in 2020–21 to $24 billion, as the AUD/USD recovers.

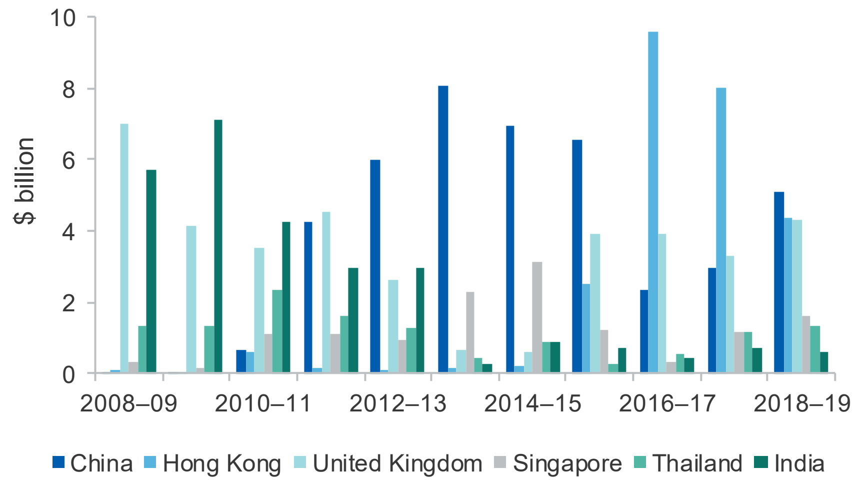
One key risk to this assessment is the decision to restrict gold imports into the country by the Chinese government, which is seeking to prevent

**Figure 10.9: Australia's gold exports**




Source: ABS (2019) International Trade, 5464; Department of Industry, Innovation and Science (2019)

**Figure 10.10: Australia's major gold export markets**




Source: ABS (2019) International Trade, 5464.0

capital outflows and support the Chinese currency. Since June 2019, the Chinese State Administration of Foreign Exchange has restricted licences to pay for gold imports by not issuing licences to sell the Renminbi for US dollars. As a result, gold has become backlogged in secure warehouses, reducing gold imports into China. It is unclear when this restriction will be lifted, but the potential impact is significant given China's large appetite for gold in recent years.

### Revision to the outlook

The outlook for global gold prices has been revised up by 4.9 per cent (to US$1,391 an ounce) in 2019 and by 4.5 per cent (to US$1,470 an ounce) in 2020, from estimates in the June 2019 *Resources and Energy Quarterly*. The revision reflects a larger than expected increase in trade tensions — and an associated deterioration in global economic — and rising geopolitical tensions.

Global gold production forecasts have been revised up by 6.1 per cent in 2020 and 13 per cent in 2021 to reflect the impact of upward price movements on mine production.

The outlook for Australia's gold mine production in 2020–21 has been revised up by 3.6 per cent (or 12 tonnes), to reflect the production updates from mining companies.

The outlook for Australia's gold export earnings in 2019–20 and 2020–21 has been revised up by 13 per cent (or $2.8 billion) and 7.9 per cent (or $1.7 billion), respectively, from the June 2019 *Resources and Energy Quarterly*. The weaker Australian dollar and a faster than expected increase in gold prices account for the forecast gain.

**Table 10.1: Gold outlook**

| | | | | | | Annual percentage change | | |
|---|---|---|---|---|---|---|---|---|
| **World** | **Unit** | **2018** | **2019[f]** | **2020[f]** | **2021[f]** | **2019** | **2020[f]** | **2021[f]** |
| Total demand | t | 4,397 | 4,745 | 4,922 | 4,982 | 7.9 | 3.7 | 1.2 |
| Fabrication consumption[b] | t | 2,576 | 2,521 | 2,677 | 2,780 | -2.1 | 6.2 | 3.9 |
| Mine production | t | 3,501 | 3,537 | 3,608 | 3,665 | 1.0 | 2.0 | 1.6 |
| Price[c] | | | | | | | | |
| Nominal | US$/oz | 1,269 | 1,391 | 1,470 | 1,450 | 9.6 | 5.7 | -1.4 |
| Real[d] | US$/oz | 1,297 | 1,391 | 1,437 | 1,387 | 7.3 | 3.3 | -3.5 |
| **Australia** | **Unit** | **2017–18** | **2018–19** | **2019–20[f]** | **2020–21[f]** | **2018–19** | **2019–20[f]** | **2020–21[f]** |
| Mine production | T | 302 | 321 | 337 | 344 | 6.3 | 4.8 | 2.2 |
| Export volume | T | 348 | 326 | 368 | 375 | -6.5 | 13.1 | 1.8 |
| Nominal value | A$m | 18,888 | 18,721 | 24,941 | 23,892 | -0.9 | 33.2 | -4.2 |
| Real value[e] | A$m | 19,611 | 19,122 | 24,941 | 23,332 | -2.5 | 30.4 | -6.5 |
| Price | | | | | | | | |
| Nominal | A$/oz | 1,674 | 1,754 | 2,108 | 1,982 | 4.7 | 20.2 | -6.0 |
| Real[e] | A$/oz | 1,738 | 1,791 | 2,108 | 1,936 | 3.0 | 17.7 | -8.2 |

Notes: **b** includes jewellery consumption and industrial applications; **c** London Bullion Market Association PM price; **d** In 2019 calendar year US dollars; **e** In 2019–20 financial year Australian dollars; **f** Forecast.

Source: ABS (2019) International Trade, 5465.0; London Bullion Market Association (2019) gold price PM; World Gold Council (2019); Department of Industry, Innovation and Science (2019)