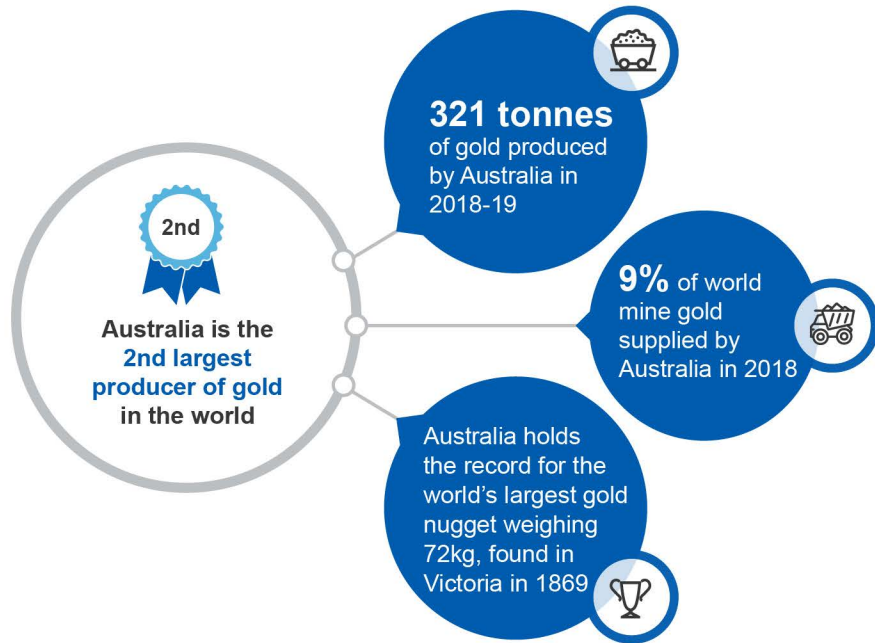
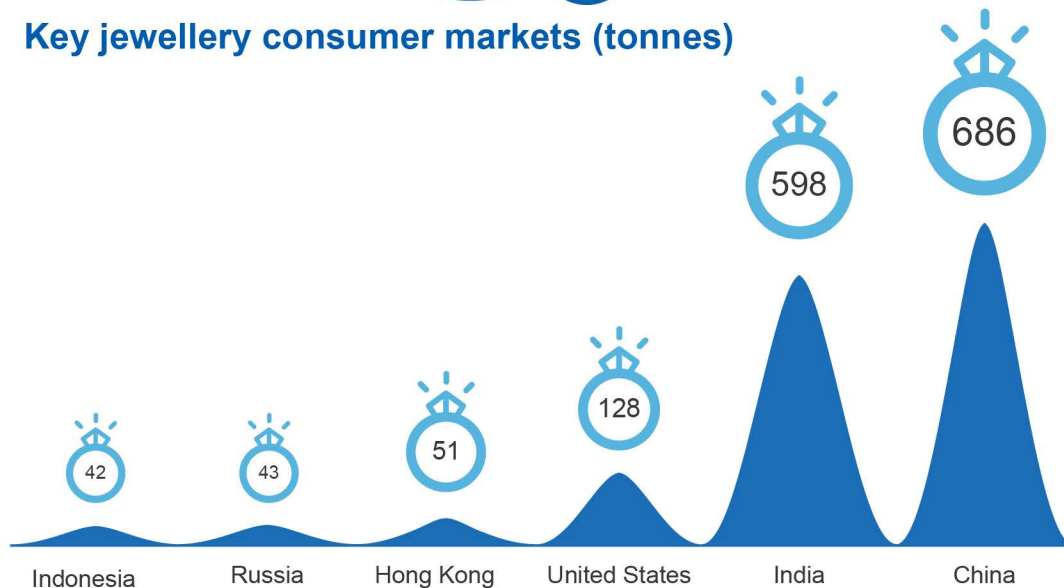


Gold

Resources and Energy Quarterly December 2019

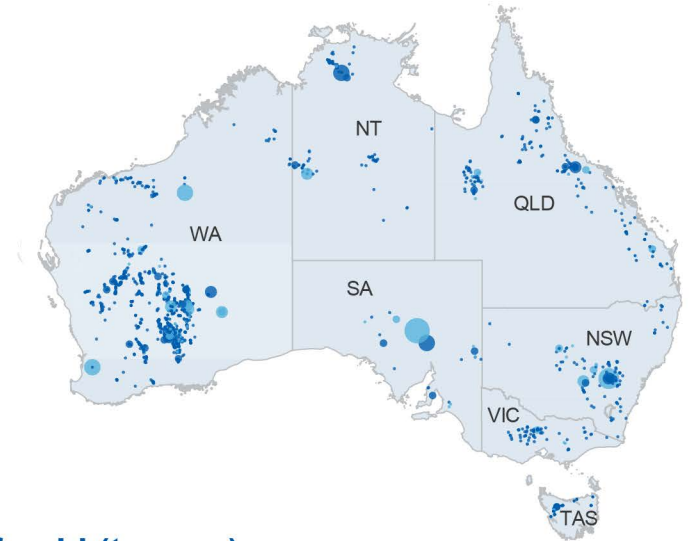


Key jewellery consumer markets (tonnes)

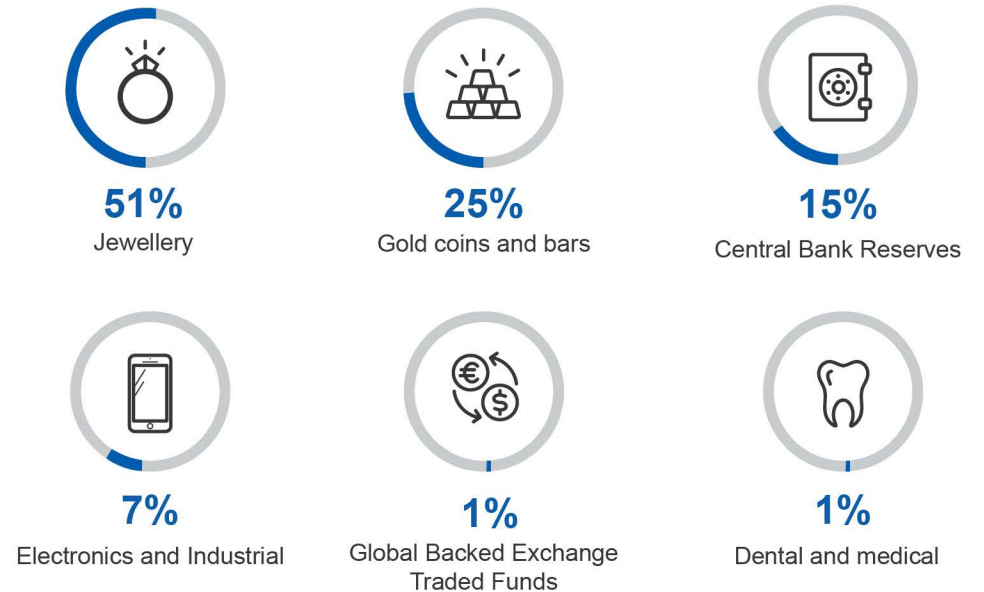


Major Australian gold deposits (tonnes)

- <20
- 21–70
- 71–185
- 186–473
- 474–1,027
- >1,027
- Deposit
- Operating mine



Global uses of gold (tonnes)



10.1 Market summary

- Australian dollar gold prices are forecast to rise to a record annual average high of A\$2,040 an ounce in 2020, due to the global economic slowdown, political uncertainty in the United States, and geopolitical risks in the Middle East.
- Australia's gold exports are forecast to reach a record high of \$28 billion in 2019–20, reflecting high gold prices and a forecast rise in export volumes to 403 tonnes.
- A partial US-China trade agreement could restore confidence and potentially restrain further upward movement in gold prices.

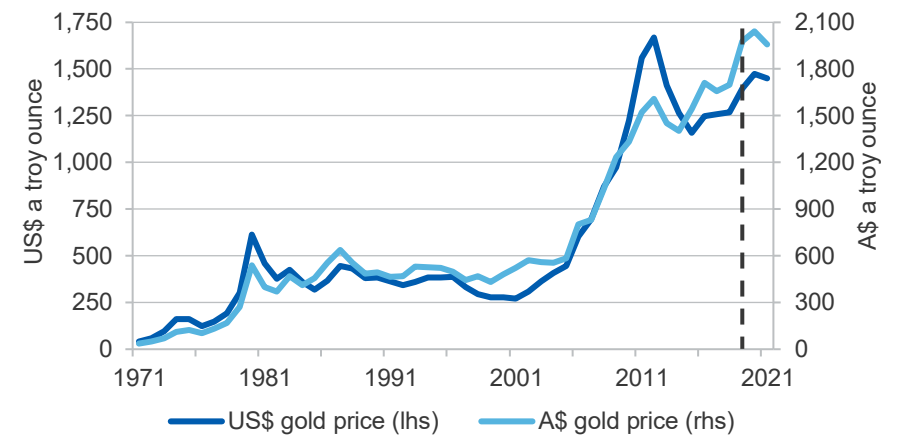
10.2 Prices

Australian gold prices fell from record highs in September 2019

The London Bullion Market Association (LBMA) gold price averaged US\$1,488 an ounce in the December quarter — a 4.5 per cent fall from its six-year high of US\$1,558 an ounce on 4 September 2019. Positive expectations for US-China trade negotiations triggered a flow of funds out of gold into equities and other riskier assets. With the Australian dollar largely steady against the US dollar, the lower US dollar gold price has pushed the Australian dollar gold price lower — down about A\$100 an ounce on the record of 3 September 2019 — averaging A\$2,186 an ounce in the December quarter 2019.

2019 has seen multi-year highs for the US dollar gold price and record highs for the Australian dollar gold price. The US dollar gold price is expected to finish the year on a positive note, as markets respond to the global economic slowdown and geopolitical uncertainties: problems in the Middle East and North Korea, and the civil unrest in Hong Kong. Reflecting these issues, the US gold price is estimated to increase by 9.9 per cent in 2019, averaging US\$1,395 an ounce, with the Australian gold price estimated to rise by 17 per cent in 2019, averaging A\$1,980 an ounce (Figure 10.1).

Figure 10.1: US and Australian dollar gold prices, annual 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

With gold benefitting from higher demand as a safe haven asset, gold prices are expected to lift to an average US\$1,474 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.

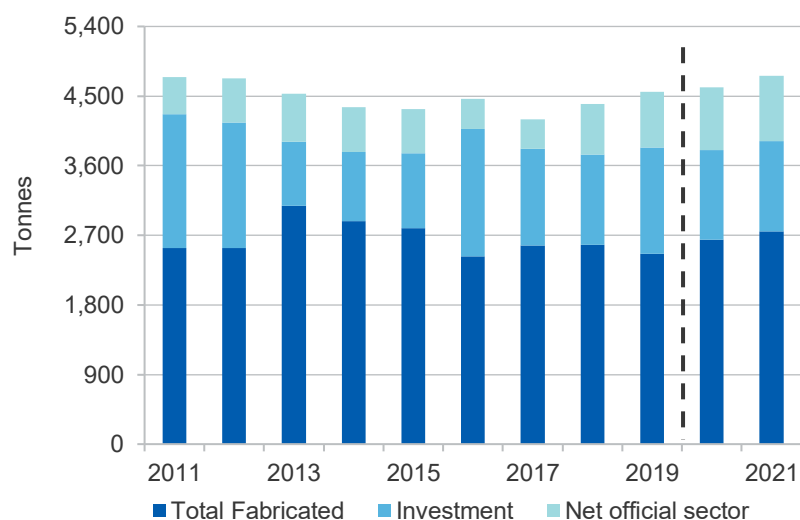
10.3 Consumption

World gold consumption increased modestly in the September quarter

World gold consumption rose by 2.4 per cent year-on-year to 1,108 tonnes in the September quarter 2019, propelled by inflows into gold-backed exchange traded funds (ETFs). Escalating US-China trade tensions during the September quarter, the shifting stance of the US Federal Reserve — which cut official interest rates three times in 2019 (July, September and October) — and slowing global economic growth, all triggered heightened interest in gold from institutional investors. Gold-backed ETF holdings rose by 347 per cent year-on-year to 258 tonnes in the September quarter.

High US dollar gold prices — reaching a six-year high of US\$1,558 an ounce on 4 September 2019 — and softer economic growth had adverse impacts on physical gold consumption. Demand for jewellery dropped by 16 per cent year-on-year to 461 tonnes in the September quarter. Jewellery consumption in China and India — the world’s two largest jewellery consuming nations — fell by 12 and 32 per cent year-on-year to 156 and 102 tonnes, respectively, as consumers reacted to higher gold prices and as economic growth in those two nations hit multi-year lows.

Figure 10.2: World gold consumption by type, annual



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

Central banks and other institutions (the official sector) continued to purchase gold, but in smaller quantities. In the September quarter, net official sector buying fell by 38 per cent year-on-year to 156 tonnes.

Retail gold investment (bars and coins) decreased by 50 per cent in the September quarter to 150 tonnes, as retail gold investors opted to reduce gold purchases and sell gold at high prices to maximise profits.

As 2019 comes to an end, the outlook for global gold consumption remains positive, driven by strong jewellery demand and retail investment. An expected pull-back of the US dollar gold price — falling further below US\$1,500 a troy ounce — is likely to attract jewellery consumers and retail investors back to the gold markets. Central bank buying is expected to reach a record high of over 700 tonnes in 2019. The People’s Bank of China bought at least 10 tonnes of gold a month for ten consecutive months between December 2018 and September 2019. Holdings of gold-backed ETFs are expected to rise by the most in three years in 2019, at over 400 tonnes. As a result, world gold consumption is estimated to grow by 3.6 per cent in 2019, to 4,555 tonnes (Figure 10.2).

World consumption to rise in 2020 and 2021

World gold consumption is forecast to grow by 1.3 per cent in 2020 and by 3.1 per cent in 2021, reaching 4,760 tonnes in 2021 (Figure 10.2). Growth is expected to be driven by retail investment, jewellery demand and central bank gold buying.

Retail investment is expected to drive up global gold demand. Retail investment is forecast to rise by 20 per cent in 2020, and by a further 3.0 per cent (to 1,196 tonnes) in 2021. This strong growth in retail investment reflects political uncertainty in the US — impeachment proceedings against the US President — and geopolitical tensions in the Middle East. Also, a correction in global equity markets could potentially result in a flow of funds into gold.

Jewellery demand is forecast to rise by 9.1 per cent (to 2,332 tonnes) in 2020, and by a further 4.6 per cent (to 2,440 tonnes) in 2021, driven by jewellery consumption in India — the world’s second largest gold jewellery consumer. Economic growth, ongoing urbanisation, rising incomes and improved consumer sentiment, are all expected to contribute to higher jewellery demand in India. In addition, compulsory branding by Indian jewellery retailers in 2020 will provide Indian consumers with greater confidence and potentially support higher demand for gold.

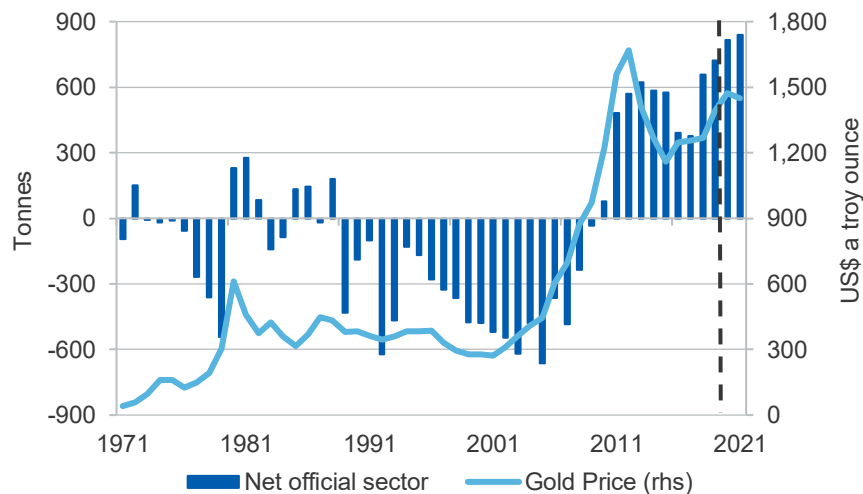
Demand from China — the world’s largest jewellery consumer — is expected to remain strong, supported by safe haven demand and anticipated monetary and fiscal stimuli by the Chinese government. However, Chinese consumers are highly sensitive to price increases, so the rise in jewellery demand is expected to be more modest.

Jewellery demand from the US — the world’s third largest jewellery consumer — is expected to grow modestly, as US jewellery consumers adjust to high US dollar gold prices.

In Europe, a recovery in consumer confidence in some large nations — as indicated by improvements in household’s future financial situation and major purchases intentions in France — in 2019 is expected to continue over the outlook period, and provide some support for jewellery demand.

Central bank gold buying is forecast to increase by 8.1 per cent a year over the next two years, reaching 840 tonnes by 2021 (Figure 10.3). Official sector purchases reflect a record low interest rate environment and a desire to diversify central bank reserves.

Figure 10.3: Net official sector consumption and gold prices



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

10.4 Production

World gold supply increased in the September quarter 2019

World gold supply rose by 3.8 per cent year-on-year in the September quarter 2019 to 1,222 tonnes, driven by an 11 per cent rise in gold scrap. Higher gold prices encouraged consumers to sell gold back to recyclers. China was the main driver of the growth, as low cost and convenient online gold recycling platforms boosted gold buy-back activities.

Gold mine production fell by 0.6 per cent in the September quarter to 878 tonnes, as several projects in major gold producing countries recorded lower output. Output decreased from the Cadia, Telfer, Boddington, Tanami and Super Pit gold mines in Australia (for reasons discussed in *Section 10.5 Australia*). The shift of Indonesia’s Grasberg gold mine operations from open cut to underground has also reduced production volumes. Production at Newmont’s Penasquito mine in Mexico declined by 16 per cent in the September quarter to 1.8 tonnes, due to an 80-day blockade by local residents, landowners and truck drivers.

World gold supply is estimated to grow by 3.1 per cent in 2019 to 4,801 tonnes, driven by rising scrap supply (up 7.5 per cent year-on-year).

World gold supply expected to rise over the outlook period

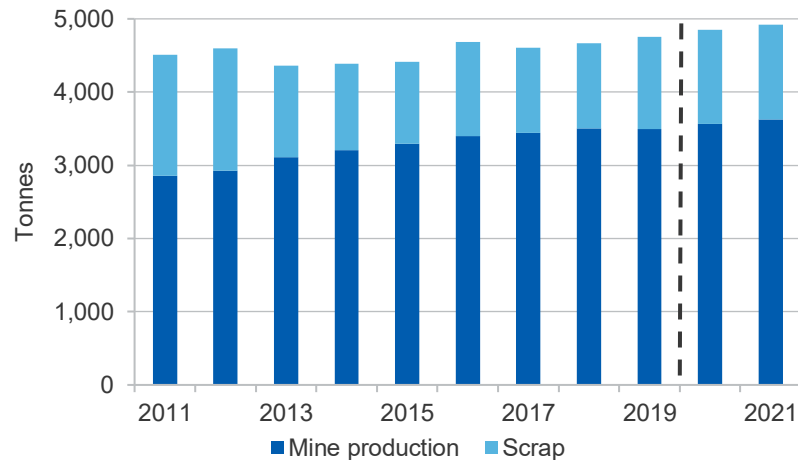
World gold supply is forecast to increase at an annual rate of 1.4 per cent in 2020 and 2021, reaching 4,936 tonnes in 2021 (Figure 10.4). Supply growth is expected to be driven by stronger mine and scrap output.

Global mine production is forecast to increase by 2.0 per cent (to 3,568 tonnes) in 2020 and by 1.6 per cent (to 3,625 tonnes) in 2021. An expected upward movement in gold prices in 2020 — 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 expansions and extending mine life.

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 miners adapt to stricter environmental regulations. In Africa, Ghana’s

gold mine production is forecast to rise at an average annual rate of 2.8 per cent over the next two years, to 122 tonnes in 2021, which would see Ghana overtake South Africa as Africa's largest gold producing nation.

Figure 10.4: World gold production



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

Gold scrap supply is forecast to rise at an average annual rate of 1.5 per cent over the next two years, to 1,293 tonnes in 2021, as high gold prices — both in US dollar and local currency terms — encourage gold selling in major jewellery consuming markets such as China and India.

10.5 Australia

Australian gold mine production decreased in the September quarter 2019

Australia's gold mine production fell by 2.6 per cent year-on-year in the September quarter 2019, to 78 tonnes, due to lower output in some large gold mines. Production at Newcrest's Cadia Valley in NSW and Telfer in WA decreased by 20 and 25 per cent year-on-year in the September quarter, to 5.3 and 2.5 tonnes respectively, due to planned maintenance shutdowns and lower ore grades. Production at Newmont's Boddington and Tanami mines in Western Australia decreased by 11 and 7.3 per cent

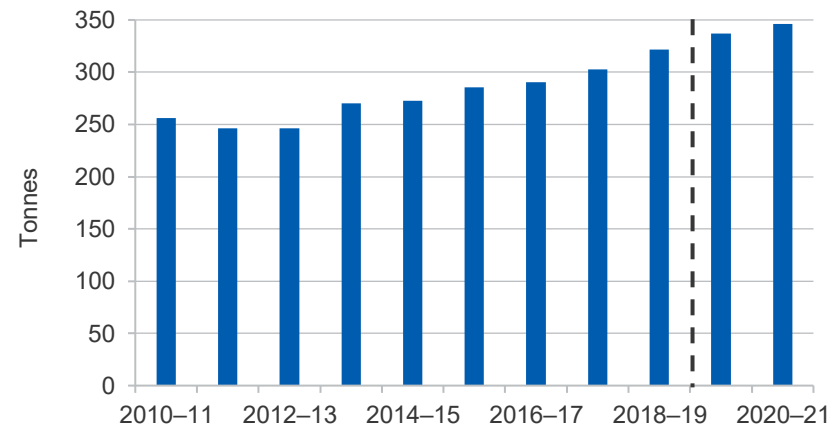
year-on-year in the September quarter, to 5.2 and 3.5 tonnes, respectively, due to lower ore grades. Production at Newmont and Barrick joint venture Super Pit in Western Australia fell by 23 per cent year-on-year to 3.6 tonnes, due to lower ore grades.

Australian gold mine output forecast to grow in the short term

Australia's gold mine production is forecast to grow by 4.9 per cent in 2019–20, to 337 tonnes, and then by a further 2.7 per cent to 346 tonnes in 2020–21 (Figure 10.5). Regis Resources' McPhillamys mine in NSW, with annual capacity 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 risk to this assessment is the impact of drought and water restrictions on production at some gold mines in NSW. Aurelia Metals' three tonnes per year Peak gold mine and two tonnes per year Hera gold mine, are likely to face water supply issues in early 2020. Evolution Mining's eight tonnes per year Cowal gold mine and Newcrest's 23 tonnes per year Cadia gold mine may also face water-related production cuts by mid-2020 should the drought continue.

Figure 10.5: Australia's gold production



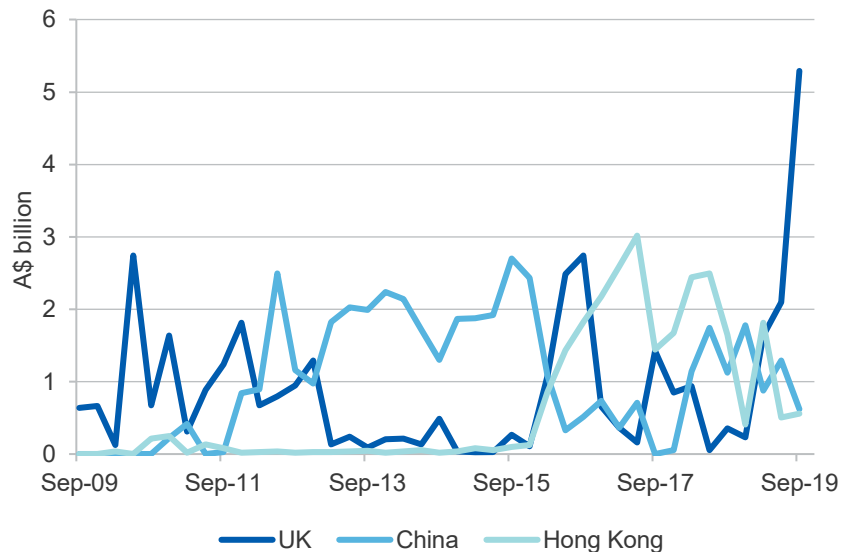
Source: Department of Industry, Innovation and Science (2019)

Australian gold exports rose strongly in the September quarter 2019

Australia's gold exports increased by 48 per cent year-on-year to \$7.3 billion in the September quarter 2019, driven by the higher gold price (up 22 per cent year-on-year) and increased export volumes (up 20 per cent year-on-year). Exports to the United Kingdom rose by 1,384 per cent year-on-year to \$5.3 billion, fuelled by fund flows into Exchange Traded Funds and strong safe haven demand for bullion.

Australian gold exports to Hong Kong were \$553 million in the September quarter, a decrease of 66 per cent year-on-year. Exports to China also fell sharply, down by 45 per cent year-on-year (Figure 10.6). Rising local currency gold prices may have had a negative effect on gold buying in the region.

Figure 10.6: Value of Australia's gold exports to the United Kingdom, China and Hong Kong

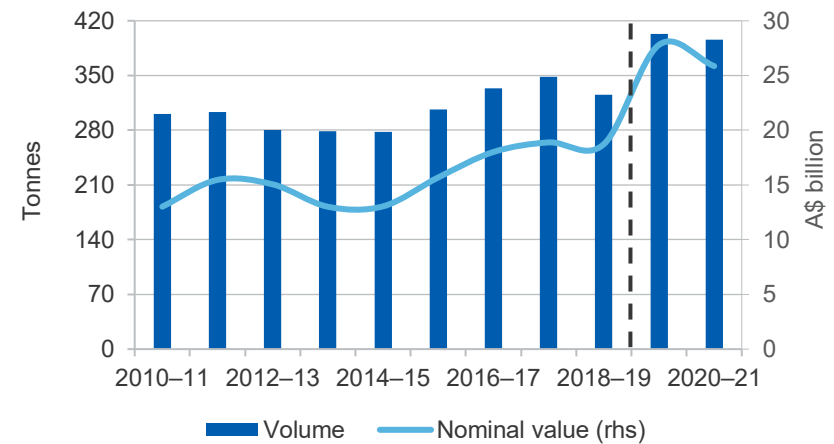


Source: ABS (2019) International Trade, Catalogue 5464

Gold exports to reach record high in 2019–20

Australia's gold export earnings are forecast to overtake thermal coal as the fourth largest export commodity in 2019–20 and 2020–21. Export earnings are forecast to increase by 49 per cent in 2019–20 to \$28 billion — a record — driven by higher gold prices and higher export volumes (Figure 10.7). Australia's gold export earnings are forecast to fall by 7.0 per cent in 2020–21 to \$26 billion, as the Australian dollar recovers against the US dollar.

Figure 10.7: Australia's gold exports



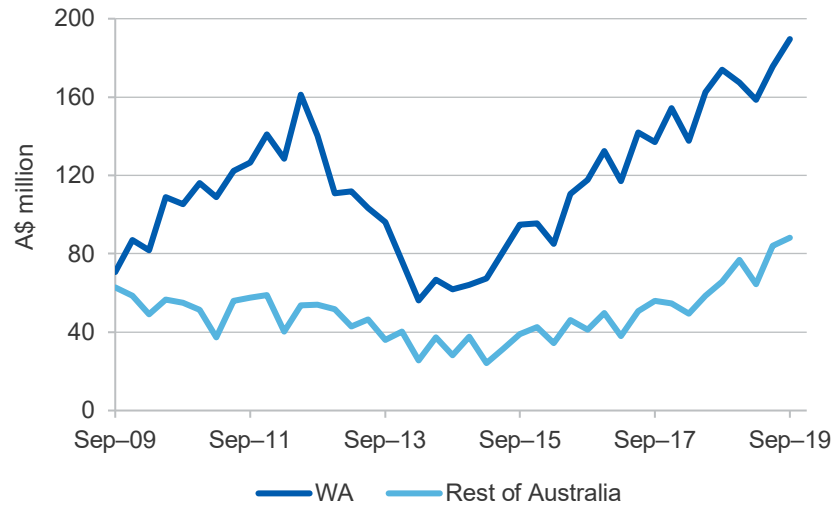
Source: ABS (2019) International Trade, 5464; Department of Industry, Innovation and Science (2019)

Gold exploration expenditure rose strongly in the September quarter 2019

Australia's gold exploration expenditure rose by 16 per cent year-on-year in the September quarter 2019, to \$278 million, incentivised by higher Australian dollar gold prices.

Western Australia remained the centre of gold exploration activity in Australia, accounting for 68 per cent (or \$190 million) of total gold exploration expenditure (Figure 10.8).

Figure 10.8: Australia's gold exploration expenditure



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

Revisions to the outlook

The outlook for Australia's gold export volumes in 2019–20 and 2020–21 has been revised up by 9.5 per cent (or 35 tonnes) and 5.6 per cent (or 21 tonnes), respectively, from the September 2019 *Resources and Energy Quarterly*, reflecting a very strong rise in exports (up 20 per cent year-on-year) in the September quarter.

Accordingly, the outlook for Australia's gold export earnings in 2019–20 and 2020–21 has been revised up by 11 per cent (or \$2.8 billion) and 8.2 per cent (or \$2.0 billion), respectively, from the September 2019 *Resources and Energy Quarterly*. Higher export volumes account for the forecast gain.

Table 10.1: Gold outlook

World	Unit	2018	2019 ^s	2020 ^f	2021 ^f	Annual percentage change		
						2019 ^s	2020 ^f	2021 ^f
Total demand	tonnes	4,397	4,555	4,616	4,760	3.6	1.3	3.1
Fabrication consumption ^b	tonnes	2,576	2,461	2,646	2,748	-4.5	7.5	3.9
Mine production	tonnes	3,501	3,498	3,568	3,625	-0.1	2.0	1.6
Price ^c								
Nominal	US\$/oz	1,269	1,395	1,474	1,450	9.9	5.7	-1.7
Real ^d	US\$/oz	1,291	1,395	1,444	1,391	8.0	3.5	-3.7
Australia	Unit	2017–18	2018–19	2019–20 ^f	2020–21 ^f	2018–19	2019–20 ^f	2020–21 ^f
Mine production	tonnes	302	322	337	346	6.4	4.9	2.7
Export volume	tonnes	348	326	403	396	-6.5	23.8	-1.7
Nominal value	A\$m	18,888	18,722	27,801	25,862	-0.9	48.5	-7.0
Real value ^e	A\$m	19,531	19,046	27,801	25,381	-2.5	46.0	-8.7
Price								
Nominal	A\$/oz	1,674	1,754	2,108	1,982	4.7	20.2	-6.0
Real ^e	A\$/oz	1,731	1,784	2,108	1,946	3.0	18.2	-7.7

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; **s** Estimate; **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)