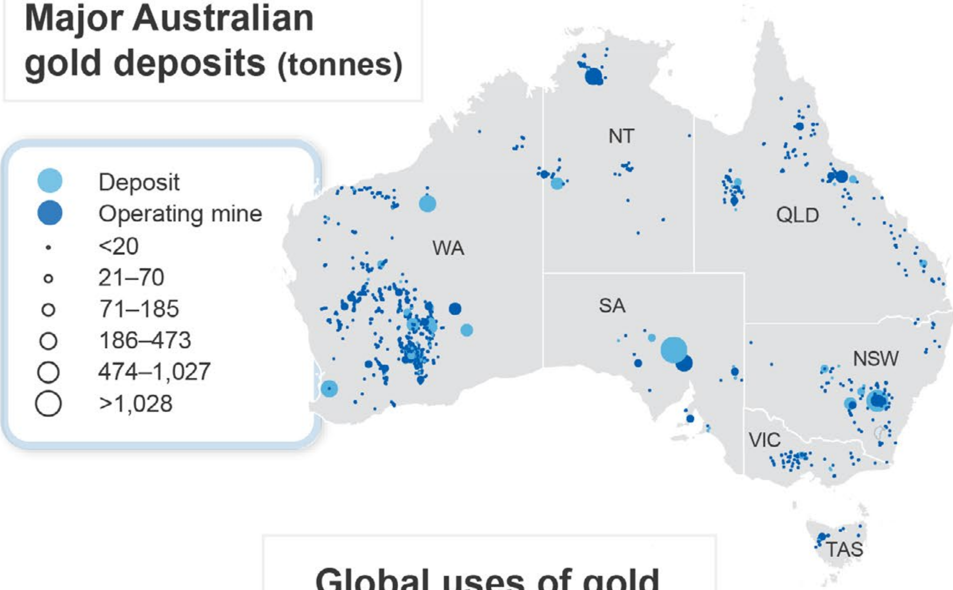
79 Au 196.967 Gold

Major Australian gold deposits (tonnes)



Gold

Aprox 187,200 tonnes of gold mined since the **beginning of civilisation**

The US Federal Reserve holds **6,700 tonnes of gold**

Gold makes up **3 parts per billion** of the Earth's outer layer

Global uses of gold

43%
Global backed exchange traded funds

25%
Jewellery

15%
Coins and bars

11%
Central bank reserves

6%
Electronics, industrial, dental and medical

Australia's gold

World's no. 1 producer of gold forecast **for 2021**

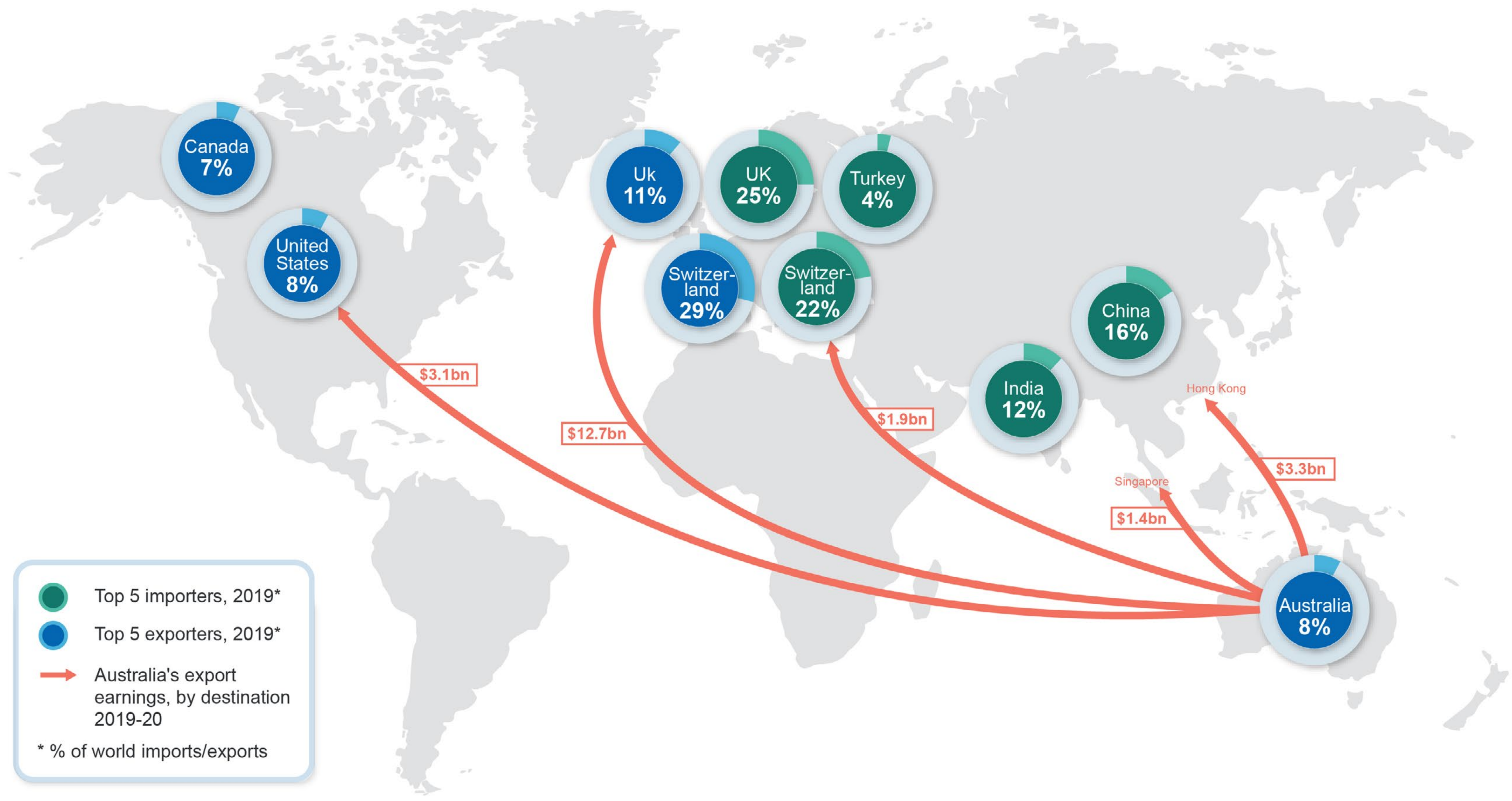
World's largest economic demonstrated **resource** of gold

World record holder for **largest gold nugget** 72kg

79 Au 196.967

Gold

Trade map | December 2020



10.1 Summary

- The COVID-19 pandemic and its fallout are likely to have seen the gold price peak at an annual record high in 2020, averaging about US$1,780 an ounce. An effective COVID-19 vaccine rollout and consequent global economic rebound is projected to see the gold price slide to around US$1,560 an ounce in 2022.
- Australia's gold mine production is forecast to reach a record 384 tonnes in 2021–22, as record prices encourage an expansion in production (see *Australia section*).
- The value of Australia's gold exports is forecast to reach a record $30 billion in 2020–21 — driven by higher prices and export volumes — before declining to $27 billion in 2021–22, as gold prices ease back.

10.2 Prices

Gold prices rose strongly in 2020

The London Bullion Market Association (LBMA) US dollar gold price is estimated to average US$1,875 an ounce in the December quarter 2020, a 26 per cent year-on-year gain. Gold has benefited from its status as a safe haven asset during the COVID-19 pandemic. The close correlation between lower real bond yields and the US dollar gold price has persisted; low (and negative) real yields have caused a rush of investor money into gold, more than offsetting the impact of weaker demand from jewellery consumers and central banks. The prospect of a successful COVID-19 vaccine rollout in 2021 has lifted real bond yields and reduced institutional and retail investors' appeal for gold as a safe haven (Figure 10.1).

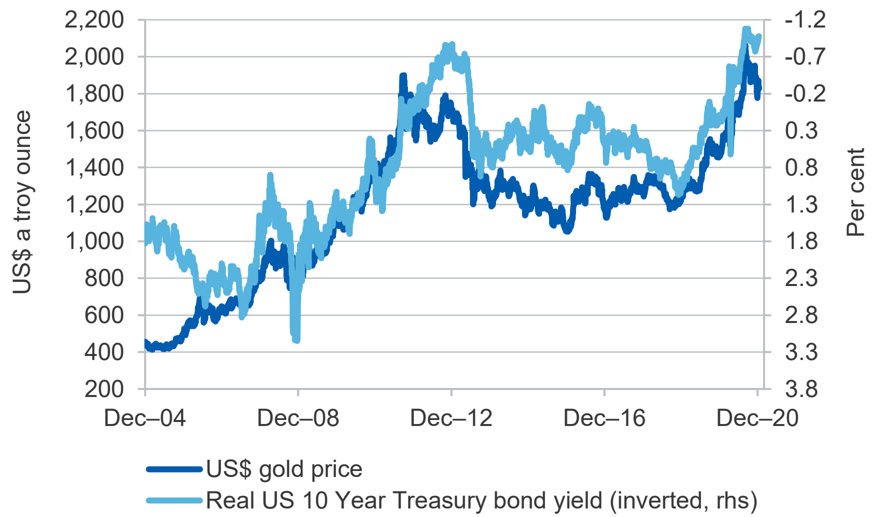
2020 has seen record highs for the US dollar gold price — reaching US$2,064 an ounce on 6 August 2020 — and the Australian dollar gold price — A$2,861 an ounce on 7 August 2020. The US dollar gold price is expected to finish the year on a positive note, as new COVID-19 containment measures are introduced across Europe — and low interest rate policies persist. Reflecting these issues, the US gold price is estimated to increase by 28 per cent in 2020, averaging US$1,776 an ounce, with the Australian gold price estimated to rise by 29 per cent in 2020, averaging A$2,581 an ounce (Figure 10.2).

Gold prices are expected to fall in 2021 and 2022

The development and rollout of highly effective COVID-19 vaccines and the global economic recovery, is expected to undermine some of gold's appeal to institutional and retail investors: funds are expected to move out of safe haven assets like gold and into riskier assets such as equities and real estate. The pace of central bank gold buying is expected to decrease at an annual rate of 5.8 per cent over the outlook period, amidst a modestly diminished official sector appetite for gold for reserves.

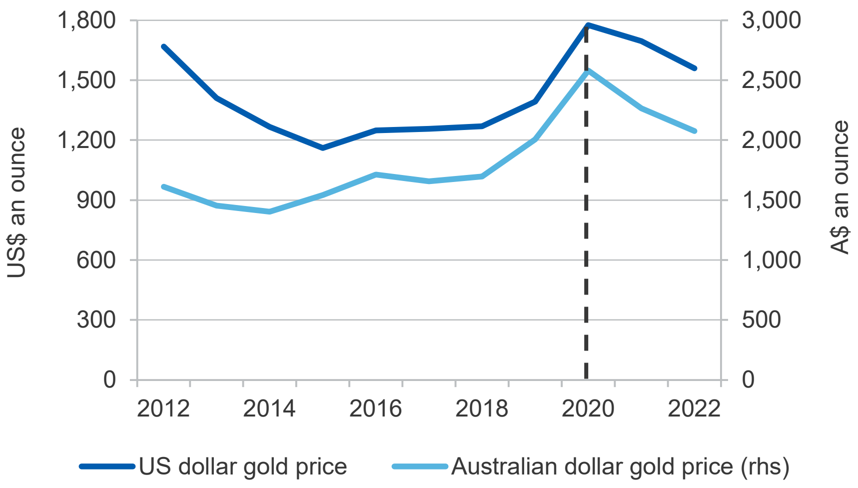
As the global economy recovers, the gold price is forecast to fall in 2021 and 2022; the price is expected to average US$1,695 an ounce in 2021 and US$1,560 an ounce in 2022 (Figure 10.2). The lower US dollar gold price, in combination with forecasts of a strengthening Australian dollar, is expected to push the Australian dollar gold price lower over the outlook period, averaging A$2,076 an ounce in 2022.

Figure 10.1: US dollar gold price and real US 10-Year Treasury yield



Source: Bloomberg (2020)

Figure 10.2: US and Australian dollar gold prices



Source: LBMA (2020) Gold price PM; Department of Industry, Science, Energy and Resources (2020)

10.3 Consumption

World gold consumption decreased in the September quarter 2020

World gold consumption decreased by nearly 19 per cent year-on-year in the September quarter 2020 — the lowest in 11 years — to 892 tonnes, led by a reduction in both jewellery consumption and central banks' purchases.

The COVID-19 pandemic and high gold prices have adversely impacted physical gold consumption. Demand for jewellery dropped by 29 per cent year-on-year in the September quarter, to 333 tonnes. Jewellery consumption in China and India — the world's two largest jewellery consuming nations — fell by 25 and 48 per cent year-on-year to 119 and 53 tonnes, respectively, as consumers reacted to higher gold prices and the COVID-19 containment measures. In the US and Europe, jewellery demand fell by 3 and 17 per cent year-on-year in the September quarter, to 28 and 10 tonnes, respectively.

Central banks and other institutions (the official sector) sold gold for the first time in a decade, but in small quantities. In the September quarter, net official sector selling was 12 tonnes, mainly due to large sales from central banks of Turkey (22 tonnes) and Uzbekistan (35 tonnes).

Offsetting the fall in gold jewellery demand and official sector gold selling was a 5.4 per cent rise year-on-year in inflows into gold-backed exchange traded funds (ETFs) in the September quarter 2020. ETF holdings rose 273 tonnes, worth around US$17 billion. The global COVID-19 pandemic, low interest rate environment and record gold prices in August 2020 have driven demand for gold backed ETFs.

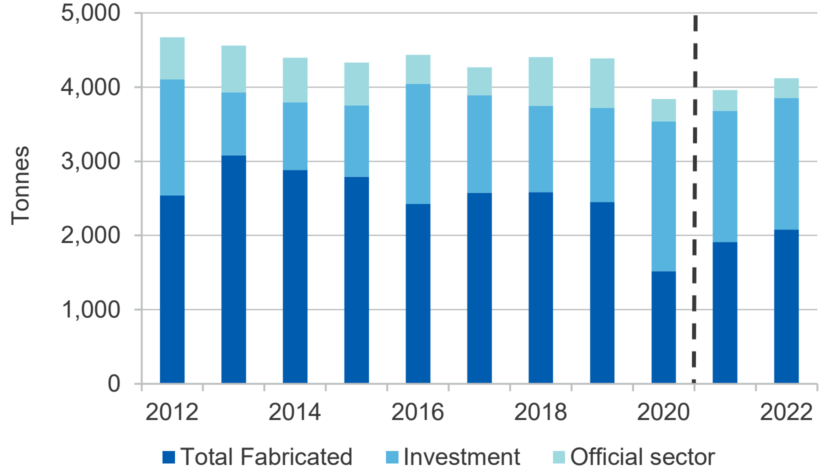
As 2020 comes to an end, the short term outlook for global gold consumption has weakened: COVID-19 containment measures are expected to have adverse impacts on gold jewellery demand in Europe and the US. Central bank gold buying activity is expected to be soft, as these institutions address liquidity requirements — as part of measures to cope with the COVID-19 pandemic. Offsetting these falls is an expected rise in gold jewellery demand from China and India, driven by the onset of the festive and wedding season. Gold is expected to continue to attract institutional investors. As a result, world gold consumption is estimated to fall by 12 per cent in 2020, to 3,841 tonnes (Figure 10.3).

Gold consumption expected to rise in 2021 and 2022

World gold consumption is forecast to grow by 3.1 per cent in 2021 and by 4.1 per cent in 2022, reaching 4,122 tonnes in 2022 (Figure 10.3). Growth is expected to be mainly driven by jewellery demand, up 30 and 10 per cent in 2021 and 2022, to 1,597 and 1,757 tonnes, respectively.

Demand from China and India is expected to rise at double-digit rates in 2021, following a steep fall in 2020. However, Chinese and Indian consumers are highly sensitive to prices, so the rise in jewellery demand is expected to be more modest. In the US and Europe, jewellery demand is also likely to recover, but at a slower pace than China and India, as US and European consumers' interest in gold jewellery is expected to remain limited.

Figure 10.3: World gold consumption by sector



Notes: Total fabricated includes jewellery consumption and industrial applications

Source: World Gold Council (2020) *Gold Demand Trends*; Department of Industry, Science, Energy and Resources (2020)

Over the first half of outlook period at least, many central banks are expected to continue to shift their focus from reserves diversification to supporting the economic recovery from the COVID-19 pandemic. The official sector is thus expected to slow its (net) buying pace compared to recent years. Central banks' gold buying is forecast to fall at an average annual rate of 5.8 per cent in 2021 and 2022, to 270 tonnes (net) in 2022.

With record low interest rates in much of the world, the opportunity cost of holding gold is low. Fund flows into gold backed ETFs are thus expected to continue to grow, but at a slower pace, with an average inflow of about 811 tonnes a year in 2021 and 2022.

Retail investment is expected to help global gold consumption, with demand for gold bars and coins forecast to rise at an average annual rate of 15 per cent in 2021 and 2022, reaching 1,006 tonnes by 2022. This is driven by a forecast pull-back in gold prices (see *Section 10.2 prices*).

10.4 Production

World gold supply decreased in the September quarter 2020

World gold supply fell by 3.3 per cent year-on-year in the September quarter 2020, to 1,224 tonnes, mainly due to decreased gold mine production.

World gold mine production fell by 3.4 per cent year-on-year in the September quarter 2020 to 884 tonnes, driven by reduced output in some major gold producing nations. Production in China — the world's largest gold producer — decreased by 3.0 per cent year-on-year in the September quarter, as stricter environmental regulations (implemented since 2017) reduced Chinese gold output. Over this period, Russia's gold mine production fell by 13 per cent year-on-year, due to lower ore grades. Production in the US and Australia rose by 12 and 4.8 per cent year-on-year in the September quarter 2020, respectively.

Figure 10.4: World gold supply

Source: World Gold Council (2020) *Gold Demand Trends*; Department of Industry, Science, Energy and Resources (2020)

The relaxation of COVID-19 containment measures in many parts of the world has encouraged the re-opening of jewellery stores and thus boosted gold recycling activity. Some sales are likely to have been distressed, as households try to raise funds to get through the pandemic. In the September quarter 2020, gold scrap supply rose by 6.2 per cent year-on-year to 376 tonnes.

For 2020, world gold supply is estimated to fall by 2.6 per cent to 4,684 tonnes (Figure 10.4), as gold mine production in some gold producing countries such as China and Papua New Guinea (PNG) is expected to remain subdued in the last quarter of 2020. Barrick Gold's 15 tonnes a year Porgera gold mine in PNG — on care and maintenance since April 2020 — is not expected to restart before the end of the year, despite the PNG government and Barrick Gold reaching an in principle agreement on the ownership and operation of the mine on 15 October 2020.

Gold mine production in Australia is expected to rise in the December quarter, as some large gold mines — such as Evolution Mining's Cowal gold mine in NSW and Northern Star's Kalgoorlie Operations in WA — to return to full production following planned maintenance in the September quarter. Gold mines in the US, Russia and Canada are also expected to maximise production, possibly seeking out some low grade deposits previously deemed uneconomic.

Gold recycling activity is expected to have picked up in the last quarter of 2020, as retail consumers sell gold pieces to cash in on high gold prices.

World gold supply expected to rise in 2021 and 2022

World gold supply is forecast to rise by 7.3 and 1.1 per cent in 2021 and 2022, to 5,026 and 5,082 tonnes, respectively (Figure 10.4). Supply growth is expected to be driven by stronger mine and scrap output.

World mine production is forecast to increase by 8.0 per cent (to 3,682 tonnes) in 2021 and by 2.0 per cent (to 3,756 tonnes) in 2022. A solid pipeline of projects in Australia, Russia and Canada should contribute to higher world mine output, with miners focusing on expansions and extending the life of existing mines. In Colombia, Zijin Continental Gold's 7.5 tonnes a year Burtica gold mine — first large scale underground gold project — has commenced commercial operation in December 2020.

Gold scrap supply is forecast to rise by 3.0 per cent in 2021, to 1,339 tonnes, 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. In 2022, lower gold prices and an improvement in the economic situation of many households are likely to discourage the sale of gold jewellery: gold scrap supply is forecast to fall by 3.0 per cent in 2022, to 1,299 tonnes.

10.5 Australia's exports and production

Export values decreased in the September quarter 2020

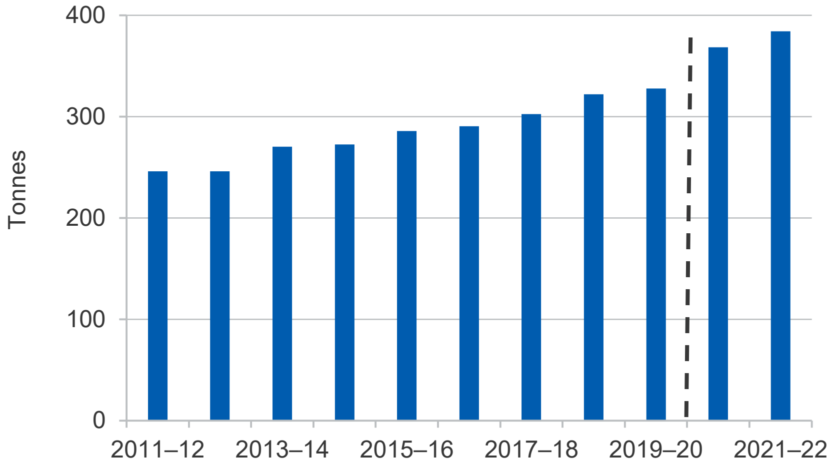
Australia's gold exports decreased by 4.9 per cent year-on-year in the September quarter 2020, to around $7.0 billion, due to a 100 per cent year-on-year fall in exports to China (including Hong Kong) and a 27 per cent fall in exports to the UK. Offsetting the drop in China and the UK' markets, exports to the US rose by 6,862 per cent year-on-year to $1.8 billion, fuelled by fund flows into ETFs and strong safe haven demand for bullion.

Australian gold mine production increased in the September quarter 2020

Australia's gold mine production rose by 4.8 per cent year-on-year in the September quarter 2020, to 81 tonnes, driven by higher output in several large gold mines. Production at Kirkland Lake Gold's Fosterville mine in Victoria increased by 2.0 per cent year-on-year to 5.0 tonnes, driven by increased mill throughput. Over the same period, production at Newmont Mining's Boddington mine in WA rose by 4.8 per cent year-on-year, to over 5.4 tonnes, propelled by higher grades.

Production at Evolution Mining's Cowal gold mine in NSW fell by nearly 32 per cent year-on-year in the September quarter 2020, to 1.6 tonnes, due to planned maintenance in August 2020. Northern Star's Kalgoorlie Operations production declined by 19 per cent year-on-year, to 2.0 tonnes, due to planned maintenance, lower grades and reduced throughput.

Figure 10.5: Australia's gold production



Source: ABS (2020) International Trade, 5368.0; Department of Industry, Science, Energy and Resources (2020)

Higher production in the short term

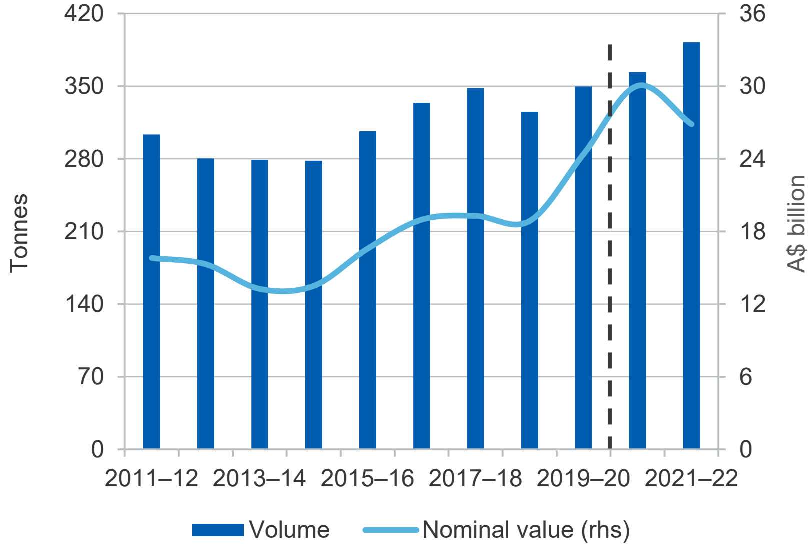
Australian gold mine production is forecast to rise by 12 and 4.5 per cent in 2020–21 and 2021–22, to 368 and 384 tonnes, respectively (Figure 10.6). Output will be propelled by production from new mines and higher output from existing gold mines.

Production at Evolution Mining's Mt Rawdon gold mine in Queensland is expected to return to normal capacity, after a rock fall incident in September 2020. Capricorn Metals' Karlawinda gold mine project (annual production of 3.0 tonnes) is expected to be commissioned in the June quarter 2021. Ramelius' 1.9 tonnes a year Penny gold mine is expected to commence in the June quarter 2021.

Australia's gold exports to reach a record of $30 billion in 2020–21

Australia's gold export earnings are forecast to increase by 23 per cent in 2020–21, to reach a record of $30 billion (Figure 10.5), driven by higher gold prices and higher export volumes. Australia's gold export earnings are forecast to fall by 11 per cent in 2021–22 to nearly $27 billion (Figure

Figure 10.6: Australia's gold exports



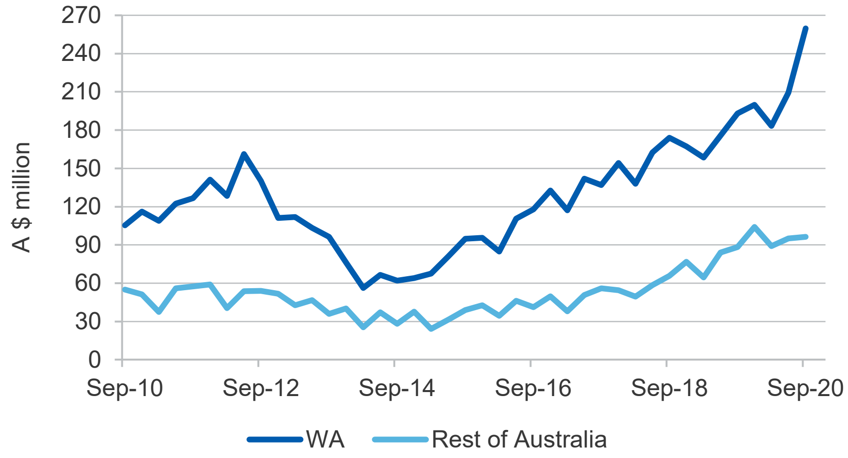
10.5). The decline will come as the lower US dollar gold price and a rising Australian dollar (see Section 10.2 prices) more than offsets the impact of higher export volumes.

Gold exploration expenditure rose strongly in the September quarter 2020

Australia's gold exploration expenditure rose by 27 per cent year-on-year in the September quarter 2020 to $356 million — record quarterly exploration expenditure — incentivised by high US and Australian dollar gold prices.

Western Australia remained the centre of gold exploration activity in Australia, accounting for 73 per cent (or $60 million) of total gold exploration expenditure (Figure 10.7).

Figure 10.7: Australian gold exploration expenditure



Source: ABS (2020) Mineral and Petroleum Exploration, Australia, 8412.0

Revisions to the outlook

The forecasts for the US dollar gold price in 2021 and 2022 have been revised down by 2.6 and 6.3 per cent, to US$1,695 and US$1,560 an ounce, respectively, from the forecast in the September 2020 *Resources and Energy Quarterly*. The downward revision reflects the increased likelihood of effective COVID-19 vaccines in the first half of 2021 and an associated economic recovery in 2021.

As a result of the price revisions, the forecast for Australian gold exports in 2020–21 has been revised down by 3.3 per cent (or $1.0 billion), to $30 billion. Export earnings in 2021–22 have been revised down to $27 billion, down $1.4 billion from the forecast in the September 2020 *Resources and Energy Quarterly.*

Table 10.1: Gold outlook

World	Unit	2019	2020s	2021f	2022f	Annual percentage change 2020s	2021f	2022f
Total demand	tonnes	4,387	3,841	3,962	4,122	-12.4	3.1	4.1
Fabrication consumption[b]	tonnes	2,449	1,521	1,912	2,078	-37.9	25.7	8.7
Mine production	tonnes	3,530	3,409	3,682	3,756	-3.4	8.0	2.0
Price[c]								
Nominal	US$/oz	1,392	1,776	1,695	1,560	27.6	-4.6	-8.0
Real[d]	US$/oz	1,410	1,776	1,662	1,498	26.0	-6.4	-9.9
Australia	**Unit**	**2018–19**	**2019–20**	**2020–21f**	**2021–22f**	**2019–20**	**2020–21f**	**2021–22f**
Mine production	tonnes	322	328	368	384	1.7	12.2	4.5
Export volumes	tonnes	326	350	364	393	7.4	4.0	7.9
Export value - Nominal	A$m	18,867	24,394	30,035	26,864	29.3	23.1	-10.6
Export value - Real[e]	A$m	19,290	24,612	30,035	26,424	27.6	22.0	-12.0
Price								
Nominal	A$/oz	1,769	2,338	2,510	2,129	32.2	7.3	-15.2
Real[e]	A$/oz	1,809	2,359	2,510	2,094	30.4	6.4	-16.6

Notes: **b** includes jewellery consumption and industrial applications; **c** London Bullion Market Association; **d** In 2020 calendar year US dollars; **e** In 2020–21 financial year Australian dollars; **f** Forecast; **s** Estimate.

Source: ABS (2020) International Trade, 5368.0; London Bullion Market Association (2020) gold price PM; World Gold Council (2020); Department of Industry, Science, Energy and Resources (2020).