

Gold Demand Trends

Q1 2022

Highlights

The LBMA Gold Price PM gained 8% in Q1, its best quarterly performance since Q2 2020.

The average quarterly price of US\$1,877.2/oz was around 5% higher than in the first quarter of last year.

Gold mine production was 3% higher y-o-y at 856t.

China resumed near-full production following safety-related closures, while higher grade ores were mined at various existing sites.

The supply of recycled gold jumped to 310t (+15% y-o-y). This was the strongest first quarter for gold recycling activity for six years.

After a strong start to Q1 in China, demand came to a virtual halt in March. Tough new lockdowns imposed to contain a resurgence of COVID-19 had a marked impact on demand for jewellery, bars and coins.

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Gold market sees solid start to 2022

Q1 gold demand was 34% above Q1 2021, driven by strong ETF inflows.

In a quarter that saw the US dollar gold price rise by 8%, gold demand (excluding OTC) increased 34% y-o-y to 1,234 tonnes (t) – the highest since Q4 2018 and 19% above the five-year average of 1,039t.

The Ukraine invasion and surging inflation were key factors driving both the gold price and demand.

Gold ETFs had their strongest quarterly inflows since Q3 2020, fuelled by safe-haven demand. Holdings jumped by 269t, more than reversing the 174t annual net outflow from 2021.

Bar and coin investment was 282t in Q1, 20% lower than the very strong Q1'21 but 11% above its five-year quarterly average. Renewed lockdowns in China and historically high local prices in Turkey were key contributors to the y-o-y decline.

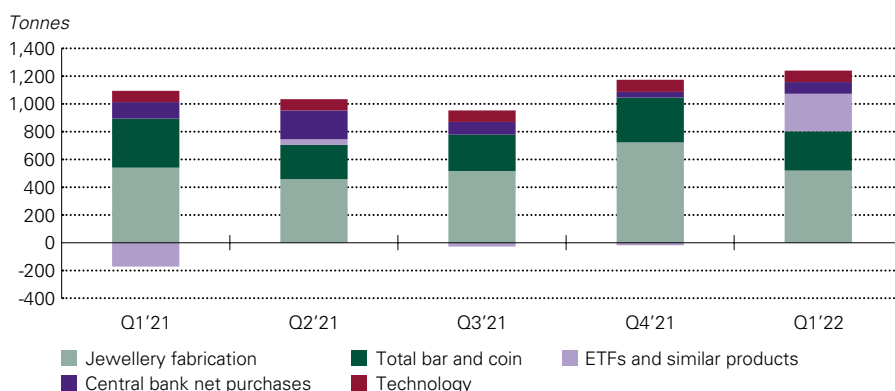
Jewellery consumption lost momentum in Q1: demand was down 7% y-o-y at 474t. The drop was largely due to softer demand in China and India.

Central banks added 84t to global official gold reserves during the first quarter. Net buying more than doubled from the previous quarter but fell 29% short of Q1'21.

The technology sector had a steady start to the year: demand of 82t was the highest for a first quarter since 2018, driven by a modest uptick in gold used in electronics.

Q1 gold demand increased y-o-y as strong ETF flows offset weaker jewellery and retail investment

Global quarterly demand by sector*



*Data to 31 March 2022.

Source: Metals Focus, World Gold Council

Review and outlook

Top level summary

In Q1 2022

- The average US\$ gold price in Q1 was 5% higher both q-o-q and y-o-y. An uneasy environment of persistently high inflation and elevated geopolitical risks drove investors to gold, helping to propel prices higher
- Retail investment was healthy compared with long-term averages and ETF inflows were notable, but so too was the absence of both futures and OTC demand, which suggests that investor participation in gold is not overcrowded and that ownership of gold is not over-extended.
- Weaker jewellery demand and softer net central bank buying reflected gold's diverse uses: a fall in demand in some areas during the quarter met with a rise in others
- Supply saw healthy growth in the first quarter: strong mine production and resurgent recycling lifted total supply by 4% y-o-y.

Looking ahead

- **The general macro outlook for 2022 shows starkly different potential outcomes:** on the one hand, a material worsening of economic and market conditions if the war in Ukraine persists, versus, on the other, a significant improvement in the event of a geopolitical resolution and resumption of the post-COVID recovery. This leads us to a broad range of potential outcomes for demand in 2022.
- On balance, the strong start to the year for investment and the negative economic ramifications of persistently high inflation and war in Ukraine make us confident that **investment will be higher this year than last.**
- Consumer demand is **likely to be pressured by rising prices and widespread economic slowdown.** The weakness in China's Q1 demand means that a sizeable improvement in global full-year jewellery demand will be tough to achieve. However, overall jewellery demand is still recovering from COVID-19 lockdowns and this could translate into some support for y-o-y growth
- **We see a continuation of net central bank buying in 2022,** albeit at a lower level than in 2021
- Mine supply growth is expected to be solid once again in 2022, with a negligible contribution from hedging.
- **Recycling is expected to rise in 2022,** driven by weaker GDP growth and the potential for prices to rise further.

Quarterly review

The gold price returned 8% in Q1 – equivalent to a 5% increase in the quarterly average price (both y-o-y and q-o-q), which better reflects the demand and supply dynamics over the period. Persistently high inflation and geopolitical risks, which have dominated headlines, more than offset the drag from higher nominal rates, according to our analysis.

Q1 flows into ETFs (+269t) have eclipsed the outflows seen in 2021 and matched the relatively elevated levels seen in Q3'20, when the gold price rallied sharply to record highs. However, this activity has not – as far as we can tell – been mirrored in futures or the OTC market. This suggests that had demand been equally strong across all segments of investment demand, prices might be higher still, given the fundamentally supportive environment for gold. It also underlines that gold is currently neither overbought nor over-owned.

Bar and coin investment, although healthy, failed to match the multi-year highs reached in Q1'21. While the US and Europe were both strong, China was key to explaining the y-o-y decline, as were Turkey and Japan, where currency weakness took local prices to record levels and sparked profit-taking.

Gold jewellery demand in Q1 was 7% lower y-o-y, with much of that decline coming from China and India; excluding those two dominant markets demand was 7% higher y-o-y. Demand continued to witness broad-based recovery in line with continued lifting of lockdown restrictions, although relatively high gold prices were a limiting factor, particularly as consumers face increasing pressure on disposable incomes from soaring general price levels.

Buying among central banks added 84t to Q1 total demand, a doubling of the net buying seen in the previous quarter. Buying continues to be concentrated among emerging market banks, with the trend being for a small number of sizable purchases each quarter.

Review and outlook

Full year outlook

Investment: significant upside potential

The Ukraine-Russia war and the narrative shift from transient to more persistent high inflation has seen a positive swing in many investors' perceptions of gold. But elevated uncertainty about what the rest of 2022 might bring **makes estimating investment demand unusually difficult** and perhaps more **binary than** in previous years.

If the current geopolitical and high-inflation narrative lingers – making a stagflationary shock more likely – then investment demand should remain well supported. But any resolution to the crisis and perhaps a soft economic landing amidst higher interest rates would put downward pressure on investment demand in some regions as the market resumes its focus on economic recovery and higher interest rates.

For this reason, our range of potential outcomes for 2022 investment demand is wide. However, the strong start to the year and the lack of participation so far from both OTC and futures markets leads us to believe that there is scope and room for investment to be positive this year.

Jewellery and technology: flat to slightly weaker

Despite risks to economic growth and higher prices, we expect jewellery demand to be flat y-o-y in 2022. Ongoing widespread recovery from COVID-19 lockdowns

in 2020-21 will be supportive, but the impact of renewed restrictions in China on Q1 demand add to the downside risk to our expectations for the full year. Globally, continued price strength and a worsening economic environment are likely to restrict the ability for demand to recover to historical average levels.

Central banks: net positive but lower on the year

Central banks are set to continue as net buyers albeit at a slower pace than last year. We attribute continued net buying to the results of our survey that find overwhelming support for holding gold in crises. But we caution that active management of reserves can also result in selling during crises to take advantage of gold's abundant liquidity.

Recycling: likely higher

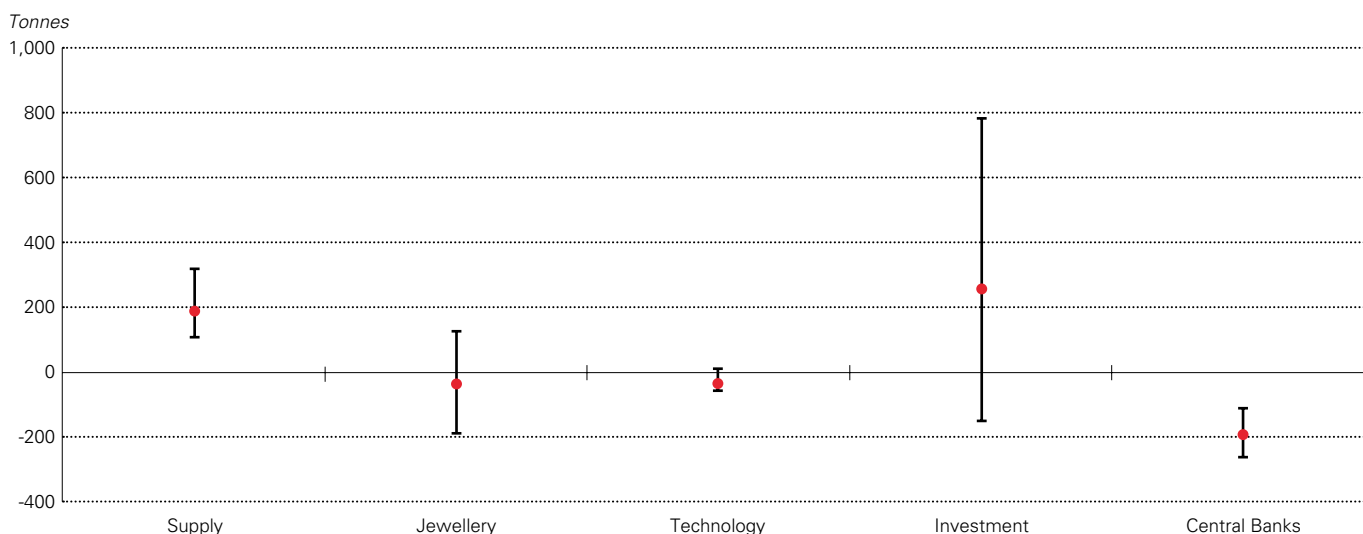
Our models of recycling suggest that higher prices and lower economic growth are both positive drivers, as long as near-market supply is sufficient. Should prices keep rising and economic weakness persist, as it has done in China which is a key recycling hub, then recycling is set to be materially higher in 2022

Mine supply: positive momentum

Continued brownfield ramp-ups, high grading and China's return to the market have seen aggregate supply start the year on the front foot. Barring unforeseen circumstances, it is likely that mine output growth could exceed last year's, and be not far off levels seen in 2016 and 2011.

Mixed prospects for investors and consumers in 2022

Expected y-o-y tonnage change in annual demand and supply, 2022 vs. 2021*



* Range estimates are generated by a combination of inputs including our independent analysis of the gold market, consensus market expectations for the global economy and Metals Focus forecasts. The width of the range reflects our confidence in the outlook, while the ratio of one tail to the other captures whether we skew towards upside or downside risk to our view.

Source: World Gold Council

Review and outlook

Supply/demand (tonnes)

Tonnes	Q1'21	Q2'21	Q3'21	Q4'21	Q1'22	Q1'22 vs Q1'21, % change
Supply						
Mine production	834.6	875.6	937.4	933.2	856.5	↑ 3%
Net producer hedging	4.8	-15.9	-12.4	2.8	-10.3	↓ -
Total mine supply	839.4	859.7	925.0	936.0	846.1	↑ 1%
Recycled gold	269.3	279.0	295.6	299.5	310.5	↑ 15%
Total Supply	1,108.8	1,138.7	1,220.6	1,235.5	1,156.6	↑ 4%
Demand						
Jewellery fabrication	538.7	456.5	515.0	719.2	517.8	↓ -4%
Jewellery consumption	509.3	434.7	473.2	716.8	474.0	↓ -7%
Jewellery inventory	29.4	21.7	41.8	2.4	43.7	↑ 49%
Technology	81.0	79.8	83.4	85.9	81.7	↑ 1%
Electronics	66.2	66.2	69.0	70.6	67.0	↑ 1%
Other Industrial	11.9	10.7	11.6	12.5	12.0	↑ 1%
Dentistry	2.9	2.9	2.8	2.7	2.7	↓ -7%
Investment	181.8	286.2	233.9	304.4	550.7	↑ 203%
Total bar & coin demand	351.8	245.4	260.4	322.3	281.9	↓ -20%
Physical Bar demand	231.2	169.8	177.5	220.8	179.3	↓ -22%
Official Coin	102.0	62.3	59.0	72.6	84.6	↓ -17%
Medals/Imitation Coin	18.7	13.3	23.9	28.9	18.0	↓ -3%
ETFs & similar products	-170.0	40.8	-26.5	-17.9	268.8	↑ -
Central banks & other inst.	117.5	206.4	90.6	41.2	83.8	↓ -29%
Gold demand	919.1	1,028.9	922.9	1,150.8	1,234.0	↑ 34%
OTC and other	189.7	109.8	297.7	84.7	-77.4	↓ -
Total Demand	1,108.8	1,138.7	1,220.6	1,235.5	1,156.6	↑ 4%
LBMA Gold Price (US\$/oz)	1794.01	1816.48	1789.52	1795.25	1877.16	↑ 5%

Source: ICE Benchmark Administration, Metals Focus, World Gold Council

Jewellery

Jewellery demand lost momentum in the first quarter, ending the run of growth seen throughout 2021.

- Global gold jewellery consumption was 7% lower y-o-y at 474t, partly as a result of high gold prices
- However, much of the weakness came from China, which was affected by COVID-related lockdowns, and India, where there was a relative lack of auspicious days
- In value terms, Q1 demand was 3% weaker y-o-y at US\$29bn.

Tonnes	Q1'21	Q1'22	Y-o-y change	
World total	509.3	474.0	↓	-7%
India	126.5	94.2	↓	-26%
China, P.R.: Mainland	193.8	177.5	↓	-8%

Source: Metals Focus, World Gold Council

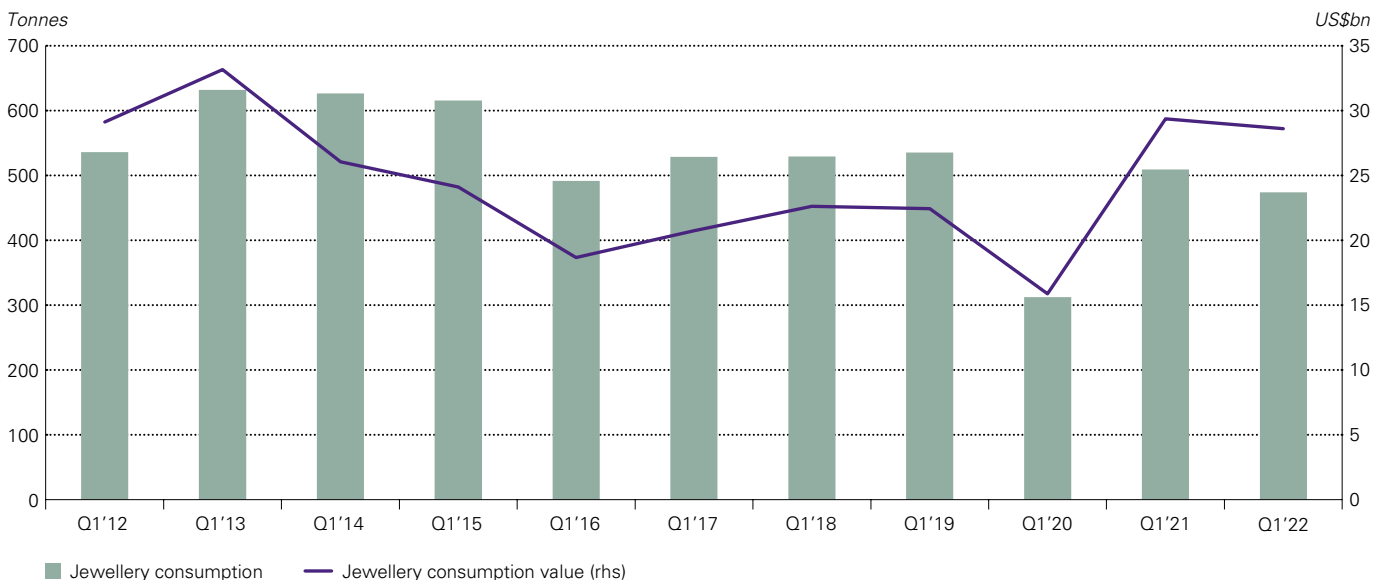
Q1 gold jewellery demand of 474t was relatively soft, particularly when compared with the bumper previous quarter.¹ But much of the decline can be accounted for by China and India, which together tend to generate between 55-60% of total quarterly jewellery consumption. Demand elsewhere was relatively robust, particularly in the Middle East and Europe; excluding China and India, jewellery demand was 7% higher y-o-y.

Jewellery fabrication was slightly more resilient, declining by 4% y-o-y to 518t. As a result the market saw a build-up of inventories during the quarter (+46t), as consumer demand failed to match expectations.

Although jewellery demand continued to hold above the weak levels seen during the worst of the pandemic in 2020, it has yet to recover to the sort of pre-COVID volumes that were the norm in most markets. A comparison with 2019 levels reveals that, with a few exceptions, demand in the most recent quarter is weaker than that of Q1'19 – most notably in India and the smaller markets in Asia. The market has yet to 'normalise' following the shock of the pandemic, and the subsequent rise in gold prices may slow its recovery.

Value of jewellery demand remained elevated despite weaker tonnage number

First quarter global jewellery demand in volume and value*



*Data to 31 March 2022.

Source: ICE Benchmark Administration, Metals Focus, Refinitiv GFMS, World Gold Council

1 'Jewellery demand' refers to jewellery consumption; where relevant, jewellery fabrication.

Jewellery

China

After a promising start to the year, Chinese gold jewellery demand in the first quarter fell 8% to 178t.

All things considered, the first quarter was in fact relatively robust, holding comfortably above the Q1 five-year average of 154t and only 6t below its average for the last ten years. But the y-o-y decline was unavoidable in the context of:

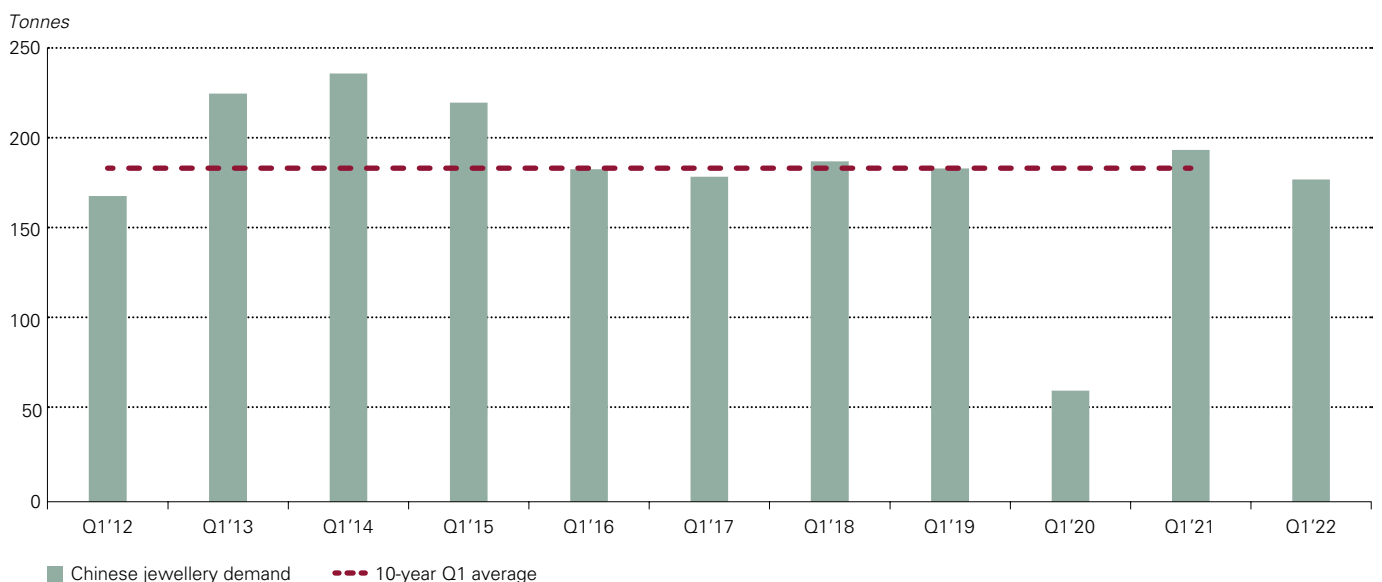
- high and volatile gold prices
- the comparison with a very strong base period in Q1 2021
- the introduction of lockdown measures to combat a fresh outbreak of COVID-19.

January and February saw upbeat sales for gold jewellery in China, lifted by festival sales ahead of the New Year Holiday; volumes were also boosted by the continued efforts of retailers to promote heavier gold products.

But the sharp rise in the gold price in late February following the outbreak of war in Ukraine impacted demand. As strict lockdowns were imposed in March across key cities such as Shanghai and Shenzhen, demand all but halted.

China's gold jewellery demand was relatively resilient

Chinese first quarter gold jewellery demand and 10-year average*



*Data to 31 March 2022.

Source: Metals Focus, Refinitiv GFMS, World Gold Council

The first quarter saw a continuation of trends from 2021 in China's gold jewellery market: notably, heritage gold jewellery continued to gain market share. Holiday sales related to the Chinese New Year provided a boost for these products, as they embed traditional Chinese culture in their designs. The quarter also saw continued adoption of 'per-gram' pricing among retailers, alongside a continued push to market and promote heavier products, to secure higher margins.

Looking ahead, the prospects for the second quarter are fairly ominous. The usual seasonal Q2 decline is likely to be exaggerated by the negative impact on jewellery demand of continued lockdown restrictions, as well as by China's economic slowdown.

India

Having reached a record high in Q4'21, jewellery demand in India fell by 26% y-o-y in Q1 to 94t.

The lack of auspicious gold-buying days and wedding days in January was followed by a sharp rise in the gold price in late February/early March – a combination that proved detrimental to jewellery buying.

The gold price breached the key psychological Rs50,000/10gm at the end of February, before rising to above Rs53,000/10gm in March. In response, consumers postponed gold purchases, hoping for a price correction... or at least a stabilisation. Sluggish demand in March resulted in the local market discount widening as far as US\$60/oz – its highest for 18 months.

The outlook for Q2 demand in India is positive, although further increases in the gold price would present a downside risk to demand. Demand in the second quarter will receive support from festival purchases (Akshaya Tritiya – a key gold-buying festival – falls in the first week of May) and wedding season buying. Underlying consumer sentiment is improving, which should also prove supportive: the Reserve Bank of India's Consumer Confidence Index increased to 71.7 in March from 64.4 in January. However, demand could face headwinds should there be further increases – or heightened volatility – in the gold price, while broad-based inflation may also curb demand by squeezing disposable incomes.

Middle East and Turkey

Jewellery demand in Turkey saw a repeat performance of its poor Q4 performance. Demand was 17% lower y-o-y at 7t, as currency weakness magnified the impact of gold price rises and discouraged consumers. The average monthly lira gold price hit the highest on record in March at TL920/g. At a time when Turkish consumers are already battling with rampant local inflation and falling incomes, it comes as little surprise that gold demand languished.

In contrast, regional demand in the Middle East extended its recovery from the pandemic-induced slump of 2020, recovering to its highest level since Q1'19. Regional demand was 18% higher y-o-y at 47t. The biggest contributors to the region's growth were the UAE and Iran. In the UAE, jewellery consumption jumped 50% y-o-y to 12.5t. This was the strongest quarter since Q2'17, as demand benefited from attendees attracted by Dubai's Expo, while the lifting of all COVID restrictions and higher energy prices buoyed domestic consumer sentiment. Demand in Iran was 41% higher y-o-y at 8.4t. Continued optimism over a new nuclear deal lifted consumer sentiment, as did high oil and gas prices.

The West

Gold jewellery consumption in the US was flat y-o-y in Q1 at a very healthy 26t. Demand likely continued to benefit from high savings and restrained spending on travel, which has yet to return to pre-pandemic levels. And weddings – which represent a cornerstone of gold jewellery demand in the US – are expected to resume in earnest this year.

However, demand seems to have faded in March as high inflation and energy prices started to bite. The impact of gasoline prices at the pump are likely to have had a considerable impact on consumer confidence, particularly as they coincided with the final phasing out of most of the federal income support programmes.

European gold jewellery demand saw a strong y-o-y recovery, although remained below pre-pandemic levels. Demand increased 14% to 11.3t, largely encouraged by the broad economic recovery, the continued lifting of restrictions compared with Q1'21, still-limited expenditure on travel and the re-start of weddings. But gains were likely curtailed by the Ukraine crisis, which dented consumer confidence, as well as by the indirect impact of rising energy prices constraining disposable income. The UK witnessed the highest growth rate in the region, increasing by 33% albeit that volumes remained very low at 2.7t. Strong y-o-y growth in hallmarking data confirms the positive Q1 picture for the UK.

ASEAN markets

Q1 jewellery consumption in Indonesia fell by 7% y-o-y to just under 6t. Domestic jewellery demand has been impacted by the spread of the Omicron variant; daily infection rates reached their highest in February, leading to the re-introduction of limited social distancing measures in some areas. The outlook is more positive as the case rate is now falling and festive buying in Q2 is likely to support demand.

Although still below pre-pandemic levels, jewellery demand in Thailand rose to a little over 2t, an 8% increase y-o-y. A reopening of the economy and the resumption of tourism has supported demand, although consumers are still holding back on big-ticket purchases.

Jewellery

Jewellery consumption in Vietnam has started to recover, growing 10% y-o-y to nearly 6t. This is the first y-o-y increase following the last two quarters of y-o-y decline, and the highest first quarter for Vietnam since 2007. Festivities including the New Year celebrations in February, Valentine's Day and the God of Fortune Day supported the recovery, as has the recovery of business activity to pre-COVID levels. This is reflected in a robust GDP growth figure of over 5% in the first quarter.

Jewellery demand in Singapore grew 18% y-o-y to nearly 3t. This is the highest quarterly figure since Q4 2019. The further easing of restrictions and increased consumer confidence will have boosted demand for jewellery.

Despite higher gold prices, jewellery demand in Malaysia rose by 23% y-o-y to over 3t. This was 20% higher than the five-year quarterly average, but the growth rate partly reflects the lower base in Q1 2021, when COVID restrictions were significantly impacting demand.

Rest of Asia

Jewellery demand in Japan increased by a modest 5% y-o-y to 3t, despite the notable increase in average price levels since Q1'21. Jewellery consumption exceeded expectations with TV and online sales supporting the jewellery market. However, the comparison is being made with an already weak Q1'21, and demand remains considerably below the five-year quarterly average of 4t.

Jewellery demand in South Korea declined by 13% y-o-y to just over 4t. This is mainly due to higher gold prices deterring consumers. A spike in COVID cases in Q1, as the Omicron variant took hold, dampened consumer sentiment. It should be noted that by the end of March virus cases had declined significantly and the country is on course to remove most of this remaining restrictions.

Australia

Jewellery demand in Australia increased 40% y-o-y to almost 3t. Australia's economy was one of the fastest growing in the region (and the G20) in Q1, which will have boosted domestic economic sentiment – a big driver of demand. The recent reopening of Australia's borders will further assist the economic recovery and likely support jewellery demand going forward. *This is the first time the Australian jewellery market has been included in GDT; our estimates suggest that 8.2t of gold jewellery was purchased in 2021.*

Investment

ETF inflows came flooding back in Q1 on safe-haven demand and inflation concerns; bar and coin investment, although healthy, failed to match lofty year-earlier levels.

- Global gold ETFs attracted 269t of inflows in Q1, more than reversing last year's 174t annual net outflow
- Retail investment in gold was healthy compared with longer-term averages, but down 20% y-o-y, reflecting weakness in China, Turkey and Japan
- Overall investment demand more than trebled, from 182t in Q1'21, to 551t in Q1'22.

Tonnes	Q1'21	Q1'22	Y-o-y change	
Investment	181.8	550.7	↑	203%
Bar and Coin	351.8	281.9	↓	-20%
India	39.3	41.3	↑	5%
China, P.R.: Mainland	86.5	49.3	↓	-43%
Gold-backed ETFs	-170.0	268.8	↑	-

Source: Metals Focus, World Gold Council

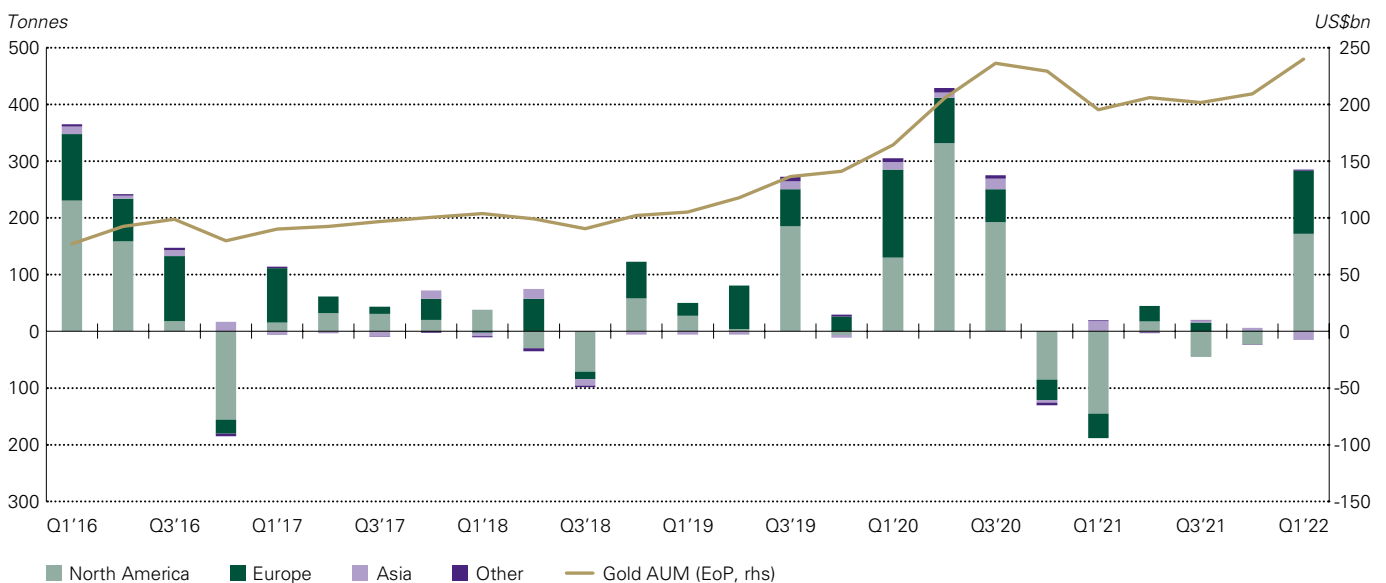
Investment demand for gold in Q1 returned to levels that were last seen during the early months of the pandemic in 2020, fuelled by similar drivers: namely, safe haven flows and high/rising gold prices. Heightened geopolitical risk, caused by the invasion of Ukraine, encouraged investment flows, which fed through to a sharp rise in the gold price. Inflation concerns – already supportive for gold investment – were accelerated by the conflict, with data prints showing prices across the globe rising at a multi-decade, if not record, pace. Rising interest rates were, however, a continued headwind and this likely tempered investment inflows to an extent.

ETFs

Global gold ETF demand came roaring back in Q1 2022, registering net inflows of 269t (US\$17bn). This was the highest level of quarterly inflows since Q3 2020, eclipsing the 173t of net outflows seen in 2021. In our view, gold price strength, equity market weakness, rapidly rising inflation expectations and unexpected geopolitical events during the quarter were the key drivers of this demand, even in spite of higher nominal rates.

The strong ETF demand in Q1 lifted global holdings to 3,836t (US\$240bn) at the end of the quarter, just 2% away from the record high of 3,922t in November 2020 and 5% away from the record AUM of US\$253bn achieved in August 2020.

Q1 inflows into gold ETFs were the highest since Q3 2020, erasing outflows seen in 2021*



*Data to 31 March 2022. On Goldhub, see: [Global gold-backed ETF holdings and flows.](#)

Source: Bloomberg, Company Filings, ICE Benchmark Administration, World Gold Council

Investment

At a regional level, inflows were heavily concentrated in Western funds. North American-listed funds grew by 171t, with chunky inflows into US-listed funds dwarfing outflows from Canadian-listed funds. A significant jump in the gold price in January, in the lead up to the gold ETF option expiry, contributed to the strong inflows at the start of the year. Thereafter, flight-to-quality continued to be supportive of flows into the larger, more liquid US funds, which tend to be more reactive to changes in the gold price than those in other regions.

European-listed funds saw net inflows of 111t – propelling regional holdings to a new record high of 1,676t (US\$105bn). European inflows were dominated by UK-listed funds (78t), but healthy inflows were also seen in German- (23t) and French-listed (9t) funds, with all three hitting record holdings during March. The Russia–Ukraine war exacerbated fears of yet higher inflation – which has already hit record levels – due to the region’s dependence on Russian energy supplies. This may have supported investment as gold is a well-recognised hedge against inflation.

Asia was the only region to see outflows during the quarter – with holdings declining by 15t (11%). At a country level, Chinese-listed funds saw the biggest declines during the quarter, with outflows of 13t. Demand was impacted by the market closure over the Chinese New Year Holiday in late January and early February, as

well as by profit-taking as local investors continued to act tactically in response to the rising gold price. Indian gold ETFs saw more modest outflows of just over 1t in Q1, due to a combination of higher sovereign bond yields and profit-taking. However, a correction in the local gold price in March led to minor inflows in the month, demonstrating that investors are willing to step back in.

Funds listed in other regions saw minor inflows of 2t during Q1, largely due to flows into Australian-listed funds.

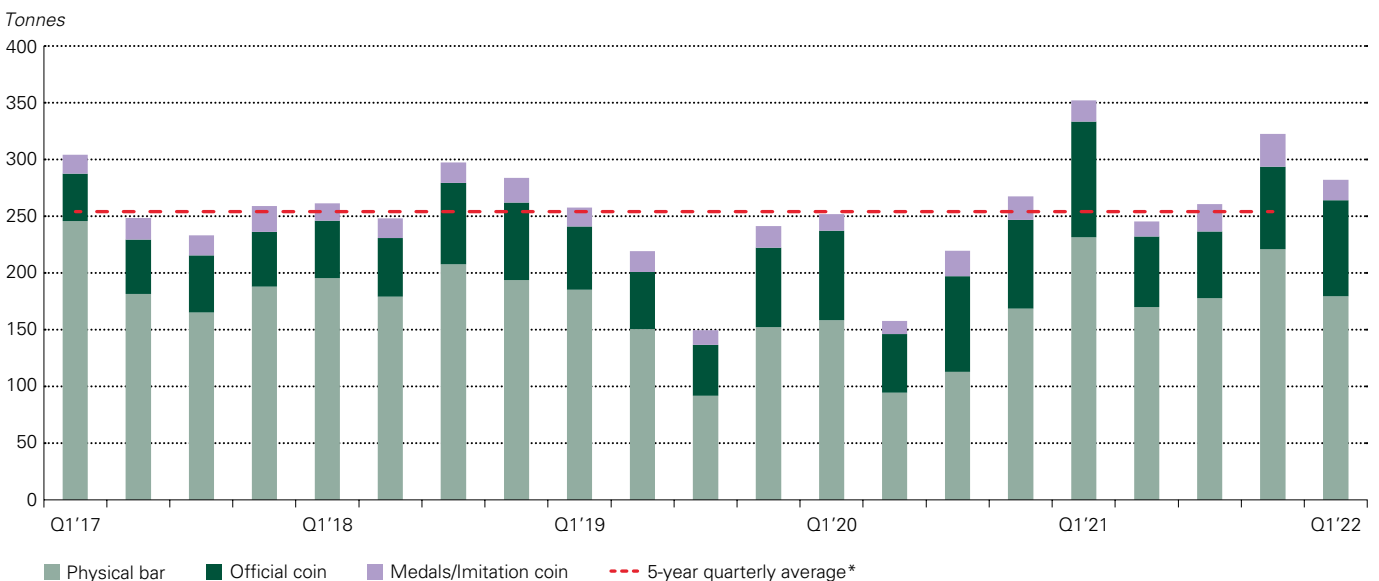
Bar and coin

Retail investment totalled 282t in Q1. This was 20% weaker than Q1’21, although the y-o-y comparison is affected by the fact that investment in the year-earlier period was very strong. From a longer-term perspective, investment demand remains healthy: 11% higher than the five-year quarterly average of 254t.

Bar and coin investment was mixed across markets. The sharp rise in the US\$ gold price did not quite reach the 2020 record, but foreign exchange movements meant that local prices in a number of currencies were at or close to new historical highs. This generated profit-taking in some markets, notable examples being Turkey and Japan, and this outweighed continued safe-haven investment elsewhere.

Retail bar and coin investment fell 20% y-o-y in Q1, but held above 5-year quarterly average

Quarterly bar and coin demand*



*Data to 31 March 2022. Average is the five-year quarterly average between Q1’17 and Q4’21. Source: Metals Focus, World Gold Council

China

Bar and coin demand in China fell sharply in Q1, down 43% y-o-y to 49t. The quarter started on a healthy footing, lifted by gifting demand related to the Chinese New Year and by safe-haven motives following Russia's invasion of Ukraine. But the combination of a sharp gold price rally and lockdowns imposed on various cities across China soon brought demand to a virtual standstill.

Gold coin sales performed strongly, thanks to themed products such as the Year of the Tiger coin and the Winter Olympics coin, which benefited from gifting and collection purchases. However, these only account for a small share of the market. In contrast, demand for gold bars was significantly weaker.

Looking ahead, we expect a sharper-than-normal q-o-q decline in the second quarter. Seasonal factors usually result in weaker Q2 demand (over the last ten years, the average q-o-q decline in Q2 is 27%), but economic pressure amid COVID related lockdowns is likely to exert a further drag. Strict mobility restrictions in various cities are likely to weigh on bar and coin sales as these physical gold purchases are mainly made offline.

India

Indian bar and coin investment increased 5% y-o-y to 41t – the strongest first quarter since 2014. Retail investors focused on gold's safe haven attributes amid volatility in local equity markets and the war in Ukraine. The BSE Sensex index fell sharply between mid-January and early March in contrast to the rapid climb in local gold prices over the same period. Investors were attracted by gold's strong relative (and actual) returns, particularly given the paltry return on government bonds.

However, increased volatility in the gold price sent a note of caution and demand tailed off towards the end of the quarter, pushing the local price to a fairly wide premium during March. Underlying investment demand remains healthy, but any further price volatility would likely discourage investment to an extent.

India's gold market continues to make strides towards developing its position on the global stage. Trading on the India International Bullion Exchange (IIBX) launched in April, with the first bullion deposit repository (BDR) created and traded. The IIBX is expected to become a conduit for gold imports in India and the launch of trading on this platform is a first step towards establishing India as one of the world's leading bullion trading hubs.

Middle East and Turkey

Currency-related price moves drove a sharp y-o-y decline in Turkish retail investment. Bar and coin demand fell 77% y-o-y in Q1 to 10t – the weakest start to any year since 2017. It is worth noting, however, that the comparison is with Q1'21, when a wave of bargain hunting lifted demand to a record for any first quarter in our data series.

The fall in Q1 demand was almost entirely price-related. Lira weakness fed through to high and rising local gold prices. And while there was no a repeat of December's sharp spike to a record high, TL prices were nonetheless very elevated: on a quarterly average basis, the price was TL845/g, compared with TL648/g in Q4. Reports suggest that the higher prices did not generate significant profit-taking, but rather resulted in a sharp slowdown in fresh buying, as investors preferred to wait for opportunities to invest at lower prices.

Bar and coin demand in the Middle East of 17t recovered to match pre-pandemic levels, with Iran driving regional growth. Currency moves were the key to investment growth in Iran: the rial appreciated against the dollar, leading to a dip in the local gold price, which encouraged investors. Bar and coin demand jumped over 50% to 9t, recovering from very low Q1'21 levels. Egypt also saw growth in Q1, albeit also from a very low base. Demand was up 12% y-o-y to almost 11t, partly reflecting a greater availability of small bars and coins.

The West

Geopolitical tensions added to continued inflation concerns and fuelled retail investment in the US. Bar and coin demand was unchanged from Q1'21 at 32t and 6% higher q-o-q. The strength of investment interest is reflected in bullion coin sales from the US Mint: data shows that combined sales of American Eagle and Buffalo coins in Q1 reached 518,000oz (over US\$1bn), the second highest Q1 sales volume, second only to Q1 1999. This performance clearly shows that last year's strong retail interest in physical gold investment products has continued into 2022.

As the regional geopolitical crisis erupted, European bar and coin demand jumped to 78t, the highest quarterly total since Q2 2013. Q1 investment demand was 23% up from the previous quarter and 6% higher y-o-y. Already healthy gold sales, fuelled by inflation concerns and negative savings rates, accelerated in late February and March as investors reacted to Russia's invasion of Ukraine. Germany remains the dominant market in the region, but gains were widespread and demand in the UK reached a 10-year high of 4t.

The euro price surged to a record high during the quarter, which encouraged a degree of profit-taking, but anecdotal reports suggest this was limited. The sharp rise in demand, at a time of COVID-related staff absences, reportedly created bottlenecks in the supply chain: arguably, regional investment may have been higher in Q1 were it not for these issues.

ASEAN markets

Investment demand in Indonesia fell by 10% y-o-y to 5t. Higher local gold prices and the Omicron surge have prompted many investors to hold back their bar and coin purchases.

Bar and coin investment in Thailand declined 74% y-o-y to less than 2t. Although consumers in Thailand have been net buyers for the last five quarters, the recent price surge has prompted many investors to sell, locking in profits. Anecdotal evidence suggests that retail gold products continue to face significant competition from paper gold products.

Retail investment in Vietnam increased 4% y-o-y to 14t. Rising inflation and a weakening dong has increased the attractiveness of gold. This is reflected in high local premiums – high gold prices, improved investment and jewellery demand, and a lack of local supply reportedly pushed local premiums to a record \$500 per tael.

Bar and coin investment demand in Singapore recovered to pre-pandemic levels, up 17% y-o-y to almost 2t. This is the highest quarterly demand since Q4 2016. Inflation concerns and volatility in equity markets in emerging market countries will likely have heightened gold's appeal.

Bar and coin investment demand in Malaysia also recovered, rising 19% y-o-y to a little below 2t. The y-o-y growth rate in part reflects the relatively low base of Q1'21 when lockdowns were still in place. However, lifting of COVID-related restrictions, the post-pandemic economic recovery and concerns about inflation likely spurred the recovery in retail investment back to pre-COVID levels.

Rest of Asia

There was 9t of net selling in Japan in the first quarter, compared with 5t of positive net investment in Q1'21. The combination of currency moves and the high and rising gold price encouraged a surge in profit-taking, as a weakening yen pushed the local gold price to a series of fresh record highs. This triggered heavy net selling and discouraged fresh buying interest. That said, risk aversion – in the light of geopolitical tensions – is reportedly underpinning demand to an extent.

Retail bar and coin investment in South Korea declined 18% y-o-y to 5t. This was largely due to high gold prices, and the Omicron wave which peaked in the quarter.

Australia

Bar and coin demand in Australia increased 19% y-o-y to just over 6t. With core inflation in Australia expected to top the RBA's 2-3% target band for the first time since 2010, gold's role as an inflation hedge is in the spotlight. Australian investors have significant exposure to property and pro-cyclical assets, and gold is used a diversifier and as a hedge against a property bubble. *This is the first time the Australian bar and coin market has been included in GDT; our estimates suggest that 20.3t of bars and coins were purchased in 2021.*

Central banks

Global central bank gold reserves rose 84t during a turbulent Q1.

- Central bank gold demand in Q1 more than doubled q-o-q, but was 29% lower y-o-y
- Our survey findings show that central banks highly value gold's performance during time of crisis
- At a country-level, both sizeable purchases and sales were seen during the quarter.²

Tonnes	Q1'21	Q1'22	Y-o-y change
Central banks and other institutions	117.5	83.8	↓ -29%

Source: Metals Focus, World Gold Council

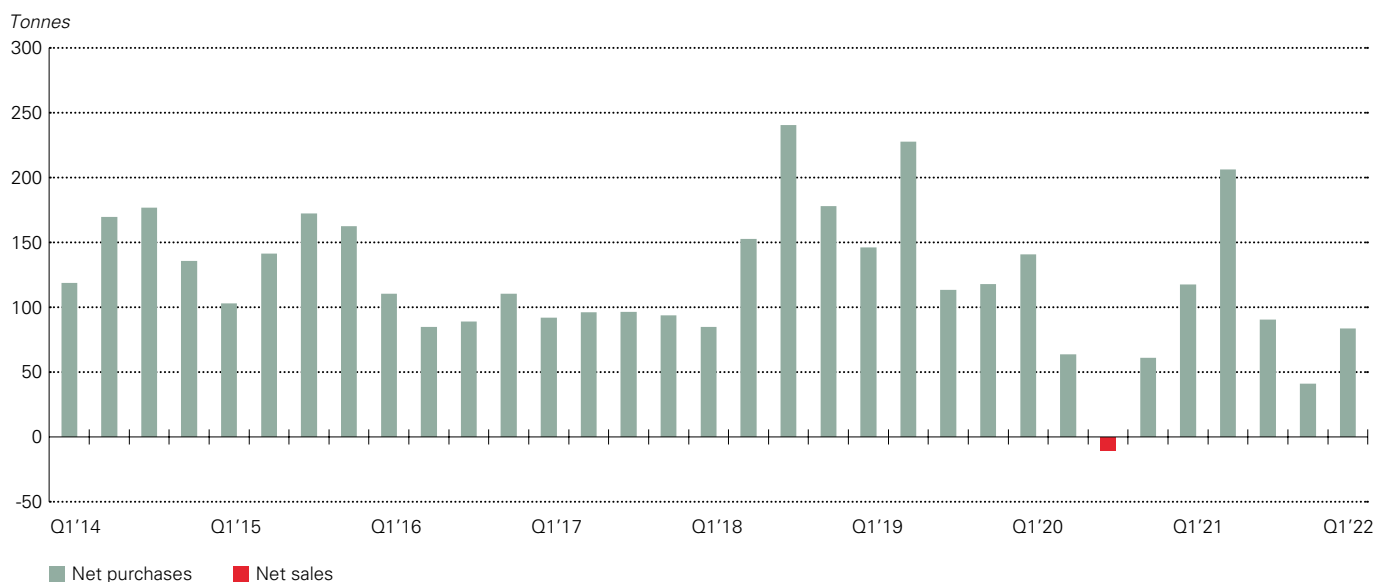
Global central bank gold reserves grew by a net 84t in Q1, 29% lower than in Q1 last year and driven primarily by a small number of sizeable transactions. During a turbulent quarter marked by geopolitical crises and surging inflation, central bank net demand for gold was somewhat muted, but nonetheless positive. This corresponds with the findings from our 2021 central bank survey: for the first time respondents highlighted gold's performance during periods of crisis as the top reason to hold gold.

Activity in the sector was dominated by a limited number of central banks with a few large transactions tipping the balance.³

Egypt was the biggest buyer in Q1, reporting a 44t (+54%) increase in its gold reserves in February. This took total gold reserves to 125t, or 19% of total reserves which is on the higher end when compared to the country's regional peers. For some time, Egypt has been adding gold from a domestic mine but usually in small increments. The Egyptian government has also been taking steps to ramp up domestic gold production in the long term. But the drop in FX reserves in January and February could mean that not all of the 44t came from domestic sources.

Central banks added 84t to global gold holdings

Net quarterly central bank demand, tonnes*



*Data to 31 March 2022.

Source: Metals Focus, World Gold Council

2 Country-level gross sales and purchases based on the most recent IMF IFS and respective central bank data available at the time of writing. This may not match the net central bank demand figures published in this report as Metals Focus uses additional sources of information to obtain its estimates.

3 More details on this can be found in our [monthly central bank gold statistics](#).

Central banks

Turkey was the other major purchaser in the quarter, increasing its gold reserves by 37t. This pushed total gold reserves to over 430t, accounting for 28% of total reserves. India bought a further 6t during the quarter, taking gold reserves to 760t (8% of total reserves). Since it resumed buying in late 2017, the RBI has purchased over 200t, similar to the amount it bought from the IMF in 2009. Ireland was the other notable purchaser during Q1, adding a further 3t of gold on top of the nearly 4t bought in H2 last year.⁴ It also remains the only active buyer among developed market central banks, and while its monthly additions have been modest, it has increased overall reserves by 88% since August.

In March, Ecuador also announced that it had added almost 3t to its reserves, sourcing the gold from small, local producers after it had been certified by an LBMA-accredited refiner.⁵ The statement also noted that holding gold “is of vital importance, since it represents a safe haven asset that appreciates in value during periods of uncertainty in the financial markets and geopolitical risks.”

In the same month, the Governor of the Central Bank of Ghana, Dr Ernest Addison, provided an update on the country’s Domestic Gold Purchase (DGP) programme. He announced that the bank had bought a total of 600kg since the programme launched in June 2021 with a target to increase its gold reserves from around 9t to over 17t by 2026. While the scale of buying remains modest, this is part of a recent trend among various central banks to buy domestically-mined gold using local currencies.

But arguably the biggest announcement during the quarter came in February, when the Central Bank of Russia (CBR) announced that it would resume buying gold from domestic producers following the imposition of international sanctions. The CBR suspended its gold purchases in 2020, since when its gold reserves have remained largely unchanged. Russia held just under 2,300t of gold (21% of total reserves) at the end of January, the last available data point at the time of writing. No indication was given on the scale of purchases but we will continue to monitor developments.

The majority of the sales in Q1 came from the gold-producing nations of Uzbekistan and Kazakhstan, at a time of rising gold prices. Kazakhstan was the largest seller during the quarter, decreasing its gold reserves by 34t to 368t. The central bank has traditionally bought from domestic sources, and it is not uncommon for those countries that buy locally-produced gold to swing between buying and selling. Uzbekistan reduced its gold reserves by 25t to 337t. While the decline is sizeable, this is not the first significant transaction from Uzbekistan in recent years. Active management of its gold reserves means changes are common, and even after its Q1 sale, gold reserves still account for 60% of total reserves.

⁴ Latest available data for Ireland at time of writing was to end-February.

⁵ Reported by Bloomberg.

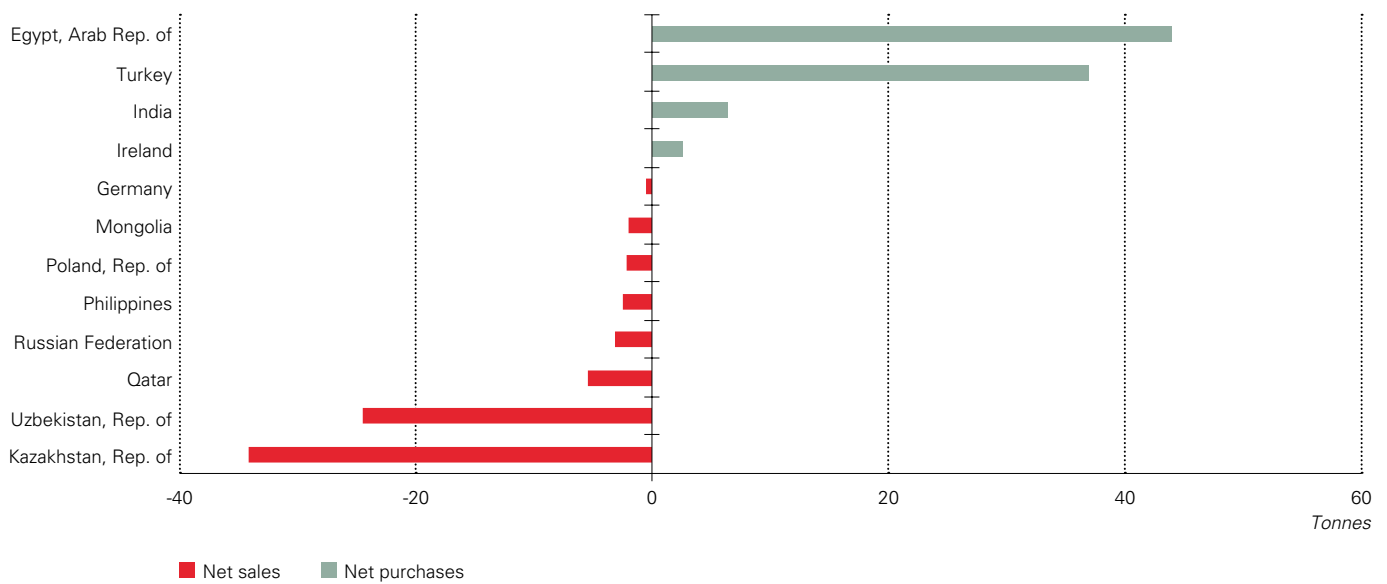
Central banks

Poland sold just over 2t during the quarter, taking gold reserves to 229t (9% of total reserves). While the central bank has been purchasing gold for strategic reasons, and recently announced its intention to buy 100t this year, its gold reserves are, at least in part, actively managed. Qatar (5t), Philippines (3t), Mongolia (2t), and Germany (1t) – the latter likely related to coin-minting – were also notable sellers during Q1.

Looking ahead, gold might attract further interest as a diversifier as central banks seek to reduce exposure to risk amid heightened uncertainty. Our expectation stands for central banks to remain net purchasers for 2022; however, slower economic growth and rising inflation may restrain central bank gold demand in the short term.

Egypt and Turkey led official sector buying

Year-to-date central bank net purchases and sales, tonnes*



*Data to 31 March 2022. Note: chart include only purchases/sales of 0.5t or above. On Goldhub, see: [Central bank holdings](#).
Source: IMF IFS, Respective Central Banks, World Gold Council

Technology

A healthy first quarter but new challenges loom in 2022.

- Gold demand in the technology sector rose by 1% y-o-y to 82t during Q1, the highest total for a first quarter since 2018
- Demand in the electronics sector continued to recover, rising 1% y-o-y to 67t
- Other industrial applications also experienced a modest increase, rising 1% y-o-y to 12t, while dental demand continued to decline with a fall of 7% y-o-y to 3t.

Tonnes	Q1'21	Q1'22	Y-o-y change
Technology	81.0	81.7	↑ 1%
Electronics	66.2	67.0	↑ 1%
Other industrial	11.9	12.0	↑ 1%
Dentistry	2.9	2.7	↓ -7%

Source: Metals Focus, World Gold Council

The first quarter of 2022 saw modest growth in demand for gold in technology but challenges remain.

The electronics market has broadly recovered from the blow dealt by the pandemic, but the pace of growth slowed in Q1 and the sector continues to face headwinds.

COVID-19 remains a concern; currently dozens of cities in China are under total or partial lockdown, with major industrial and financial hubs such as Shanghai impacted.⁶ China's zero-COVID policy also coincided with the Chinese New Year holiday, and this will potentially impact the electronics supply chain throughout 2022.

The electronics industry faces further challenges from the ongoing conflict in Ukraine. Most major electronics firms quickly halted shipments to Russia after the invasion, effectively suspending sales. This, alongside rapidly rising inflation in many parts of the world, is impacting the outlook for the consumer electronics sector, where

manufacturers have already begun to limit orders of certain components in anticipation of slowing consumer demand. One such example is Apple's recent decision to make 20% fewer iPhone SEs during Q2 than originally planned, and to reduce AirPods and iPhone 13 orders.⁷ PC shipments have also begun to falter, with Chromebook sales suffering notable falls from the highs of early 2021.⁸

Finally, certain sectors are vulnerable to continued substitution and miniaturisation, although it is important to note that gold remains a crucial material in the drive towards electrification in the modern world.

In summary, the combination of COVID-19 outbreaks in China, the conflict in Ukraine and inflationary pressures has unsettled the electronics supply chain. The sector saw slower growth in Q1 and is subject to greater uncertainty in the near term as manufacturers adjust inventories in response to slowing shipment forecasts.

Electronics

Gold used in the electronics sector strengthened during Q1, extending the recovery from the 2020 drop.

Demand for big-ticket items such as vehicles and high-end consumer electronic devices remained strong, although the chip shortages that have plagued much of the sector continue to temper automotive sales.⁹ And challenges such as the conflict in Ukraine and soaring inflation are starting to impact demand, dampening near-term forecasts.

Demand for Printed Circuit Boards (PCBs) remained healthy during Q1. Some of this was due to order deferrals from Q4'21, when strong orderbooks led to deliveries spilling over into Q1'22. However, new demand was undoubtedly strong with servers, routers and high-speed computing all experiencing growth. Multilayer PCBs¹⁰ also reportedly performed well, with strong demand from the automotive sector.

6 www.bbc.co.uk/news/world-asia-china-60893070

7 asia.nikkei.com/Spotlight/Supply-Chain/Apple-to-cut-iPhone-AirPods-output-amid-Ukraine-war-uncertainty

8 www.gartner.com/en/newsroom/press-releases/2022-04-11-gartner-says-worldwide-pc-shipments-declined-7-percent-in-first-quarter-of-2022

9 www.electronicweekly.com/uncategorised/bmw-echoes-vw-saying-chip-shortage-stay-2022-04/

10 Multilayer PCBs are designed to provide higher capacity in a smaller footprint, and eliminate the need for multiple connectors between traditional PCBs. Read more here: www.amitroncorp.com/printed-circuit-boards/multilayer.html

Gold used in Light Emitting Diodes (LEDs) experienced a small fall in demand during the quarter as inventory adjustments limited new orders.

This was particularly apparent in backlighting applications, such as laptops, where demand is currently falling after the highs seen in 2021. The shift to mini-LED technology (which, in some cases, uses less gold) continues, with companies like Apple reportedly expanding the supply chain capacity of mini-LED panels for their MacBook Pro device.¹¹ However, the impact on the broader market is unlikely to be significant, with mini-LEDs forecast to double their LED market share in 2022 from just 2% to around 4%. There are bright spots in the sector, however. Demand remained strong for high-end LEDs such as UV-LEDs and IR-LEDs, both of which are used in increasingly popular healthcare applications, such as skin sensors and heart rate-tracking functionality built into watches and smartphones. And, continued growth in the electric vehicle market is likely to support future demand for traditional LEDs.

Demand for gold in memory chips saw only a small increase, suggesting a cooling of demand in the sector.

The strong growth observed in recent quarters tailed off during Q1, and forecasts for DRAM shipments in the near term are conservative thanks to manufacturers building up healthy inventories. Demand for high-end graphics cards continued to fall in the face of volatile cryptocurrency prices.¹² Additionally, in a blow to two major memory chip manufacturers – Western Digital and Kioxia – more than 8% of the world's NAND flash storage production for the first quarter was lost because of material contamination during the fabrication process at two facilities in Japan.¹³ Looking forward, faltering consumer electronics demand may lead to further inventory adjustments and price falls in the sector, while the threat of miniaturisation in NAND chips remains, as major manufacturers work to develop new architectures that may need smaller quantities of connecting gold bonding wire. Both these issues could further impact the market in Q2 and beyond.

Finally, the wireless sector recorded a rare, albeit small, decline in demand during Q1.

This was primarily a consequence of adjustments to deal with high inventory levels of power amplifiers in the softening smartphone market – which is the largest single source of demand within the wireless sector. Demand from 5G infrastructure projects, however, remains strong, and the longer-term outlook in the automotive sector is equally positive as electrification continues unabated.

At the aggregate level, two of the four major electronics fabrication hubs around the world recorded increases in gold demand during Q1: South Korea and the US saw increases of 4.9% and 3.2% respectively, while Japan and Mainland China & Hong Kong SAR registered small declines of 1.2% and 0.3% respectively.

Other industrial and dentistry

Other industrial applications recorded a small y-o-y increase of 1% to 12t during Q1, much of which was due to Italy, which saw strong demand for plating among the high-end brands. Growth would have been higher but for losses in a range of countries, including Turkey and India, where demand was undermined by March's high prices and general uncertainty.

In contrast, dental demand fell 7% y-o-y to 3t. This signals a return to the more typical long-term decline, with losses mainly due to structural changes and the continued shift to lower cost, non-precious metal alternatives.

¹¹ www.techtimes.com/articles/273540/20220328/apple-expects-macbook-pro-mini-led-demand-increase-company-increases-production-by-20-30.htm

¹² Cryptocurrency mining requires the use of high-end graphics cards.

¹³ www.fierceelectronics.com/electronics/nand-flash-products-lost-due-contamination-two-japanese-plants

Supply

Total supply rose 4% in Q1 due to record mine production and a jump in recycling.

- Q1 mine production increased 3% y-o-y to a record level for the first quarter
- Recycled gold supply jumped 15% y-o-y as the gold price increased
- Producer de-hedging of 20t was noted, continuing the full year 2020 and 2021 trend.

Tonnes	Q1'21	Q1'22	Y-o-y change	
Total supply	1,108.8	1,156.6	↑	4%
Mine production	834.6	856.5	↑	3%
Net producer hedging	4.8	-10.3	↑	-
Recycled gold	269.3	310.5	↑	15%

Source: Metals Focus, World Gold Council

Total gold supply increased by 4% y-o-y. This was driven by strong mine production of 856t – an all-time Q1 high in our records, which date back to 2000 – and resurgent recycling, which jumped 15% y-o-y to 310t, itself the largest first quarter recycling tally since 2016.

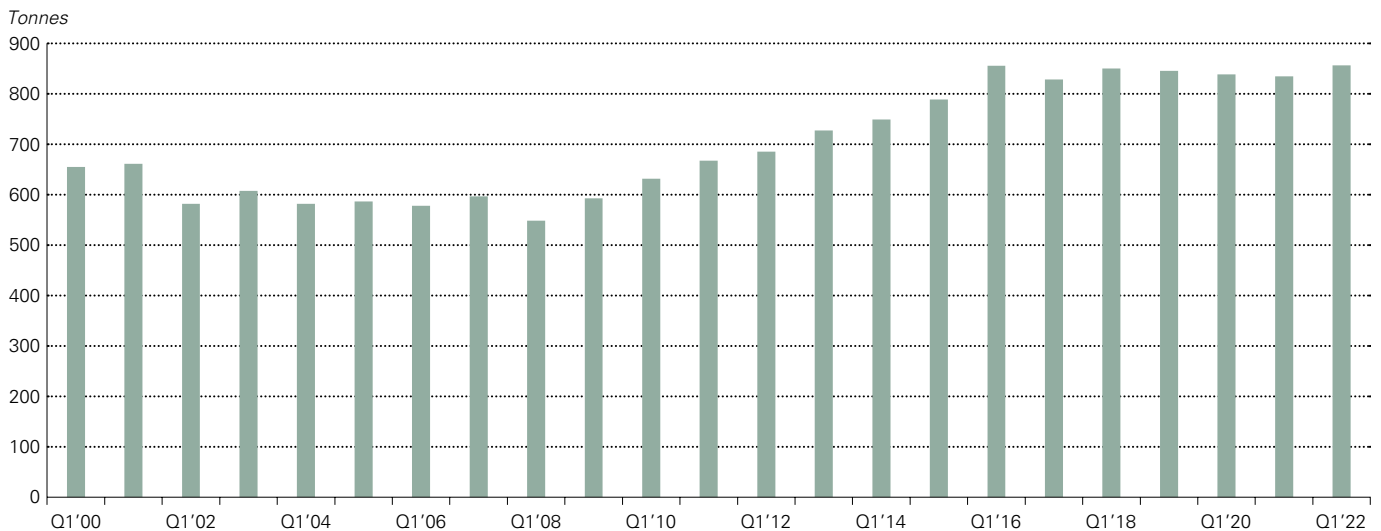
Owing to the timing of this publication, supply data is subject to potential revisions once most mining companies have released their quarterly reports. Consequently, most estimates are provisional. For example, Metals Focus recently increased its estimate for 2021 full-year mine production by about 20t, primarily due to a reassessment of small scale and artisanal mining in Bolivia and Peru.

Mine production

Early data suggests that mine production increased 3% y-o-y to a little more than 856t, representing the strongest ever first quarter production level since 2000, narrowly beating the previous record (a shade under 856t) set in Q1 2016.

Mine production hit an all-time first-quarter high in Q1'22

First quarter global gold mine production, tonnes*



*Data to 31 March 2022. Note: Our quarter records go back to 2000.

Source: Metals Focus, Refinitiv GFMS, World Gold Council

On a q-o-q basis, production fell by 8%, due primarily to seasonal fluctuations: open pit and alluvial operations reduce or halt in some very cold climates, especially in Russia and other countries in the former Soviet Union. Meanwhile, South Africa's gold mining industry is subject to reduced output during the long summer holidays over Christmas and the New Year.

Mine production increased in Q1 due to three factors:

- the ongoing ramp-up of brownfield expansions
- higher grades at some existing mines
- a return to production for mines in China's Shandong province, which had previously been halted due to safety investigations.

While the coronavirus pandemic had virtually no impact on the volume of mine production in Q1'22 (although COVID-19 precautions continue to weigh upon gold mine costs), other unusual factors hit mine supply. The suspension of Kinross's Kupol mine in Russia as a reaction to the invasion of Ukraine contributed to most of the decline in that country's output.

Regionally, output from Asia and Oceania increased the most, both 6t higher y-o-y due to increased production in China and Australia respectively. In China – up 5% y-o-y – production at most mines in the Shandong province resumed in the first quarter after operations had been halted for safety inspections due to a number of accidents at the start of 2021. Australia saw mine production increase 6% y-o-y as grades at a number of major mines improved. The large y-o-y jump was also assisted by particularly weak production in the corresponding period last year.

In Africa, Mauritania saw a 54% increase y-o-y as the first phase of the Tasiast expansion project was ramping up through the quarter. Further y-o-y growth is likely as a mill fire at Tasiast last year cut output from Q2'21. Burkina Faso's mine production fell 5% y-o-y due to lower grades

at many of the country's operations. In North and Central America, production increased by 4% y-o-y in the United States due to higher grades and an increased proportion of underground ore being mined in the Carlin mines of Nevada. The Dominican Republic saw mine production fall 17% due to grade declines at its largest mine, which are expected to continue throughout the year according to company guidance. Mexico also saw grade-related production declines of 5% y-o-y.

All regions are expected to increase production compared to 2021, with the exception of the former CIS, where a fall in Russian output offset modest growth in other countries. Russia saw production fall by an estimated 3% following the suspension of Kinross's Kupol mine in response to the invasion of Ukraine.

Although it is too early to precisely forecast full year mine production for 2022, many of the trends evident in the first quarter suggest that production will remain strong. Please see the [Review and Outlook](#) section for more details.

Net producer hedging

Provisional estimates put de-hedging at 11t in Q1 after examining the maturity profile of outstanding positions. But this is subject to change as we await more information from gold producers. For example, we would not be surprised if some Australian or South African companies took advantage of high local currency gold prices during the quarter.

This follows an unexpected 3t of hedging in Q4'21 after a revision to our data series.¹⁴ For the full year 2021 saw net de-hedging of 20t, the second consecutive year that the global hedge book fell: the aggregate hedge book has fallen in four of the past five years, and by a total of 98t over that period.

¹⁴ Initial estimates in January suggested that gold miners had reduced (de-hedged) their aggregate hedged position by 25.9t in Q4 2021.

Recycled gold

Gold recycling increased to 301t (+4% q-o-q, +15% y-o-y) in response to higher gold prices. This was the strongest first quarter level of recycled supply since 2016.

We have argued previously that it is more useful to use the q-o-q picture in order to judge consumer recycling behaviour, especially considering the disruptions to recycling activities that took place during the pandemic in 2020 and 2021. Also, our economic modelling suggests that changes in the gold price have an immediate, but temporary, effect on recycling and the jump in gold prices this year appear to have prompted higher sales, although economic hardship in some markets also likely played a role. The q-o-q increase would have been larger if it were not for slower y-o-y sales in China, detailed below; excluding China, the rest of the world saw a 10% q-o-q increase in recycling supply.

In Asia, Chinese recycling activity was healthy in January and February, but fell in March as the resurgence of COVID-19 triggered lockdowns in various important

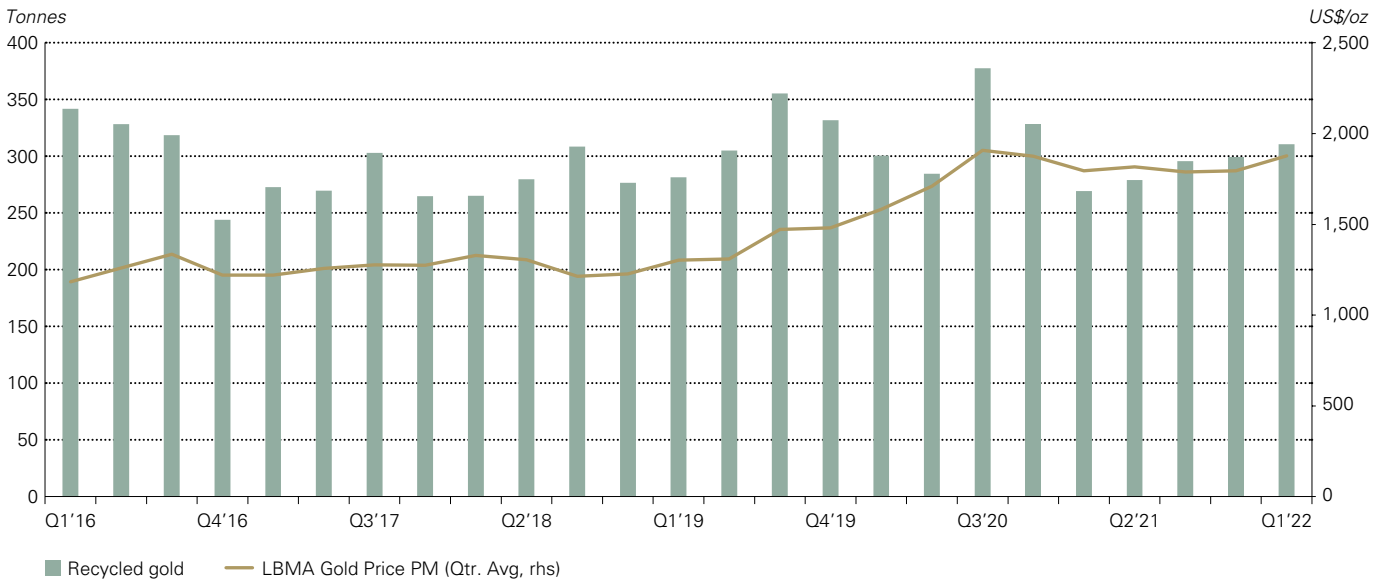
regions including Shanghai and Shenzhen. India was comparatively unaffected by the pandemic during the quarter and saw higher recycling volumes triggered by a firm gold price, assisted by some gold loan defaults and pawnbroker sales. East Asia, aside from China, Vietnam and Thailand, saw strong q-o-q increases but remains at much lower volumes than the peak supply during the pandemic.

In the Middle East recycling supply was higher q-o-q, with strong volumes from Lebanon due to ongoing economic turmoil. Western recycling supply saw price-related growth: Europe posted a greater increase due to euro weakness pushing up local currency prices, while US recycling rose during the quarter despite the lack of a similar currency benefit.

Gold prices and the looming squeeze on consumers from inflation, especially in higher food and energy prices, will drive consumer recycling supply in 2022. Read the Review and Outlook section for more details.

Gold recycling activities rose as the gold price climbed

Quarterly supply of recycled gold, tonnes, and quarterly average gold price, US\$/oz*



*Data to 31 March 2022.

Source: ICE Benchmark Administration, Metals Focus, World Gold Council

Notes and definitions

Notes

Revisions to data

All data is subject to revision in the light of new information.

Historical data series

Demand and supply data from Q1 2014 are provided by Metals Focus. Data between Q1 2010 and Q4 2013 is a synthesis of Metals Focus and GFMS, Thomson Reuters data, which was created using relatively simple statistical techniques. For more information on this process, please see *Creating a consistent data series* by Dr James Abdey.

Definitions

Bars

Net investment (i.e. gross purchases less gross sales) in small gold bars (1kg and below) sold at the retail level. Where identifiable, this also includes gold bought and stored via online vendors.

Central banks and other official institutions

Net purchases (i.e. gross purchases less gross sales) by central banks and other official sector institutions, including supra national entities such as the IMF. Swaps and the effects of delta hedging are excluded.

Comex net long positioning

The Commodity Futures Trading Commission (CFTC) publishes a weekly Commitment of Traders (COT) report that provides information on the positioning of speculative investors in the U.S. futures markets. The report gives the aggregate positions held by traders from the previous Tuesday, including the number of long contracts (that stand to benefit if prices rise) and short contracts (that benefit if they fall). The report is often used as an indicator of market sentiment regarding the price of gold: short positioning reflects bearish sentiment while long positioning reflects bullish sentiment in the gold futures' markets.

Consumer demand

The sum of jewellery consumption and total bar and coin investment occurring within a country i.e. the amount (in fine weight) of gold purchased directly by individuals. Technology demand is not included at the individual country level, as it is measured at the point of fabrication rather than at the point of consumption.

Electronics

The volume of gold bullion or grain fabricated into components used in the production of electronics, including – but not limited to – semiconductors and bonding wire.

Dentistry

The volume of gold bullion or grain fabricated into products destined for dental applications such as dental alloys.

Gold-backed Exchange-Traded Funds (ETFs) and similar

The volume of gold held in physical form by open-ended Exchange Traded Funds (ETFs) and other products such as close-end funds, and mutual funds. Most funds included in this list are fully backed by physical gold. While several funds allow other holdings such as cash, derivatives or other precious metals, we monitor only those funds investing at least 90% in physical gold and appropriately adjust their reported assets to estimate physical holdings only. For funds that include physical holdings of multiple precious metals, the total AUM depicted for such funds is lower than their actual total AUM. Over time, the data set will adapt to most accurately represent the universe of active funds. For a comprehensive list of the funds we track or to subscribe to our monthly update on gold-backed ETF holdings, visit [/goldhub/data/global-gold-backed-etf-holdings-and-flows](https://goldhub.com/data/global-gold-backed-etf-holdings-and-flows)

Fabrication

Fabrication is the first transformation of gold bullion into a semi-finished or finished product.

Gold bullion

Gold, in bar form, refined to a purity of at least 99.5%.

Gold demand

The total of jewellery fabrication, technology fabrication, investment and net purchases by central banks.

Jewellery consumption

End-user (consumer) demand for all newly-made carat jewellery sold at the retail level, by volume of fine gold. Measured on a gross basis (i.e. includes recycled gold). Excludes: purchases funded by the trading-in of existing carat gold jewellery (gold-for-gold exchange); and purchases of second-hand jewellery, other metals plated with gold, and coins and bars used as jewellery. At the global level, it is measured as jewellery fabrication adjusted for changes in inventories held by the trade. At the country level, it is jewellery fabrication adjusted for changes in trade stocks plus imports, less exports.

Notes and definitions

Jewellery fabrication

Jewellery fabrication is the first transformation of gold bullion into semi-finished or finished jewellery. This differs from jewellery consumption as it excludes stock building/de-stocking by manufacturers and distributors. At the individual country level, it also excludes imports or exports.

Jewellery inventory

Changes to the level of jewellery stocks along the jewellery distribution chain, this is the difference between gold fabrication and gold consumption. A negative figure represents a draw-down of stocks when consumption exceeds fabrication. A positive figure represents a build-up of stocks.

LBMA Gold price PM

Unless otherwise specified, gold price values from 20 March 2015 are based on the LBMA Gold price PM administered by ICE Benchmark Administration (IBA), with prior values being based on the London PM Fix. For more information, see www.gold.org/goldhub/research/market-primer/gold-prices

Medals/imitation coins

Fabrication of gold coins without a face value, produced by both private and official/national mints. India dominates this category with, on average, around 75% of the total. 'Medallion' is the name given to unofficial coins in India. Medals of at least 99% purity are also included.

Mine production

The volume (in fine weight) of gold mined globally. This includes an estimate for gold produced by artisanal and small-scale gold mining (ASGM), which is largely informal. For more information, refer to: www.gold.org/goldhub/research/market-primer/mine-production

Net producer hedging

The net impact in the physical market of mining companies' gold forward sales, loans and options positions. Hedging transactions – which release gold to the market from existing above-ground stocks – accelerates the sale of gold. De-hedging – the process of closing out hedged positions – has the opposite impact and will reduce the amount of gold available to the market in any given quarter. Over time, hedging activity does not generate a net change in the supply of gold. For more information, refer to: www.gold.org/goldhub/research/market-primer/mine-production

Official coins

Net investment in gold bullion coins (i.e. gross purchases less gross sales) at the retail level. It is equal to the volume of fine gold in coins fabricated by official/national mints which are, or have been, legal tender in the country of issue. It is measured at the country of consumption rather than at the country of origin (for example, the Perth Mint in Australia, sells most of the coins it produces through its global distribution network). In practice it includes the initial sale of many coins destined ultimately to be considered as numismatic rather than bullion.

OTC and other

This number captures demand in the OTC market (for which data is not readily available), changes to inventories on commodity exchanges, any unobserved changes in fabrication inventories and any statistical residual. It is the difference between total supply and gold demand.

Other industrial

Gold used in the production of compounds, such as Gold Potassium Cyanide, for electro-plating in industrial applications as well as in the production of gold-plated jewellery and other decorative items such as gold thread. India accounts for the bulk of demand in this category.

Over-the-counter (OTC)

Over-the-counter (OTC) transactions (also referred to as 'off exchange' trading) take place directly between two parties, unlike exchange trading which is conducted via an exchange.

Recycled gold

Gold recovered from fabricated products, including unused trade stocks, which is refined back into bullion. This specifically refers to gold sold for cash. It does not include gold traded-in for other gold products (for example, by consumers at jewellery stores) or process scrap (scrap generated during manufacturing, which never becomes part of a fabricated product but instead returns as scrap to a refiner). For more information, refer to www.gold.org/goldhub/research/market-primer/recycling

Technology

This captures all gold used in the fabrication of electronics, dental, medical, decorative and other technological applications, with electronics representing the largest component of this category. It includes gold destined for plating jewellery.

Notes and definitions

Tonne (Metric)

1,000 kg or 32,151 troy oz of fine gold.

Total bar and coin

Total net investment in gold bars, coins and medals/imitation coins.

Total supply

The total of mine production, net producer hedging and recycling.

Year-to-date (y-t-d)

In Gold Demand Trends, year-to-date refers to the period to the end of the quarter being reviewed (i.e. for Gold Demand Trends Q2 2017, 'year-to-date' referred to the period from 31/12/2016 to 30/06/2017).

About the World Gold Council

We're the global experts on gold.

Leveraging our broad knowledge and experience, we work to improve understanding of the gold market and underscore gold's value to individuals, investors, and the world at large.

Collaboration is the cornerstone of our approach. We're an association whose members are the world's most forward-thinking gold mining companies. Combining the insights of our members and other industry partners, we seek to unlock gold's evolving role as a catalyst for advancements that meet societal needs.

We develop standards, expand access to gold, and tackle barriers to adoption to stimulate demand and support a vibrant and sustainable future for the gold market. From our offices in Beijing, London, Mumbai, New York, Shanghai, and Singapore, we deliver positive impact worldwide.

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Further information

For data sets and methodology visit:

www.gold.org/goldhub/data/gold-supply-and-demand-statistics

Or contact:

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