Gold Demand Trends
Full Year and Q4 2022

Highlights

2022 saw a record annual average LBMA Gold Price PM of US$1,800/oz. The gold price closed the year with a marginal gain, despite facing notable headwinds from the strong US dollar and rising global interest rates. Although the Q4 average price was slightly weaker both q-o-q and y-o-y, a sharp November rally was followed by continued recovery throughout the closing weeks of the year.

Brisk retail investment lifted bar and coin demand to a nine-year high. Strong growth in Europe, Turkey and the Middle East offset a sharp slowdown in China, where demand was affected throughout the year by COVID-related factors.

Indian gold demand remained robust compared with longer-term pre-pandemic levels. Despite a fairly soft start to the year, Indian consumer demand recovered and only just fell shy of the strong levels of demand seen during 2021. Continued recovery from COVID-19 boosted yearly comparisons, although the sharp local price rally choked off demand in the closing weeks of December.

Total gold supply halted two years of successive declines in 2022, lifted by modest gains in all segments. Full-year mine production grew 1% but failed to match its 2018 peak. Annual recycling supply made only marginal gains, despite strong local currency price rises in many markets.

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2022: strongest year for gold demand in over a decade

Colossal central bank purchases, aided by vigorous retail investor buying and slower ETF outflows, lifted annual demand to an 11-year high

Annual gold demand (excluding OTC) jumped 18% to 4,741 tonnes (t), almost on a par with 2011 – a time of exceptional investment demand. The strong full-year total was aided by record Q4 demand of 1,337t.

Jewellery consumption softened a fraction in 2022, down by 3% at 2,086t. Much of the weakness came through in the fourth quarter as the gold price surged.

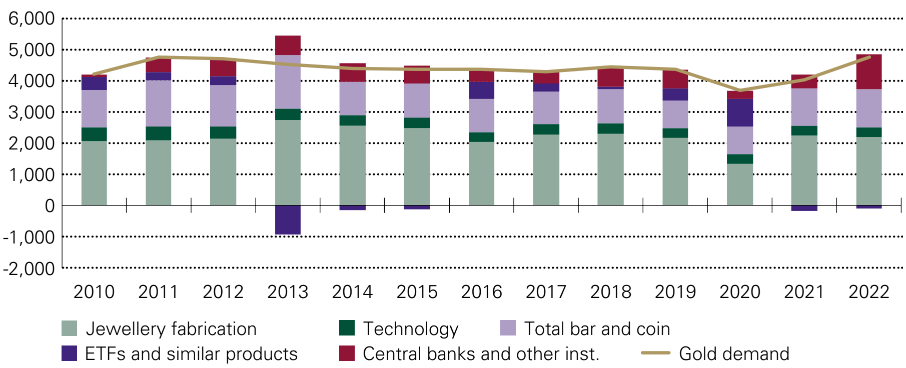
Investment demand (excluding OTC) reached 1,107t (+10%) in 2022. Demand for gold bars and coins grew 2% to 1,217t, while holdings of gold ETFs fell by a smaller amount than in 2021 (-110t vs. -189t), which further contributed to total investment growth. Quarterly fluctuations in OTC demand largely netted out over the year.

A second consecutive quarter of huge central bank demand (417t) took annual buying in the sector to a record high of 1,136t, the majority of which was unreported.

Demand for gold in technology saw a sharp Q4 drop, resulting in a full-year decline of 7%. Deteriorating global economic conditions hampered demand for consumer electronics.

Total annual gold supply increased by 2% in 2022, to 4,755t. Mine production inched up to a four-year high of 3,612t.

2022 gold demand almost matched the 2011 record



Data to 31 December 2022.

Source: Metals Focus, Refinitiv GFMS, World Gold Council

Outlook

Trading places: ETF and OTC demand to take the baton from bar and coin in 2023.

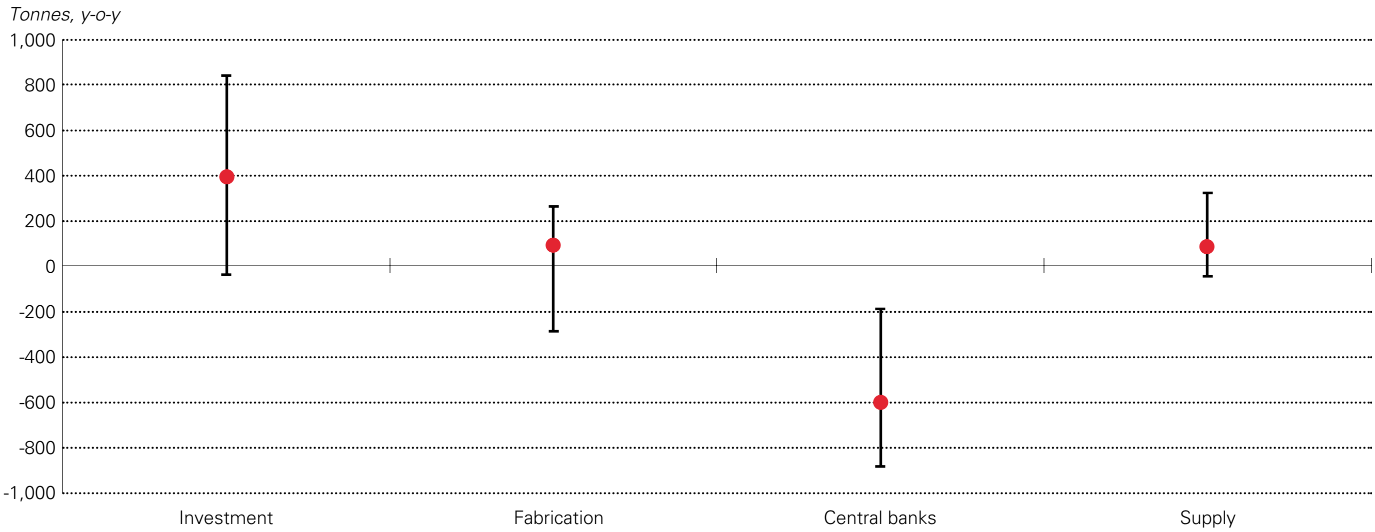
- Investment is expected to rise in 2023. Gold ETF and OTC demand – depressed during 2022 – looks set to take the baton held by last year's strong retail bar and coin demand. Retail investment will likely be lower in Western markets, albeit still healthy, as inflation fears fade, but should be robust in Asia on higher growth. However, elevated recession and geopolitical risks will likely sustain interest in gold and present upside potential as the year progresses

- Central bank buying is unlikely to match 2022 levels. Lower total reserves may constrain the capacity to add to existing allocations. But lagged reporting by some central banks means that we need to apply a high degree of uncertainty to our expectations, predominantly to the upside

- We expect jewellery demand to improve further on a resilient 2022, but caution that strong base effects in Chinese demand could be undermined if a more severe global slowdown drags down demand elsewhere. China's re-opening, with its pent-up and growth-driven demand for jewellery, will inject welcome momentum, although recurrent COVID spikes are a potential headwind. A sluggish start to the year for Indian demand could persist if local prices remain elevated

- Total supply is expected to rise modestly again in 2023 as expansion at existing operations provides a production uplift. Recycling is expected to fall but upside risks can't be ruled out as inflation falls in Western markets and the spectre of recession-driven distress selling rears its head.

Expected change in annual demand, 2023 vs 2022*



*Data to 31 December 2022. Fabrication combines global jewellery and technology demand. Investment includes ETFs, bar and coin and OTC demand. Supply includes mine production and recycling. We have omitted hedging and assume it to be unchanged.

Source: World Gold Council

Outlook

Full year outlook

In December we published our 2023 Gold Outlook. The data for Q4'22 – and, where available y-t-d – remains consistent with the central scenario in the outlook and has not altered our view of a good year for gold with more upside potential than downside risk given a growing risk of recession in the US and Europe.

Investment: upside likely in 2023

A lacklustre 2022 for ETF and OTC demand is likely to set the stage for a year of growth in investment. Gold's stable performance in 2022, despite strong headwinds from rising rates and a strong dollar for most of the year, has reignited investor interest. As investors have settled the likely peak level of interest rates, rate hikes will pose less of a problem. In addition, continued weakness in the US dollar, growing recession risks, a continued high bond-equity correlation and elevated geopolitical risk form the backbone of a positive tactical case for gold in 2023, in our view.

Inflation is likely to continue to fall in 2023. But we see this as more of a headwind for retail bar and coin than institutional investment demand. As we noted in the last GDT, scant access to alternative inflation hedges drove strong demand for gold in many Asian and Middle East economies in 2022. Should inflation fall, then some slowdown in demand should be expected. What we do not expect is an unwind, as retail demand for gold tends to be sticky.

Fabrication demand: 2023 demand to capitalise on a resilient but low 2022

Jewellery demand is likely to capitalise on a resilient 2022, driven primarily by the reopening of China. An economic rebound, pent-up demand and a flat local price should see demand in line with levels in 2016 to 2018. However, a lacklustre post-COVID response similar to that experienced in the West – where equally pent-up spending on other goods and services took precedence over gold – remains a risk, as do further COVID spikes. In addition, the possibility of a more severe economic slowdown in other regions could offset some of the anticipated Chinese demand strength.

In contrast, a weak Q4 and an anecdotally poor start to 2023 suggests Indian jewellery demand won't match the expected growth in China. A higher number of auspicious wedding days (67 in 2023 vs 55 in 2022) and higher market prices of Kharif crops should be supportive,[1] but a higher local price and persistent rural inflation might prevent some buying.

The outlook for technology demand in 2023 remains poor as sanctions on China and faltering consumer demand continue to weigh on the electronics sector. In addition, the recession risks materialising in Europe and the US will further curtail demand in discretionary goods spending. However, inventory adjustments are projected to continue across the industry and this may provide some support for demand towards the end of the year.

Central banks: matching 2022 will be a tall order.

Central bank demand remains difficult to forecast partly because it can be policy driven and does not always respond to the most common economic drivers we use to analyse other sectors. In addition, discretionary reporting of holdings, often with a lag, suggests a strong possibility for surprises. But a slowing of growth in total reserves is likely to put pressure on some central banks, reducing their capacity to allocate to gold. We therefore think it likely that 2023 buying will be more moderate.

Supply: mine production has the potential for good growth again in 2023

Output from across the Americas, led by expansion of existing projects in North America, is likely to result in higher in 2023 production, perhaps surpassing the previous high in 2018.

A higher local price in dominant recycling regions in 2022 did not elicit the rise in recycling that models might have suggested. But prior to the year-end rally, gold was lower for several months, curtailing some price-related recycling. High inflation also likely prompted some to hang on to their gold. An expected fall in inflation next year alongside a high recession risk, raises the possibility that both inflation- and distress-related selling will edge up during 2023.

1 Kharif crops are monsoon crops which are cultivated with the onset of monsoon season (June) in India and are harvested after the end of the monsoon season (October-November).

Jewellery

Weakened by COVID disruptions, China weighed on global jewellery demand in 2022.

- Total annual jewellery demand saw a modest decline, 3% lower at 2,086t
- Steep declines in Chinese demand throughout the year had an outsized impact on the world total
- Global Q4 demand was down 13% y-o-y, a fall that was partly explained by the very high base of Q4'21 demand.

Tonnes	2021	2022	Y-o-y change
World total	2,147.7	2,086.2	↓ -3%
India	610.9	600.4	↓ -2%
China, P.R.: Mainland	673.3	570.9	↓ -15%

Source: Metals Focus, World Gold Council

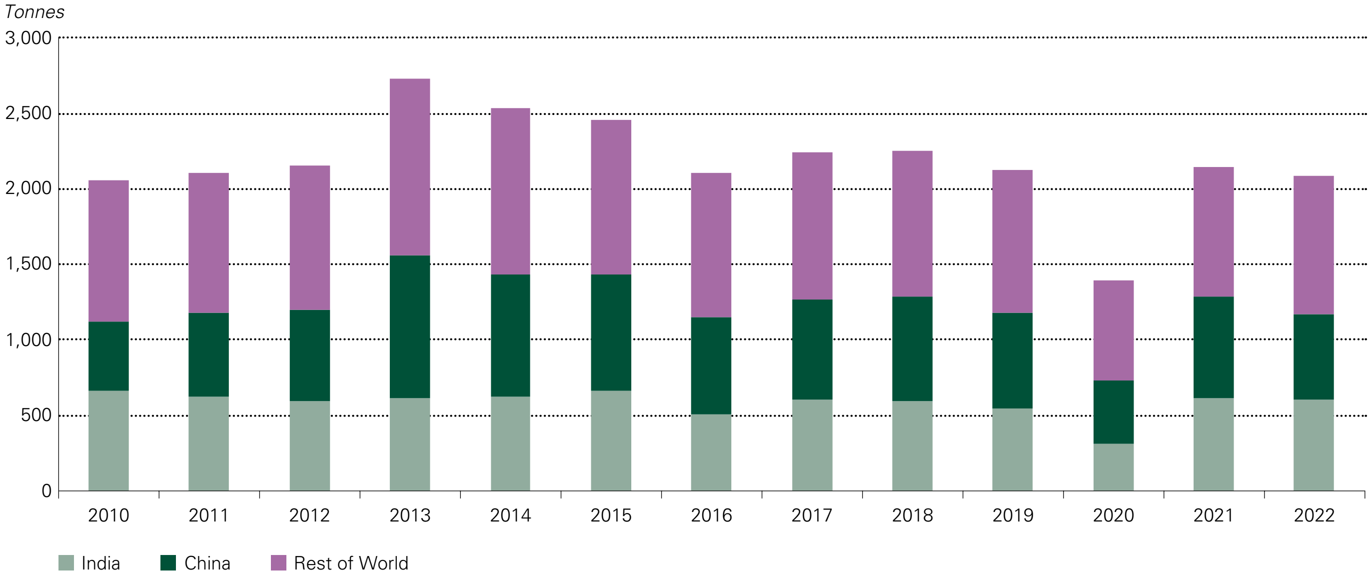
Gold jewellery demand softened slightly in 2022, almost managing a return to pre-COVID levels of demand, which in 2019 stood at 2,127t. This was achieved during a year that saw periods of strong rises in the gold price (reaching record levels in some local markets, like India and Turkey) and at a time when China was hobbled by lockdowns and a COVID outbreak. Demand continues to face challenges in 2023, as global economic growth slows and sharply rising inflation spells a cost of living crisis in many markets.

China

China's gold jewellery demand in 2022 fell 15% to 571t, 113t below its 10-year annual average. Annual demand was affected throughout much of the year by recurrent lockdowns across major cities as the authorities implemented a zero-COVID policy; then by a spike in infections as the policy was abruptly reversed in December. The 10% rise in the local gold price during the year also weighed on gold jewellery consumption.

Q4 demand saw a 28% y-o-y decline to 127t – the weakest Q4 since 2009.China's economy was hammered by these COVID-related disruptions, which resulted in the country's lowest Q4 income growth since 2003.

Global jewellery demand: resilient in the face of China's sharp slowdown*



*Data to 31 December 2022.

Source: Metals Focus, Refinitiv GFMS, World Gold Council

Jewellery

Notwithstanding the relative weakness of demand in China, interesting consumer trends were noted. Investment motives were a prominent driver of gold jewellery purchases as the need for value preservation intensified given COVID-related uncertainties and a weak RMB. As a result, quasi-investment 24k gold jewellery products with high pricing transparency and low labour charges gained in popularity.

Meanwhile, premium products including Heritage Gold jewellery continued to expand their market share. While the creative designs of these products attracted consumer attention, their lucrative margins also motivated the sales efforts of jewellery retailers.

Looking to the year ahead, we expect China's gold jewellery demand to gradually pick up. Bloomberg's median forecast sees China's 2023 GDP growth significantly higher at 4.8%,[2] which should spell an improvement in gold jewellery demand. Our conversations with industry contacts suggest that jewellery manufacturers were busy on the approach to the 2022 Chinese New Year (CNY) holiday. But there are reasons for caution in our Outlook. And news that the Chinese population shrank by 850,000 last year could represent a longer-term challenge for the industry.[3]

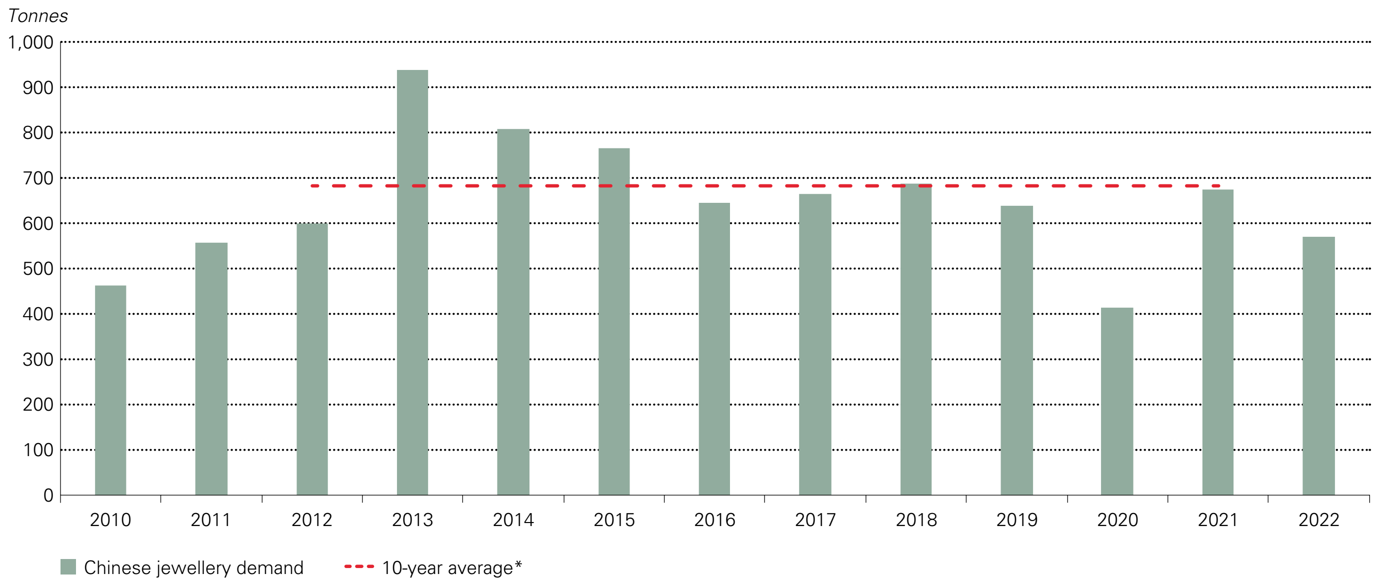
India

A 2% decline in 2022 gold jewellery demand in India belies a strong absolute annual total. At 600t, demand was in line with the annual average over the 10-year period preceding COVID, despite high/rising local gold prices being a key headwind at times during the year. Q4 demand fell 17% y-o-y, but this apparent large decline is set against Q4'21's record high level; quarterly demand of 220t was the fourth-highest quarter in our series back to 2000.

Q4 demand was exceptionally strong during the festive period in the first half of the quarter. Discussions with the trade revealed that sales during this period were around 20% higher y-o-y, indicative of very strong sentiment, particularly when we consider that last year's festival demand was robust. Jewellery demand also received a boost from wedding purchases during the quarter.

However, momentum was derailed as gold prices surged in November and December. Our contacts suggested that demand came to a virtual standstill after mid-December, with customers preferring gold-for-gold exchange; anecdotal evidence suggests such exchange volumes almost doubled during the quarter. And higher prices encouraged higher recycling volumes.

Chinese gold jewellery consumers were thwarted by lockdowns in 2022



* Average annual Chinese jewellery consumption 2012-2021. Data to 31 December 2022.

Source: Metals Focus, Refinitiv GFMS, World Gold Council

2 Morgan Stanley Raises China GDP Forecast on Reopening, Easing - BNN Bloomberg

3 China records first population decline in 60 years | CNN Business

Jewellery

The outlook for the first quarter in India is mixed. A higher number of auspicious wedding days in Q1 2023 (28 in Q1 this year vs 11 in Q1 2022) should be positive for demand, as should higher market prices of primary Kharif crops. Demand will, however, continue to face headwinds from the higher domestic gold price and persistently high rural inflation.

Middle East and Turkey

Regional jewellery demand in the Middle East was 15% higher in 2022 at 190t. Sizable gains in the UAE and Saudi Arabia were key contributors to the regional performance. But momentum slowed in the fourth quarter, largely in response to the high and rising gold rice.

Annual jewellery demand in Turkey climbed 8%, recovering to pre-pandemic levels at 37t. Q4 demand jumped 32% y-o-y to 10t, adding to the strong Q3 total and generating the highest H2 total since 2017. Despite the rise in the local gold price during Q4, soaring consumer inflation brought the investment motive to the fore. This is reflected in the strength of plain gold jewellery pieces, while diamond jewellery demand remained weak.

US and Europe

US jewellery demand in 2022 was healthy at 144t, despite a 4% decline. Much of the y-o-y drop came through in the second half, and was partly due to the continued effect of the removal of government support packages and the shift in consumer spending away from luxury goods towards services. The growing threat of domestic recession was also increasingly evident in Q4, reflected in the 5% y-o-y decline to 51t.

However, demand in 2022 still held above pre-pandemic levels and y-o-y comparisons are against the very strong volumes of 2021. The solid US jobs market was a supportive factor, while Christmas gifting helped lift Q4 demand.

European jewellery consumption gained 4% to 71t in 2022, almost recovering to pre-pandemic levels. Q4 demand slipped 5% y-o-y to 31t, bringing to an end the preceding six quarters of growth. However, much of the decline was due to steep losses in the UK, where the underperforming economy exacerbated the impact of the cost of living crisis.

ASEAN markets

Jewellery demand in 2022 increased in almost all South East Asian markets.

Vietnam led the way with a 51% increase, taking annual demand to a four-year high of 18t. Several factors had an impact, including a slight drop in local gold prices in Q4; rising income levels as salary cuts were restored; and strengthening consumer confidence on the back of robust GDP growth.

In Thailand, y-o-y jewellery consumption increased by 17% to more than 9t. Annual demand remained relatively muted in comparison with pre-COVID levels, although quarterly demand compared more positively. Q4 posted an eighth consecutive y-o-y rise to almost 3t (+15%) – the highest total since Q4 2019. Overall, demand has continued to benefit from the reopening of the economy and the recovery in tourism. Furthermore, the drop in local gold prices in September and October encouraged gold jewellery retailers to replenish stocks ahead of the bridal season and year-end festivities.

Indonesia, South East Asia's largest jewellery market, saw a modest y-o-y growth in jewellery demand of 5%, taking 2022 demand to 28t. Although consumer sentiment has improved, rising inflation dented consumer spending somewhat.

Rest of Asia

Annual jewellery consumption in Japan was virtually unchanged at 15t in 2022. Q4 demand was down 15% y-o-y to 4t from Q4'21's robust 5t. Rising local gold prices and a return to inflation will likely have dented consumer sentiment. Although demand in Japan has recovered from the very weak COVID-hit 2020, it has yet to regain the 16-17t annual range that was typical before the pandemic.

In South Korea, annual gold jewellery demand was down 18%, taking 2022 jewellery consumption to 15t. Consumption was affected by the worse-than-expected economic slowdown. Jewellery demand lost momentum as consumers cut back on luxuries in an environment of deteriorating household incomes and elevated debt.

Australia

The 30% growth in Australia's annual jewellery demand was partly due to base effects: demand in 2021 was very weak thanks to strict COVID restrictions at that time. Nonetheless, annual demand was healthy at 11t, aided by a 22% y-o-y rise in Q4 demand to more than 3t.

Investment

Total annual investment rose 10% on buoyant bar and coin demand and a slowdown in net ETF selling.

- Global bar and coin demand improved on the already healthy 2021 total, gaining 2% to 1,217t
- Despite Q1 gains, gold ETF holdings fell by 110t in 2022 but this was significantly lower than the 189t of net selling seen in 2021[4]
- Total annual investment increased 10% to 1,107t.

Tonnes	2021	2022	Y-o-y change
Investment	1,001.9	1,106.8	↑ 10%
Bar and Coin	1,190.9	1,217.1	↑ 2%
India	186.5	173.6	↓ -7%
China, P.R.: Mainland	285.5	218.2	↓ -24%
Gold-backed ETFs	-189.0	-110.4	– –

Source: Metals Focus, World Gold Council

2022 was a textbook example of how gold's diverse sources of demand and supply can counterbalance one another, providing gold with its uniquely stable performance as an investment asset.

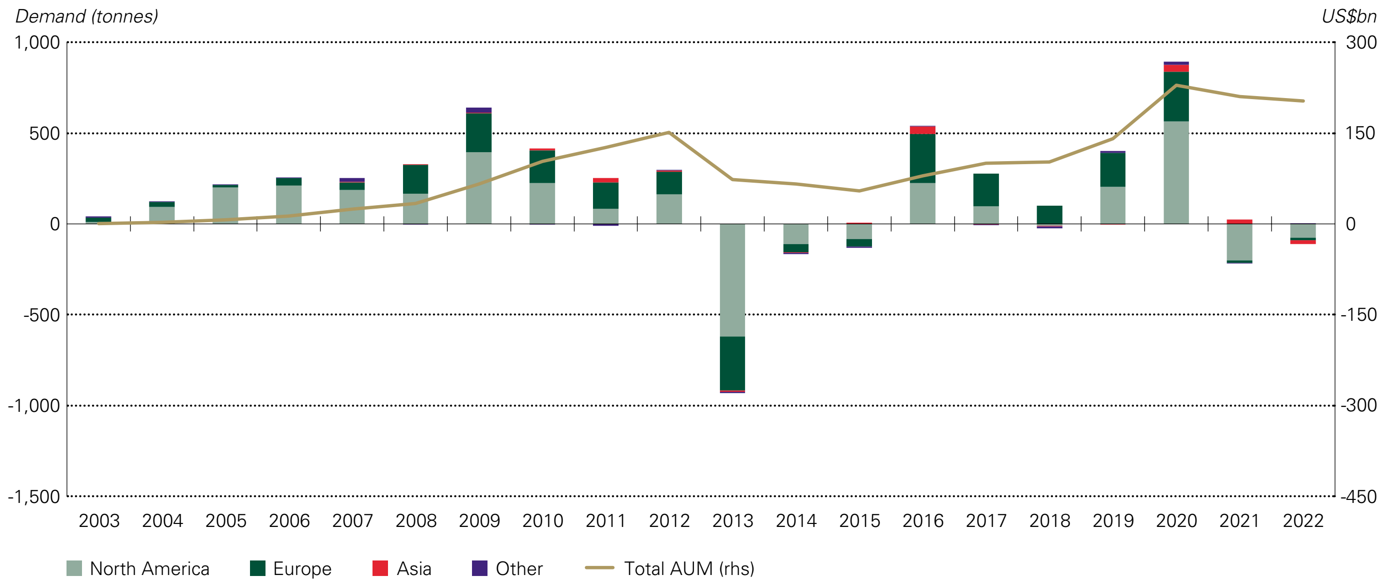
ETF investment was weak, albeit improved from 2021; in contrast, retail bar and coin buying was strong, driving gold to a marginal gain in 2022. The anaemic sentiment in ETFs was also reflected in managed money net positioning on COMEX, which oscillated between net long and net short in H2 2022.

As well as underlying support from geopolitics, gold investment was impacted by a combination of multi-decade high inflation, especially in Western markets, and the resultant aggressive rate hikes by the Fed and other central banks. Bar and coin investors focused on the former and sought the safety of gold as a hedge against inflation. In contrast gold ETF investors reduced their holdings, especially in the second half, focusing on gold's rising opportunity cost as central banks across the globe imposed hefty rate hikes and the US dollar surged.

ETFs

Holdings of physically-backed gold ETFs declined by 110t (-3%) in 2022, equivalent to outflows of US$3 billion (bn). Demand for these products surged as geopolitical risk took centre-stage during the first four months of the year, but then steadily gave back gains as aggressive rate hikes began to dominate the narrative.

2022 saw a more moderate decline in gold ETF holdings than 2021*



*Data to 31 December 2022.

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

4 Please note that as of January 2023, we have implemented a change to our gold ETF methodology that allows us more accurately to measure demand for these products. To find out more about this new approach, please see our ETF methodology note.

Investment

At the end of 2022, global holdings of gold ETFs were 110t lower at 3,473t (AUM of US$203bn). Low-cost gold ETFs seemed to buck the trend, however: collectively, they saw net demand of 48t during 2022.[5]

Funds listed in North America saw the biggest fall in demand. North American fund holdings registered a decline of 75t (US$3bn) during the year, led primarily by the two largest and most liquid funds. The region saw a strong start to the year with collective demand of 188t between January and April before higher yields and a stronger dollar weighed heavily on gold in the months that followed.

European funds dipped into negative territory towards year-end. In Europe, y-t-d gold ETF demand remained positive until November but ultimately ended 1% lower (-15t, US$943mn) y-o-y.[6]

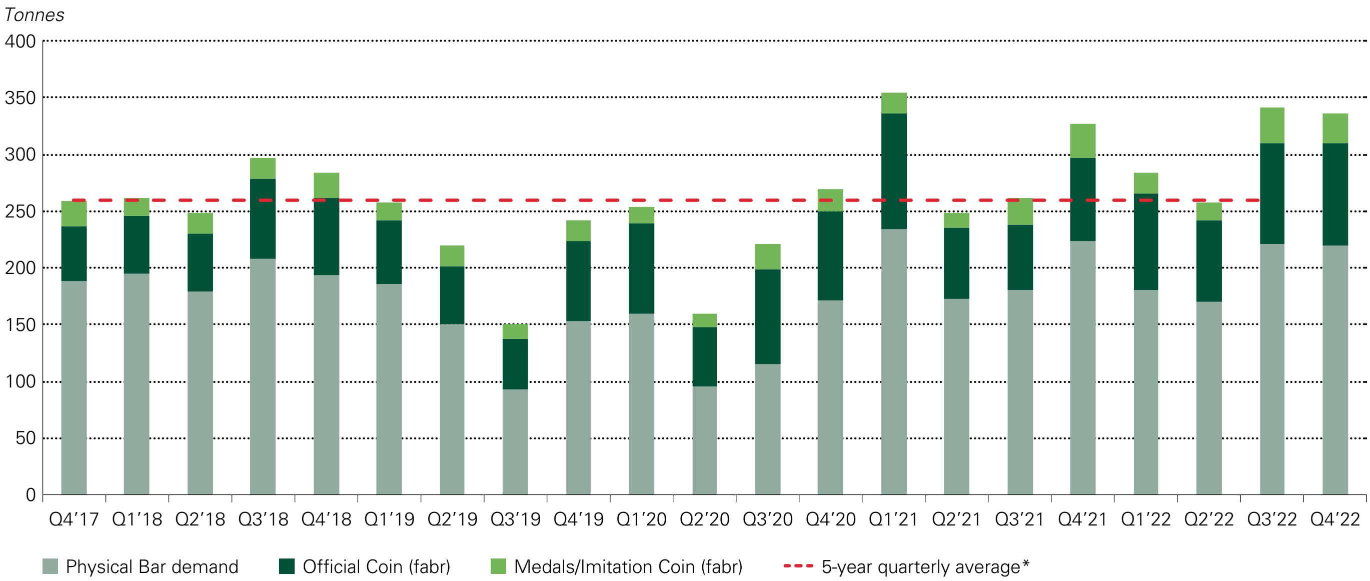
The relative resilience of European ETF demand is likely due to closer proximity to the Russia-Ukraine war driving safe-haven flows, and deeper concerns over the outlook for the region's economic growth.

China led the fall in demand for gold ETFs listed in Asia. Asian-listed funds saw net negative demand of 21t in 2022 as a substantial fall in Chinese funds' gold holdings was partially offset by demand for Japanese and Indian funds. Asian funds did not experience the same Q1 surge of demand as North America and Europe, as instead higher local gold prices incentivised profit-taking. This was particularly evident in China, where investors adopted a more tactical approach throughout much of 2022. Funds in Other regions saw a fractional rise of 0.2t in holdings over the year.[7]

Bar and coin

The second half of the year was particularly strong, achieving two successive quarters of demand in the region of 340t for the first time since 2013. The need for wealth protection in the global inflationary environment remained a primary motive for gold investment purchases.

Bar and coin retail investment was buoyed in H2 by rising inflation*



* Average annual bar and coin investment Q4 2017-Q3 2022. Data to 31 December 2022.

Source: Metals Focus, World Gold Council

5 Low-cost gold-backed ETFs are defined by the World Gold Council as exchange-traded open-ended funds listed in the US and Europe, backed by physical gold, with annual management fees and other expenses like FX costs of 20bps or less.

6 Though the tonnage demand change is negative, the fund flow – representing the amount of money (in USD) that investors have put into (or retrieved from) a fund during a given period – is positive owing a higher gold price at the time of inflows (compared to a lower gold price at the time of outflows) during the year. For more information, please see our ETF methodology note.

7 'Other' regions include Australia, South Africa, Turkey, Saudi Arabia and the United Arab Emirates.

Investment

China

Q4 bar and coin demand in China fell 20% y-o-y to 61t, taking the full year total down 24% to 218t, due mainly to COVID-related restrictions throughout the year.

Annual retail investment was 18% below its 10-year average of 269t and was more in line with the 199t of demand in 2020 – a year also affected by lockdowns. Chinese investors were confined to their homes for much of 2022, unable to make physical gold purchases – transactions which typically occur in-person rather than online. The reversal of lockdown policies in Q4 cleared the way for a return to normal investment activities, but surging COVID infections hindered many investors and demand remained muted.

Nevertheless, underlying investor interest in gold during 2022 remained high. The Baidu search index for 'gold bar' was higher on average than in 2021, as geopolitical risks and local currency weakness kept gold investment products on investors' radars. And a PBOC quarterly survey showed a record level of intention to save among Chinese households, some of which will likely be channelled into gold.

As investors began to recover from the infection wave, interest in gold investment surged again in early January ahead of the CNY holiday. Looking ahead to the rest of 2023, we expect a rebound in Chinese bar and coin demand, supported by economic recovery as the country opens up, as well as continued efforts by commercial banks to promote physical gold products. Gold's safe-haven appeal will also continue to attract investors, given their record tendency to save.

India

Annual bar and coin demand in India was 7% lower at 174t. The yearly drop was due to a 28% y-o-y decline in Q4, albeit that demand was a healthy 56t during the quarter, levels failed to match the extremely strong performance of Q4 2021.

Bar and coin demand was healthy at the start of the fourth quarter during the Dussehra and Dhanteras festivals.[8] However, the onset of the wedding season saw attention turn towards gold jewellery – particularly as retailers preferred to promote higher-margin products – and investment demand took a back seat. Many investors also preferred to sit out after missing the swift jump in the gold price in November. Discussions with the trade revealed that buying was concentrated on lower-ticket items (e.g. 20g and below), which suggests a focus on gifting demand.

Looking ahead in 2023, Indian bar and coin demand currently faces headwinds from the strong domestic gold price and rising equity market, while lower inflation could diminish gold's role as an inflation hedge. However, a revival in rural demand may provide support to bar and coin demand in the coming year.

Middle East and Turkey

Annual gold investment in Turkey rose by 38% to 85t – the third highest year in our data set. The full-year total was boosted by a more than sevenfold y-o-y increase in Q4 demand to 29t. Although the large rise was from a relatively low base in 2021, the quarterly total was strong in absolute terms – significantly above the 17t five-year quarterly average.

Extreme domestic inflation continued to drive investment demand, with real interest rates in deeply negative territory. Demand was particularly strong in October before tailing off slightly in November and December as surging domestic gold prices capped demand.

Bar and coin demand across the Middle East region rose 42% in 2022 to a four-year high of 78t. A fifth consecutive quarter of substantial double-digit gains in the region was largely the result of strong Q4 performances from Iran and Egypt.

In Iran, rampant inflation and the need for safe-haven assets encouraged gold demand, lifting Q4 demand to 10t (+33% y-o-y). Nevertheless, demand was restrained by new regulations imposing weight and volume limits on each gold transaction.

In Egypt, a (planned) depreciation of the pound in late October – following a previous depreciation in March – encouraged demand for a safe-haven and inflation hedge. Fourth quarter demand more than doubled y-o-y as a result, taking annual demand 83% higher to 4.4t.

8 Dussehra is a festival celebrated at the end of Navratri each year. Navratri is an annual Hindu festival spanning nine nights and is celebrated as a mark of victory of good over evil. Dussehra was celebrated on 5 October 2022. Dhanteras is the first day that marks the festival of Diwali. Dhanteras was celebrated on 22 and 23 October 2022.

Investment

US and Europe

Western investment demand for physical gold products reached an annual record in 2022. Combined US and European purchases of gold bars and coins hit 427t, exceeding the previous record of 416t in 2011.

Retail investors in the US bought 113t of gold in 2022 – the third highest annual total in that market after 2021 and 2009. The 3% y-o-y decline was reflective of 2021 record demand rather than any real weakness in demand during the year. Fourth quarter demand of 28t was in line with the average quarterly pace of buying since the start of 2021.

US investment demand appeared by year-end to have settled into a more measured pace from its previous more frenzied buying, and selling back reportedly remains limited. This, combined with improved supply, has allowed premiums to ease.

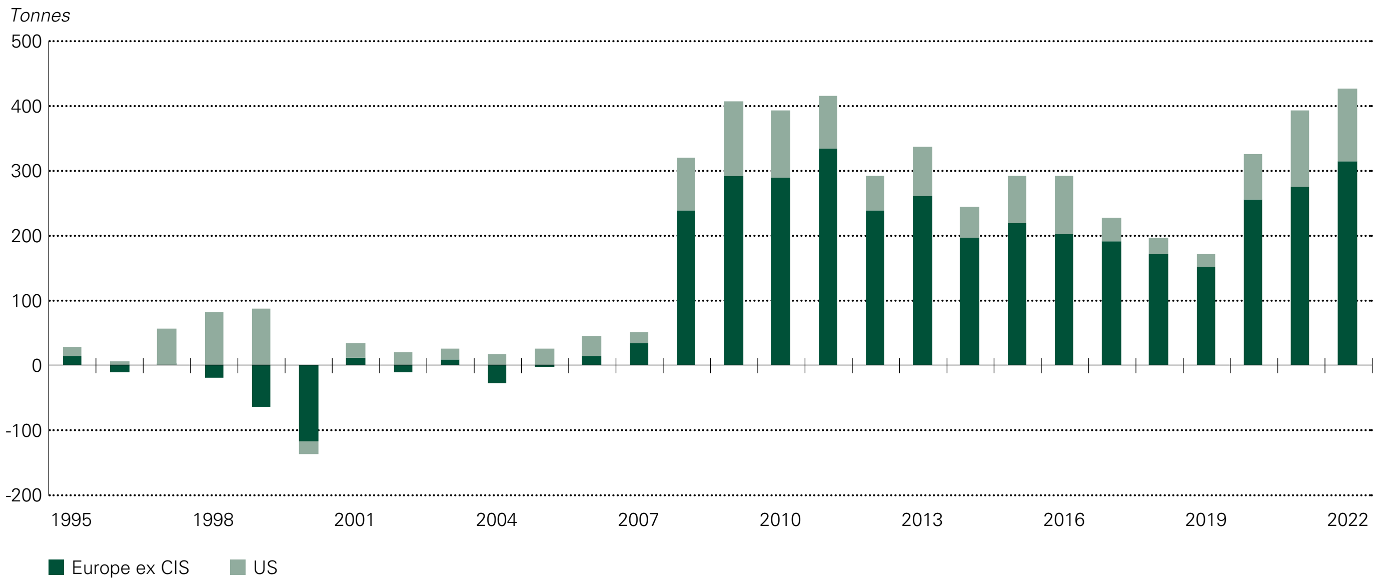
2023 has started well: combined month-to-date sales of gold Buffalo and Eagle coins reported by the US mint had exceeded six tonnes after the third weeks of January.

Annual retail investment in Europe breached 300t for only the second time in our data series, increasing 14% y-o-y to 314t. Fourth quarter bar and coin demand jumped 21% y-o-y to 81t, maintaining the pace of the previous three quarters.

High inflation, recessionary concerns (along with implications for equities) and the Russia/Ukraine war continued to underpin purchases, both in Germany and across parts of Eastern Europe, most notably Poland.

Local currency price moves also drove investment flows during the fourth quarter. The relative stability in the euro- and Swiss franc-denominated gold price during November and December encouraged investors to buy in the expectation that local prices would rebound and follow the dollar price higher – a trend that has played out so far in January.

Western retail investors bought record volumes of gold*



*Data to 31 December 2022.

Source: Metals Focus, Refinitiv GFMS, World Gold Council

ASEAN markets

Most of the ASEAN markets we cover in GDT saw retail investment rise in 2022. The only exception was Thailand, where annual bar and coin demand fell marginally to 29t. However, Q4 investment demand in Thailand was robust and rose 8% y-o-y to 10.8t, the highest since Q1'19.

In Vietnam, Q4 retail investment surged by 48% to 9t, leading to healthy full-year demand of 41t, a 32% annual increase. Several factors contributed to this performance, including rising inflation, currency devaluation, bond issuance fraud by a large real estate company and an underperforming equities market. The strength of demand kept premiums elevated at around $500-550/oz.

Elsewhere in South East Asia retail investment demand was also up. Annual bar and coin demand in Indonesia increased by 8% y-o-y to 21t, while Singapore and Malaysia saw growth of 32% and 27% respectively.

Rest of Asia

Japan saw net selling of bars and coins in 2022, a reflection of the higher local gold price and older generations looking to cash in on their long-term holdings. Selling was concentrated in the first two quarters: Q4 saw net positive investment of 2t, spurred by rising inflation in Japan, which now stands at its highest in 41 years.

In South Korea retail investment slowed as investors preferred to hold cash amid a sluggish economy and depressed investment sentiment. Annual bar and coin demand fell 19% to 17t.

Australia

Investor appetite for gold remains fairly strong on the back of concerns about global economic malaise, high inflation and the spectre of rising interest rates in an over-leveraged market. While retail investment demand remained lower than its impressive Q1 levels, it was robust at just over 4t. Overall 2022 retail investment demand of just under 20t was down 2% y-o-y.

Central banks

Central bank demand for gold hits a record in 2022.[9]

- Central bank demand totalled 1,136t in 2022, the highest level of buying on record
- Geopolitical uncertainty and high inflation were highlighted as key reasons for holding gold
- Buying was primarily from emerging market banks, including Turkey and China.

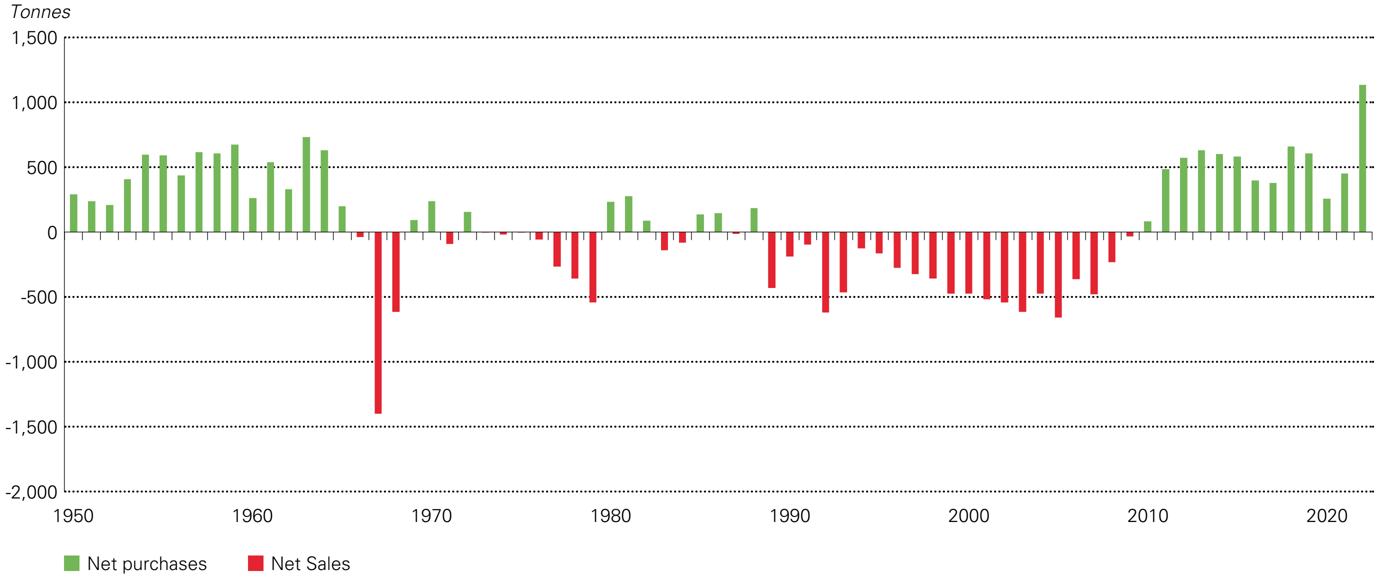
Tonnes	2021	2022	Y-o-y change
Central banks and other institutions	450.1	1,135.7	↑ 152%

Source: Metals Focus, World Gold Council

Two years on from dropping to its lowest level in a decade, central bank demand has rebounded strongly. 2022 saw the second consecutive y-o-y increase in demand from this sector, with net purchases totalling 1,136t. This marked a banner year for central bank buying: 2022 was not only the thirteenth consecutive year of net purchases, but also the highest level of annual demand on record back to 1950, boosted by +400t demand in both Q3 and Q4.

Central bank net purchases in Q4 totalled 417t, lifting H2 total buying to 862t. Echoing Q3, data for the final quarter of the year was again a combination of reported purchases and a substantial estimate for unreported buying.[10] Should more information about this unreported activity become available, these estimates may be revised.

Central bank buying in 2022 was the highest on record*



*Data to 31 December 2022. For an explanation of central bank demand, please see the Notes and definitions download: www.gold.org/goldhub/research/gold-demand-trends/gold-demand-trends-q4-2022/notes-and-definitions

Source: Metals Focus, Refinitiv GFMS, World Gold Council

9 Update as of 7th February 2023: following a correction to the historical data from 1950-1969, Gold Demand Trends has been amended to report that 2022 was a record year for annual central bank buying Previously, 2022 had been reported as the second-highest year on record.

10 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.

Central banks

Gold has been 'en vogue' with central banks since they became net purchasers on an annual basis in 2010. Our most recent annual central bank gold survey highlights two key drivers of central banks' decisions to hold gold: its performance during times of crisis and its role as a long-term store of value. It's hardly surprising then that in a year scarred by geopolitical uncertainty and rampant inflation, central banks opted to continue adding gold to their coffers and at an accelerated pace.

And extending the trend that began in 2010, emerging market central banks accounted for the bulk of last year's reported demand.[11]

China resumes buying in 2022. The most significant announcement of the year came towards its end, when the People's Bank of China (PBoC) reported the first increase in its gold reserves since September 2019. In November and December the PBoC announced total gold purchases of 62t, lifting its total gold reserves to over 2,000t for the first time. These announcements were significant given China's historic position as a large buyer of gold, having accumulated 1,448t between 2002 and 2019. However, the Central Bank of Turkey reported the largest buying in 2022. Its official gold reserves swelled by 148t to 542t, the highest level on record.[12]

Regionally, the Middle East was an active buyer of gold during the year. Egypt (47t), Qatar (35t), Iraq (34t), the United Arab Emirates (25t) and Oman (2t) significantly boosted their gold reserves. Central Asia also saw a healthy level of buying. Despite starting the year as a net seller, the Central Bank of Uzbekistan ended the year as a net purchaser of gold, with its gold reserves rising by 34t. The Kyrgyz Republic (6t) and Tajikistan (4t) were also notable purchasers.

The Reserve Bank of India remained a buyer of gold in 2022, adding 33t, 57% lower than 2021 when it purchased 77t. Intervention in the FX market to support the rupee during the year caused a decline in FX reserves of US$70bn, which may have impacted the bank's gold buying. Its gold reserves now stand at 787t (8% of total reserves).

Elsewhere, Ecuador (3t), the Czech Republic (1t), and Serbia (1t) were also noteworthy buyers. Ireland was the solitary developed market central bank to increase its gold reserves during the year, with purchases of 3t in Q1.

But while purchases were abundant, the year saw some selling too. The National Bank of Kazakhstan was 2022's largest seller, reducing its gold holdings by 51t to 352t (58% of total reserves). In a statement to Bloomberg, the National Bank of Kazakhstan indicated that it planned more gold sales in 2023, although it had previously stated that sales may be dependent on market conditions. As we have noted in earlier reports, it is not uncommon for central banks who regularly purchase domestic gold production to swing between buying and selling.

Germany registered net sales of 4t as part of its ongoing coin-minting programme, while Sri Lanka (3t), Poland (2t), the Philippines (2t), Mongolia (2t), Bosnia and Herzegovina (1t), Cambodia (1t) and Bhutan (1t) were all sellers of at least one tonne.

The Central Bank of Russia announced that it would resume buying gold from domestic producers following the imposition of international sanctions. But no further data has been reported since a 3t decline in its gold reserves in January. We continue to monitor developments.

Looking ahead, we see little reason to doubt that central banks will remain positive towards gold and continue to be net purchasers in 2023. However, by how much is difficult to call, as evidenced by our expectations at the start of 2022. But it is also reasonable to believe that central bank demand in 2023 may struggle to reach the level it did last year. Read more in the Outlook section.

11 Ibid.

12 Turkey official sector gold reserves are the sum of central bank owned gold and Treasury gold holdings. This is equivalent to gross gold reserves less all gold held at the central bank in relation to commercial sector gold policies, such as the Reserve Option Mechanism (ROM), collateral, deposits, and swaps. Please follow this link for information on this methodology: www.gold.org/download/file/16208/Central-bank-stats-methodology-technical-adjustments.pdf

Technology

Worsening global economic conditions in Q4, together with trade restrictions and supply chain issues, generated a sharp drop in full-year gold technology demand.

- A substantial drop in Q4 compounded Q3 weakness to generate a 7% decline in annual demand for gold in technology
- Electronics demand mirrored the 7% annual decline in the broader sector, dropping sharply in Q4 in response to the deteriorating global economic picture and supply chain challenges, particularly in China
- Gold used in other industrial applications was flat for the year.

Tonnes	2021	2022	Y-o-y change
Technology	330.2	308.5	↓ -7%
Electronics	272.1	251.7	↓ -7%
Other industrial	46.8	46.6	↓ 0%
Dentistry	11.4	10.3	↓ -9%

Source: Metals Focus, World Gold Council

The start of 2022 followed a similar pattern to 2021 as businesses, supply chains and consumers continued to recover from the pandemic. Gold demand followed suit, remaining steady during the first two quarters. However, Q3 and Q4 saw a sharp reversal driven by rapid changes in the global economy; interest rates were quickly raised by central banks worldwide in an attempt to temper soaring inflation, impacting the finances of consumers and businesses globally.

During Q4 the electronics supply chain, still suffering some uncertainty in the wake of the pandemic, was further pressured by events in China where the sudden easing of COVID restrictions led to a large wave of infections and resultant labour shortages across a number of sectors.[13] This compounded other challenges faced by semiconductor manufacturers in the country; most notably the US-imposed sanctions on chip manufacturing and intellectual property[14]

Electronics

Gold used in the electronics sector fell 18% y-o-y to 58t during Q4. This is the largest quarterly y-o-y fall in the sector since 2009 – a direct consequence of the unprecedented combination of challenges the industry is currently facing. Smartphone shipments provide a relevant snapshot; recent reports suggest y-o-y falls of 17% in Q4 and an 11% decline in annual shipments for 2022.[15]

Demand for gold slumped in the Light Emitting Diode (LED) sector. Backlight applications were hit particularly hard, not only by waning consumer demand but also by manufacturers slashing orders to reduce already extensive inventories, left bloated by sluggish smartphone sales. PC shipments fell by 28% during the quarter, the sharpest decline recorded in three decades.[16] This combination of factors reportedly drove capacity utilisation rates down below 70%, the lowest in a decade. Demand for high-end LEDs (e.g. UV-LEDs and IR-LEDs used in healthcare applications like skin sensors and heart-rate-tracking in watches and smartphones) also fell on the back of US import restrictions and a slowing real estate sector, which is dampening demand for high-end household electronics. The only relatively positive area of LED gold demand was in the automotive sector, but it has been reported that mini-LEDs (which do not require gold bonding wire) are becoming more widely qualified by the industry and are likely to become increasingly common in new vehicles.

13 www.bbc.co.uk/news/world-asia-china-63944861

14 www.bbc.co.uk/news/world-asia-pacific-64143602

15 canalys.com/newsroom/global-smartphone-market-Q4-2022

16 www.gartner.com/en/newsroom/press-releases/2023-01-11-gartner-says-worldwide-pc-shipments-declined-28-percent-in-fourth-quarter-of-2022-and-16-percent-for-the-year

Gold demand in the wireless sector also experienced a major decline during Q4. Weak smartphone demand and US sanctions against Huawei left device manufacturers with large inventories of power amplifiers, forcing them to adjust their orders down accordingly. This in turn reportedly led to falling utilisation rates at major chip manufacturers such as WIN Semi and TSMC. Other application areas, including uses in low Earth orbit satellites (LEOS)[17] and light detection and ranging (LIDAR),[18] were not as heavily impacted. But as these make up only a small proportion of wireless demand, this relative strength did not offset falls in the consumer electronics segment. However, power amplifier inventory adjustments are forecast to be completed towards the middle of 2023 and the longer term need for high-end wireless chips in various applications will almost certainly spur a recovery in demand.

Gold demand in the memory sector fell further during Q4. The weak PC and smartphone shipments described above weighed on the memory sector and led many device manufacturers to focus on inventory reduction. The ongoing declines in crypto mining – accelerated by the crisis that hit the crypto market during Q4 – also continue to pressure high-end graphics card demand. Major memory chip manufacturers, such as Micron and SK Hynix, reduced output and also delayed the introduction of new technology. And it has even been rumoured that some memory chip manufacturers, such as YMTC, may have to exit the market altogether as a consequence of US sanctions.[19]

Finally, gold used in Printed Circuit Boards (PCBs) saw heavy declines in China, but small increases elsewhere. China dominates global PCB capacity (at ~45%), so the challenges the country is currently facing inevitably impact the entire market, especially while demand for consumer electronics is depressed. However, capacity utilisation rates remain high and overall supply and demand remains balanced. Additionally, emerging applications in the automotive, aerospace and high-speed computing sectors are likely to support demand and stimulate a recovery during the second half of 2023.

In summary, a period of challenge lies ahead for the electronics industry. In November, the World Semiconductor Trades Statistics group amended its forecasts, anticipating that growth in the global semiconductor industry would slow dramatically in 2022 before declining 4.1% during 2023 as "inflation rises and end markets [see] weaker demand, especially those exposed to consumer spending".[20] Analysts also reduced shipment forecasts for many manufacturers, including Apple, on the back of weak consumer sentiment and supply chain issues.[21]

At the aggregate level, three of the four major electronics fabrication hubs around the world recorded significant decreases in gold demand during Q4; Mainland China and Hong Kong SAR, South Korea and Japan recorded figures of 12t (-39%), 6t (-22%) and 17t (-19%) respectively. Demand in the US bucked this trend, recording 4% growth to 16t, benefiting from an expansion in domestic production capacity and the supply chain being free of pandemic disruption throughout 2022.

Other Industrial and dentistry

Other industrial applications fell by 5% y-o-y to 12t in Q4, almost exclusively as a consequence of the ongoing disruption in China. The small increases reported in Italy recently came to a halt as brands became increasingly cautious. Full-year demand remained flat at 47t.

Dental demand once again fell to a new quarterly low, declining 11% y-o-y to 2t on the back of further structural decline across all major markets. Annual demand fell 9% to 10t.

17 LEO satellites operate in a revolving network relatively close to the earth's surface, and can provide internet coverage in remote locations. They require reliable high-end wireless infrastructure. www.weforum.org/agenda/2022/02/explainer-how-low-earth-orbit-satellite-technology-can-connect-the-unconnected/

18 LIDAR sensors uses lasers to bounce off objects and return to their source, measuring distance by timing the travel, or flight, of the light pulse. They are becoming increasingly common in high-end smartphone applications and will be critical to the development of autonomous vehicles.

19 www.theregister.com/2022/12/18/us_blacklist_spells_trouble/

20 www.wsts.org/76/103/WSTS-Semiconductor-Market-Forecast-Fall-2022

21 www.cnbc.com/2022/12/07/iphone-shipments-for-q1-cut-by-another-3-million-units-morgan-stanley.html

Supply

Total supply increased 2% y-o-y in 2021 as mine supply and recycling both posted modest growth.

- Annual mine production increased 1% y-o-y although remains below the record high seen in 2018
- 2022 saw the global hedgebook almost unchanged over the year ending at 167t
- Full year recycled gold supply increased by 1% but remains 30% below the all-time high seen in 2012, despite a record annual average gold price in 2022.

Tonnes	2021	2022	Y-o-y change	
Total supply	4,682.4	4,754.5	↑	2%
Mine production	3,568.9	3,611.9	↑	1%
Net producer hedging	-22.7	-1.5	–	–
Recycled gold	1,136.2	1,144.1	↑	1%

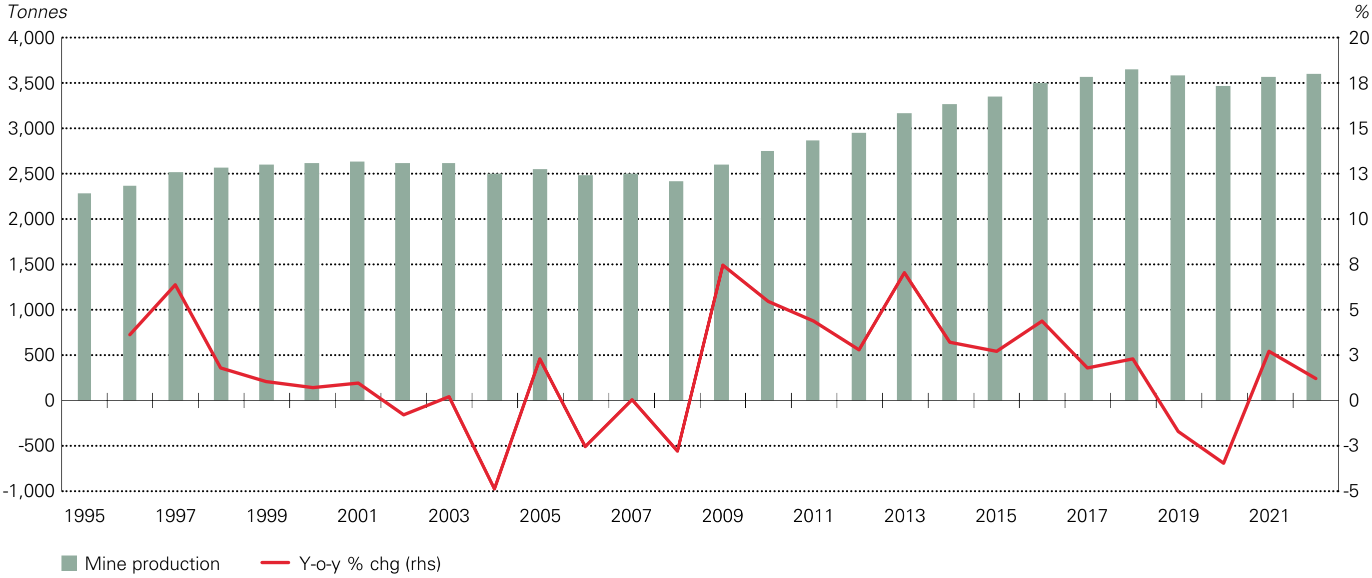
Source: Metals Focus, World Gold Council

Total supply increased by 2% y-o-y in 2022, halting two years of successive declines. Full year mine production of 3,612t was the highest since 2018 as the mining industry remained largely free of COVID interruptions and output in China posted a full year without safety stoppages in Shandong province. Regional gains and losses in recycling – due to base effects and local currency gold price moves – largely netted out over the year: 2022 recycled gold supply was essentially flat, up less than 1% at 1,144t. The global hedgebook was also almost unchanged over the year, although it is possible that some end-of-year hedging occurred in Q4, which will only be picked up as quarterly results are released in February.

Mine production

Mine production in Q4 2022 fell 1% y-o-y to 930t, the only quarter of 2022 that experienced a y-o-y drop. Annual production totalled 3,612t, up 1% y-o-y. Now that the COVID-19 production disruptions and widespread China safety stoppages of 2021 have reversed, this lack of production growth gives further credence to claims that gold production is close to plateauing.

Mine production grew 1% in 2022 but remained below peak*



*Data to 31 December 2022.

Sources: Metals Focus, Refinitiv GFMS, World Gold Council

China production recovery offsets declines in Russia, US and South Africa. Mine production in China increased by 42t (13%) to 374t as mining in Shandong province returned to normal following widespread safety stoppages for most of 2021. This recovery offset production declines in South Africa, down 11t (10%) to 103t, due to strike action and national electrical supply issues; the US, where lower grades and operational issues saw mine production 11t (6%) lower at 175t; and in Russia, where production fell 27t (8%) to 304t mostly due to issues related to the country's invasion of Ukraine.

Regionally, Asian production saw the largest increase in 2022, up 11t y-o-y, driven by the recovery in China's output, while mine production fell 10t y-o-y in the CIS and by 9t y-o-y in Central and South America.

Grades and operational issues dominated in Q4. China reported a 9% increase in mine production in Q4 2022 although this will be the last time that recovery from safety stoppages will drive y-o-y improvements. We expect Chinese production to resume its trend of gentle decline over the next few years as tightening environmental enforcement closes some smaller operations. Mauritania saw Q4 output more than quadruple y-o-y after a fire halted production at the Tasiast mine in the second half of 2021. In Ghana, Q4 mine output increased by 12% y-o-y as the Obuasi mine ramped up and production restarted at Bibiani, while Mali saw an 11% y-o-y increase due to higher grades at the Fekola mine.

Fourth quarter mine production declines were reported from a number of countries. In Mexico, production fell 10% y-o-y due to lower grades at several mines, including Peñasquito and Los Filos. Lower grades at Sanbrado and Essakane in Burkina Faso, along with security-related stoppages at Taparko saw Q4 2022 mine production fall 11% y-o-y. Colombia reported a 27% y-o-y decline in the fourth quarter but this appears related to a surge in artisanal and small-scale output in Q4 2021, which was not repeated this year. In Russia, mine production fell 10% y-o-y in Q4 2022. Lower grades at Olimpiada and Blagodatnoye contributed to this decline but sanctions also played a role in lower mine production. Operators, particularly smaller companies, are reportedly struggling to source reagents, spare parts and other consumables, all of which is affecting production.[22] We have also heard reports that new mine construction is being slowed by import restrictions, although we note that information flow from Russia is being hindered by the war in Ukraine.

Seven new mine start-ups, with a combined annual production capacity of about 15t per annum, have recently begun production. Although this will be supplemented by output from private and smaller mines it is almost inconsequential compared to current mine output. But more operations are likely to be commissioned and expanded in 2023, and this should be sufficient to more than offset the combined impact of an expected small decline in Chinese output and the effect of sanctions on Russia. More detail on the gold mine production outlook can be found in the Outlook section.

Gold mining costs continued to increase in Q3 2022, the latest available data. The average All-In Sustaining Cost (AISC) hit US$1,289/oz in the third quarter, another record high and up 14% y-o-y. General inflation increased mining costs in all areas with fuel, energy, labour and consumables all up y-o-y, although this was slightly offset by higher average recovered grades, which increased by 2% y-o-y. Gold producer margins remained under pressure in Q4 2022 although a late-in-the-quarter rally in the gold price returned the 90th percentile AISC producer margins to positive levels, we estimate.

Net producer hedging

The global delta-adjusted producer hedge book was virtually unchanged (-2t) in 2022. We currently estimate that further, modest de-hedging of 5t took place during the fourth quarter, resulting in H2 net de-hedging almost balancing the net hedging seen in H1. Although it's possible that higher local currency gold prices prompted some late-in-the-year hedging, we will only be able to confirm after the release of companies' Q4 2022 results.

To put this into context, the global hedgebook is about 162t based on estimates of Q4 2022 activity, a far cry from its peak of more than 3,000t around the turn of the millennium. The gold mining industry's attitude to hedging has fundamentally changed since then, with the majority of new hedging positions made either opportunistically in the short-term, and small in size, or from companies with project or debt finance requirements.

22 Reagents are key chemicals used in mineral processing.

Recycled gold

A year of two halves. Recycling trends in 2022 painted a mixed picture. Following a jump in the gold price in the first half of the year recycling volumes increased by 6% y-o-y, but as gold declined in H2 2022 recycling volumes slipped 4% y-o-y. For the year as a whole, recycling volumes of 1,144t were 1% higher y-o-y.

Compared to the previous quarter, Q4 recycling supply increased 8% to 292t despite an essentially flat average gold price – US$1,725.85/oz compared to US$1,728.91/oz in Q3 2022. The main reason for the q-o-q rise was an increase in Indian recycling activities.

It is notable that full year recycled gold supply was 30% lower than the record high set in 2009, despite 2022's record average gold price. We believe there are two major reasons for lower recycling supply last year. First, there were very few references to distress-selling of old jewellery, a sharp contrast to the situation during the Global Financial Crisis and Eurozone Crisis. Extensive fiscal support for consumers and businesses during the pandemic has protected employment while energy subsidies in Europe following the Russian invasion of Ukraine have helped insulate the public from surging energy prices. Second, we believe that the build-up of old/broken/unwanted jewellery by consumers has been limited, as it is only a decade since gold prices reached their last all-time high.

Declines in recycling supply from the Middle East were notable in Q4 2022. Without the fall from this region, down more than 30% y-o-y and nearly 8% q-o-q, global recycling supply would have increased much more. Two factors drove weaker Middle Eastern recycling supply: first, political and economic concerns in Iran, Turkey and Egypt, where a mixture of high inflation, currency weakness (actual or anticipated) and political unrest combined to increase the attraction of hanging onto gold. Second, higher hydrocarbon prices saw fortunes improved across much of the region, with Iraq a named standout. One theme common to countries in the region – many of which have currencies pegged to the US dollar – is that recycling supply increased after the US dollar gold price started to recover at the beginning of November.

Recycling increased 1% in 2022 but is 30% below all-time highs*

*Data to 31 December 2022.

Sources: Metals Focus, Refinitiv GFMS, World Gold Council

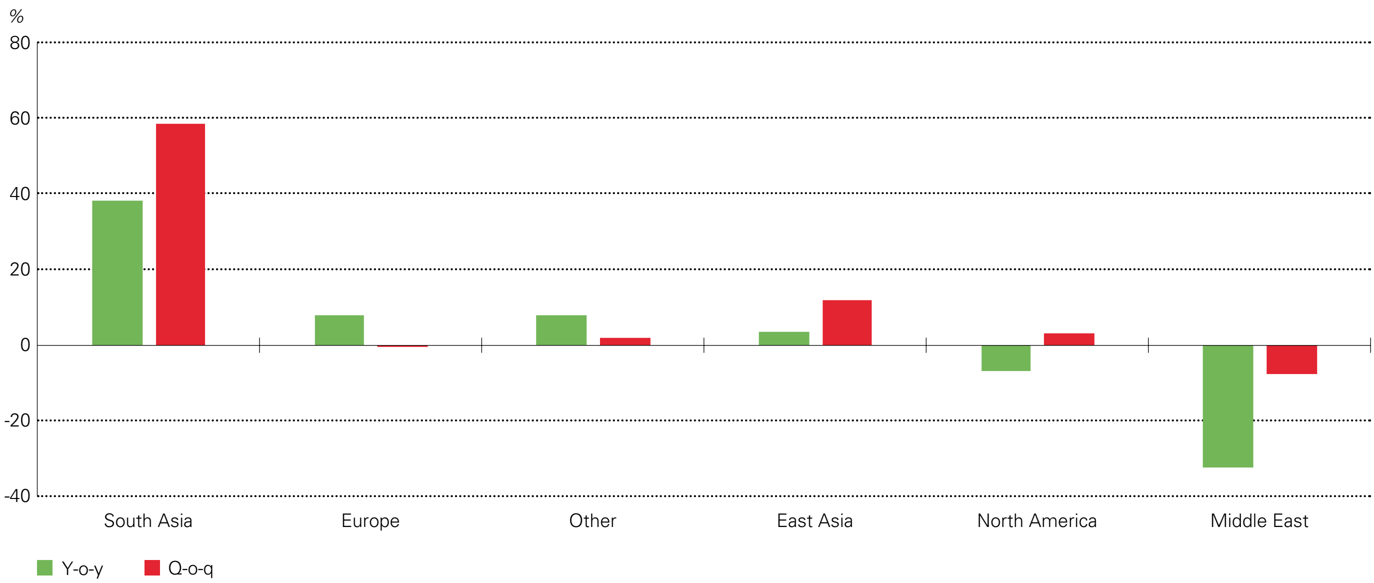
India was another stand-out recycling market during the quarter, with sharp increases in recycling supply. The South Asian region – where India is by far the biggest market – saw recycling supply up nearly 40% y-o-y and about 60% q-o-q. This surge in volume is explained mainly by the increase in the average rupee-denominated gold price, which was up 3% q-o-q and ended December near the highs of the year and 10% above the Q4 low. This had two effects: first, it suppressed jewellery demand at a normally soft period of the year and second, it substantially reduced the amount of old jewellery that was exchanged for new, thus increasing the amount of outright sales of old jewellery.

In other markets, recycling supply from Europe increased, largely driven by a higher euro-denominated gold price, up 8% y-o-y in Q4 2022, while North American volumes were lower y-o-y as no local currency boost was seen in the US. Finally, China saw stronger recycling volumes in Q4 2022, partly due to higher yuan-denominated gold prices but with some evidence of gold being sold to raise cash due to the economic slowdown in the country.

We do not believe 2022 recycling volumes were materially affected by lock-downs, with the possible exception of some parts of China. Now that this country is reopening quickly it will be interesting to track recycling volumes in this important gold consuming market.

Barring a sharp rise in the gold price in 2023 we believe recycling supply could decline modestly over the year. For more details, please see the Outlook section.

Recycling demand in Q4 and 2022 saw regional variations*



*Data to 31 December 2022.

Source: 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

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

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:
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