

PRECIOUS APPRAISAL



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PRECIOUS METALS REVIEW

Gold



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,962	5.73%	1,965	17/03/2023	1,876	13/03/2023
€/oz	1,839	5.63%	1,848	17/03/2023	1,749	13/03/2023

Flight to safe-haven assets shores up the gold price. The gold price finished 6.2% up from recent lows, and silver has also rallied. Gold ETF holdings reversed 10 weeks of outflows last week. Net inflows into US-based funds were 18 t (worth \$1.1bn based on Friday’s close). In addition to gold, money has been flowing into US Treasuries at the fastest rate since the 1987 flash crash. Last week recorded a 1-day drop in 2-year bond yields larger than after 9/11 and following the implosion of Lehman Brothers in 2008. This signals that investors are perceiving a high level of uncertainty and downside risk in equities and industrial commodities. The market is pricing in a much-reduced pathway for upcoming interest rate rises. This will likely be the case, as a 25 bp hike at this week’s Fed meeting is now seen as the most probable outcome. The ECB has stuck to its guns and hiked interest rates by 50 bp, taking the Eurozone deposit rate to 3%, the highest level since late 2008. The bloc’s hawkish move ignored recent financial market turmoil and the deterioration of Credit Suisse’s status among market participants as it viewed bringing Euro Area inflation down from February’s 8.5% as essential.

Safe-haven flows may be a knee-jerk reaction to the failure of Silicon Valley Bank (SVB). The failure was not a result of unprincipled lending practices and speculation (as in 2008), rather, in the case of SVB, a mismanagement of the shifting interest rate landscape following the pandemic. Therefore, it is unlikely that the isolated collapses witnessed

will spread into a wider meltdown of the financial system under current conditions. However, if there is a wider decline in markets and an increase in economic stress, there could be further safe-haven gold demand which is likely to be positive for the gold price.

Shanghai’s gold price premium extended throughout February and March, indicating resilient demand for gold in China as the economy continues its post-Covid recovery. The gold price in Chinese yuan declined less than in dollar terms during February owing to overall weakening of the yuan versus the dollar, so there was hardly any demand boost from lower prices in China. Withdrawals on the Shanghai Gold Exchange (SGE) were also strong in February, recording higher month-on-month and year-on-year metal withdrawals. Year-to-date withdrawals of gold from the SGE are 10% higher year-on-year. It is likely that first-quarter gold demand in China will return nearer to the 10-year average of 267 tonnes, given the relative strength in measures of activity following the New Year celebrations and lack of Covid control measures. Demand in Q1’22 was 12% lower than the long-term average.

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Silver



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	22.19	8.68%	22.38	15/03/2023	20.71	13/03/2023
€/oz	20.80	8.56%	21.20	15/03/2023	19.32	13/03/2023

Silver also benefits as a safe haven. The silver price also reacted positively to the outbreak of turbulence in the US financial system just over a week ago. Since rumblings of instability in Silicon Valley Bank began on 10 March, the silver price has rallied 10% as significant flows into safe-haven assets took off. Gold and US Treasuries also saw inflows – pushing up the gold price and causing a sharp correction in the 2-year US Treasury yield. US inflation figures were also released last week. February’s headline inflation reading was lower year-on-year for the eighth month in a row. Services inflation did increase month-on-month and year-on-year and is the largest component of price rises. This sector could be a concern for the Fed going forward, as it tries to manage financial conditions while still bringing down inflation.

January was likely the peak of disruption to Peru’s silver supply. Peru recorded >1.6 moz of lost silver production in January owing to social unrest and protests in the country. Silver mine output was 20% lower year-on-year in January and the decrease is equivalent to 1.7% of 2022 annual production. The most impacted mine was Antamina, a joint venture that is majority owned by Glencore and BHP and the country’s largest single silver producer, which saw a 31% decline in output. The protests, which began in December 2022 over the ousting of the former president, appear to be easing, and therefore disruption to silver output is expected to lessen in Q2’23. Silver production in Peru fell by 8% to just under 100 moz in 2022, and is likely to be similar this year if disruption remains minimal for the rest of the year.

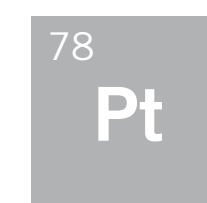
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Platinum



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	976	1.91%	1,007	13/03/2023	951	15/03/2023
€/oz	915	1.75%	941	17/03/2023	900	13/03/2023

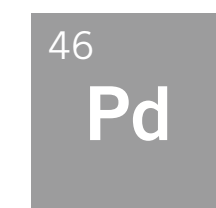
Diesel is still dominant in Europe's heavy-duty sector. In the EU, diesel trucks' market share rose in 2022 from 95.9% in 2021 to 96.6%, according to the latest data from the ACEA, due to a loss in market share of alternative fuel powered vehicles (LPG, biofuels and ethanol). Heavy truck registrations in Europe grew by 6.5% to 256,000 units last year, and platinum autocatalyst demand from heavy-duty vehicles (HDVs) also increased by 10% in Western Europe alone. Diesel catalysts are more heavily weighted towards platinum compared to the preference for palladium seen in gasoline autocatalysts. From a global perspective, platinum demand from HDVs fell by approximately 4% to a total of 700 koz. This decline was primarily due to a marked contraction in HDV production in China last year, as the country navigated several large Covid-19 outbreaks. Having been in decline since the pandemic, global HDV production is forecast to show moderate growth in the next few years. However, there is a downside risk from recessions in the US and Europe. Demand security from longer phase-out plans for internal combustion engines in heavy-duty (2040) versus light-duty (2035) vehicles in Europe should help to maintain platinum demand, particularly with relatively slow developments in battery electric and fuel cell heavy-duty mobility.

The platinum price rose initially last week as the dollar weakened on bets of lower Fed rate hikes. However, unlike gold and silver, it gave up most of its early gains by the end of the week as safe-haven demand did not extend to the white metal. Platinum finished the week below \$1,000/oz.

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Palladium



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,396	1.00%	1,537	14/03/2023	1,384	13/03/2023
€/oz	1,311	1.04%	1,433	14/03/2023	1,297	13/03/2023

The US's primary palladium supplier confronts new issues. Production has been halted at the lower levels of the Stillwater mine following damage to the shaft during maintenance. The lower levels (below level 50) are expected to be closed for four weeks while repairs take place. The company estimates this could result in a decline in output of 25 to 30 koz 2E (6-7% of 2022 annual yield). Guidance for 2023 production was announced in February to be between 500 koz and 535 koz 2E (approximately 385-410 koz palladium). It now seems likely that annual output will be at the lower end of this range, barring any further incidents. Production was halted for seven weeks in 2022 following a flooding event. Road access to the mine was cut off, which, among other obstacles, caused the mine's annual palladium output to fall by 26% year-on-year to 325 koz. Last year saw the lowest level of North American palladium supply in 12 years, and strong growth was predicted this year. The stoppage as a result of this incident comes at the cost of up to a quarter of the expected rebound in North American palladium supply this year.

Like platinum, the palladium price initially rose last week as the outlook on US monetary policy shifted, weighing on dollar strength. However, it failed to hold above \$1,500/oz, closing trading at \$1,396/oz.

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Rhodium, Ruthenium, Iridium



	RHODIUM	RUTHENIUM	IRIDIUM
Reporting Week	\$10,350/oz	\$525/oz	\$5,150/oz
Previous week	\$10,950/oz	\$525/oz	\$5,150/oz

Fuel cell mine truck fleets move one step closer to reality. The first large fuel cell-powered mine dump truck was deployed last year at Anglo American Platinum’s (AAP) Mogalakwena mine in South Africa as a proof of concept. The 220-tonne truck body was retrofitted with a fuel cell-battery hybrid powertrain and is one of the ways AAP aims to reduce its emissions while mining PGMs. Ballard, the manufacturer of the fuel cells used in the trucks, has confirmed orders for 30 additional systems to power large mine haul trucks to be used in a larger testing fleet in Canada. Anglo American Group has entered into an agreement for 400 fuel cell-power systems for its global operations. There are an estimated 54,000 mine haul trucks in operation globally (source: The Parker Bay Company), many of which are likely to be suitable for fuel-cell retrofitting. By backing heavy-duty fuel cell mobility, mining companies can accelerate the uptake of fuel cell power and thus a ramp-up in demand for ruthenium in fuel cells and iridium in the production of green hydrogen. Currently, ruthenium and iridium demand in the hydrogen economy is relatively small, but with expanding requirements from sectors such as mining demand is forecast to grow significantly in the coming years.

Rhodium ignored the market turmoil last week, continuing to decline below \$11,000/oz. Iridium and ruthenium prices stayed stable, closing the week’s trading at \$5,150/oz and \$525/oz, respectively.

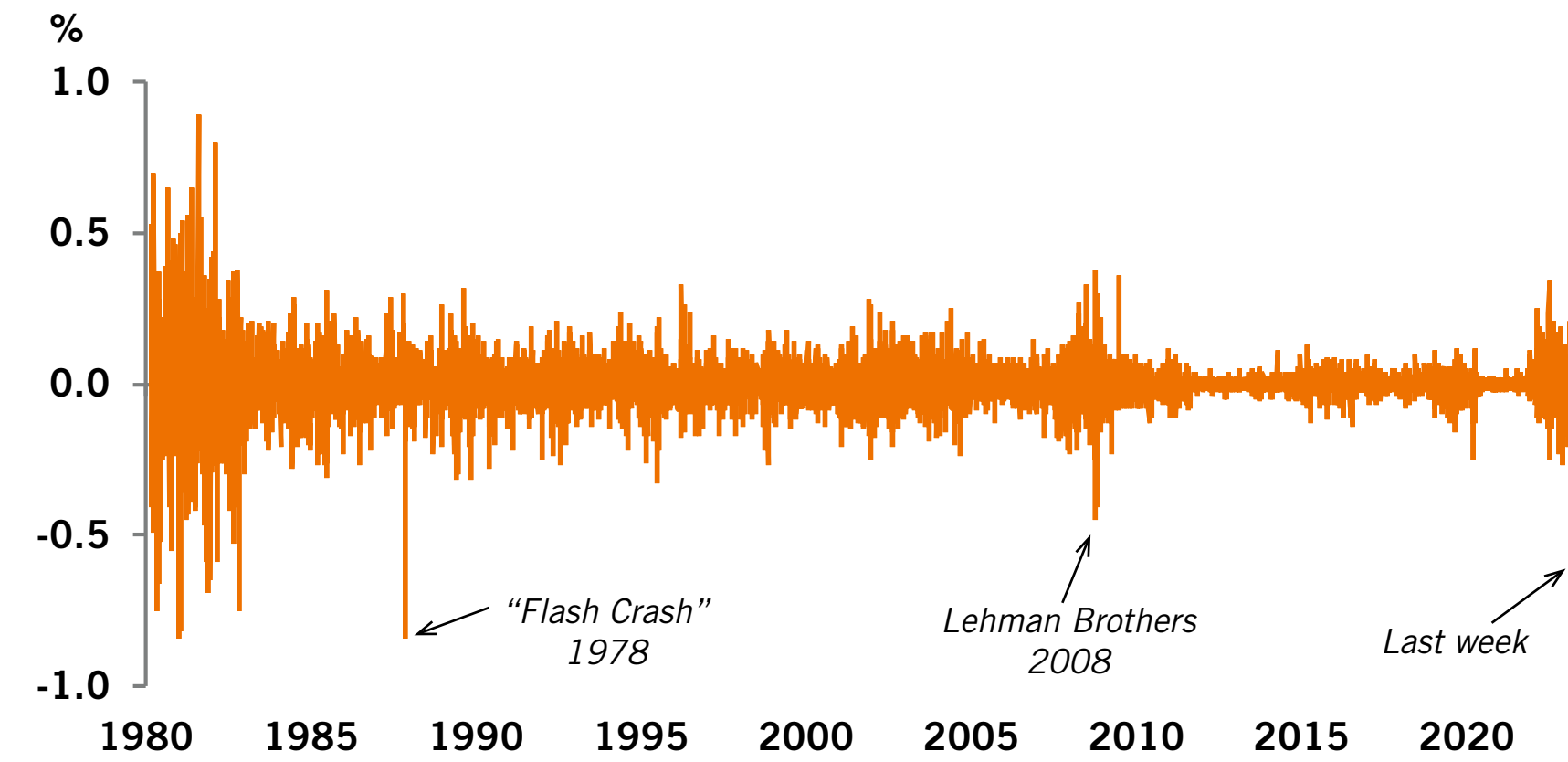
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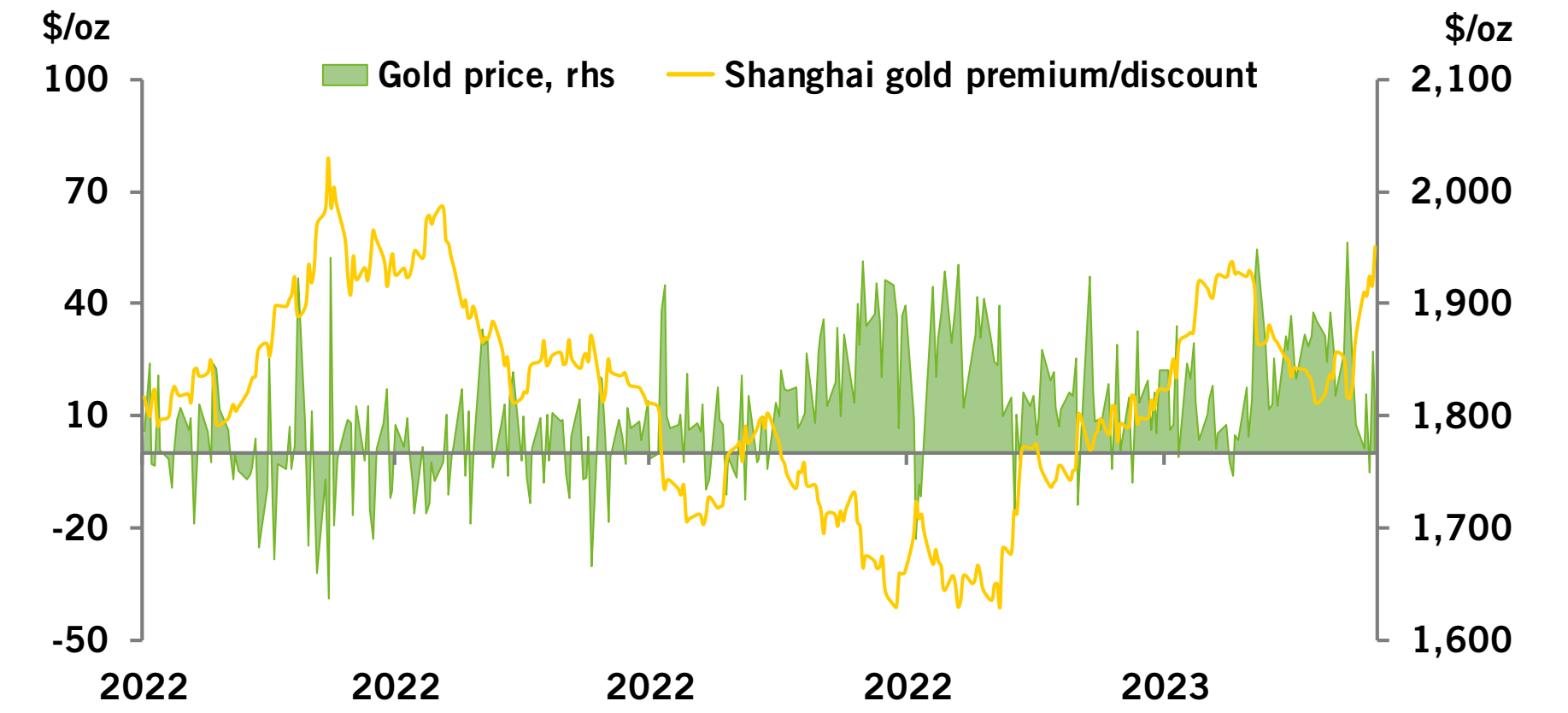
TRENDS AND INVESTMENTS

Daily change in the 2-year Treasury yield



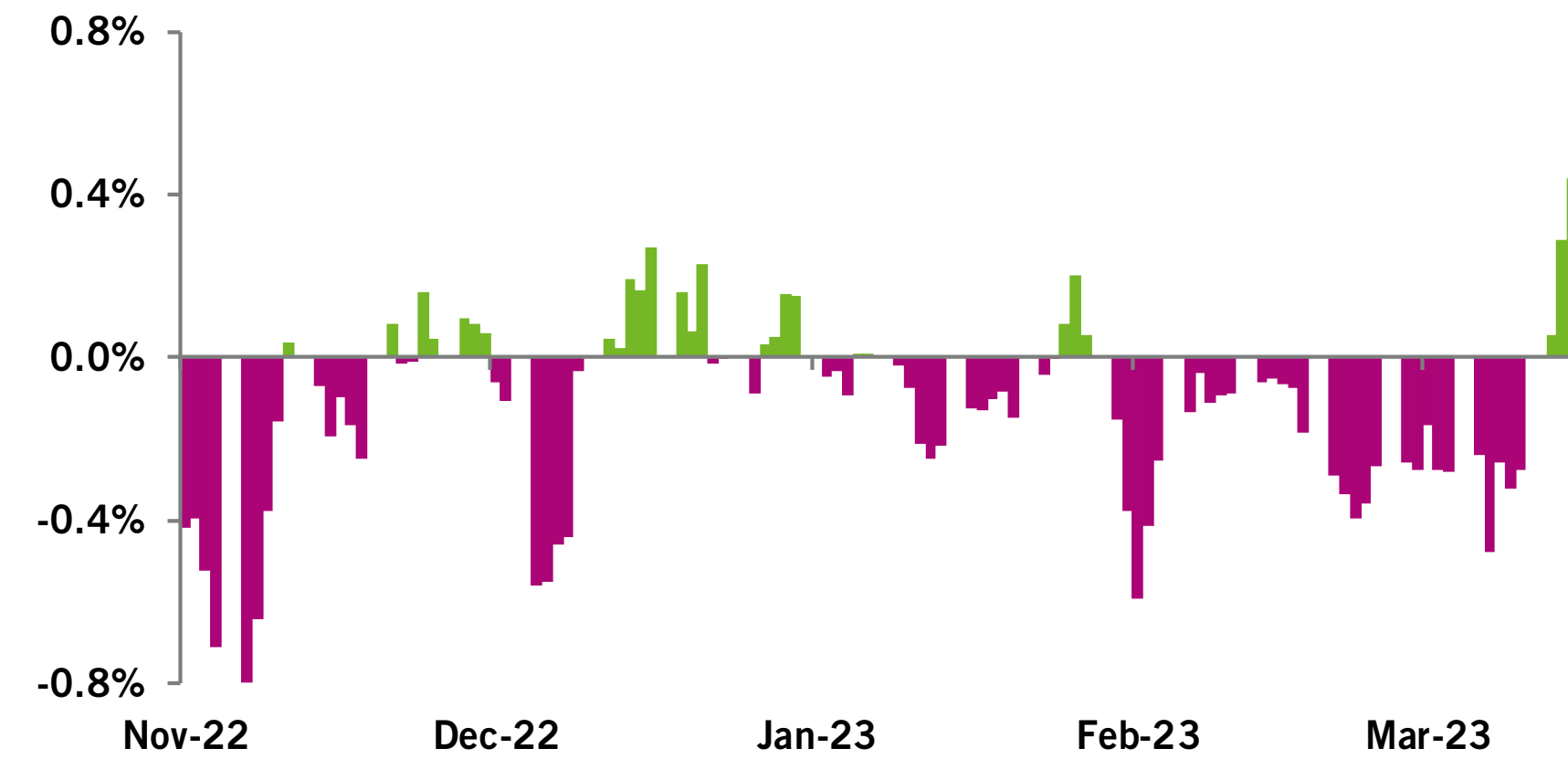
Source: SFA (Oxford), Board of Governors of the Federal Reserve System (US)

Gold price vs. Shanghai gold premium/discount



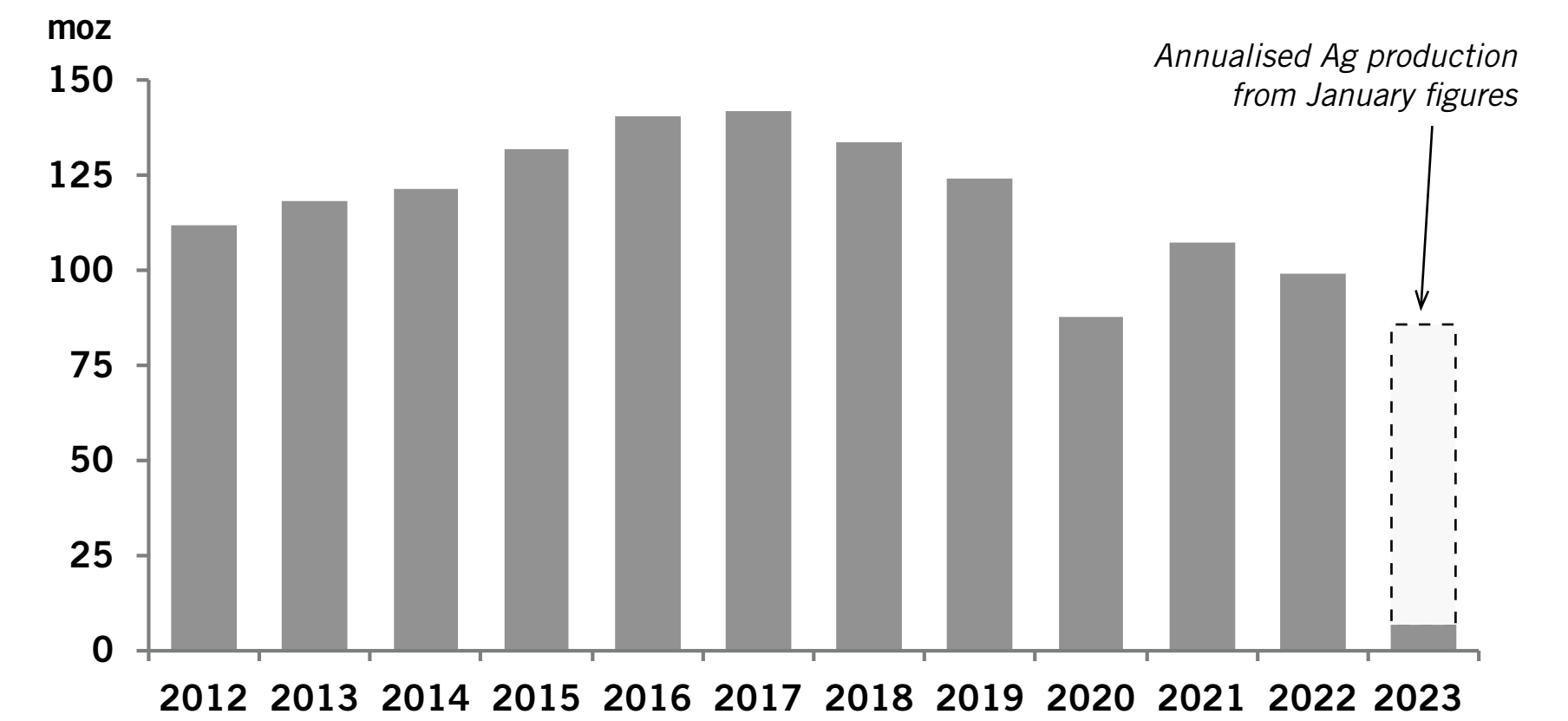
Source: SFA (Oxford), Bloomberg

Rolling 1-week gold ETF flows



Source: SFA (Oxford), Bloomberg

Peru silver production



Source: SFA (Oxford), Peru Ministry of Energy and Mines

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