



Russian Bullion Forum 2021

John Reade: Market Strategist

18 November 2021

World Gold Council

Global authority on the gold market for 30+ years

Market development organisation founded in 1987 with the unique mission of stimulating and sustaining demand for gold

World Gold Council members include leading global gold mining firms representing mining operations in over 45 countries

Recognized for delivering robust, high-quality research, analytics and consulting to investors seeking to better understand the potential impact of gold in their portfolios.



Data



Analytics



Research



Market
knowledge



Policies



Infrastructure

Gold-backed ETFs

Launched first gold-backed ETF in the US in partnership with State Street Global Advisors.

Goldhub.com

Created largest open access site for gold research, data and analytics.

Gold Valuation Framework

Developed an academically endorsed methodology to help investors understand how macroeconomic scenarios might impact gold demand, supply and long-term performance.

Responsible Gold Mining Principles

Worked with mining company members, developed a framework setting out expectations for consumers, investors and the downstream gold supply chain as to what constitutes responsible gold mining.

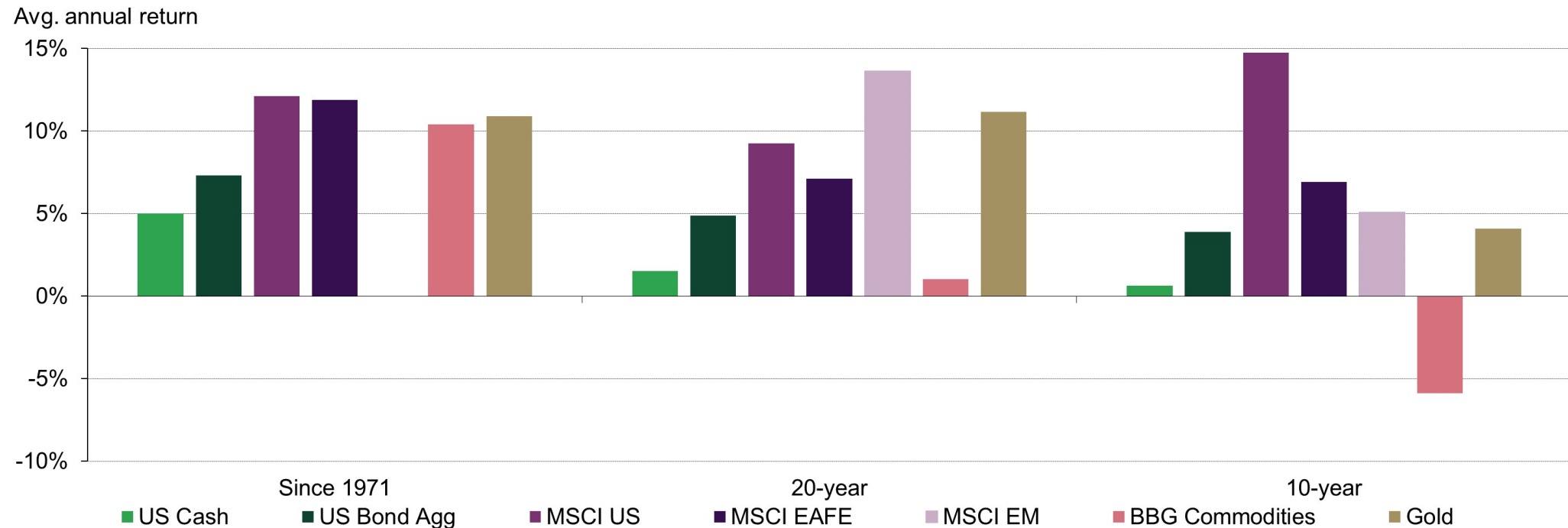
China Market Expansion

Played key role in evolution of the Shanghai Gold Exchange; currently working towards enabling insurance companies to invest in gold.

The Strategic Case for Gold

Strategic case for gold: **returns**

Average annual return of key global assets in US dollars*

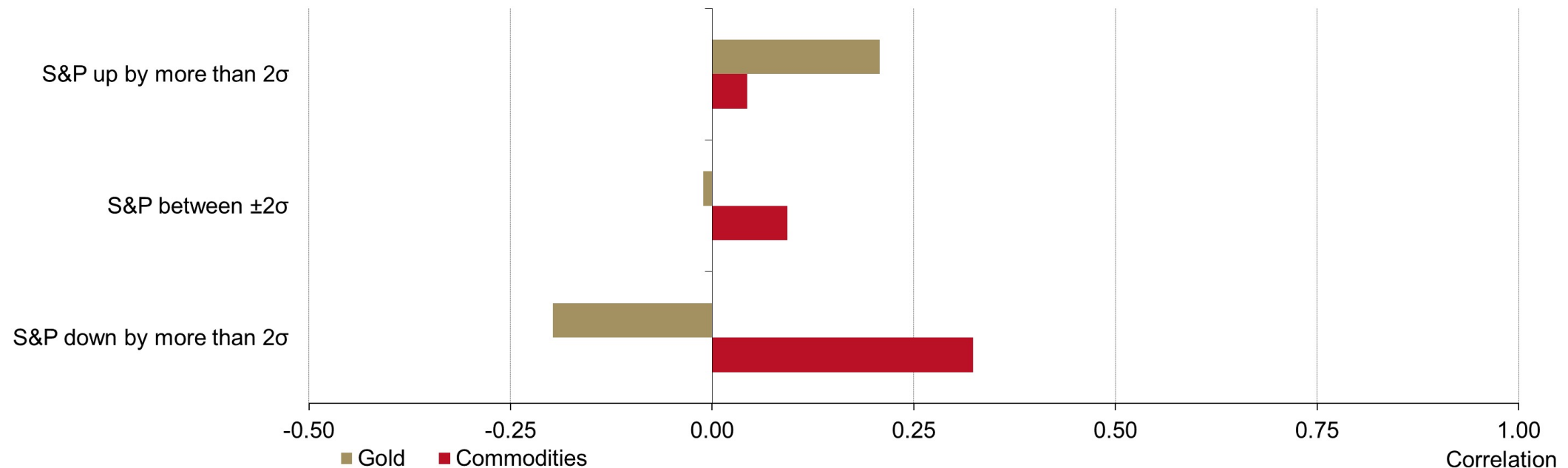


Source: Bloomberg, ICE Benchmark Administration, World Gold Council

*As of 31 December 2020. Computations in US dollars of total return indices for US Cash: ICE 3-month Treasury, US Bond Agg: Bloomberg Barclays US Bond Aggregate, MSCI US, EAFE and EM indices, BBG Commodities: Bloomberg Commodity Index and Gold: spot for LBMA Gold Price PM. Average annual return is computed by taking the average of each annual (year-on-year) percentage change over the specified period.

Strategic case for gold: diversification

Correlation between gold and US stock returns in various environments of stocks' performance (since 1971)*

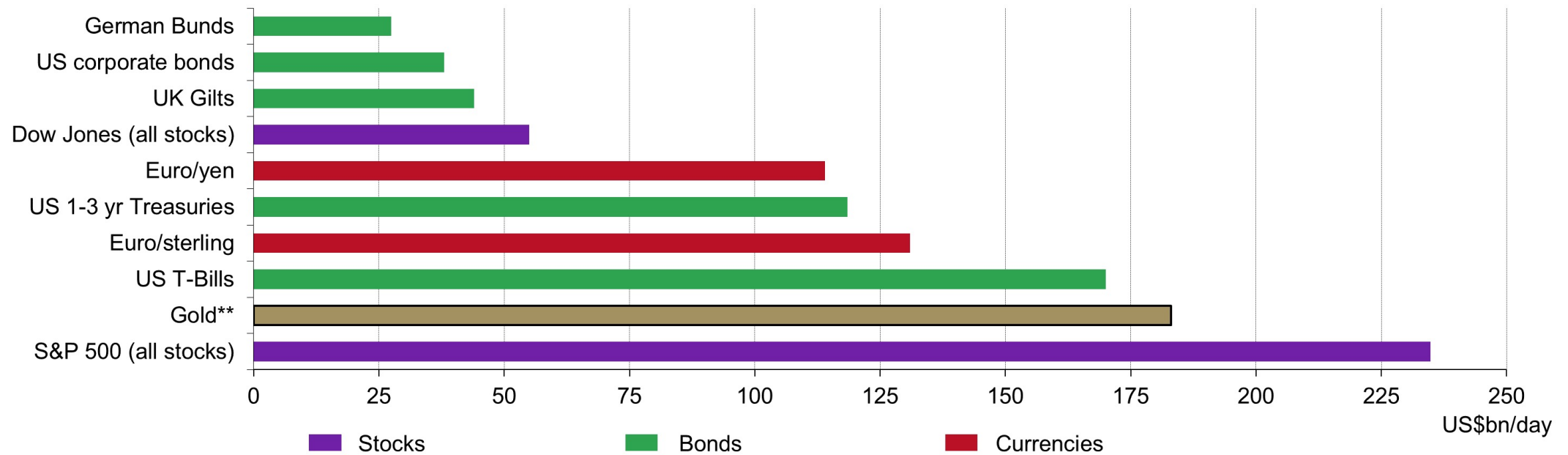


Source: Bloomberg, ICE Benchmark Administration, World Gold Council; Disclaimer

*As of 31 December 2020. Correlations computed using weekly returns based on the Bloomberg Commodity Index and the LBMA Gold Price PM since January 1971. The middle bar corresponds to the unconditional correlation over the full period. The bottom bar corresponds to the correlation conditional on S&P 500 weekly return falling by more than two standard deviations (or ' σ ') respectively, while the top bar corresponds to the S&P 500 weekly return increasing by more than two standard deviations. The standard deviation is based on the same weekly returns over the full period.

Strategic case for gold: liquidity

Average daily trading volumes in US dollars*



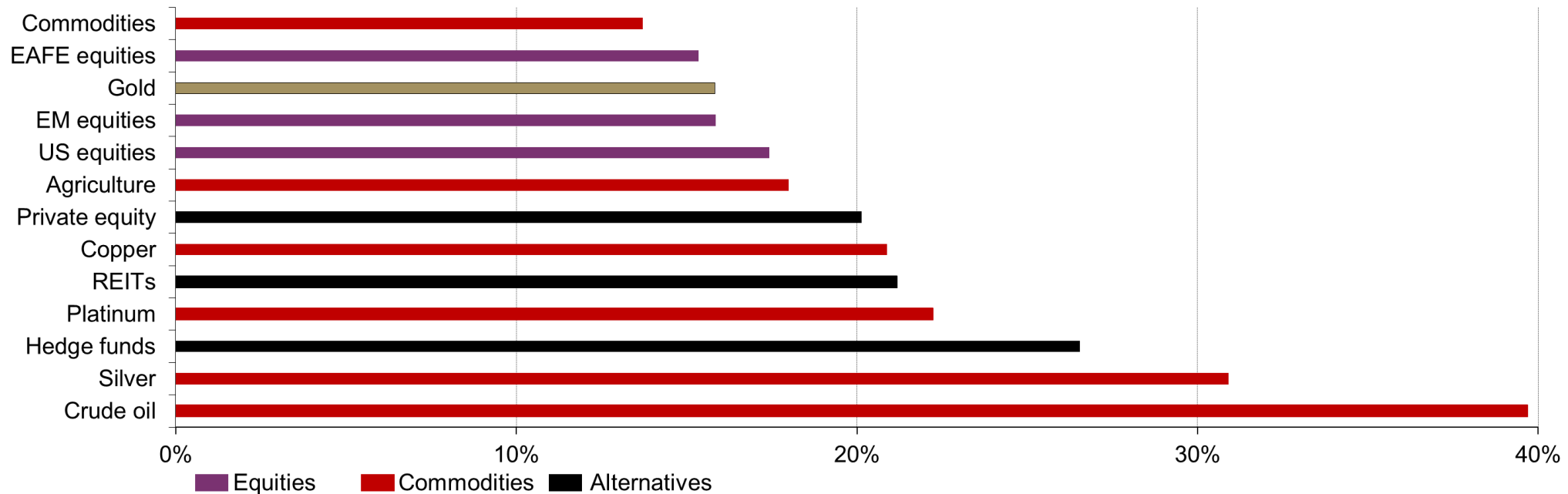
Source: Bloomberg, Bank for International Settlements, UK Debt Management Office (DMO), Germany Finance Agency, Japan Securities Dealers Association, Nasdaq, World Gold Council; Disclaimer

*Based on estimated one-year average trading volumes as of 31 December 2020, except for currencies that correspond to March 2019 volumes due to data availability.

**Gold liquidity includes estimates on over-the-counter (OTC) transactions and published statistics on futures exchanges, and gold-backed exchange-traded products. For methodology details visit the liquidity section at Goldhub.com.

Strategic case for gold: **volatility**

Average daily volatility of several major assets since 2000*



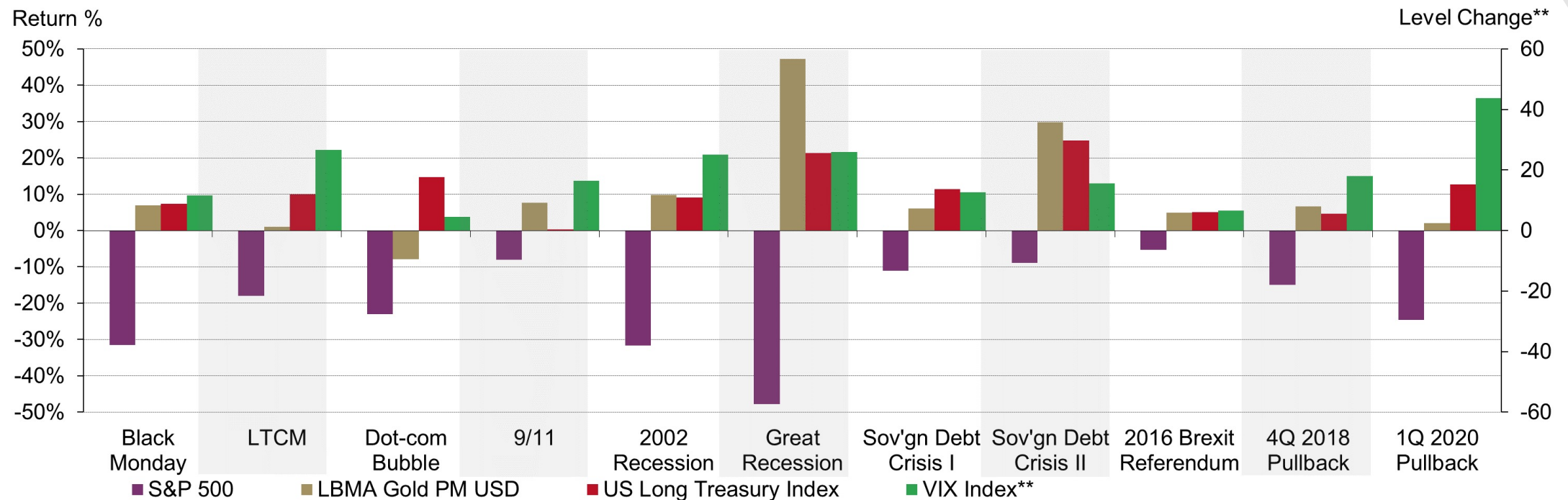
*Annualised volatility is computed based on daily returns in US dollars between 31 December 2000 and 31 December 2020. Computations in US Dollar Spot of total return indices for S&P 500 Index, MSCI Daily TR Gross EM USD, MSCI AC World Daily TR Gross USD, LBMA Gold Price PM USD, Bloomberg Commodity Index Total Return, LBMA Silver Price - Price/USD, Bloomberg WTI Crude Oil Subindex Total Return, Bloomberg Barclays Global-Aggregate Total Return Index Value Unhedged USD, S&P GSCI Copper Official Close Index TR, S&P GSCI Platinum Index TR, FTSE Bursa Malaysia KLCI Index - Kuala Lumpur Composite Index, Korea Stock Exchange KOSPI Index, Straits Times Index STI.

On Goldhub.com see: [Gold volatility](#)

Source: Bloomberg, COMEX, World Gold Council

Strategic case for gold: Risk Management

Gold Provides Downside Protection...

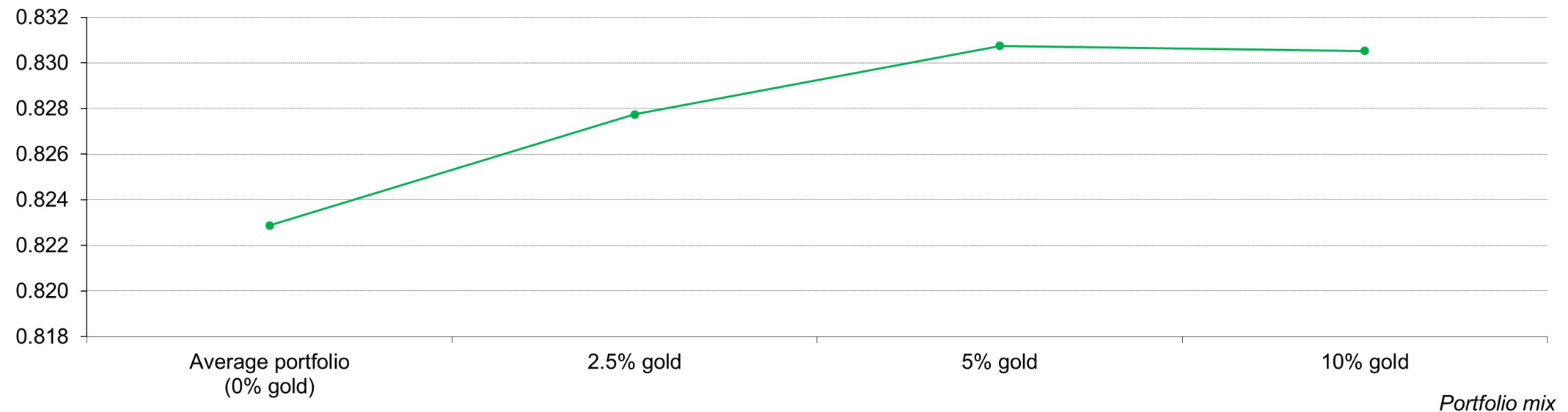


*Based on total returns indices including MSCI US, MSCI EAFE, MSCI EM, Bloomberg Barclays US Long Term Treasury Index and US Treasury TIPS Index, BarCap US Bond Aggregate, and Bloomberg Commodity. Gold performance based on the LBMA Gold Price. Data between January 1971 and December 2019.
Source: Bloomberg, ICE Benchmark Administration, World Gold Council

Strategic case for gold: portfolio impact

Performance of an hypothetical US pension fund (PF) average portfolio with or without gold*

Risk-adj. returns



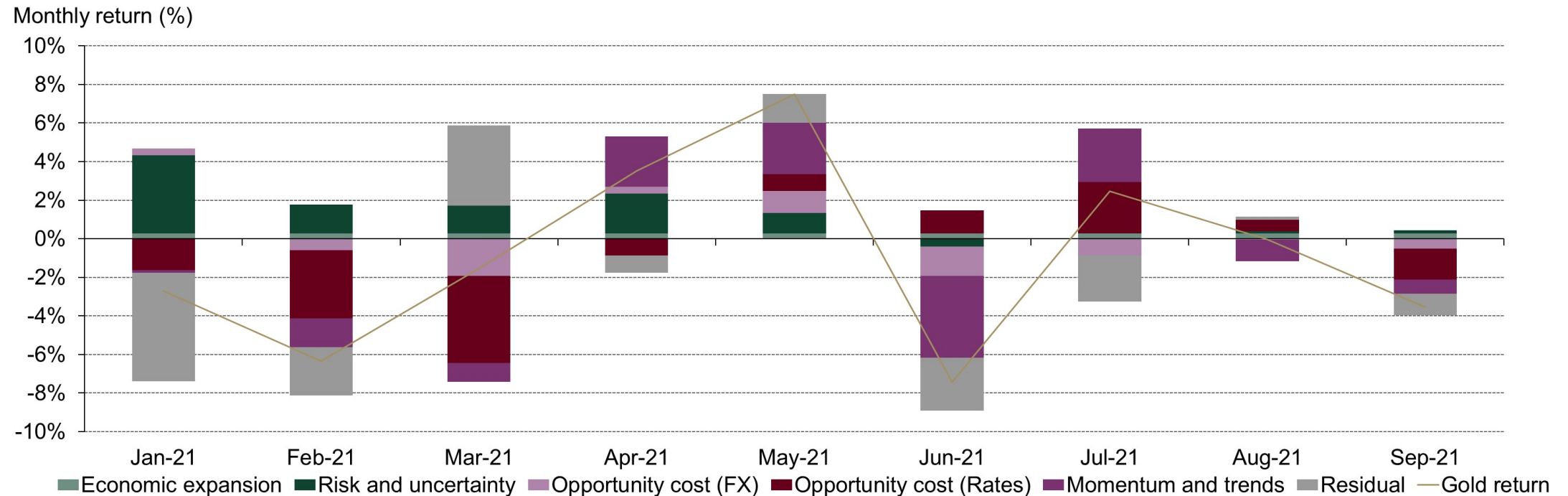
Source: Bloomberg, ICE Benchmark Administration, World Gold Council; Disclaimer

*Based on performance between 31 December 2010 and 31 December 2020. The hypothetical average US pension fund portfolio is based on Willis Tower Watson Global Pension Assets Study 2019 and Global Alternatives Survey 2017, which assumes a 0% allocation to gold. It includes annually-rebalanced total returns of a 42% allocation to stocks (27% MSCI USA Net Total Return, 15% MSCI ACWI ex US), 27% allocation to fixed income (21% Barclays US Aggregate, 3% Barclays Global Aggregate ex US, 1% JPMorgan EM Global Bond Index and 3% short-term Treasuries), and 30% alternative assets (13% FTSE REITs Index, 8% HFRI Hedge Fund Index, 8% S&P Private Equity Index and 1% Bloomberg Commodity Index). The allocation to gold comes from proportionally reducing all assets. Risk-adjusted returns are calculated as the annualised return/annualised volatility. See important disclaimers and disclosures at the end of this report.

The State of the Gold Market

Gold price performance drivers

Contributions of gold price drivers to periodic gold returns

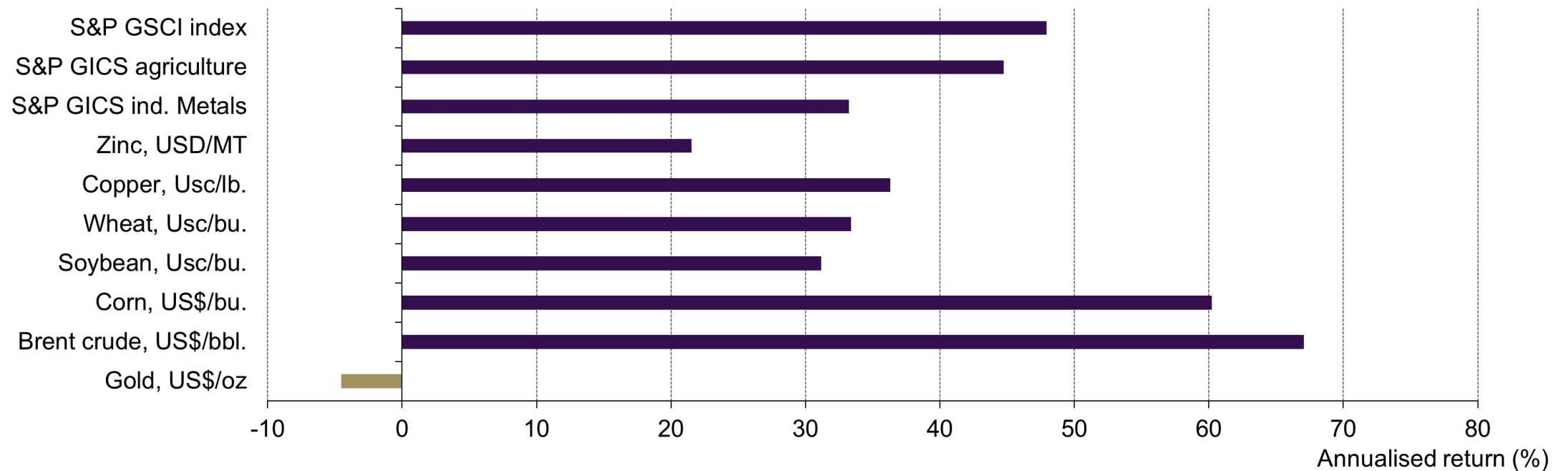


Note: To 30 September 2021. Our short-term model is a multiple regression model of weekly gold price returns, which we group into the four key thematic driver categories of gold's performance: economic expansion, market risk, opportunity cost, and momentum. These themes capture motives behind gold demand; most poignantly, investment demand, which is considered the marginal driver of gold price returns in the short run. 'Residuals' represent the percentage change in the gold price that is not explained by factors currently included in the model. Results shown here are based on analysis covering an estimation period from February 2007 to September 2021. On Goldhub, see: [Short-term gold price drivers](#).

Source: Bloomberg, World Gold Council

See [Gold Demand Trends: Q3 2021](#) for more details.

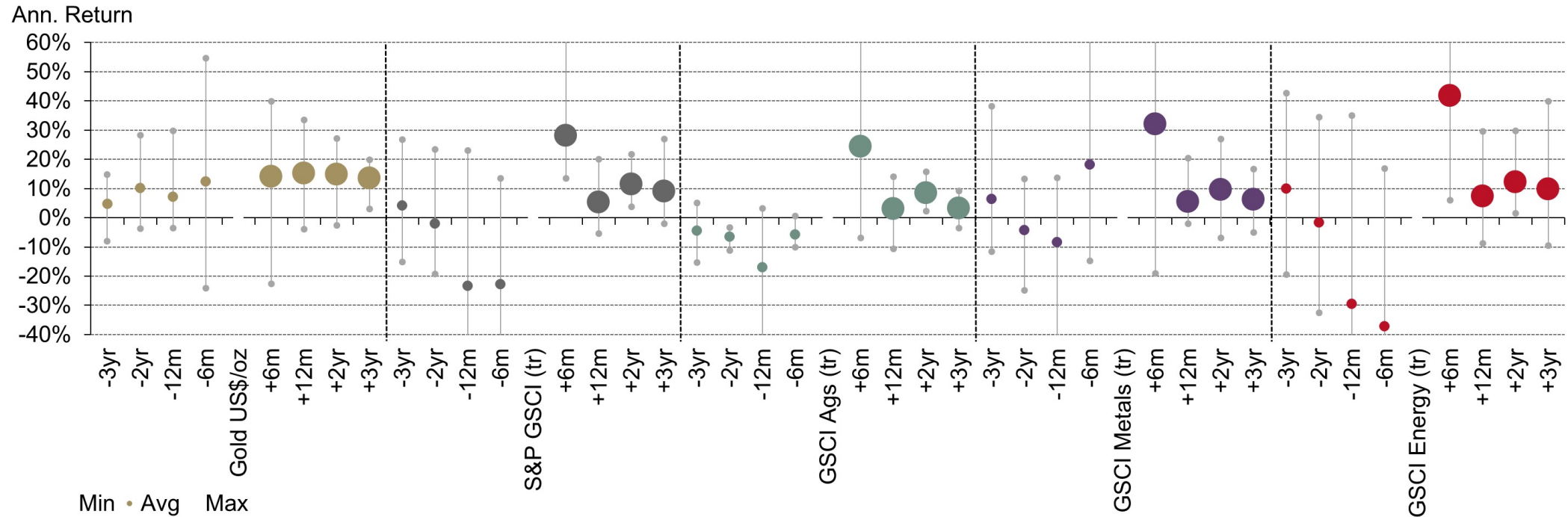
Reflation trade left gold behind?



31st August 2020 to 15 November 2021. All series are Total Return series except Gold (spot).
Source: Bloomberg, World Gold Council

Post-recession reflation performance (Since 1991)

Gold vs S&P GSCI total return series: GSCI index, GSCI ags, GSCI industrial metals and GSCI energy

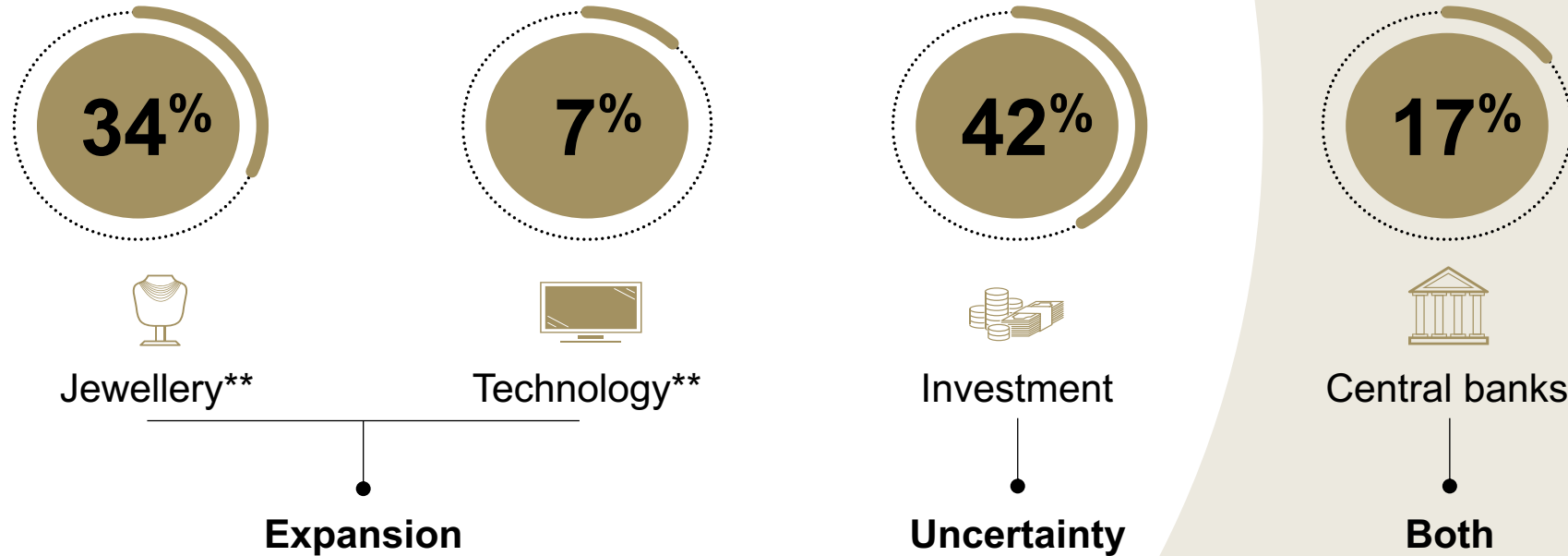


Each vertical line represents the average (circle), minimum and maximum returns over 6m, 12m, 2y and 3y following (and preceding) the end of an NBER recessions (monthly reference series) since 1991 (includes 6m from 08/2020)

Source: Bloomberg, World Gold Council

Net demand for gold

Average annual net demand \approx 3,100 tonnes* (approx. US\$177bn)



Source: Metals Focus, Refinitiv GFMS, World Gold Council

*Based on 10-year average annual net demand estimates ending in 2020. Includes: jewellery and technology net of recycling, in addition to bars & coins, ETFs and central bank demand which are historically reported on a net basis. It excludes over-the-counter demand. Figures may not add to 100% due to rounding. US dollar value computed using the 2020 annual average LBMA Gold Price PM USD.

** Net jewellery and technology demand computed assuming 90% of annual recycling comes from jewellery and 10% from technology. For more details, see: <https://www.gold.org/goldhub/research/market-primer/recycling>

Q3 gold demand down 7%, driven by ETF outflows

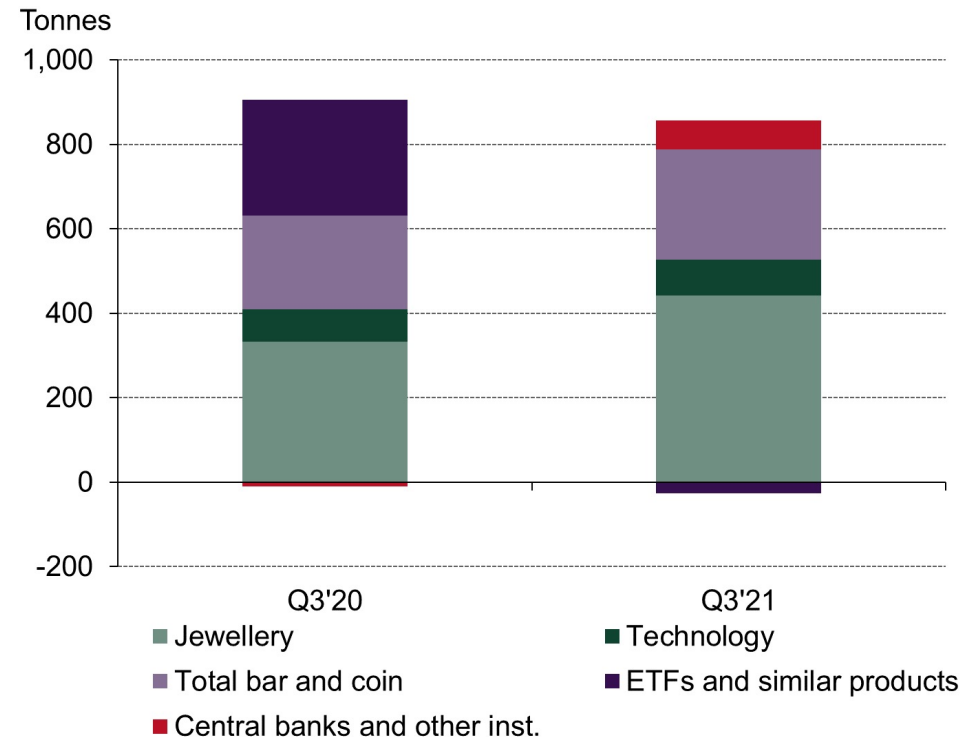
Small ETFs outflows, offset strong recovery in other sectors of demand.

- **Jewellery demand** (443t) continued to draw strength from economic recovery
- **Bar and coin** investment rose to 262t in Q3, as investors bought on the price weakness
- Swing from hefty inflows (274t) to small outflows (-27t) meant **gold ETFs** had a disproportionate impact on the y-o-y change in gold demand.
- **Central banks** buying (69t) continued at a slower pace in Q3.
- **Total supply** fell 3% y-o-y in Q3 as sharply lower recycling offset record mine production growth

See [Gold Demand Trends: Q3 2021](#) for more details.

**We refer to 'gold ETFs' as the universe of physically-backed gold exchange traded funds, exchange traded products, closed-end funds and other similar structures we track on regular basis. See [Gold ETF flows](#) for more details.*

Q3 demand by sector, tonnes

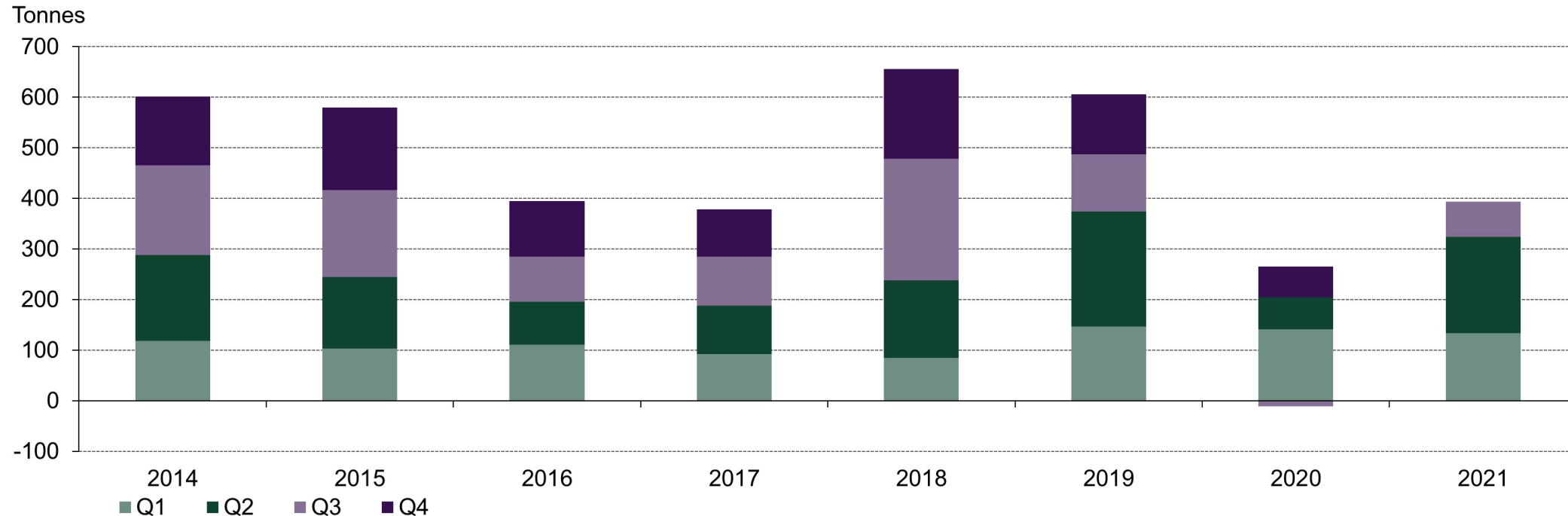


Note: Data as of 30 September 2021. For an explanation of gold market sectors, please see the Notes and definitions download: <http://www.gold.org/goldhub/research/gold-demand-trends/gold-demand-trends-q3-2021/notes-and-definitions>

Source: Metals Focus, World Gold Council

Despite modest Q3 buying, central bank demand looks on course for strong year

Central bank net purchases in tonnes



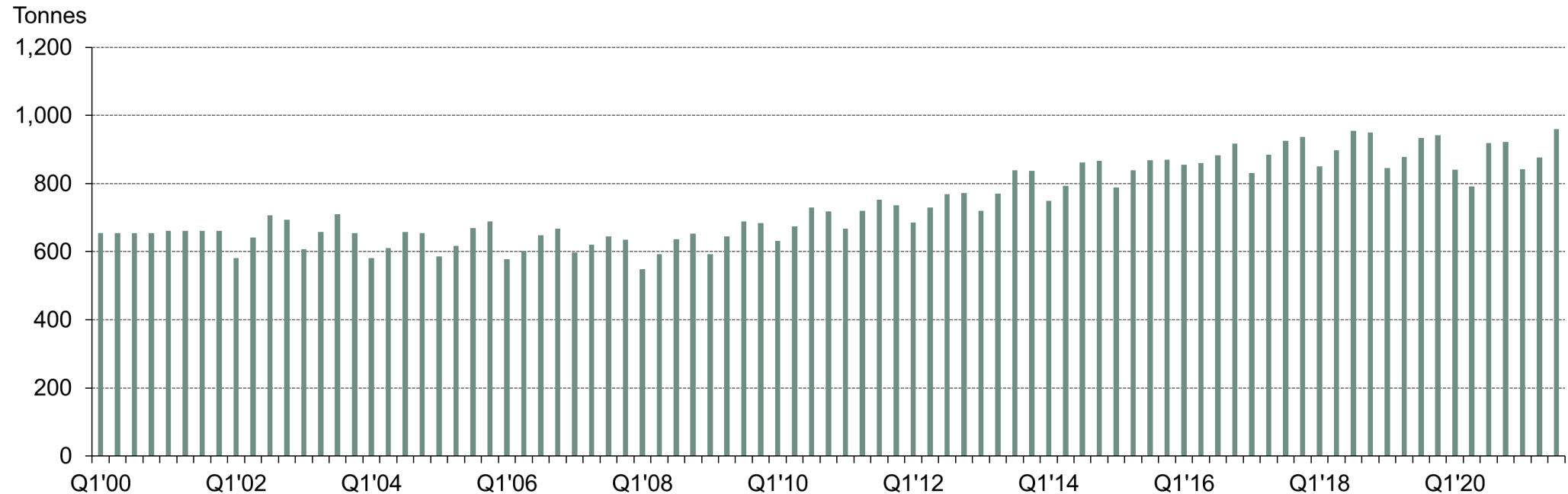
Note: Data as of 30 September 2021. For an explanation of central bank demand, please see the Notes and definitions download: <http://www.gold.org/goldhub/research/gold-demand-trends/gold-demand-trends-q3-2021/notes-and-definitions>

Source: Metals Focus, World Gold Council

See [Gold Demand Trends: Q3 2021](#) for more details.

Continued recovery generated quarterly record mine production

Quarterly global mine production, tonnes



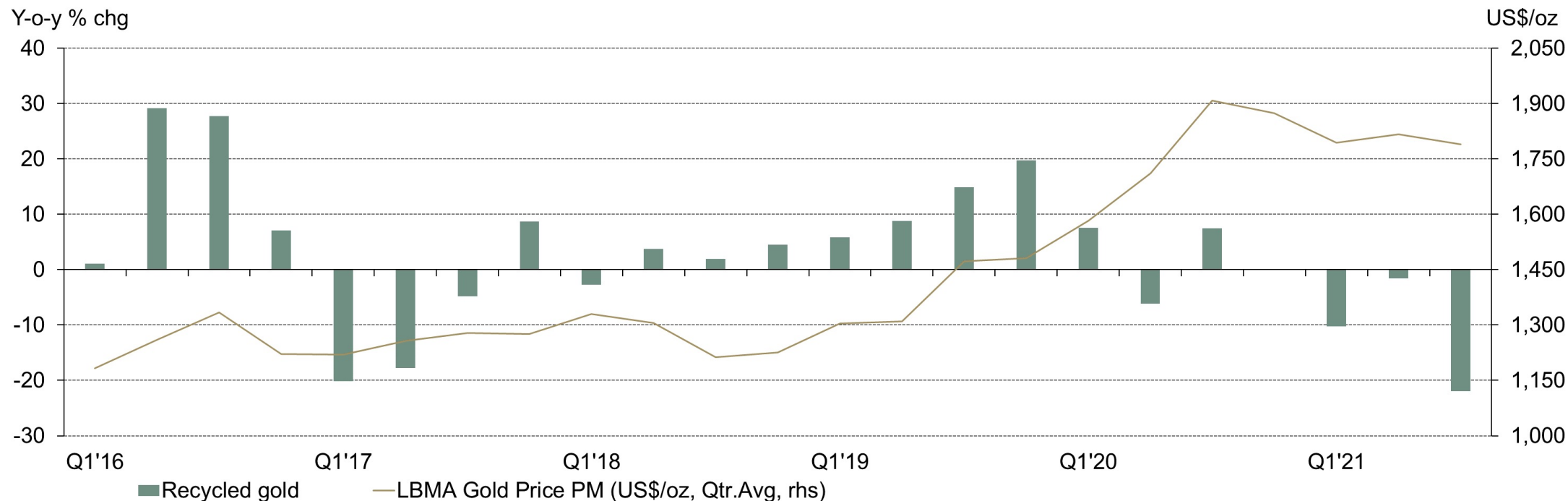
Note: Data as of 30 September 2021. For an explanation of global mine production, please see the Notes and definitions download: <http://www.gold.org/goldhub/research/gold-demand-trends/gold-demand-trends-q3-2021/notes-and-definitions>

Source: Metals Focus, Refinitiv GFMS, World Gold Council

See [Gold Demand Trends: Q3 2021](#) for more details.

Recycling supply fell sharply y-o-y, partly in response to lower prices

Quarterly y-o-y change in recycling supply, %, and quarterly average price, US\$/oz



Note: Data as of 30 September 2021. For an explanation of global recycled gold, please see the Notes and definitions download: <http://www.gold.org/goldhub/research/gold-demand-trends/gold-demand-trends-q3-2021/notes-and-definitions>

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

See [Gold Demand Trends: Q3 2021](#) for more details.

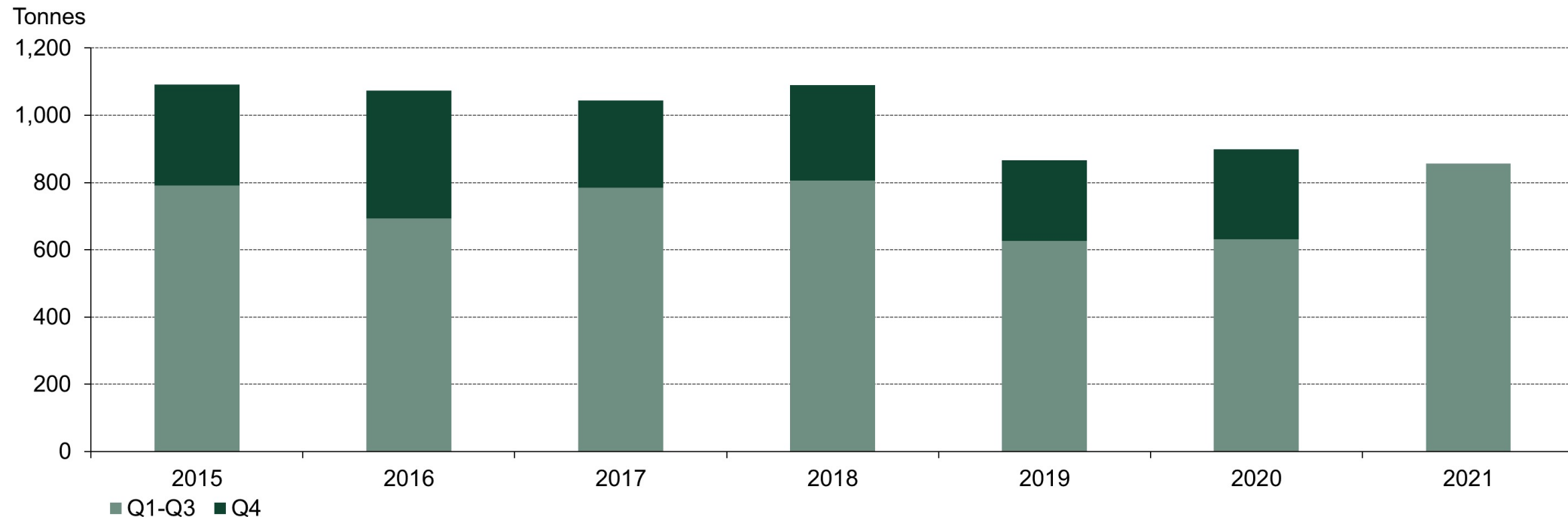
Conclusion

- **The gold market is normalising in 2021 and should continue to do so in 2022**
 - Consumer demand should recover further
 - Central banks look set to continue net purchases
 - ETF investment the missing ingredient in the 2021 demand picture
- **Inflation and stagflation could post upside risks to gold**
- **Whereas orderly central bank tightening poses downside risk**
- **Mine production is showing no sign of an imminent peak**
 - Recycled consumption has offset stronger mine production.

Appendix

Y-t-d bar and coin investment almost on a par with full year 2019 and 2020

Global bar and coin investment, tonnes



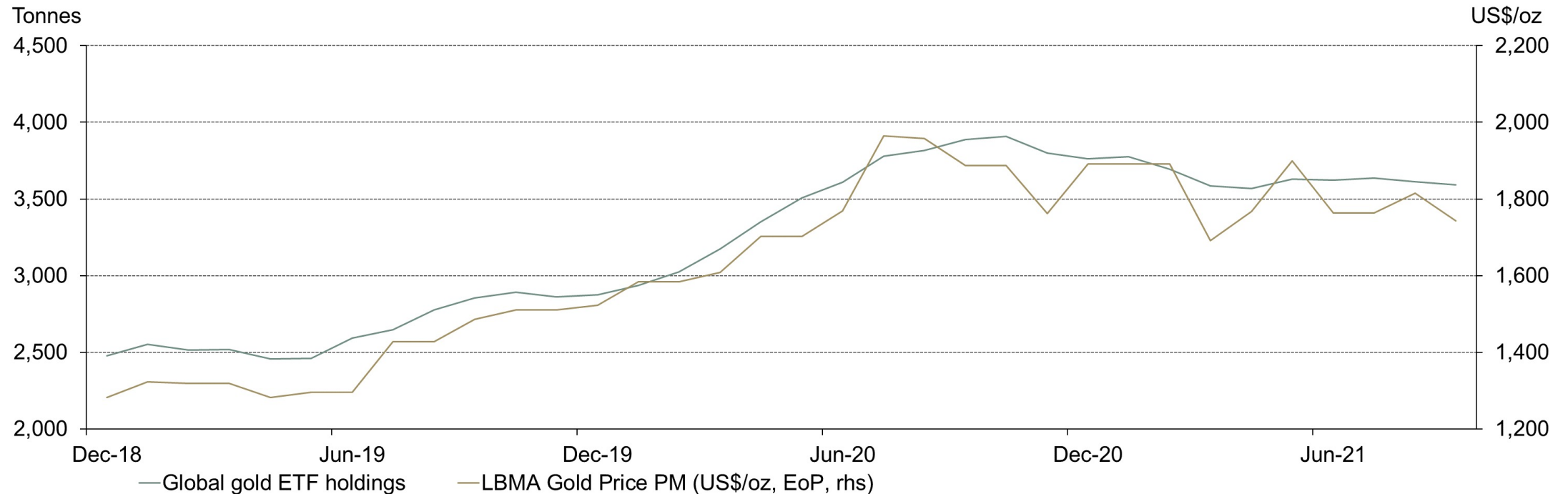
Note: Data as of 30 September 2021. For an explanation of total bar and coin demand, please see the Notes and definitions download: <http://www.gold.org/goldhub/research/gold-demand-trends/gold-demand-trends-q3-2021/notes-and-definitions>

Source: Metals Focus, World Gold Council

See [Gold Demand Trends: Q3 2021](#) for more details.

Global holdings of gold ETFs remain relatively steady, just 7% below the peak

Monthly global gold ETF holdings, tonnes and monthly average gold price, US\$/oz



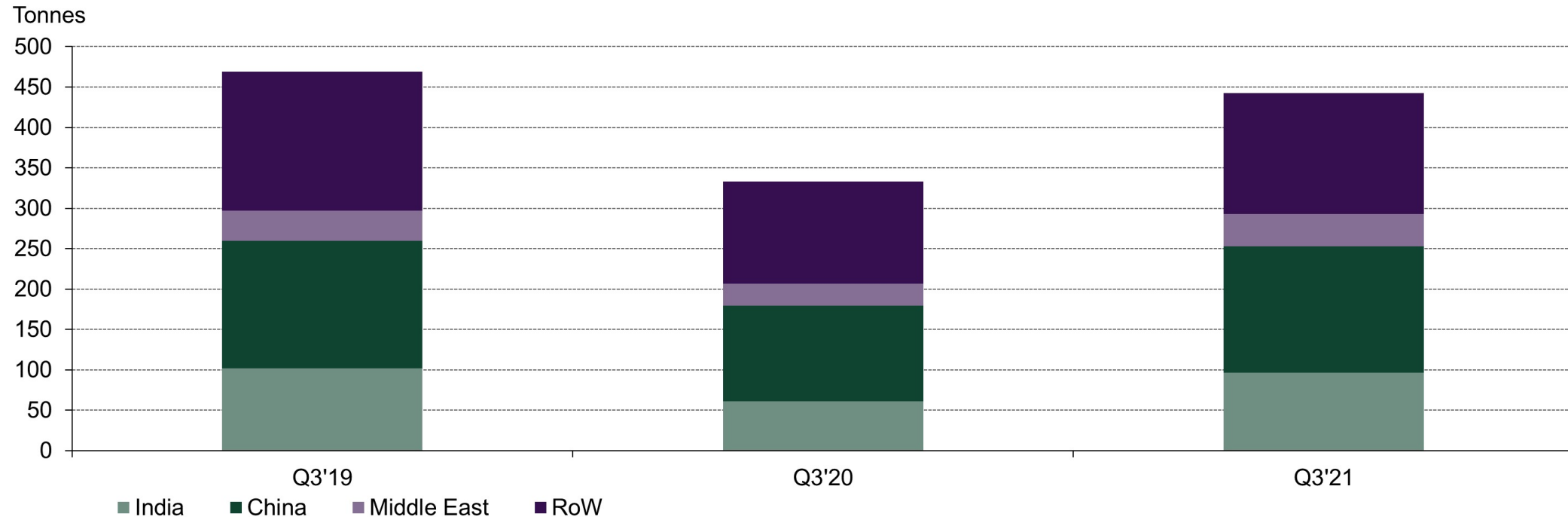
Note: Data as of 30 September 2021. Gold ETF AUM value is calculated by multiplying the end of period (EoP) gold holdings in tonnes by the end of period LBMA Gold Price PM in US dollars. For a listing of the Exchange Traded Funds and similar products, please see the Notes and definitions download: <http://www.gold.org/goldhub/research/gold-demand-trends/gold-demand-trends-q2-2021/notes-and-definitions>

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

See [Gold Demand Trends: Q3 2021](#) for more details.

India, China and the Middle East accounted for much of the y-o-y rebound

Jewellery demand by country/region, tonnes



Note: Data as of 30 September 2021. For an explanation of jewellery demand, please see the Notes and definitions download: www.gold.org/goldhub/research/gold-demand-trends/gold-demand-trends-q3-2021/notes-and-definitions

Source: Metals Focus, World Gold Council

See [Gold Demand Trends: Q3 2021](#) for more details.

Important information and disclosures

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