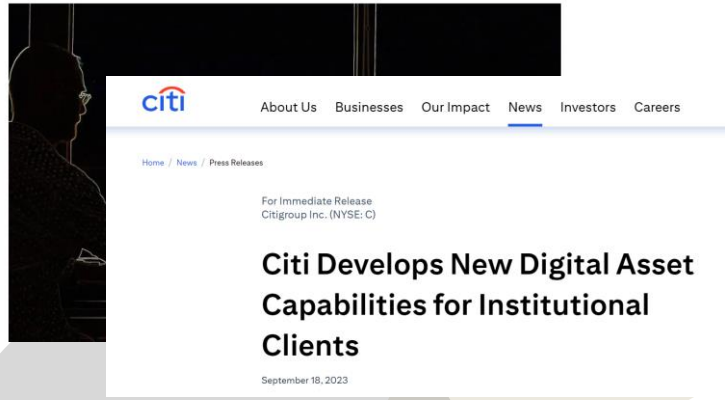
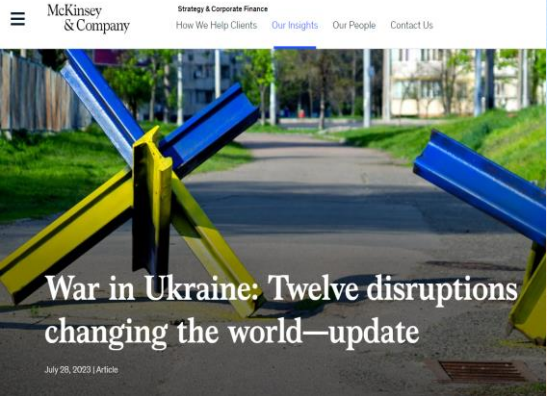
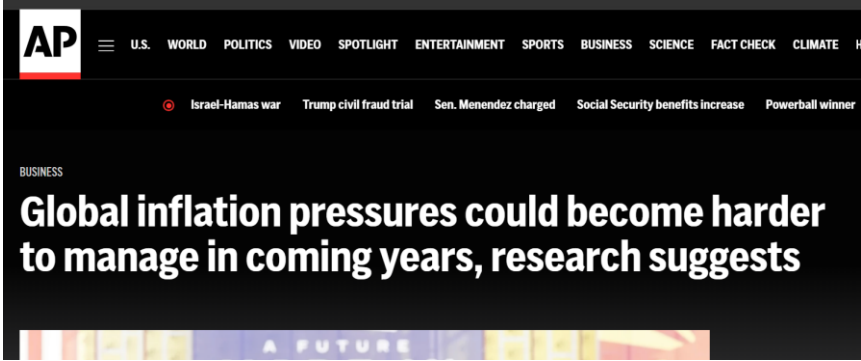




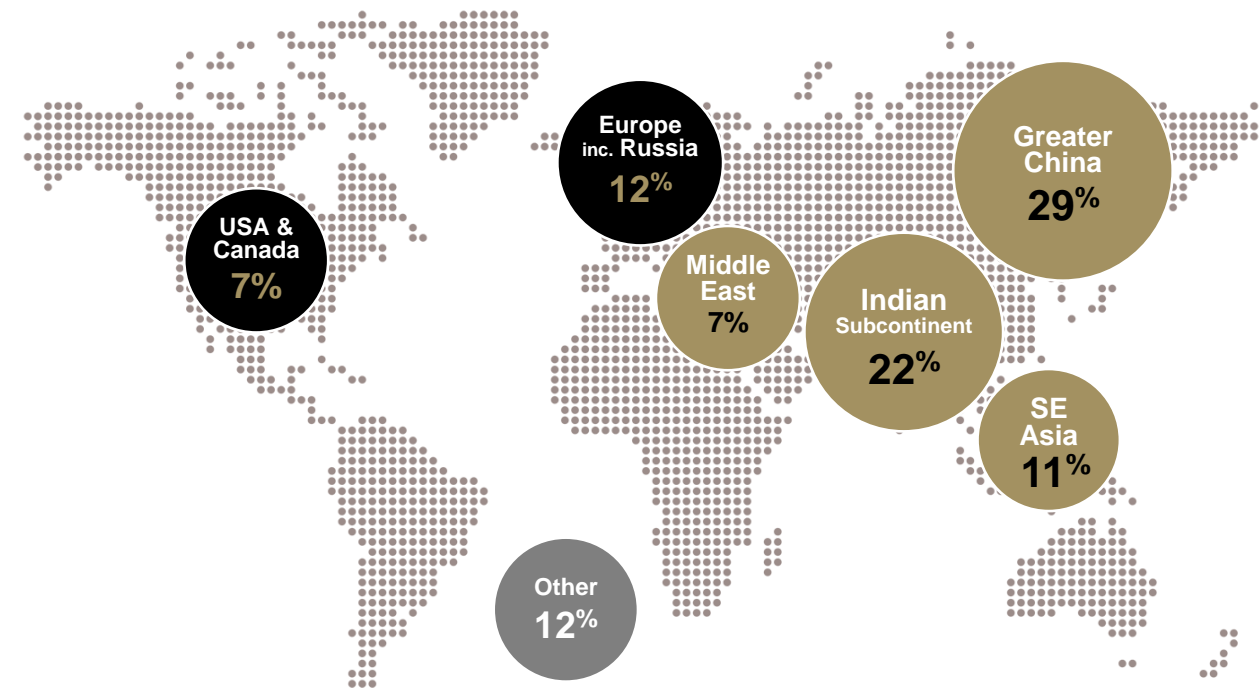
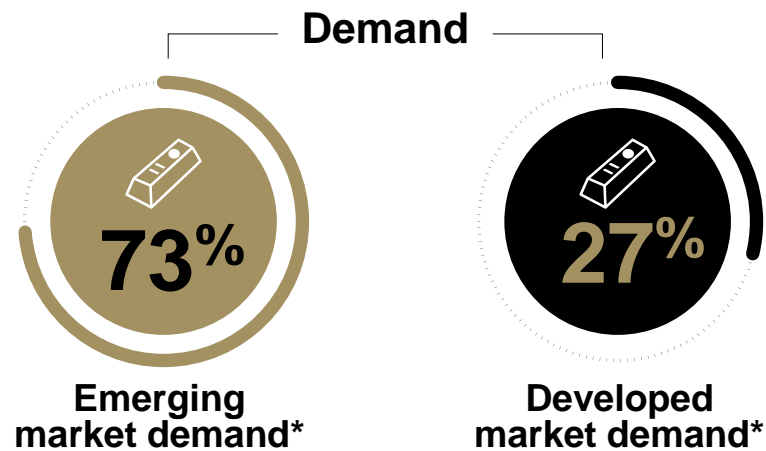
Gold as a strategic investment asset in the age of disruption

[MONTH HERE] 2023

Global risks and uncertainty



Gold is a global market

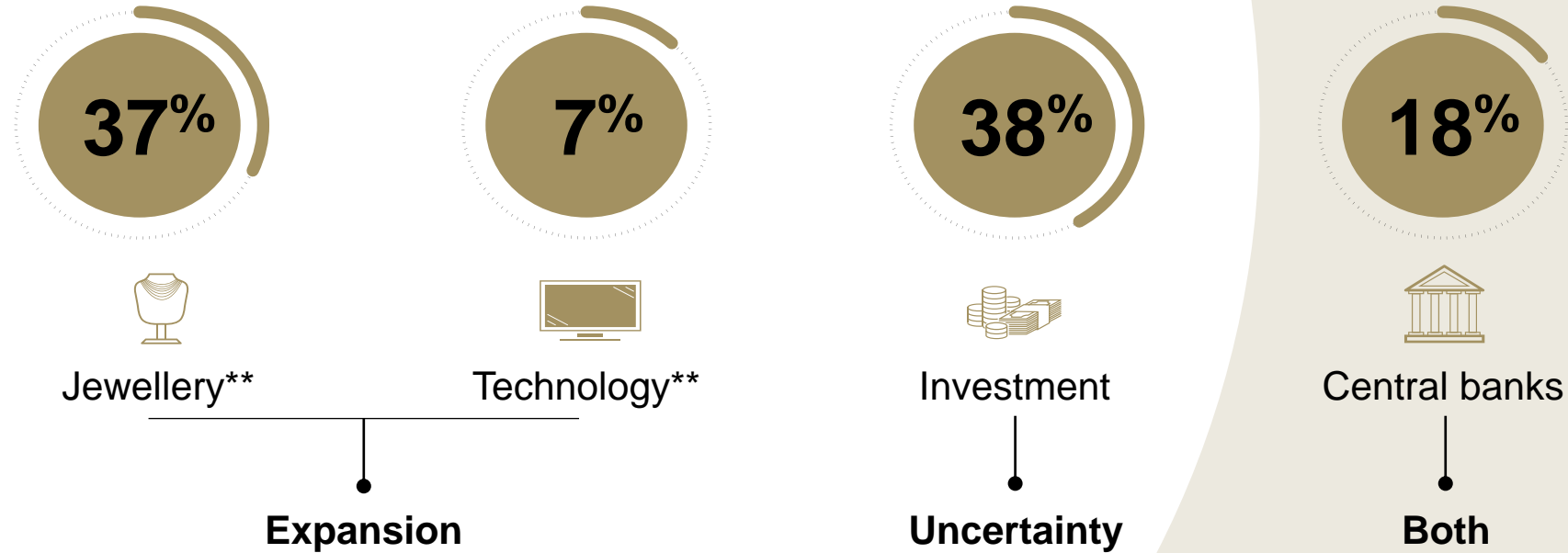


Source: IMF, Metals Focus, Refinitiv GFMS, World Gold Council

*Based on 10-year average demand estimates ending in 2022. Includes jewellery, bars, coins, ETF demand, and technology demand. Excludes over-the-counter transactions, and central bank purchases. Developed and emerging market categorisations are taken from the IMF World Economic Outlook World Economic Outlook: <https://www.imf.org/external/pubs/ft/weo/2020/02/weodata/groups.htm#ae>

Gold has a dual nature

Average annual net demand ≈ 3,140 tonnes* (approx. US\$181bn)



Source: Metals Focus, Refinitiv GFMS, World Gold Council

*Based on 10-year average annual net demand estimates ending in 2022. 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 owing to limitations in data availability. Figures may not add to 100% due to rounding. US dollar value computed using the 2022 annual average LBMA Gold Price PM of US\$1,800.1/oz.

** 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>

Strategic case for gold

Strategic case for gold

Common perceptions

- Mostly a tactical hedge
- No different from commodities
- Better ways to protect against inflation
- Only preserves capital

Underlying concern

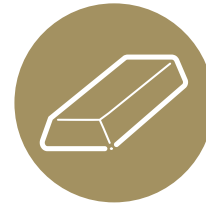
What is gold's role in portfolios?

Gold's attributes



Portfolio challenges

- Capital preservation
- Market volatility
- Liquidity risk



Gold's characteristics

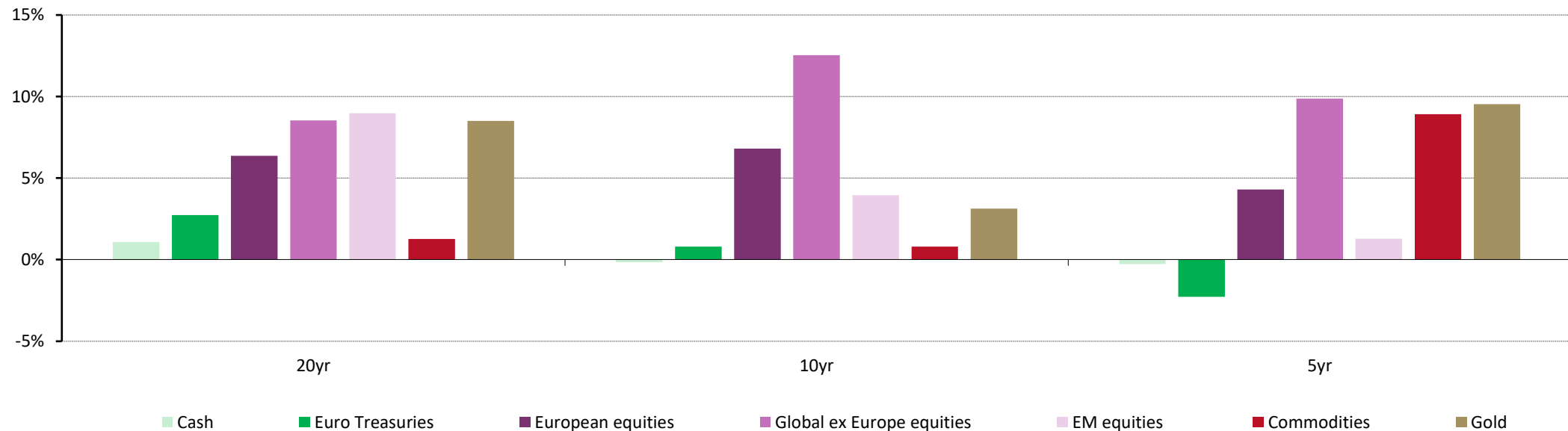
- Returns
- Diversification
- Liquidity

Portfolio Impact

Strategic case for gold: returns

Average annual return of key global assets in EUR*

CAGR (%)

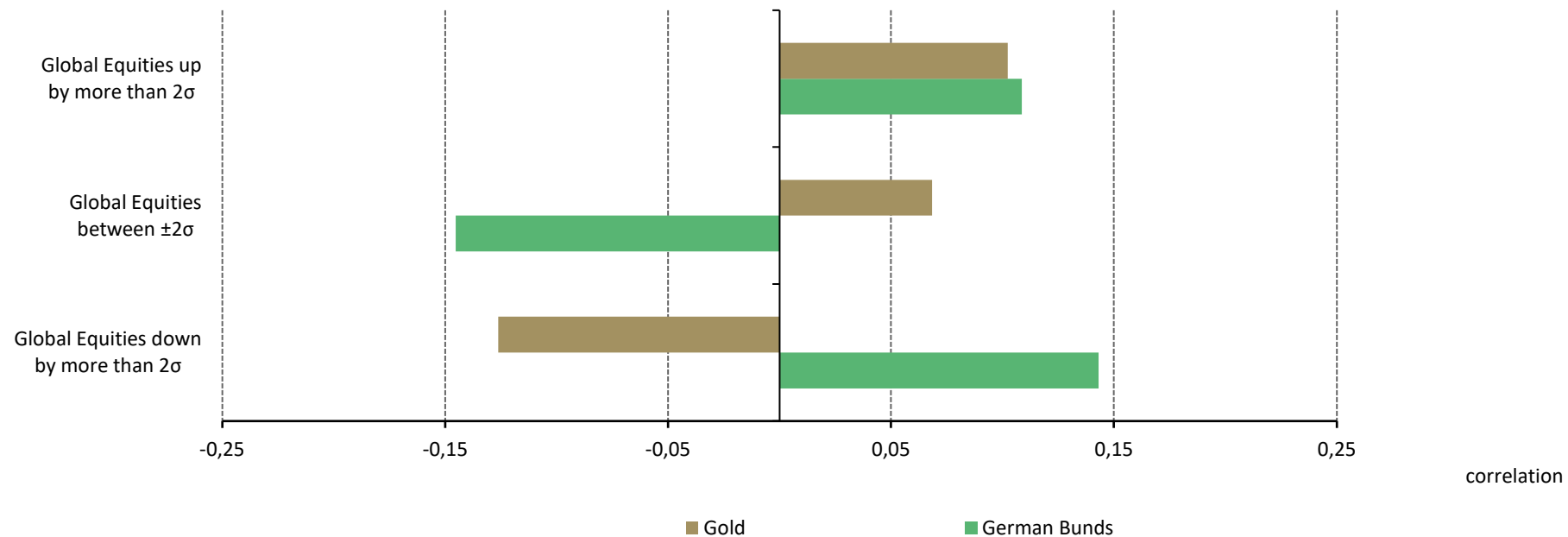


Source: Bloomberg, ICE Benchmark Administration, World Gold Council

*As of 31 December 2022. Computations in EUR of total return indices for EUR Cash: Barclays 3 month Euribor Cash Index, Euro treasuries: Bloomberg Euro Treasuries Total Return Index, MSCI Europe Net total return index, MSCI World ex Europe Net total return index, MSCI EM Index, Bloomberg Commodity Index and Gold: spot for LBMA Gold Price PM. Compounded annual growth rate (CAGR) computed as the geometric average from the start to the end of the period.

Strategic case for gold: diversification

Correlation between gold, German Bunds and global stocks in various environments of stocks' performance (since 1994)*



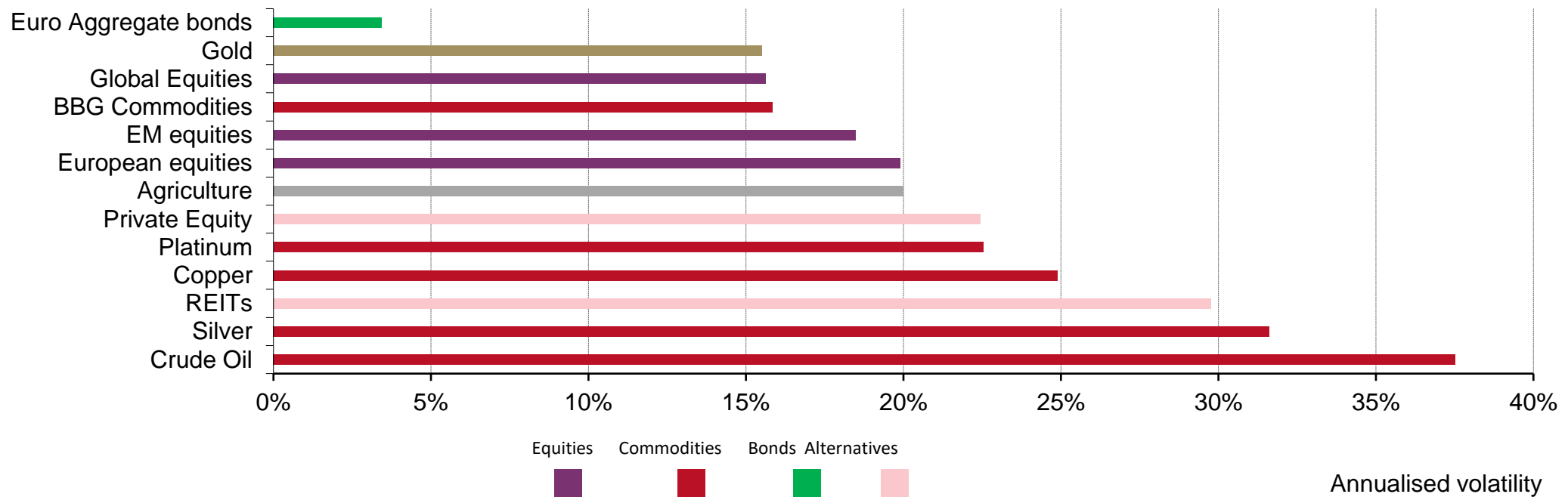
Source: Bloomberg, World Gold Council;

*Based on weekly returns of the FTSE Developed Total Return Index, Ice BofA German Government Index and LBMA Gold Price using data between 31 December 1993 and 31 December 2022. The middle bar corresponds to the correlation conditional on the FTSE Developed TR index weekly returns falling or rising between two standard deviations (or 'σ') over the full period. The bottom bar corresponds to the correlation conditional on the FTSE Developed TR index weekly returns falling by more than two standard deviations (or 'σ'), while the top bar corresponds to the correlation conditional on the FTSE Developed weekly returns increasing by more than two standard deviations. The standard deviation is based on the same weekly returns over the full period. All calculations in euro.

Strategic case for gold: volatility

Gold has been less volatile than many equity indices, alternatives and commodities

Average daily volatility of several major asset classes since 2002*



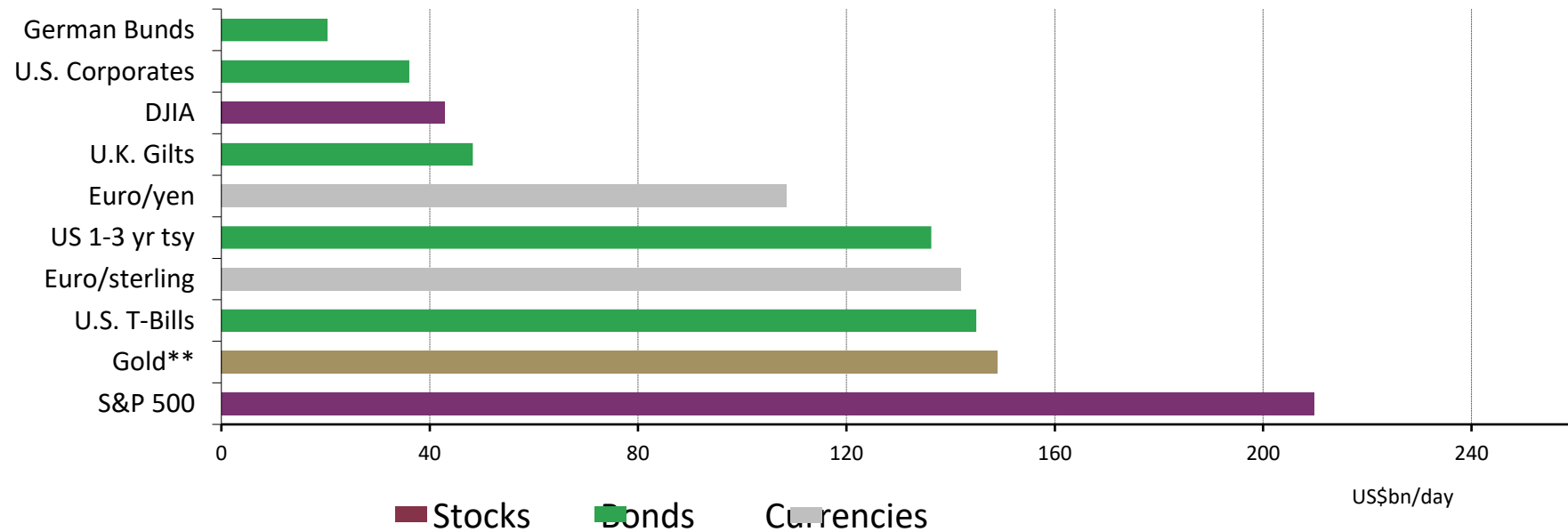
Sources: Bloomberg, World Gold Council; [Disclaimer](#)

*Annualised volatility is computed based on daily returns in EUR between 31 December 2002 and 31 December 2022. Computations for 'Bloomberg Euro Aggregate bonds'; 'European equities': FTSE Europe Index; 'Global equities': FTSE Developed World Total Return Index EUR; 'EM equities': MSCI Daily Gross EM; 'gold': LBMA Gold Price PM; 'silver': LBMA Silver Price; 'Crude oil': Bloomberg WTI Crude Oil; 'agriculture': S&P GSCI Copper Official Close Index; 'copper': S&P GSCI Copper Official Close Index; 'platinum': S&P GSCI Platinum Index; 'REITs': FTSE Nareit Equity REITs Index. Computation for 'private equity': S&P Listed Private Equity Index was calculated using the inception date 11/24/2003.

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

Strategic case for gold: liquidity

Average daily trading volumes over the last five years 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

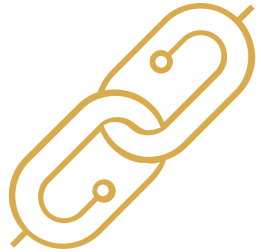
*Based on estimated one-year average trading volumes from 31 December 2017 to 31 Dec 2022, except for currencies that correspond to April 2019 to April 2022 volumes due to data availability. Fixed income trading volumes include primary dealer statistics only due to data availability.

**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.

Digitalisation of gold

Tokenisation of gold

Tokenisation: process of issuing a digital representation of an asset on a blockchain



Types of gold tokens:

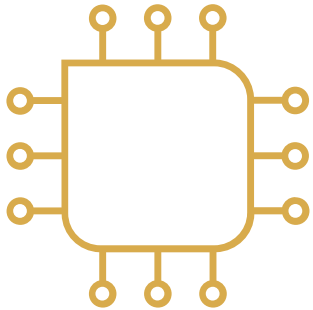
- Fully-backed by gold
- “Synthetic”

The **risk profile** of fully backed gold tokens differs from other types of digital assets:

- No counterparty risk
- No leverage risk
- No asset-liability mismatch risk
- No maturity mismatch risk
- Limited cyber security risks



Tokenisation benefits



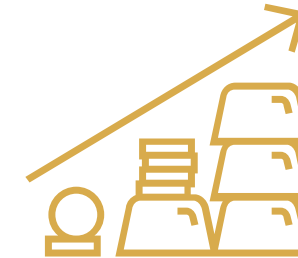
Efficiency gains

- Peer-to-peer transactions
- Reduced costs
- Instant settlement
- More accurate pricing



Expanded investor base

- Fractionalised ownership
- 24/7 access to the market
- simplified cross-border transactions

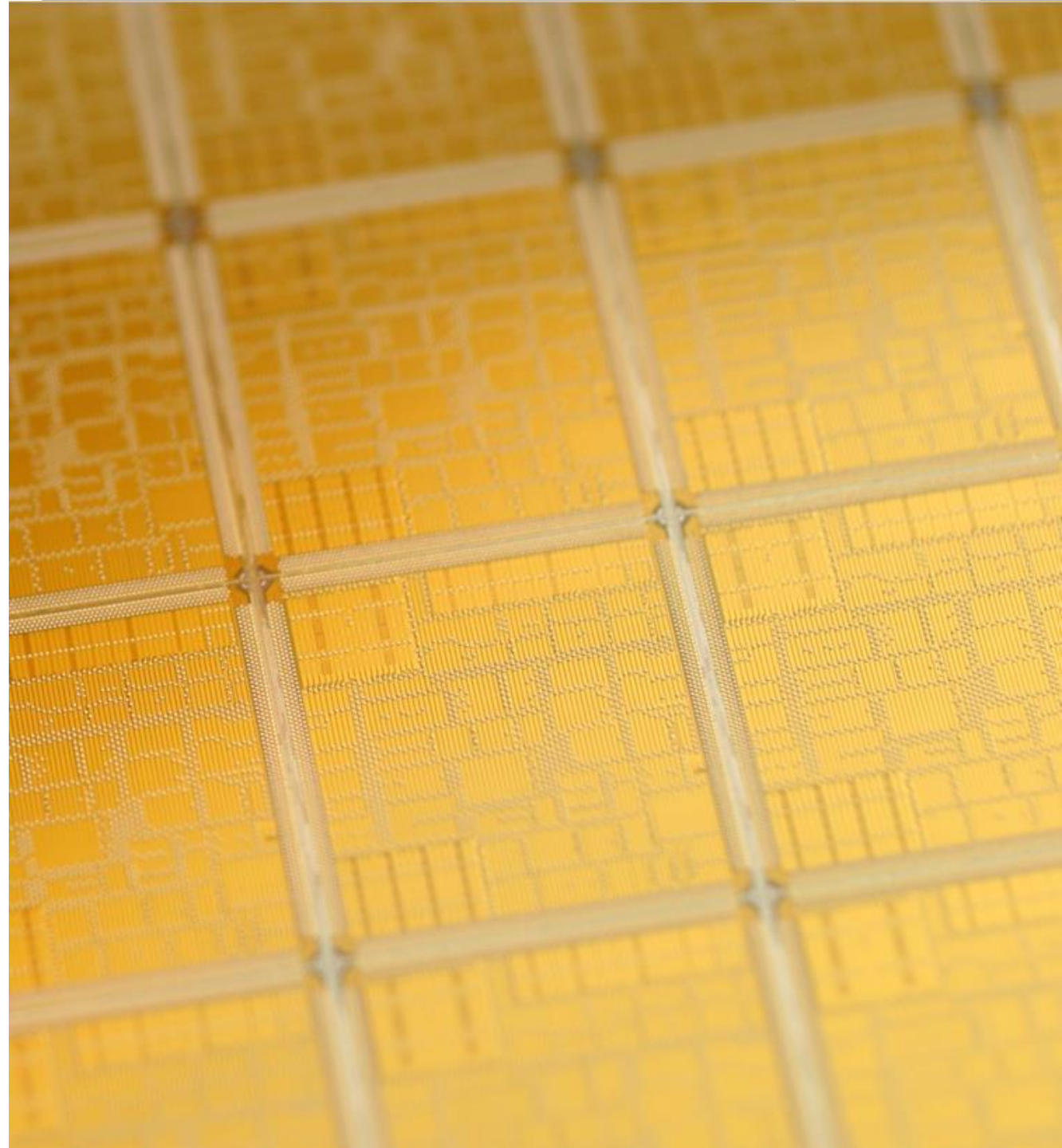


Expanded useability of gold:

- Collateral in interbank lending
- Investment financing
- Means of payment

Impact on the market

- **Liquidity**
- **Accessibility and inclusion**
- **Transparency**



Thank you
