Flows & Liquidity

A bigger threat to crypto?

- **MicroStrategy's bitcoin sales may create periodic flow risk, but in our opinion the larger structural threat to the crypto ecosystem and by extension to bitcoin stems from whether the growth of tokenization and blockchain-based applications accrues to public crypto networks or is absorbed by incumbent market infrastructure.**
- **What could prove us wrong? (1) a hybrid architecture with equally significant role for public vs. private chains; (2) stablecoin momentum plus favorable legislations creating a bigger role for stablecoins vs. tokenized bank deposits; (3) bitcoin preserves its value as "digital gold" or "manifestation of the debasement trade" irrespective of what happens to the broader crypto ecosystem and the value of smart contract/application focused tokens such as ethereum.**
- **Only modest reversal so far of the "Hawkish Fed" trade which previously propagated during May/June.**
- **Some reversal of previous 'de-dollarization' flows amid a preference for liquidity by FX reserve managers in 1Q26.**

Global Markets Strategy

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Cross Asset Fund Flow Monitor

Current level shows the latest percentile of weekly flows; Min is denoted by 0 and Max by 1. As of 1st July 26.

MF & ETF Flows	Min	Max	4 wk avg ($bn)	2025 avg ($bn)
All Equities			26.6	8.1
All Bonds			12.3	11.3
US Equities			19.1	3.5
US Bonds			7.9	4.3
Non-US Equities			7.5	4.6
Non-US Bonds			4.4	7.0
US HG Bonds			7.5	3.4
US HY Bonds			0.7	0.4
US Lev. Loans *			0.4	0.0
US MMFs			-0.2	4.0
EM Equities			-1.1	0.9
EM Bonds			0.52	0.50
Japan Equities			0.9	-0.1
China Equities			-0.90	-0.15
Europe				
Europe Equities			-2.0	0.9
Europe Bonds			3.8	4.3
Europe HG Bonds			0.3	0.9
Europe HY Bonds			0.31	0.17
Europe MMFs			-5.2	3.8
Other Equities			9.91	3.00

Source: Lipper, ICI, Bloomberg Finance L.P. and J.P. Morgan Flows & Liquidity.
* US LL historical flows are monthly averages converted to weekly for comparison. China onshore A-share ETFs have been excluded.

Cross Asset Positioning Monitor

Current level shows the latest percentile, Min is denoted by 0 and Max by 1.

As of 07-Jul-26	MIN	MAX	Current percentile
Equities			0.63
Govt Bonds			0.68
Credit			0.39
Dollar			0.81
Commodities ex Gold			0.34
Gold			0.61
Bitcoin			0.55
EM Equities			0.68
EM Bonds/FX			0.20
Japan Equities			0.75
Europe Equities			0.90
US Equity Sectors:			
Energy			0.65
Materials			0.58
Industrials			0.52
Discretionary			0.59
Staples			0.16
Health Care			0.61
Financials			0.21
Technology			0.58
Communication Services			0.35
Utilities			0.49

Source: J.P. Morgan Flows & Liquidity.
Cross Asset Positioning Monitor aggregates across the various position indicators of Appendix ranging from positioning proxies across various futures contracts, momentum signals as proxies of how trend-following funds/ CTAs are positioned, mutual fund betas as proxies of how mutual fund managers are positioned, risk parity fund positioning and leverage proxies, hedge fund betas as proxies of how hedge fund managers are positioned, client surveys, asset allocation estimates of private non-bank investors at global level, short interest indicators, etc.

See page 27 for analyst certification and important disclosures.

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- We highlighted last week that MicroStrategy's evolving bitcoin strategy may introduce a new source of two-way flow risk into bitcoin. Historically, MicroStrategy was viewed primarily as a one-way accumulator of bitcoin. Recent sales from its bitcoin reserves, however, suggest that investors may increasingly need to consider the possibility of periodic supply from the company, particularly when it needs to fund preferred dividends or replenish USD liquidity.
- This risk was visible last week, when MicroStrategy sold approximately $216mn of bitcoin between June 29 and July 5 to fund preferred dividend payments and rebuild its USD reserve. Bitcoin nevertheless rose over the week, likely supported by short covering in bitcoin futures and $222mn of inflows into US-listed bitcoin ETFs on Thursday, July 2, following a benign US payroll report. In other words, MicroStrategy's sale did not dominate price action last week, but it does illustrate an incremental source of flow uncertainty.
- That said, we do not see MicroStrategy as the main structural threat to bitcoin. In our view, the more important risk to bitcoin stems from the broader crypto ecosystem and from blockchain adoption within traditional finance continuing to develop in ways that bypass public permissionless networks. And the issue is not whether blockchain technology is being adopted; it is whether that adoption accrues value to public chains and their tokens. And if blockchain adoption evolves in ways that does not accrue value to public chains and their tokens, the result could be a structurally weaker backdrop for crypto tokens overall, which would likely weigh not only on smart contract blockchain tokens but also on bitcoin through broader crypto capital flow channels. In particular, if tokenization, payments, and settlement do not accrue to public networks, the broader crypto complex could face a structural de-rating, slower activity and transaction volumes, limited real world applications, tighter liquidity, and weaker VC and investor capital flows, which could pressure bitcoin as the largest and most liquid proxy for the crypto ecosystem even if it holds up better than smart contract/application focused tokens such as ethereum.
- What are the threats we see to the crypto ecosystem?
- First, institutional adoption has so far favored private or permissioned blockchains. Many financial institutions are using blockchain technology, but they generally prefer permissioned ledgers over public chains. The reasons are straightforward: privacy, KYC/AML controls, governance, throughput, legal accountability, and regulatory certainty. This creates a competitive threat for public blockchains such as ethereum if regulated institutions choose to build tokenization, settlement, and payment applications on controlled infrastructure rather than on permissionless networks.
- Regulators appear to be reinforcing this direction. The BIS has warned against using permissionless public blockchains for systemically important financial infrastructure, citing concerns around scalability, legal accountability, governance, and settlement finality. Instead, it has emphasized the potential role of permissioned unified ledgers that combine tokenized central bank money, commercial bank deposits, and tokenized assets within regulated environments.
- Tokenized deposits may be the most important example of this competitive dynamic. Stablecoins have been one of the main channels through which public blockchains have connected with traditional finance, particularly in payments, trading, and cross-border settlement. Payment providers such as Western Union are exploring stablecoin-based cross-border payment solutions, which could support further stablecoin demand. However, banks are responding with tokenized deposits: digital representations of traditional bank liabilities that benefit from bank regulation, deposit insurance frameworks, and existing customer relationships.
- If tokenized deposits become widely adopted, especially in non-bearer or non-transferable forms favored by regulators, they could reduce the need for stablecoins in institutional payment and settlement use cases. SWIFT's blockchain initiative could reinforce this trend by enabling real-time cross-border payments through shared bank-led infrastructure. Regional CBDC projects, including the digital euro and digital yuan, could also compete with private stablecoins by offering regulated alternatives for digital payments and cross-border transactions.
- Second, real world asset tokenization may be absorbed by incumbent market infrastructure rather than migrating completely to public chains. The tokenized RWA (real world asset) market remains relatively small (around $50bn) and a meaningful share is currently hosted on ethereum, but that likely reflects early experimentation more than the steady state. As institutional participation scales, growth may concentrate on private or permissioned rails that better meet requirements around identity, confidentiality, governance, and operational resilience.
- In that context, traditional players are building permissioned networks as the system of record for issuance, custody, settlement, and lifecycle management. Public blockchains may still be used, but more often for bounded purposes such as distribution, limited secondary liquidity pilots, and controlled interoperability endpoints. Over time, as permissioned ecosystems mature and connect, public networks can become less central to the critical path of institutional processing.

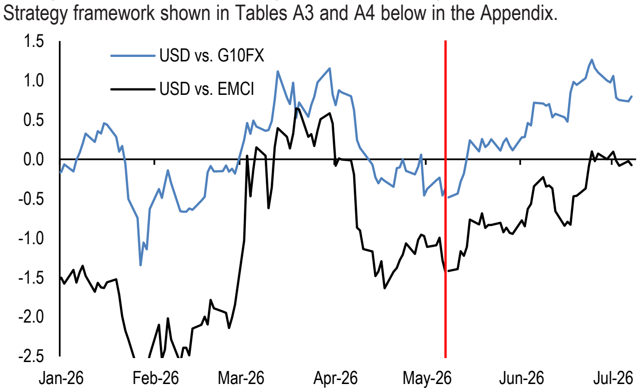
- In other words, rather than shifting market structure to public chain real-time gross settlement, incumbents appear to be embedding tokenization into existing workflows across custody, clearing, transfer agency, and corporate actions, while leaving room for a multi-chain model with a narrower role for public rails.
- In addition, while atomic, real-time gross settlement is a core public chain value proposition, it is not always economically optimal for regulated institutions in either securities or payments. Deferred and netted settlement can reduce intraday liquidity and collateral needs, preserve capital efficiency, and align with how institutions manage funding and operational cutoffs. In payments, always on gross settlement can imply prefunding and larger liquidity buffers, while netting and controlled finality windows can be preferable at scale. If institutional markets continue to favor netted settlement for most flows while using permissioned ledgers for selected high value workflows and tightly governed payment instruments such as tokenized deposits or bank issued settlement assets, the incremental advantage of public chain settlement may be more limited than the market assumes.
- Examples underscore this shift to a permissioned first architecture. DTCC is building tokenization workflows on controlled rails while exploring selective connectivity to Stellar as a public network endpoint. DTCC has also piloted tokenized DTC custodied U.S. Treasuries using ComposerX with the Canton Network's privacy preserving, interoperable design, and Securitize has issued tokenized representations on Solana and Avalanche via a regulated, eligibility-gated platform. Permissioned networks anchor the regulated system and public chains are merely used for distribution and connectivity.
- Finally, even if US market structure legislation such as the Clarity Act is approved later this year, it may not eliminate these risks. Depending on its final form, legislation could provide greater regulatory clarity for digital assets while also encouraging the development of bank-led tokenized deposits. If non-bearer, non-transferable tokenized deposits become central to regulated blockchain-based payment and settlement systems, they could strengthen incumbent financial institutions while limiting the role of public-chain stablecoins.
- Overall, MicroStrategy's bitcoin sales may create periodic flow risk, but the larger structural threat to the crypto ecosystem and by extension to bitcoin stems from whether the growth of tokenization and blockchain-based applications accrues to public crypto networks or is absorbed by incumbent market infrastructure.
- What could prove us wrong? (1) a hybrid architecture with equally significant role for public vs. private chains e.g., public chains as settlement layer/ private chains as application layer that could still accrue value to public tokens, as an ethereum example institutions could build on permissioned or L2 environments that still settle to or derive security from ethereum mainnet thus value can accrue to ETH even if institutions never touch the base layer directly (2) stablecoin momentum plus favorable legislations creating a bigger role for stablecoins vs. tokenized bank deposits (3) bitcoin preserves its value as "digital gold" or "manifestation of the debasement trade" irrespective of what happens to the broader crypto ecosystem and the value of smart contract/application focused tokens such as ethereum.

Only modest reversal so far of the "Hawkish Fed" trade which previously propagated during May/June

- The July 2nd payroll report reduces fears that the US labor market is overheating. As our economist Mike Feroli emphasized "for the Fed, the report should allay any concerns that a reacceleration in the labor market is a source of upside inflation risks. This should allow the center of the FOMC to continue to make the case to look through some of the upside surprises in core PCE inflation experienced earlier in the year."
- In turn, this raises the risk that the "Hawkish Fed" trade, which propagated through markets during May and June following the May 8th US payroll report, could reverse going forward.
- Has there been any reversal?
- To answer this question, we look at a range of positioning indicators on three popular "Hawkish Fed" trades: long USD, short USTs vs Bunds, short the "debasement trade", i.e. short gold/bitcoin.
- On the long USD trade, Figure 1 to Figure 4 suggest that only a modest, less than a fifth of the previous long dollar positioning build up during May and June has reversed so far, mostly in DM currencies ex yen.

Figure 1: Momentum signals on USD vs. DM/EM currencies

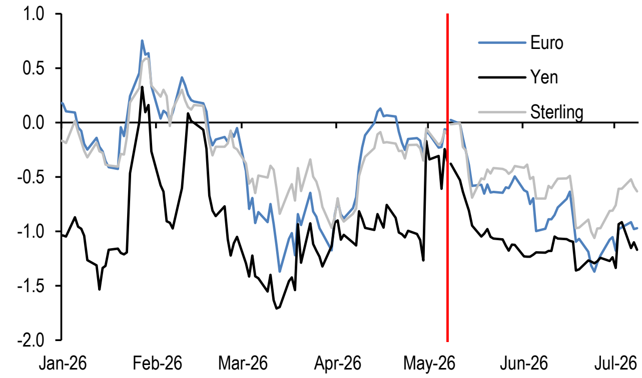
Average z-score of Short- and Long-term momentum signal in our Trend Following Strategy framework shown in Tables A3 and A4 below in the Appendix.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Figure 2: Momentum signals on major FX pairs vs USD

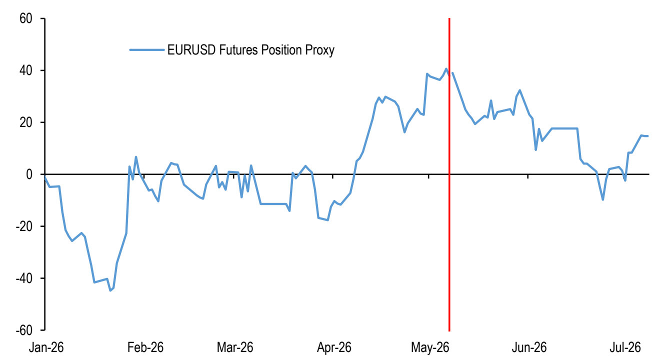
Average z-score of Short- and Long-term momentum signal in our Trend Following Strategy framework shown in Tables A3 and A4 below in the Appendix.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Figure 3: Our futures positioning proxy on the euro

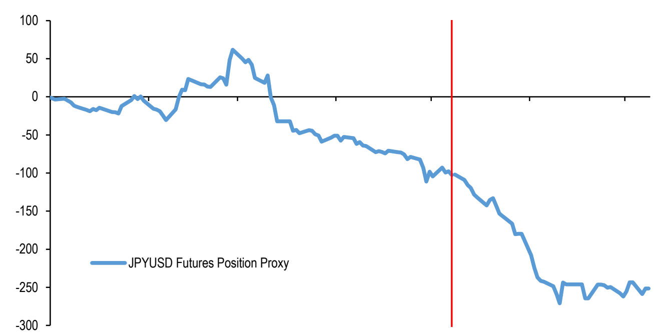
In 000's of contracts.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Figure 4: Our futures positioning proxy on the yen

In 000's of contracts.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

- Similarly, in rates only a modest portion of the previous short USTs vs Bunds positioning build up during May and June has reversed so far according to Figure 5 to Figure 8.

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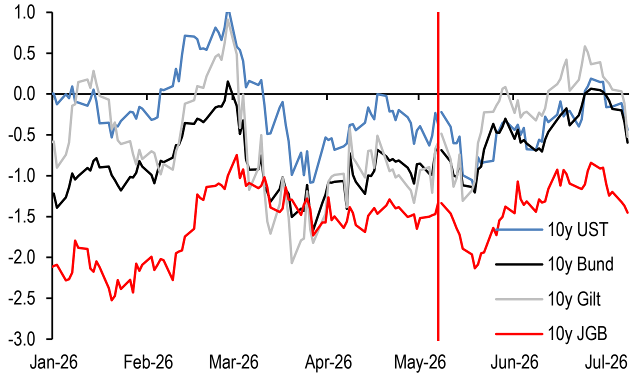
Figure 5: Our momentum signals on 10y bond futures

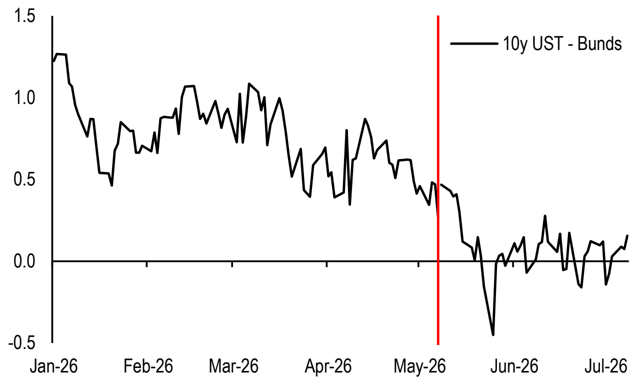
Average z-score of Short- and Long-term momentum signal in our Trend Following Strategy framework shown in Tables A3 and A4 below in the Appendix.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Figure 6: Our momentum signals on 10y USTs vs Bunds

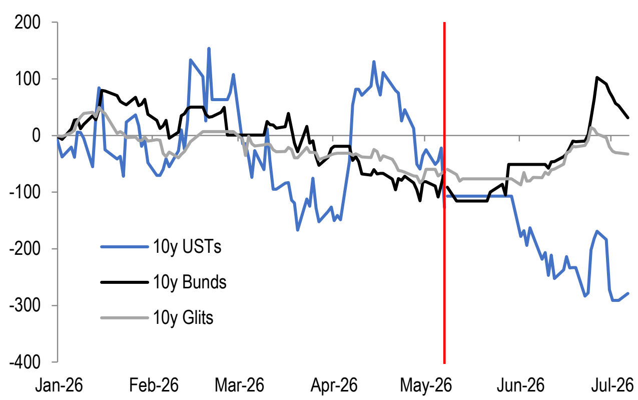
Average z-score of Short- and Long-term momentum signal in our Trend Following Strategy framework shown in Tables A3 and A4 below in the Appendix.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Figure 7: Our futures positioning proxy on 10y bond futures

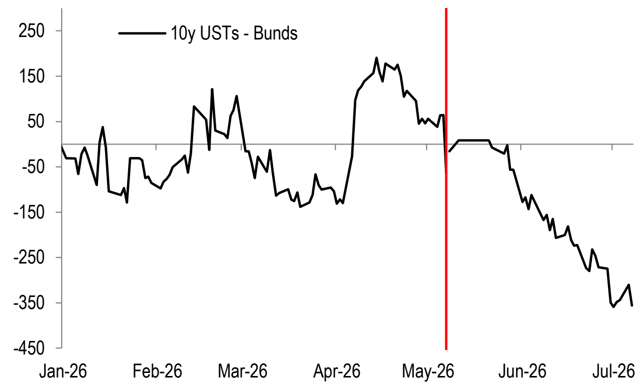
In 000's of contracts.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Figure 8: Our futures positioning proxy on 10y USTs vs Bunds

In 000's of contracts.

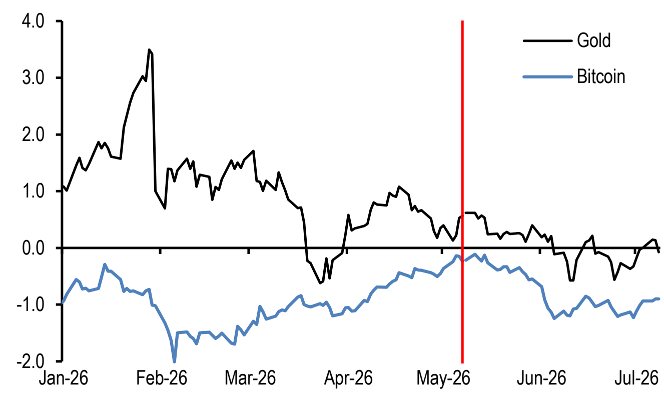


Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

- Similarly, in terms of the debasement trade, Figure 9 and Figure 10 show that there has been only modest reversal of the previous short gold/short bitcoin positioning.

Figure 9: Our momentum signals on Gold and Bitcoin

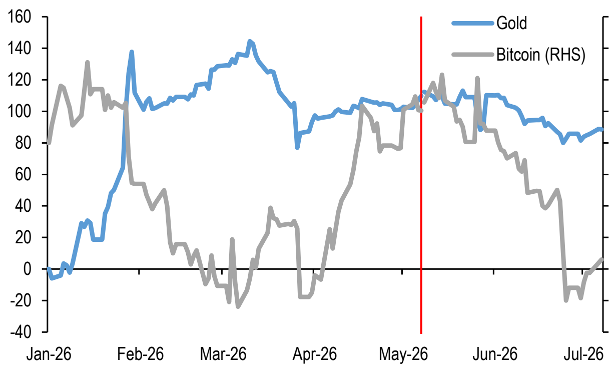
Average z-score of Short- and Long-term momentum signal in our Trend Following Strategy framework shown in Tables A3 and A4 below in the Appendix.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Figure 10: Our futures positioning proxy on Gold and Bitcoin futures

In 000's of contracts.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

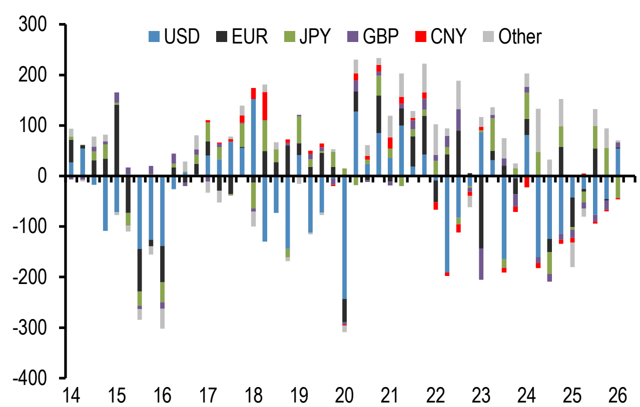
- Overall, we find only modest reversal so far of the "Hawkish Fed " trade which previously propagated during May/June.

Some reversal of previous 'de-dollarization' flows amid a preference for liquidity by FX reserve managers in 1Q26

- The recent release of the 1Q26 IMF COFER data allows us to update our estimate of reserve managers' bond purchases and whether the 'de-dollarization' theme in reserves continued into 2026.
- To estimate net flows, we adjust changes in reserve balances by we adjust changes in reserve balances by currency for both currency and bond returns. After this adjustment, we estimate that FX reserve managers saw a net inflow of around $25bn in 1Q26, following net inflows of a similar magnitude in 4Q25. This would be more in-line with our projection for the improvement in bond demand from FX reserve managers and removes some of the upside risk we noted a few weeks ago (F&L, Jun 24th).
- In terms of the composition of reserve flows (Figure 11), 1Q26 saw net inflows into dollar reserves of just over $50bn, the first inflows into dollar reserves since 1Q24. The fact that these inflows came against a backdrop of an appreciating broad effective dollar suggests there may have been some modest reversal of previous reserve diversification flows, perhaps as the conflict in the Middle East saw some central banks prioritise liquidity. The largest outflows were from yen reserves of just over $40bn, reversing much of the previous quarter's inflows. This modest reversal of the previous 'de-dollarization' trend is also reflected in the rebound in the share of the US dollar in FX reserves as shown in Figure 12.

Figure 11: Quarterly flows by FX Reserve Managers

In $bn per quarter. Based on COFER data adjusted for both bond and FX returns. Last obs. is for 1Q26.



Source: IMF COFER, J.P. Morgan Flows & Liquidity.

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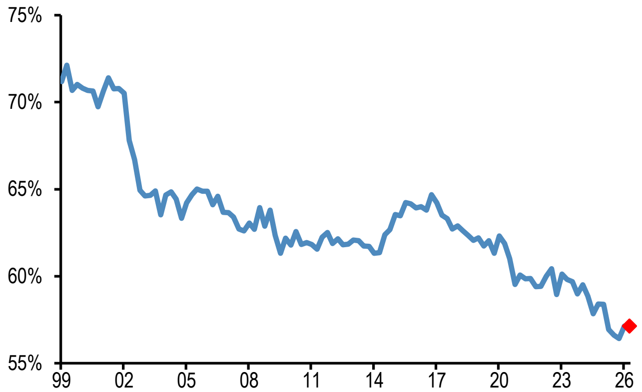
Figure 12: Share of USD in total FX reserves ex gold as reported by IMF's COFER data

The Q2 2026 red dot reflects our own extrapolation.

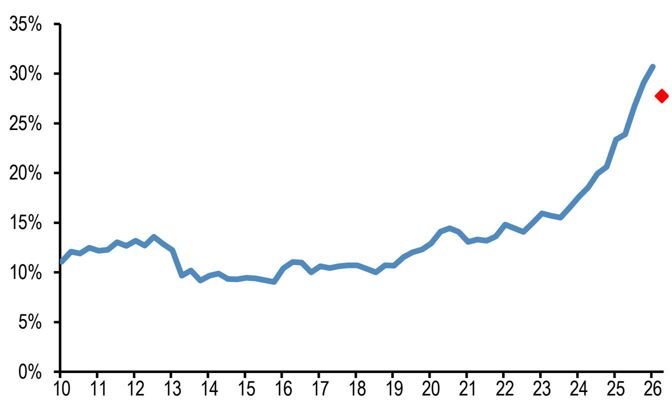


Source: IMF COFER, J.P. Morgan Flows & Liquidity.IMF COFER, J.P. Morgan Flows & Liquidity.

- Combined with the previously released data on central bank gold purchases for 1Q26 by the World Gold Council, this confirms our previous estimate that the gold share of total central bank reserves had likely reached 31% in 1Q26. Projecting this share forward by assuming that central bank gold holdings in terms of tons grew in line with the previous quarters' average pace in 2Q26, and applying currency and bond returns for 2Q on 1Q26 COFER reserves, suggests the gold share may have declined to just under 28% in 1Q26 due to the decline in gold prices, shown by the red diamond in Figure 13.

Figure 13: Share of gold in total central bank reserves

In %. Total reserves defined as COFER reserves + central bank gold holdings. See text for details of 2Q26 projection in the red diamond.



Source: IMF, World Gold Council, Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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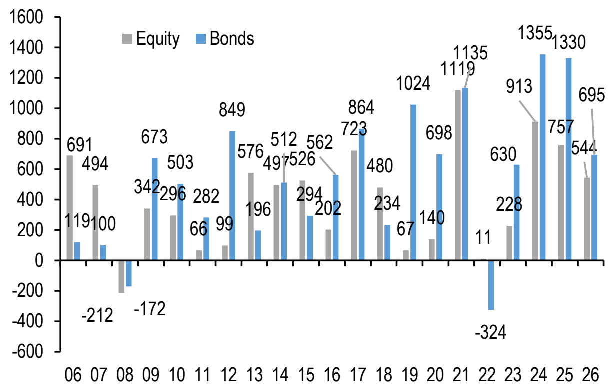
Appendix

Chart A1a: Global equity & bond fund flows

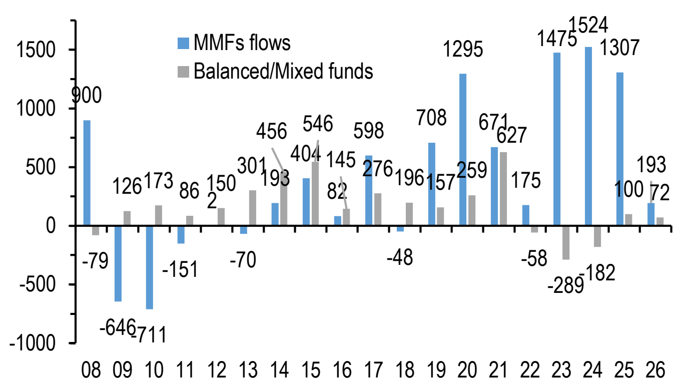
$bn per year of Net Sales, i.e. includes net new sales + reinvested dividends for Mutual Funds and ETFs globally, i.e. for funds domiciled both inside and outside the US. Flows come from ICI (worldwide data up to Q1'26). Data since then are a combination of monthly and weekly data from Lipper and Bloomberg.



Source: ICI, LSEG Lipper, Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A1b: Quarterly Balanced/Mixed funds & MMFs flows worldwide

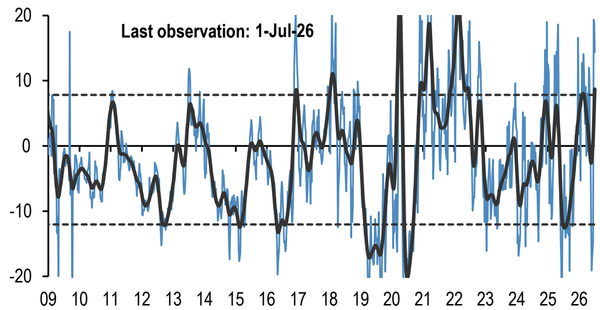
$bn per quarter of Net Sales, i.e. includes net new sales + reinvested dividends for Mutual Funds and ETFs globally, i.e. for funds domiciled both inside and outside the US. Data come from ICI (worldwide data) and are till Q1'26.



Source: ICI, J.P. Morgan Flows & Liquidity.

Chart A2: Fund flow indicator

Difference between flows into Equity and Bond funds: $bn per week. Difference between flows into Equity vs. Bond funds in $bn per week. Flows include Mutual Fund and ETF flows globally, i.e. funds domiciled both inside and outside the US (source: Lipper). The thin blue line shows the 4-week average of difference between Equity and Bond fund flows. Dotted lines depict ±1 StDev of the blue line since 2009. The thick black line shows a smoothed version of the same series. The smoothing is done using a Hodrick-Prescott filter with a Lambda parameter of 100. China onshore A-share ETFs have been excluded.



Source: LSEG Lipper, J.P. Morgan Flows & Liquidity.

Table A2: Trading turnover monitor

Volumes are monthly and Turnover ratio is annualised (monthly trading volume annualised divided by the amount outstanding). UST Cash is primary dealer transactions in all US government securities. UST futures are from Bloomberg Finance L.P. JGBs are OTC volumes in all Japanese government securities. Bunds, Gold, Oil and Copper are futures. Gold includes Gold ETFs. Min-Max chart is based on Turnover ratio. For Bunds and Commodities, futures trading volumes are used while the outstanding amount is proxied by open interest. The diamond reflects the latest turnover observation. The thin blue line marks the distance between the min and max for the complete time series since Jan-2005 onwards. Y/Y change is change in YTD notional volumes over the same period last year.

As of Apr-26	MIN	MAX	Turnover ratio	Vol (tr)	y/y chng
Equities					
EM Equity			1.1	$1.7	118%
DM Equity			1.4	$11.4	38%
Govt Bonds					
UST cash			12.9	$20.3	1%
UST futures			0.9	$13.8	3%
JGBs			47.2	¥4,982	8%
Bund futures			1.7	€7.5	12%
Credit					
US HG			1.2	$0.8	11%
US HY			0.6	$0.1	2%
US Convertibles			3.4	$0.04	13%
Commodities					
Gold			65.4	$1.5	67%
Oil			95.4	$3.4	-5%
Copper			2.4	$0.7	80%
Digital Assets					
CME Bitcoin			116.0	$0.075	-34%
CME Ethereum			122.4	$0.036	61%

* Data with one month lag

Source: Bloomberg Finance L.P., Federal Reserve, Trace, Japan Securities Dealer Association, WFE, J.P. Morgan Flows & Liquidity.

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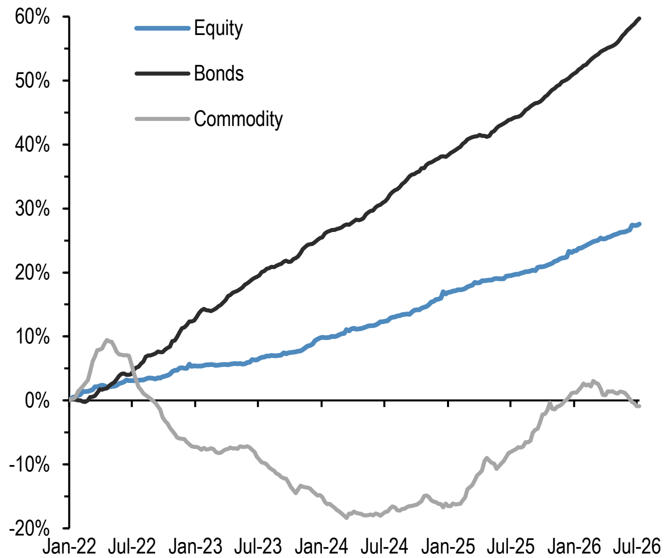
ETF Flow Monitor (as of 8th July)

Chart A3: Global Cross Asset ETF Flows

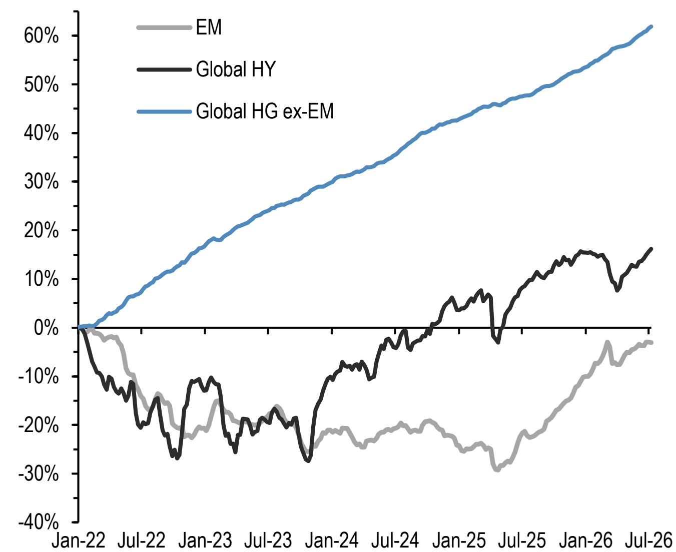
Cumulative flows into ETFs as a % of AUM



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity. China onshore A-share ETFs have been excluded.

Chart A4: Bond ETF Flows

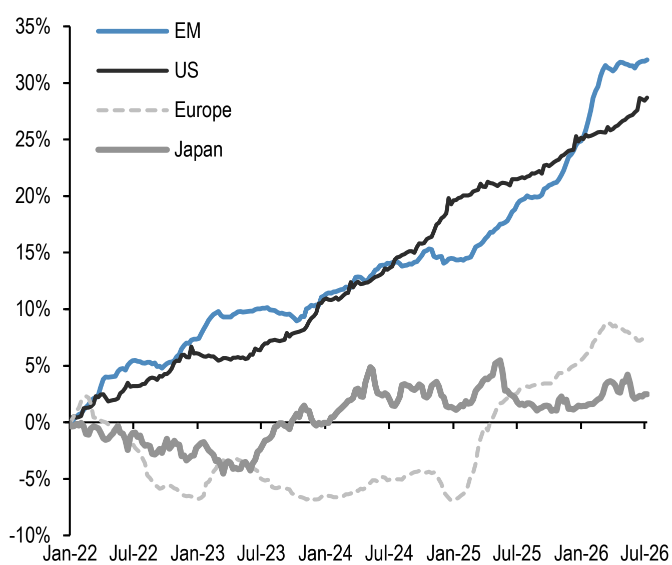
Cumulative flows into bond ETFs as a % of AUM



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A5: Global Equity ETF Flows

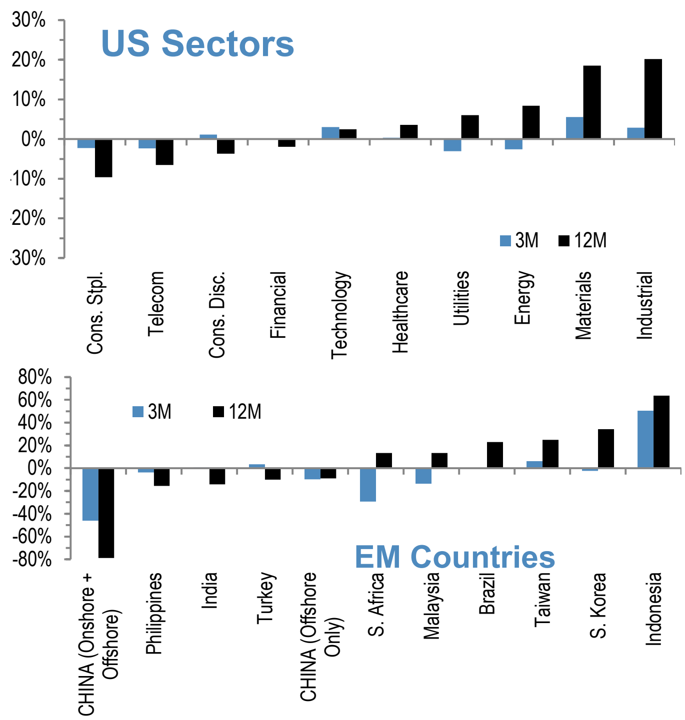
Cumulative flows into global equity ETFs as a % of AUM



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.
Note: We include ETFs with AUM > $200mn in all the flow monitor charts. In Chart A5 for Japan, we subtract the BoJ buying of ETFs. China onshore A-share ETFs have been excluded.

Chart A6a: Equity Sectoral and Regional ETF Flows

Rolling 3-month and 12-month change in cumulative flows as a % of AUM. Both sorted by 12-month change



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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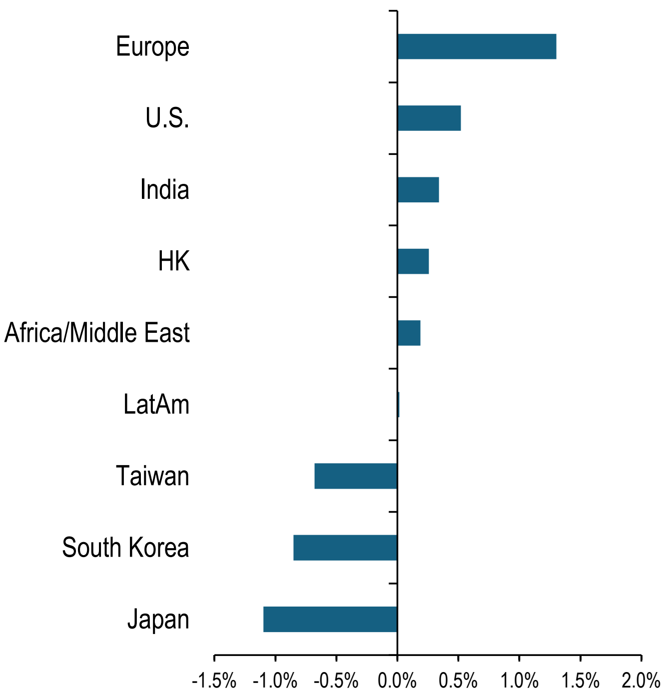
Chart A6b: Regional Equity Allocation Monitor Implied by ETFs

In %.



Source: Bloomberg Finance L.P., MSCI and J.P. Morgan Flows & Liquidity.
Note: Our regional equity allocation monitor implied by ETFs is based on a comparison of the share of each region in the equity ETF space relative to their corresponding shares in global equity indices.

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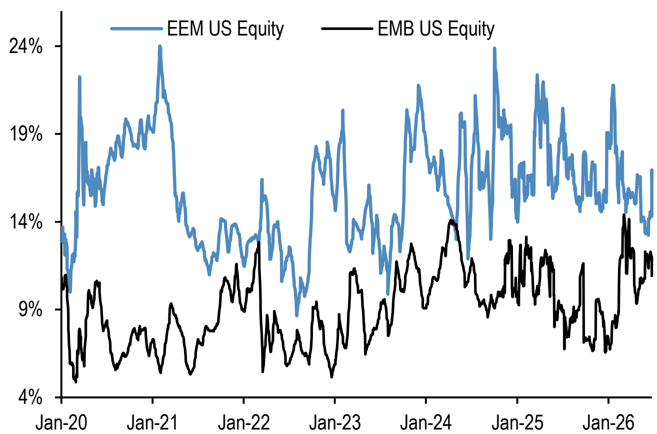
Short Interest Monitor

Chart A7: Short interest on the EEM and EMB US ETF

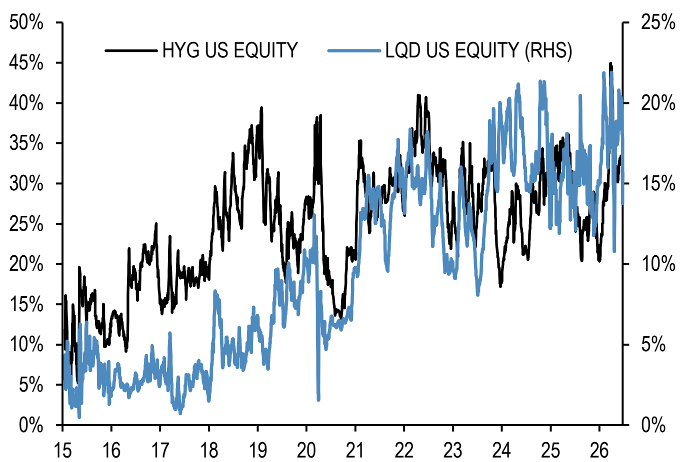
Short Interest as a % share of shares outstanding.



Source: S3, J.P. Morgan Flows & Liquidity.

Chart A8: Short interest on the LQD and HYG US ETF

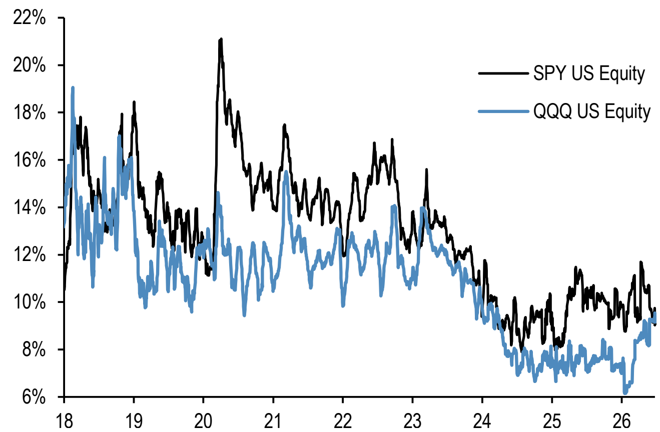
Short Interest as a % share of shares outstanding.



Source: S3, J.P. Morgan Flows & Liquidity.

Chart A9: Short interest on the SPY and QQQ US ETF

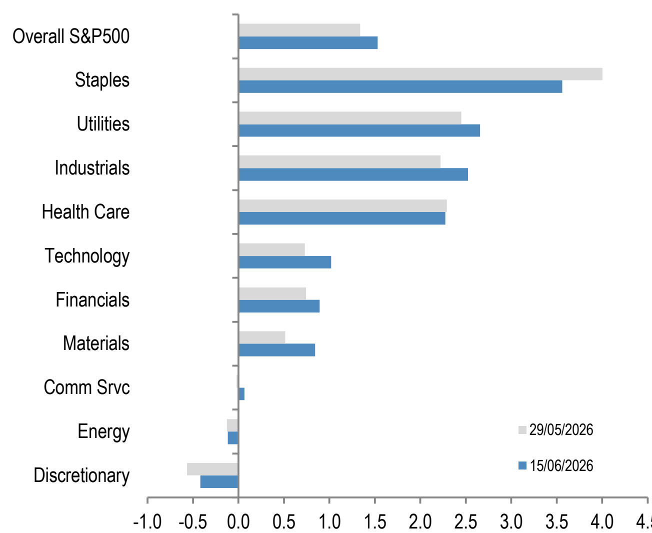
Short Interest as a % share of shares outstanding. Last obs is for 3rd July 2026.



Source: S3, J.P. Morgan Flows & Liquidity.

Chart A10: S&P500 sector short interest

Short interest as a % of shares outstanding based on z-scores. A strategy which overweights the S&P500 sectors with the highest short interest z-score (as % of shares o/s) vs. those with the lowest, produced an information ratio of 0.7 with a success rate of 56% (see F&L, Jun 28,2013 for more details).



Source: NYSE, Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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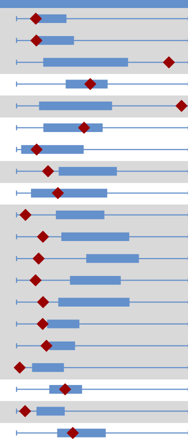
Chart A11a: Cross Asset Volatility Monitor 3m ATM Implied Volatility (1y history), as of 6th July-2026

This table shows the richness/cheapness of current three-month implied volatility levels (red dot) against their one-year historical range (thin blue bar) and the ratio to current realised volatility. Assets with implied volatility outside their 25th/75th percentile range (thick blue bar) are highlighted. The implied-to-realised volatility ratio uses 3-month implied volatilities and 1-month (around 21 trading days) realised volatilities for each asset.

Asset	Current	Low	Low date	High	High date	Upside	Downside	Implied/realized volatility
S&P 500	14%	13%	28-Aug-25	24%	27-Mar-26	9%	1%	0.94x
EuroSTOXX	15%	13%	18-Sep-25	26%	27-Mar-26	12%	1%	1.05x
Nikkei 225	32%	18%	22-Jul-25	33%	31-Mar-26	2%	14%	0.82x
Hang Seng	20%	17%	23-Dec-25	24%	26-Mar-26	4%	3%	1.06x
MSCI EM	37%	12%	15-Aug-25	38%	01-Jul-26	1%	25%	0.97x
Gold	22%	14%	19-Aug-25	33%	26-Mar-26	12%	8%	0.72x
Oil (brent)	34%	27%	19-Sep-25	89%	30-Mar-26	55%	7%	0.86x
Copper	18%	14%	18-Aug-25	37%	03-Feb-26	18%	4%	0.71x
BB commodity index	16%	13%	10-Dec-25	25%	30-Mar-26	9%	3%	1.04x
EUR/USD	9%	9%	29-May-26	13%	27-Mar-26	4%	0%	1.63x
USD/NOK	9%	8%	17-Dec-25	11%	30-Mar-26	3%	0%	0.87x
USD/JPY	8%	7%	29-May-26	11%	15-Jul-25	3%	0%	1.91x
GBP/USD	6%	6%	12-Dec-25	8%	27-Mar-26	2%	0%	0.91x
USD/CHF	7%	6%	29-May-26	9%	29-Jan-26	2%	0%	0.97x
10y US swaps	6%	6%	29-May-26	10%	27-Mar-26	3%	1%	1.00x
10y Eur swaps	52%	43%	26-Feb-26	97%	27-Mar-26	45%	9%	1.13x
CDX IG	39%	38%	29-Jul-25	66%	27-Mar-26	27%	1%	1.60x
CDX HY	39%	31%	09-Jan-26	57%	30-Mar-26	19%	7%	1.39x
iTraxx	39%	37%	09-Jan-26	70%	27-Mar-26	31%	2%	1.39x
iTraxx X/O	21%	19%	23-Dec-25	26%	17-Oct-25	4%	2%	0.77x



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Note: Swaps volatility is 3m 10y payer ATMF implied annualized BP vol and credit volatility is 3m 5y on-the-run ATM spread volatility. MSCI EM, Gold, Oil, Copper, BB Commodity Index and Treasury futures are 3m implied vol from Bloomberg.

Definitions:

Current:	Latest available closing level (06-Jul-26)
Low:	Lowest closing level in the last 1y
Low date:	Date the lowest closing level was reached (or the first time it was reached in the case of several identical low closing levels)
High:	Highest closing level in the last 1y
High date:	Date the highest closing level was reached (or the first time it was reached in the case of several identical high closing levels)
Graph:	Shows the current level and the 25th/75th percentile relative to the 1y high/low
Upside:	Implied return/volatility percentage points from current level up to the High (note: return is calculated as simple difference for spread products)
Upside (σ):	Upside in terms of standard deviations (Upside / Current 1y realized volatility)
Downside:	Implied return/volatility percentage points from current level down to the Low (note: return calculated as simple difference for spread products)
Downside (σ):	Downside in terms of standard deviations (Downside / Current 1y realized volatility)
Implied/realized volatility:	Current 3m implied volatility / current realized 3m volatility

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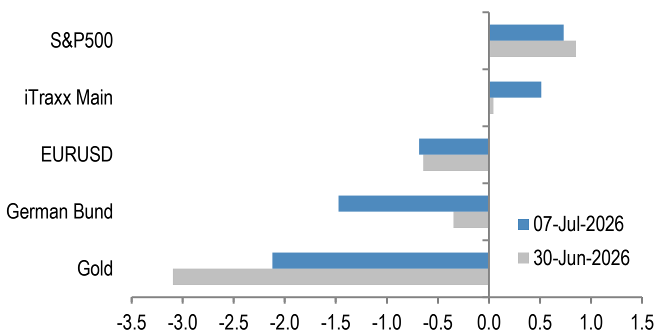
Chart A11b: Option skew monitor

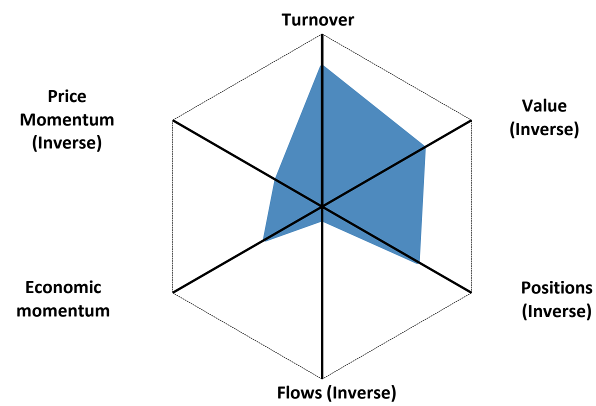
Skew is the difference between the implied volatility of out-of-the-money (OTM) call options and put options. A positive skew implies more demand for calls than puts and a negative skew, higher demand for puts than calls. It can therefore be seen as an indicator of risk perception in that a highly negative skew in equities is indicative of a bearish view. The chart shows z-score of the skew, i.e. the skew minus a rolling 2-year avg skew divided by a rolling two-year standard deviation of the skew. A negative skew on iTraxx Main means investors favour buying protection, i.e. a short risk position. A positive skew for the Bund reflects a long duration view, also a short risk position.



Source: J.P. Morgan Flows & Liquidity.

Chart A11c: Equity market health map

Each of the six axes corresponds to a key indicator for markets. The position of the blue line on each axis shows how far the current observation is from the extremes at either end of the scale. Overall, the larger the blue area within the hexagon, the better the outlook for the S&P500. All variables are expressed as the percentile of the distribution that the observation falls into. I.e. a reading in the middle of the axis means that the observation falls exactly at the median of all historical observations. **Turnover**: Percentile rank of the 21-day rolling S&P500 turnover since 2007. **Value**: Inverse of percentile rank of our quarterly S&P 500 Equity Risk Premium (ERP) estimate since 1957 as described in "A fair value model for US Bonds, Credit and Equities", Panigirtzoglou and Loeys, Jun 2005. **Positions**: Percentile rank of the difference between government bonds and equity positioning from the cross-asset positioning monitor on the front page of our publication since 2016. **Flows**: Inverse of percentile rank of the difference between equity and bond fund flows from the cross-asset fund flow monitor on the front page of our publication since 2007. **Economic momentum**: Percentile rank of the 2-month change in the global manufacturing PMI since 1998, see "REVISITING: Using the Global PMI as trading signal", Nikolaos Panigirtzoglou, Jan 2012). **Price momentum**: Inverse of the percentile rank of the z-score of the difference in the momentum signal of S&P500 vs. 10y USTs since 2016 (based on the average z-score of Short- and Long-term momentum signal in our Trend Following Strategy framework shown in Tables A3 and A4 in the Appendix). China onshore A-share ETFs have been excluded. Last obs. as of 3rd July.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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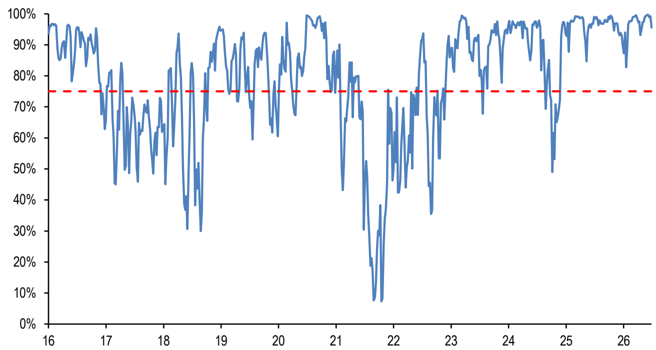
Chart A11d: Implied probability of the S&P500 rising over the next six months with a cutoff set at 75%



Source: J.P. Morgan Flows & Liquidity.

Chart A11e: Logistic regression model for direction of the S&P 500 over a 6 month horizon & Ex-ante probability of an up-move from the logistic regression algorithm vs. the ex-post realised 6-month return in the S&P 500

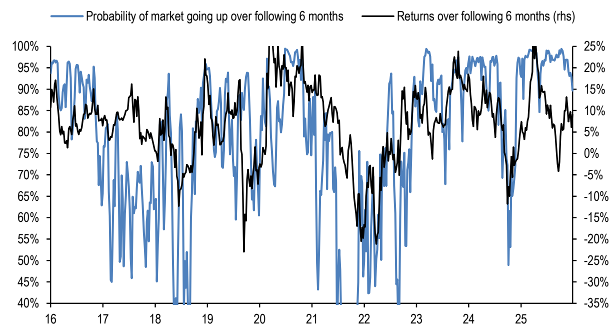
In %.

Dependent Variable: S&500 UP (1) or DOWN (0) over the next six months
Method: ML - Binary Logit (Newton-Raphson / Marquardt steps)

Sample (adjusted): 1/08/2016 12/20/2024
Included observations: 468 after adjustments

Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	3.42	0.84	4.08	0.00
TURNOVER	2.97	0.72	4.15	0.00
VALUE	-3.47	0.90	-3.88	0.00
POSITIONS	-0.77	0.55	-1.39	0.16
FLOWS	-1.79	0.53	-3.38	0.00
ECON_MOMENTUM	3.35	0.62	5.42	0.00
MOMENTUM	-1.36	0.62	-2.19	0.03



Source: J.P. Morgan Flows & Liquidity.

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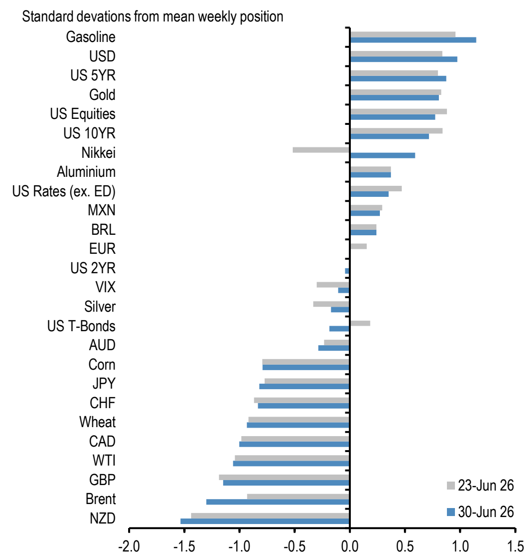
Spec position monitor

Chart A12: Weekly Spec Position Monitor

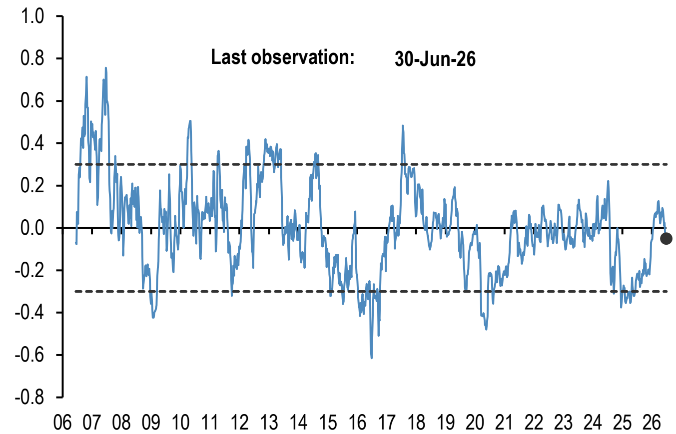
Net spec positions are proxied by the number of long contracts minus the number of short contracts using the speculative category of the Commitments of Traders reports (as reported by CFTC). To proxy for speculative investors for equity and US Treasury bond futures positions we use Asset managers and leveraged funds (see Chart A13), whereas for other assets we use the legacy Non-Commercial category. This net position is then converted to a dollar amount by multiplying by the contract size and then the corresponding futures price. We then scale the net positions by open interest. The chart shows the z-score of these net positions. US rates is a duration-weighted composite of the individual UST futures contracts excluding the Eurodollar contract.



Source: Bloomberg Finance L.P., CFTC, J.P. Morgan Flows & Liquidity.

Chart A14: Spec position indicator on Risky vs. Safe currencies

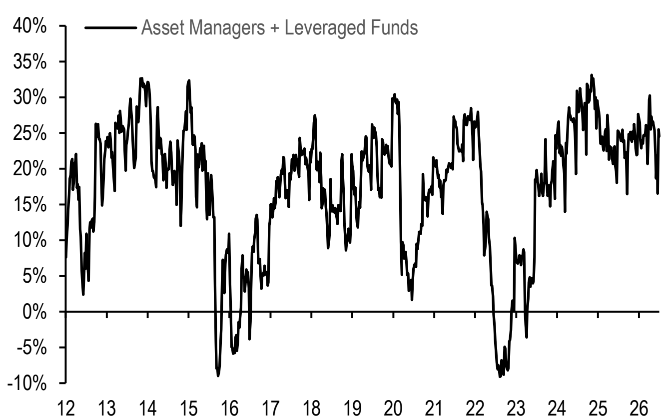
Difference between net spec positions on risky & safe currencies. Net spec position is calculated in USD across 5 ‘risky’ and 3 ‘safe’ currencies (safe currencies also include Gold). These positions are then scaled by open interest and we take an average of ‘risky’ and ‘safe’ assets to create two series. The chart is then simply the difference between the“risky” and “safe” series. The final series shown in the chart below is demeaned using data since 2006. The risky currencies are: AUD, NZD,CAD, MXN and BRL. The safe currencies are: JPY, CHF and Gold.



Source: Bloomberg Finance L.P., CFTC, J.P. Morgan Flows & Liquidity.

Chart A13: Positions in US equity futures by Asset managers and Leveraged funds

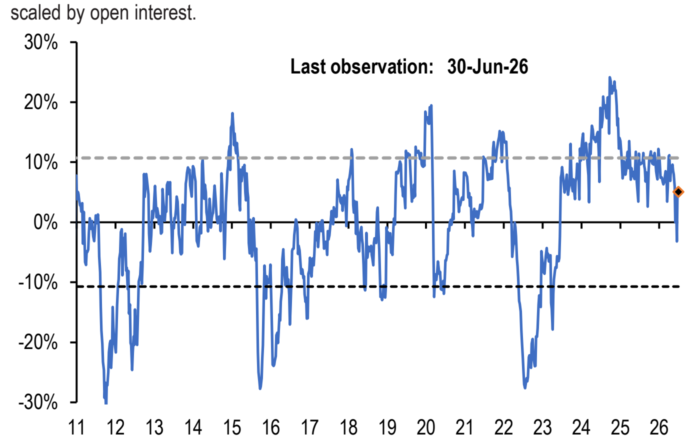
CFTC positions in US equity futures by Leveraged funds and Asset managers (as a % of open interest). It is an aggregate of the S&P500, DowJones, NASDAQ and their Mini futures contracts.



Source: CFTC, Bloomberg Finance L.P. and J.P. Morgan Flows & Liquidity.

Chart A15: Spec position indicator on US equity futures vs. intermediate sector UST futures

Difference between net spec positions on US equity futures vs. intermediate sector UST futures. This indicator is derived by the difference between total CFTC positions in US equity futures by Asset managers + Leveraged Funds scaled by open interest minus the Asset managers + Leveraged Funds spec position on intermediate sector UST futures (i.e. all UST futures duration weighted ex ED and ex 2Y UST futures) also scaled by open interest.



Source: CFTC, Bloomberg Finance L.P. and J.P. Morgan Flows & Liquidity.

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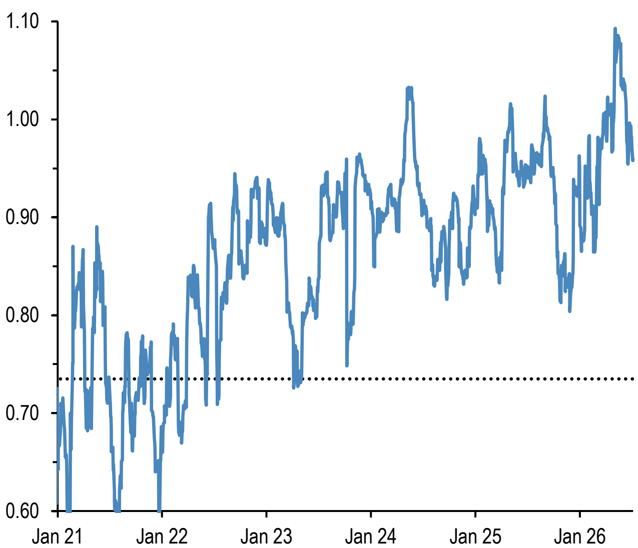
Mutual fund and hedge fund betas

Chart A16: 21-day rolling beta of 20 biggest active US bond mutual fund managers with respect to the US Agg Bond Index

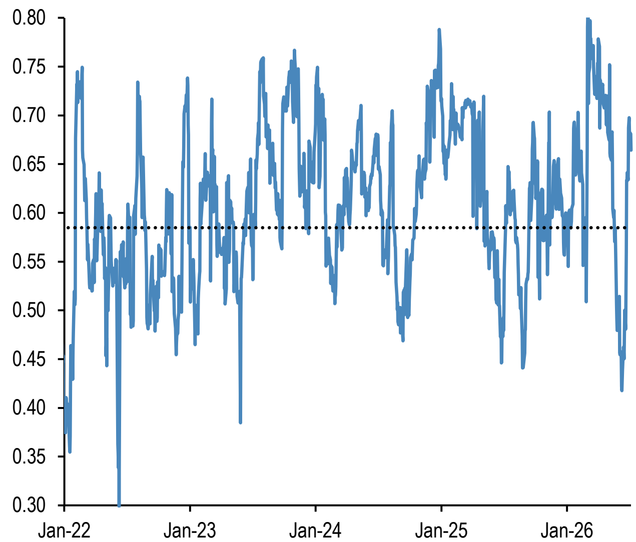
The dotted line shows the average beta since 2013.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A17: 21-day rolling beta of 20 biggest active Euro bond mutual fund managers with respect to the Euro Agg Bond Index

The dotted line shows the average beta since 2013.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A18: Performance of various types of investors

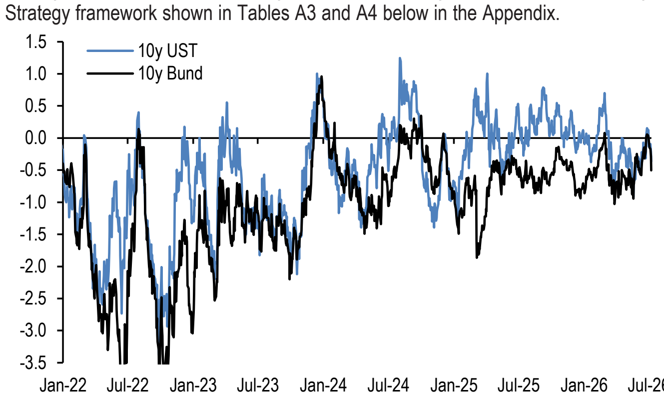
The table depicts the performance of various types of investors in % as of 3rd July 2025.

Date	2020	2021	2022	2023	2024	2025	2026
Investors							
Equity L/S	13.4%	9.3%	-7.0%	11.3%	13.0%	15.5%	8.3%
Macro ex-CTAs	4.9%	4.3%	11.5%	1.3%	6.0%	10.2%	4.7%
CTAs	1.2%	8.8%	14.7%	-2.5%	2.9%	-1.1%	8.2%
Risk Parity Funds	3.5%	4.7%	-18.6%	6.0%	5.0%	17.3%	5.7%
US Balanced MFs	13.2%	14.4%	-13.0%	13.8%	11.4%	14.4%	6.4%
Benchmark							
MSCI AC World	16.3%	16.4%	-18.4%	22.2%	17.5%	22.3%	10.4%
Barclays Global Agg	5.6%	-2.5%	-11.2%	7.1%	3.4%	4.9%	1.4%
S&P Riskparity Vol 10	11.5%	12.8%	-16.2%	15.0%	5.4%	15.9%	13.2%
60 US Equity : 40 US Bonds	13.3%	14.8%	-15.4%	18.6%	16.4%	12.7%	6.3%

Source: Bloomberg Finance L.P., HFR, Pivotal Path, J.P. Morgan Flows & Liquidity.

Chart A19: Momentum signals for 10Y UST and 10Y Bunds

Average z-score of Short- and Long-term momentum signal in our Trend Following Strategy framework shown in Tables A3 and A4 below in the Appendix.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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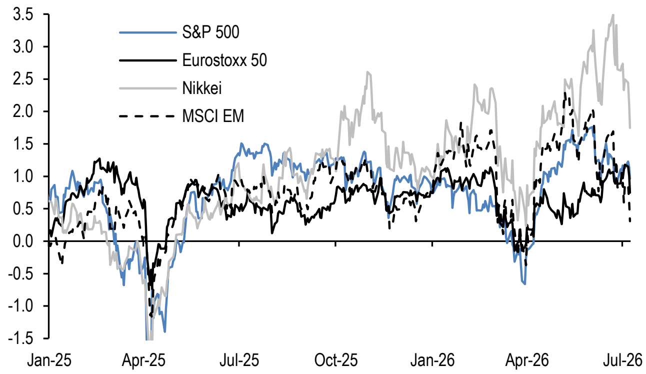
Chart A20: Momentum signals for S&P500

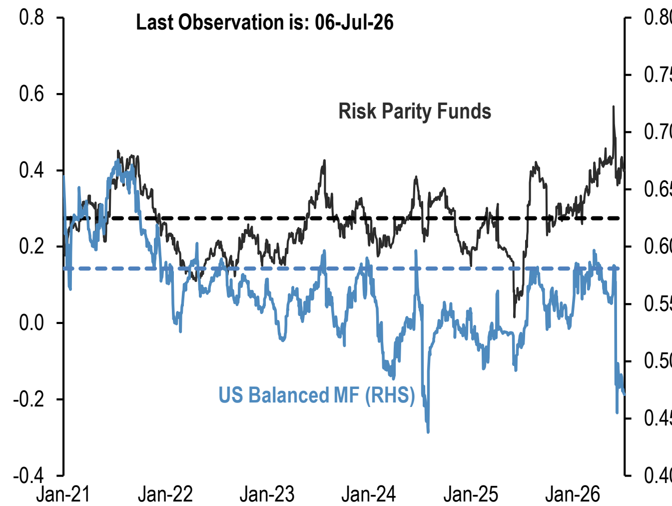
Average z-score of Short- and Long-term momentum signal in our Trend Following Strategy framework shown in Tables A3 and A4 below in the Appendix.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A21: Equity beta of US Balanced Mutual funds and Risk Parity funds

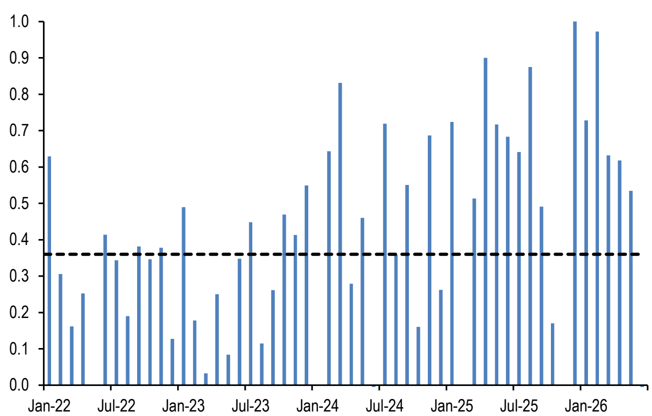
Rolling 42-day equity beta based on a bivariate regression of the daily returns of our Balanced Mutual fund and Risk Parity fund return indices to the daily returns of the S&P 500 and BarCap US Agg indices. Given that these funds invest in both equities and bonds we believe that the bivariate regression will be more suitable for these funds. Our risk parity index consists of 40 daily reporting Risk Parity funds. Our Balanced Mutual fund index includes the top 20 US-based active funds by assets and that have existed since 2006. Our Balanced Mutual fund index has a total AUM of $700bn, which is around half of the total AUM of $1.5tr of US based Balanced funds which we believe to be a good proxy of the overall industry It excludes tracker funds and funds with a low tracking error. Dotted lines are average since 2015.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A22: Equity beta of monthly reporting Equity Long/Short hedge funds

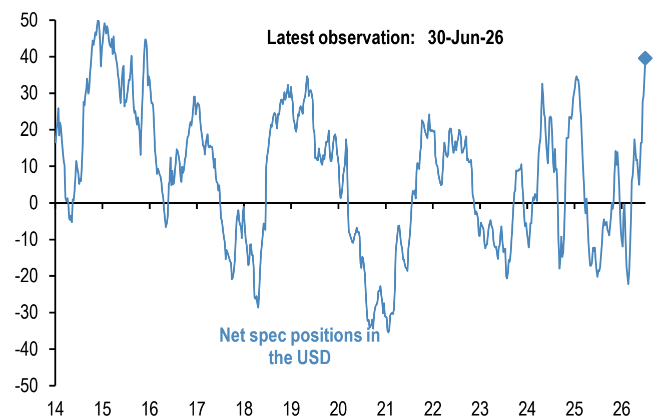
Proxied by the ratio of the monthly performance of Pivotal Path Asset-Weighted Equity Diversified hedge fund index divided by the monthly performance of MSCI AC World Index. Latest obs. is June 26 based on provisional data.



Source: Bloomberg Finance L.P., Pivotal Path, J.P. Morgan Flows & Liquidity.

Chart A23: USD exposure of currency hedge funds

The net spec position in the USD as reported by the CFTC. Spec is the non-commercial category from the CFTC.



Source: CFTC, Barclays, Datastream, Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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CTAs – Trend following investors' momentum indicators

Table A3: Simple return momentum trading rules across various commodities

Optimal look-back period of each momentum strategy combined with a mean reversion indicator that turns signal neutral when momentum z-score more than 1.5 standard deviations above or below mean, and a filter that turns neutral when the z-score is low (below 0.05 and above -0.05) to avoid excessive trading. Look-backs, current signals and z-scores are shown for shorter-term and longer-term momentum separately, along with performance of a combined signal. Annualised return, volatility and information ratio of the signal; current signal; and z-score of the current return over the relevant look-back period; data from 1999 onward.

		Lookback (moving avg, days)	Annualized return (%)	Vol (%)	IR	Current signal	Time since last change (days)	Z-score	% Change of return index from its moving average
WTI	short	21	6.0	22.7	0.26	-1	0	-1.1	-6.7%
	long	462				1	17	0.6	18.5%
Brent	short	84	4.5	21.5	0.21	-1	0	-1.4	-17.5%
	long	504				1	17	0.7	21.0%
Unleaded gas	short	105	2.9	23.2	0.12	1	29	0.3	4.0%
	long	483				0	6	1.6	44.2%
Heat Oil	short	63	4.5	21.9	0.21	-1	22	-0.6	-5.8%
	long	483				0	90	2.0	61.1%
Gasoil	short	63	8.4	21.2	0.39	-1	6	-0.6	-6.8%
	long	378				0	90	2.0	57.2%
Nat gas	short	105	13.2	35.9	0.37	0	1	0.0	-0.1%
	long	315				-1	111	-0.4	-12.8%
EU emission allowances	short	42	10.1	28.8	0.35	1	19	0.3	2.5%
	long	483				1	19	0.1	6.0%
1m fwd TTF Nat gas	short	21	35.7	31.4	1.14	1	0	0.6	5.9%
	long	294				1	76	0.6	29.2%
Gold	short	21	3.3	10.6	0.31	-1	4	-0.2	-0.5%
	long	483				1	22	0.7	9.7%
Silver	short	10	6.5	19.7	0.33	1	1	0.4	1.5%
	long	462				1	13	0.8	18.6%
Palladium	short	42	12.1	23.1	0.52	-1	7	-0.5	-4.3%
	long	273				-1	35	-0.6	-14.2%
Platinum	short	105	4.2	18.6	0.23	0	13	-1.7	-16.6%
	long	273				-1	13	-0.6	-9.6%
Aluminium	short	105	5.7	15.2	0.38	-1	11	-1.0	-7.7%
	long	357				1	16	0.6	8.4%
Copper	short	147	7.2	17.3	0.42	1	103	0.2	2.2%
	long	399				1	109	0.9	20.4%
Lead	short	126	0.9	19.2	0.05	-1	21	-0.5	-5.7%
	long	357				-1	122	-0.5	-9.9%
Nickel	short	42	12.1	23.0	0.52	-1	23	-1.2	-9.9%
	long	336				-1	6	-0.1	-2.8%
Zinc	short	126	7.9	19.6	0.40	1	71	0.5	5.5%
	long	399				1	201	0.8	18.2%
Wheat	short	168	4.1	23.2	0.18	1	4	0.3	4.1%
	long	294				1	4	0.3	4.4%
Kansas wheat	short	147	8.0	20.8	0.38	1	5	0.4	4.9%
	long	483				1	1	0.1	2.7%
Corn	short	63	7.7	16.6	0.47	-1	33	-0.3	-2.4%
	long	399				-1	45	-0.5	-9.2%
Soybeans	short	42	4.6	14.5	0.32	1	1	0.3	1.8%
	long	231				1	1	0.3	3.6%
Cotton	short	168	5.4	18.5	0.29	1	18	0.5	7.3%
	long	483				1	0	0.1	2.5%
Sugar	short	63	6.3	21.6	0.29	1	4	0.3	2.6%
	long	252				-1	38	-0.1	-2.6%
Coffee	short	63	7.7	23.9	0.32	0	1	1.8	15.4%
	long	273				1	1	0.2	3.5%
Cocoa*		10	5.7	31.3	0.18	0	1	3.2	11.9%

* For cocoa, uses only short-term momentum and a z-score threshold of 3 rather than 1.5 as for other contracts.

Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Table A4: Simple return momentum trading rules across international equity indices, bond futures and FX

Optimal look-back period of each momentum strategy combined with a mean reversion indicator that turns signal neutral when momentum z-score more than 1.5 standard deviations above or below mean, and a filter that turns neutral when the z-score is low (below 0.05 and above -0.05) to avoid excessive trading. Look-backs, current signals and z-scores are shown for shorter-term and longer-term momentum separately, along with performance of a combined signal. Annualised return, volatility and information ratio of the signal; current signal; and z-score of the current return over the relevant look-back period; data from 1999 onward.

		Lookback (moving avg, days)	Annualized return (%)	Vol (%)	IR	Current signal	Time since last change (days)	Z-score	% Change of return index from its moving average
S&P 500	short	84	7.6	12.3	0.62	1	0	1.0	5.0%
	long	315				1	0	1.3	13.1%
Nasdaq 100	short	84	10.1	16.2	0.62	1	0	0.7	5.8%
	long	462				1	0	1.3	24.9%
Nikkei	short	63	4.1	13.3	0.31	1	0	1.1	6.7%
	long	420				0	0	3.1	46.7%
FTSE 100	short	168	5.3	12.1	0.44	1	0	0.8	5.4%
	long	504				0	0	1.7	19.6%
Eurostoxx 50	short	168	4.9	16.6	0.29	1	0	0.9	8.3%
	long	294				1	0	1.1	12.5%
MSCI EM	short	42	12.7	11.5	1.11	-1	0	-0.3	-1.7%
	long	357				0	0	1.5	24.3%
HYG credit	short	168	0.4	3.4	0.12	0	0	0.0	-0.1%
	long	273				0	0	0.0	0.0%
LQD credit	short	10	2.6	6.5	0.40	1	0	0.1	0.1%
	long	189				-1	0	-0.1	-0.6%
2Y USTs	short	252	0.9	1.1	0.79	-1	0	-0.9	-1.0%
	long	462				-1	0	-0.6	-1.1%
5Y USTs	short	252	1.5	2.8	0.55	-1	0	-0.7	-1.7%
	long	420				-1	0	-0.4	-1.4%
10Y USTs	short	42	2.0	3.6	0.55	-1	0	-0.1	-0.2%
	long	441				-1	0	-0.3	-1.4%
2Y Schatz	short	189	0.6	0.8	0.81	-1	0	-0.6	-0.5%
	long	504				-1	0	-1.2	-2.1%
5y Bobl	short	63	1.3	1.9	0.71	1	0	0.1	0.1%
	long	483				-1	0	-0.7	-2.4%
10y Bund	short	105	2.2	3.4	0.63	-1	0	-0.1	-0.1%
	long	462				-1	0	-0.5	-2.7%
10Y JGB	short	126	0.9	2.3	0.38	0	0	-1.6	-1.6%
	long	273				0	0	-2.4	-3.6%
10Y Gilts	short	42	2.3	4.0	0.56	1	0	0.3	0.5%
	long	399				-1	0	-0.6	-3.1%
10y OAT vs Bund	short	189	0.4	1.5	0.25	0	0	0.0	0.0%
	long	294				1	0	0.4	0.4%
10y BTP vs. Bund	short	84	2.2	6.3	0.36	1	0	0.2	0.4%
	long	273				1	0	0.1	0.6%
Euro	short	42	3.4	6.4	0.52	-1	0	-0.7	-1.6%
	long	273				-1	0	-0.9	-4.9%
Yen	short	21	3.7	6.3	0.58	-1	0	-0.4	-0.7%
	long	462				-1	0	-1.5	-12.2%
Sterling	short	168	1.4	7.1	0.19	-1	0	-0.4	-1.6%
	long	294				-1	0	-0.5	-2.6%
AUD	short	42	3.8	7.8	0.49	-1	0	-0.8	-2.1%
	long	420				1	0	0.2	1.4%
CAD	short	168	1.5	5.9	0.25	-1	0	-1.2	-4.4%
	long	504				-1	0	-1.1	-7.6%
G10 FX	short	42	2.2	5.2	0.42	1	0	0.8	1.4%
	long	189				1	0	0.6	2.4%
EMCI	short	42	2.6	5.0	0.52	-1	0	-0.3	-0.6%
	long	189				1	0	0.5	1.8%

Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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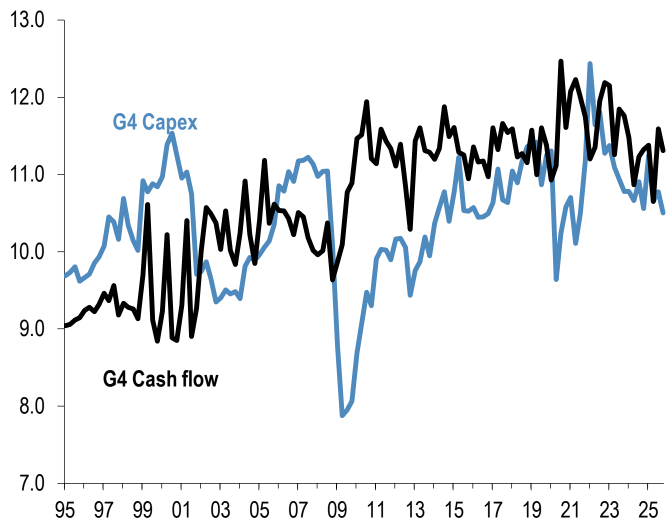
Corporate Activity

Chart A24: G4 non-financial corporate capex and cash flow as % of GDP

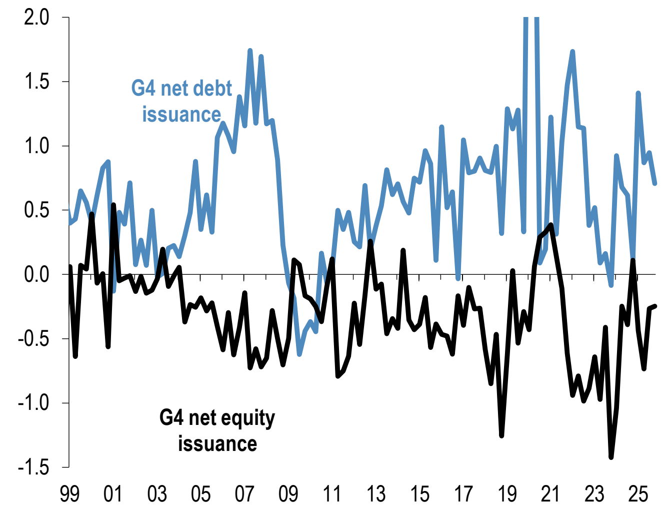
% of GDP, G4 includes the US, the UK, the Euro area and Japan. Last observation as of Q4 2025.



Source: ECB, BOJ, BOE, Federal Reserve flow of funds, J.P. Morgan Flows & Liquidity.

Chart A25: G4 non-financial corporate sector net debt and equity issuance

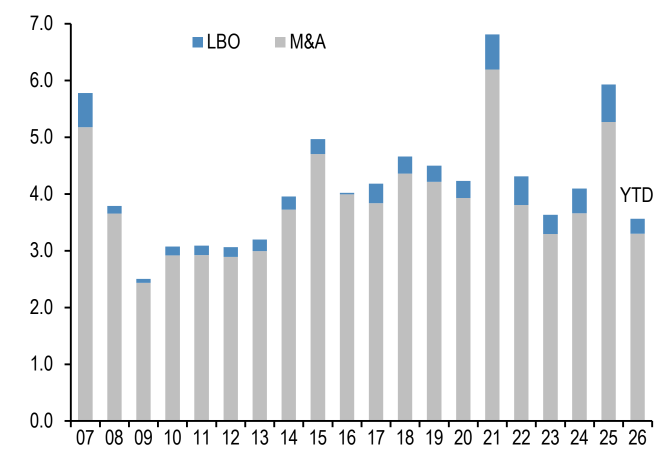
$tr per quarter, G4 includes the US, the UK, the Euro area and Japan. Last observation as of Q4 2025.



Source: ECB, BOJ, BOE, Federal Reserve flow of funds, J.P. Morgan Flows & Liquidity.

Chart A26: Global M&A and LBO

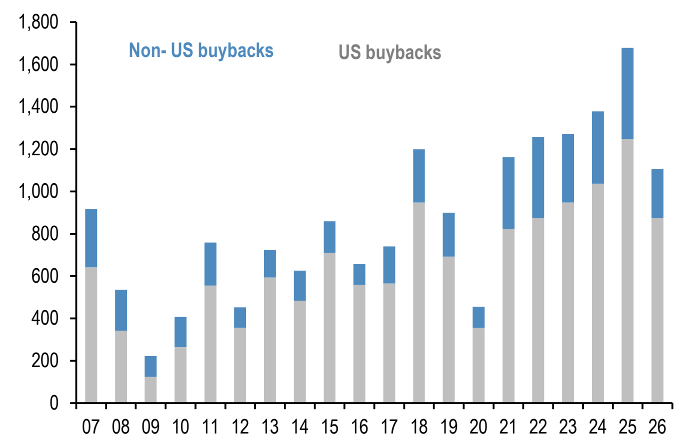
$tr. M&A and LBOs are announced.



Source: Dealogic, J.P. Morgan Flows & Liquidity.

Chart A27: US and non-US share buyback

$bn, are as of June 26. Buybacks are as announced.



Source: Bloomberg Finance L.P., LSEG, J.P. Morgan Flows & Liquidity.

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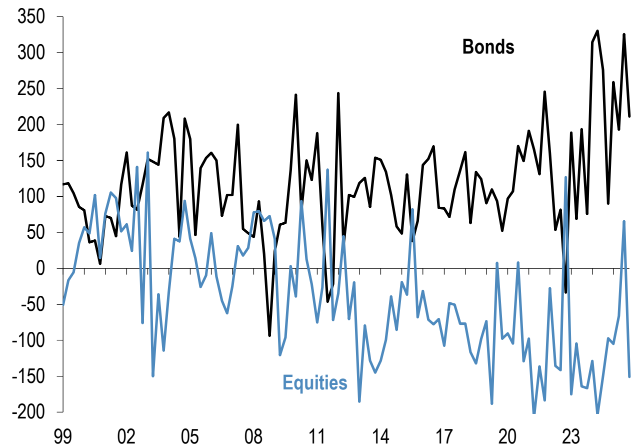
Pension fund and insurance company flows

Chart A28: G4 pension funds and insurance companies equity and bond flows

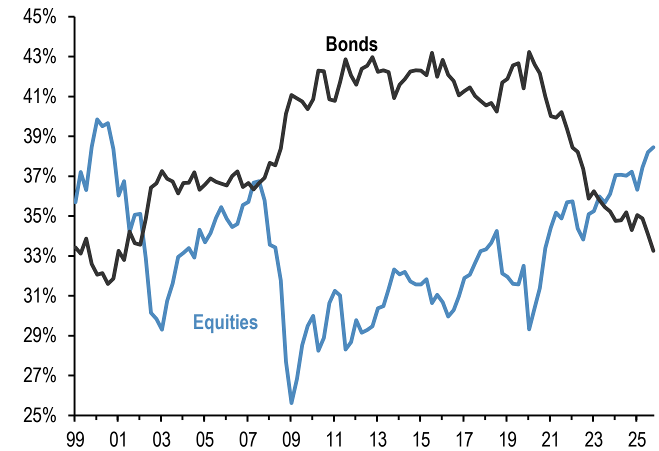
Equity and bond buying in $bn per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q4 2025.



Source: ECB, BOJ, BOE, Federal Reserve flow of funds, J.P. Morgan Flows & Liquidity.

Chart A29: G4 pension funds and insurance companies equity and bond levels

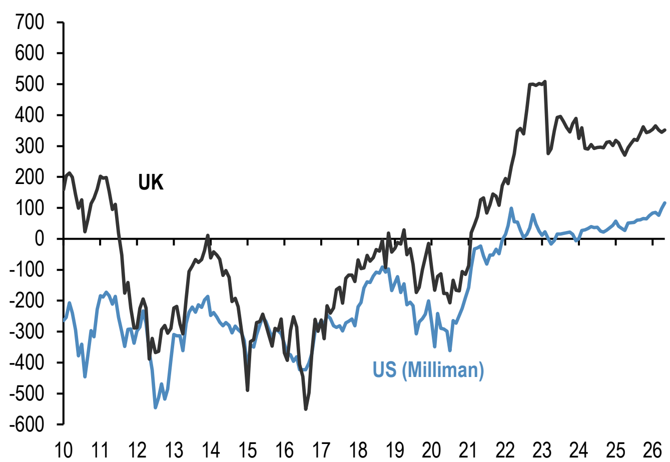
Equity and bond as % of total assets per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q4 2025.



Source: ECB, BOJ, BOE, Federal Reserve flow of funds, J.P. Morgan Flows & Liquidity.

Chart A30: Pension fund deficits

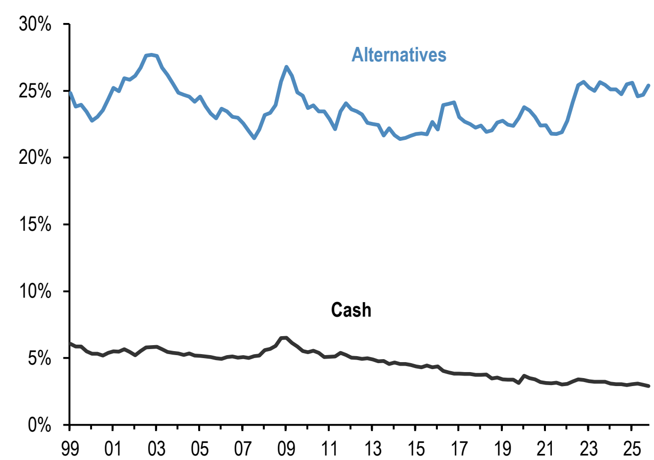
US$bn. For US, funded status of the 100 largest corporate defined benefit pension plans, from Milliman. For UK, funded status of the defined benefit schemes eligible for entry to the Pension Protection Fund, converted to US$ at today's exchange rates. Last obs. is May'26 for US & UK.



Source: Milliman, UK Pension Protection Fund, J.P. Morgan Flows & Liquidity.

Chart A31: G4 pension funds and insurance companies cash and alternatives levels

Cash and alternative investments as % of total assets per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q4 2025.



Source: ECB, BOJ, BOE, Federal Reserve flow of funds, J.P. Morgan Flows & Liquidity.

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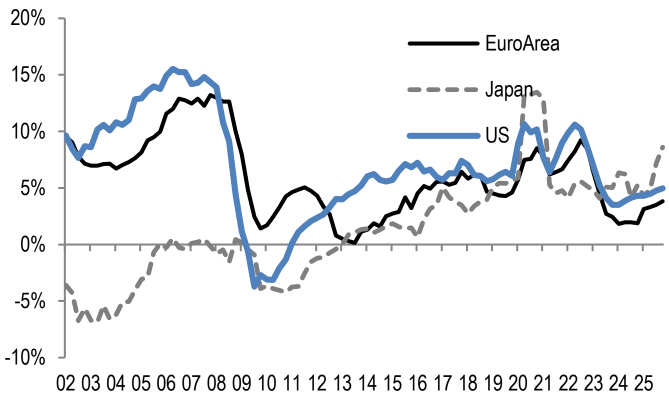
Credit Creation

Chart A32: Credit creation in the US, Japan and Euro area

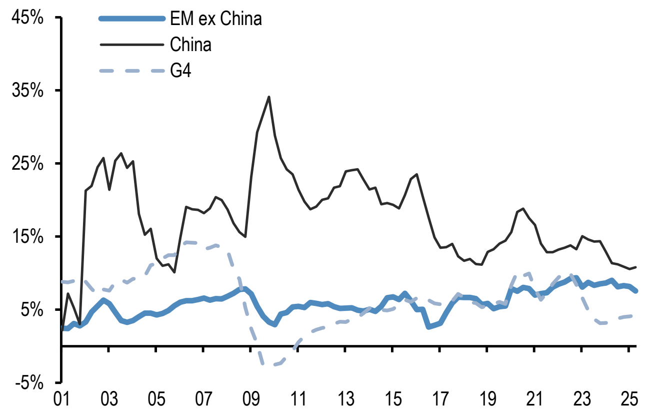
Rolling sum of 4-quarter credit creation as % of GDP. Credit creation includes both bank loans as well as net debt issuance by non-financial corporations and households. Last obs. is Q4'25 for Japan, Euro Area and US.



Source: Fed, ECB, BoJ, Bloomberg Finance L.P., and J.P. Morgan Flows & Liquidity.

Chart A33: Credit creation in EM

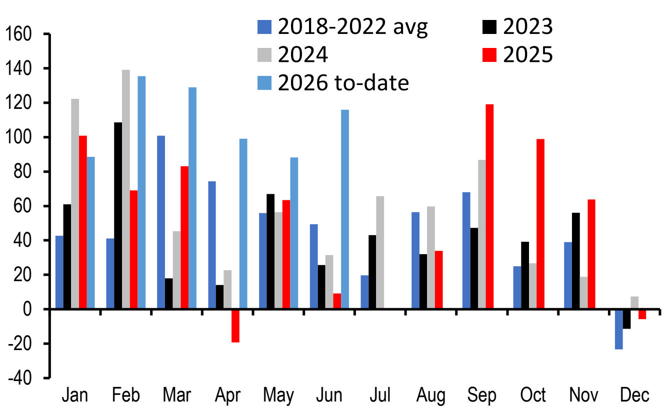
Rolling sum of 4-quarter credit creation as % of GDP. Credit creation includes both bank loans as well as net debt issuance by non-financial corporations and households. The chart uses the FX rates as of the latest observation to calculate the credit creation at constant exchange rates. Last obs. is for Q2'25.



Source: G4 Central banks FoF, BIS, ICI, Barcap, Bloomberg Finance L.P., IMF, and J.P. Morgan Flows & Liquidity.

Chart A34: Monthly net issuance of US HG bonds

$bn. Up to June 30th.



Source: Dealogic, J.P. Morgan Flows & Liquidity.

Table A5: Equity and Bond issuance

$bn, Equity supply and corporate announcements are based on announced deals, not completed. M&A is announced deal value and buybacks are announced transactions. Y/Y change is change in YTD announcements over the same period last year.

Equity Supply	**26-Jun**	**4 wk avg**	**13 wk avg**	**y/y chng**
Global IPOs	4.7	27.6	11.8	192%
Secondary Offerings	14.4	16.9	12.4	29%
Corporate announcements				
M&A - Global	149.8	151.8	144.4	43%
- US Target	72.3	88.9	77.5	70%
- Non-US Target	77.4	62.9	67.0	22%
Net bond issuance	**Feb-26**	**3 mth avg**	**YTD avg**	**y/y chng**
USD	8	144	179	-50%
Non-USD	162	129	277	-4%

Source: Bloomberg Finance L.P., Dealogic, Thomson Reuters, J.P. Morgan Flows & Liquidity.

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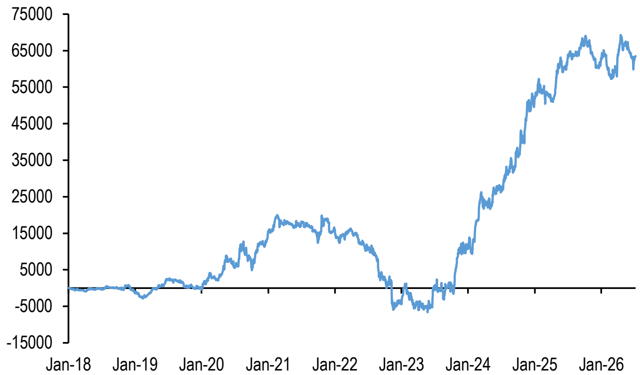
Bitcoin monitor

Chart A35: Our Bitcoin position proxy, based on open interest in CME Bitcoin futures contracts

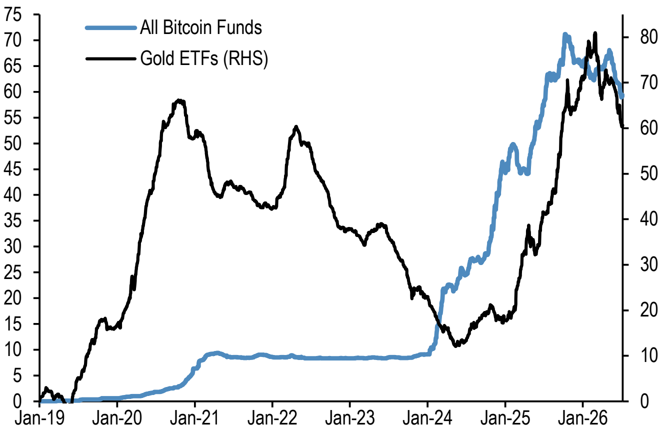
In number of contracts. Last obs. for 7th July 2026.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A36: Cumulative Flows in all Bitcoin funds and Gold ETF holdings

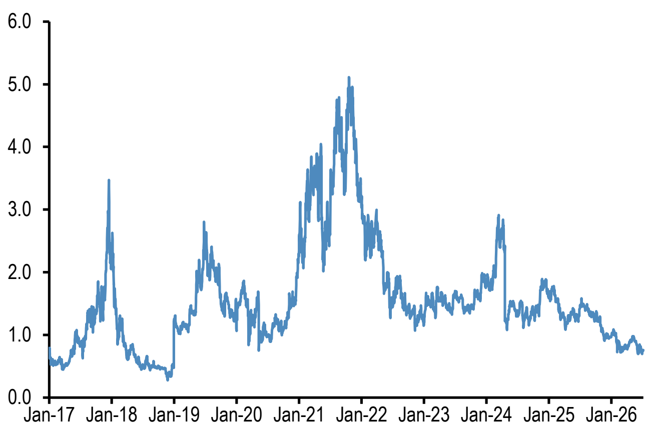
Both the y-axis in $bn.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A37: Ratio of bitcoin market price to production cost

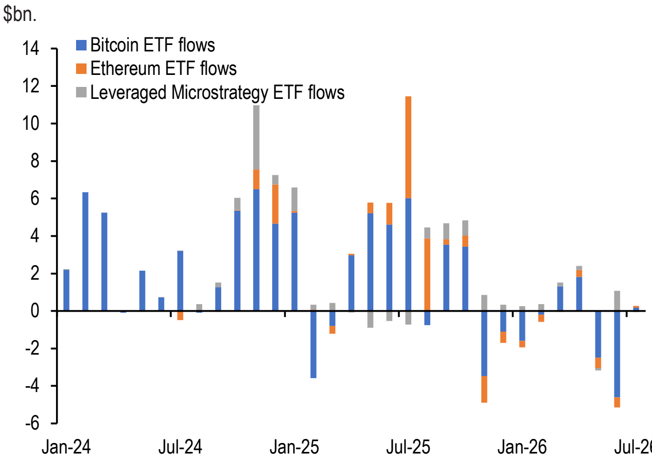
Based on the cost of production approach following Hayes (2018).



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A38: Monthly flows into spot bitcoin ETFs, spot ethereum ETFs and leveraged MicroStrategy ETF

$bn.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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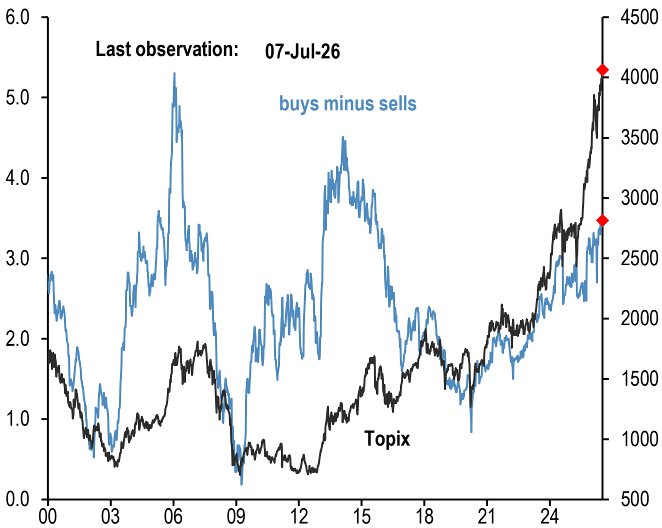
Japanese flows and positions

Chart A39: Tokyo Stock Exchange margin trading: total buys minus total sells

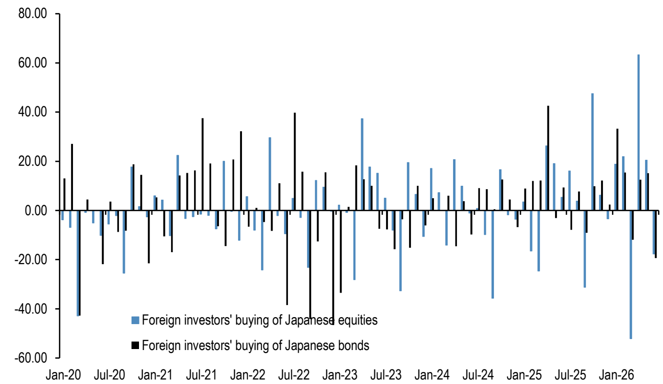
In bn of shares. Topix on right axis.



Source: Tokyo Stock Exchange, Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A40: Monthly net purchases of Japanese bonds and Japanese equities by foreign residents

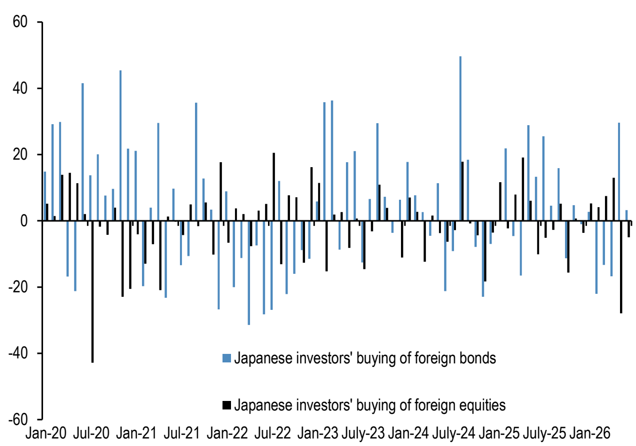
$bn, Last weekly obs. is for 26th June' 26.



Source: Japan MoF, Bloomberg Finance L.P., and J.P. Morgan Flows & Liquidity.

Chart A41: Monthly net purchases of foreign bonds and foreign equities by Japanese residents

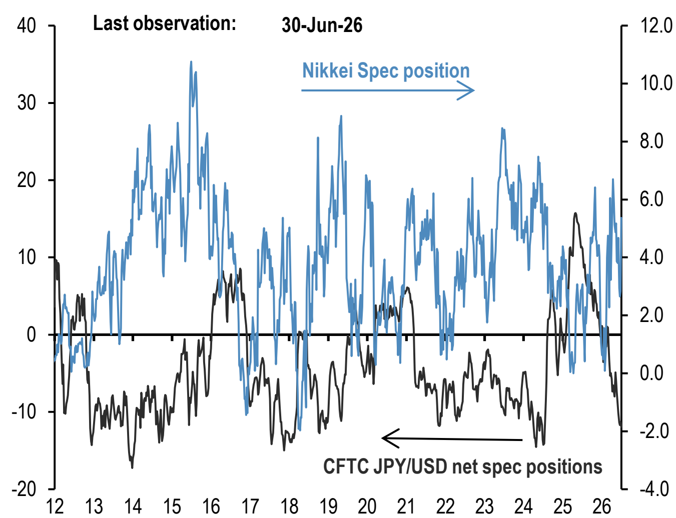
$bn, Last weekly obs. is for 26th June' 26.



Source: Japan MoF, Bloomberg Finance L.P., and J.P. Morgan Flows & Liquidity.

Chart A42: Overseas CFTC spec positions

CFTC spec positions are in $bn. For Nikkei we use CFTC positions in Nikkei futures (USD & JPY) by Leveraged funds and Asset managers.



Source: Bloomberg Finance L.P., CFTC, J.P. Morgan Flows & Liquidity.

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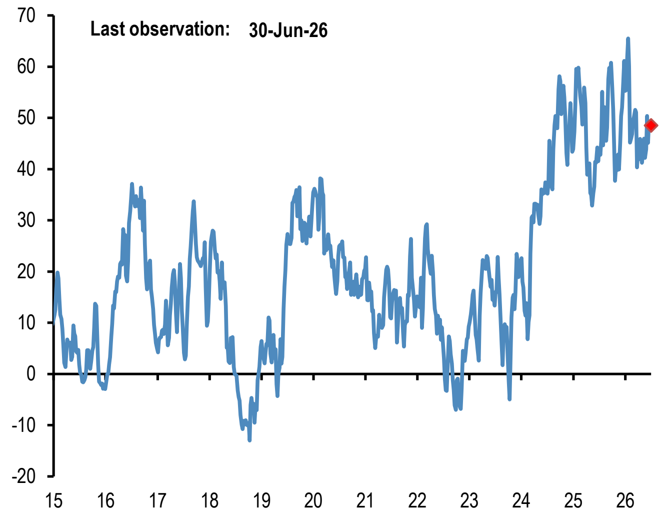
Commodity flows and positions

Chart A43: Gold spec positions

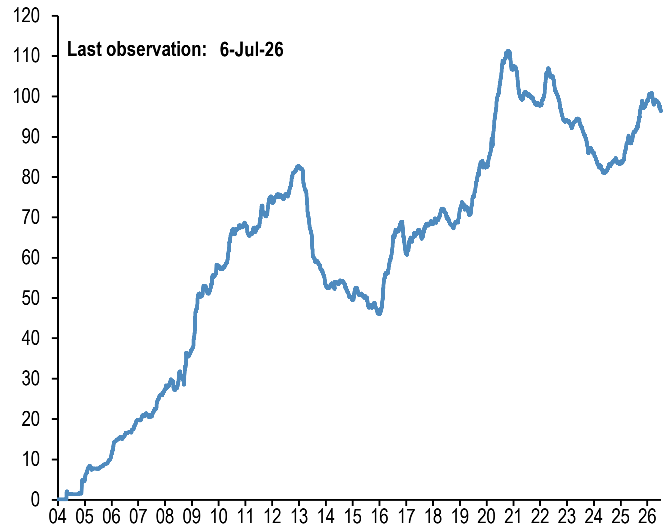
$bn. CFTC net long minus short position in futures for the Managed Money category.



Source: CFTC, Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A44: Gold ETFs

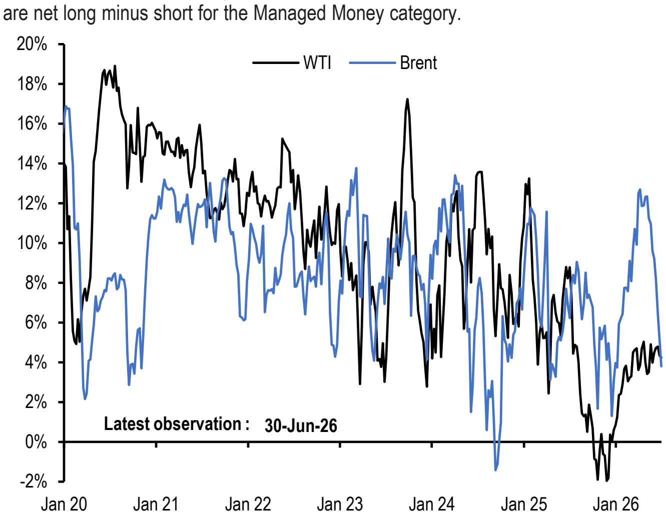
Mn troy oz. Physical gold held by all gold ETFs globally.



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A45: Oil spec positions

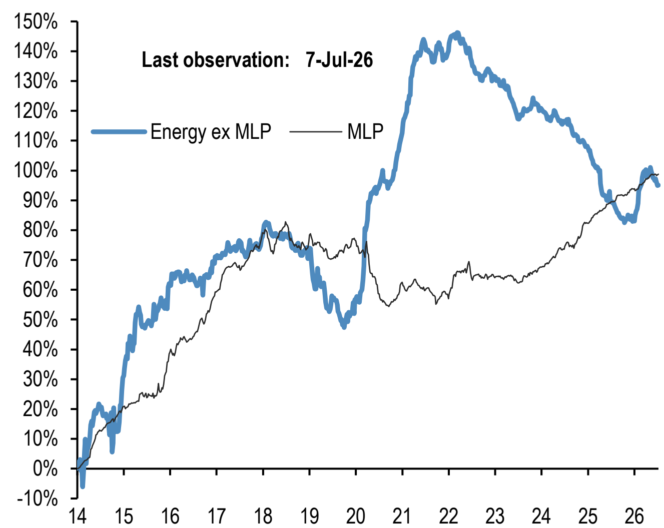
Net spec positions divided by open interest. CFTC futures positions for WTI and Brent are net long minus short for the Managed Money category.



Source: CFTC, Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A46: Energy ETF flows

Cumulative energy ETFs flows as a % of AUM. MLP refers to the Alerian MLP ETF.



Source: CFTC, Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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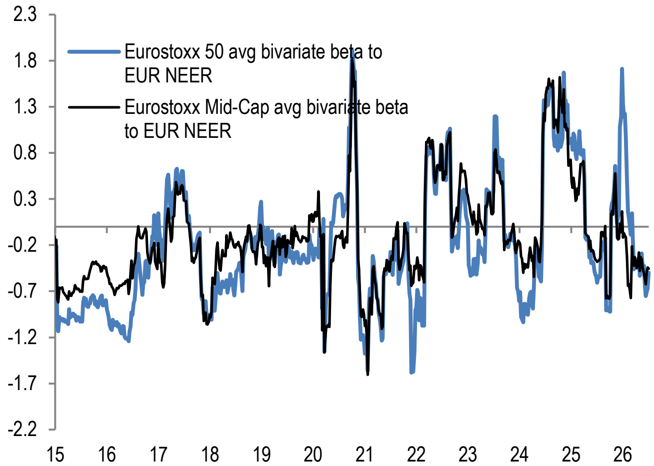
Corporate FX hedging proxies

Chart A47: Average beta of Eurostoxx 50 companies and Eurostoxx Mid-Cap to trade-weighted EUR

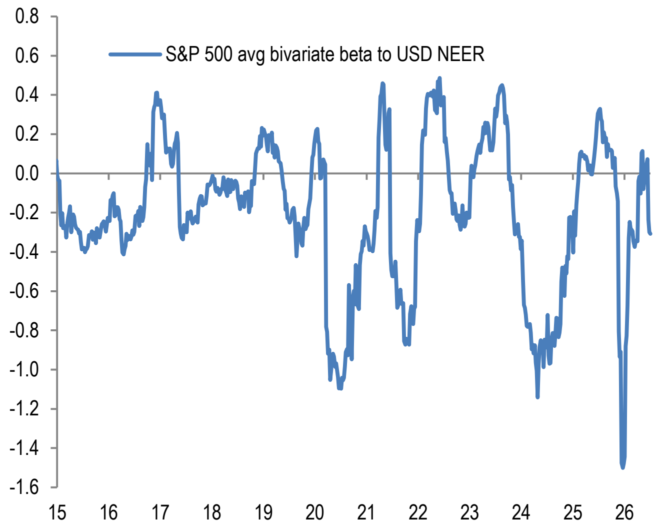
Rolling 26 weeks average betas based on a bivariate regression of the weekly returns of individual stocks in the Eurostoxx 50 index to the weekly returns of the MSCI AC World and JPM EUR Nominal broad effective exchange rate (NEER).



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A48: Average beta of S&P500 companies to trade-weighted US dollar

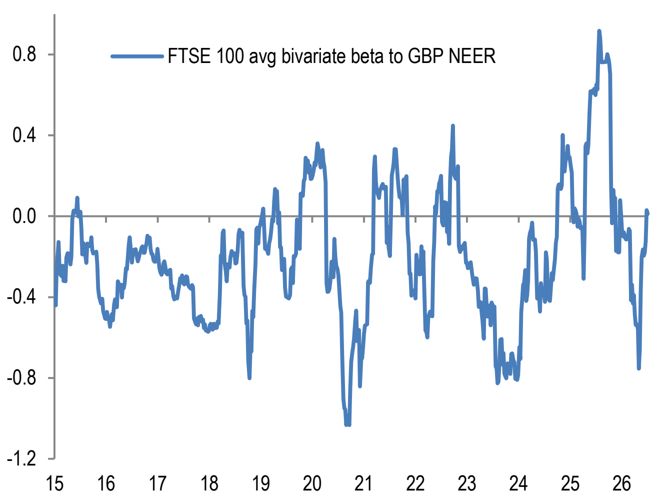
Rolling 26 weeks average betas based on a bivariate regression of the weekly returns of stocks in the S&P500 index to the weekly returns of the MSCI AC World and JPM USD Nominal broad effective exchange rate(NEER).



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A49: Average beta of FTSE 100 companies to trade-weighted GBP

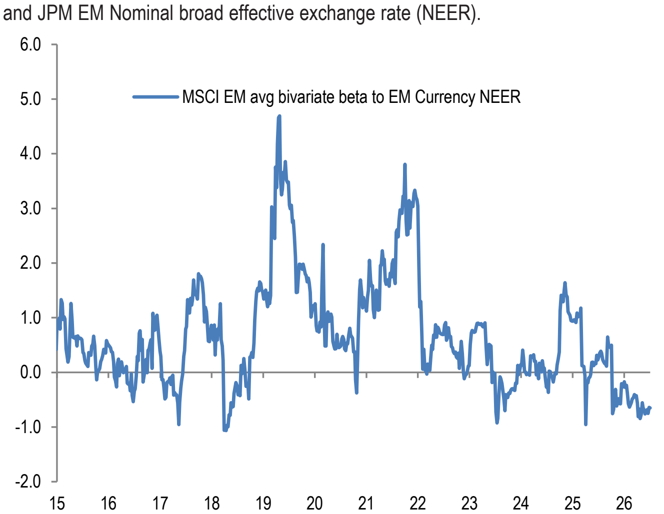
Rolling 26 weeks average betas based on a bivariate regression of the weekly returns of individual stocks in the FTSE 100 index to the weekly returns of the MSCI AC World and JPM GBP Nominal broad effective exchange rate (NEER).



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Chart A50: Average beta of MSCI EM companies to trade-weighted EM Currency Index

Rolling 26 weeks average betas based on a bivariate regression of the weekly returns of individual stocks in the MSCI EM index to the weekly returns of the MSCI AC World and JPM EM Nominal broad effective exchange rate (NEER).



Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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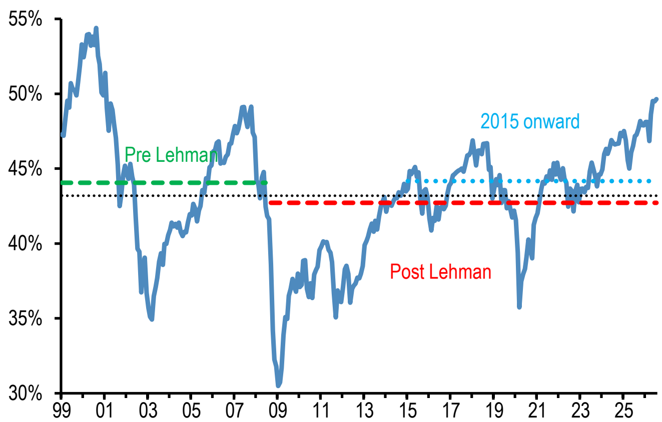
Non-Bank investors' implied allocations

Chart A51: Implied equity allocation by non-bank investors globally

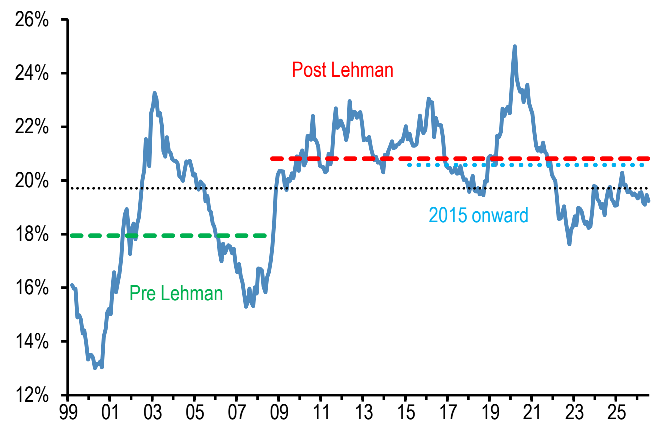
Global equities as % total holdings of equities/bonds/M2 by non-bank investors/ Commodities including gold held by private investors. Dotted lines are averages.



Source: Bloomberg Finance L.P., LSEG DataStream, J.P. Morgan Flows & Liquidity.

Chart A52: Implied bond allocation by non-bank investors globally

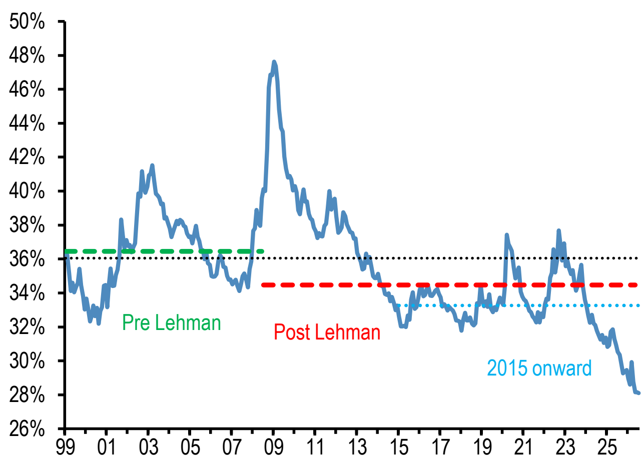
Global bonds as % total holdings of equities/bonds/M2 by non-bank investors/ Commodities including gold held by private investors. Dotted lines are averages.



Source: Bloomberg Finance L.P., LSEG DataStream, J.P. Morgan Flows & Liquidity.

Chart A53: Implied cash allocation by non-bank investors globally

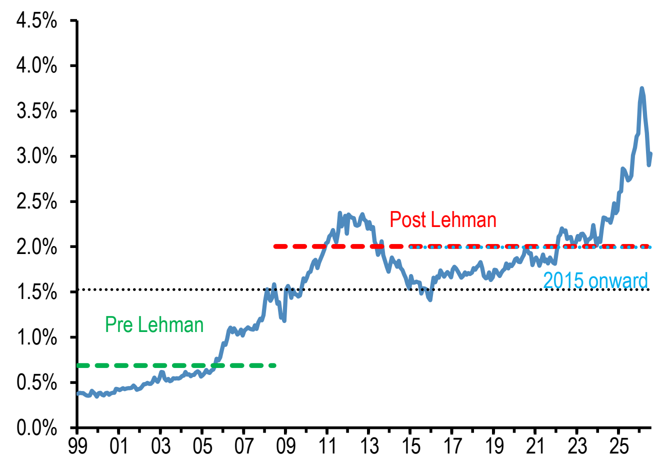
Global cash held by non-bank investors as % total holdings of equities/bonds/M2 by non-bank investors/Commodities including gold held by private investors. Dotted lines are averages.



Source: Bloomberg Finance L.P., LSEG DataStream, J.P. Morgan Flows & Liquidity.

Chart A54: Implied commodity allocation (including privately held gold) by non-bank investors globally

Proxied by the open interest of commodity futures ex gold and privately held gold as % of the stock of equities, bonds, cash held by non-bank investors globally and commodities including gold held by private investors.



Source: Bloomberg Finance L.P., LSEG DataStream, J.P. Morgan Flows & Liquidity.

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