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Flows & Liquidity

Are bond yields becoming a problem for equities?

- The gap between the equity discount rate of the S&P500 index and the real 10y UST yield, i.e. a proxy for the Equity Risk Premium, has declined to only 2.2% on our estimates, a new low for the post-financial crisis period, breaching the previous low of 2007.
- The current Equity Risk Premium of 2.2% stands 90bp below its long-run historical average of 3.1%.
- While it is still some way above its 2000 trough, this implies that there is currently more limited room before a further rise in bond yields starts becoming a problem for the equity market and that from a long-term asset allocation point of view, bonds should command a higher weight relative to equities compared to the norms of the post financial crisis period.
- Which investor categories have been making bonds trading long in recent weeks?
- Tokenized money market funds still represent a relatively small 5% proportion of the stablecoin universe.

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 13th May 26.

MF & ETF Flows	Min	Max	4 wk avg (\$bn)	2025 avg (\$bn)
All Equities			14.8	8.1
All Bonds			16.4	11.3
US Equities			10.1	3.5
US Bonds			7.6	4.3
Non-US Equities			4.7	4.6
Non-US Bonds			8.8	7.0
US HG Bonds			4.1	3.4
US HY Bonds			0.8	0.4
US Lev. Loans *			0.3	0.0
US MMFs			-0.2	4.0
EM Equities			-1.5	0.9
EM Bonds			1.80	0.50
Japan Equities			2.5	-0.1
China Equities			-0.16	-0.15
Europe				
Europe Equities			-1.5	0.9
Europe Bonds			4.8	4.3
Europe HG Bonds			-0.1	0.9
Europe HY Bonds			0.47	0.17
Europe MMFs			-1.5	3.8
Other Equities			5.30	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.

Global Markets Strategy

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Cross Asset Positioning Monitor

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

As of 19-May-26	MIN	MAX	Current percentile
Equities			0.70
Govt Bonds			0.48
Credit			0.32
Dollar			0.56
Commodities ex Gold			0.83
Gold			0.52
Bitcoin			0.61
EM Equities			0.66
EM Bonds/FX			0.35
Japan Equities			0.90
Europe Equities			0.71
US Equity Sectors:			
Energy			0.75
Materials			0.51
Industrials			0.36
Discretionary			0.73
Staples			0.16
Health Care			0.38
Financials			0.28
Technology			0.79
Communication Services			0.54
Utilities			0.38

Source: J.P. Morgan Flows & Liquidity.

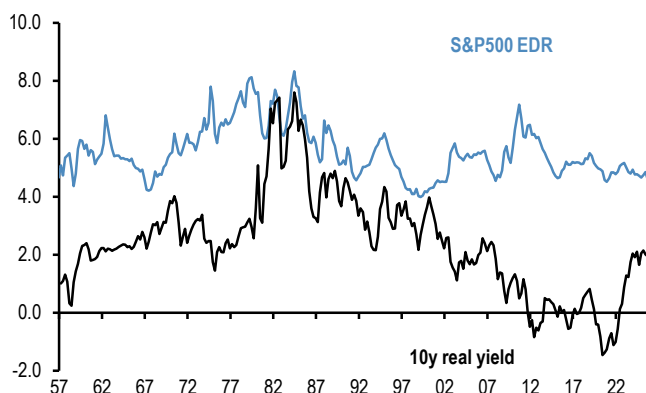
Cross Asset Positioning Monitor aggregates across the various position indicators of Appendix ranging from positioning proxies across various futures contracts, momentum signals as proxies of how trend-following funds/CTAs are positioned, mutual fund betas as proxies of how mutual fund managers are positioned, 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.

- The steep rise in bond yields over the past weeks is raising questions about its impact on equity markets and whether we have reached a level of interest rates that could induce a more significant equity market correction.
- In this note, we try to answer this question by looking at the historical evolution of equity yields over time in relation to bond yields. The obvious challenge with this comparison is that equity yields are less straightforward to calculate than bond yields as one needs to make assumptions about the future path of dividends or equity cash flows to be able to derive the equity discount rate as the residual in an equity valuation model. To address this issue, we resort to our long-term fair value framework for the S&P500 index for which we have historical data since 1957 (see A fair value model for US Bonds, Credit and Equities, Panigirtzoglou and Loeys, June 2005). The starting point of this valuation model is the Dividend Discount Model (DDM). Equity valuation is more complicated than bond valuation because of the difficulty in measuring expectations of future cash flows, but ultimately equities also need to be analysed in a discounted cash flow model. That is, the equity price is equal to the expected future cash flows (i.e. dividends) discounted to the present using an Equity Discount Rate (EDR). The equation below illustrates the discounted cash flow model:

$$P = \sum_{t=1}^{\infty} \frac{k \cdot E_0 (1+g)^t}{(1+EDR)^t}$$

- where P denotes the equity price, E0 is current earnings, k is the payout ratio, g is the growth rate of dividends, and EDR is the Equity Discount Rate.
- In brief, we take as the starting point for current earnings the four-quarter rolling sum of earnings per share. For the growth rate of dividends, we assume a two-stage DDM, where the first five years are modelled in a recursive model that depends on lagged 5-year earnings and the previous period's P/E ratio. In the second stage, we assume that real earnings growth reverts to a long run average. And the EDR or equity yield is then derived as the residual by inserting the current price of the S&P500 in the above equation.
- This model-based real Equity Discount Rate or real equity yield of the S&P500 index is depicted along with the real UST yield in Figure 1. The latter is proxied by the nominal yield minus the Philly Fed 10y ahead inflation expectation as index linked yields are only available since late 1990s.

Figure 1: Our model based S&P500 Equity Discount Rate vs. the real 10y UST yield

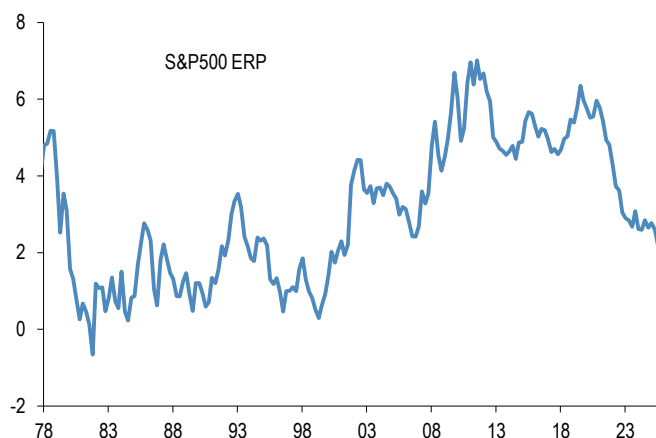


Source: J.P. Morgan Flows & Liquidity.

- Figure 1 implies relative insensitivity of equity yields to bond yields outside the high macro/policy uncertainty regime seen between 1967 and 1981. It was mostly during that period of macro instability that the equity yield of the S&P500 exhibited high sensitivity to interest rates and had increased almost in tandem with interest rates. Better macro policies after 1981 contributed to normalization in both bond and equity yields.
- This normalization process lasted for about 15 years until 1996. Since 1996 the real equity yield of the S&P500 has been hovering around 5% even as real bond and cash yields trended lower for more than two decades approaching zero by March 2020. In other words, the steady and large decline in interest rates over the previous two decades had little impact on real equity yields which have been hovering around the 5% mark. As a result, Equity Risk Premium, i.e. the gap between equity and bond yields kept widening reaching a peak of almost 700bp in 2020. Hefty equity risk premia had underpinned the equity bull market that emerged after the financial crisis of 2008.
- However, Equity Risk Premium have been declining rapidly in recent years with a sharp drop during 2022/2023 as bond yields spiked and another drop more recently as the Iran conflict caused another repricing in bond yields. At the same time an AI driven equity rally since 2023 has pushed equity yields to significantly lower levels. At the moment, on our model, the real equity yield of the S&P500 index stands at 4.4% on our long-term fair value model which is 60bp below the 5% average since mid 1990s. In other words equities look rather expensive (60bp multiplied by duration of around 30 years is equivalent to 18% expensiveness in price terms) on an outright basis relative to the norms of the past thirty years.
- This expensiveness becomes more pronounced if one

compares equity yields to bond yields. Indeed, as a result of the equity rally and the rise in bond yield in recent months, the gap between the two yields ie the Equity Risk Premium has declined to only 2.2% a new low for the post Lehman crisis period, breaching the previous low of 2007 (Figure 2). In addition, the current Equity Risk Premium of 2.2% is 90bp below its long-run historical average of 3.1%. In other words, equities currently look even more expensive relative to bonds from a long-term investor's perspective.

Figure 2: Equity Risk Premium proxied by the difference between the S&P500 Equity Discount Rate and the real 10y UST yield



Source: J.P. Morgan Flows & Liquidity.

- Admittedly, the Equity Risk Premium had reached a historical low of close to zero at the peak of the tech bubble in 2000, so there is some way to go until we reach the exuberant territory of the late 1990s. Whether markets eventually reach this exuberant territory is an open question. But what is clear from our exercise is that there is currently more limited room before a further rise in real bond yields starts becoming a problem for the equity market, and that from a long-term asset allocation point of view bonds should command a higher weight relative to equities compared to the norms of the post Lehman period.

Which investor categories have been making bonds trading long in recent weeks?

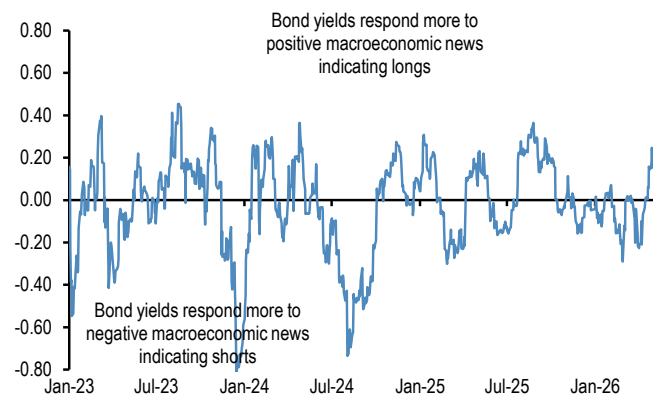
- The bond selloff that started with the Iran conflict accelerated in May pushing the Global Agg Bond Index yield to close to 4% (Figure 3). And our implied bond positioning metric based on the reaction of bond markets to economic news shifted towards more positive territory over the past month, suggesting that bond markets have been trading long since late April (Figure 4). Which investor categories have been making bond markets trading long?

Figure 3: Global Agg Bond Index yield



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

Figure 4: Reaction of bond markets to economic news, a positive number implies that bonds are "trading long"



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

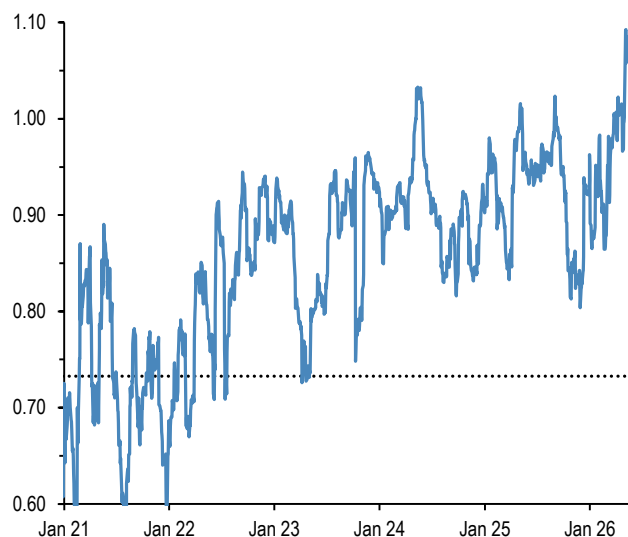
- As a reminder to our readers, the we take as our starting point the economic releases incorporated in our USD and EUR EASI indices, complement them with inflation releases, and then calculate for each release the z-score of surprises (actual – survey median) / (std. dev. of past surprises) and the z-score of changes in UST and Bund yields for that day. We calculate separately the average beta (or the ratio of the z-score of UST and Bund yield

changes over the z-score of economic surprises) for positive and negative news over rolling two-month windows, and take the difference between the two. This indicator represents an indirect positioning metric, and positive (negative) values suggest bond investors have found themselves longer (shorter) duration than they would like to be given the surprises in the economic data flow, rather than necessarily long (short) relative to the benchmark.

- The largest active US bond mutual fund managers are one investor category that appears to be long duration. This is shown by Figure 5 that depicts the 21-day rolling beta of the 20 largest active US bond mutual fund managers with respect to the US Agg Bond Index. It suggests that the largest active US bond mutual fund managers are long total duration, i.e. government and spread duration together.

Figure 5: 21-day rolling beta of the 20 largest active US bond mutual fund managers with respect to the US Agg Bond Index

The dotted line shows the average beta since 2013.

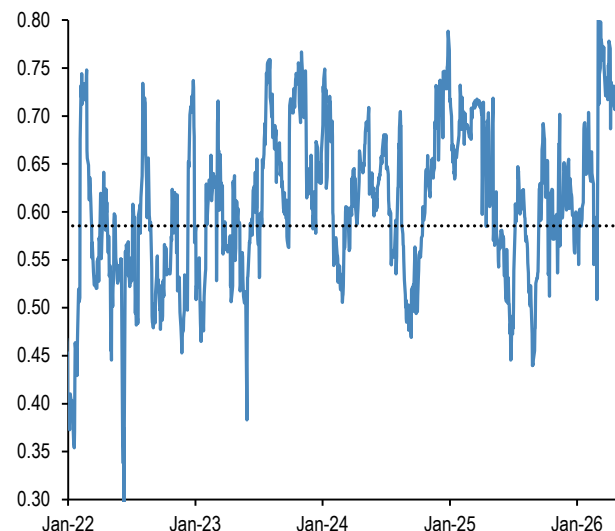


Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

- There appears to be less of a long duration overhang with active Euro bond mutual fund managers, as Figure 6 suggests that these managers are closer to neutral.

Figure 6: 21-day rolling beta of the 20 largest active Euro bond mutual fund managers with respect to the Euro Agg Bond Index

The dotted line shows the average beta since 2013.

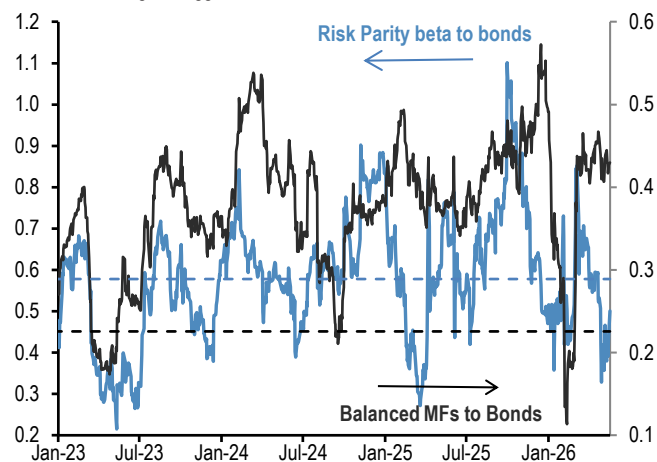


Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

- Another investor category that is making bond market trading long is balanced mutual fund managers that invest in both equities and bonds. These managers appear to have raised their bond betas since the start of the Iran conflict to significantly above long-term historical averages, as shown in Figure 7.

Figure 7: Bond beta of US Balanced Mutual funds and risk parity funds

Rolling 21-day bond beta based on a bivariate regression of the daily returns of our Balanced Mutual fund and risk parity fund return index to the daily returns of the S&P 500 and Bloomberg US Agg indices.



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

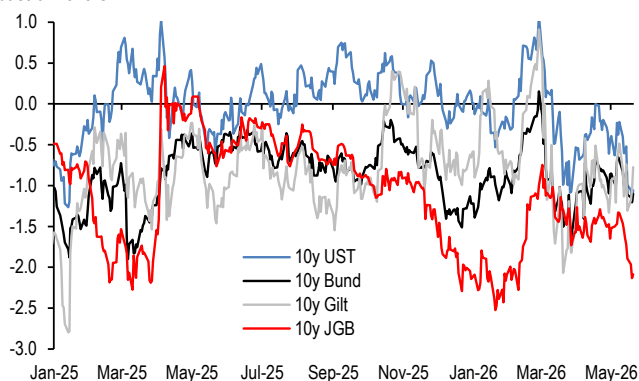
- If the above investor categories have been holding elevat-

ed bond exposures, who has been responsible for the bond selloff since the Iran conflict erupted?

- Risk parity funds are one culprit. As shown in Figure 7, in contrast to balanced mutual funds, risk parity funds appear to have lowered their bond beta since the start of the Iran conflict, contributing to the bond selloff.
- Another culprit is systematic momentum-driven hedge funds such as CTAs which according to our signals (Figure 8) have been building up short duration positions, amplifying the bond selloff. Their current positioning is far from extreme territory, suggesting that they have room to further amplify the negative trend in bond markets.

Figure 8: Momentum signals for 10y USTs, Bunds, gilts and JGBs

Average z-score of short- and long-term momentum signal in our trend following strategy framework, adjusted for the ratio of volatilities of the past 10 years and the past 6 months.

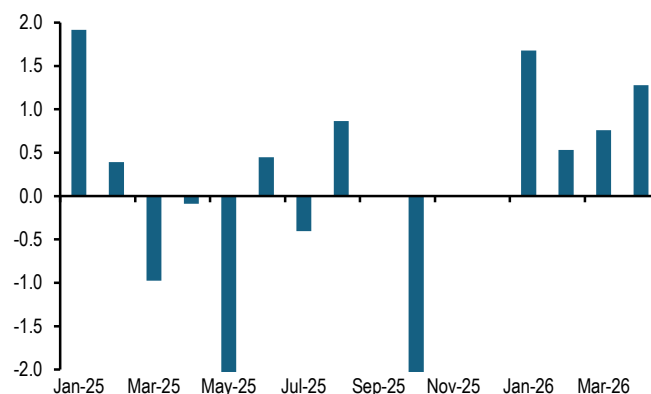


Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

- What about discretionary bond managers? Discretionary macro hedge fund managers play a multitude of asset classes so it is harder to infer their bond positioning from their performance. One hedge fund category that more narrowly focuses on bond markets is Relative Value Fixed Income Sovereign funds, which have exhibited a decent beta to government bond markets since the Iran conflict erupted thus implying a long duration bias (Figure 9). In other words, Relative Value Fixed Income Sovereign hedge funds appear to have been making bond markets trading long in recent months.

Figure 9: Beta of monthly returns on Relative Value Fixed Income Sovereign funds to Global Agg Treasury index

Ratio. We filter out months where absolute returns on the Global Agg Treasury index are low as this can result in extreme readings.

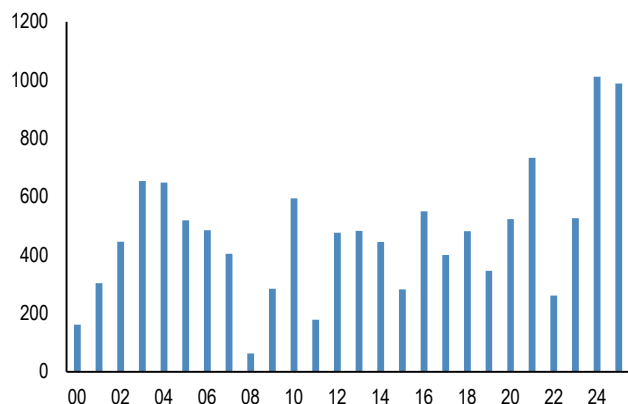


Source: HFRI, Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

- In addition, we noted last month ([F&L](#), Apr 15th) that there are some curve steepening risks for bonds from a global bond supply-demand balance perspective. These arose from a combination of less pending de-risking from pension funds than we had previously expected, given the strength of bond buying in 2024 and 2025 (Figure 10), bond demand from commercial banks that tends to provide less support from the long-end given their preferred habitat tends to be at the shorter end of the curve, as well as a continued negative duration impulse from retail flows. While flow of funds data for 1Q26 are not yet available, the retail impulse is still negative. Figure 11 shows our duration impulse estimate, where we adjust daily bond ETF flows by the empirical duration of each bond ETF using the average sensitivity of price returns to the US Agg index over 1-year rolling periods. We then multiply the flow of each ETF by its empirical duration and convert the aggregated flows across ETFs to US Agg duration equivalents. Finally, we calculate the difference between this duration-adjusted bond ETF flow and the nominal daily bond ETF flow to estimate the duration impulse. A positive difference indicates bond ETF flows have a longer-than-average duration, and negative numbers suggest a shorter-than-average duration. As Figure 11 shows, the negative duration impulse, which had shown some signs of stabilisation in late April, has resumed in recent weeks, likely exerting some steepening pressure on the curve.

Figure 10: Net bond demand by G4 pension funds and insurance companies

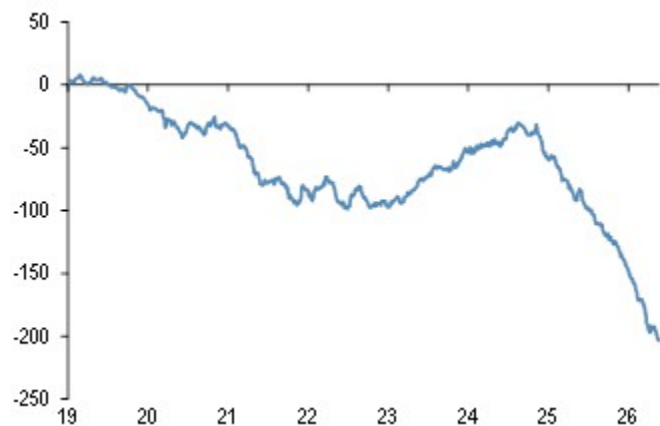
\$bn per year.



Source: Federal Reserve, ECB, BoE, BoJ, J.P. Morgan Flows & Liquidity.

Figure 11: Duration impulse from net inflows into bond ETFs

In \$bn. Measured as the cumulative difference between daily net daily bond ETF flows adjusted to Bloomberg US Agg index duration equivalents and the bond ETF flows in dollar terms. Weighted average maturity of bonds in US and Euro Agg corporate indices in years.



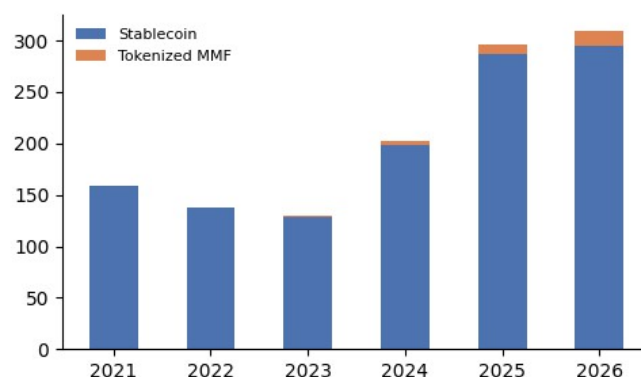
Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Tokenized money market funds still represent a relatively small 5% proportion of the stablecoin universe

- Despite their interest advantage, tokenized money market funds still represent a relatively small 5% proportion of the stablecoin universe (Figure 12 to Figure 14).

Figure 12: Marketcap of stablecoin and tokenized MMF at each year end

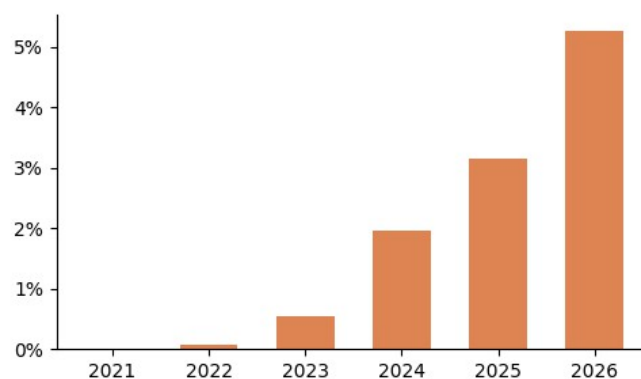
\$bn, YTD for 2026



Source: CoinMarketcap, Messari, rwa.xyz, J.P. Morgan Flows & Liquidity.

Figure 13: Ratio of tokenized MMF to stablecoin marketcap at each year end

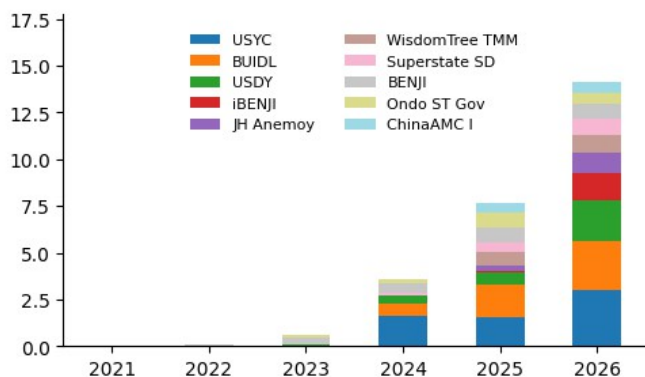
YTD for 2026



Source: CoinMarketcap, Messari, rwa.xyz, J.P. Morgan Flows & Liquidity.

Figure 14: Breakdown of tokenized treasury marketcap at each year end

\$bn, YTD for 2026



Source: rwa.xyz, J.P. Morgan Flows & Liquidity.

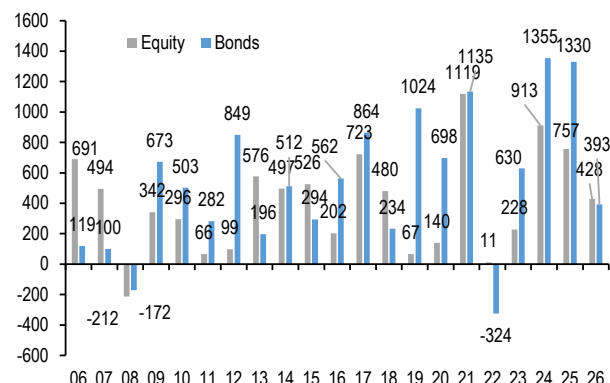
- There have also been some marginal changes in market structure, where traditional firms are partnering with crypto-native firms to launch programs that let institutional clients use tokenized money market funds as off-exchange trading collateral. In these structures, clients post tokenized fund shares issued through a regulated platform, the assets remain in regulated off-exchange custody, and their value is represented within the trading venue's system or crypto exchange. This setup can allow institutions to earn yield on collateral while simultaneously using it for trading.
- But again, all the above improvements are marginal and unlikely to change the big picture, which puts tokenized money market funds at a structural regulatory disadvantage relative to stablecoins, preventing their seamless circulation and use across the crypto ecosystem.

- Crypto market participants generally prefer stablecoins because they have become the ecosystem's default cash instrument used seamlessly for collateral management, trading, settlement, cross-border payments and day-to-day liquidity management across centralized exchanges and decentralized protocols.
- Tokenized money market funds face a structural regulatory disadvantage because they are treated as securities and as a result they are subjected to securities law requirements such as registration, disclosure, reporting and transfer limitations, which reduces their ability to circulate seamlessly within the crypto ecosystem.
- This means that the use of tokenized money market funds is confined to crypto-native investors seeking to park their idle cash by earning interest, or to non-native institutional investors which combine the operational benefits from tokenization, such as faster settlement and programmability, with established investor protection frameworks in a similar way to traditional money market funds.
- Going forward, although we expect that tokenized money market funds will continue to grow faster than stablecoins given their interest advantage, we doubt that tokenized money market funds would grow beyond 10%-15% or so of the stablecoin universe, unless there is a regulatory change that reduces the structural disadvantage arising from tokenized money market funds classified as securities.
- So far, regulatory support for tokenized money market funds has been marginal. For example, last January, the SEC introduced a streamlined process for issuing on-chain money market funds that aims to simplify redemptions and reduce operational friction for funds using blockchain-based record keeping.

Appendix

Chart A1a: Global equity & bond fund flows

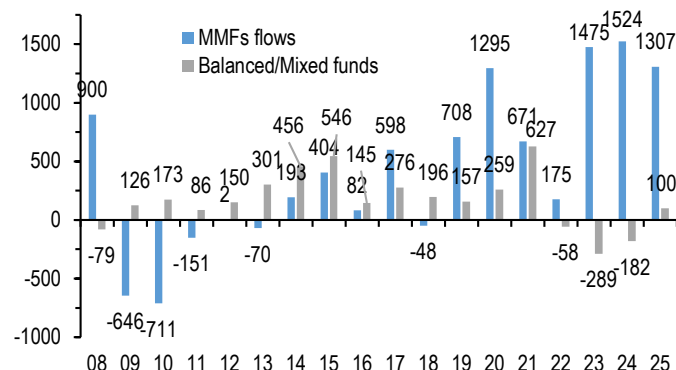
\$bn per year of Net Sales, i.e. includes net new sales + reinvested dividends for Mutual Funds and ETFs globally, i.e. for funds domiciled both inside and outside the US. Flows come from ICI (worldwide data up to Q4'25). Data since then are a combination of monthly and weekly data from Lipper and Bloomberg.



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

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

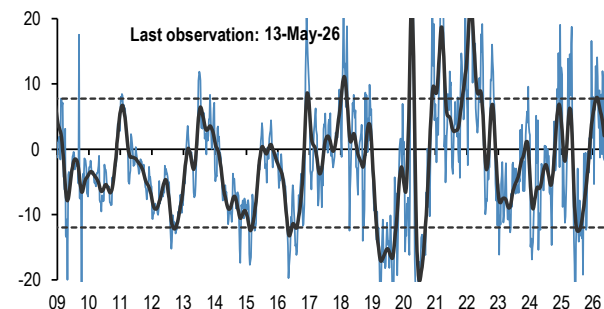
\$bn per quarter of Net Sales, i.e. includes net new sales + reinvested dividends for Mutual Funds and ETFs globally, i.e. for funds domiciled both inside and outside the US. Data come from ICI (worldwide data) and are till Q4'25.



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 Mar-26	MIN	MAX	Turnover ratio	Vol (tr)	y/y chng
Equities					
EM Equity			1.1	\$1.6	104%
DM Equity			1.5	\$14.5	52%
Govt Bonds					
UST cash			12.3	\$20.3	7%
UST futures			0.9	\$23.6	18%
JGBs			44.5	¥4,727	5%
Bund futures			1.6	€14.9	18%
Credit					
US HG			1.2	\$1.0	17%
US HY			0.6	\$0.2	3%
US Convertibles			3.8	\$0.04	18%
Commodities					
Gold			88.7	\$2.9	109%
Oil			99.7	\$6.1	-3%
Copper			3.0	\$0.9	106%
Digital Assets					
CME Bitcoin			112.3	\$0.074	-33%
CME Ethereum			103.1	\$0.033	60%

* Data with one month lag

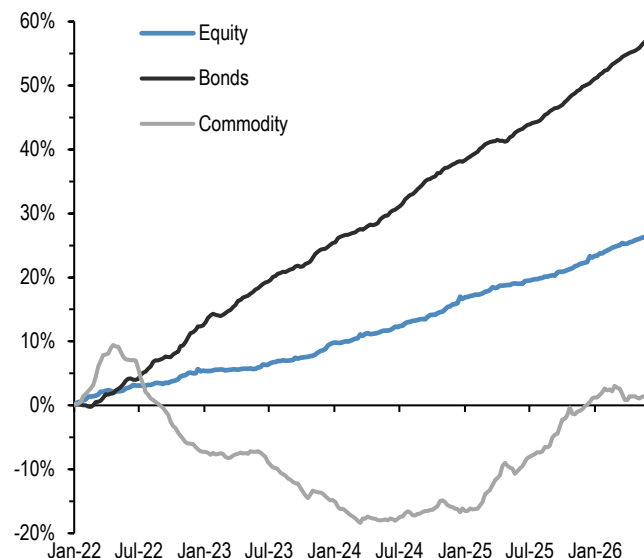
Source: Bloomberg Finance L.P., Federal Reserve, Trace, Japan Securities Dealer Association, WFE, J.P. Morgan Flows & Liquidity.

20 May 2026

ETF Flow Monitor (as of 20th May)

Chart A3: Global Cross Asset ETF Flows

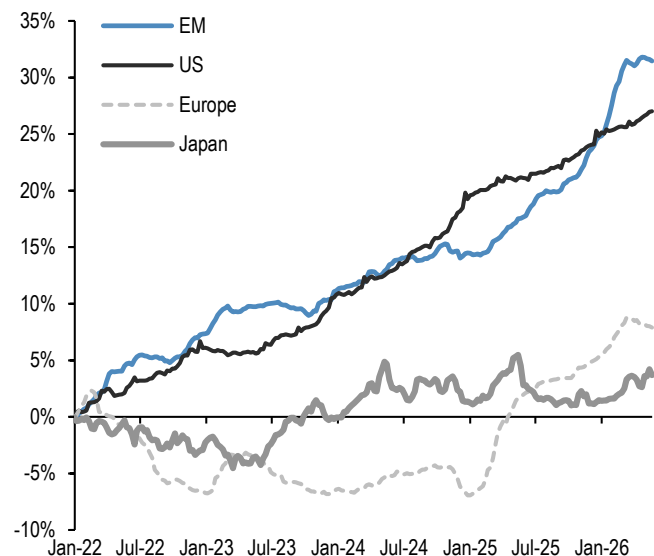
Cumulative flows into ETFs as a % of AUM



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

Chart A5: Global Equity ETF Flows

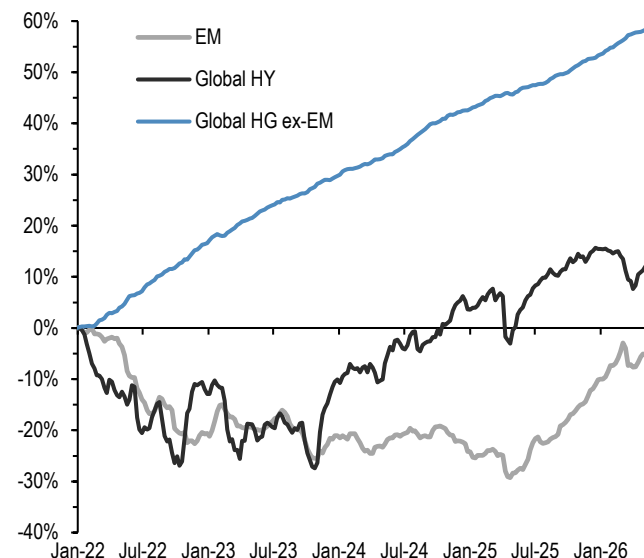
Cumulative flows into global equity ETFs as a % of AUM



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 A4: Bond ETF Flows

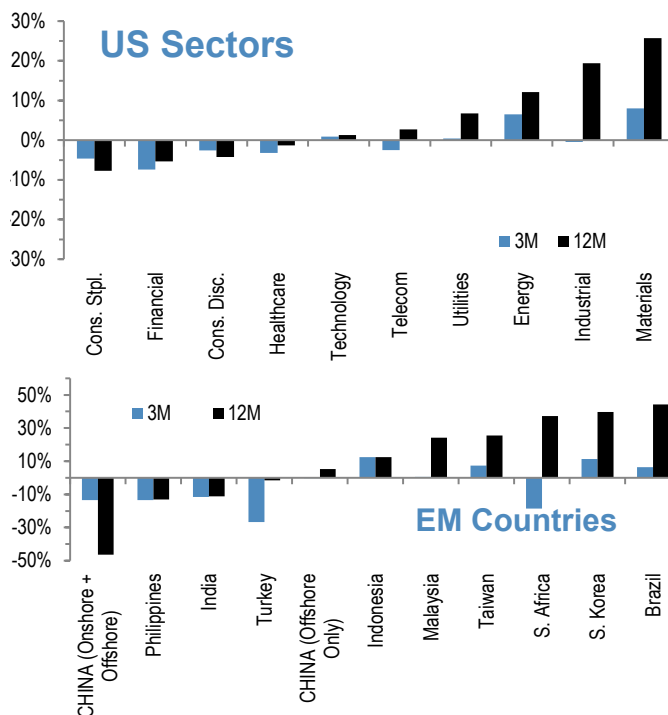
Cumulative flows into bond ETFs as a % of AUM



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

Chart A6a: Equity Sectoral and Regional ETF Flows

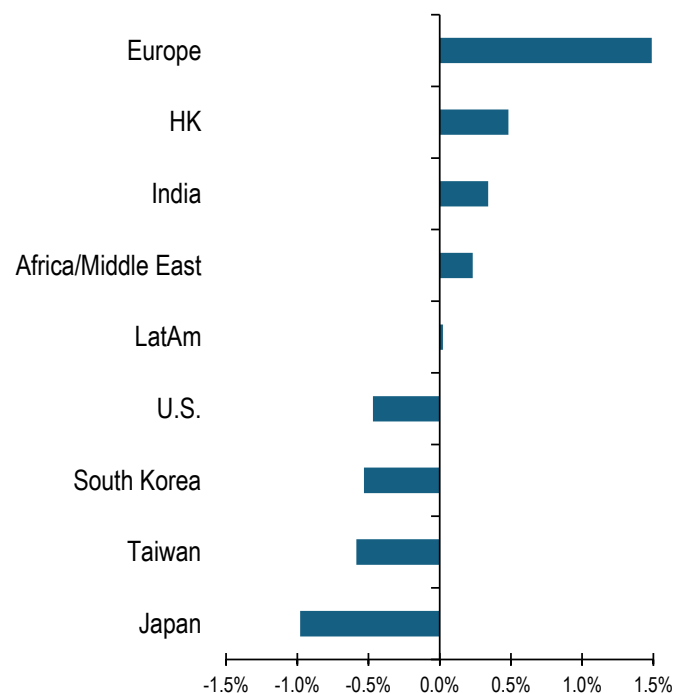
Rolling 3-month and 12-month change in cumulative flows as a % of AUM. Both sorted by 12-month change



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

Chart A6b: Regional Equity Allocation Monitor Implied by ETFs

In %.



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

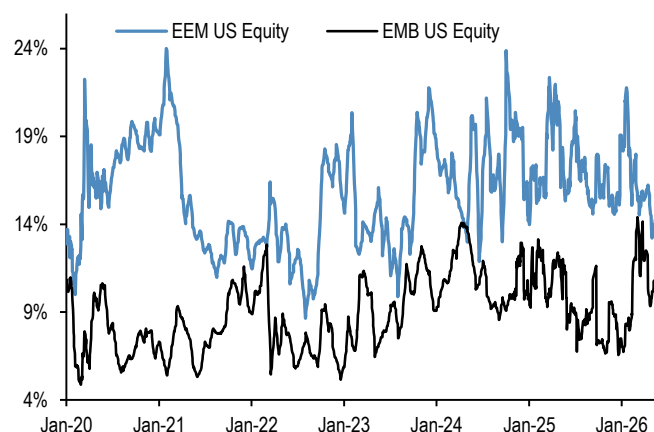
Note: Our regional equity allocation monitor implied by ETFs is based on a comparison of the share of each region in the equity ETF space relative to their corresponding shares in global equity indices.

20 May 2026

Short Interest Monitor

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

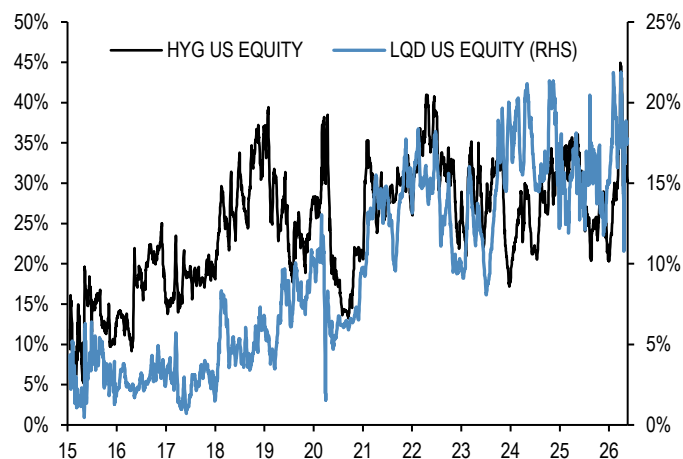
Short Interest as a % share of shares outstanding.



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

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

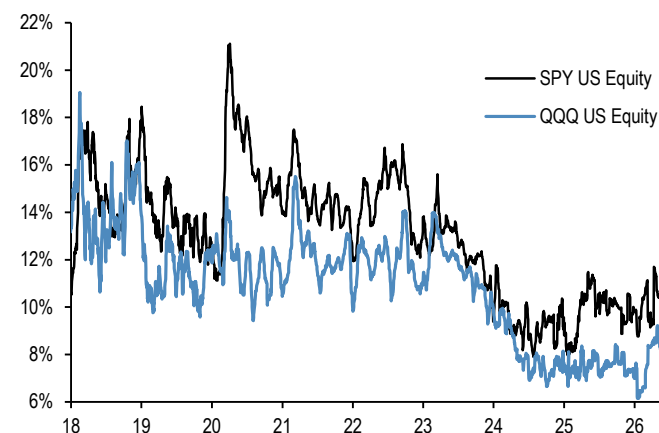
Short Interest as a % share of shares outstanding.



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

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

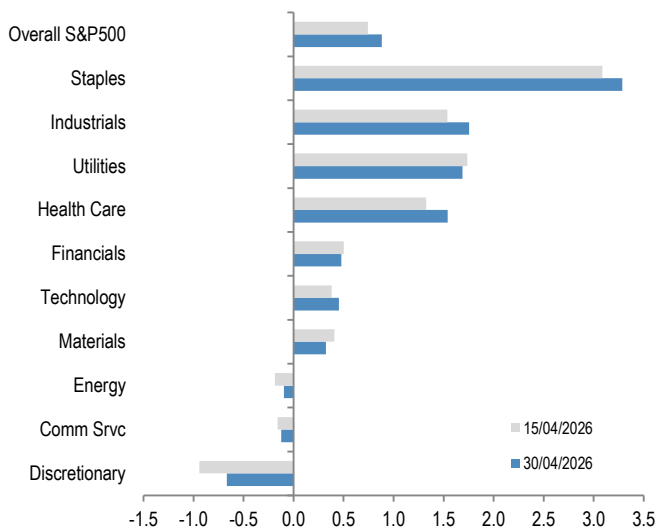
Short Interest as a % share of shares outstanding. Last obs is for 19th May 2026.



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.

Chart A11a: Cross Asset Volatility Monitor 3m ATM Implied Volatility (1y history), as of 18th May-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	16%	13%	28-Aug-25	24%	27-Mar-26		8%	3%	1.44x
EuroSTOXX	19%	13%	18-Sep-25	26%	27-Mar-26		8%	5%	0.96x
Nikkei 225	28%	18%	22-Jul-25	33%	31-Mar-26		6%	10%	1.07x
Hang Seng	19%	17%	23-Dec-25	24%	26-Mar-26		5%	2%	1.18x
MSCI EM	26%	12%	15-Aug-25	35%	27-Mar-26		9%	14%	0.88x
Gold	23%	14%	19-Aug-25	33%	26-Mar-26		11%	9%	1.09x
Oil (brent)	65%	27%	19-Sep-25	89%	30-Mar-26		24%	38%	1.06x
Copper	26%	14%	18-Aug-25	37%	03-Feb-26		11%	12%	0.80x
BB commodity index	23%	13%	10-Dec-25	25%	30-Mar-26		2%	10%	1.32x
EUR/USD	9%	9%	13-May-26	13%	26-May-25		4%	0%	2.13x
USD/NOK	9%	8%	17-Dec-25	11%	30-Mar-26		2%	1%	1.40x
USD/JPY	8%	8%	13-May-26	12%	23-May-25		4%	0%	0.82x
GBP/USD	7%	6%	12-Dec-25	8%	02-Jul-25		1%	1%	1.16x
USD/CHF	7%	6%	09-Jan-26	10%	21-May-25		3%	0%	1.10x
10y US swaps	6%	6%	16-Jan-26	10%	27-Mar-26		3%	0%	1.02x
10y Eur swaps	69%	43%	26-Feb-26	97%	27-Mar-26		28%	26%	0.93x
CDX IG	46%	38%	29-Jul-25	66%	27-Mar-26		20%	7%	1.02x
CDX HY	42%	31%	09-Jan-26	57%	30-Mar-26		15%	10%	1.08x
iTraxx	48%	37%	09-Jan-26	70%	27-Mar-26		22%	11%	0.91x
iTraxx X/O	21%	19%	23-Dec-25	26%	17-Oct-25		5%	1%	0.41x

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

Note: Swaps volatility is 3m 10y payer ATM 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.

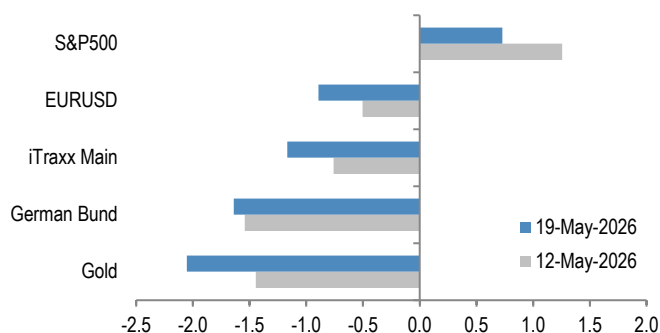
Definitions:

Current:	Latest available closing level (18-May-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.

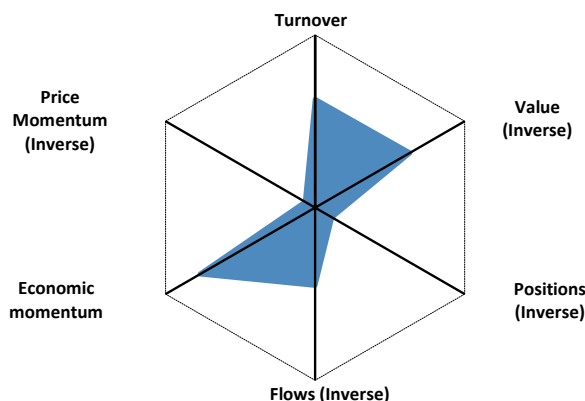


Source: J.P. Morgan Flows & Liquidity.

Chart A11c: Equity market health map

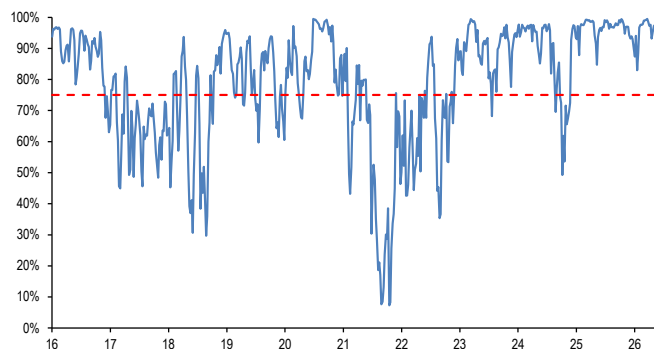
Each of the six axes corresponds to a key indicator for markets. The position of the blue line on each axis shows how far the current observation is from the extremes at either end of the scale. Overall, the larger the blue area within the hexagon, the better the outlook for the S&P500. All variables 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 15th May.



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

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



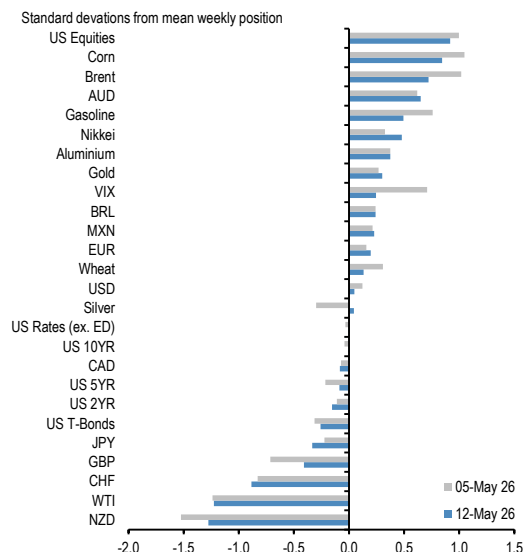
Source: J.P. Morgan Flows & Liquidity.

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Spec position monitor

Chart A12: Weekly Spec Position Monitor

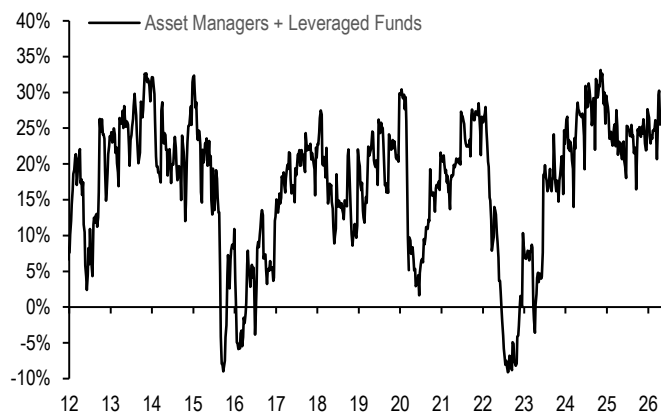
Net spec positions are proxied by the number of long contracts minus the number of short contracts using the speculative category of the Commitments of Traders reports (as reported by CFTC). To proxy for speculative investors for equity and US Treasury bond futures positions we use Asset managers and 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 A13: Positions in US equity futures by Asset managers and Leveraged funds

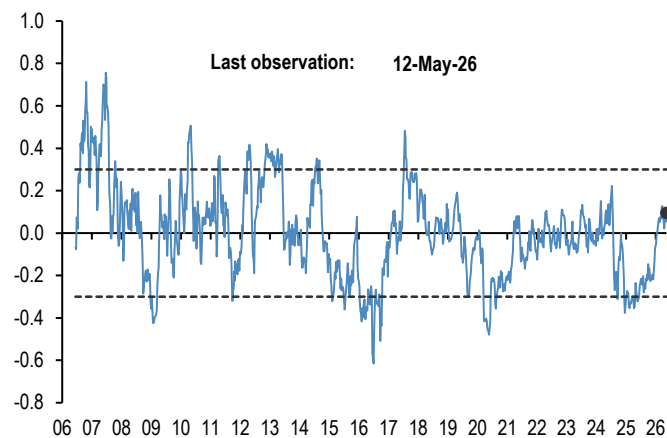
CFTC positions in US equity futures by Leveraged funds and Asset managers (as a % of open interest). It is an aggregate of the S&P500, DowJones, NASDAQ and their Mini futures contracts.



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

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

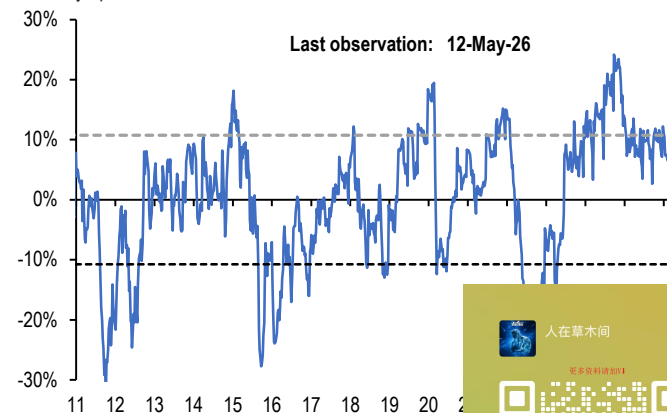
Difference between net spec positions on risky & safe currencies. Net spec position is calculated in USD across 5 'risky' and 3 'safe' currencies (safe currencies also include Gold). These positions are then scaled by open interest and we take an average of 'risky' and 'safe' assets to create two series. 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 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.



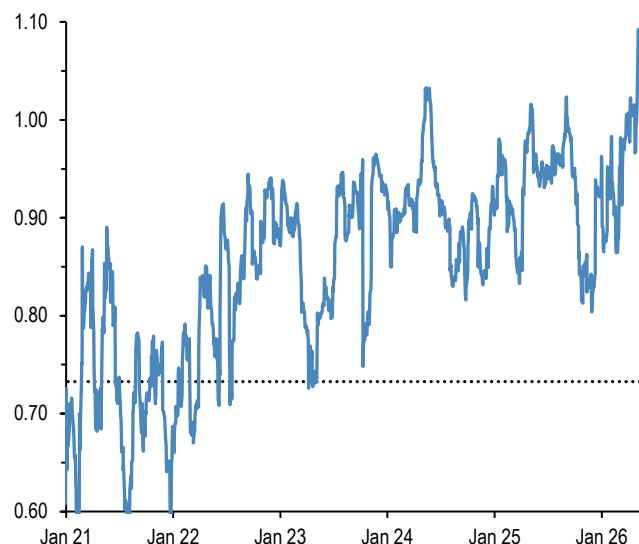
Source: CFTC, Bloomberg Finance L.P. and J.P. Morgan Flows & Liquidity.



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 A18: Performance of various types of investors

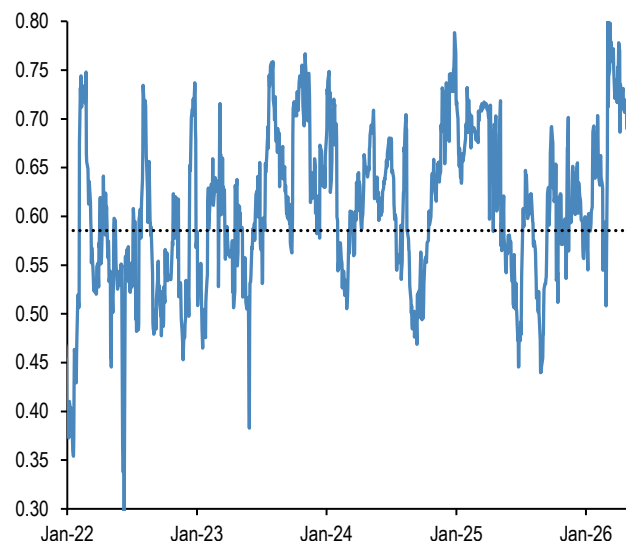
The table depicts the performance of various types of investors in % as of 19th May 2025.

Date	2020	2021	2022	2023	2024	2025	2026
Investors							
Equity L/S	13.4%	9.3%	-7.0%	11.3%	13.0%	15.5%	5.4%
Macro ex-CTAs	4.9%	4.3%	11.5%	1.3%	6.0%	10.2%	4.3%
CTAs	1.2%	8.8%	14.7%	-2.5%	2.9%	-1.1%	8.6%
Risk Parity Funds	3.5%	4.7%	-18.6%	6.0%	5.0%	17.3%	5.5%
US Balanced MFs	13.2%	14.4%	-13.0%	13.8%	11.4%	14.4%	4.2%
Benchmark							
MSCI AC World	16.3%	16.4%	-18.4%	22.2%	17.5%	22.3%	8.2%
Barclays Global Agg	5.6%	-2.5%	-11.2%	7.1%	3.4%	4.9%	-0.6%
S&P Riskparity Vol 10	11.5%	12.8%	-16.2%	15.0%	5.4%	15.9%	12.2%
60 US Equity : 40 US Bonds	13.3%	14.8%	-15.4%	18.6%	16.4%	12.7%	4.6%

Source: Bloomberg Finance L.P., HFR, Pivotal Path, 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

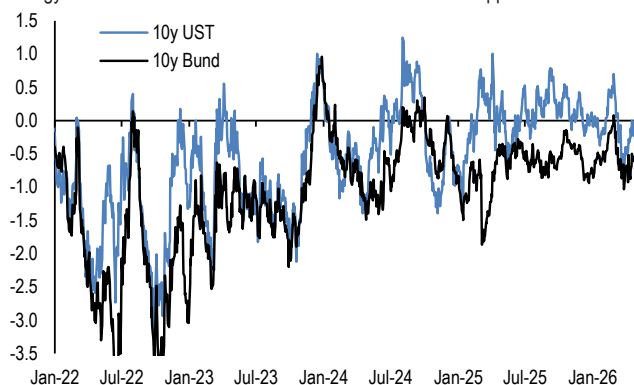
The dotted line shows the average beta since 2013.



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

Chart 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.

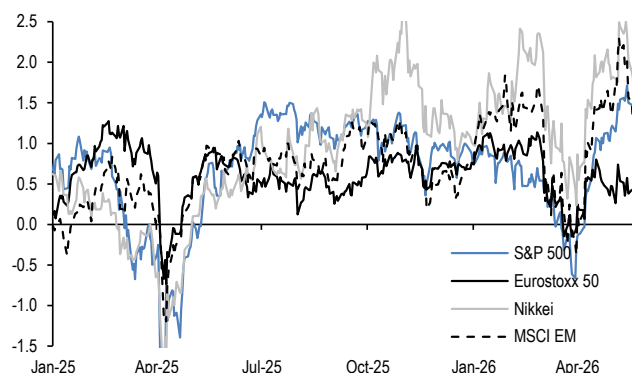


Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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Chart A20: Momentum signals for S&P500

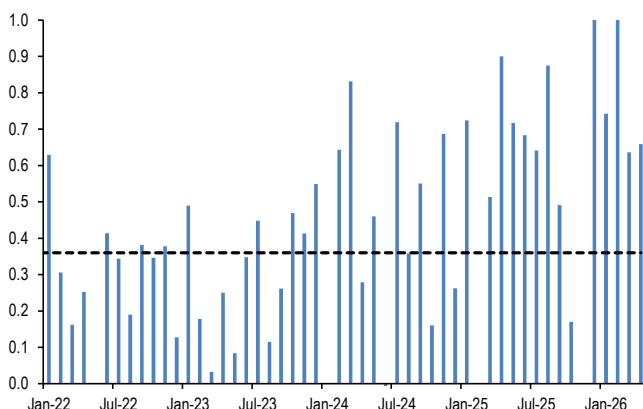
Average z-score of Short- and Long-term momentum signal in our Trend Following Strategy framework shown in Tables A3 and A4 below in the Appendix.



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

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

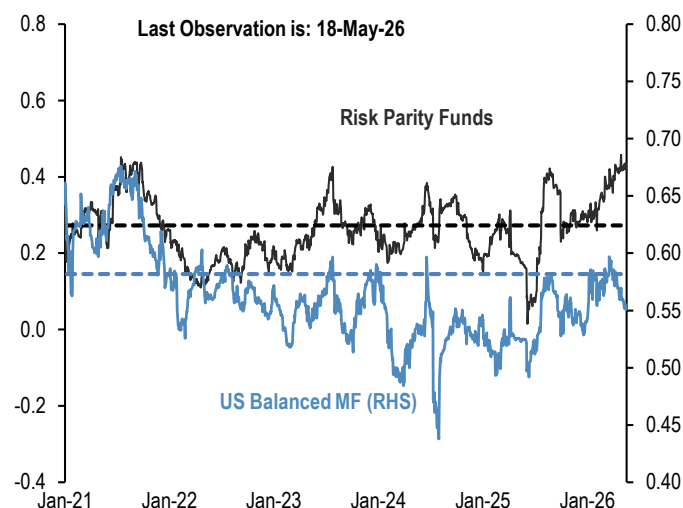
Proxied by the ratio of the monthly performance of Pivotal Path Asset-Weighted Equity Diversified hedge fund index divided by the monthly performance of MSCI AC World Index. Latest obs. is Apr 26 based on provisional data.



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

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

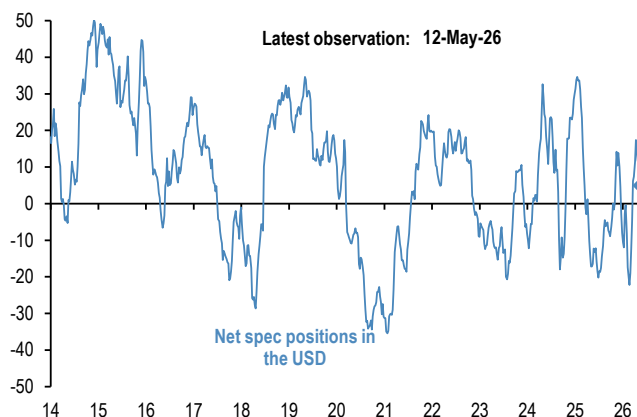
Rolling 42-day equity beta based on a bivariate regression of the daily returns of our Balanced Mutual fund and Risk Parity fund return indices to the daily returns of the S&P 500 and BarCap US Agg indices. Given that these funds invest in both equities and bonds we believe that the bivariate regression 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 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.

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	5.8	22.7	0.26	1	0	1.4	8.8%
	long	462				0	21	2.7	77.6%
Brent	short	84	4.7	21.5	0.22	0	56	2.5	30.2%
	long	504				0	21	2.7	75.3%
Unleaded gas	short	105	2.7	23.2	0.12	0	54	3.1	42.9%
	long	483				0	48	2.9	78.0%
Heat Oil	short	63	4.8	21.9	0.22	0	2	1.8	19.4%
	long	483				0	55	3.6	108.6%
Gasoil	short	63	8.4	21.1	0.40	0	56	1.8	20.0%
	long	378				0	55	3.8	107.6%
Nat gas	short	105	13.0	36.0	0.36	-1	47	-0.1	-2.2%
	long	315				-1	76	-0.6	-16.9%
EU emission allowances	short	42	9.9	28.9	0.34	1	28	0.2	1.6%
	long	483				0	5	0.0	-0.4%
1m fwd TTF Nat gas	short	21	36.8	31.4	1.17	1	6	1.4	13.2%
	long	294				1	41	1.1	50.1%
Gold	short	21	3.1	10.6	0.29	-1	3	-1.2	-3.3%
	long	483				0	316	1.8	23.6%
Silver	short	10	6.5	19.7	0.33	0	0	-2.0	-6.9%
	long	462				0	168	2.3	54.4%
Palladium	short	42	11.9	23.0	0.52	-1	3	-1.1	-8.9%
	long	273				-1	0	-0.2	-5.0%
Platinum	short	105	4.2	18.6	0.22	-1	3	-1.1	-10.3%
	long	273				1	3	0.8	11.8%
Aluminium	short	105	5.9	15.2	0.39	1	2	1.4	10.5%
	long	357				0	36	2.0	28.4%
Copper	short	147	7.3	17.3	0.42	1	68	0.6	7.4%
	long	399				1	74	1.1	25.1%
Lead	short	126	0.7	19.3	0.04	-1	2	-0.2	-2.2%
	long	357				-1	87	-0.3	-6.0%
Nickel	short	42	12.1	23.0	0.52	1	26	0.4	3.0%
	long	336				1	100	0.5	13.5%
Zinc	short	126	7.9	19.6	0.41	1	36	0.6	7.1%
	long	399				1	166	0.8	17.5%
Wheat	short	168	4.4	23.3	0.19	1	3	1.4	16.6%
	long	294				1	26	0.9	14.6%
Kansas wheat	short	147	8.6	20.8	0.41	0	1	1.5	18.5%
	long	483				1	23	0.6	11.6%
Corn	short	63	7.5	16.5	0.45	1	1	0.3	2.0%
	long	399				-1	10	-0.1	-2.2%
Soybeans	short	42	4.9	14.5	0.34	1	1	0.3	1.7%
	long	231				1	74	0.6	7.3%
Cotton	short	168	6.0	18.5	0.33	1	3	1.2	16.1%
	long	483				1	24	0.4	8.7%
Sugar	short	63	6.2	21.6	0.29	1	7	0.3	2.5%
	long	252				-1	3	-0.1	-2.7%
Coffee	short	63	8.0	23.8	0.34	-1	9	-0.7	-6.0%
	long	273				-1	77	-0.8	-14.9%
Cocoa*	short	10	4.7	30.9	0.15	-1	2	-2.0	-7.4%

* 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	2	1.3	6.5%
	long	315				1	1	1.4	14.6%
Nasdaq 100	short	84	9.9	16.2	0.61	0	9	1.6	12.3%
	long	462				1	2	1.4	27.6%
Nikkei	short	63	3.9	13.3	0.29	1	2	1.1	6.4%
	long	420				0	34	2.5	37.3%
FTSE 100	short	168	5.2	12.1	0.43	1	53	0.6	4.1%
	long	504				0	1	1.6	18.0%
Eurostoxx 50	short	168	4.7	16.6	0.28	1	29	0.3	2.4%
	long	294				1	36	0.6	6.7%
MSCI EM	short	42	12.9	11.5	1.12	1	2	0.9	4.4%
	long	357				0	25	1.7	26.3%
HYG credit	short	168	0.4	3.4	0.12	0	59	0.0	0.0%
	long	273				1	0	0.1	0.3%
LQD credit	short	10	2.6	6.5	0.41	0	10	0.0	0.0%
	long	189				-1	0	-0.2	-0.8%
2Y USTs	short	252	0.9	1.1	0.78	-1	56	-1.0	-1.2%
	long	462				-1	54	-0.6	-1.2%
5Y USTs	short	252	1.6	2.8	0.55	-1	49	-0.9	-2.3%
	long	420				-1	20	-0.5	-1.9%
10Y USTs	short	42	2.0	3.6	0.57	-1	20	-1.3	-1.8%
	long	441				-1	20	-0.5	-2.4%
2Y Schatz	short	189	0.6	0.8	0.82	-1	25	-1.3	-1.1%
	long	504				0	2	-1.6	-2.7%
5y Bobl	short	63	1.4	1.9	0.73	-1	29	-1.1	-1.0%
	long	483				-1	306	-1.1	-3.7%
10y Bund	short	105	2.2	3.4	0.65	-1	53	-0.9	-1.9%
	long	462				-1	655	-1.0	-4.9%
10Y JGB	short	126	0.9	2.3	0.37	0	6	-2.7	-2.8%
	long	273				0	53	-3.2	-4.7%
10Y Gilts	short	42	2.3	4.0	0.57	-1	0	-1.3	-2.1%
	long	399				-1	182	-1.3	-6.9%
10y OAT vs Bund	short	189	0.4	1.5	0.28	1	36	0.7	0.6%
	long	294				1	57	0.8	0.8%
10y BTP vs. Bund	short	84	2.3	6.3	0.36	0	2	0.0	-0.1%
	long	273				1	13	0.1	0.6%
Euro	short	42	3.3	6.4	0.51	-1	3	-0.5	-1.0%
	long	273				-1	56	-0.6	-3.3%
Yen	short	21	3.6	6.3	0.56	-1	3	-0.5	-0.8%
	long	462				-1	13	-1.4	-11.5%
Sterling	short	168	1.3	7.1	0.19	-1	5	-0.3	-1.3%
	long	294				-1	58	-0.4	-2.3%
AUD	short	42	3.9	7.8	0.49	0	0	0.0	-0.1%
	long	420				1	83	0.5	4.3%
CAD	short	168	1.3	5.9	0.22	-1	11	-0.4	-1.3%
	long	504				-1	293	-0.7	-4.8%
G10 FX	short	42	2.1	5.2	0.40	1	0	0.2	0.4%
	long	189				1	3	0.2	0.8%
EMCI	short	42	2.6	5.0	0.53	1	21	0.4	0.7%
	long	189				1	222	0.8	3.3%

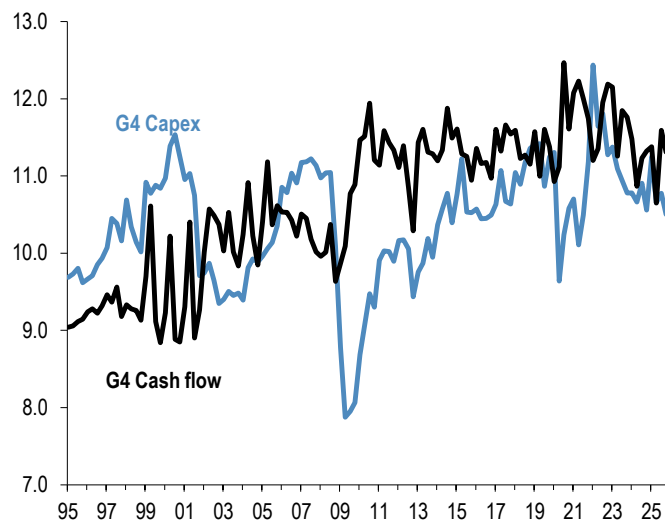
Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

20 May 2026

Corporate Activity

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

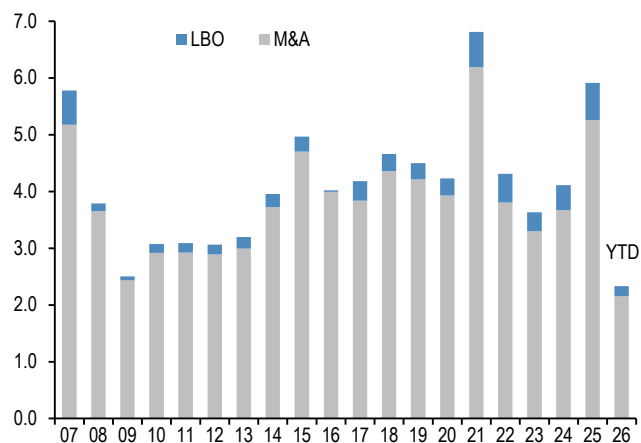
% of GDP, G4 includes the US, the UK, the Euro area and Japan. Last observation as of Q4 2025.



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

Chart A26: Global M&A and LBO

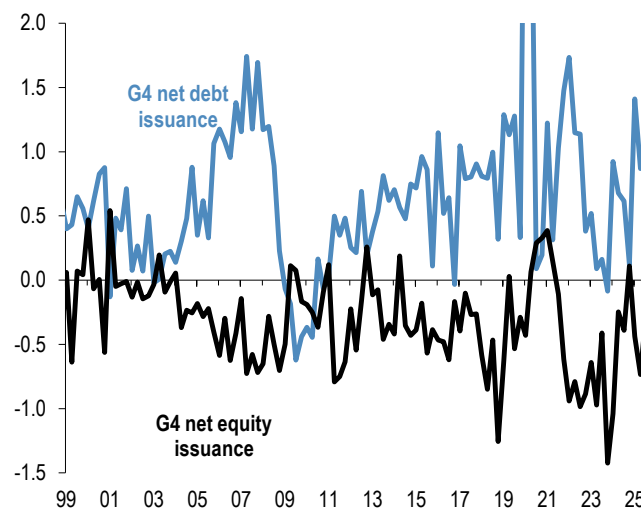
\$tr. M&A and LBOs are announced.



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

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

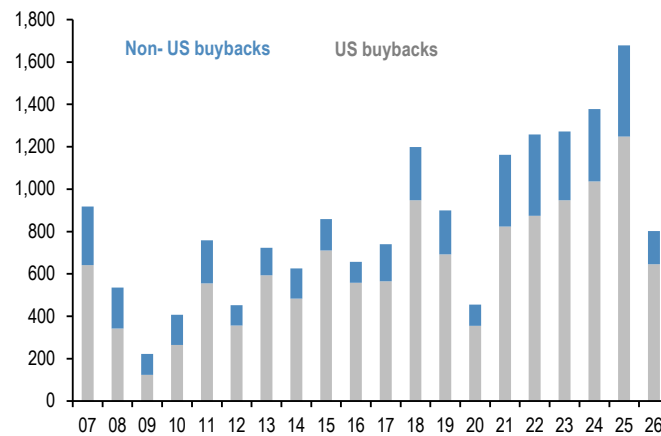
\$tr per quarter, G4 includes the US, the UK, the Euro area and Japan. Last observation as of Q4 2025.



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

Chart A27: US and non-US share buyback

\$bn, are as of May 26. Buybacks are as announced.

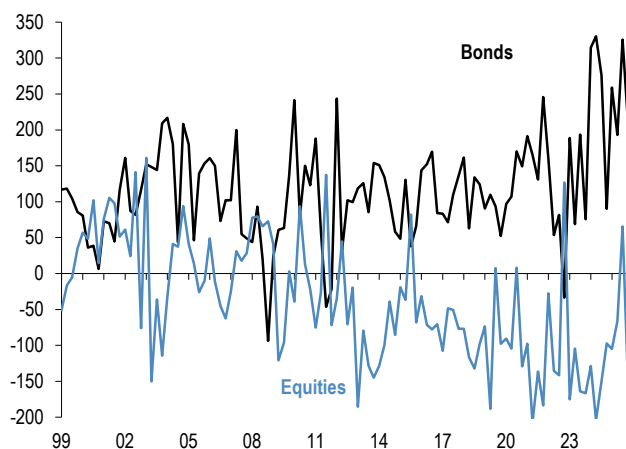


Source: Bloomberg Finance L.P., LSEG, J.P. Morgan Flows & Liquidity.

Pension fund and insurance company flows

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

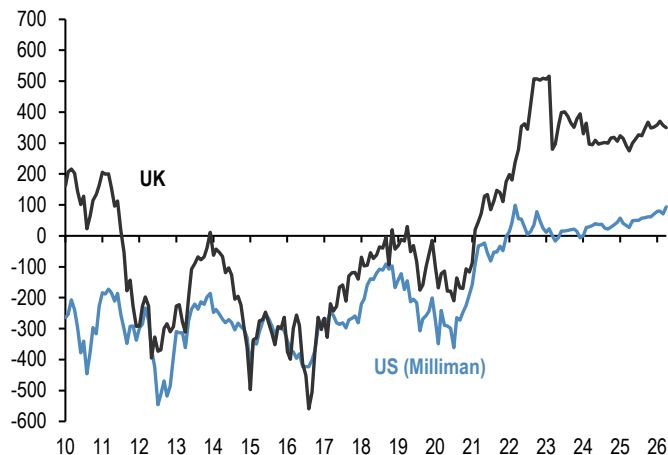
Equity and bond buying in \$bn per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q4 2025.



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

Chart A30: Pension fund deficits

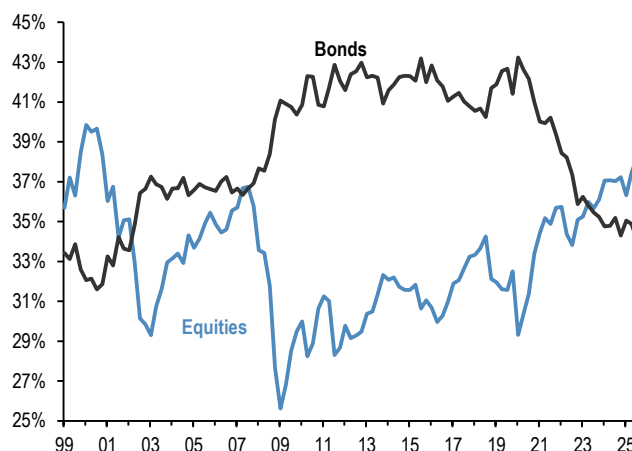
US\$bn. For US, funded status of the 100 largest corporate defined benefit pension plans, from Milliman. For UK, funded status of the defined benefit schemes eligible for entry to the Pension Protection Fund, converted to US\$ at today's exchange rates. Last obs. is Apr'26 for US & UK.



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

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

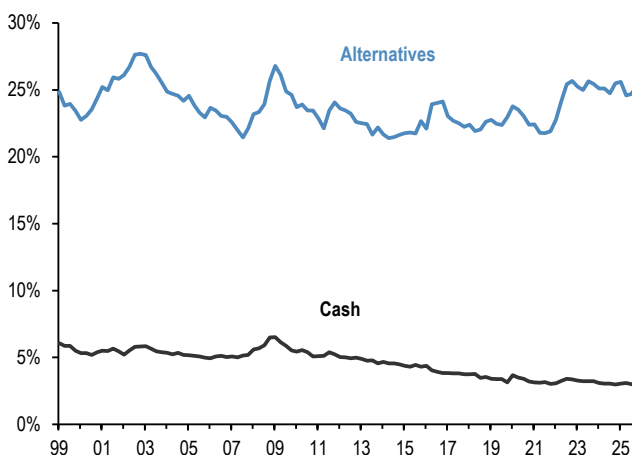
Equity and bond as % of total assets per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q4 2025.



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

Chart 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.



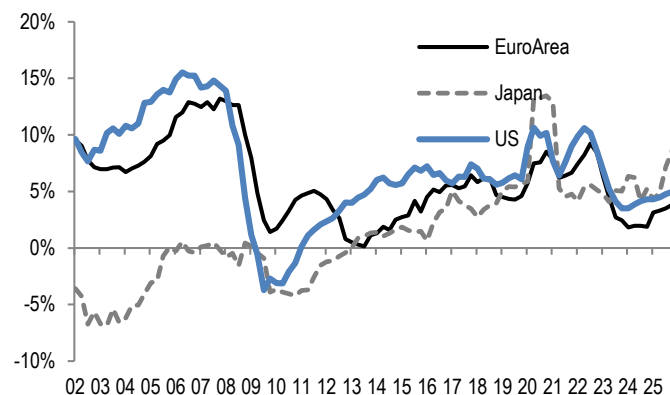
Source: ECB, BOJ, BOE, Federal Reserve flow of funds, J.P. Morgan Flows & Liquidity.

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Credit Creation

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

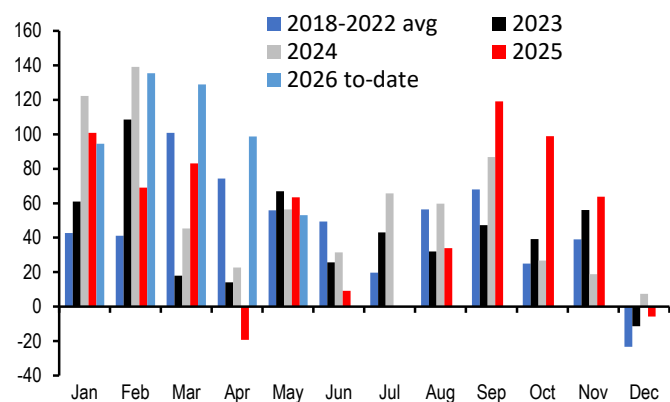
Rolling sum of 4-quarter credit creation as % of GDP. Credit creation includes both bank loans as well as net debt issuance by non-financial corporations and households. Last obs. is Q4'25 for Japan, Euro Area and US.



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

Chart A34: Monthly net issuance of US HG bonds

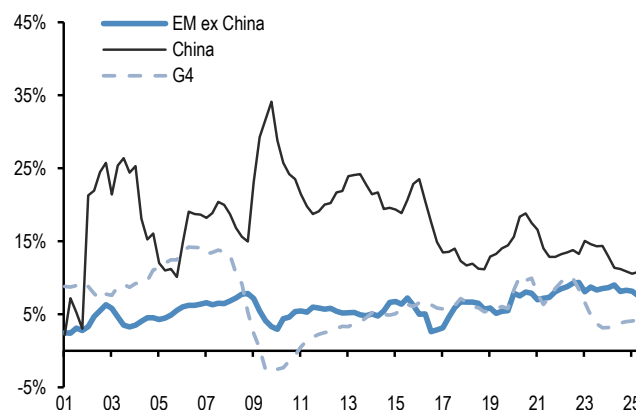
\$bn. Up to May 14th.



Source: Dealogic, 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.

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.

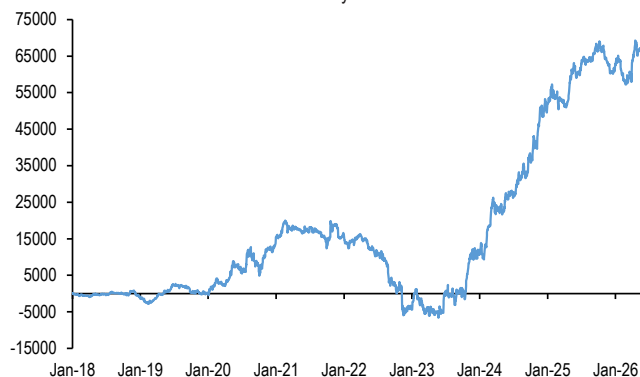
Equity Supply	8-May	4 wk avg	13 wk avg	y/y chng
Global IPOs	3.2	5.3	3.6	79%
Secondary Offerings	9.5	10.0	10.3	25%
Corporate announcements				
M&A - Global	148.7	127.7	127.8	33%
- US Target	97.6	60.0	60.2	53%
- Non-US Target	51.0	67.7	67.6	19%
Net bond issuance	Feb-26	3 mth avg	YTD avg	y/y chng
USD	8	144	179	-50%
Non-USD	162	129	277	-4%

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

Bitcoin monitor

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

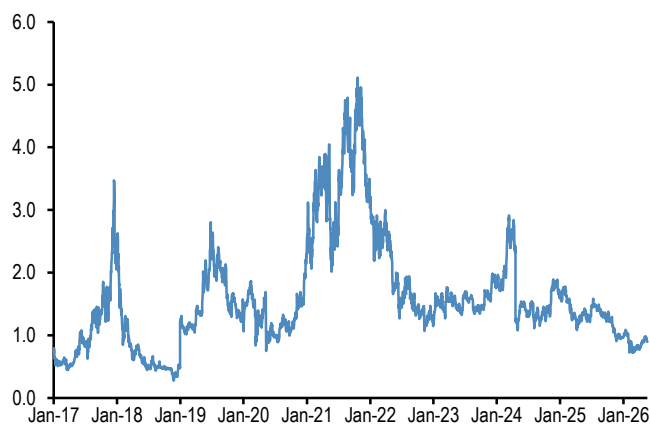
In number of contracts. Last obs. for 19th May 2026.



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

Chart A37: Ratio of bitcoin market price to production cost

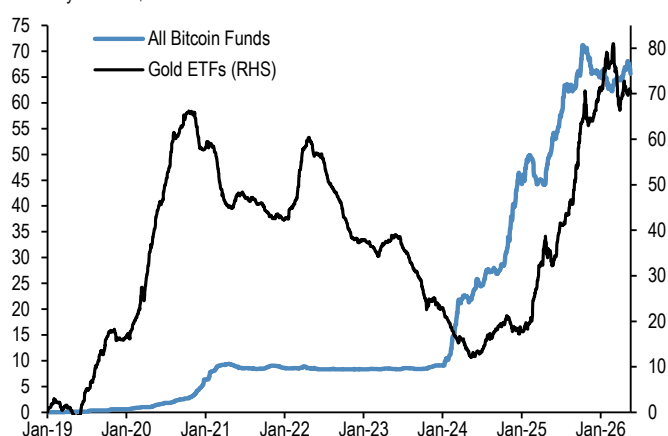
Based on the cost of production approach following Hayes (2018).



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

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

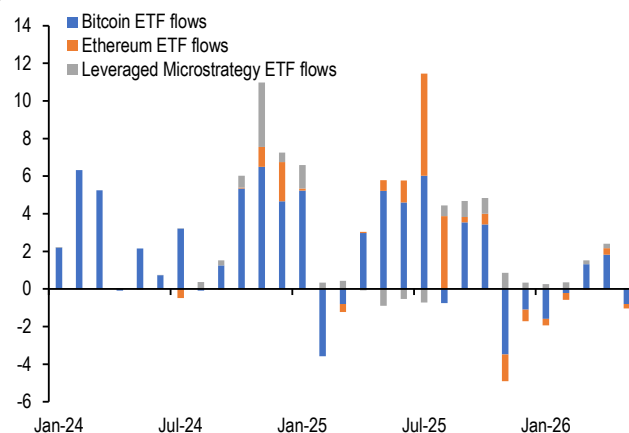
Both the y-axis in \$bn.



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

Chart 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.

20 May 2026

Japanese flows and positions

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

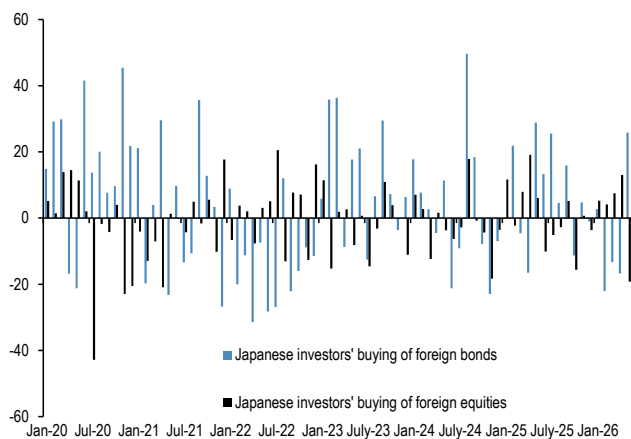
In bn of shares. Topix on right axis.



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

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

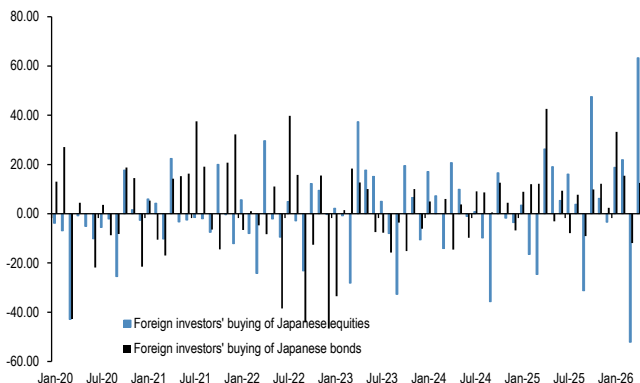
\$bn, Last weekly obs. is for 8th May '26.



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

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

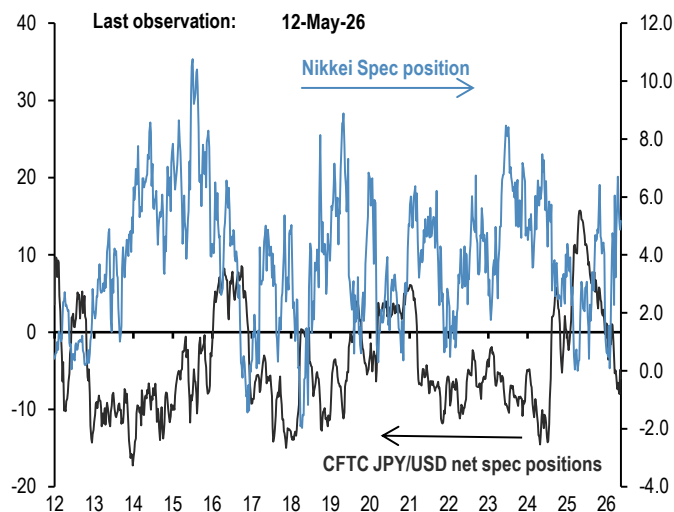
\$bn, Last weekly obs. is for 8th May '26.



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.

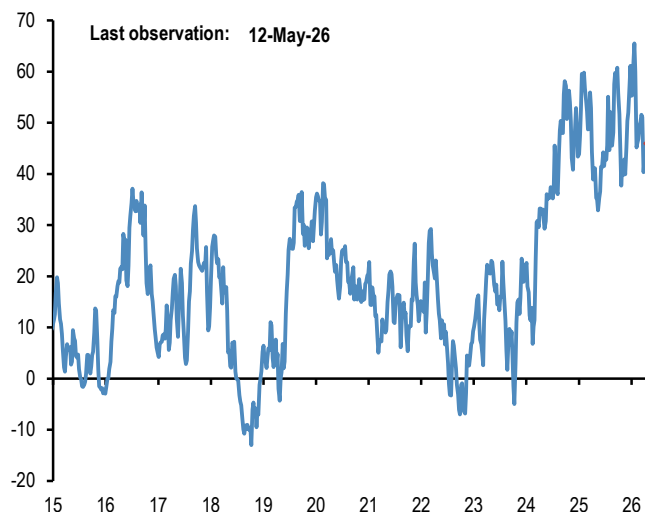


Source: Bloomberg Finance L.P., CFTC, J.P. Morgan Flows & Liquidity.

Commodity flows and positions

Chart A43: Gold spec positions

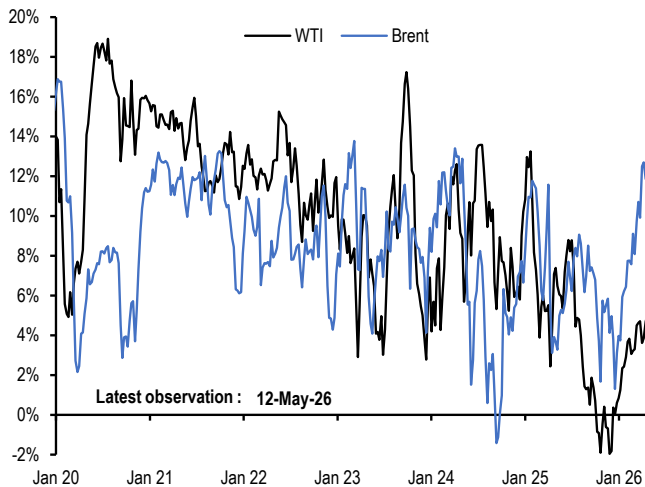
\$bn. CFTC net long minus short position in futures for the Managed Money category.



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

Chart A45: Oil spec positions

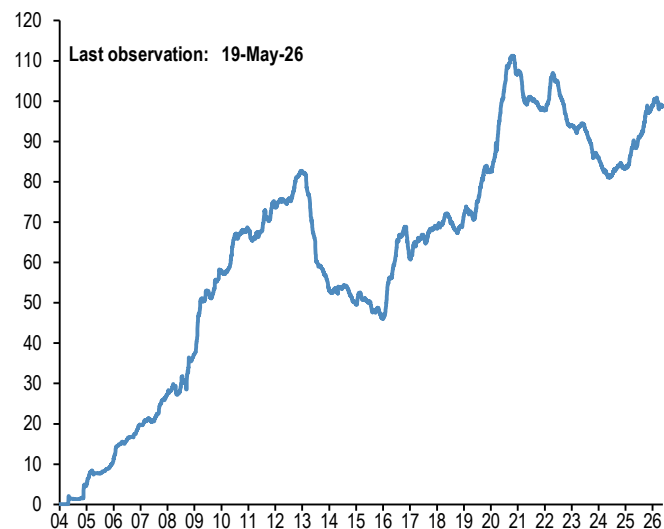
Net spec positions divided by open interest. CFTC futures positions for WTI and Brent are net long minus short for the Managed Money category.



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

Chart A44: Gold ETFs

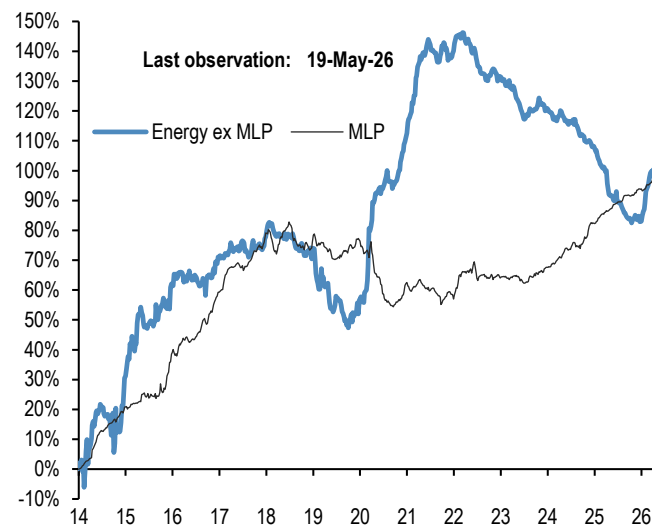
Mn troy oz. Physical gold held by all gold ETFs globally.



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

Chart A46: Energy ETF flows

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



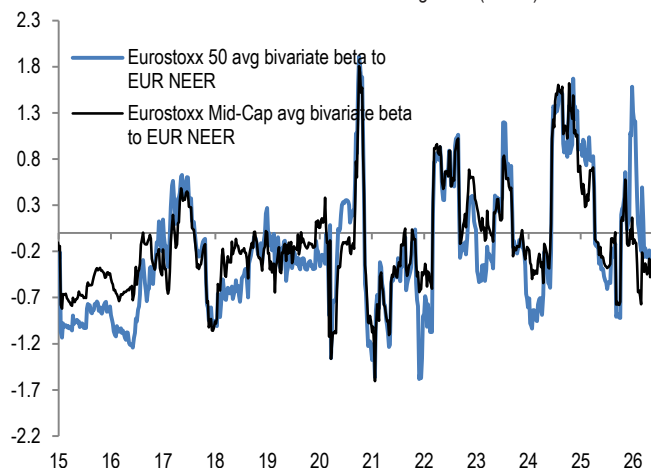
Source: CFTC, Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

20 May 2026

Corporate FX hedging proxies

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

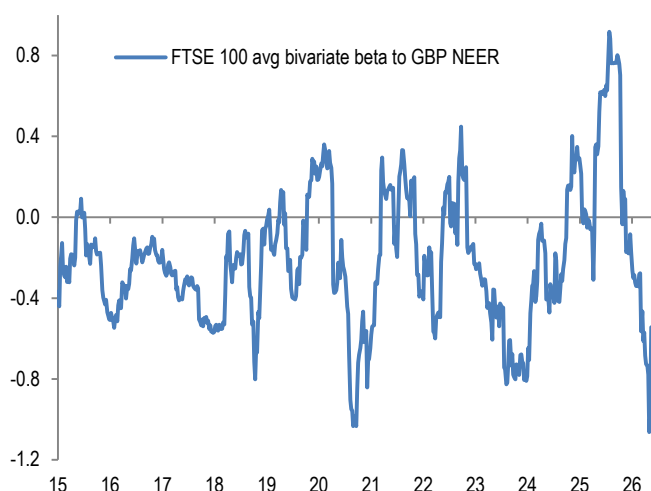
Rolling 26 weeks average betas based on a bivariate regression of the weekly returns of individual stocks in the Eurostoxx 50 index to the weekly returns of the MSCI AC World and JPM EUR Nominal broad effective exchange rate (NEER).



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

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

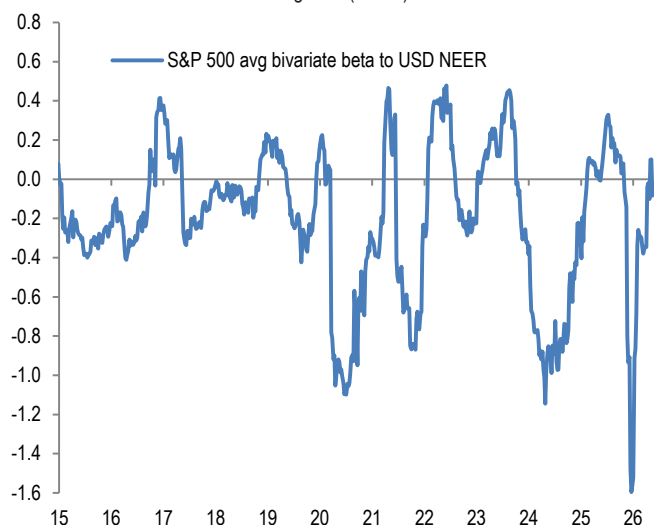
Rolling 26 weeks average betas based on a bivariate regression of the weekly returns of individual stocks in the FTSE 100 index to the weekly returns of the MSCI AC World and JPM GBP Nominal broad effective exchange rate (NEER).



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

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

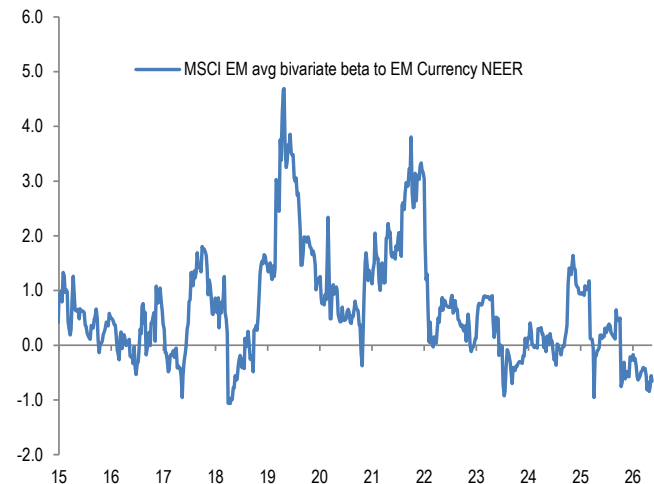
Rolling 26 weeks average betas based on a bivariate regression of the weekly returns of stocks in the S&P500 index to the weekly returns of the MSCI AC World and JPM USD Nominal broad effective exchange rate (NEER).



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

Chart 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).

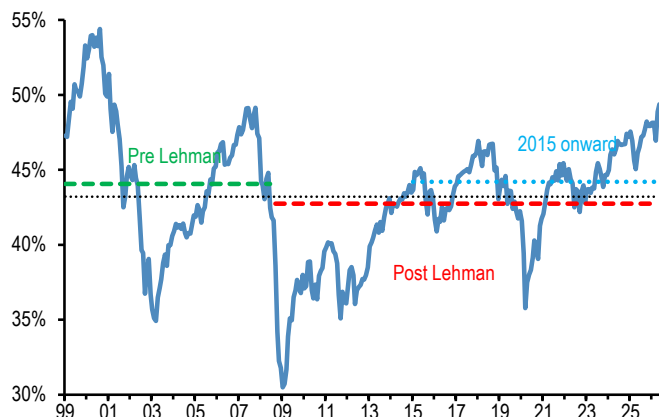


Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Non-Bank investors' implied allocations

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

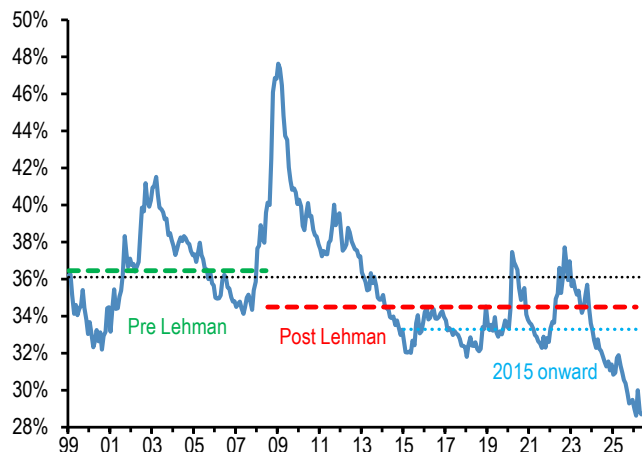
Global equities as % total holdings of equities/bonds/M2 by non-bank investors/Commodities including gold held by private investors. Dotted lines are averages.



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

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

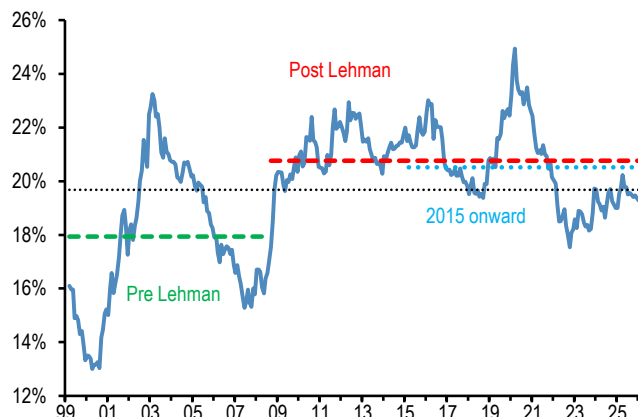
Global cash held by non-bank investors as % total holdings of equities/bonds/M2 by non-bank investors/Commodities including gold held by private investors. Dotted lines are averages.



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

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

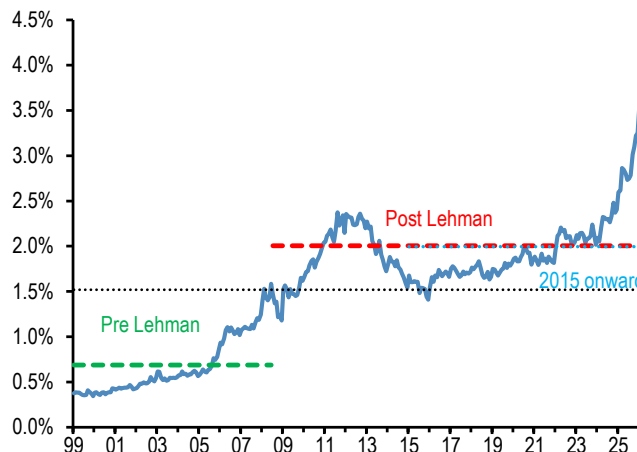
Global bonds as % total holdings of equities/bonds/M2 by non-bank investors/Commodities including gold held by private investors. Dotted lines are averages.



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

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Completed 20 May 2026 08:28 PM BST

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