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Flows & Liquidity

An overhang of long duration and spread exposures

- **We find a rather bifurcated positioning picture in bonds with quant funds having benefitted over the past month from the build up of short duration exposures, while discretionary managers have been scrambling to contain previous overhangs of long duration and spread exposures.**
- **This raises two-way risk for bond markets going forward: either mean reversion signals start kicking in inducing quant funds to take profit thus helping to reverse some of the recent rise in bond yields, or discretionary managers amplify the current negative momentum by reducing their previous overhang of duration and spread exposures even further.**
- **Our bias is for the latter in the near term given the greater size of discretionary vs. quant bond managers.**
- **Some resumption of reserve diversification flows out of dollar reserves and into euro and gold in 2Q26.**
- **Institutional investors appear to be less optimistic on Brazilian equities than retail investors post the first round of the presidential election.**
- **While during the first half of the year the crypto capital flow picture was dominated by corporate treasury buying and venture capital funding, in Q3 both crypto ETF flows and crypto futures positioning have increased pointing to greater participation by both retail and institutional investors, thus creating a positive flow momentum into Q4.**

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 30th Sept 26.

MF & ETF Flows	Min	Max	4 wk avg ($bn)	2025 avg ($bn)
All Equities			6.3	8.1
All Bonds			1.9	11.3
US Equities			2.5	3.5
US Bonds			2.0	4.3
Non-US Equities			3.9	4.6
Non-US Bonds			-0.1	7.0
US HG Bonds			10.5	3.4
US HY Bonds			-0.2	0.4
US Lev. Loans *			1.1	0.0
US MMFs			0.2	4.0
EM Equities			-2.5	0.9
EM Bonds			0.61	0.50
Japan Equities			1.4	-0.1
China Equities			-0.52	-0.15
Europe				
Europe Equities			0.0	0.9
Europe Bonds			-1.4	4.3
Europe HG Bonds			-0.4	0.9
Europe HY Bonds			-0.32	0.17
Europe MMFs			-17.5	3.8
Other Equities			5.20	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.

See page 30 for analyst certification and important disclosures.

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 06-Oct-26	MIN	MAX	Current percentile
Equities			0.66
Govt Bonds			0.60
Credit			0.24
Dollar			0.81
Commodities ex Gold			0.78
Gold			0.38
Bitcoin			0.87
EM Equities			0.84
EM Bonds/FX			0.15
Japan Equities			0.67
Europe Equities			0.26
US Equity Sectors:			
Energy			0.69
Materials			0.46
Industrials			0.35
Discretionary			0.48
Staples			0.21
Health Care			0.34
Financials			0.18
Technology			0.75
Communication Services			0.49
Utilities			0.33

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.

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- Provisional hedge fund performance data for September showed that quant funds managed to take advantage of the bond market selloff and tech stock gyrations during September, delivering total returns of around 3%-4% on the month. This is shown in Figure 1 by the performance of Macro Quant, Managed Futures/CTAs and Equity Quant categories. Instead, Equity Long/Short and Discretionary Macro hedge funds were slightly down or flat on the month. Event Driven, Credit and Equity Sector hedge funds, which are predominantly discretionary, were also down on the month.

Figure 1: Hedge Fund performance by category for 26 till Sept

Pivotal Path hedge fund return indices. Sep. 26 based on preliminary data from Pivotal Path.

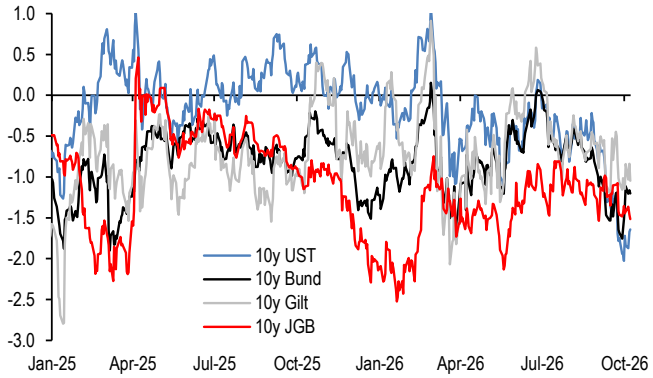
	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Jan - Sep 26
ALL HFs	1.99%	1.16%	-2.62%	4.46%	2.07%	0.92%	-1.47%	1.13%	-0.47%	7.22%
Equity L/S	2.15%	1.22%	-4.53%	6.28%	2.52%	1.06%	-1.67%	1.27%	-0.74%	7.44%
Macro	3.13%	1.81%	-2.60%	1.96%	0.41%	-0.28%	-0.21%	1.70%	1.91%	7.98%
Macro: Discretionary	4.52%	1.54%	-4.49%	1.86%	1.28%	-0.74%	-1.14%	1.36%	0.10%	4.11%
Macro: Quant	2.29%	1.65%	-0.31%	2.09%	-0.15%	-0.12%	-0.16%	2.12%	3.41%	11.27%
Managed Futures/CTAs	3.71%	3.13%	-0.86%	2.11%	-0.21%	-0.86%	-0.64%	3.01%	4.29%	14.34%
Multi Strat	1.93%	1.07%	-1.38%	2.51%	1.18%	0.98%	-0.58%	0.09%	0.43%	6.34%
Credit	1.03%	0.23%	-0.69%	1.42%	0.89%	0.42%	0.01%	0.36%	-0.77%	2.92%
Equity sector	1.39%	1.00%	-2.53%	7.75%	4.74%	3.24%	-4.14%	2.01%	-2.04%	11.40%
Equity sector: TMT	2.34%	-1.23%	-3.71%	13.09%	11.16%	3.49%	-8.29%	2.66%	2.19%	21.83%
Event Driven	1.48%	0.84%	-2.46%	4.58%	2.60%	1.02%	-1.40%	0.24%	-1.54%	5.29%
Equity Quant	-0.72%	0.80%	0.46%	1.37%	-0.82%	1.05%	1.59%	0.10%	3.68%	7.69%
Volatility	1.30%	1.29%	1.26%	-0.15%	0.27%	-0.21%	0.36%	-0.49%	0.87%	4.57%

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

- Managed Futures/CTAs were the best performing category by riding the negative momentum in bonds. The build up of short duration positions by momentum traders such as CTAs is also visible in our momentum signals shown in Figure 2. These momentum signals reached extreme territory for UST and Bund futures on September 30th, thus creating a risk of profit taking and mean reversion into Q4. In other words, while benefiting their performance over the past month, this build up of extreme short duration positions leaves Managed Futures/CTA hedge funds vulnerable to a bond market reversal.

Figure 2: Momentum signals on bond futures

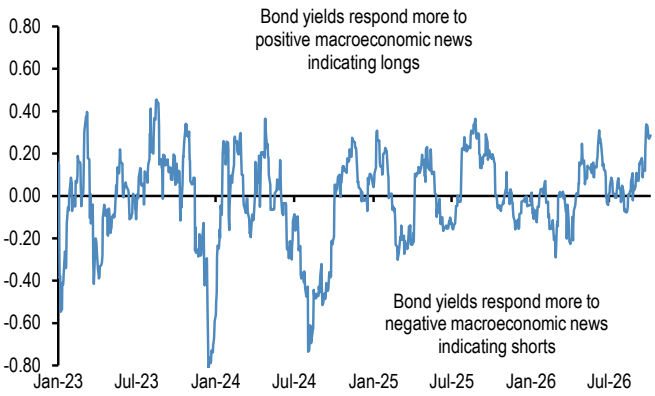
Average z-score of Short- and Long-term momentum signal in our Trend Following Strategy framework shown in Tables A3 and A4 below in the Appendix.



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

- If Managed Futures/CTAs are so short duration, why are bond markets trading long as implied by the sensitivity of bond markets to economic news (Figure 3)?

Figure 3: Bond yield beta to macro news



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

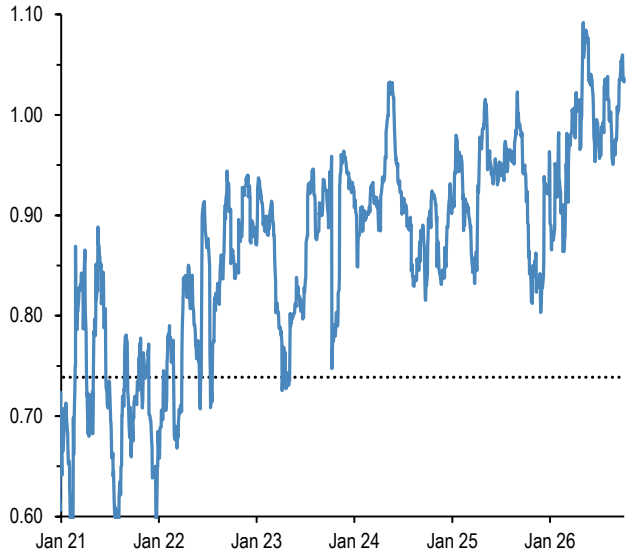
- The answer is that discretionary managers, in particular real money managers, have been suffering from a previous overhang of long duration positions:
  1. Both US and Euro active bond mutual find managers appear to have caught up with elevated total duration exposures (including spread duration exposures) in recent weeks (Figure 4 and Figure 5).
  2. Balanced mutual fund managers appear to have also held above-average bond exposures, and have been retreating in recent months (Figure 6).
  3. Our Treasury Client Survey and European Client Survey have been conveying a similar message with a persistent overhang of long duration (Figure 7) and intra EMU spread exposures by real money managers

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(Figure 8).

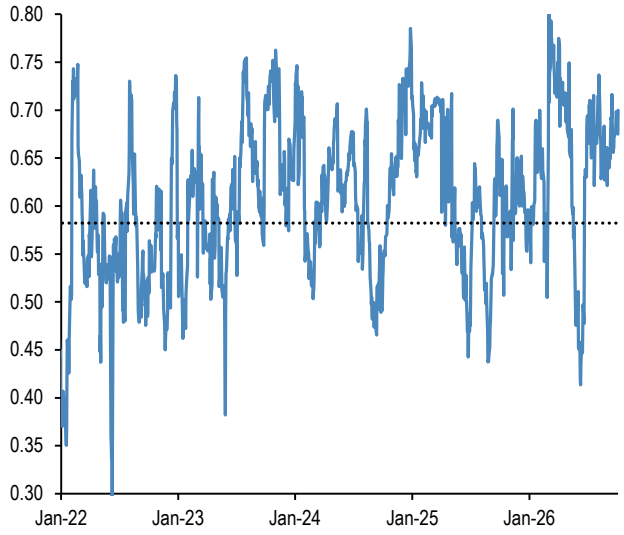
4. While risk parity funds hold below average leverage on our calculations and as a result they have capacity to add, they appear to have been reluctant to do so given the rise in bond volatility (Figure 9).

Figure 4: US active bond fund beta to US Agg bond index



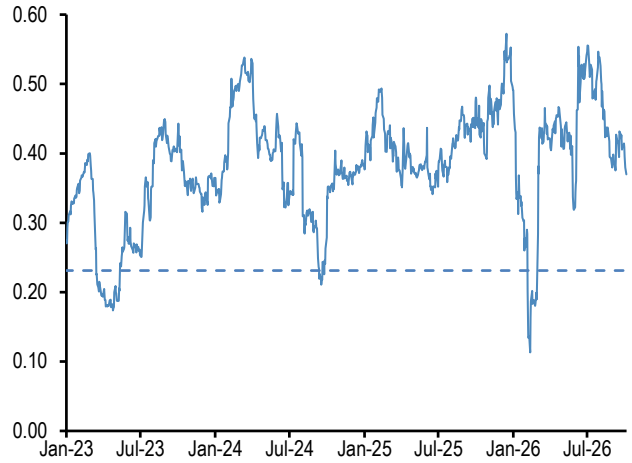
Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

Figure 5: Euro active bond fund beta to EuroAgg bond index



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

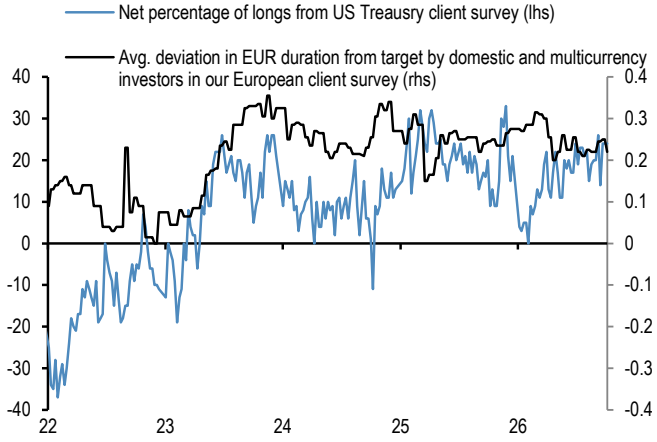
Figure 6: Balanced mutual fund bond beta



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

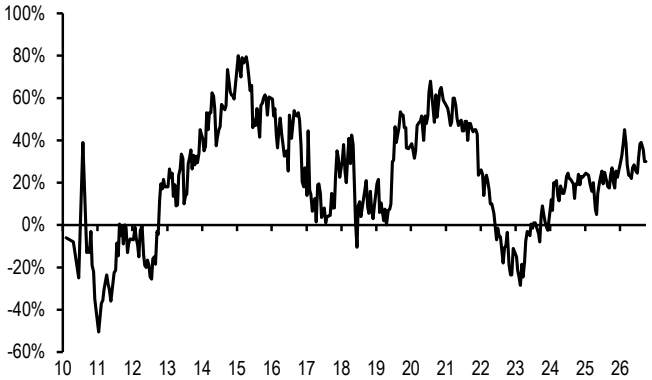
Figure 7: Net long positions for USTs and euro duration in our client surveys

Net percentage of longs in % (lhs), duration deviation from target in years (rhs).



Source: J.P. Morgan.

Figure 8: Net exposure of Euro area investors to intra-EMU spreads in %

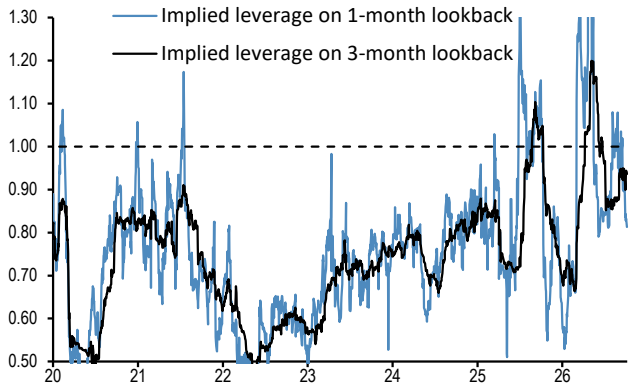


Source: J.P. Morgan.

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Figure 9: Risk parity fund implied leverage

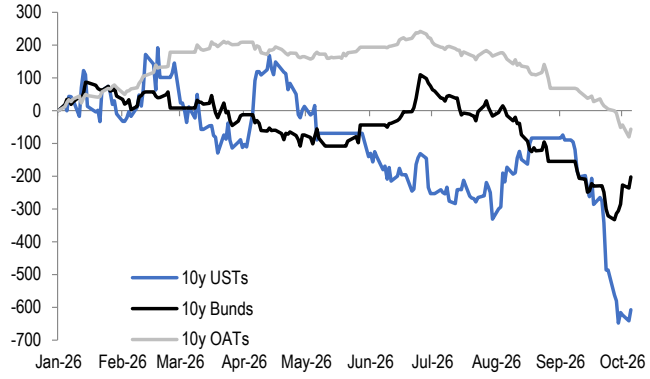


Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

- In other words, we find a bifurcated bond positioning picture with quant hedge funds such as CTAs in extreme short duration territory and discretionary managers scrambling to contain previous overhangs of long duration and long spread positions. This scrambling to reduce duration and spread exposures by discretionary managers is likely behind the downshift in our futures position proxies into end-September in UST futures, Bunds and OATs, and since then for the latter (Figure 10).

Figure 10: Cumulative futures position proxy for 10y USTs, Bunds and OATs since the start of 2026

In '000s of contracts.



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

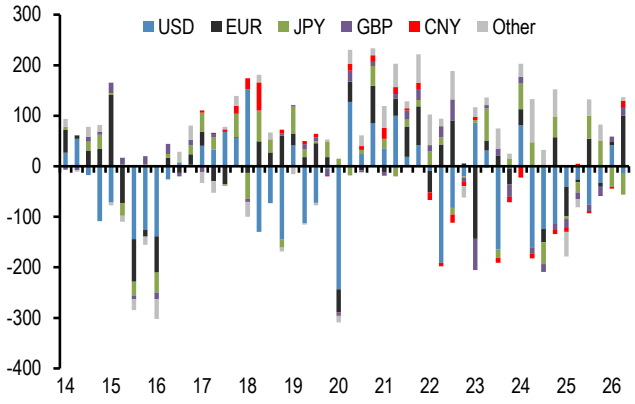
- Going forward this bifurcated picture raises two-way risk for bond markets: either mean reversion signals start kicking in inducing quant funds to take profit, thus helping to reverse some of the recent rise in bond yields, or discretionary managers amplify the current negative momentum by reducing their previous overhang of duration and spread exposures even further. Our bias is for the latter in the near term given the greater size of discretionary vs. quant bond managers.

Some resumption of reserve diversification flows out of dollar reserves and into euro and gold in 2Q26

- The recent release of the 2Q26 IMF COFER data allows us to update our estimate of reserve managers' bond purchases and how the theme of reserve diversification has continued through the middle of the year.
- To estimate net flows, 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 $80bn in 2Q26, following net inflows of around $16bn in 1Q26.
- In terms of the composition of reserve flows (Figure 11), 2Q26 saw modest outflows from dollar reserves of around $15bn, reversing some of the inflows of $42bn in 1Q26. Yen reserves saw more notable outflows of just over $40bn in 2Q, similar to the previous quarter's outflow. The main beneficiary was euro reserves, which saw inflows of around $100bn, while sterling, AUD and CNY reserves also saw inflows of around $15bn each. The fact that these modest outflows from dollar reserves came against a backdrop of a modest depreciation in the broad dollar in 2Q, which in principle should see some rebalancing demand, and overall inflows into reserves suggests some resumption of the diversification flow, which paused in 1Q as central banks appeared to prefer liquidity at the onset of the Middle East conflict. This is also reflected in the modest rise in the dollar share of reserves in 1Q that was largely reversed in 2Q (Figure 12). Based on FX and bond returns in 3Q, this dollar share looks set to decline further to around 56.3%, shown in the red dot 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.

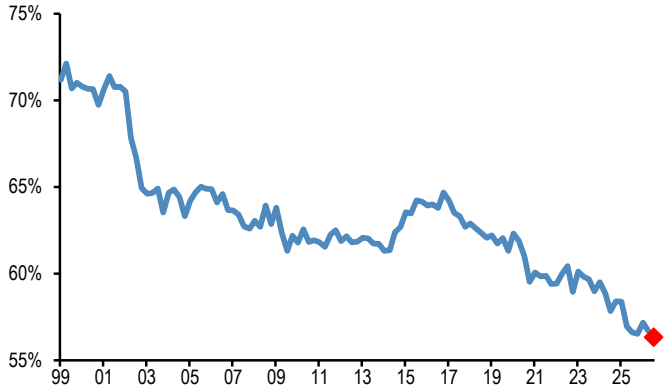


Source: IMF COFER, J.P. Morgan Flows & Liquidity.

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

The Q3 2026 red dot reflects our own extrapolation.

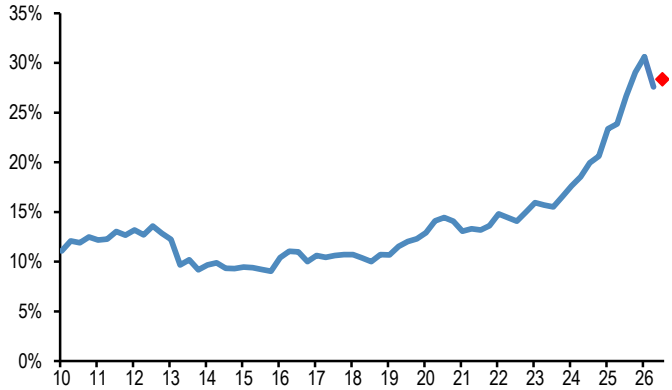


Source: IMF COFER, J.P. Morgan Flows & Liquidity.

- Combined with the previously released data on central bank gold purchases for 2Q26 by the World Gold Council, this suggests that the gold share of total central bank reserves had declined from around 31% in 1Q26 to just under 28% in 2Q26 (Figure 13). This was largely due to valuation effects, as central bank purchases rebounded in 2Q26 to nearly 290 tonnes (Figure 14), or just over $40bn at quarter average prices, following a very weak 1Q of around 56 tonnes after revisions. Projecting this share forward by assuming that central bank gold holdings in terms of tonnes grew in line with the previous four-quarter average in 3Q26, and applying currency and bond returns for 3Q for 2Q COFER reserves as well as incorporating net inflows implied by changes in EM FX reserves adjusted for currency and bond returns, suggests that the gold share has likely increased to just above 28%, as shown in the red dot in Figure 13.

Figure 13: Share of gold in total central bank reserves

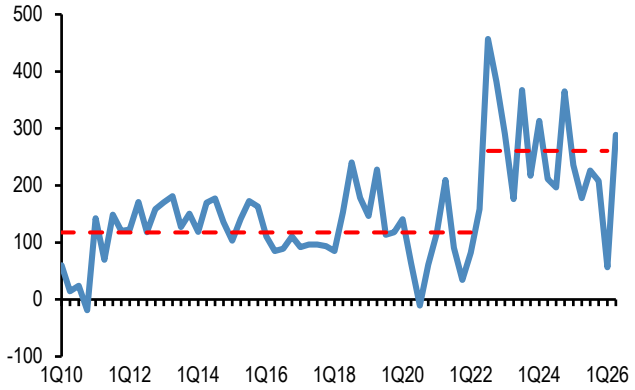
In %. Total reserves defined as COFER reserves + central bank gold holdings. See text for details of 3Q26 projection in the red diamond.



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

Figure 14: Quarterly net purchases of gold by central banks

Tonnes. Red dashed lines show the average net purchases up to mid-2022 and from mid-2022 onward.



Source: World Gold Council, J.P. Morgan Flows & Liquidity.

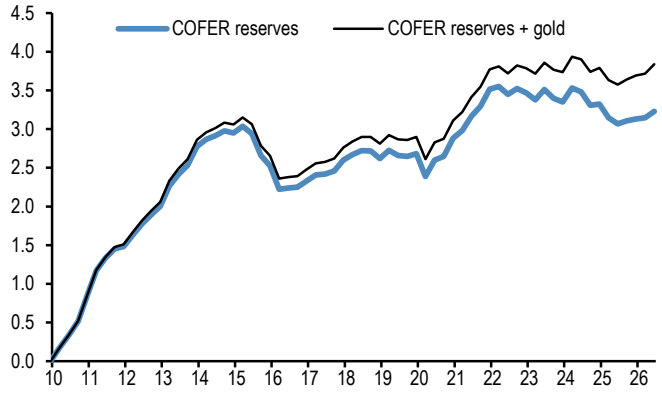
- More broadly, we had highlighted last year (F&L, Jul 16th 2025) that there appeared to have been an inflection point in the net flow into FX reserves from mid-2022 onward (Figure 15). Indeed, this cumulative outflow from FX reserves had continued up until the first half of 2025. Since then, perhaps as some of the prior appreciation in the broad effective dollar exchange rate abated, there has been a modest trend of inflows into FX reserves again, though it appears modest compared to prior outflows. When including inflows into gold as an overall metric of official reserves, where the outflows were more modest, it has effectively unwound prior declines.
- Another way to look at reserves is to compare the stock relative to nominal GDP or global trade, given the motivation for holding reserves can be to fulfill a range of different functions, such as recycling current account surpluses, managing exchange rate volatility, and/or ensuring a country has the means to settle trade in crucial imports in the event of economic shocks or disruptions to capital flows. Figure 16 shows the stock as a % of global nominal GDP and suggests that the shift from the first half of 2025 to modest inflows into reserves has not been enough to reverse the downward trend in the stock of FX reserves relative to GDP. When including gold to measure total reserves there has been a more meaningful reversal, though this is largely a valuation effect from previous gold price rises. In other words, these modest inflows into FX reserves do not change our overall conclusion from last year that this pillar of the so-called "savings glut", i.e. the recycling of current account surpluses via FX reserves, remains weak or at least has shifted toward SWFs or private vehicles that tend to be more price sensitive and less fixed income focused.

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Figure 15: Cumulative net flows into COFER reserves and gold

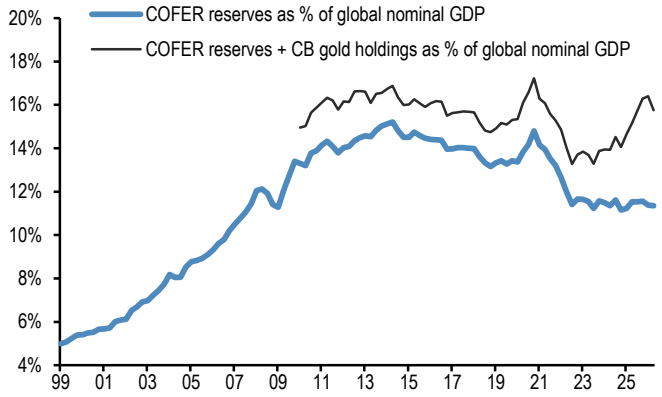
$tr.



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

Figure 16: FX reserves and total reserves as a share of global nominal GDP

In %.



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

Institutional investors appear to be less optimistic on Brazilian equities than retail investors post the first round of the presidential election

- Our futures positioning proxies increased in CME Ibovespa and BRL futures contracts on Monday and Tuesday this week following the first round of the Brazilian presidential election. This is shown in Figure 17 for CME Ibovespa futures contracts and in Figure 18 for CME BRL futures contracts. The latter has been on an uptrend since April 2025 after Liberation Day. The former had downshifted in recent months ahead of the election and showed less of a buying impulse on Monday and Tuesday this week relative to BRL futures.

Figure 17: Our position proxy based on open interest changes in CME Ibovespa futures contracts

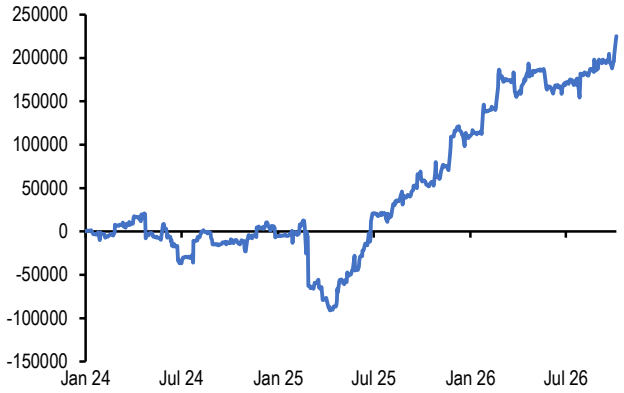
In number of contracts. Latest data until October 6th



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

Figure 18: Our position proxy based on open interest changes in CME BRL futures contracts

In number of contracts. Latest data until October 6th



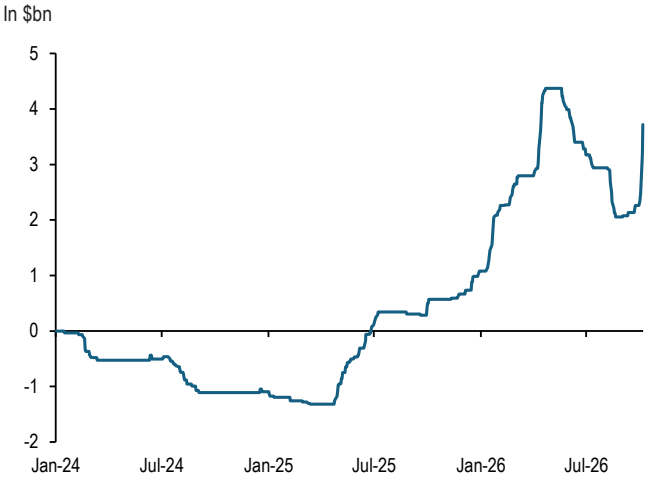
Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

- That said, while there has been rather little buying

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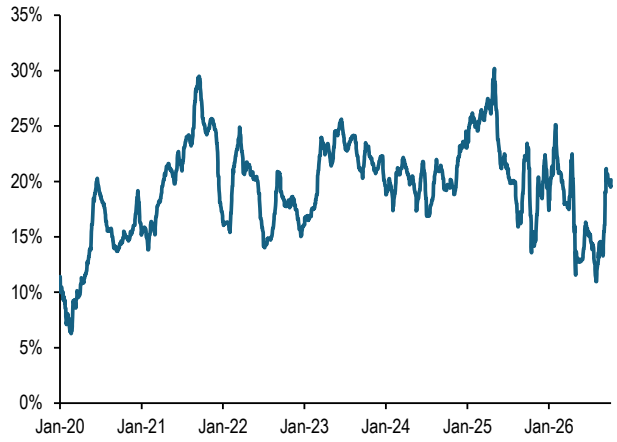
impulse in CME Ibovespa futures after the election, there has been more buying of the US listed EWZ ETF (iShares MSCI Brazil) as shown in Figure 19. To the extent that ETF flows tend to be more driven by retail investors, this points to greater optimism on Brazilian equities by retail investors post the election. This is also consistent with the short interest of EWZ ETF which saw little change post the election. Different to ETF flows, the ETF short interest tends to be more driven by institutional investors such as hedge funds and the fact that the short interest on the EWZ ETF is only slightly lower post the election (Figure 20) again points to less optimism by institutional investors.

Figure 19: Cumulative flows in EWZ ETF since 2024



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

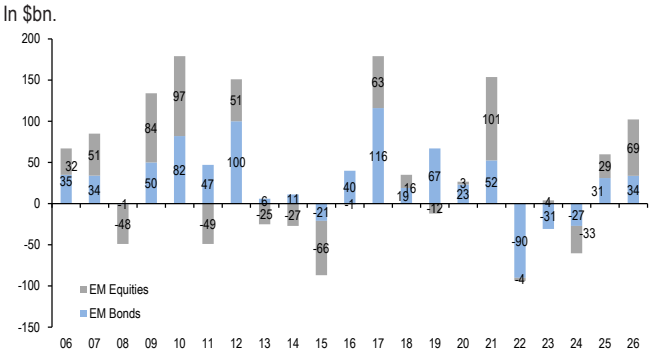
Figure 20: Short interest on EWZ ETF



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

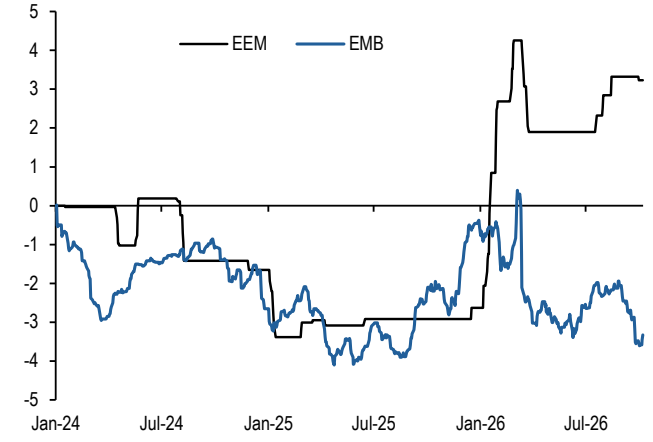
- What about EM flows more broadly? Ahead of the Brazilian election, YTD EM equity and bond fund flows had their best year since 2021 (Figure 21). That said, the two biggest EM equity and bond ETFs, EEM and EMB, respectively, saw little inflow post the Brazilian election (Figure 22). Their short interest was similarly little changed (Figure 22). That said, the short interest on the EEM ETF (iShares MSCI EM equity index ETF) has been on a declining trajectory this year and recently breached the short interest of the EMB ETF (iShares JPM USD EM bond index ETF) for the first time since the pandemic, as shown in Figure 23. This implies that from a short interest point of view, EM bonds look currently less vulnerable than EM equities.

Figure 21: Annual EM overall bond and equity fund flows



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

Figure 22: Cumulative flows in EEM and EMB ETFs



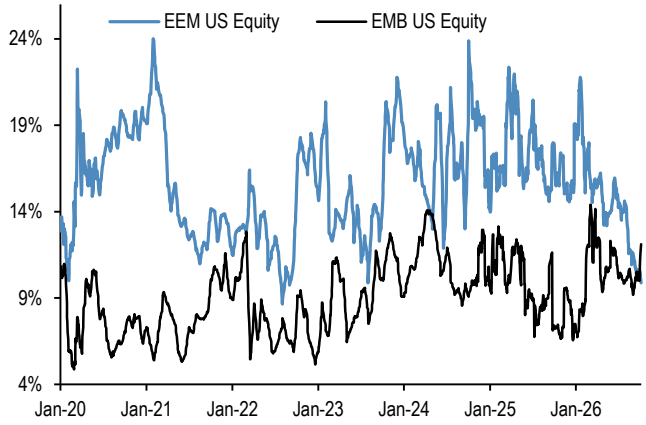
Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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Figure 23: Short interest on EEM and EMB ETFs

In %.



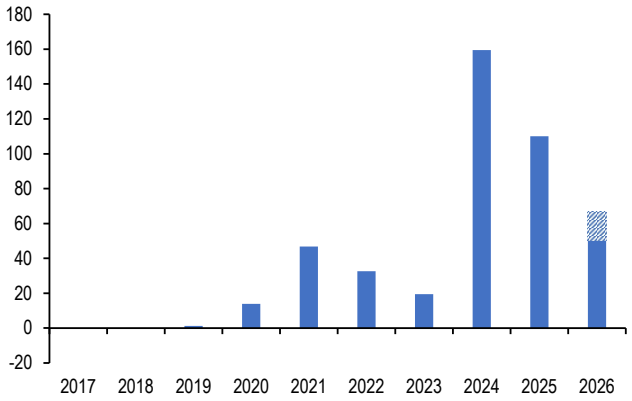
Source: S3, J.P. Morgan Flows & Liquidity.

Our estimate of the overall capital flow into digital assets has improved over the past couple of months but at a $66bn annualized pace YTD is still running at around half of last year's pace

- Our estimate of the overall capital flow into digital assets stands at around $50bn year to date, implying an annualized pace of $66bn. This is above the $52bn annualized pace as of last May, though still around half of last year's pace (Figure 24). As a reminder, we estimate the overall capital flow into digital assets by aggregating crypto fund flows, the flow impulse implied by CME futures, crypto VC fundraising, and publicly listed miners and corporate treasury purchases of digital assets such as MicroStrategy's bitcoin acquisitions. In this update, we have expanded our flow estimate by including digital asset purchases by private corporate treasuries, private miners and government related entities.

Figure 24: Overall capital flow into digital assets by year

in $bn per year including crypto fund flows, the flow impulse implied by CME futures, crypto VC fundraising, and crypto purchases by miners, corporate treasuries and government related entities. Shaded region for 2026 reflects the annualized pace based on YTD flows



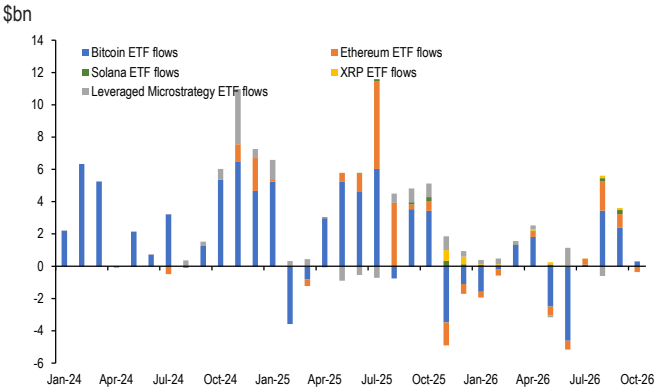
Source: Messari, Bitbo, Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

- During the first half of the year, the inflows into digital assets were driven mainly by MicroStrategy purchases and crypto VC funding, while retail and institutional ETF flows were a headwind, with heavy outflows during May and June (Figure 25). ETF flows improved since August, turning net positive for the year, although the cumulative ETF flows since the October 10th2025 downturn remain net negative (Figure 26). Similar to crypto ETFs, a CME futures-based proxy indicates institutional positioning in bitcoin and ethereum increased over the past two months after a subdued start to the year (Figure 27 and Figure 28). Bitcoin positioning surged above its prior peak, while

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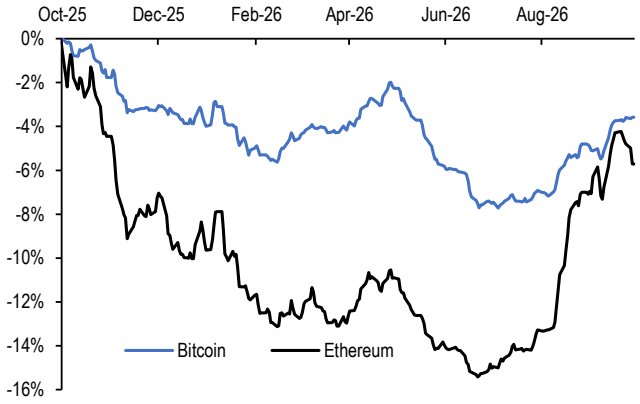
ethereum positioning approached its previous October 2025 high.

Figure 25: Monthly flows into spot bitcoin ETFs, spot ethereum ETFs, Solana, XRP and leveraged MicroStrategy ETF



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

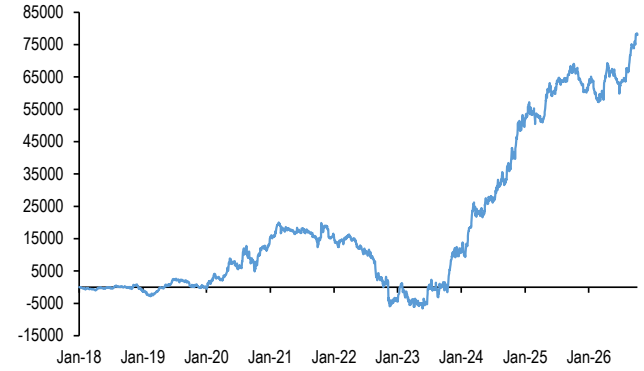
Figure 26: Cumulative flows into spot bitcoin and ethereum ETFs since Oct 10th 2025 downturn



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

Figure 27: Our position proxy based on open interest changes in CME bitcoin futures contract

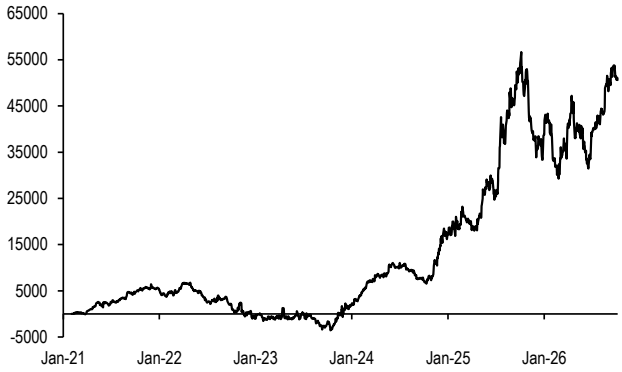
In number of contracts. Latest data until Oct 6th



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

Figure 28: Our position proxy based on open interest changes in CME ethereum futures contracts

In number of contracts. Latest data until Oct 6th

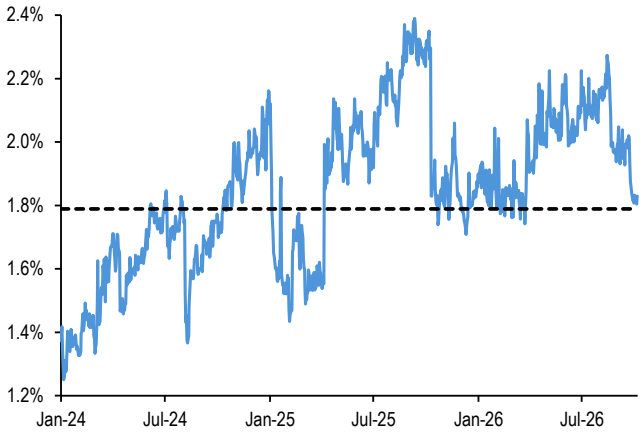


Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

- For offshore venues, we track perpetual futures positioning via dividing the dollar value of their open interest by the market cap of bitcoin and ethereum, respectively (Figure 29 and Figure 30). Since the crypto market correction started on October 10th 2025, these offshore leverage proxies subsided from their peak levels but remained above historical averages. Finally, our momentum signals suggest that momentum traders such as CTAs have started rebuilding long positions in bitcoin and ethereum (Figure 31).

Figure 29: Ratio of bitcoin perpetual futures open interest to bitcoin market cap

Black dotted line is the average since 2024



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

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Figure 30: Ratio of ethereum perpetual futures open interest to ethereum market cap

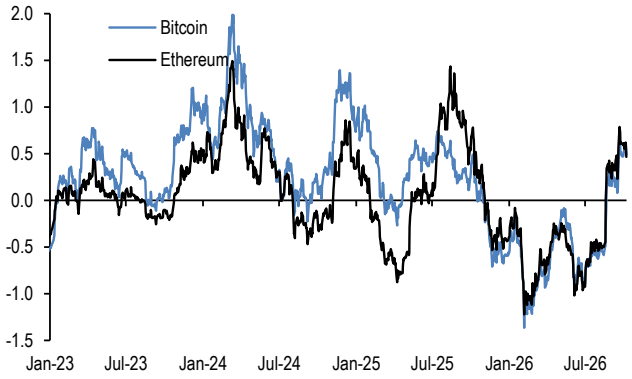
Black dotted line is the average since 2024



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

Figure 31: Our proxy for momentum traders positioning on bitcoin and ethereum

Average z-score of short- and long-term momentum signal

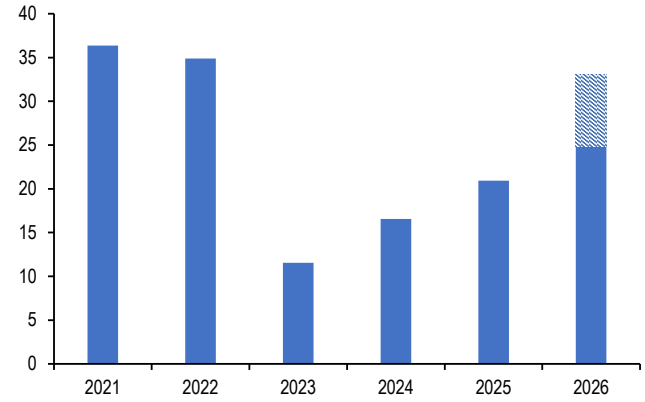


Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

- Crypto VC funding has been improving since 2024 (Figure 32). That said, below the surface the mix has become more skewed towards fewer and larger rounds led by established firms. This leaves headline VC funding numbers sensitive to a small number of large financings and credit deals. Capital structures have also been shifting away from equity towards debt financing of infrastructure-focused business models with clearer cash flows. Tokenization is gaining traction within VC funding aimed at B2B use cases.

Figure 32: Yearly crypto VC funding

$bn, shaded region is annualized estimation based on the YTD flows



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

- Bitcoin miners remain net sellers year to date, though total net selling is rather modest at roughly $1.8bn. The shift is mostly evident among publicly listed miners, which shifted away from accumulation toward selling newly mined rewards and, in some cases, drawing down existing holdings to fund AI infrastructure capex.
- Digital asset corporate treasury activity has been driven largely by publicly listed firms, with companies such as MicroStrategy adding bitcoin at a fast pace early in the year and accounting for a large share of net digital asset inflows, while private treasuries bought more modest amounts. Private corporate treasuries were likely constrained by less flexible funding sources and lower tolerance for bitcoin volatility. More broadly, public corporate treasury companies have funded their purchases through common equity issuance, debt, and preferred shares, where the mix has shifted over time from debt toward preferred shares, raising the need for interest and dividend payments.
- In all, while during the first half of the year the capital flow picture was dominated by corporate treasury buying and venture capital funding, in Q3 both ETF flows and futures positioning have increased pointing to greater participation by both retail and institutional investors, thus creating a positive flow momentum into Q4.

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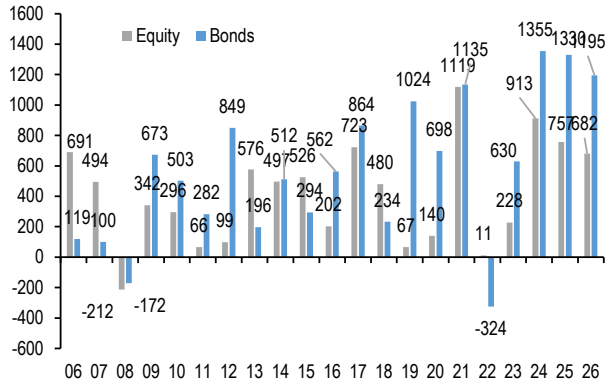
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Appendix

Chart A1a: Global equity & bond fund flows

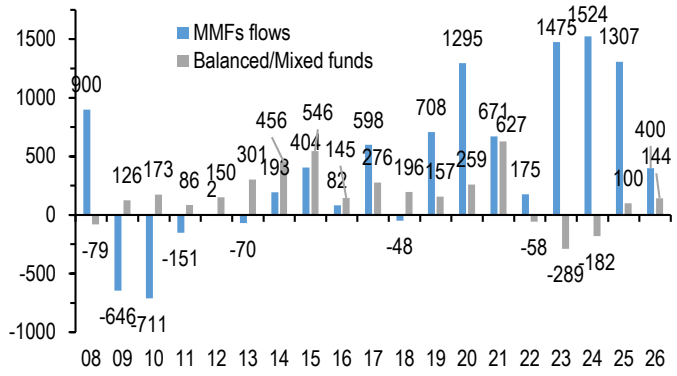
$bn per year of Net Sales, i.e. includes net new sales + reinvested dividends for Mutual Funds and ETFs globally, i.e. for funds domiciled both inside and outside the US. Flows come from ICI (worldwide data up to Q2'26). Data since then are a combination of monthly and weekly data from Lipper and Bloomberg.



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

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

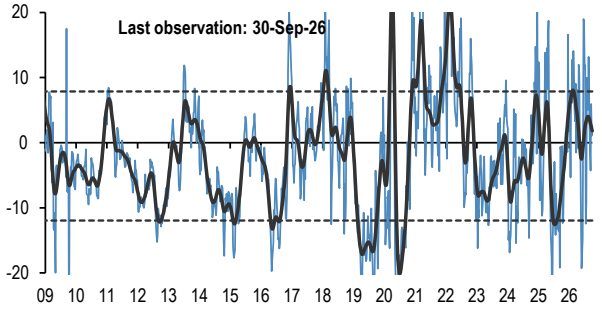
$bn per quarter of Net Sales, i.e. includes net new sales + reinvested dividends for Mutual Funds and ETFs globally, i.e. for funds domiciled both inside and outside the US. Data come from ICI (worldwide data) and are till Q2'26.



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 Aug-26	MIN	MAX	Turnover ratio	Vol (tr)	y/y chng
Equities					
EM Equity			1.3	$1.5	118%
DM Equity			1.5	$13.8	43%
Govt Bonds					
UST cash			12.2	$17.8	8%
UST futures			0.8	$27.1	10%
JGBs			48.3	¥4,165	12%
Bund futures			1.3	€6.9	20%
Credit					
US HG			1.1	$0.7	18%
US HY			0.3	$0.1	-5%
US Convertibles			3.2	$0.04	11%
Commodities					
Gold			54.8	$1.9	32%
Oil			83.3	$2.4	6%
Copper			1.9	$0.9	68%
Digital Assets					
CME Bitcoin			120.2	$0.084	-35%
CME Ethereum			134.8	$0.032	-17%

* 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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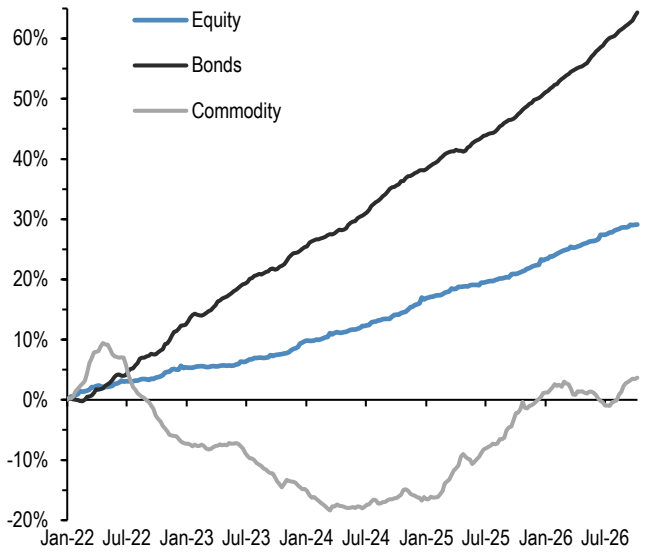
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ETF Flow Monitor (as of 7th October)

Chart A3: Global Cross Asset ETF Flows

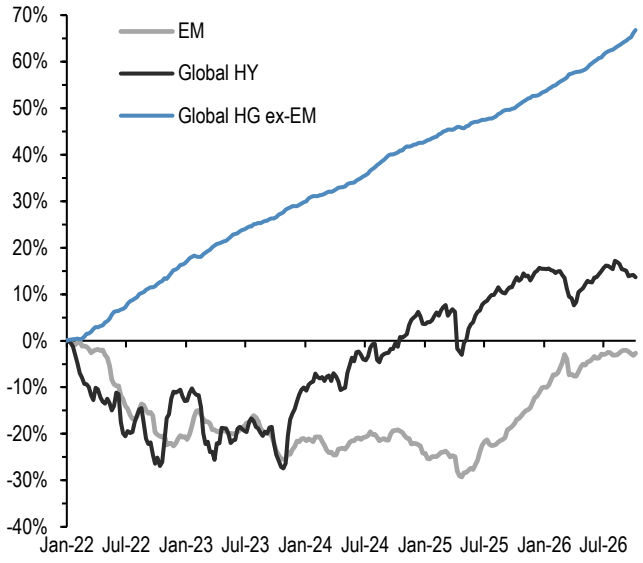
Cumulative flows into ETFs as a % of AUM



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

Chart A4: Bond ETF Flows

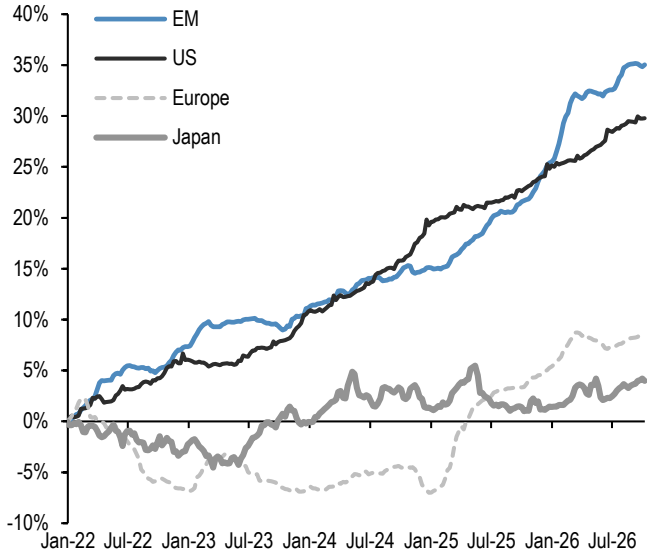
Cumulative flows into bond ETFs as a % of AUM



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

Chart A5: Global Equity ETF Flows

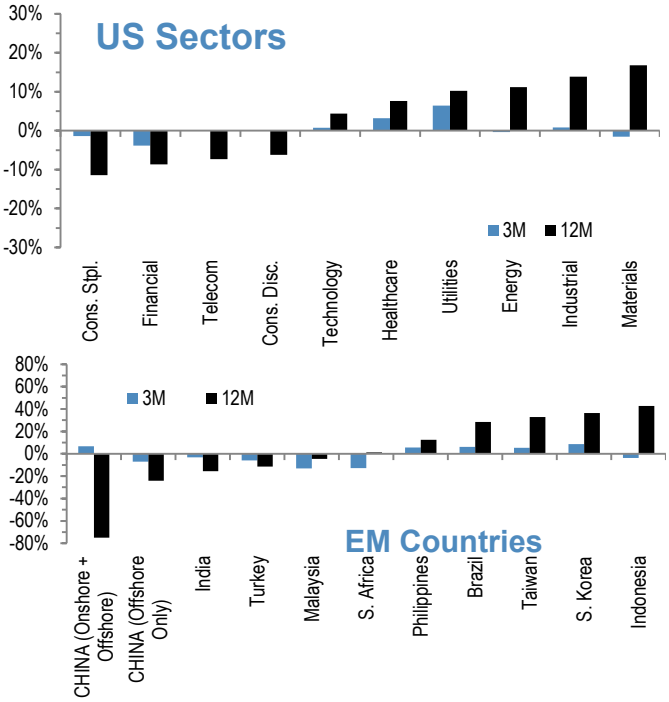
Cumulative flows into global equity ETFs as a % of AUM



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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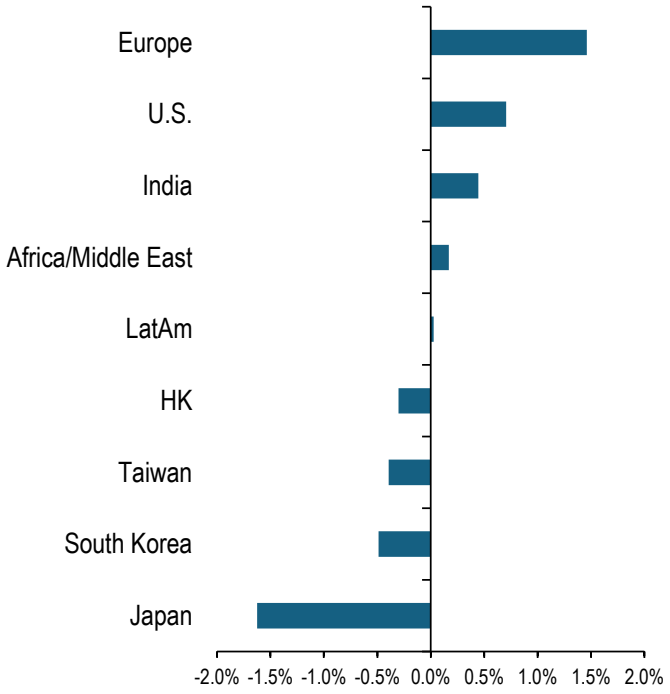
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Chart A6b: Regional Equity Allocation Monitor Implied by ETFs

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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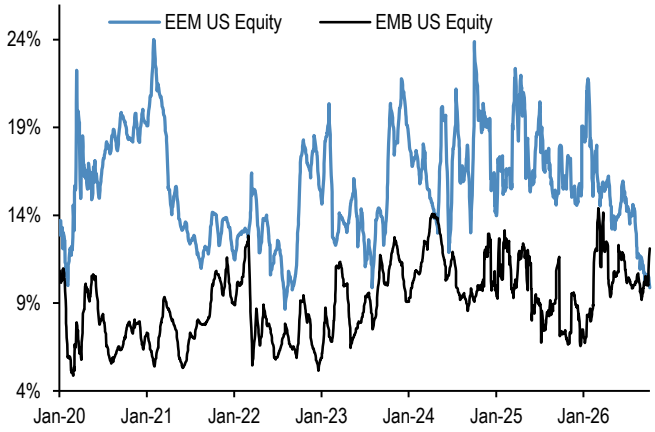
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Short Interest Monitor

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

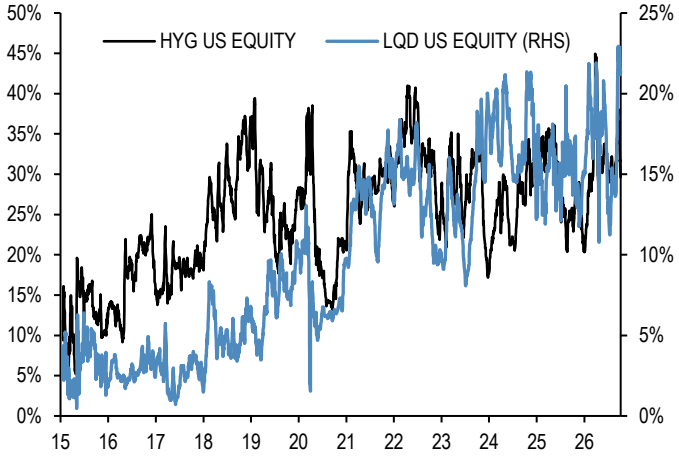
Short Interest as a % share of shares outstanding.



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

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

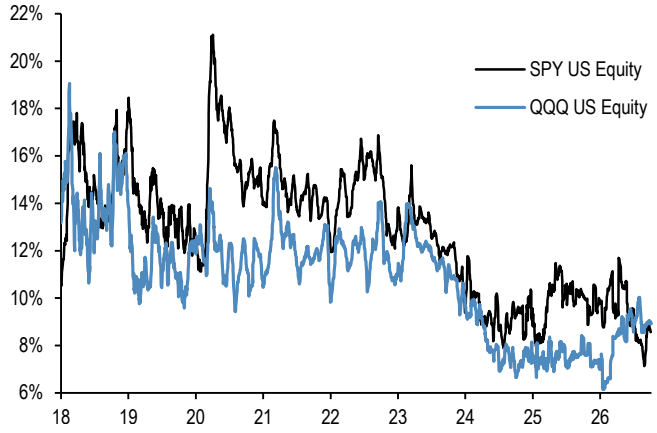
Short Interest as a % share of shares outstanding.



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

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

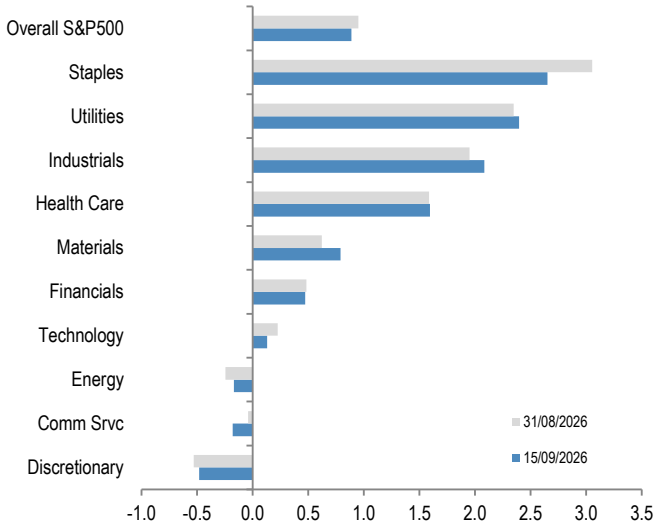
Short Interest as a % share of shares outstanding. Last obs is for 5th Oct 2026.



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 5th Oct-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%	14%	03-Sep-26	24%	27-Mar-26		10%	0%	1.30x
EuroSTOXX	16%	14%	05-Jan-26	26%	27-Mar-26		10%	3%	1.15x
Nikkei 225	26%	20%	25-Dec-25	33%	31-Mar-26		8%	5%	1.12x
Hang Seng	18%	17%	04-Sep-26	24%	26-Mar-26		7%	1%	1.26x
MSCI EM	23%	14%	09-Dec-25	38%	01-Jul-26		16%	8%	0.98x
Gold	21%	17%	07-Oct-25	33%	26-Mar-26		13%	4%	1.21x
Oil (brent)	46%	27%	11-Nov-25	89%	30-Mar-26		43%	19%	1.05x
Copper	20%	18%	13-Jul-26	37%	03-Feb-26		17%	2%	0.73x
BB commodity index	18%	13%	10-Dec-25	25%	30-Mar-26		7%	5%	1.36x
EUR/USD	7%	5%	15-Jun-26	8%	13-Mar-26		1%	2%	1.46x
USD/NOK	9%	8%	17-Dec-25	11%	30-Mar-26		2%	1%	1.43x
USD/JPY	9%	7%	16-Jul-26	10%	27-Mar-26		2%	2%	0.97x
GBP/USD	7%	6%	14-Aug-26	8%	27-Mar-26		2%	1%	1.26x
USD/CHF	7%	6%	29-May-26	9%	29-Jan-26		1%	1%	1.47x
10y US swaps	108%	62%	27-Jan-26	108%	05-Oct-26		0%	46%	1.56x
10y Eur swaps	98%	43%	26-Feb-26	99%	02-Oct-26		1%	55%	1.36x
CDX IG	44%	37%	22-Sep-26	62%	27-Mar-26		19%	7%	2.19x
CDX HY	42%	31%	09-Jan-26	57%	30-Mar-26		16%	10%	2.13x
iTraxx	47%	37%	09-Jan-26	70%	27-Mar-26		22%	10%	1.69x
iTraxx X/O	49%	38%	16-Jun-26	66%	27-Mar-26		17%	10%	1.69x

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 (05-Oct-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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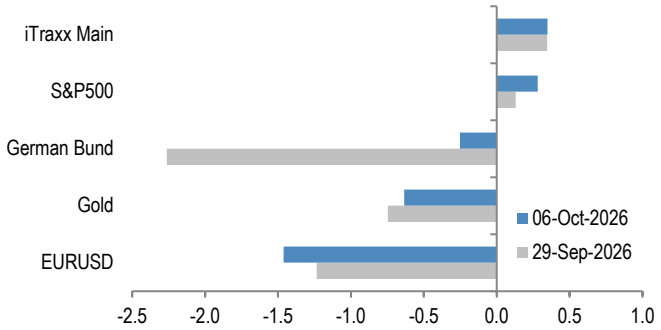
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Chart A11b: Option skew monitor

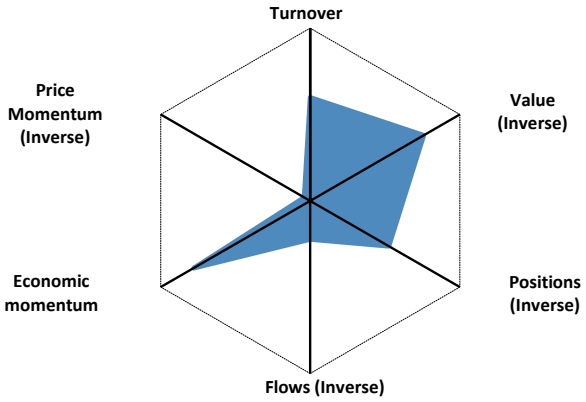
Skew is the difference between the implied volatility of out-of-the-money (OTM) call options and put options. A positive skew implies more demand for calls than puts and a negative skew, higher demand for puts than calls. It can therefore be seen as an indicator of risk perception in that a highly negative 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 25th Sep.



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

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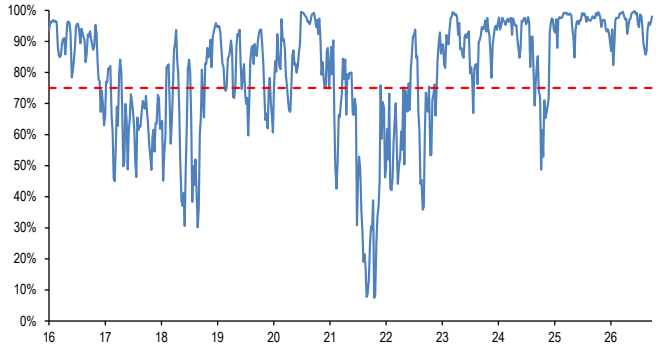
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Chart A11d: Implied probability of the S&P500 rising over the next six months with a cutoff set at 75%

Based on the methodology laid out in the F&L, 25th June 2025.



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

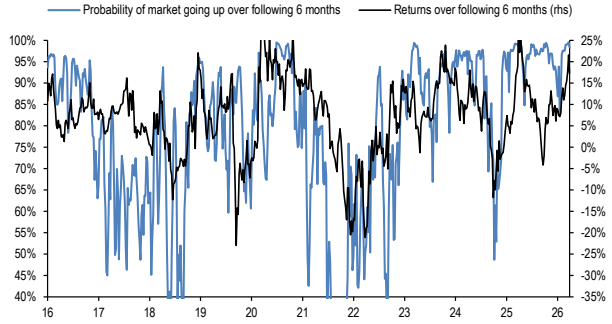
In %. Based on the methodology laid out in the F&L, 25th June 2025.

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.

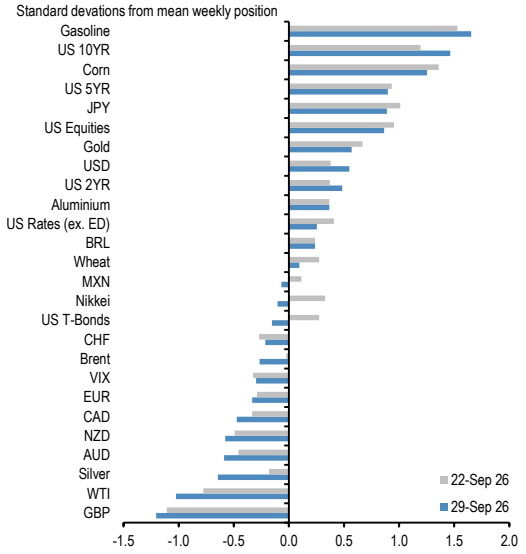
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Spec position monitor

Chart A12: Weekly Spec Position Monitor

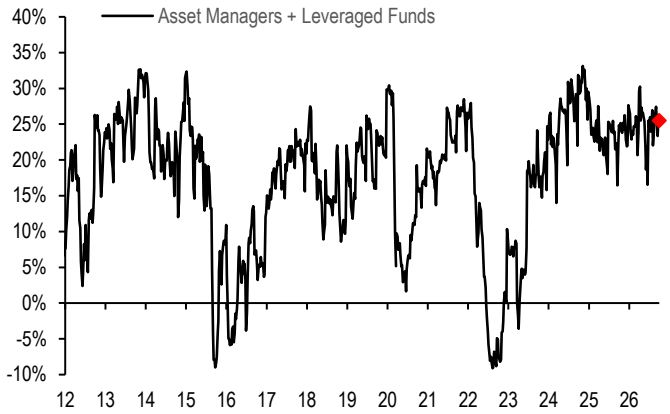
Net spec positions are proxied by the number of long contracts minus the number of short contracts using the speculative category of the Commitments of Traders reports (as reported by CFTC). To proxy for speculative investors for equity and US Treasury bond futures positions we use Asset managers and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

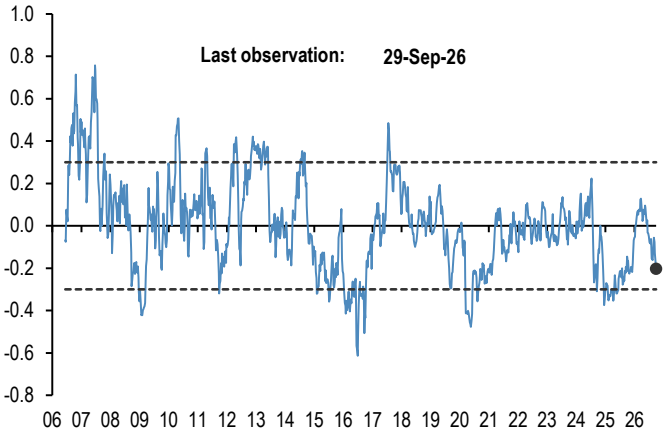
CFTC positions in US equity futures by Leveraged funds and Asset managers (as a % of open interest). It is an aggregate of the S&P500, DowJones, NASDAQ and their Mini futures contracts.



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

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

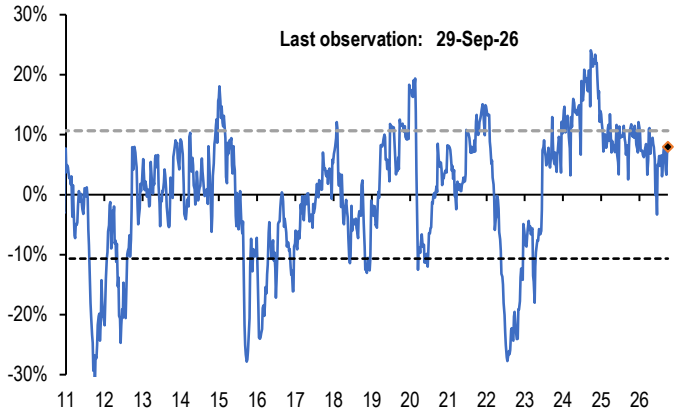
Difference between net spec positions on risky & safe currencies. Net spec position is calculated in USD across 5 'risky' and 3 'safe' currencies (safe currencies also include Gold). These positions are then scaled by open interest and we take an average of 'risky' and 'safe' assets to create two series.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

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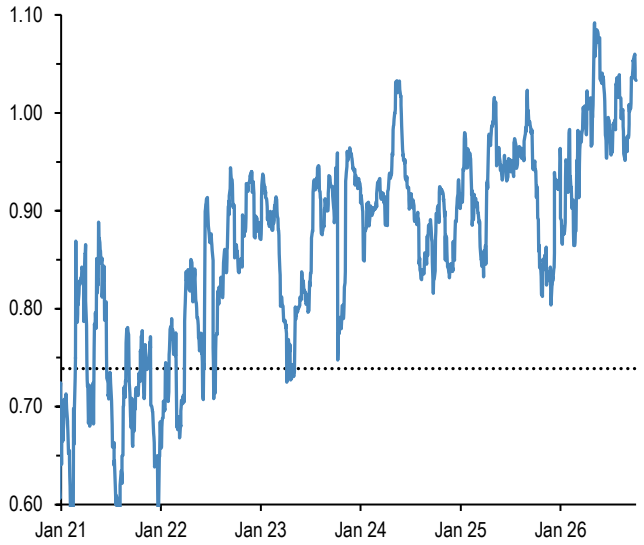
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Mutual fund and hedge fund betas

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

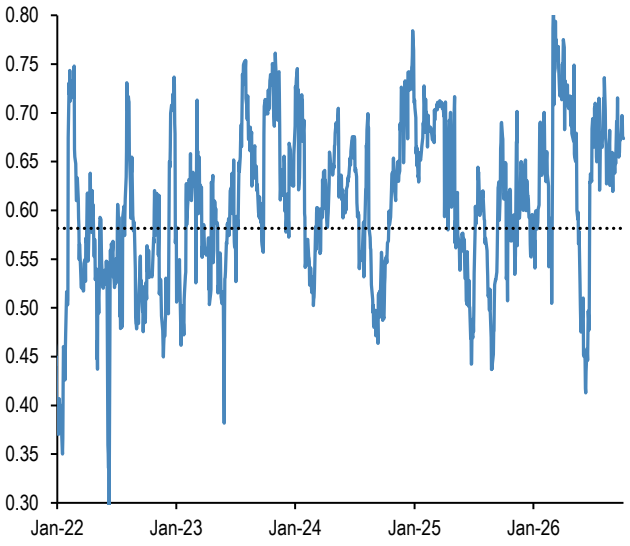
The dotted line shows the average beta since 2013.



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

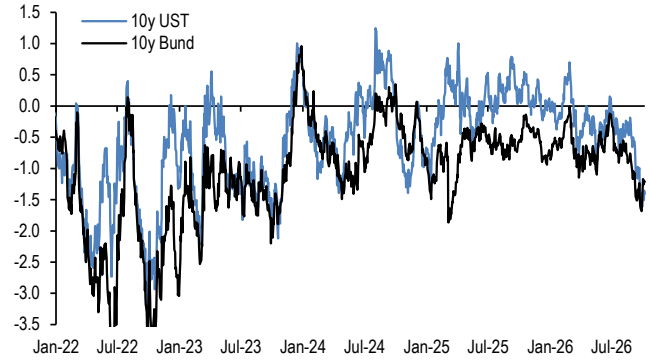
The table depicts the performance of various types of investors in % as of 6th Oct 2026.

Date	2020	2021	2022	2023	2024	2025	2026
Investors							
Equity L/S	13.4%	9.3%	-7.0%	11.3%	13.0%	15.5%	7.4%
Macro ex-CTAs	4.9%	4.3%	11.5%	1.3%	6.0%	10.2%	8.0%
CTAs	1.2%	8.8%	14.7%	-2.5%	2.9%	-1.1%	14.3%
Risk Parity Funds	3.5%	4.7%	-18.6%	6.0%	5.0%	17.3%	6.6%
US Balanced MFs	13.2%	14.4%	-13.0%	13.8%	11.4%	14.4%	7.2%
Benchmark							
MSCI AC World	16.3%	16.4%	-18.4%	22.2%	17.5%	22.3%	15.0%
Barclays Global Agg	5.6%	-2.5%	-11.2%	7.1%	3.4%	4.9%	-1.2%
S&P Riskparity Vol 10	11.5%	12.8%	-16.2%	15.0%	5.4%	15.9%	16.3%
60 US Equity : 40 US Bonds	13.3%	14.8%	-15.4%	18.6%	16.4%	12.7%	8.6%

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.



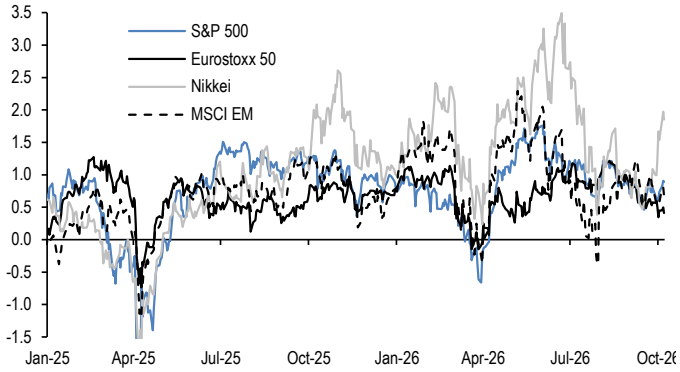
Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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Chart A20: Momentum signals for S&P500

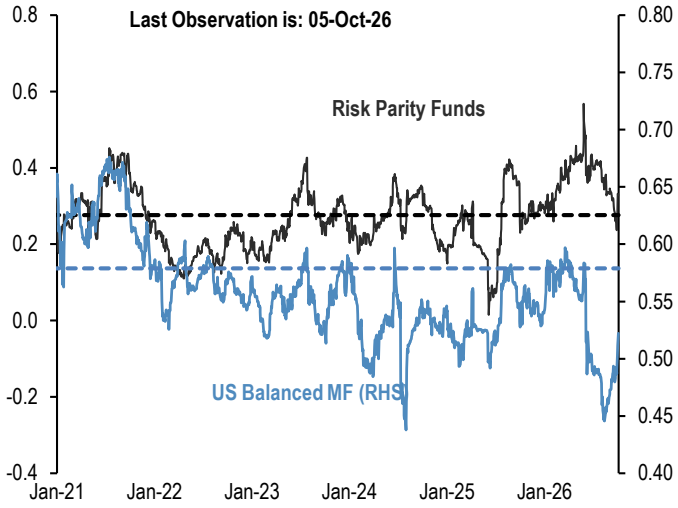
Average z-score of Short- and Long-term momentum signal in our Trend Following Strategy framework shown in Tables A3 and A4 below in the Appendix.



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

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

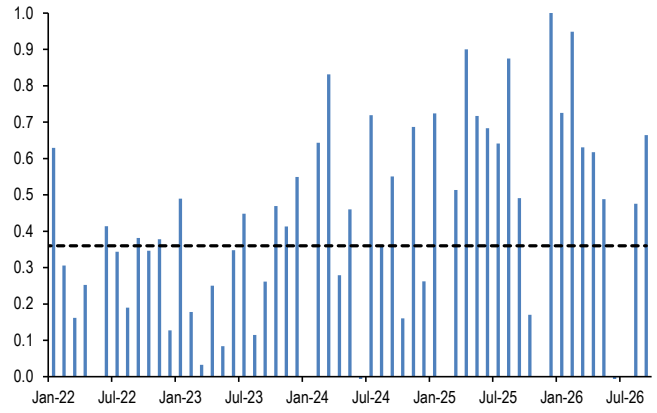
Rolling 42-day equity beta based on a bivariate regression of the daily returns of our Balanced Mutual fund and Risk Parity fund return indices to the daily returns of the S&P 500 and BarCap US Agg indices. Given that these funds invest in both equities and bonds we believe that the bivariate regression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

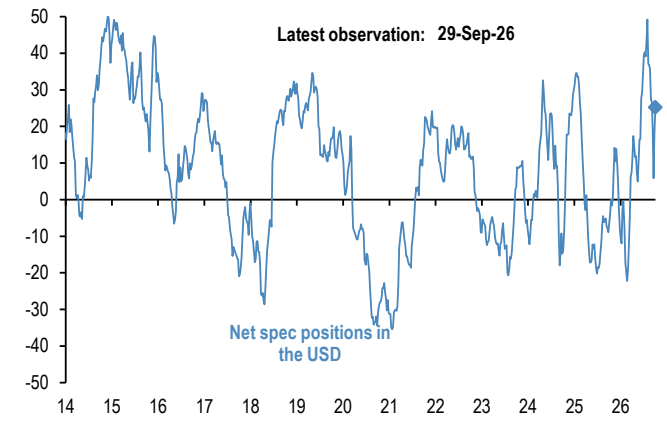
Proxied by the ratio of the monthly performance of Pivotal Path Asset-Weighted Equity Diversified hedge fund index divided by the monthly performance of MSCI AC World Index. Latest obs. is Sept. 26 based on provisional data.



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	6.4	22.8	0.28	-1	3	-0.6	-3.7%
	long	462				0	26	1.6	47.3%
Brent	short	84	4.7	21.5	0.22	0	4	1.7	20.1%
	long	504				0	27	2.3	64.3%
Unleaded gas	short	105	4.0	23.3	0.17	0	0	1.6	22.1%
	long	483				0	72	2.9	79.8%
Heat Oil	short	63	4.3	22.1	0.20	1	9	1.2	12.4%
	long	483				0	156	3.4	109.6%
Gasoil	short	63	9.1	21.4	0.42	1	3	1.2	13.3%
	long	378				0	72	3.5	105.0%
Nat gas	short	105	13.1	35.8	0.37	0	0	0.0	0.1%
	long	315				-1	177	-0.4	-11.1%
Emission allowances	short	42	10.8	28.7	0.38	0	0	0.0	-0.1%
	long	483				1	85	0.2	8.7%
TTF	short	21	43.4	43.5	1.00	1	0	0.1	1.6%
	long	294				1	12	1.3	77.9%
Gold	short	21	3.2	10.7	0.30	-1	2	-1.2	-3.2%
	long	483				1	88	0.3	3.3%
Silver	short	10	6.0	19.7	0.31	-1	4	-0.6	-2.2%
	long	462				1	79	0.3	7.5%
Palladium	short	42	11.6	23.2	0.50	0	0	-1.6	-13.2%
	long	273				-1	101	-1.1	-25.1%
Platinum	short	105	3.3	18.7	0.17	-1	10	-0.5	-4.4%
	long	273				-1	19	-0.7	-11.5%
Aluminium	short	105	5.8	15.1	0.38	-1	77	-0.7	-5.4%
	long	357				1	82	0.3	3.6%
Copper	short	147	7.4	17.2	0.43	1	169	0.5	6.2%
	long	399				1	175	1.0	22.1%
Lead	short	126	0.9	19.1	0.05	-1	87	-0.4	-5.0%
	long	357				-1	188	-0.5	-10.1%
Nickel	short	42	11.9	22.9	0.52	-1	28	-0.7	-5.6%
	long	336				-1	19	-0.3	-8.0%
Zinc	short	126	8.1	19.6	0.41	1	137	0.4	4.7%
	long	399				1	267	0.9	20.4%
Wheat	short	168	3.9	23.3	0.17	1	24	0.5	6.1%
	long	294				1	24	0.8	12.3%
Kansas wheat	short	147	8.4	20.9	0.40	1	20	0.4	5.4%
	long	483				1	67	0.7	14.9%
Corn	short	63	7.3	16.6	0.44	1	1	0.1	0.6%
	long	399				1	1	0.1	1.0%
Soybeans	short	42	5.0	14.5	0.34	1	18	0.4	2.2%
	long	231				1	40	0.7	9.4%
Cotton	short	168	5.2	18.5	0.28	1	1	0.1	0.9%
	long	483				1	2	0.1	3.4%
Sugar	short	63	6.8	21.6	0.31	0	2	1.9	17.1%
	long	252				0	1	1.5	27.7%
Coffee	short	63	8.0	24.0	0.33	1	1	0.2	1.8%
	long	273				1	1	0.2	4.2%
Cocoa		10	5.1	31.5	0.16	1	3	0.9	3.5%

* 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	7.8	12.3	0.64	1	14	0.6	3.1%
	long	315				1	81	1.2	11.9%
Nasdaq 100	short	84	9.6	16.1	0.59	1	13	0.7	5.8%
	long	462				1	70	1.4	26.9%
Nikkei	short	63	3.6	13.3	0.27	1	5	1.2	7.0%
	long	420				0	135	2.5	38.7%
FTSE 100	short	168	5.3	12.0	0.44	1	3	0.1	0.9%
	long	504				1	11	1.2	13.9%
Eurostoxx 50	short	168	4.8	16.6	0.29	1	130	0.3	2.5%
	long	294				1	137	0.5	6.3%
MSCI EM	short	42	12.6	11.5	1.10	1	2	0.2	1.0%
	long	357				1	62	1.1	18.2%
LQD credit return	short	168	0.4	3.4	0.12	-1	9	-0.4	-1.0%
	long	273				-1	9	-0.4	-1.2%
HYG credit return	short	10	2.4	6.5	0.38	-1	9	-0.2	-0.3%
	long	189				-1	26	-0.3	-1.5%
2Y USTs	short	252	0.9	1.1	0.81	-1	4	-1.4	-1.6%
	long	462				-1	155	-1.0	-1.9%
5Y USTs	short	252	1.6	2.8	0.57	0	10	-1.6	-3.8%
	long	420				-1	121	-1.2	-4.2%
10Y USTs	short	42	2.1	3.6	0.59	0	10	-1.6	-2.2%
	long	441				-1	121	-1.2	-5.5%
2Y Schatz	short	189	0.6	0.8	0.81	0	38	-1.7	-1.4%
	long	504				0	154	-1.9	-3.4%
5y Bobl	short	63	1.4	1.9	0.76	-1	4	-1.0	-1.0%
	long	483				-1	4	-1.4	-4.8%
10y Bund	short	105	2.3	3.4	0.68	-1	4	-1.3	-2.6%
	long	462				-1	756	-1.2	-6.0%
10Y JGB	short	126	0.9	2.3	0.39	0	9	-2.0	-2.1%
	long	273				0	156	-2.6	-4.0%
10Y Gilts	short	42	2.5	4.1	0.61	-1	3	-1.3	-2.1%
	long	399				0	9	-1.6	-8.7%
10y OAT vs Bund	short	189	0.5	1.5	0.32	0	14	-4.6	-4.1%
	long	294				0	11	-3.9	-3.9%
10y BTP vs. Bund	short	84	2.3	6.3	0.37	-1	20	-0.8	-2.0%
	long	273				-1	14	-0.5	-2.1%
Euro	short	42	3.3	6.4	0.52	-1	17	-1.5	-3.1%
	long	273				-1	165	-1.1	-6.3%
Yen	short	21	3.5	6.3	0.56	-1	12	-0.8	-1.3%
	long	462				-1	49	-1.1	-9.3%
Sterling	short	168	1.6	7.1	0.23	-1	28	-0.6	-2.5%
	long	294				-1	159	-0.6	-3.4%
AUD	short	42	3.7	7.8	0.48	-1	11	-0.7	-2.0%
	long	420				0	0	0.0	0.4%
CAD	short	168	1.5	5.9	0.26	-1	112	-1.1	-4.1%
	long	504				-1	394	-1.1	-7.4%
G10 FX	short	42	2.1	5.1	0.41	1	15	1.1	1.8%
	long	189				1	17	0.7	2.6%
EMCI	short	42	2.5	4.9	0.51	-1	11	-0.7	-1.3%
	long	189				-1	9	-0.3	-1.1%

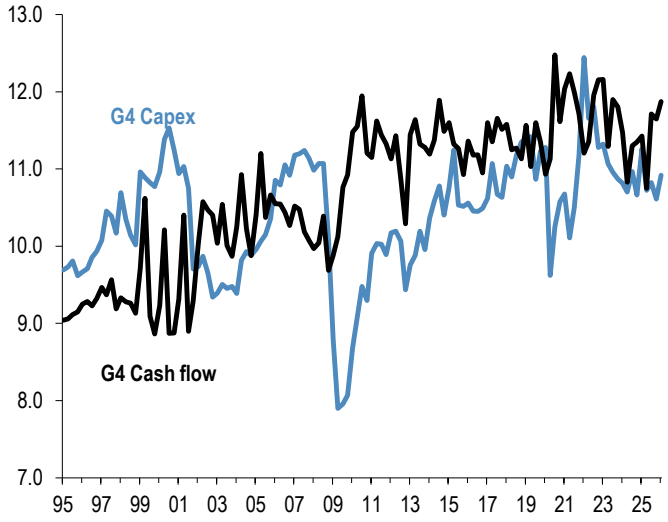
Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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Corporate Activity

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

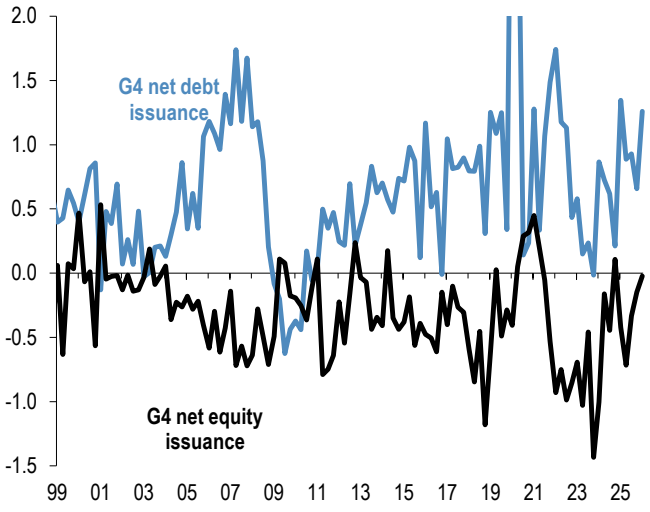
% of GDP, G4 includes the US, the UK, the Euro area and Japan. Last observation as of Q1 2026.



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

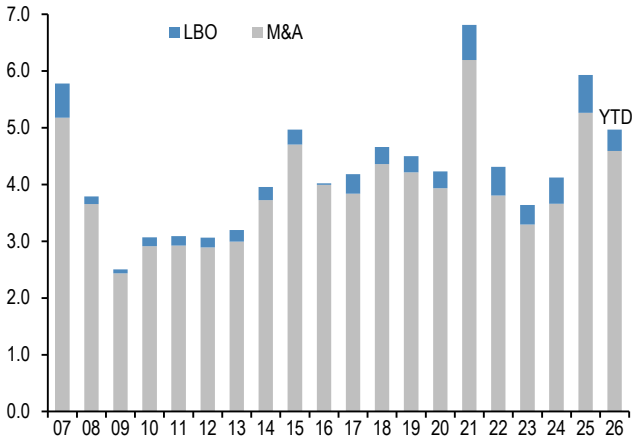
$tr per quarter, G4 includes the US, the UK, the Euro area and Japan. Last observation as of Q1 2026.



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

Chart A26: Global M&A and LBO

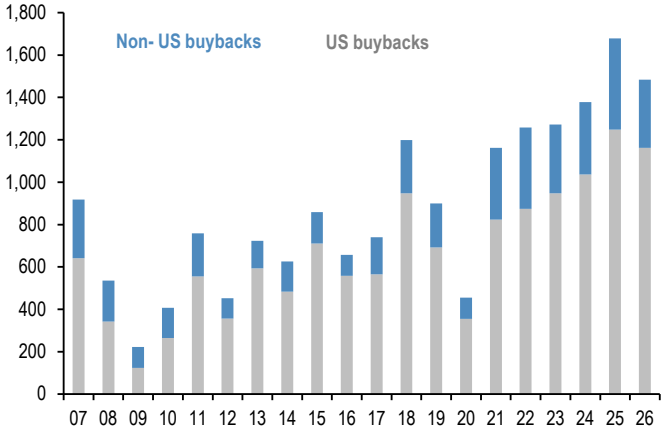
$tr. M&A and LBOs are announced.



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

Chart A27: US and non-US share buyback

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



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

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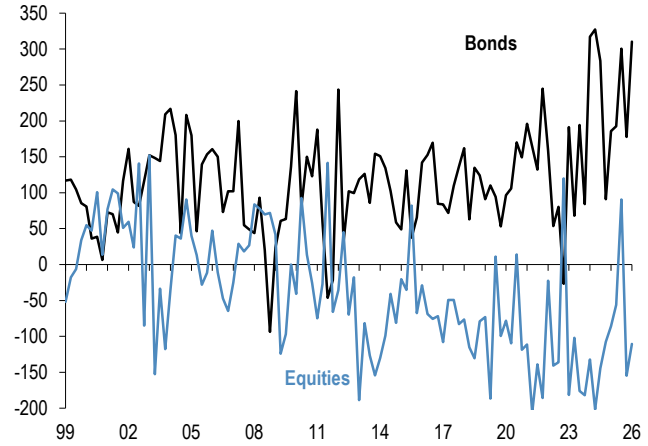
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Pension fund and insurance company flows

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

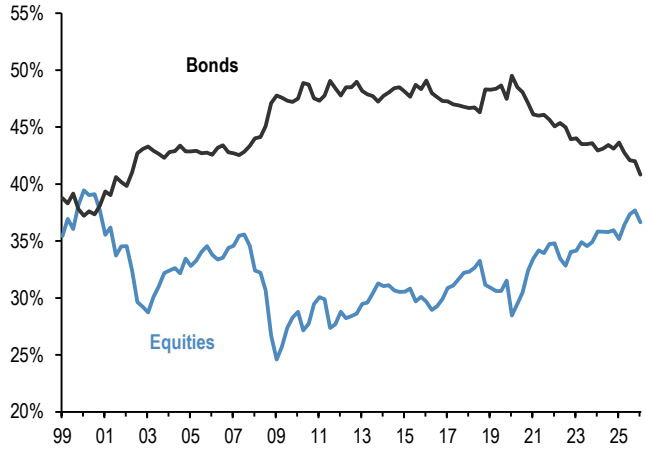
Equity and bond buying in $bn per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q1 2026.



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

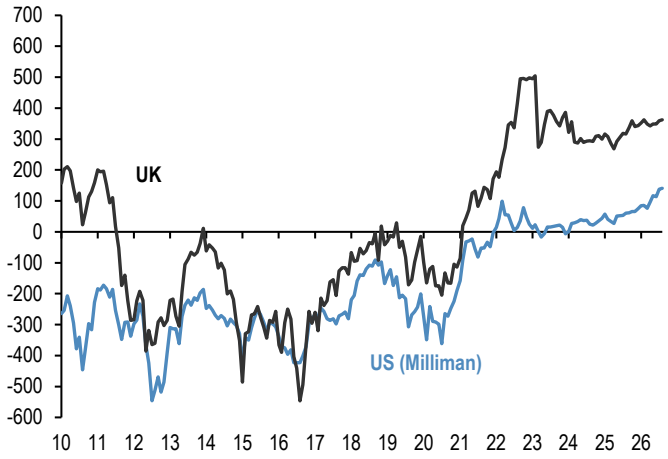
Equity and bond as % of total assets per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q1 2026.



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

Chart A30: Pension fund deficits

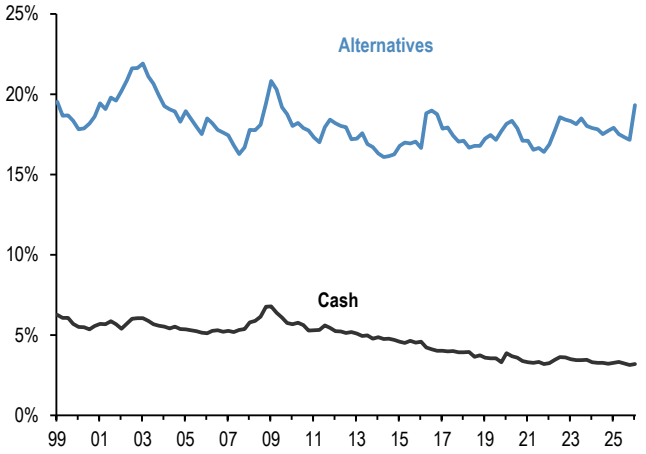
US$bn. For US, funded status of the 100 largest corporate defined benefit pension plans, from Milliman. For UK, funded status of the defined benefit schemes eligible for entry to the Pension Protection Fund, converted to US$ at today's exchange rates. Last obs. is August'26 for US & UK.



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 Q1 2026.



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



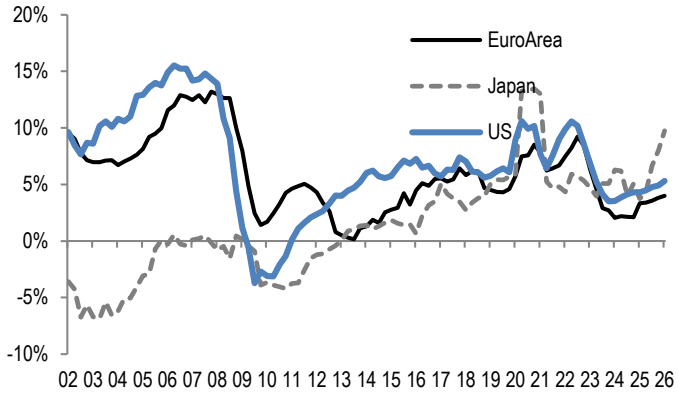
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Credit Creation

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

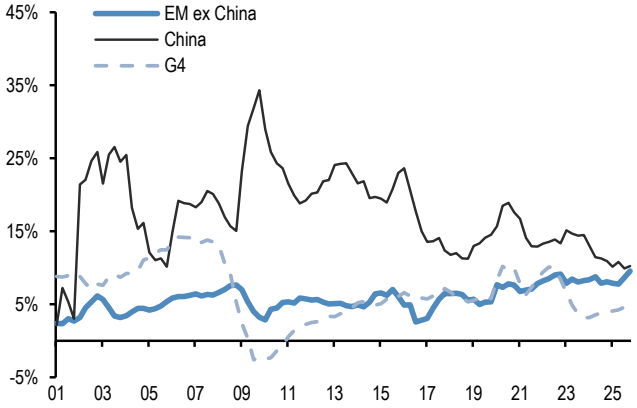
Rolling sum of 4-quarter credit creation as % of GDP. Credit creation includes both bank loans as well as net debt issuance by non-financial corporations and households. Last obs. is Q1'26 for Japan, Euro Area and US.



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

Chart A33: Credit creation in EM

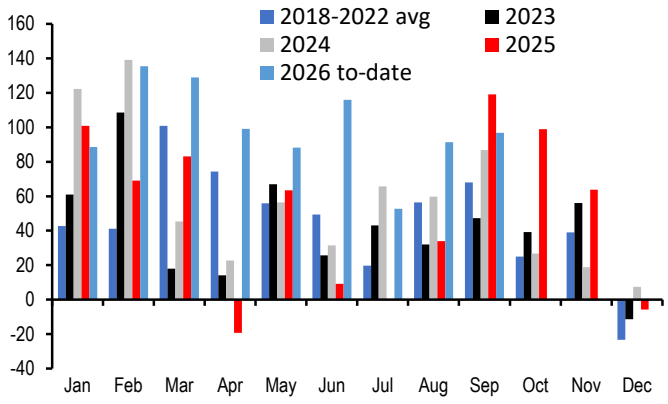
Rolling sum of 4-quarter credit creation as % of GDP. Credit creation includes both bank loans as well as net debt issuance by non-financial corporations and households. The chart uses the FX rates as of the latest observation to calculate the credit creation at constant exchange rates. Last obs. is for Q4'25.



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 September 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	25-Sep	4 wk avg	13 wk avg	y/y chng
Global IPOs	6.4	3.1	4.3	142%
Secondary Offerings	8.5	8.8	14.9	42%
Corporate announcements				
M&A - Global	45.6	94.9	98.9	34%
- US Target	15.6	40.8	44.1	49%
- Non-US Target	30.0	54.1	54.8	21%
Net bond issuance	**Feb-26**	**3 mth avg**	**YTD avg**	**y/y chng**
USD	8	144	179	-50%
Non-USD	162	129	277	-4%

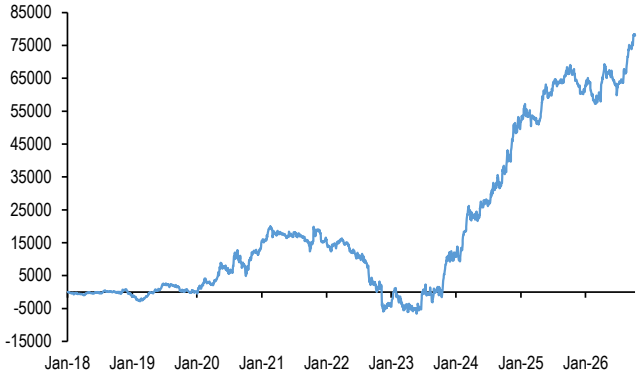
Source: Bloomberg Finance L.P., Dealogic, Thomson Reuters, J.P. Morgan Flows & Liquidity.

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Bitcoin monitor

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

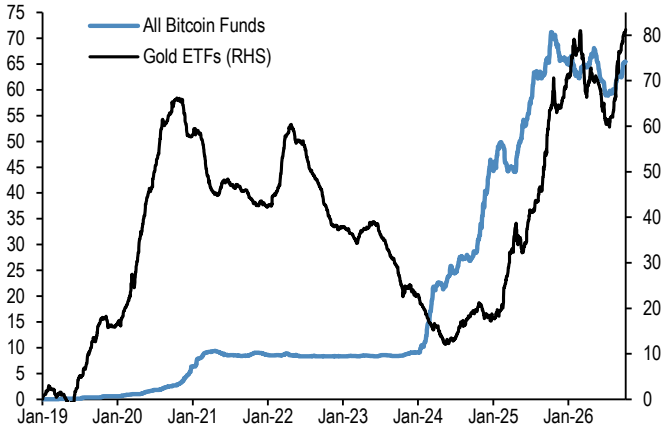
In number of contracts. Last obs. for 6th Oct 2026



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

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

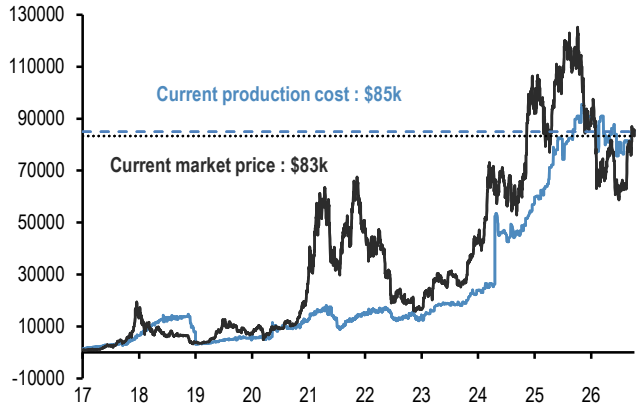
Both the y-axis in $bn.



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

Chart A37: Ratio of bitcoin market price to production cost

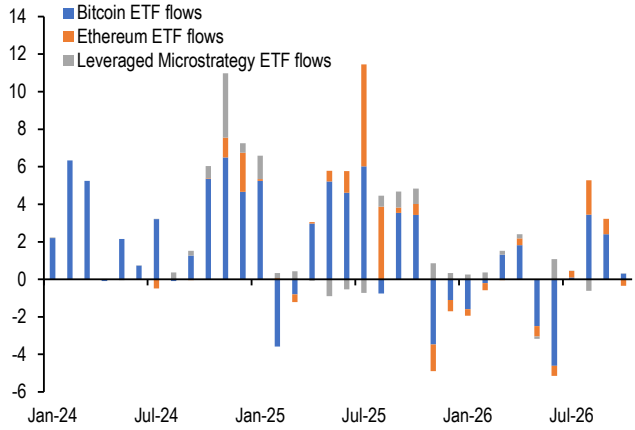
Based on the cost of production approach following Hayes (2018).



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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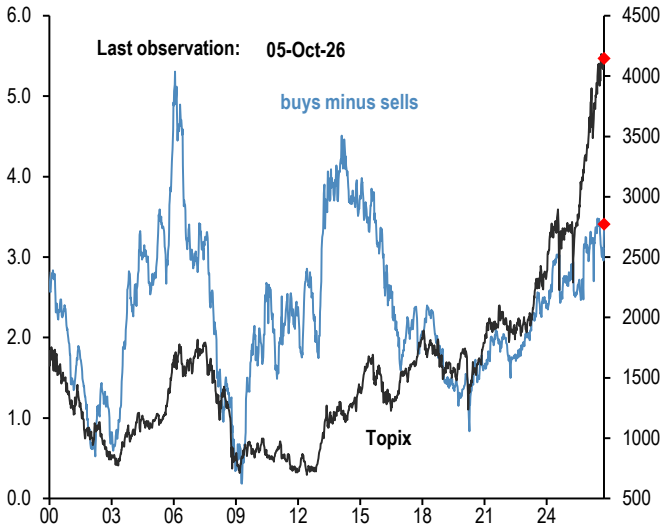
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Japanese flows and positions

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

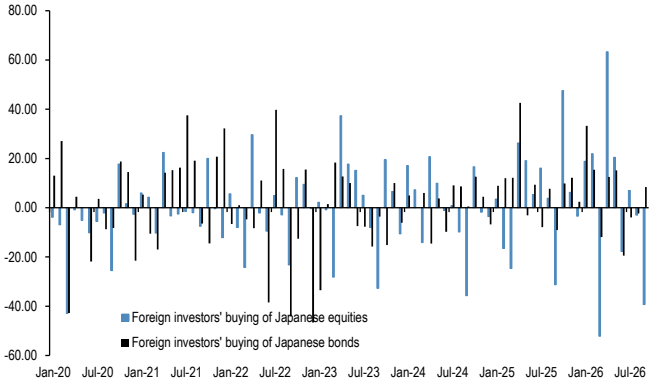
In bn of shares. Topix on right axis.



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

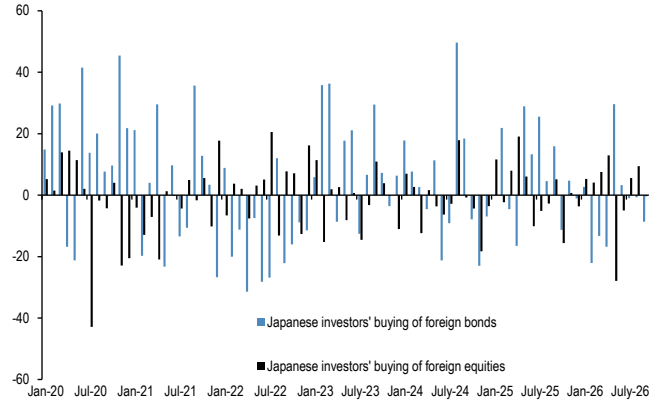
$bn, Last weekly obs. is for 25th Sep' 26.



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

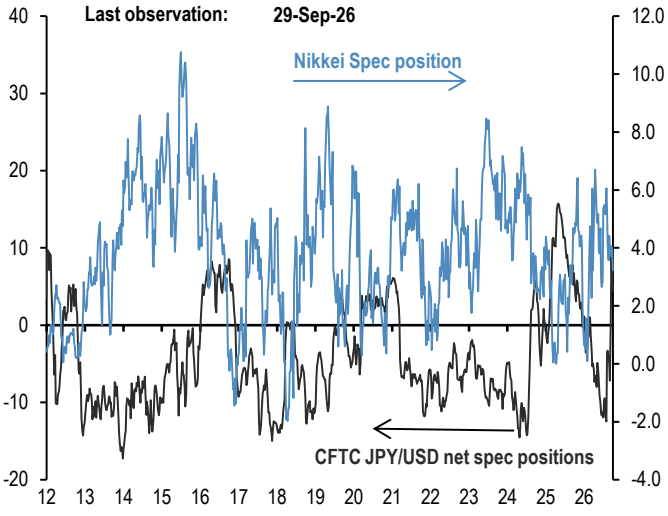
$bn, Last weekly obs. is for 25th Sep' 26.



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.



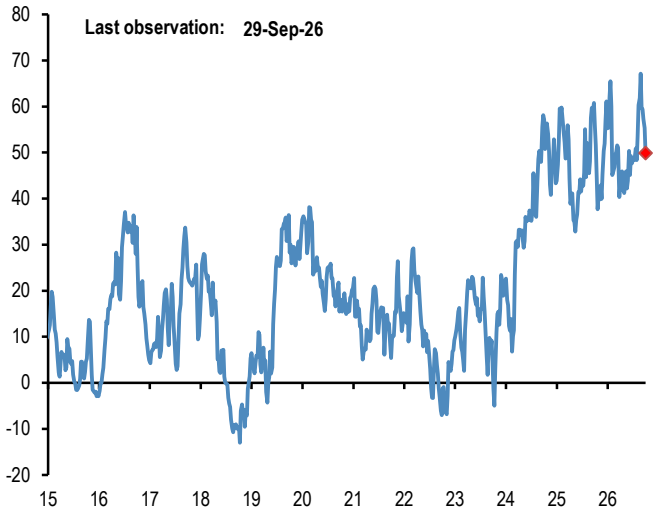
Source: Bloomberg Finance L.P., CFTC, J.P. Morgan Flows & Liquidity.

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Commodity flows and positions

Chart A43: Gold spec positions

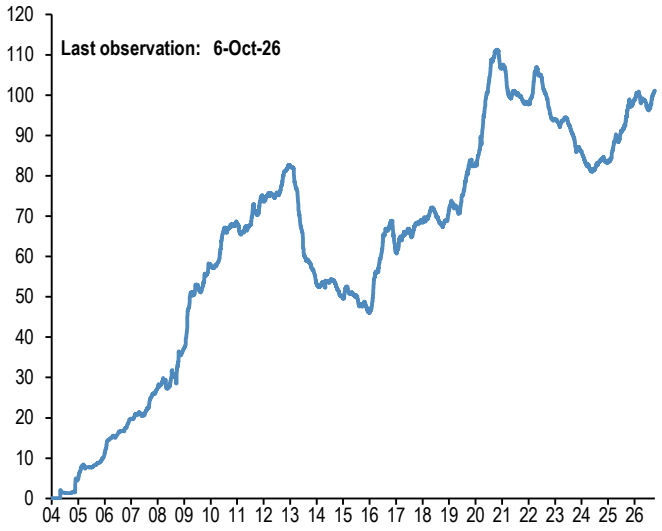
$bn. CFTC net long minus short position in futures for the Managed Money category.



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

Chart A44: Gold ETFs

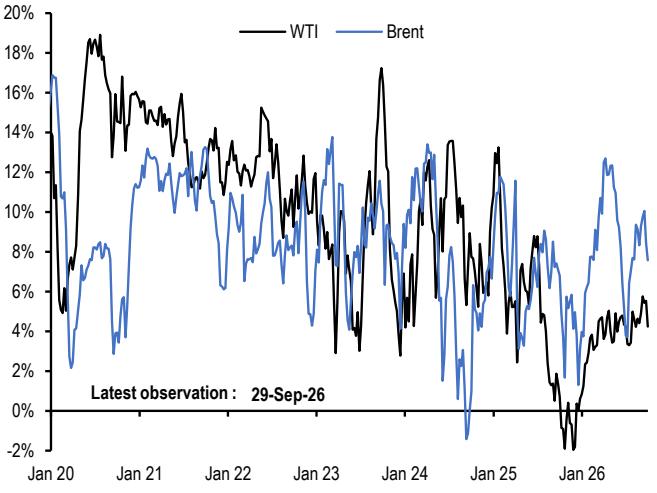
Mn troy oz. Physical gold held by all gold ETFs globally.



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

Chart A45: Oil spec positions

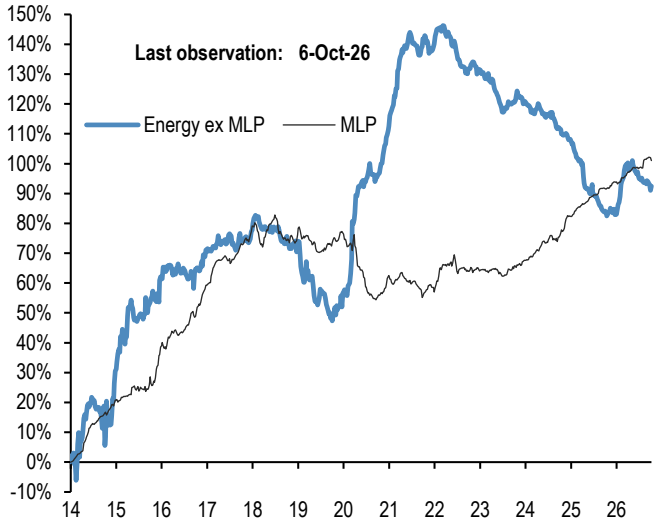
Net spec positions divided by open interest. CFTC futures positions for WTI and Brent are net long minus short for the Managed Money category.



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.

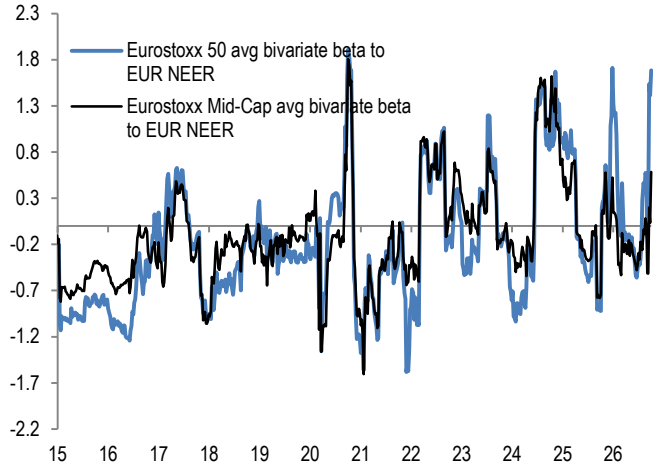
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Corporate FX hedging proxies

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

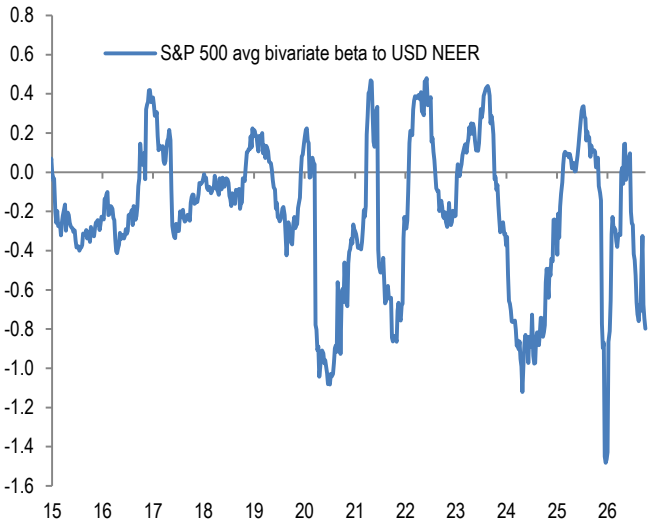
Rolling 26 weeks average betas based on a bivariate regression of the weekly returns of individual stocks in the Eurostoxx 50 index to the weekly returns of the MSCI AC World and JPM EUR Nominal broad effective exchange rate (NEER).



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

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

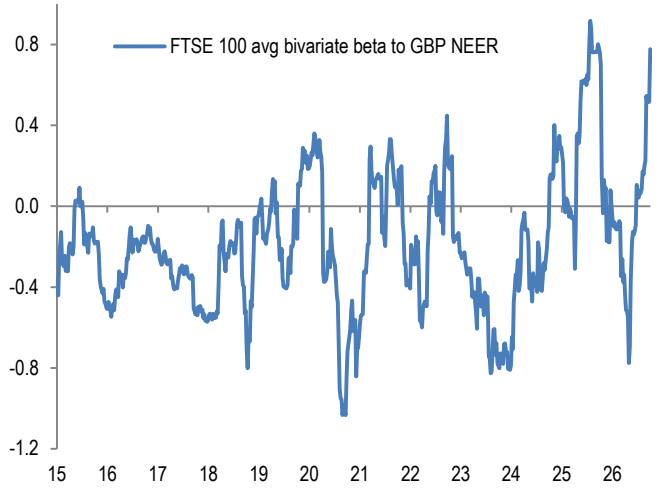
Rolling 26 weeks average betas based on a bivariate regression of the weekly returns of stocks in the S&P500 index to the weekly returns of the MSCI AC World and JPM USD Nominal broad effective exchange rate(NEER).



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

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

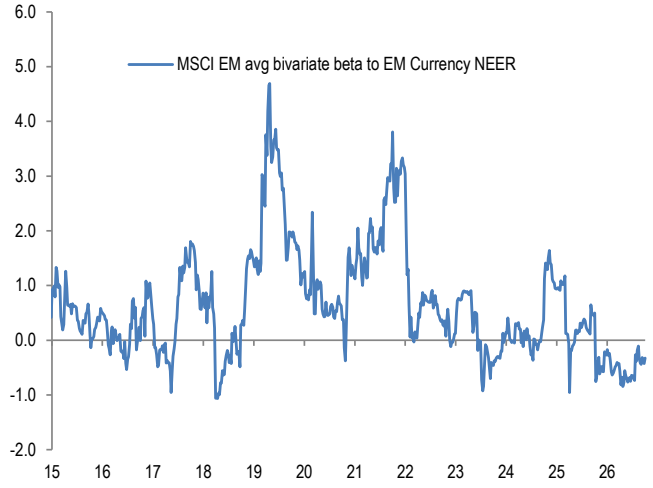
Rolling 26 weeks average betas based on a bivariate regression of the weekly returns of individual stocks in the FTSE 100 index to the weekly returns of the MSCI AC World and JPM GBP Nominal broad effective exchange rate (NEER).



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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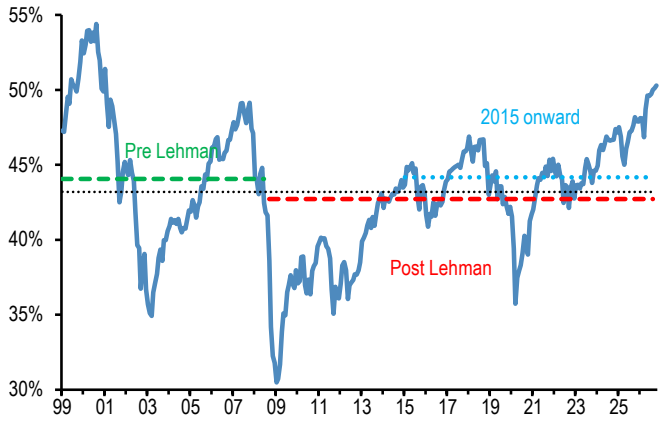
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Non-Bank investors' implied allocations

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

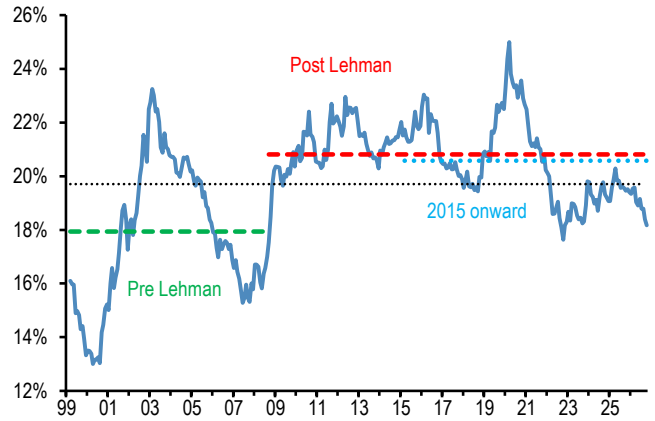
Global equities as % total holdings of equities/bonds/M2 by non-bank investors/ Commodities including gold held by private investors. Dotted lines are averages.



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

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

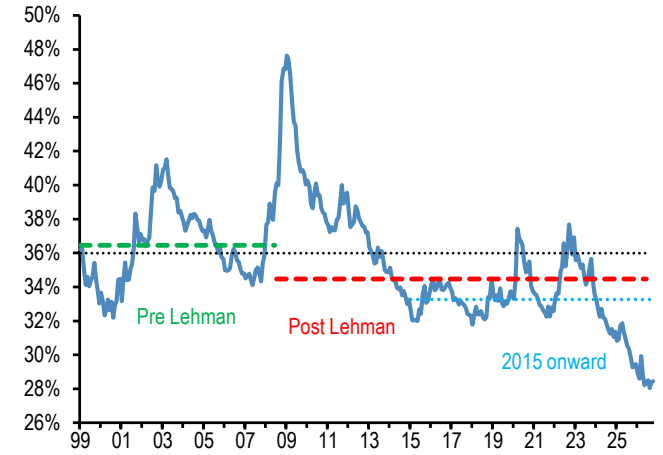
Global bonds as % total holdings of equities/bonds/M2 by non-bank investors/ Commodities including gold held by private investors. Dotted lines are averages.



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

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

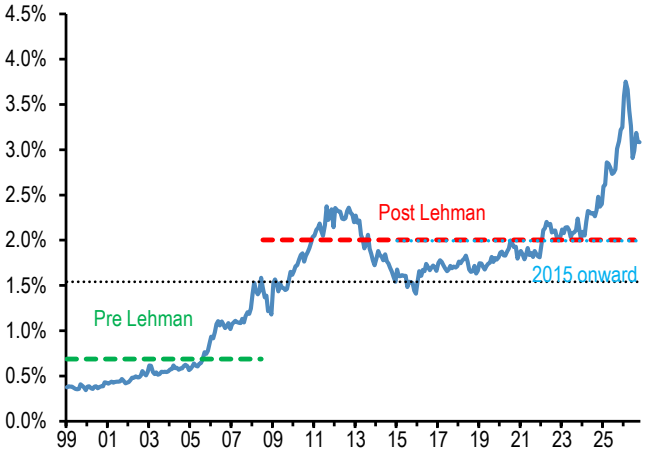
Global cash held by non-bank investors as % total holdings of equities/bonds/M2 by non-bank investors/Commodities including gold held by private investors. Dotted lines are averages.



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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