Flows & Liquidity

Differences to last July's correction

- **We find the current backdrop for AI infrastructure stocks less favorable relative to the previous correction at the end of last July due to a lack of "buy the dip" behavior by retail investors thus far despite ongoing inflows into equity funds overall, a buyback flow cliff, the lack of a large short base and the more elevated AUM of leveraged equity ETFs.**
- **Despite the recent drawdown, cyclical stocks do not appear oversold from a positioning or flow perspective.**

Global Markets Strategy

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Cross Asset Fund Flow Monitor

Current level shows the latest percentile of weekly flows; Min is denoted by 0 and Max by 1. As of 7th Oct 26.

MF & ETF Flows	Min	Max	4 wk avg ($bn)	2025 avg ($bn)
All Equities			5.7	8.1
All Bonds			4.9	11.3
US Equities			2.8	3.5
US Bonds			4.4	4.3
Non-US Equities			2.9	4.6
Non-US Bonds			0.5	7.0
US HG Bonds			13.5	3.4
US HY Bonds			-0.3	0.4
US Lev. Loans *			1.0	0.0
US MMFs			0.0	4.0
EM Equities			-1.8	0.9
EM Bonds			0.62	0.50
Japan Equities			0.0	-0.1
China Equities			-0.57	-0.15
Europe				
Europe Equities			0.1	0.9
Europe Bonds			-1.4	4.3
Europe HG Bonds			-0.2	0.9
Europe HY Bonds			-0.21	0.17
Europe MMFs			-3.4	3.8
Other Equities			4.83	3.00

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

Cross Asset Positioning Monitor

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

As of 13-Oct-26	MIN	MAX	Current percentile
Equities			0.63
Govt Bonds			0.56
Credit			0.17
Dollar			0.86
Commodities ex Gold			0.77
Gold			0.39
Bitcoin			0.85
EM Equities			0.79
EM Bonds/FX			0.06
Japan Equities			0.64
Europe Equities			0.25
US Equity Sectors:			
Energy			0.61
Materials			0.55
Industrials			0.44
Discretionary			0.51
Staples			0.34
Health Care			0.37
Financials			0.23
Technology			0.52
Communication Services			0.48
Utilities			0.45

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

See page 25 for analyst certification and important disclosures.

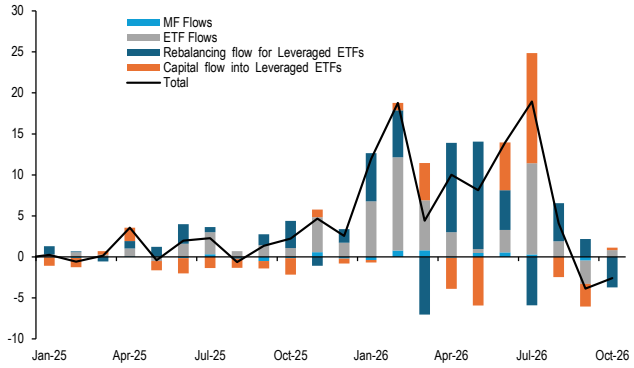
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- Led by Korea's memory names, the recent correction in AI infrastructure stocks echoes last July's correction. At the time, fears about competition from China were also weighing on AI infrastructure stocks. How different is the current backdrop for AI infrastructure stocks from that seen last July?
- We see several differences:
  - 1. ETF investors had bought the Korean equity dip aggressively during July using both levered and unlevered ETFs as shown in Figure 1. In the current juncture, so far in October there appears to have been rather little buying, of mostly levered ETFs by offshore investors and unlevered ETFs by onshore investors. In other words, there is little sign of "buy the dip" behavior by retail investors overall in the current juncture.

Figure 1: Flows stemming from equity funds that invest in Korea, both onshore and offshore

In $bn per month, Oct MTD.

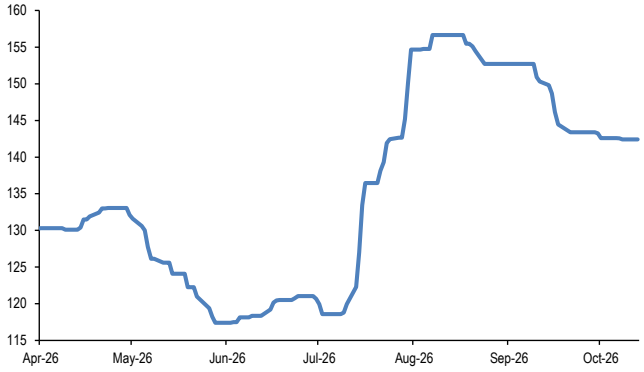


Source: LSEG Lipper, Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

- 2. Admittedly, the unlevered Korea equity ETF buying of Figure 1 in July was not entirely "real" as some of that reflected the increase in the short interest. Indeed, Figure 2 shows that the outstanding shares of EWY US Equity, the biggest offshore Korea equity ETF listed in the US, rose by 30% during July, to mostly accommodate the increase in the short interest. As shown in Figure 3, the short interest on EWY rose sharply last July. In the current juncture, so far in October, there has been little change in the short interest as shown in Figure 3. In other words, different to last July, there is currently no large short base to be covered to propagate Korean stocks the same way short covering propagated them last August.

Figure 2: Outstanding shares of EWY US Equity ETF (iShares MSCI Korea)

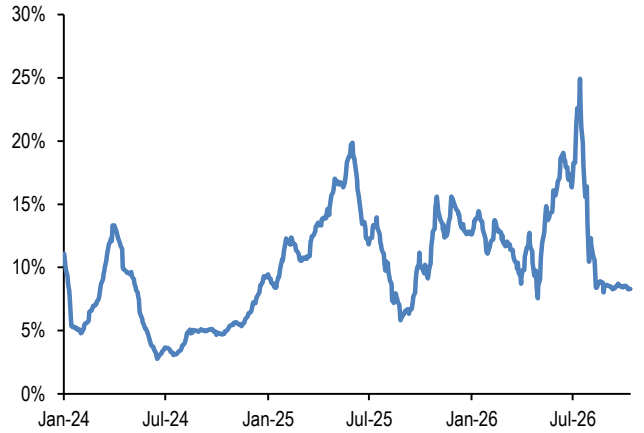
% of outstanding shares.



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

Figure 3: Short interest of EWY US Equity ETF

% of outstanding shares.



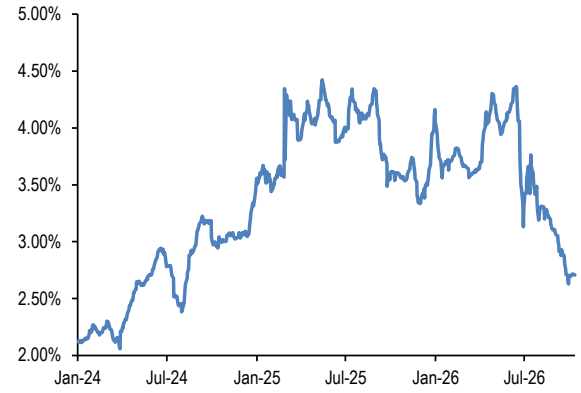
Source: S3, J.P. Morgan Flows & Liquidity.

- 3. There is similarly a rather low short base in US memory names (Figure 4) or in major memory and semiconductor ETFs such as SMH and DRAM US equity ETFs (Figure 5). In fact, as we argued in our publication two weeks ago (F&L Sep 30th "Equity vulnerabilities"), the lack of a short base has been an issue for broader equity markets with major ETFs such as SPY US Equity ETF also carrying low short interest (Figure 6).

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Figure 4: Short interest on US memory stocks (Micron, Sandisk, Western Digital, Seagate)

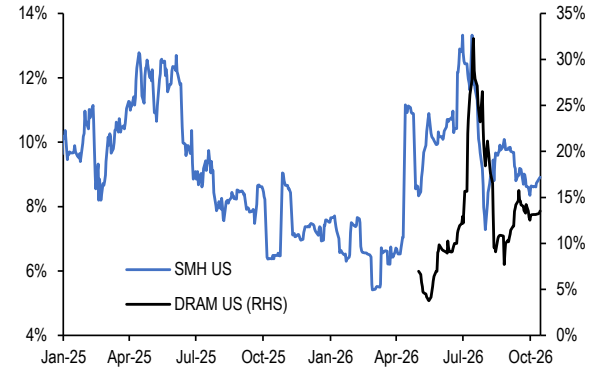
% of outstanding shares.



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

Figure 5: Short interest on SMH and DRAM US equity ETFs

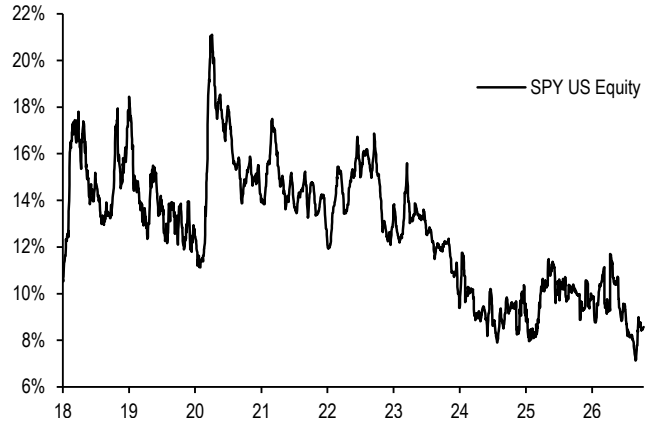
% of outstanding shares.



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

Figure 6: Short interest in SPY US Equity ETF

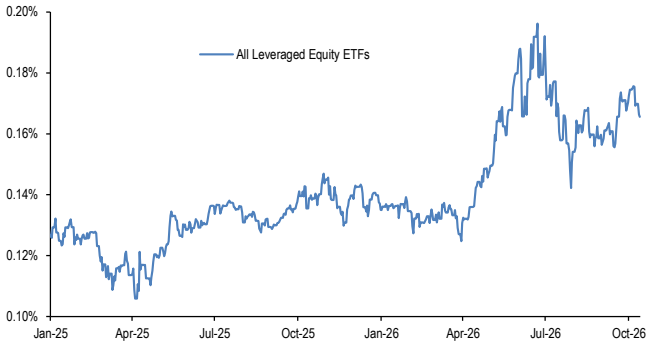
% of outstanding shares.



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

- 4. An additional vulnerability we highlighted two weeks ago stems from the AUM of leveraged equity ETFs relative to the market cap of underlying stocks. After bottoming out at the end of July, the AUM ratio of leveraged equity ETFs to the market cap of underlying stocks had increased during August and September (including both equity index and individual stock leveraged ETFs), standing at around 70% between its low in April and the high in June (Figure 7). In other words, different to the end of July, the size of leveraged equity ETFs stands at higher level currently.

Figure 7: AUM of leveraged equity ETFs as % of the market cap of underlying stocks



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

- 5. There is a buyback flow cliff in the current juncture. The two big Korean memory companies had announced a combined buyback of $40bn starting on August 20th 2026. And although originally scheduled through November 2026, an accelerated completion pushed the wrap-up to mid-October. There was no such buyback flow cliff at the end of last July.

- In all, the lack of "buy the dip" behavior by retail investors thus far despite ongoing inflows into equity funds overall, a buyback flow cliff, the lack of a large short base and the more elevated AUM of leveraged equity ETFs, make the current backdrop for AI infrastructure stocks less favorable relative to the end of last July.
- Despite these near-term technical vulnerabilities, the fundamental backdrop should create a more constructive backdrop for the tech/AI complex ocer the medium- to longer-term as we argued a few weeks ago (*F&L*, Sep 30[t] and *JPM View*, Oct 2[nd]).

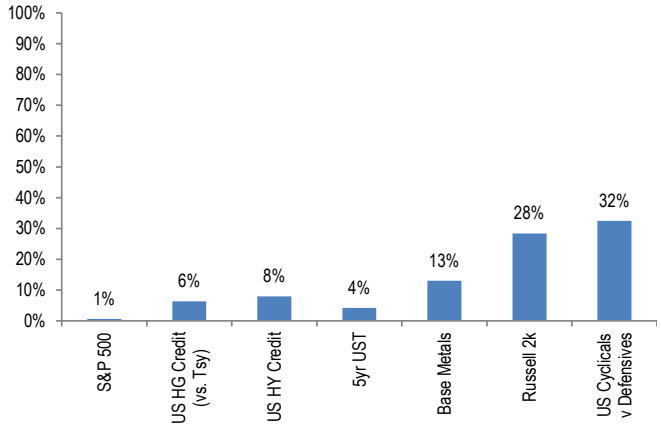
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Despite the recent drawdown, cyclical stocks do not appear oversold from a positioning or flow perspective

- The recent underperformance of small caps in the Russell 2000 index and cyclical sectors over the past month or two have raised questions in our conversations about growth concerns and how much recession risk markets are pricing in. Indeed, by our estimates, the implied probability of US recession embedded in the Russell 2000 index after the peak in mid-August. Figure 8 shows the implied recession risks across major asset classes as well as for the Russell 2000 index and traditional cyclical sectors excluding tech (industrials, consumer discretionary, financials, and materials) vs. defensive sectors (healthcare, consumer staples and utilities). Our approach has been to compare the current cycle peak to trough moves in asset prices to those seen during previous recessions. However, while the implied recession risk embedded in the Russell 2000 and cyclical vs. defensive sectors has increased to around 30%, there is relatively little recession risk priced in large cap equities, HG or HY credit, rates or overall base metals.

Figure 8: Implied probability of US recession across asset classes as of Oct 12th

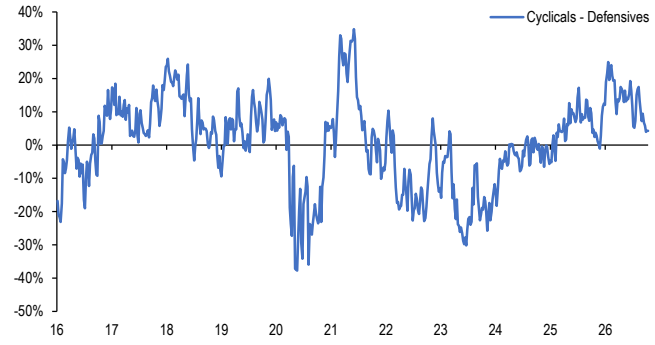


Source: J.P. Morgan Flows & Liquidity.

- Is this pricing in of recession risks in more cyclical stocks also reflected in positioning and flow indicators? Figure 9 shows the average of our positioning indicators for US equity sectors in the Cross Asset Positioning Monitor above for cyclical sectors minus the average of the positioning indicators for defensive sectors. It suggests that after a gradual increase in cyclical sector positioning over the past few years, there has been some relative pullback in cyclical vs defensive sectors, particularly since mid-August. That said, while the relative positioning has shifted lower, it has not turned short suggesting that we are still some ways from cyclicals being in oversold territory from a positioning perspective despite the recent drawdowns.

Figure 9: Cyclicals vs Defensives sector percentiles from the cross asset positioning monitor

Percentile. Cyclicals sectors are: industrials, consumer discretionary, financials, and materials. Defensive sectors are: healthcare, consumer staples and utilities.



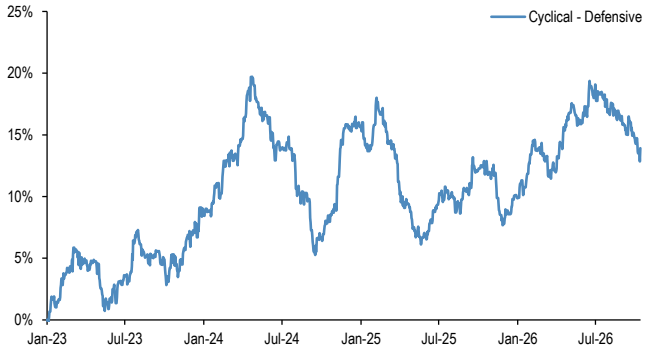
Source: J.P. Morgan Flows & Liquidity.

- Turning to flows, Figure 10 shows the relative equity ETF flow into cyclical and defensive sector ETFs. We use the cumulative net inflows as a % of AUM into sector ETFs shown in Chart A6a in the Appendix, average across cyclical and defensive sectors and take the difference between the two. Figure 10 suggests that after a broader trend, looking through the volatility, of relatively stronger net inflows into cyclical sectors since early 2023, there appears to have been a shift to relative outflows from cyclical sectors that has started in mid-2026 and shows some signs of having accelerated in recent weeks. Similar to the picture from the positioning chart in Figure 9, however, the picture in Figure 10 does not suggest that cyclicals are in oversold territory from a flow perspective either.

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Figure 10: Net inflows as a % of AUM into cyclical sector ETFs – defensive sector ETFs

In %. Cyclicals sectors are: industrials, consumer discretionary, financials, and materials. Defensive sectors are: healthcare, consumer staples and utilities.

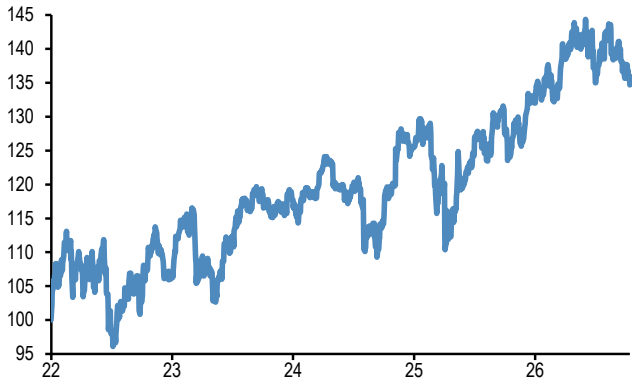


Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

- Given that the sector groupings are relatively broad and that the cyclical exposure of companies within the same sector is not necessarily constant, one way to cross-check the relative performance of cyclicals is to look at company-level sensitivity instead. We do this by looking at companies in the S&P 500 index and estimating their sensitivity to surprises, i.e. the difference between actual releases and survey expectations, in the flash US manufacturing PMI. Given tech has been more of a secular growth story, particularly given the current AI theme, we exclude information technology and communication services as well as Amazon and Tesla from the analysis. For robustness in estimating betas, given PMI releases are monthly, we use a longer sample since 2012 to estimate company-level betas, and take the top quartile of companies ranked by the beta to surprises in the manufacturing PMI as a cyclical sample and bottom quartile as defensives. That said, we acknowledge that as AI adoption proceeds these betas, the relative rankings may change over time. While this exercise is agnostic on sector labels, the average betas of companies classified in cyclical sectors such as consumer discretionary or financials are higher than for companies in defensive sectors such as consumer staples and healthcare.
- The relative performance of the top quartile and bottom quartile of companies is shown in Figure 11. It is broadly consistent with the picture in the positioning and flow pictures above, including with the temporary reversals of the inflow trend in 2024 and 2025. And while there has also been a notable drawdown since mid-August, from a performance perspective it also does not look like cyclicals are in oversold territory.

Figure 11: Performance of cyclical vs. defensive companies in the S&P 500

Cyclical and defensive companies filtered as the top and bottom quartile in betas to surprises in the flash US manufacturing PMI. Excludes companies in the information technology and communication services sectors as well as Amazon and Tesla.



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

- This means that cyclicals remain in a more difficult juncture. Despite the recent drawdown, cyclicals do not appear oversold from a positioning or flow perspective. A recovery in cyclicals and broadening in the equity trade would likely require a combination of lower bond yields, strong earnings and signs that recent weakness in labor markets is fading, but without adding to inflationary pressures in a way that could prompt a more aggressive hiking cycle from the Fed. At the same time, we are some way from oversold territory, downside risks remain considerable.

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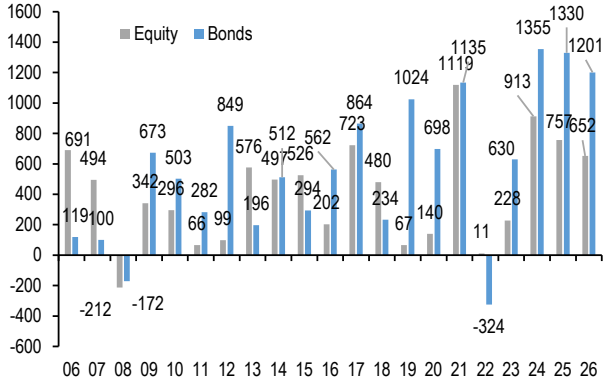
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Appendix

Chart A1a: Global equity & bond fund flows

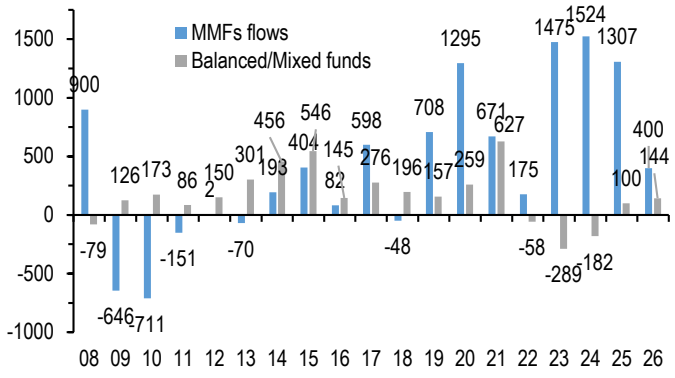
$bn per year of Net Sales, i.e. includes net new sales + reinvested dividends for Mutual Funds and ETFs globally, i.e. for funds domiciled both inside and outside the US. Flows come from ICI (worldwide data up to Q2'26). Data since then are a combination of monthly and weekly data from Lipper and Bloomberg.



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

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

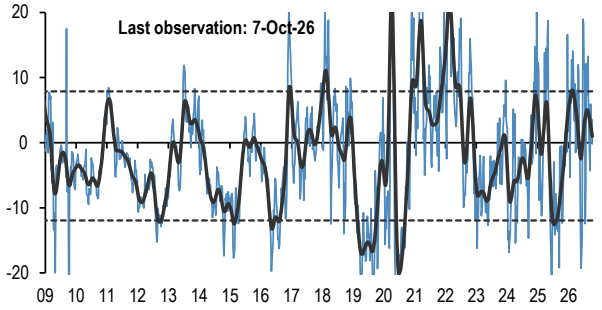
$bn per quarter of Net Sales, i.e. includes net new sales + reinvested dividends for Mutual Funds and ETFs globally, i.e. for funds domiciled both inside and outside the US. Data come from ICI (worldwide data) and are till Q2'26.



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

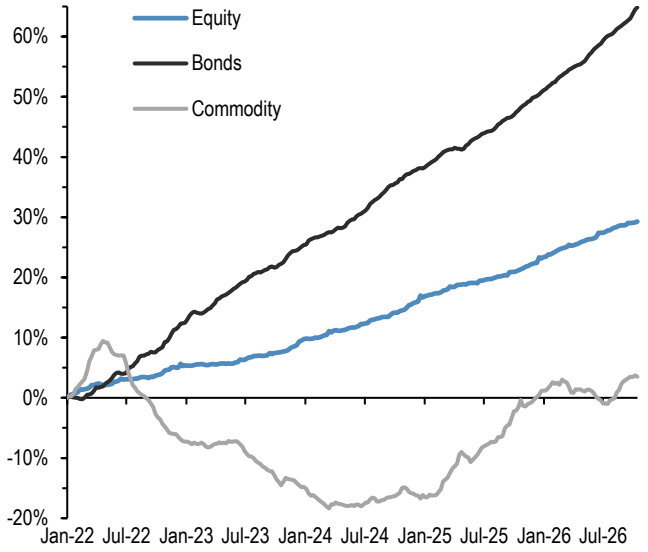
Source: Bloomberg Finance L.P., Federal Reserve, Trace, Japan Securities Dealer Association, WFE, J.P. Morgan Flows & Liquidity.

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ETF Flow Monitor (as of 14th October)

Chart A3: Global Cross Asset ETF Flows

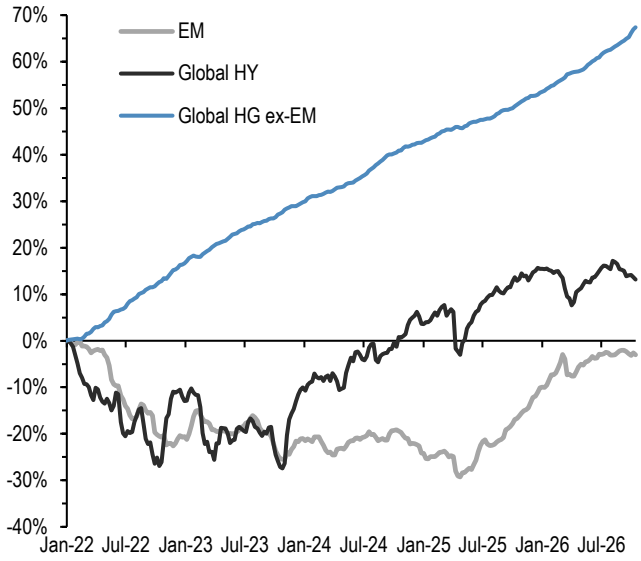
Cumulative flows into ETFs as a % of AUM



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

Chart A4: Bond ETF Flows

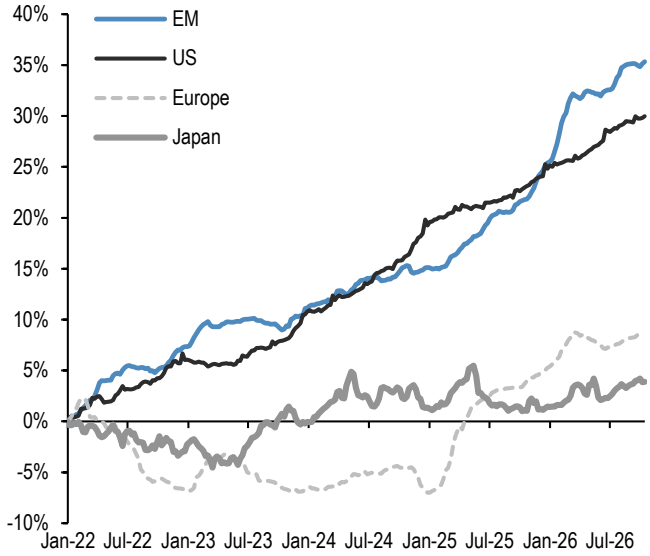
Cumulative flows into bond ETFs as a % of AUM



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

Chart A5: Global Equity ETF Flows

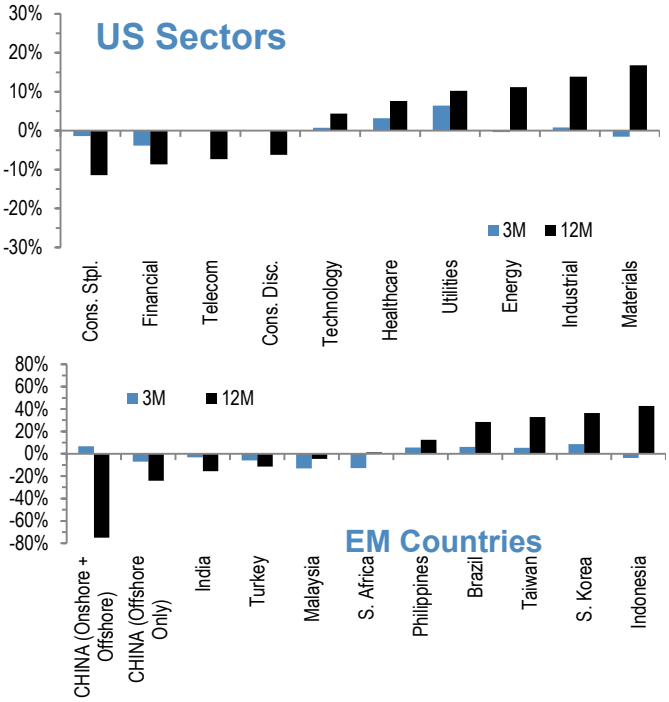
Cumulative flows into global equity ETFs as a % of AUM



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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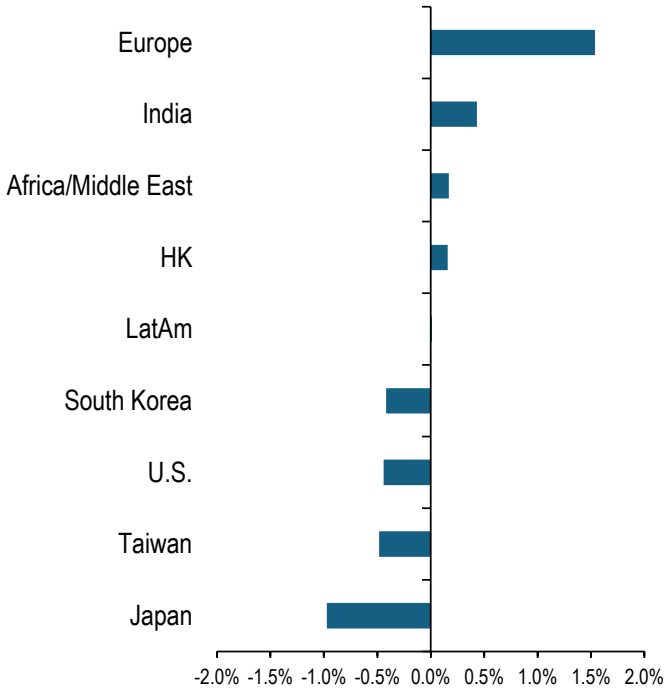
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Chart A6b: Regional Equity Allocation Monitor Implied by ETFs

In %.



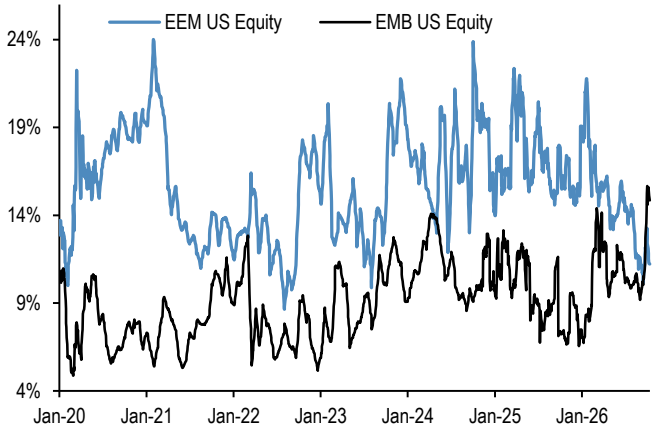
Source: Bloomberg Finance L.P., MSCI and J.P. Morgan Flows & Liquidity.
Note: Our regional equity allocation monitor implied by ETFs is based on a comparison of the share of each region in the equity ETF space relative to their corresponding shares in global equity indices.

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Short Interest Monitor

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

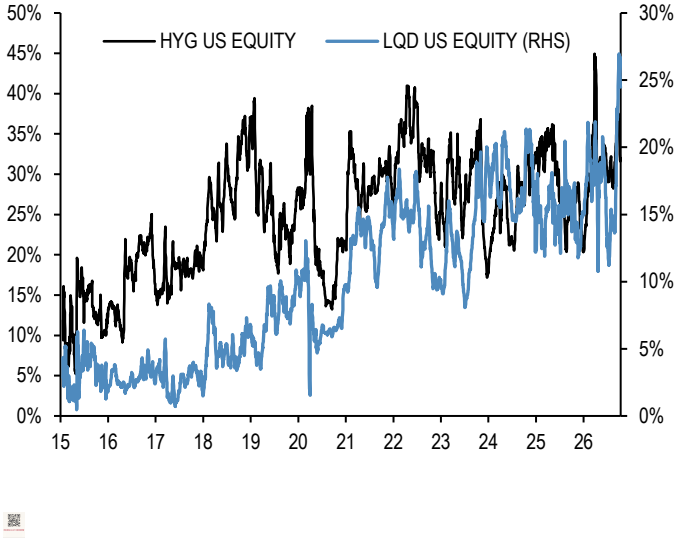
Short Interest as a % share of shares outstanding.



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

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

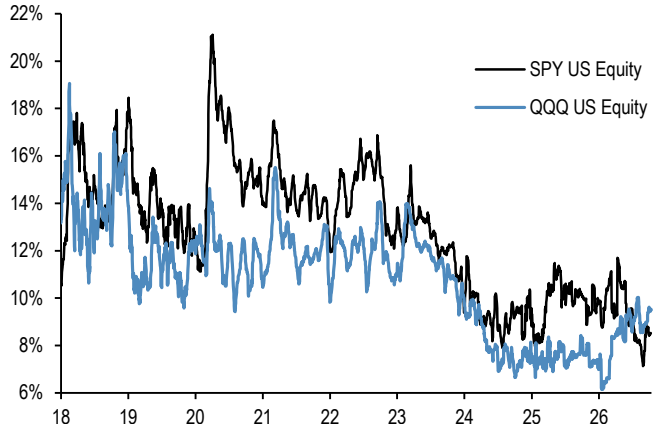
Short Interest as a % share of shares outstanding.



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

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

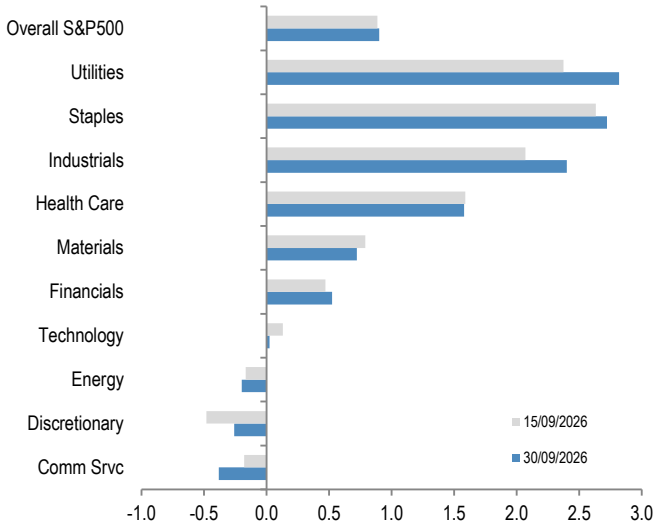
Short Interest as a % share of shares outstanding. Last obs is for 12th Oct 2026.



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 12th 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%	1.39x
EuroSTOXX	16%	14%	05-Jan-26	26%	27-Mar-26		10%	2%	1.15x
Nikkei 225	25%	20%	25-Dec-25	33%	31-Mar-26		9%	5%	1.07x
Hang Seng	17%	17%	04-Sep-26	24%	26-Mar-26		7%	1%	1.04x
MSCI EM	22%	14%	09-Dec-25	38%	01-Jul-26		17%	7%	1.03x
Gold	20%	18%	07-Nov-25	33%	26-Mar-26		13%	2%	1.10x
Oil (brent)	45%	27%	11-Nov-25	89%	30-Mar-26		44%	19%	1.29x
Copper	20%	18%	13-Jul-26	37%	03-Feb-26		17%	2%	1.10x
BB commodity index	18%	13%	10-Dec-25	25%	30-Mar-26		7%	4%	1.75x
EUR/USD	6%	5%	15-Jun-26	8%	13-Mar-26		1%	1%	1.21x
USD/NOK	9%	8%	17-Dec-25	11%	30-Mar-26		2%	1%	1.64x
USD/JPY	8%	7%	16-Jul-26	10%	27-Mar-26		2%	1%	1.11x
GBP/USD	6%	6%	14-Aug-26	8%	27-Mar-26		2%	0%	1.15x
USD/CHF	7%	6%	29-May-26	9%	29-Jan-26		2%	1%	1.39x
10y US swaps	99%	62%	27-Jan-26	108%	05-Oct-26		9%	37%	1.41x
10y Eur swaps	89%	43%	26-Feb-26	99%	02-Oct-26		10%	46%	1.37x
CDX IG	41%	37%	22-Sep-26	62%	27-Mar-26		21%	5%	2.01x
CDX HY	40%	31%	09-Jan-26	57%	30-Mar-26		17%	9%	2.01x
iTraxx	47%	37%	09-Jan-26	70%	27-Mar-26		23%	9%	1.54x
iTraxx X/O	48%	38%	16-Jun-26	66%	27-Mar-26		18%	10%	1.53x

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 (12-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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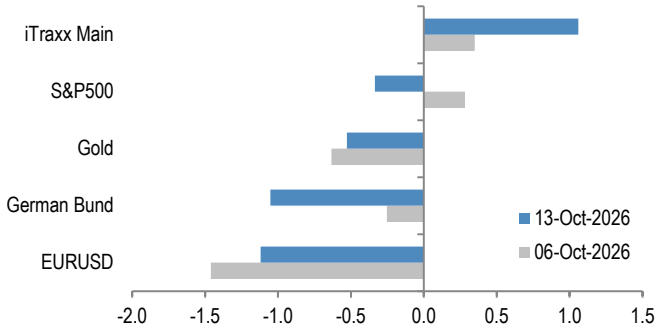
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Chart A11b: Option skew monitor

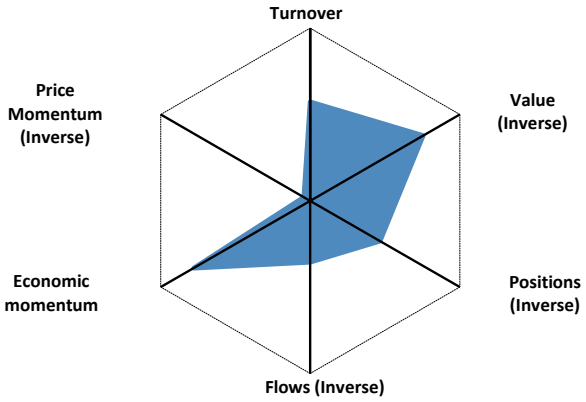
Skew is the difference between the implied volatility of out-of-the-money (OTM) call options and put options. A positive skew implies more demand for calls than puts and a negative skew, higher demand for puts than calls. It can therefore be seen as an indicator of risk perception in that a highly negative 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 9th Oct.



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

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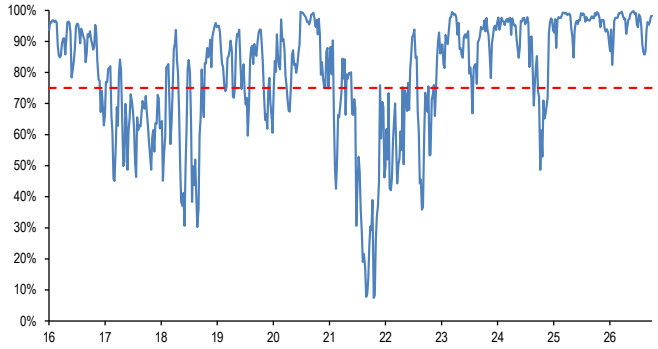
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Chart A11d: Implied probability of the S&P500 rising over the next six months with a cutoff set at 75%

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

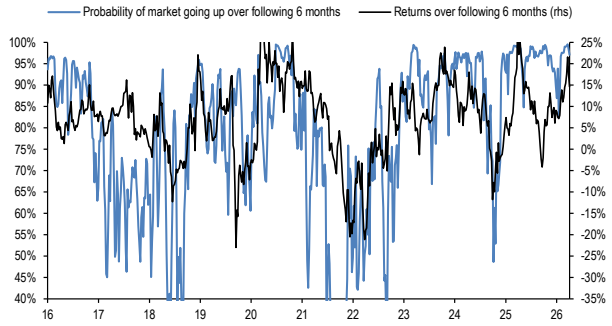
In %. Based on the methodology laid out in the F&L, 25th June 2025.

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



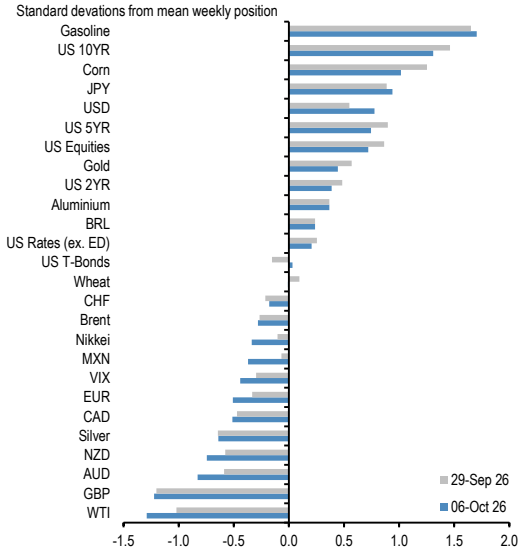
Source: J.P. Morgan Flows & Liquidity.

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Spec position monitor

Chart A12: Weekly Spec Position Monitor

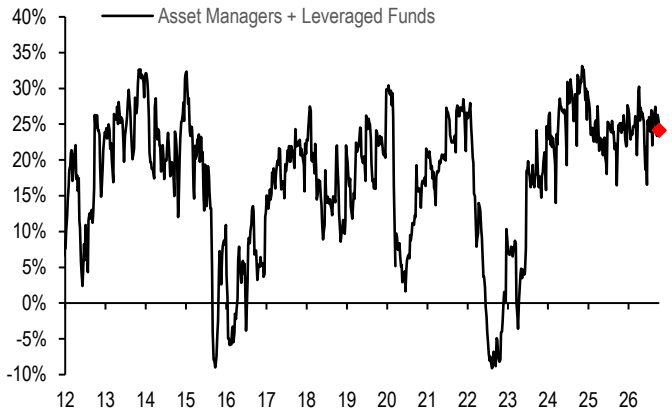
Net spec positions are proxied by the number of long contracts minus the number of short contracts using the speculative category of the Commitments of Traders reports (as reported by CFTC). To proxy for speculative investors for equity and US Treasury bond futures positions we use Asset managers and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

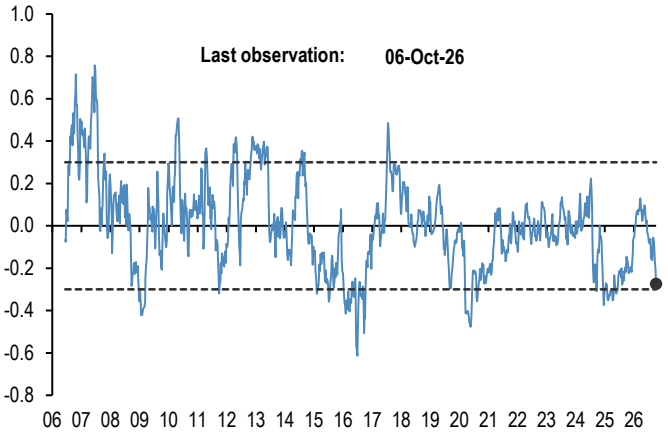
CFTC positions in US equity futures by Leveraged funds and Asset managers (as a % of open interest). It is an aggregate of the S&P500, DowJones, NASDAQ and their Mini futures contracts.



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

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

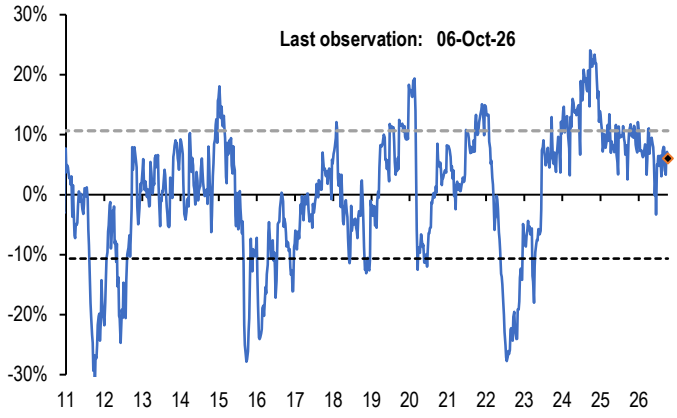
Difference between net spec positions on risky & safe currencies. Net spec position is calculated in USD across 5 'risky' and 3 'safe' currencies (safe currencies also include Gold). These positions are then scaled by open interest and we take an average of 'risky' and 'safe' assets to create two series.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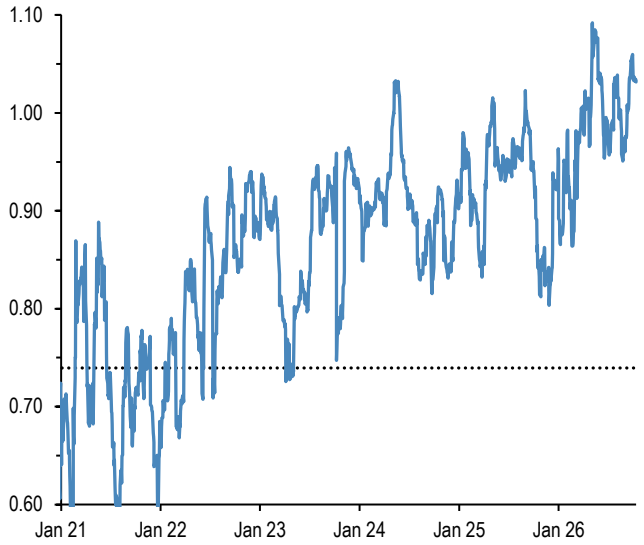
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Mutual fund and hedge fund betas

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

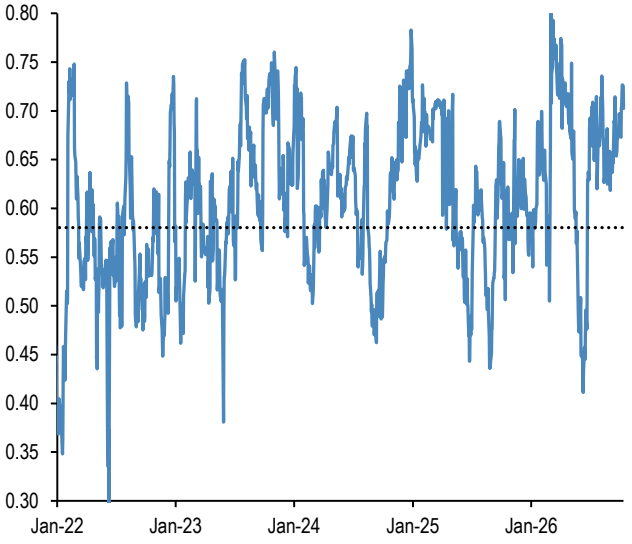
The dotted line shows the average beta since 2013.



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

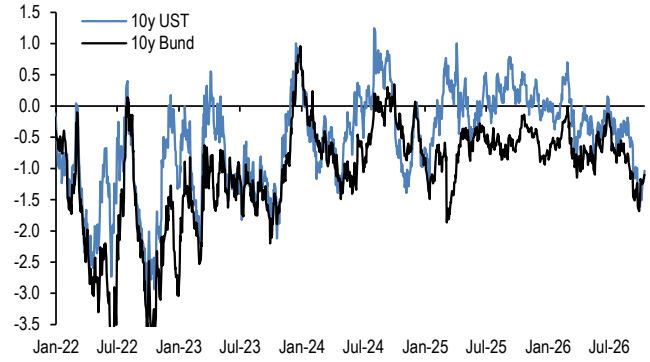
The table depicts the performance of various types of investors in % as of 13th Oct 2026.

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%	6.5%
US Balanced MFs	13.2%	14.4%	-13.0%	13.8%	11.4%	14.4%	7.4%
Benchmark							
MSCI AC World	16.3%	16.4%	-18.4%	22.2%	17.5%	22.3%	14.0%
Barclays Global Agg	5.6%	-2.5%	-11.2%	7.1%	3.4%	4.9%	-0.9%
S&P Riskparity Vol 10	11.5%	12.8%	-16.2%	15.0%	5.4%	15.9%	16.2%
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.

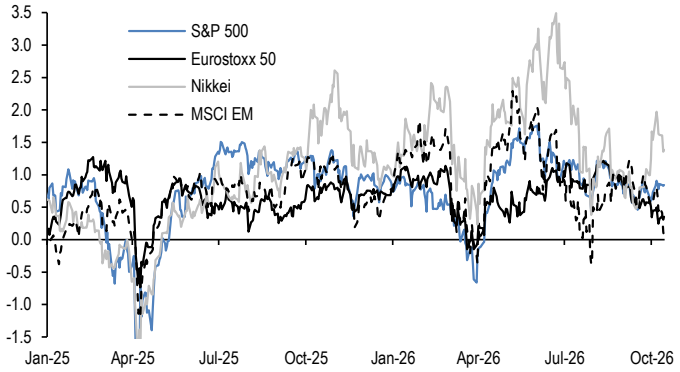


Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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Chart A20: Momentum signals for S&P500

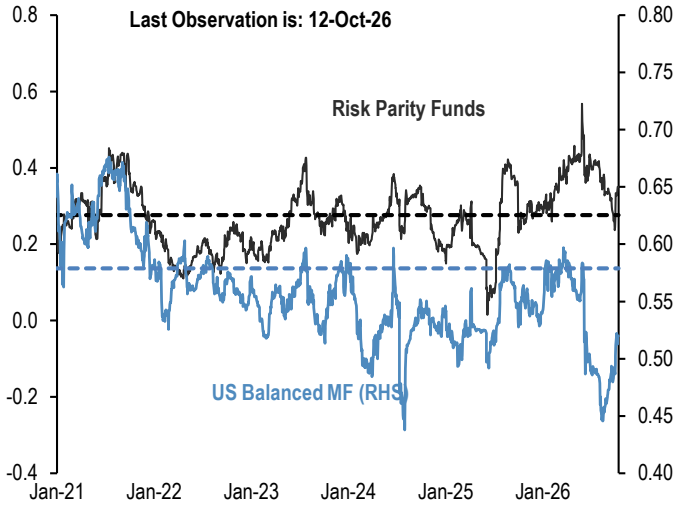
Average z-score of Short- and Long-term momentum signal in our Trend Following Strategy framework shown in Tables A3 and A4 below in the Appendix.



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

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

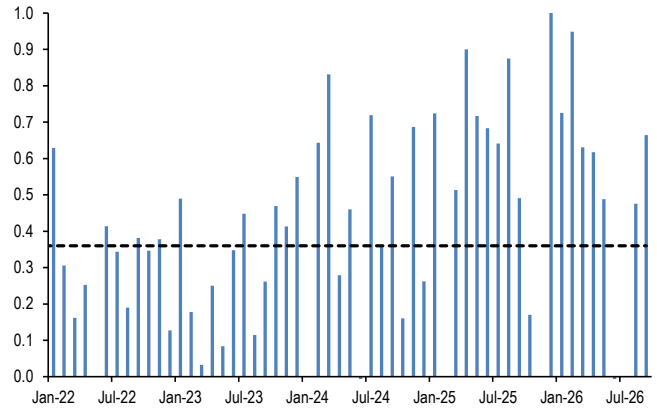
Rolling 42-day equity beta based on a bivariate regression of the daily returns of our Balanced Mutual fund and Risk Parity fund return indices to the daily returns of the S&P 500 and BarCap US Agg indices. Given that these funds invest in both equities and bonds we believe that the bivariate regression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

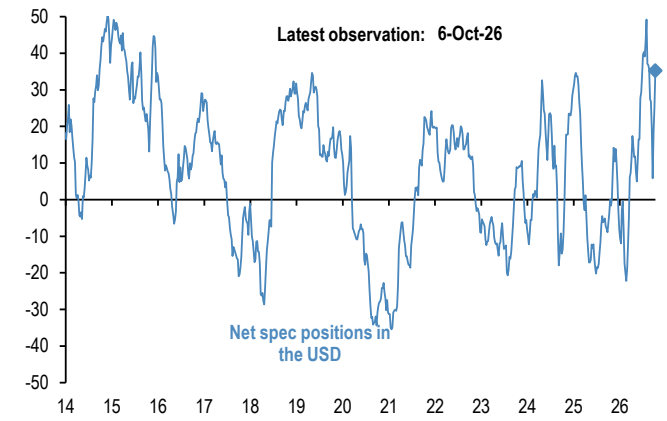
Proxied by the ratio of the monthly performance of Pivotal Path Asset-Weighted Equity Diversified hedge fund index divided by the monthly performance of MSCI AC World Index. Latest obs. is Sept. 26 based on provisional data.



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	6.3	22.8	0.28	1	1	0.2	1.1%
	long	462				0	30	1.8	53.4%
Brent	short	84	4.7	21.5	0.22	0	8	2.0	24.0%
	long	504				0	31	2.5	71.1%
Unleaded gas	short	105	4.0	23.3	0.17	1	6	1.3	18.2%
	long	483				0	76	2.7	73.8%
Heat Oil	short	63	4.5	22.1	0.21	1	2	1.5	15.7%
	long	483				0	160	3.7	117.2%
Gasoil	short	63	9.1	21.5	0.43	0	0	1.6	18.0%
	long	378				0	76	3.8	115.2%
Nat gas	short	105	13.1	35.7	0.37	1	0	0.2	3.5%
	long	315				-1	181	-0.3	-7.9%
Emission allowances	short	42	11.1	28.7	0.39	1	5	0.4	3.8%
	long	483				1	89	0.3	13.4%
TTF	short	21	44.3	43.5	1.02	1	4	1.2	14.0%
	long	294				0	1	1.6	98.5%
Gold	short	21	3.2	10.7	0.30	-1	6	-0.7	-1.9%
	long	483				1	92	0.3	3.2%
Silver	short	10	6.0	19.7	0.31	-1	8	-0.5	-1.8%
	long	462				1	83	0.2	5.1%
Palladium	short	42	11.7	23.2	0.51	0	0	-1.6	-12.9%
	long	273				-1	105	-1.1	-26.1%
Platinum	short	105	3.3	18.7	0.18	-1	14	-0.6	-5.6%
	long	273				-1	23	-0.9	-13.6%
Aluminium	short	105	5.7	15.1	0.38	-1	81	-1.0	-7.6%
	long	357				0	0	0.0	0.3%
Copper	short	147	7.5	17.2	0.43	1	173	0.6	7.2%
	long	399				1	179	1.1	23.2%
Lead	short	126	0.8	19.1	0.04	-1	91	-0.3	-3.3%
	long	357				-1	192	-0.4	-8.6%
Nickel	short	42	11.9	22.9	0.52	-1	32	-0.7	-5.5%
	long	336				-1	23	-0.3	-8.7%
Zinc	short	126	8.1	19.6	0.41	1	141	0.3	3.6%
	long	399				1	271	0.8	19.2%
Wheat	short	168	3.9	23.3	0.17	1	28	0.1	0.9%
	long	294				1	28	0.4	7.0%
Kansas wheat	short	147	8.2	20.9	0.39	0	1	0.0	-0.4%
	long	483				1	71	0.4	8.8%
Corn	short	63	7.3	16.6	0.44	-1	3	-0.5	-4.1%
	long	399				-1	2	-0.2	-3.4%
Soybeans	short	42	4.9	14.5	0.34	-1	0	-0.1	-0.3%
	long	231				1	44	0.6	7.4%
Cotton	short	168	5.2	18.5	0.28	0	2	0.0	-0.3%
	long	483				1	6	0.1	2.6%
Sugar	short	63	6.9	21.6	0.32	0	1	1.8	16.8%
	long	252				0	1	1.6	29.0%
Coffee	short	63	7.8	24.0	0.32	-1	4	-0.3	-2.7%
	long	273				0	0	0.0	-0.8%
Cocoa		10	5.0	31.5	0.16	1	3	0.6	2.2%

* 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	19	0.6	2.8%
	long	315				1	86	1.1	11.6%
Nasdaq 100	short	84	9.5	16.1	0.59	1	18	0.4	3.4%
	long	462				1	75	1.2	23.7%
Nikkei	short	63	3.5	13.3	0.26	1	10	0.6	3.5%
	long	420				0	140	2.2	33.4%
FTSE 100	short	168	5.3	12.0	0.44	1	3	0.4	2.5%
	long	504				1	16	1.4	15.5%
Eurostoxx 50	short	168	4.8	16.6	0.29	1	135	0.2	2.0%
	long	294				1	142	0.5	5.6%
MSCI EM	short	42	12.6	11.5	1.09	-1	2	-0.7	-3.5%
	long	357				1	67	0.8	12.3%
LQD credit return	short	168	0.4	3.4	0.12	-1	14	-0.3	-0.9%
	long	273				-1	14	-0.3	-1.0%
HYG credit return	short	10	2.4	6.5	0.38	-1	1	-0.1	-0.2%
	long	189				-1	31	-0.4	-1.9%
2Y USTs	short	252	0.9	1.1	0.81	-1	9	-1.3	-1.5%
	long	462				-1	160	-1.0	-1.9%
5Y USTs	short	252	1.6	2.8	0.57	-1	1	-1.4	-3.5%
	long	420				-1	126	-1.1	-3.9%
10Y USTs	short	42	2.1	3.6	0.59	-1	4	-1.0	-1.4%
	long	441				-1	126	-1.1	-5.0%
2Y Schatz	short	189	0.6	0.8	0.81	0	43	-1.7	-1.5%
	long	504				0	159	-1.9	-3.4%
5y Bobl	short	63	1.4	1.9	0.77	-1	9	-0.9	-0.9%
	long	483				-1	9	-1.4	-4.8%
10y Bund	short	105	2.3	3.4	0.68	-1	9	-1.1	-2.3%
	long	462				-1	761	-1.1	-5.7%
10Y JGB	short	126	0.9	2.3	0.39	-1	3	-1.2	-1.3%
	long	273				0	161	-2.1	-3.3%
10Y Gilts	short	42	2.5	4.1	0.61	-1	3	-0.9	-1.4%
	long	399				0	14	-1.6	-8.4%
10y OAT vs Bund	short	189	0.5	1.5	0.32	0	19	-4.5	-4.0%
	long	294				0	16	-3.9	-3.8%
10y BTP vs. Bund	short	84	2.3	6.2	0.36	-1	25	-0.6	-1.5%
	long	273				-1	19	-0.4	-1.7%
Euro	short	42	3.3	6.4	0.52	-1	1	-1.5	-3.2%
	long	273				-1	170	-1.2	-6.6%
Yen	short	21	3.5	6.3	0.56	-1	17	-0.6	-1.0%
	long	462				-1	54	-1.2	-9.6%
Sterling	short	168	1.6	7.1	0.23	-1	33	-0.6	-2.6%
	long	294				-1	164	-0.7	-3.6%
AUD	short	42	3.7	7.8	0.48	-1	16	-0.7	-1.8%
	long	420				0	2	0.0	0.3%
CAD	short	168	1.6	5.9	0.26	-1	117	-1.2	-4.4%
	long	504				-1	399	-1.2	-7.8%
G10 FX	short	42	2.1	5.1	0.42	1	20	1.1	1.8%
	long	189				1	22	0.8	2.8%
EMCI	short	42	2.5	4.9	0.50	-1	16	-0.5	-0.8%
	long	189				-1	14	-0.2	-0.8%

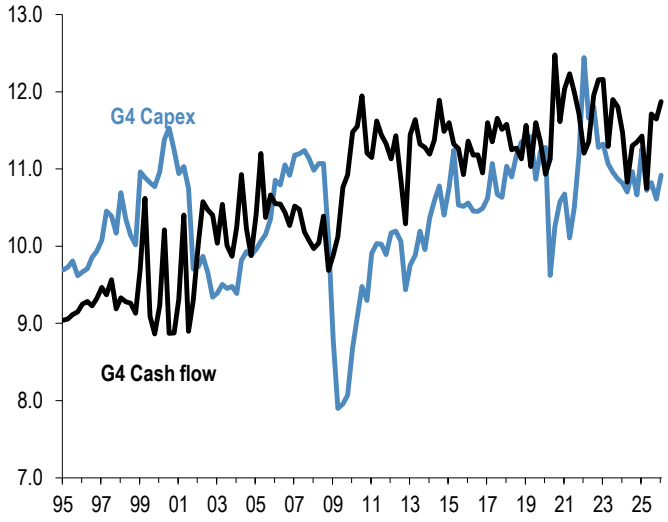
Source: Bloomberg Finance L.P., J.P. Morgan Flows & Liquidity.

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Corporate Activity

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

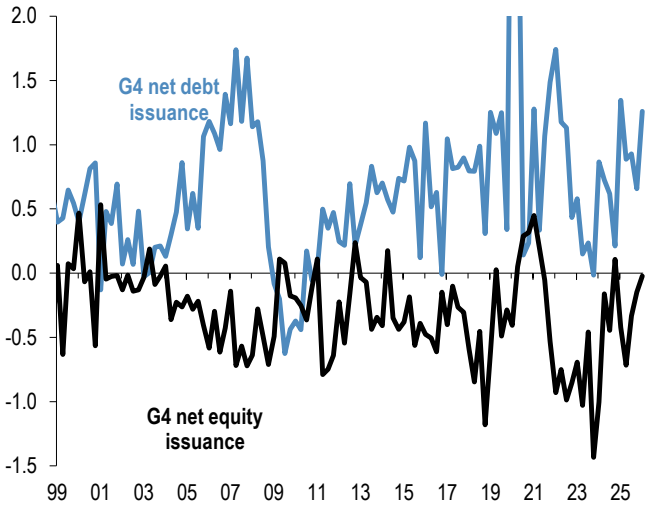
% of GDP, G4 includes the US, the UK, the Euro area and Japan. Last observation as of Q1 2026.



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

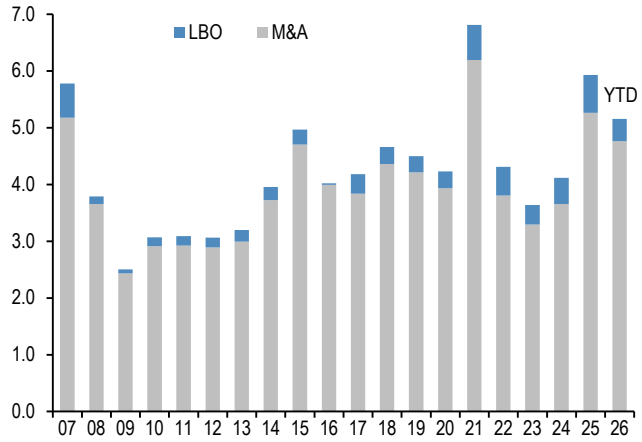
$tr per quarter, G4 includes the US, the UK, the Euro area and Japan. Last observation as of Q1 2026.



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

Chart A26: Global M&A and LBO

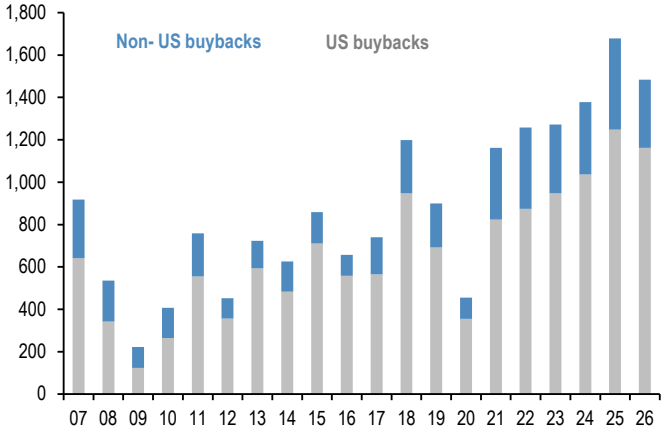
$tr. M&A and LBOs are announced.



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.

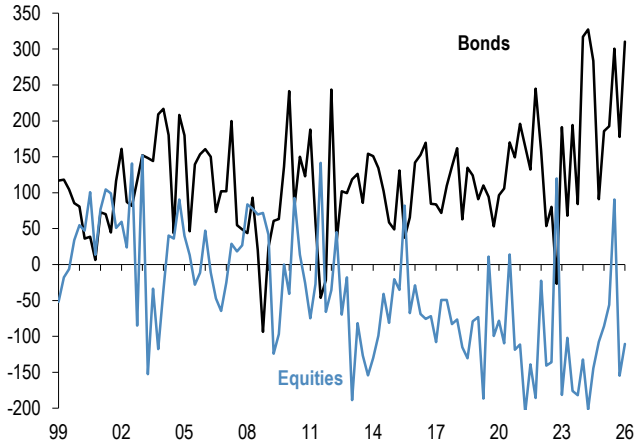
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Pension fund and insurance company flows

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

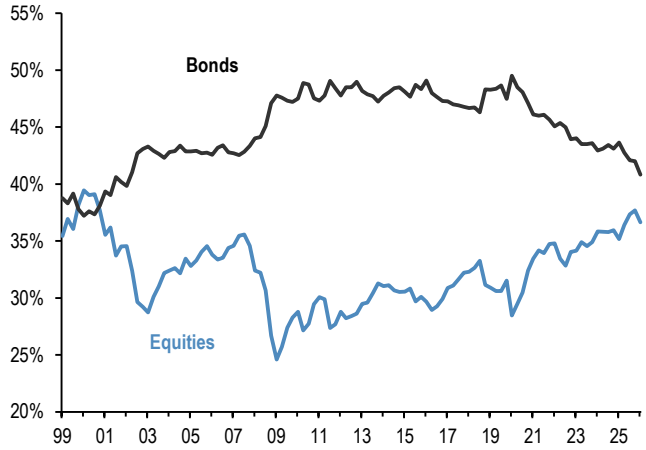
Equity and bond buying in $bn per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q1 2026.



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

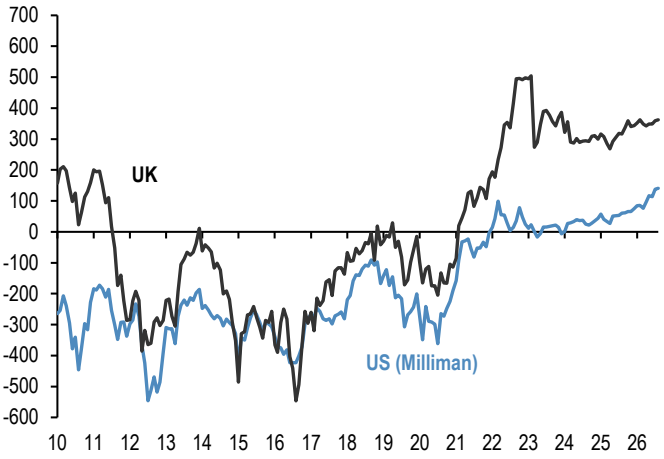
Equity and bond as % of total assets per quarter. G4 includes the US, the UK, Euro area and Japan. Last observation is Q1 2026.



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

Chart A30: Pension fund deficits

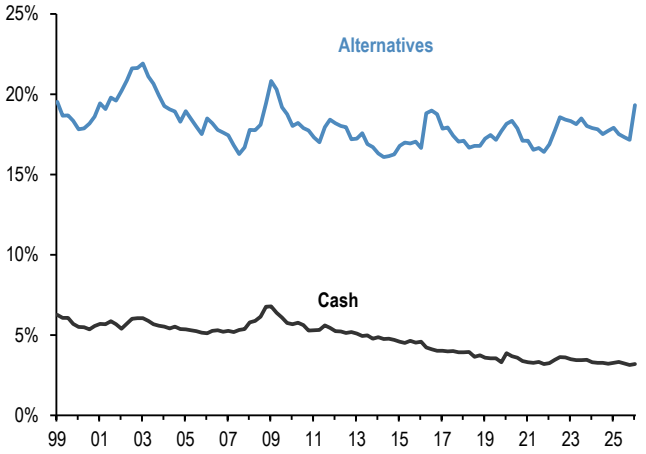
US$bn. For US, funded status of the 100 largest corporate defined benefit pension plans, from Milliman. For UK, funded status of the defined benefit schemes eligible for entry to the Pension Protection Fund, converted to US$ at today's exchange rates. Last obs. is August'26 for US & UK.



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.



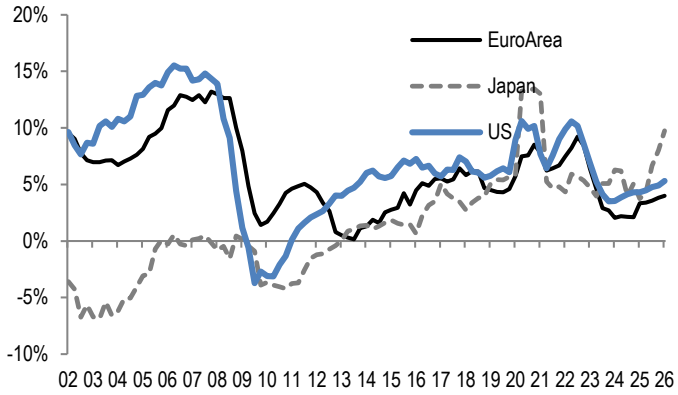
Source: ECB, BOJ, BOE, Federal Reserve flow of funds, J.P. Morgan Flows & Liquidity.

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Credit Creation

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

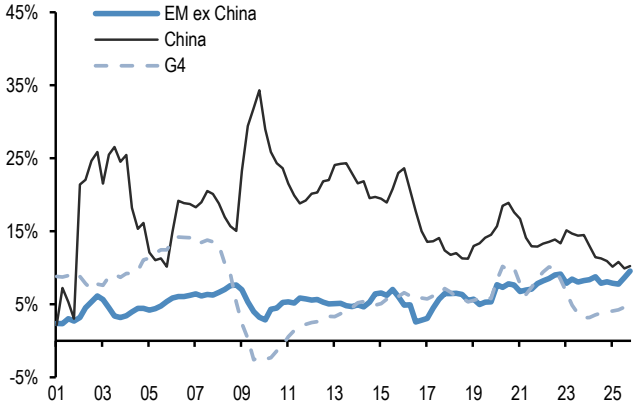
Rolling sum of 4-quarter credit creation as % of GDP. Credit creation includes both bank loans as well as net debt issuance by non-financial corporations and households. Last obs. is Q1'26 for Japan, Euro Area and US.



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

Chart A33: Credit creation in EM

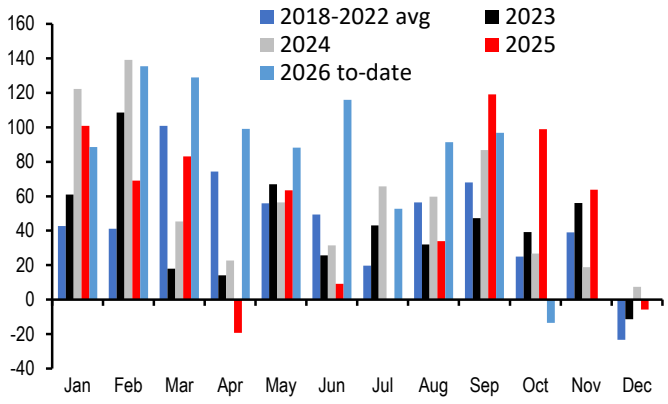
Rolling sum of 4-quarter credit creation as % of GDP. Credit creation includes both bank loans as well as net debt issuance by non-financial corporations and households. The chart uses the FX rates as of the latest observation to calculate the credit creation at constant exchange rates. Last obs. is 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 October 8th.



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	2-Oct	4 wk avg	13 wk avg	y/y chng
Global IPOs	1.6	3.0	4.0	130%
Secondary Offerings	4.9	8.1	14.3	40%
Corporate announcements				
M&A - Global	122.2	96.3	101.1	33%
- US Target	67.6	39.7	45.4	46%
- Non-US Target	54.6	56.6	55.7	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.

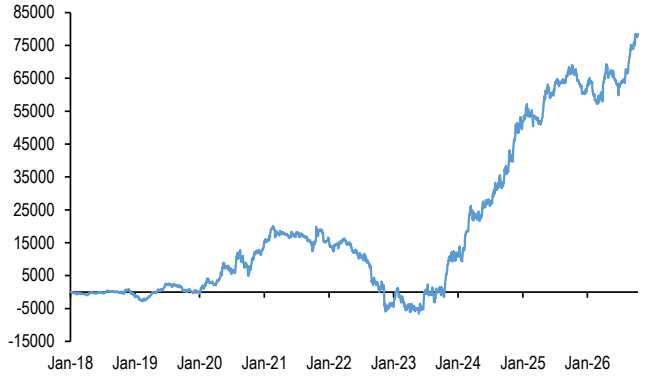
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Bitcoin monitor

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

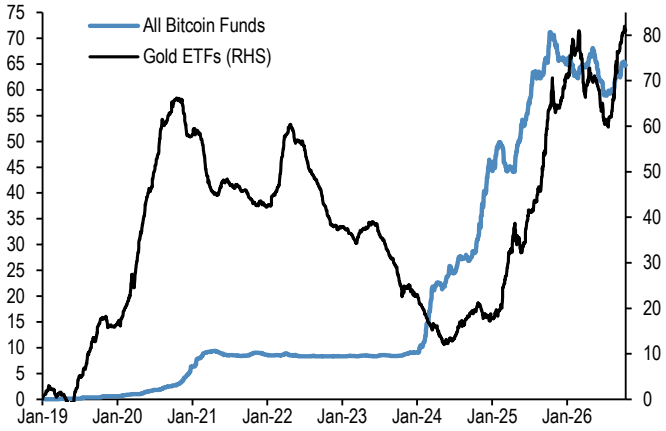
In number of contracts. Last obs. for 14th Oct 2026



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

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

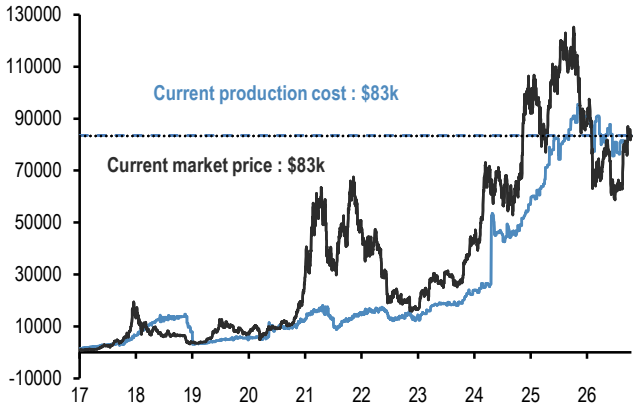
Both the y-axis in $bn.



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

Chart A37: Ratio of bitcoin market price to production cost

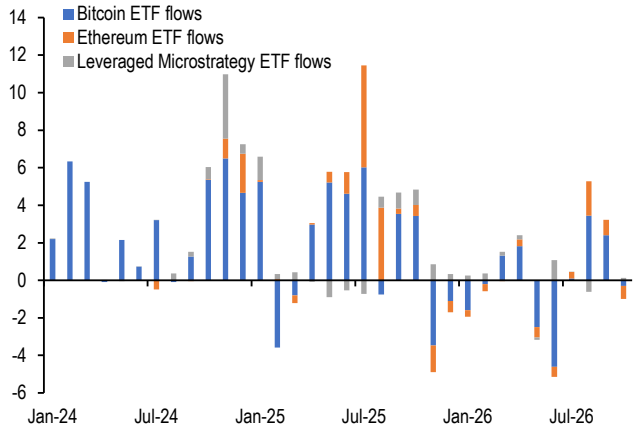
Based on the cost of production approach following Hayes (2018).



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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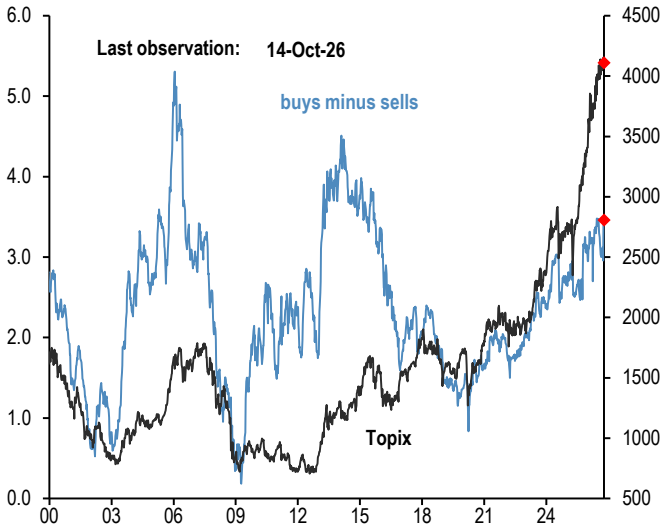
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Japanese flows and positions

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

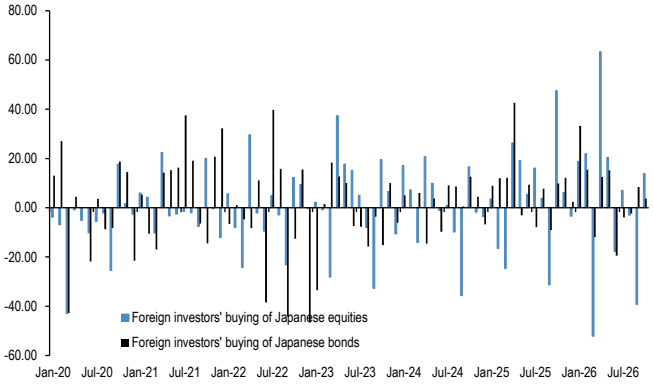
In bn of shares. Topix on right axis.



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

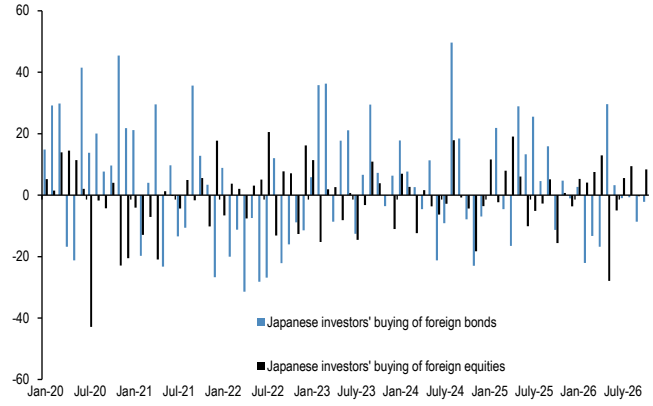
$bn, Last weekly obs. is for 2nd Oct' 26.



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

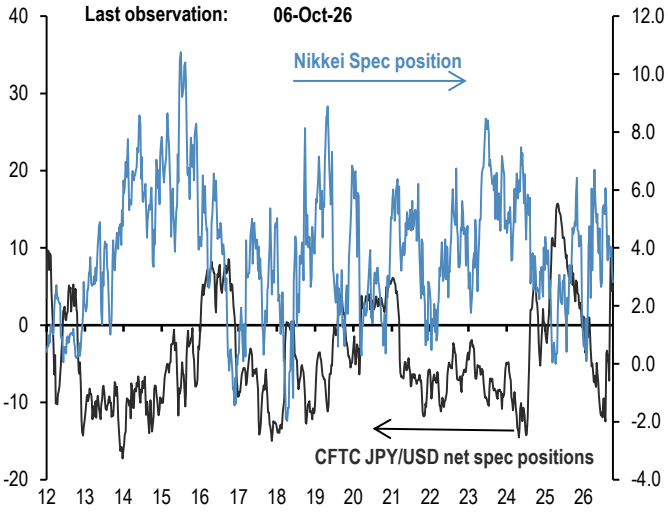
$bn, Last weekly obs. is for 2nd Oct' 26.



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.

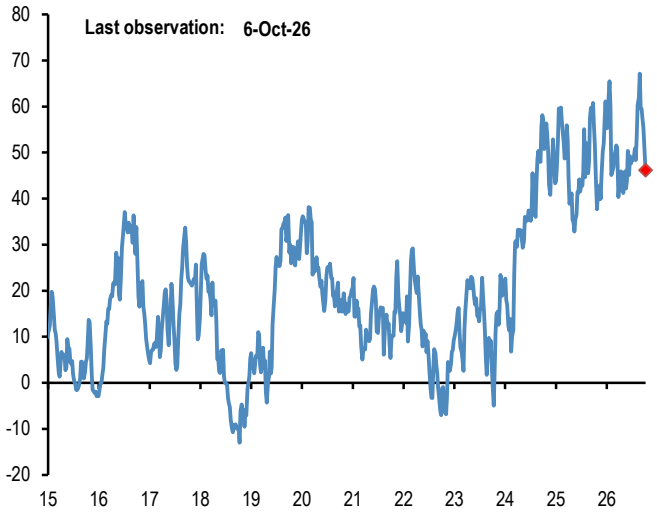
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Commodity flows and positions

Chart A43: Gold spec positions

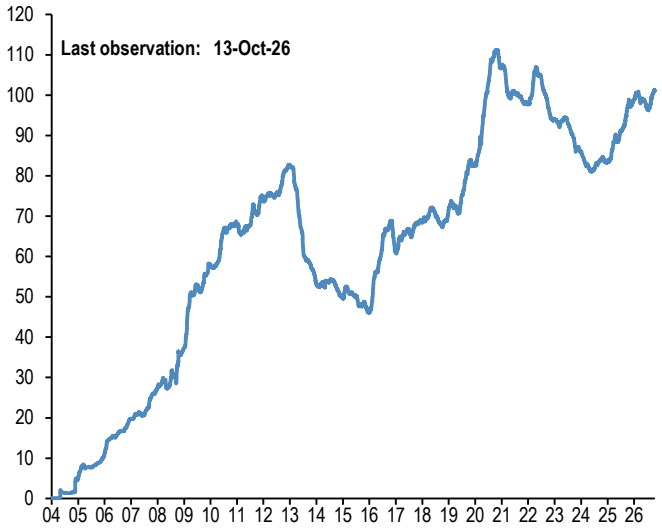
$bn. CFTC net long minus short position in futures for the Managed Money category.



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

Chart A44: Gold ETFs

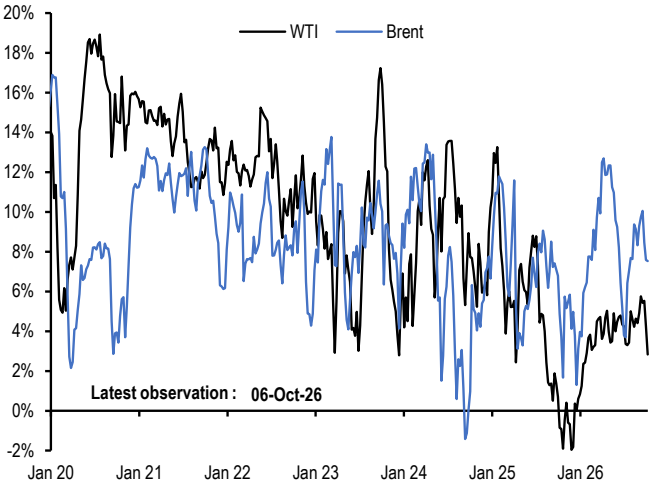
Mn troy oz. Physical gold held by all gold ETFs globally.



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

Chart A45: Oil spec positions

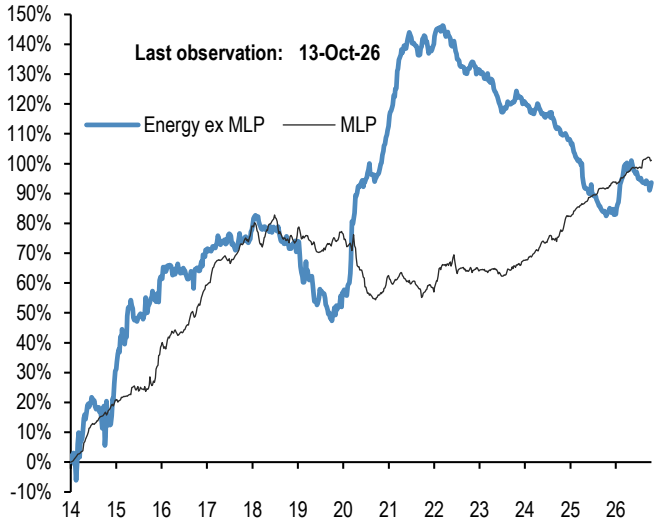
Net spec positions divided by open interest. CFTC futures positions for WTI and Brent are net long minus short for the Managed Money category.



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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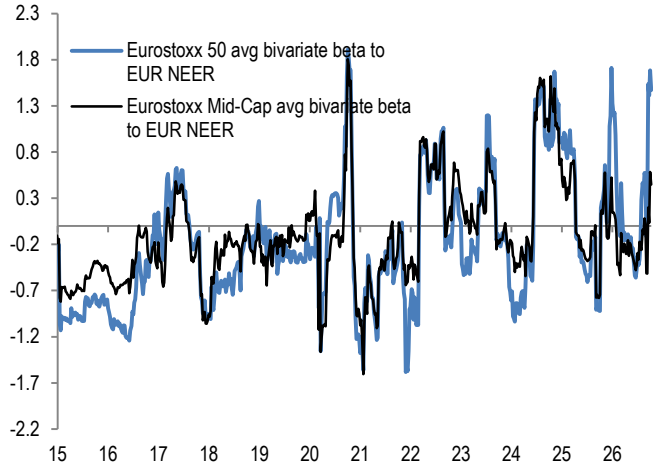
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Corporate FX hedging proxies

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

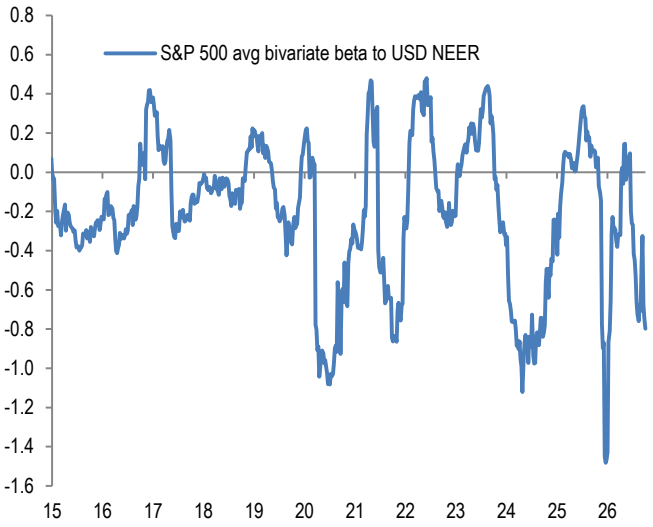
Rolling 26 weeks average betas based on a bivariate regression of the weekly returns of individual stocks in the Eurostoxx 50 index to the weekly returns of the MSCI AC World and JPM EUR Nominal broad effective exchange rate (NEER).



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

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

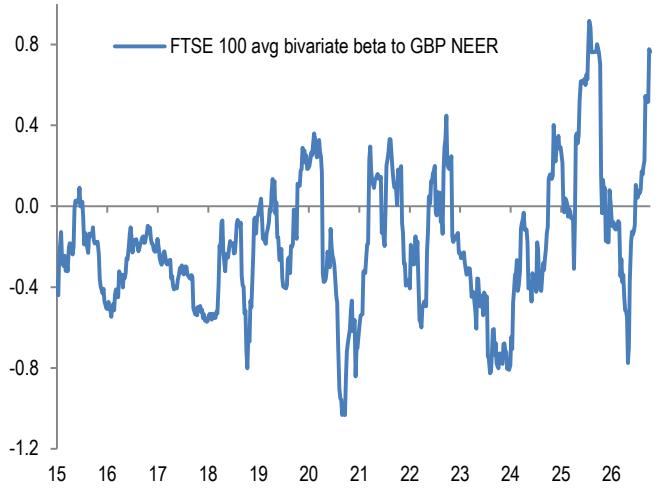
Rolling 26 weeks average betas based on a bivariate regression of the weekly returns of stocks in the S&P500 index to the weekly returns of the MSCI AC World and JPM USD Nominal broad effective exchange rate(NEER).



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

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

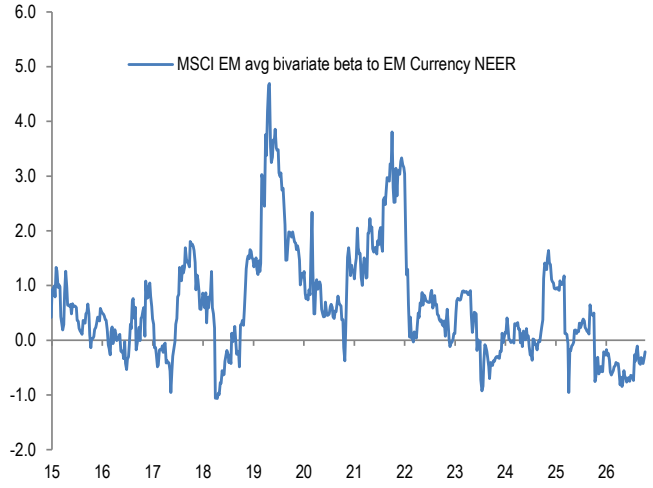
Rolling 26 weeks average betas based on a bivariate regression of the weekly returns of individual stocks in the FTSE 100 index to the weekly returns of the MSCI AC World and JPM GBP Nominal broad effective exchange rate (NEER).



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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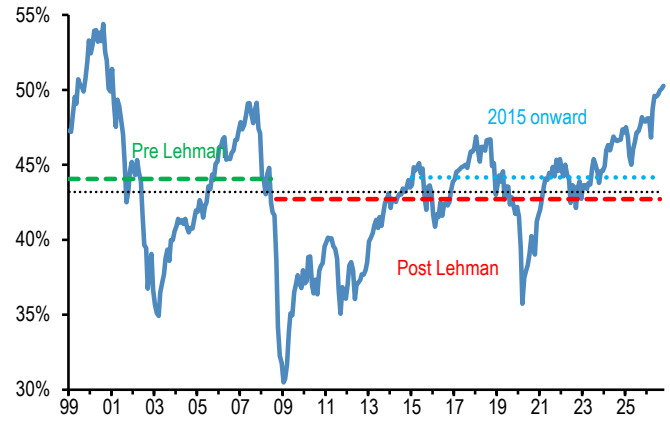
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Non-Bank investors' implied allocations

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

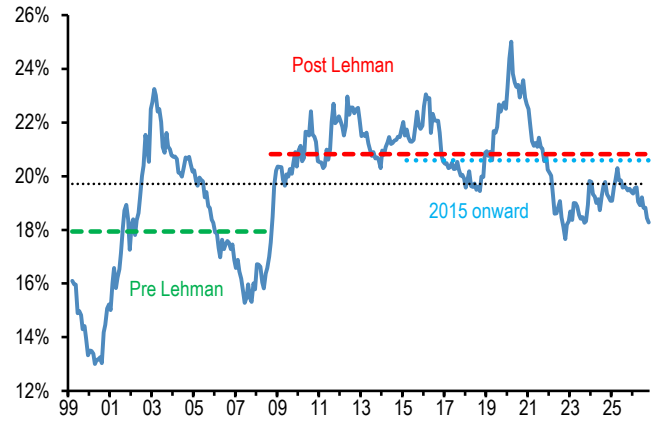
Global equities as % total holdings of equities/bonds/M2 by non-bank investors/ Commodities including gold held by private investors. Dotted lines are averages.



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

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

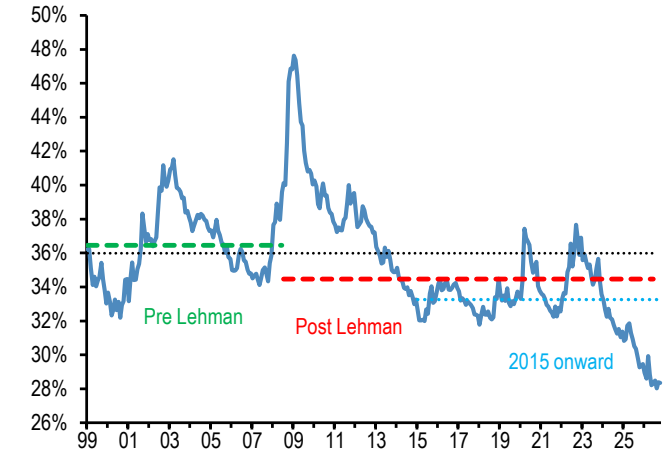
Global bonds as % total holdings of equities/bonds/M2 by non-bank investors/ Commodities including gold held by private investors. Dotted lines are averages.



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

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

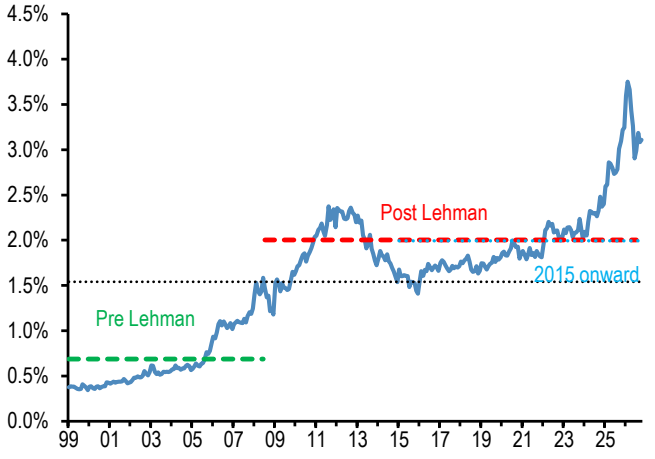
Global cash held by non-bank investors as % total holdings of equities/bonds/M2 by non-bank investors/Commodities including gold held by private investors. Dotted lines are averages.



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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