LIBELLA

CLIENT LOGIN

WEEKLY INSIGHTS

Macro and Volatility Update

MONDAY 23 NOVEMBER 2026 · LONDON 12:00

FOR PROFESSIONAL INVESTORS ONLY

GLOBAL MACRO & VOLATILITY / WEEKLY REPORT

Implied volatility nearly doubles to a one-year high

Implied volatility nearly doubled: the VIX rose +16.6 to 35.9 as the S&P 500 fell −8.6% and the PHLX Semiconductor index (SOX) −17.1%. Since 16 November, Fear / Greed has fallen to a record low of 0.5 from 23.9; leverage is still at the 7th percentile.

Libella Insights • 4-minute summary; technical appendix follows • 7 pages

THE WEEK IN NUMBERS · WEEK ENDED 20 NOVEMBER

0.5	35.9	29.3%	6,910	17.1x
Libella Fear / Greed, extreme fear, 20 Nov	VIX index, 20 Nov close	SPY 30-day implied volatility, 20 Nov	S&P 500 cash close, 20 Nov	S&P 500 forward 12m P/E, FactSet · 20 Nov 2026 report
−23.4 on the week	**+16.6 on the week**	**+14.2 points on the week**	**−8.6% on the week**	**−1.2 on the week**

KEY TAKEAWAYS

Expiry day brought heavy mechanical selling. Our model estimates $39bn of leveraged ETF selling on Friday; estimated SPY dealer short gamma fell −57% after expiry.

Fund buyers came in before the worst of it. Global equity funds took in +$59.2bn in the week to 18 Nov, a five-month high (LSEG Lipper).

Options priced a near-term shock. The VIX closed at 35.9, above the three-month VIX at 30.9.

Libella view. Negative on equities near term; watch retail selling and trend-follower carry-over after expiry (page 2).

The week ahead: Dell and Workday (Tue 24 Nov), US GDP and PCE inflation (Wed 25 Nov), Thanksgiving (Thu 26 Nov).

Trend followers are already short

Our CTA model puts their short at $12bn in US index futures and gives −$3bn of selling over the five US cash sessions to 30 Nov if the S&P 500 is flat, −$10bn if it falls −4.7%.

Correlation rose, but not to crash levels

Cboe's 1-month implied correlation index rose +24.3 points to 36.1, about half its usual level on −4% days. On Friday only 123 of 502 S&P 500 members rose.

Puts got dearer as the index slid

SPY 30-day at-the-money implied volatility rose +14.2 points to 29.3%. Our separate smile measure rose +16.0: +9.6 from the index falling to strikes where options were already dearer, +8.5 from repricing across all strikes.

Libella signals: drawdown risk is high, volatility near a peak

Our Risk Gauge puts the odds of a 5% fall at any point in the next month at 31.7% (20.1% a week earlier); our Volatility Outlook points to a VIX −3.1 points lower over the next month.

LIBELLA FEAR / GREED MONITOR



0.5

EXTREME FEAR

1 DAY AGO	1 WEEK AGO
1.8 Extreme fear	23.9 Extreme fear
1 MONTH AGO	**1 YEAR AGO**
31.4 Fear	16.6 Extreme fear

WEAKEST TWO OF SEVEN COMPONENTS

Market momentum 0.2

−8.90% v 125-day average · extreme fear · to Fri 20 Nov

Stock price strength 0.2

−5.21% of members · extreme fear · to Fri 20 Nov

Treasuries rallied as stocks fell, and credit spreads widened

US 10-year yield 4.92% and real yield 2.77% (20 Nov); ICE BofA US high-yield OAS 352bp (19 Nov close)

THE LIBELLA VIEW

Our House View is negative on equities for the next one to three months, without turning bearish on the cycle, and within equities prefers quality, low-volatility and equal-weighted stocks to momentum and high beta. The week supported the relative call: the equal-weighted S&P 500 fell −6.2% against −8.6% for the cap-weighted index, and it is +5.1 percentage points ahead over 21 sessions, the 97th percentile of three years.

The risk is a sharp rebound led by the stocks that fell most. In our panic-selling study (the first −2% day since 2015 with positioning −0.75 sd or lower; 11 cases), the median case was −3.4% after a month and +2.4% after three, with a median worst point of −7.7%. This episode began on 5 November; the S&P 500 is −6.0% since. Our tactical pair, energy and materials over health care and staples, returned −3.1 percentage points in its first week. We would move to neutral if the high-yield spread fell below 3.20% and the VIX below 25 with breadth recovering.

SOFR futures imply 4.70% in a year (19 Nov), −12bp on the week. The dated tests are US PCE inflation and GDP on 25 November and the Fed decision on 9 December.

The macro week

AREA	WHAT HAPPENED AND WHAT IT MEANS
Data and earnings	**Earnings held up; the AI leaders did not.** FactSet (20 Nov report): Q3 earnings growth 32.9%, but the aggregate EPS surprise was +3.5% against a five-year average of +7.5%. Nvidia reported results above forecasts on 17 Nov; its shares fell −22.9% on the week after the board ruled out Jensen Huang's return and Reuters reported, citing sources, that an SEC probe is examining potential accounting issues (20 Nov).
Central banks and policy	**A December Fed hike is still priced; the path after it eased.** CME FedWatch gave a 96.2% chance of a hike to 4.00–4.25% on 9 Dec (23 Nov, 08:33 London), and SOFR futures imply 4.70% in a year. Markets price Bank Rate at 4.93% in a year and the ECB at 3.25%.
Havens and the dollar	**Gold was sold with equities; the dollar kept its gains.** Gold fell −4.6% on Friday to a one-year low of $3,515. Our dollar index is +5.7% this year, and speculators were long $33.3bn of dollars on 17 Nov (CFTC).
Stress: credit and deals	**Spreads widened from the bottom of the rating scale.** The Libella CCC minus B estimate (from high-yield ETF yields) is 10.12% (20 Nov), +50bp in four weeks and the widest of the past year. Merger-arb spreads widened to 10.17% from 9.42%. Index-event trades went the wrong way: Moderna, the only US addition to MSCI World, is −12.4% against the market since the 11 Nov announcement, and 14 of the 24 US deletions have beaten it. Index funds trade the changes at the close on 30 Nov.

The week ahead

London times; Libella option data from the 20 Nov closing file

DATE	EVENT AND WHAT IT TESTS
Tue 24 Nov	**Dell, HP Inc., Workday, Analog Devices and Autodesk results.** AI hardware and software demand after the sell-off.
Wed 25 Nov	**US GDP (Q3), PCE inflation (Oct) and durable goods, 13:30.** The last big data before the 9 Dec Fed meeting.
Thu 26 Nov	**US markets closed (Thanksgiving).** Thin liquidity around the holiday.
Mon 30 Nov	**MSCI index changes at the close.** Index funds trade the 1 Dec changes.

Sources: BEA and Census release schedules; company and exchange announcements; MSCI; EODHD closing file (20 Nov), Libella calculation.

Macro dashboard

Rates and spreads, one-week and one-year changes (20 Nov)

MEASURE	LEVEL	1W	1Y	AS OF
US 10Y Treasury yield	4.92%	−23bp	+82bp	20 Nov
US 10Y real yield (TIPS)	2.77%	−14bp	+91bp	20 Nov
US 10Y breakeven inflation	2.15%	−9bp	−9bp	20 Nov
2s10s curve	29bp	+2bp	−26bp	20 Nov
Fed funds (effective)	3.88%	0bp	0bp	19 Nov
US high-yield spread (OAS)	352bp	+32bp	+35bp	19 Nov
US IG spread (OAS)	94bp	+5bp	+10bp	19 Nov
MOVE (Treasury vol)	106.3	+7.52	+28.50	20 Nov
WTI crude	$83.98	−5.2%	+44.1%	20 Nov

Source: FRED, Yahoo Finance, Libella; spreads in bp.

Libella signals: drawdown risk is high, volatility near a peak

Libella models and baskets, latest readings (20 Nov)

SIGNAL	READING	WHAT IT SAYS
Libella Risk Gauge	31.7%	Odds of the S&P 500 falling 5% or more at any point within a month (20 Nov data), against a long-run average of 17.1%; 20.1% a week earlier.
Libella Volatility Outlook	−3.1 pts	Expected change in VIX over the next month, from 35.9 on 20 Nov.
Panic-selling study	7 of 11	First days since 2015 with an S&P 500 fall of −2% or more while our positioning composite was −0.75 sd or lower: higher 3 months later in 7 of 11; median worst point within 3 months −7.7%. Thursday's and Friday's falls belong to the 5 Nov episode, not a new case.
Crowded longs v crowded shorts	−2.5%	Five sessions to 20 Nov: hedge funds' most crowded longs −9.5% against −7.0% for the most crowded shorts; −7.4% over one month.
Six signs of a low	1 of 6	Only retail turnover is easing; the VIX, momentum, breadth, positioning and put buying have not turned (20 Nov).

Sources: Libella models (Risk Gauge and Volatility Outlook, latest weekly reading); Libella positioning composite and panic-days study; Libella US consensus long (SEC 13F) and short (FINRA short interest), equal weight; Libella six signs of a low; Libella merger-arb monitor (deal terms from company announcements, prices EODHD). Descriptive, not advice.

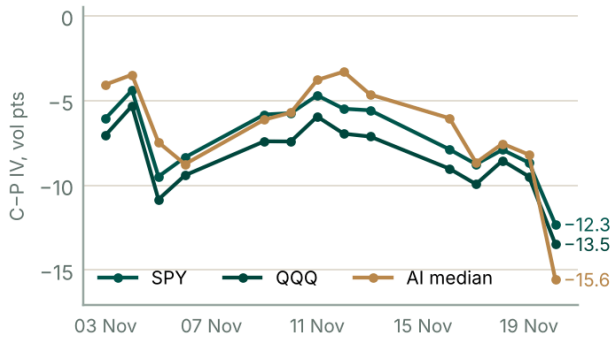
Index volatility nearly doubled as the index slid down the smile

SPY 30-day implied volatility 29.3% (+14.2 points on the week); VIX 35.9, VIX3M 30.9 (20 Nov)

SPY 30-day implied volatility is 29.3% (+14.2 points on the week), and its 25-delta risk reversal (C−P) is −12.3 points, from −5.6 a week earlier, the lowest since our series began on 20 October.

25-delta risk reversal (C−P) since 3 November, vol points

C−P = call IV minus put IV; more negative = dearer puts (20 Nov)



Term structure and index-level measures, 20 November

VIX 35.89, VIX3M 30.94 (20 Nov)

MEASURE	LEVEL	1D CHG	5D CHG
VIX	35.89	+7.45	+16.59
VIX3M	30.94	+3.91	+10.32
VIX ÷ VIX3M	1.16	+0.11	+0.22
VXN (Nasdaq-100)	45.25	+8.77	+15.87
MOVE (Treasuries)	106.3	+10.27	+7.52
1-month implied correlation	36.05	+5.83	+24.25
S&P 500 dispersion	42.32	+5.16	+3.90
SKEW index	138.8	−2.02	−8.30

Cboe indices from EODHD; MOVE and VIX family from Yahoo Finance.

What moved the Libella SPY implied-vol measure

Breakdown not available this week (option snapshots missing)

Breakdown not built.

Vol points; axis starts at . Parts are rounded; the measure is SPY-based and not a VIX replica.

Skew: 25-delta ratio and risk reversal

Ratio = 25-delta put IV ÷ 25-delta call IV (Cboe's measure; higher = dearer puts). RR (C−P) = call IV less put IV, vol points (more negative = dearer puts).

PROXY	RR (C−P) 13 NOV	RR (C−P) 20 NOV	RATIO 13 NOV	RATIO 20 NOV	RATIO CHANGE, BIG DAY
S&P 500 (SPY)	−5.6	−12.3	1.43	1.52	n/a
Nasdaq-100 (QQQ)	−7.1	−13.5	1.32	1.41	n/a
Russell 2000 (IWM)	−4.7	−10.7	1.28	1.40	n/a

The SPY 25-delta skew ratio (put ÷ call) rose to 1.52 from 1.43 and the QQQ ratio to 1.41 from 1.32: puts got dearer against calls, +0.07 of it on Friday alone.

Correlation tripled, but stayed below crash levels

Cboe's 1-month implied correlation index rose +24.3 points to 36.1 and its S&P 500 dispersion index +3.9 to 42.3: options priced both higher correlation and higher dispersion. Even so, correlation is about half the roughly 70% Cboe records on −4% days.

Selling was broad. Only 123 of 502 constituents rose on Friday, 38 on Thursday and 75 on Tuesday. Over the week the equal-weighted S&P 500 fell −6.2% against −8.6% for the cap-weighted index, while SOX fell −17.1%, −10.7% of it on Friday.

DAY	S&P 500	EQUAL-WEIGHT	MEMBERS UP	SEMIS
Mon 16 Nov	−1.9%	−1.0%	149	−5.3%
Tue 17 Nov	−1.0%	−1.5%	75	+0.3%
Wed 18 Nov	−0.2%	−0.2%	237	+0.1%
Thu 19 Nov	−2.0%	−1.8%	38	−2.4%
Fri 20 Nov	−3.7%	−2.0%	123	−10.7%
Week	−8.6%	−6.2%		−17.1%

Sources: Libella Morning Markets notes (S&P 500, equal-weight index RSP, SOX); members up, Libella breadth file (S&P 500 constituents); week from index closes; Cboe indices via EODHD.

Limits. SPY is a proxy for the SPX surface behind the VIX; a single expiry is used; the split assumes a fixed-strike smile and is an attribution within the model, not proof of why investors traded.

AI names: implied volatility rose in all 12, led by CoreWeave and Micron

12 of 12 rose over the week; CRWV +27.0 points, AMZN +9.6 (to 20 Nov)

Implied volatility rose in all 12 AI single names over five sessions and the 25-delta risk reversal (C−P) moved more negative (dearer puts) in all 12. Nvidia's 30-day implied volatility rose +11.2 points to 71.6%, 1.11 times realised. The AI average is illustrative, not the volatility of an investable AI portfolio.

AI single names and ETFs, 30D

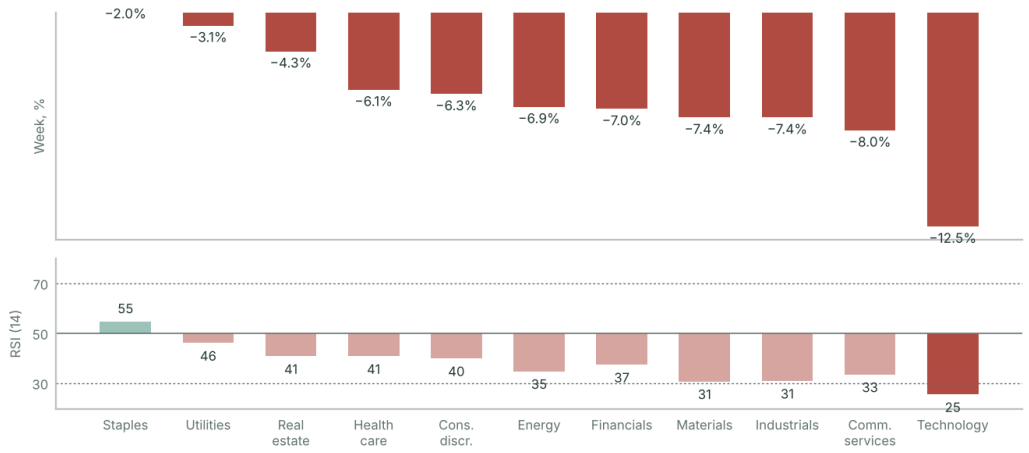
Implied and realised volatility and 25-delta risk reversal (20 Nov)

NAME	ATM IV	TRAIL. RV	IV / RV	25D PUT IV	25D CALL IV	25D RR (C−P)	RR ÷ ATM IV	BF25	5D IV CHG	5D RR CHG
NVDA	71.6	64.2	1.11	n/a	n/a	−17.0	−24%	n/a	+11.2	−13.6
AVGO	77.1	84.9	0.91	n/a	n/a	−16.6	−22%	n/a	+17.7	−11.4
AMD	89.4	131.1	0.68	n/a	n/a	−18.0	−20%	n/a	+21.6	−12.6
TSM	62.0	70.3	0.88	n/a	n/a	−17.3	−28%	n/a	+21.0	−12.0
MU	94.2	111.4	0.85	n/a	n/a	−18.9	−20%	n/a	+25.7	−14.3
MSFT	39.5	37.2	1.06	n/a	n/a	−10.6	−27%	n/a	+12.1	−6.2
GOOGL	42.6	54.4	0.78	n/a	n/a	−10.0	−24%	n/a	+9.9	−8.5
AMZN	42.9	43.0	1.00	n/a	n/a	−10.4	−24%	n/a	+9.6	−6.8
META	49.8	40.0	1.24	n/a	n/a	−10.5	−21%	n/a	+10.4	−8.4
ORCL	86.4	81.8	1.06	n/a	n/a	−16.0	−19%	n/a	+22.6	−11.7
PLTR	65.2	55.4	1.18	n/a	n/a	−14.5	−22%	n/a	+14.8	−9.8
CRWV	123.8	134.5	0.92	n/a	n/a	−29.5	−24%	n/a	+27.0	−24.7
SMH	67.6	72.7	0.93	n/a	n/a	−16.6	−25%	n/a	+19.8	−9.8
IGV	40.1	33.2	1.21	n/a	n/a	−10.5	−26%	n/a	+8.4	n/a

Trailing RV is 20-day close-to-close; RR = 25D call IV − 25D put IV. Twelve selected single stocks plus two ETFs, not an index or investable basket.

S&P 500 sectors: the week's move, with 14-day RSI below

Staples fell least (−2.0%), technology most (−12.5%); RSI ranges from 25 (Technology) to 55 (Staples) (20 Nov)



SPDR sector ETFs, five sessions to 20 Nov. RSI = 14-day relative strength index (Wilder); bars below 50 red (oversold below 30), above 50 green (overbought above 70). Source: Yahoo Finance closes; Libella calculation.

What could move volatility next

Dell, HP Inc. and Workday report on Tuesday, the first test of AI hardware and software demand since the sell-off, and US PCE inflation and GDP follow on Wednesday in a week shortened by Thanksgiving. Two readings argue for calmer index options: dealer short gamma has fallen −57% after expiry and our Volatility Outlook points to a lower VIX. Treasury volatility rose less than equity volatility (MOVE +7.5 to 106.3), and the risk reversal (C−P) on TLT, the long-dated Treasury ETF, turned positive at +1.0, so 25-delta calls on the ETF now carry higher implied volatility than puts. Across sectors, technology has the lowest 14-day RSI (25) and staples the highest (55).

Fund buyers came in, then systematic funds sold

Fund flows, ETF flows, futures positioning, sentiment and trend followers (latest readings, dated)

US equity funds took in +$45.7bn in the week to 18 November, the most since 23 September, including +$10.3bn for technology funds, while US money market funds lost −$19.1bn (LSEG Lipper). Leverage is light, crowded longs trail crowded shorts by −7.4% over the month, and the latest CFTC data, for 17 November, show leveraged funds net short S&P 500 E-mini futures.

What it means for our call

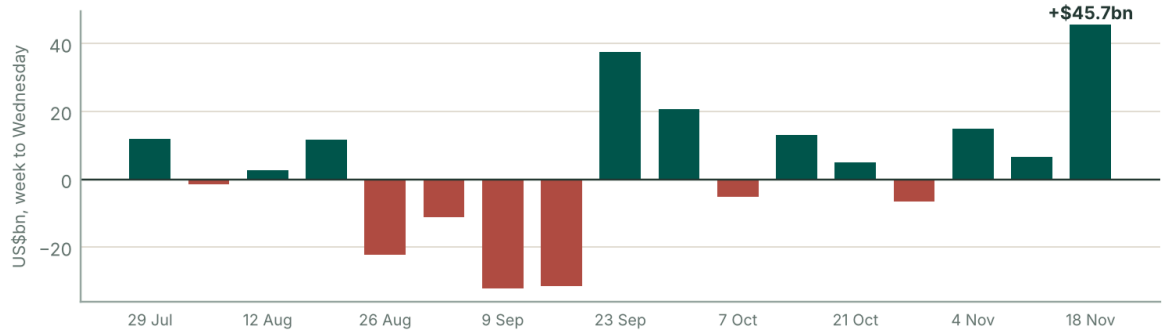
Light leverage limits forced selling but does not rule it out. The $45.7bn of US equity fund inflows was recorded before Thursday's and Friday's falls. The risk is a second wave of trend-following sales: our model gives −$10bn over the five US cash sessions to 30 November if the S&P 500 falls −4.7%. The next dated tests are US PCE inflation on Wednesday 25 November and the next CFTC report.

The week in positioning

MEASURE	LATEST	CHANGE VS PRIOR WEEK	WHERE IT SITS	DATA TO
FUND FLOWS · LSEG LIPPER, WEEK TO 18 NOV				
Global equity funds	+$59.2bn	+$8.2bn	Europe +$15.0bn · US +$45.7bn · Asia −$2.8bn	18 Nov
Money market funds (global)	−$13.9bn	+$23.6bn	cash leaving as equity funds took money in	18 Nov
US equity funds	+$45.7bn	+$39.1bn	inflow in 10 of the last 17 weeks	18 Nov
US bond funds	−$5.6bn	−$6.2bn		18 Nov
ETF FLOWS · LIBELLA TRACKER (SHARES OUTSTANDING), FIVE SESSIONS TO 20 NOV				
US equity ETFs	+$3.3bn	+$2.6bn		20 Nov
Thematic and AI ETFs	−$3.9bn	−$2.5bn		20 Nov
Leveraged ETFs	+$2.4bn	+$3.6bn		20 Nov
Bond and credit ETFs	+$0.3bn	+$1.3bn		20 Nov
FUTURES · CFTC TRADERS IN FINANCIAL FUTURES, LEVERAGED FUNDS, POSITIONS OF TUESDAY 17 NOV				
S&P 500 E-mini	−234,978 contracts	+68,082 contracts	−11.2% of open interest · 94th percentile, 3 years	17 Nov
Nasdaq-100 E-mini	−10,928 contracts	−24,895 contracts	−3.7% of open interest · 85th percentile, 3 years	17 Nov
SENTIMENT, LEVERAGE AND CROWDING · LIBELLA				
Libella Fear / Greed (0–100)	0.5	−23.4	Extreme fear	20 Nov
Libella Leverage composite	7th percentile		light · z −0.50, −0.02 over 4 weeks	20 Nov
Crowded longs minus crowded shorts	−2.5% (5D)		longs still trail shorts over the month (1M −7.4%)	20 Nov
TREND FOLLOWERS · LIBELLA PROXY (SCORE −1 SHORT TO +1 LONG)				
S&P 500	Short (score −0.49)	score −0.31		20 Nov
US 10-year Treasury	Short (score −0.50)	score +0.17		20 Nov
US dollar	Long (score +0.90)	score −0.06		20 Nov
Gold	Short (score −0.83)	score −0.05		20 Nov

US equity fund flows, weekly

US$bn, week to Wednesday; inflows green, outflows red



Sources: fund flows, LSEG Lipper data, Reuters; futures, CFTC Traders in Financial Futures (weekly, Tuesday positions); ETF flows, Libella tracker from changes in shares outstanding; Fear / Greed, Leverage, crowding and trend-follower proxy, Libella. EPFR: its own weekly figures are added as a separate row when they arrive; never combined with LSEG Lipper.

Flows: who still has to sell

Libella model estimates of mechanical flows, dealer hedging, retail selling and margin (data to 20 Nov)

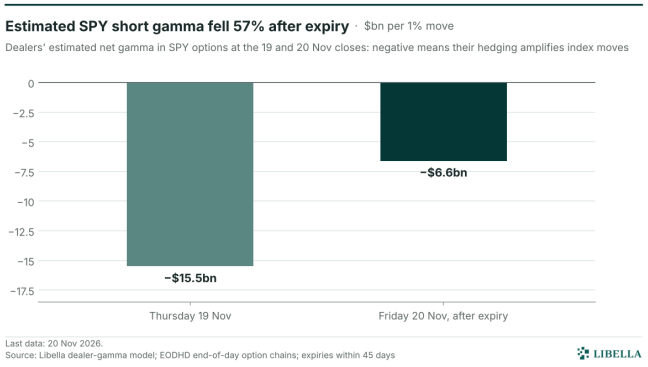
Our models put the largest share of Friday's mechanical selling on leveraged ETFs: an estimated $39bn at the close, 2.3 standard deviations (sd) beyond the trailing-year mean and the fifth-largest in our data since January 2015. Volatility-control funds added an estimated $11bn and trend followers $10bn. Leveraged ETFs reset daily and buy after an up day; trend followers adjust over several sessions and are already short an estimated $12bn of US index futures. Goldman Sachs' trading desk (20 Nov) expects another substantial wave of systematic selling; our CTA model, sized to Goldman's reported US figures, implies most of it has already happened.

Estimated mechanical equity flows

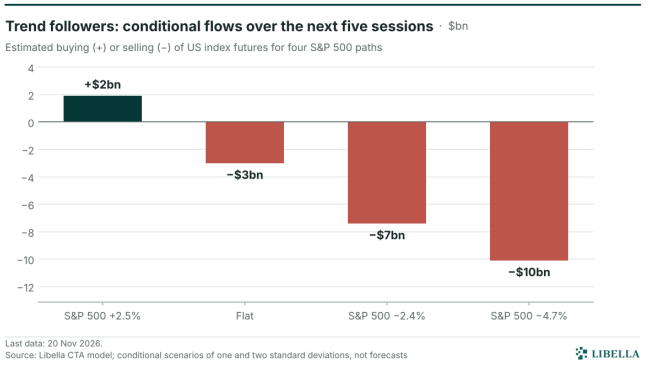
FLOW	FRI 20 NOV	V HISTORY	NEXT FIVE US CASH SESSIONS (CONDITIONAL)
Leveraged ETFs	−$39bn	−2.3 sd	Reset daily; buyers after an up day, sellers after a down day
Volatility-control funds	−$11bn	−0.9 sd	+$2bn in a calm week; −$9bn in a volatile one (equity exposure 46%)
Trend followers (CTAs), US index futures	−$10bn	−2.5 sd	+$2bn at +2.5%; −$3bn if flat; −$7bn at −2.4%; −$10bn at −4.7%

Libella estimates, data to 20 Nov 2026: model outputs, not observed transactions; the three models are separate and may overlap. sd from each model's own daily history since 2010; leveraged ETFs against the trailing-year mean. CTA scenarios are S&P 500 moves over the US cash sessions of 23, 24, 25, 27 and 30 Nov (US markets shut on 26 Nov).

Dealer gamma before and after expiry



Trend followers: five-session scenarios



Dealers: less hedging pressure after expiry

Our estimate of SPY dealer short gamma fell −57% to $6.6bn per 1% move after Friday's expiry, from $15.5bn on Thursday. What is left sits around 7,000 and 6,750, either side of Friday's close of 6,910. Dealers are also short gamma in QQQ and IWM, by $2.0bn and $1.8bn per 1% move. Dealers' hedging turns stabilising above 7,330, and trend followers turn buyers above 7,278.

Retail: selling at the open, then buying

After 15 daily S&P 500 falls of −2% or more since July 2024, retail investors were net sellers of megacap technology the next morning on 10 occasions and net buyers by the second morning on 10 of 14. At Friday's open they sold a net $190m (1.3 sd). Our simulation of retail margin exposure, calibrated to Robinhood's $22.9bn margin book at 31 October, gives $0 to $1.1bn of margin-related sales, rising to $2.8bn if brokers raise requirements by 10 percentage points. No broker publishes margin calls; account leverage is assumed.

Hedge funds: already de-grossed

Hedge fund de-leveraging ran at the fastest weekly pace in more than a decade (Morgan Stanley Prime Brokerage, 11 Nov). Our hedge fund long-book proxy fell −9.9% over the past month against −2.5% for the short-book proxy.

Reversal screen: no signal yet

A stock qualifies when it is technically stretched and its 30-day risk reversal (C−P) improves on the day. In our back-test that combination was followed by a mean +6.2% over ten sessions, against −0.6% without the improvement (78 cases on seven AI stocks, September 2024 to October 2026, before costs). On Friday 17 of our 20 most actively traded option names were stretched, and skew deteriorated in every one.

Sources: Libella models (leveraged-ETF rebalance, volatility control, CTA, dealer gamma, retail flow, margin simulation, reversal screen); FINRA off-exchange trades via Databento; option data, YFDP and EODHD; Robinhood October operating data; Goldman Sachs trading desk (20 Nov); Morgan Stanley Prime Brokerage (11 Nov). Estimates and scenarios are conditional, not forecasts or orders. Back-tests exclude trading costs.

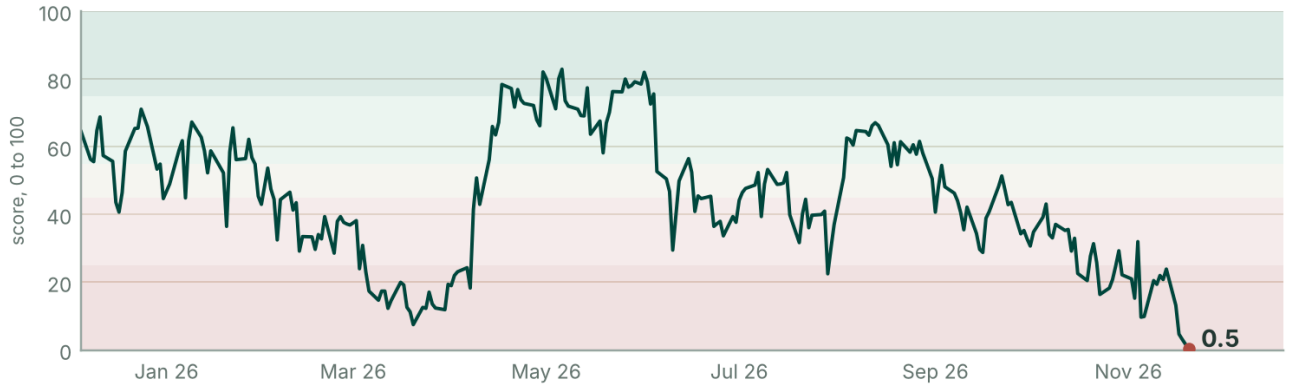
Appendix A: Fear/Greed, cross-asset and rates tables

A1 Libella Fear/Greed Monitor: seven components

Scale 0 to 100 (20 Nov); each component is a percentile within its own trailing 252 sessions, equal-weighted; extreme fear below 25, extreme greed above 75; junk bond demand = ICE BofA US high-yield OAS less investment-grade OAS (FRED)

COMPONENT	READING	BAND	SCORE	AS OF
Market momentum	−8.90% v 125-day average	extreme fear	0.2	Fri 20 Nov
Stock price strength	−5.21% of members	extreme fear	0.2	Fri 20 Nov
Stock price breadth	volume summation index 2186 (read the trend, not the level)	extreme fear	0.2	Fri 20 Nov
Put and call options	0.71 ratio	extreme fear	2.6	Fri 20 Nov
Market volatility	94.7% v 50-day average	extreme fear	0.2	Fri 20 Nov
Safe haven demand	−10.4% (20-day)	extreme fear	0.2	Fri 20 Nov
Junk bond demand	258.0 bp	extreme fear	0.2	Thu 19 Nov

Monitor score since 21 November 2025, 0 to 100 (latest 0.5); shaded bands run from extreme fear to extreme greed



A2 Cross-asset implied volatility and 25-delta risk reversal, 30D

Libella 25-delta surface, expiry nearest 30 days (20 Nov)

ASSET (PROXY)	30D IV (ATM)	TRAIL. RV	IV / RV	5D IV CHG	25D PUT IV	25D CALL IV	25D RR (C−P)	RR ÷ ATM IV	BF25	5D RR CHG
S&P 500 (SPY)	29.3	25.6	1.14	+14.2	n/a	n/a	n/a	n/a	n/a	n/a
Nasdaq 100 (QQQ)	38.8	39.0	0.99	+13.8	n/a	n/a	n/a	n/a	n/a	n/a
Russell 2000 (IWM)	31.1	27.3	1.14	+12.5	n/a	n/a	n/a	n/a	n/a	n/a
Emerging mkts (EEM)	41.7	36.3	1.15	+13.1	n/a	n/a	n/a	n/a	n/a	n/a
Treasuries (TLT)	13.3	11.0	1.21	+0.9	n/a	n/a	n/a	n/a	n/a	n/a
HY credit (HYG)	8.2	4.7	1.73	+3.1	n/a	n/a	n/a	n/a	n/a	n/a
Gold (GLD)	31.4	31.0	1.01	+7.9	n/a	n/a	n/a	n/a	n/a	n/a
Oil (USO)	49.6	46.7	1.06	+3.5	n/a	n/a	n/a	n/a	n/a	n/a

RR = 25D call IV − 25D put IV (more negative = dearer puts); RR ÷ ATM IV = RR as a share of ATM IV; BF25 = average of 25D put and call IV − ATM IV. 5D from 13 Nov. IV/RV is not a measured variance risk premium. n/a = no 25-delta quote.

A3 What markets price

Fed policy rate 3.88% now, 4.70% in 12 months (19 Nov)

MARKET-IMPLIED	NOW	12 MONTHS AHEAD	MONTH EARLIER*
Fed: effective now, SOFR futures ahead, %	3.88	4.70	4.73
ECB: €STR now, AAA curve ahead (approx.), %	2.44	3.25	3.13
BoE Bank Rate, %	4.00	4.93	4.94
US 10-year yield, %	4.92	n/a	5.12
Brent futures, $/bbl	89.72	78.08	88.68

Market-implied, not forecasts; latest inputs dated 19 Nov, 20 Nov, 23 Nov. *12-month point a month earlier (US 10-year: spot). Sources: CME SOFR futures (Fed); ECB AAA curve, approximate; BoE OIS curve; FRED DGS10; ICE Brent via Yahoo.

Data notes. Option figures: Libella snapshots of Yahoo Finance option chains, about 15 minutes delayed, close slots of 13 Nov and 20 Nov. VIX family and Cboe indices: EODHD and Yahoo Finance to 20 Nov. Rates and spreads: FRED. Earnings and valuation: FactSet Earnings Insight, 20 Nov 2026 report (93% reported; 84% beat EPS estimates, 5-year average 78%; aggregate EPS surprise +3.5%, 5-year average +7.5%; blended Q3 growth +32.9%; forward 12-month P/E 17.1). Library: 12-month Fear/Greed history, skew history and breakdown method.

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