J.P.Morgan

Global Markets Strategy
01 October 2026

Retail Radar

Sep 30 – Weak Sentiment, Record Tilt to TLT

Retail Trading Activity Overview

- **September ended much as it began:** retail flows remained subdued this week at the 12%ile, extending the softness seen earlier this month. **In aggregate, September closed as the weakest month for retail activity since Dec 2024**, Figure 2. Retail investors remained apathetic to this week's market developments: daily flows remained steady in the 15-30%ile range regardless of price action, Figure 11. Overall, ETF flows continued to probe new lows (3%ile), while single stock flows edged down to the 35%ile, with only minimal single name activity on Tuesday and Wednesday, Figure 11.
- ETF demand remained under pressure— **September's monthly ETF flows approached levels last seen during the 2025 Momentum Unwind**, which preceded the Liberation Day "Buying-The-Dip" episode, Figure 1. This week, the weakness was driven by declines in International, Crypto and Commodity ETF flows. Partially offsetting this, fixed income ETF inflows picked up, led by the largest rotation into long-end Treasury ETFs on record (+5.4z) — and driven mainly by **outsized inflows into TLT (6.1z**, Figure 4**) as yields kept drifting higher**, report.
- **The Mag 7 continued to dominate single-stock purchases**; outside of Tech, every sector was net sold when excluding Mag 7 names. In line with previous weeks, retail favored Semis and Hardware over Software, with NVDA driving Semis purchases. Interestingly, retail investors made no discernible incremental move to position ahead of Micron's earnings announcement on Wednesday (0.0z). The company delivered strong earnings and guidance pointing to healthy chip demand; the setup for another beat-and-raise was constructive heading into the print, with a memory backdrop that remains structurally tight across both DRAM and NAND, report.
- **Small caps have continued to underperform large caps as Treasury yields tested new 22-year highs**—consistent with the view outlined in our report; indeed, smaller companies rely more heavily on short-term bank financing, generally sub-5-year maturities at floating rates. Retail investors are typically net buyers of R1000 stocks, and net sellers of R2000 stocks, a trend that has been accelerating since March, Figure 7 and Figure 8. This has coincided with a further rise in median Short Interest (as a % of shares outstanding, "SISO") across Russell 2000 companies, now at the 99.8%ile, Figure 5. S&P 500 SISO has also risen recently, but the July drawdown during the Momentum Unwind pushed it to comparatively lower levels (96.2%ile, Figure 6).
- **Across Energy ETFs and single stocks, retail flows have flipped from mildly positive/flat to mildly negative** as flows through the Saudi E/W pipeline were restored last week. Oil prices have held near $100 this week, despite Middle East oil exports now just 11% below pre-war levels, report. That headline improvement masks an uneven recovery: crude flows have rebounded to 98% of pre-war levels, while product exports remain at 58%. Hormuz flows have now nearly returned to their late June highs.

Equity Strategy and Quantitative Research

Arun Jain AC
(1-212) 622-9454
arun.p.jain@jpmorgan.com
J.P. Morgan Securities LLC

Shizuka Suga, CFA AC
(1-212) 622-2134
shizuka.suga@jpmorgan.com
J.P. Morgan Securities LLC

Ana Pous Avila
(1-212) 622-0496
ana.pousavila@jpmorgan.com
J.P. Morgan Securities LLC

William Matheson
(1-212) 622-9538
william.matheson@jpmchase.com
J.P. Morgan Securities LLC

Khuram Chaudhry
(44-20) 7134-6297
khuram.chaudhry@jpmorgan.com
J.P. Morgan Securities plc

Bhupinder Singh AC
(1-212) 622-9812
bhupinder.singh@jpmorgan.com
J.P. Morgan Securities LLC

Dubravko Lakos-Bujas AC
(1-212) 622-3601
dubravko.lakos-bujas@jpmorgan.com
J.P. Morgan Securities LLC

Past Issues:

9/23 - Muse, SOXX, MTUM, Rates Sensitivity
9/16 – Retail Blinks as Rates Swing
9/9 – Retail Reassesses Rates, Short-Term Momentum Rotates
9/2 – Energy over Software, Precious Metals over Miners
8/26 - Earnings, Semis and Rates
8/19 – Duration to Dividend
8/12 – From Earnings to Macro
8/5 - Hyperscaler Earnings Lift Sentiment
7/29 - Momentum Unwind, Cutting Tech Losses
7/22 - Momentum Cooldown, Hyperscaler Earnings
7/15 - Trading Earnings as Flows Cool
7/8 - Split-the-Dip as Momentum Cools
7/1 - Same Playbook, Buying the Dip
6/24 - Remembers the Dip, MU Serves Right
6/17 - Tech Craze Spillover to Communications
6/10 - Tech Selling amidst Drawdown, World Cup
6/3 - MEME Earnings, Trading around IPOs
5/27 - Theme Stack: AI, Memory, Space, Quantum
5/13 - Software vs Semis Positioning
5/6 - Memory and AI, the Catch-Up Trade
4/29 - Peak Earnings, Peak Mag-7
4/22 - Towards a MEME Revival?
4/15 - Back to Average

See page 19 for analyst certification and important disclosures.

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

J.P.Morgan

4/8 - Not Buying Despite the Ceasefire
4/1 - In Defensive Mode
3/25 - Selling Rips
3/18 - From FOMO to FOHO: Fear Of Higher Oil
3/11 - Buying Oil, Selling Energy
3/4 - Cautiously Optimistic
2/25 - Balanced Optimism
2/18 - AI Software Averaging Down
2/11 - Positioning around Dislocations
2/4 - Softening Sentiment, Software vs Semis
1/28 - Earnings, Intl Equities, Precious Metals
1/21 - Unfazed through Vol Shock
1/14 - The January Effect?
1/7 - December Spree and a good start to January

We thank G. K. Kiruthik Srinivaas and Aditya Mulye of J.P. Morgan India Private Limited for their significant contributions to this report.

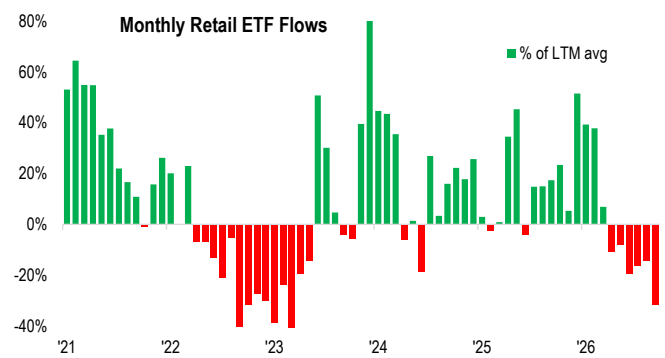
Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

J.P.Morgan

Retail Trading Activity in Numbers for the Week: Sep 24 to Sep 30

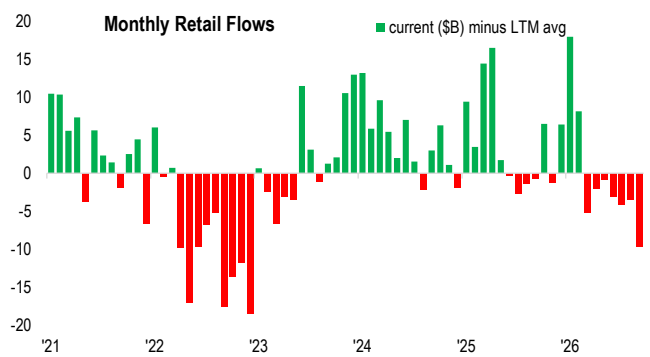
- Retail flows were $4.1B this week, well below the 12-month average of $6.8B/week. Retail investors continued to favor ETFs (+$3.4B) over Single Stocks ($0.7B).
- Outside of **Broad Based Large Cap Equity ETFs** (+$1.4B), retail ETF buying was influenced by **Fixed Income Treasuries (Long-term)** (+$260M), **Equity Style Call/put writing** (+$188M), **Equity Broad Based Multi Cap** (+$169M) and **International Equity EAFE** (+$148M).
- This week, retail investors **continued to buy AI datacenters and electrification (JPAMAIDE), Top 30 AI/Datacenter Beneficiaries, Mag 7, Growth, AI Software/Product/Monetization**, along with **US Companies with High Direct China Revenue Exposure**, see Figure 4.
- **Activity in Mag7** this week: Retail investors bought NVDA (+$1,286M), TSLA (+$514M), GOOG/L (+$153M), AMZN (+$146M), and sold AAPL (-$18M), MSFT (-$27M) and META (-$48M).
- **Outside of Mag7**, retail investors favored Tech (+194M) and were net sellers of all other sectors, led by Financials (-$278M), Communications (-$276M), Communication (-$235M) and Materials (-$199M).
- **Top five retail stocks last week:** NVDA (+$1,286M), TSLA (+$514M), SNDK (+$327M), GOOG/L (+$153M), AMZN (+$146M). **Bottom 5 retail stocks:** INTC (-$199M), SPCX (-$171M), ORCL (-$88M), NBIS (-$60M), BE (-$54M).
- **In options**, retail share is off its highs, Figure 43. The most traded options were in the following names, echoing previous weeks: TSLA, META, MU, NVDA, AMD, SNDK, AMZN, MSFT, GOOG/L and AAPL. For the most bought/sold delta and gamma names, see Retail Activity in Options. Also see Retail Investors Options Activity by Sectors.
- **Futures Activity (Non Retail)** : The past week witnessed heavy buying from futures traders at $33B, majorly led by ES ($19.7B), NQ (~$12.8B) and RTY (~$0.5B).

Figure 1: Retail Purchases of ETFs are Slowing



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 2: Retail Purchases of Cash Equities are Slowing



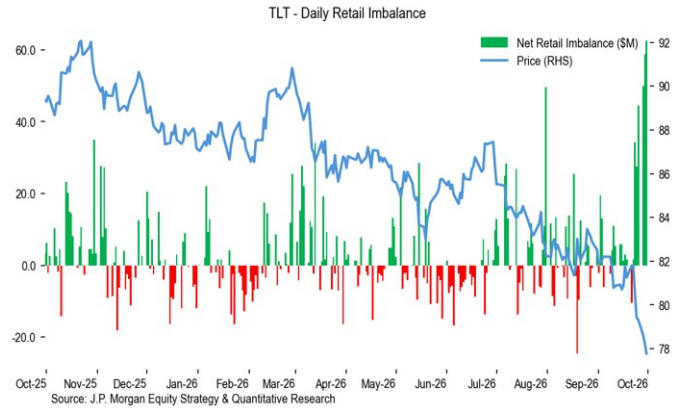
Source: J.P. Morgan Equity Strategy & Quantitative Research

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

J.P.Morgan

Figure 3: Retail Imbalance in TLT

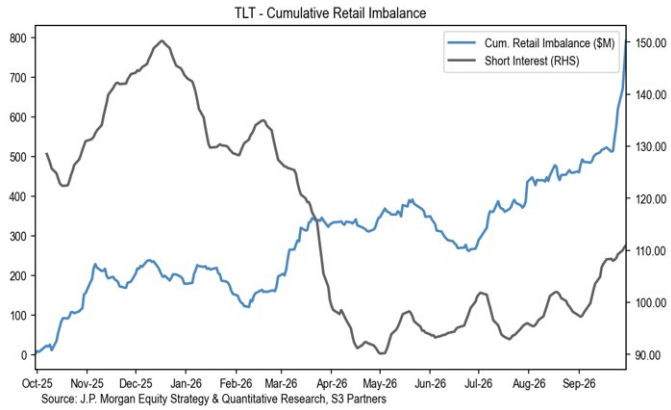
As of Sep 30th



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 4: Cumulative Retail Imbalance in TLT

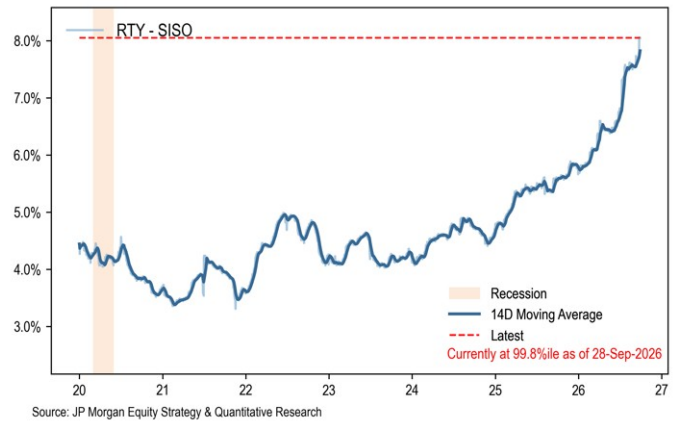
As of Sep 30th



Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Figure 5: Short Interest in the Russell 2000

Median, Short Interest over Shares Outstanding



Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Figure 6: Short Interest in the S&P 500

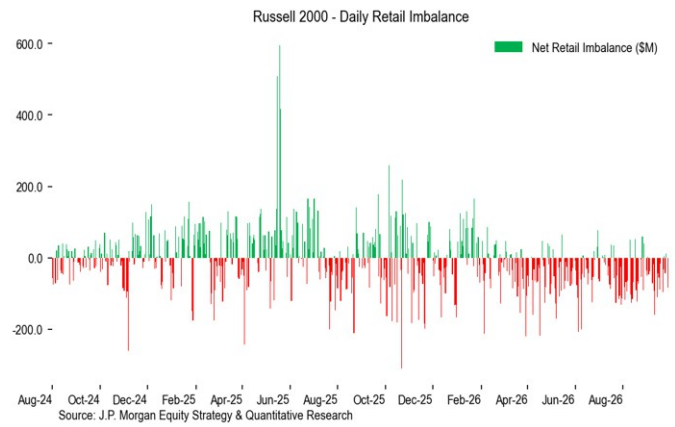
Median, Short Interest over Shares Outstanding



Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Figure 7: Retail Investors are net sellers of Russell 2000 stocks...

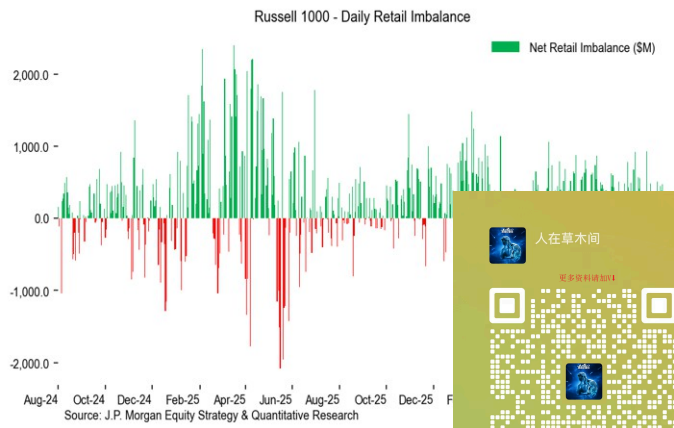
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 8: … but are typically net buyers of Russell 1000 stocks

As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research

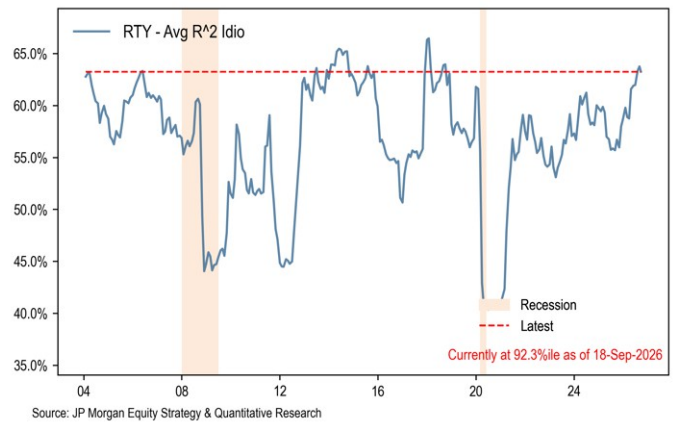
人在草木间

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

J.P.Morgan

Figure 9: Avg. Stock Idiosyncrasies in the Russell 2000 at 92%ile

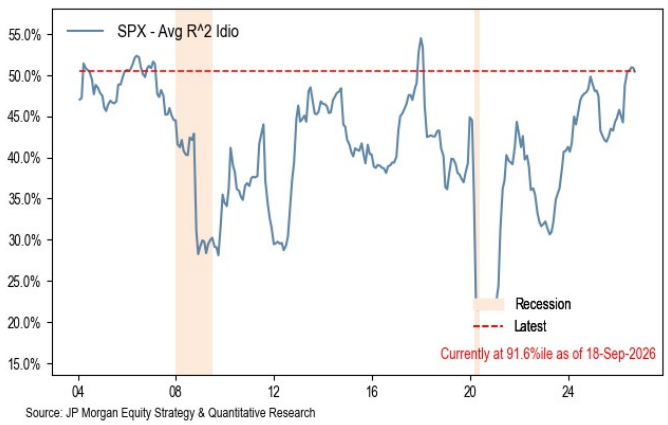
Residual of Market, Sector, Macro and Style Factors



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 10: Avg. Stock Idiosyncrasies in S&P 500 at 92%ile

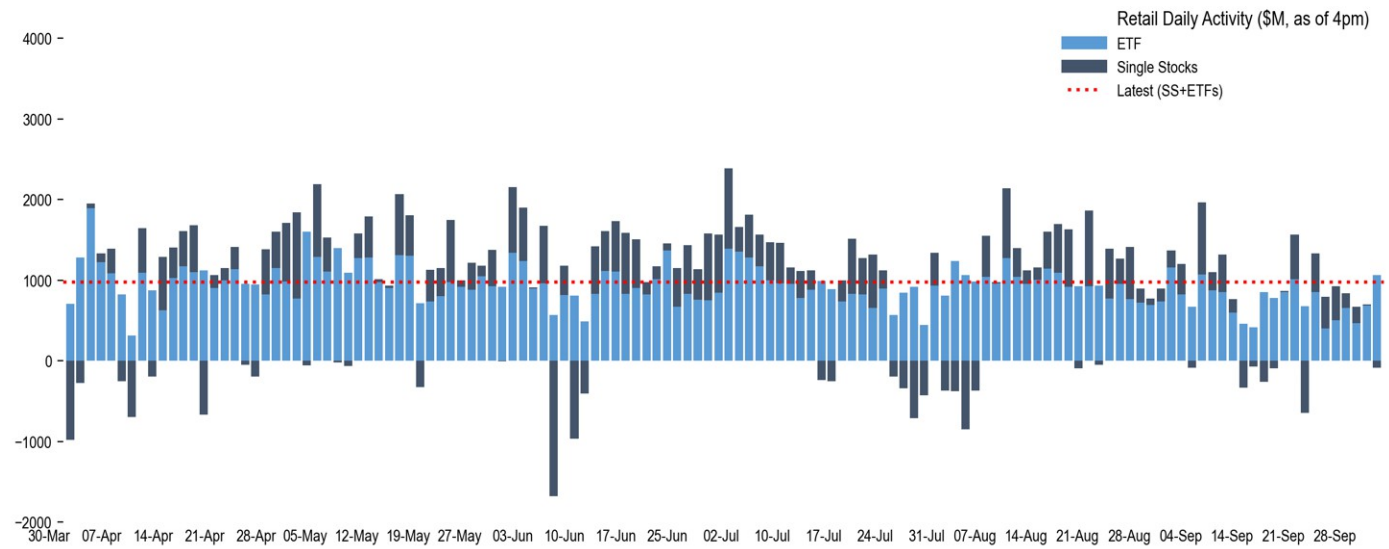
Residual of Market, Sector, Macro and Style Factors



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 11: Retail Investor Daily Purchases of Stocks and ETFs

$M, as of Sep 30th



Source: J.P. Morgan Equity Strategy & Quantitative Research

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

J.P.Morgan

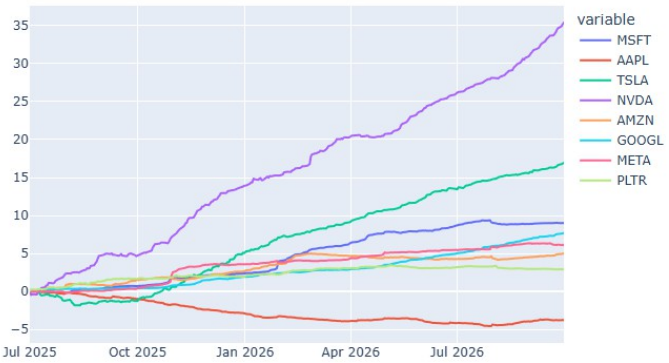
Retail Cash Activity – Overview

Figure 12: Retail Single Stock Activity by Themes

Thematic Baskets		Δ in Retail Turnover ($Bn)		
Basket	Index	Week Ago	Month Ago	YTD
AI/Datacenter/Electrification	JPAMAIDE	7.86	16.28	59.68
S&P 500 Top 30 AI/Datacenter Beneficiaries	JPRAID30	7.46	15.01	57.39
Magnificent 7	Mag7	7.26	14.98	49.21
Growth	JPAMGROW	6.99	13.62	54.90
US Companies with High Direct China Revenue Exposure	JPAMCREV	5.94	12.07	34.34
AI Software/Product/Monetization	JPAMAISO	5.37	10.36	36.79
Geopolitically Sensitive Energy Companies	JPAMGNRG	-0.13	-0.34	-2.29
Domestic	JPAMDOME	-0.17	-0.42	-0.73
US Inflation	JPAMINFL	-0.18	-0.44	-2.42
International	JPAMINTL	-0.26	-0.33	0.09
Cheap Low Vol	JPAMLVOL	-0.33	-0.62	-1.36
Inflation Outperformers	JPAMINOP	-0.52	-0.96	-4.40

Source: J.P. Morgan Equity Strategy & Quantitative Research. See report, report, and report for details on above baskets. Note: J.P. Morgan Research does not provide research coverage of the baskets mentioned here, and investors should not expect continuous analysis or additional reports relating to them.

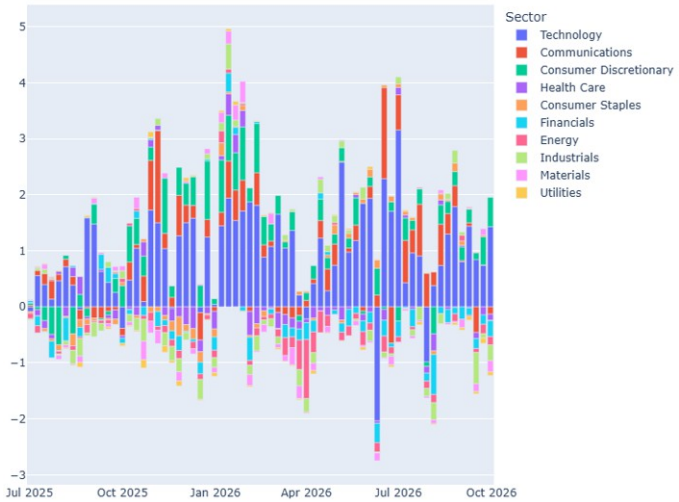
Figure 13: Retail Cumulative Purchases in Mag 7 + PLTR ($B)



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 14: Retail Single Stock Activity by Sector ($B)

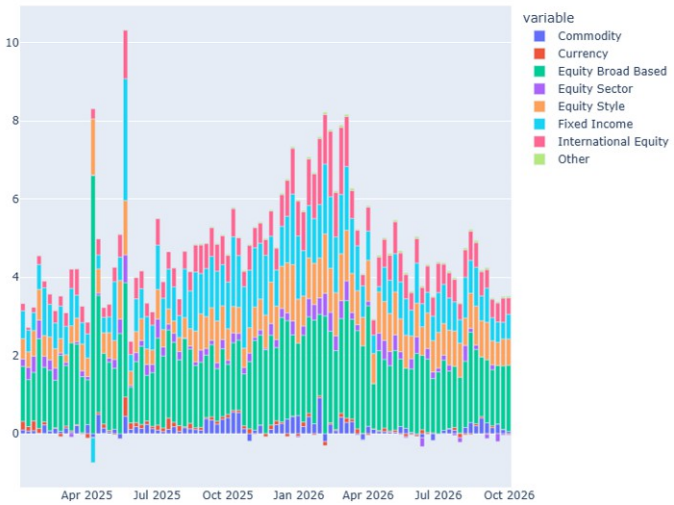
Activity is dominated by Tech and Cons. Disc.



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 15: Retail ETF Activity by Themes ($B)

Buying / Selling of ETFs aggregated by themes.



Source: J.P. Morgan Equity Strategy & Quantitative Research

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

Single Stock Stories with Elevated Retail Activity

Hedge Funds vs. Retail: High Short Interest Meme Stocks

- **ALOY ($0.5M bought last week, -0.2z, Figure 18):** The company implemented management changes, appointing a rare-earth processing veteran as COO, and has existing offtake agreements to purchase the majority of SRC's planned production of specified rare-earth products. Retail investors have shown strong interest since mid-March 2026, with net purchases totaling $20M, alongside moderate short interest of ~18% of float, up 17% over the same period.
- **EU ($0.2M sold last week, -0.3z, Figure 19):** The company engaged North Star Investor Relations for consulting services and announced a distribution of Verdera Energy Corp. common shares to shareholders of record. Retail inflows have been solid, totaling $8M over the past two weeks and ~$15M year-to-date, alongside elevated short interest of ~25% of float, up 13% over the same period.
- **EVTL ($2M bought last week, 0.4z, Figure 20):** The company underwent management changes and opened the Valo Assembly Centre, adding 60K square feet of assembly capacity supported by a £1.5M investment. Since mid-August 2026, retail investors have purchased $30M, alongside rising short interest of ~16% of float, up 10% since May 2026.

Earnings Stories

- **MU ($19.8M bought on 9/30, -0.1z, Figure 21):** Micron reported a revenue and earnings beat today AMC, as largely expected, with the stock rising ~2% after hours. Next quarter's guidance also came in above expectations. The setup for another beat-and-raise was constructive heading into the print with a memory backdrop that remains structurally tight across both DRAM and NAND (link).
- **CCL ($14.4M sold on 9/29, -3.5z, Figure 23):** Carnival Corporation's shares rose +13% after the cruise line operator delivered a very strong quarter despite rising oil prices and raised its full-year guidance (link). Shares of peers also rose, with **RCL ($3.4M bought on 9/29, 0.9z, Figure 25)** and **NCLH ($0.3M sold on 9/29, -0.1z, Figure 27)** up +5-6%. Also see our CCL trade recommendation from our derivatives analysts: report.
- **P ($12M sold last week, -1.2z, Figure 29):** Everpure reported a robust earnings beat, alongside better-than-expected guidance for both F3Q27 (Oct-end) and FY27 (Jan-end), driven largely by a continuation of the strong demand momentum seen in F1Q27. Key drivers of the upside included demand holding up considerably better than initially feared following industry-wide price increases, and greater confidence in its ability to source components and secure supply. Beyond FY27, this momentum is expected to carry into FY28 and will be further bolstered by the hyperscaler opportunity, where shipments are expected to reach tens of EBs in FY28 (vs. double-digit EBs in FY27). The stock is up +18% since its 9/23 (link). Note that the enterprise storage solutions company was just added to the S&P 500 in its most recent rebalance.

Macro & Fundamental Stories

- **VEEV ($2.3M sold last week, 0.1z, Figure 31):** Veeva Systems rose +7% in the past week after the company disclosed a large biopharmaceutical company had chosen its Vault CRM system, which now has global commitments from 14 of the top 20 biopharma companies. The announcement was consistent with guidance but appears to have landed faster than the Street expected (link).
- **KOD ($5M bought on 9/28, 11.4z, Figure 33):** Kodiak Sciences shares jumped 170%+ after the clinical stage biopharma company announced that its two experimental eye drugs, Zenkuda and tabirafusp-ted, met primary endpoints in a Phase 3 study (link).
- **MGM ($2.9M bought on 9/25, 3.5z, Figure 35):** MGM Resorts International is considering making a bid for **PPLI ($1.7M bought on 9/25, 4.8z, Figure 37)**, according to the WSJ. According to our analysts, MGM's approach could make sense as they would effectively have an accelerated share repurchase for 27% of its stock in an off-market deal (note PPLI owns 66.8M shares of MGM or 27% of S/O). For PPLI, there could be a transaction structure that limits the MGM stake's tax liability (est. cost basis is ~$19/sh vs. MGM's current ~$34/sh price). Our analysts assume the rest of PPLI's other print/digital assets (e.g., People Magazine, Food & Wine, online), which generate ~$270m in annual EBITDA, would be divested as they're non-core to MGM (link). MGM is down ~10% since the news vs. PPLI +15%.

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

Meme Battlegrounds: Retail Buying vs. Hedge Fund Shorting

In this section, we are flagging a few stocks that are heavily mentioned on Social Media and have high Retail buying as well as high Hedge fund Shorting. These stocks may experience unexpected flows in case of increased activity.

Social Media Screen and Retail Activity

Figure 16: Most Discussed Stocks/ETFs on Social Media

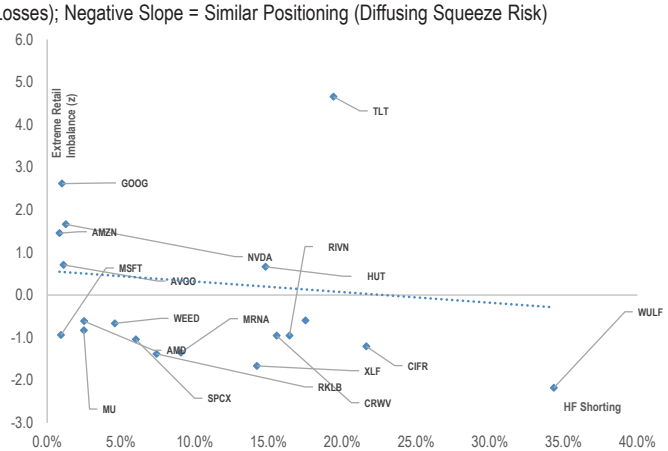
Top 20 names based on social media traction over the week (Social Interest); Scaled by market cap

Ticker	Name	Mkt Cap ($B)	Social Interest Score	Median Short Interest (% float)	Extreme Imbalance 1D Z	Date of Imbalance
CIFR	Cipher Digital Inc	6.9	38.4	21.6%	-1.2	23-Sep
WULF	Terawulf Inc	7.5	38.2	34.3%	-2.2	23-Sep
HUT	Hut 8 Corp	11.4	37.5	14.8%	0.7	24-Sep
AKAM	Akamai Technologies Inc	15.6	37.0	13.5%	8.9	25-Sep
CRWV	CoreWeave Inc	48.0	35.3	15.6%	-1.0	29-Sep
AMD	Advanced Micro Devices Inc	991.8	33.5	2.5%	-0.6	24-Sep
WEED	Roundhill Cannabis ETF	0.0	32.2	4.6%	-0.7	23-Sep
MU	Micron Technology Inc	1202.9	31.5	2.5%	-0.8	24-Sep
RIVN	Rivian Automotive Inc	21.7	31.5	16.4%	-1.0	24-Sep
NVDA	NVIDIA Corp	5475.8	30.9	1.3%	1.7	24-Sep
AVGO	Broadcom Inc	1695.1	30.9	1.1%	0.7	28-Sep
AMZN	Amazon.com Inc	2660.7	30.8	0.8%	1.5	23-Sep
TLT	iShares 20+ Year Treasury Bond ETF	46.5	30.7	19.4%	4.7	29-Sep
SPCX	Space Exploration Technologies Corp	2025.6	30.7	6.0%	-1.0	29-Sep
XLF	State Street Financial Select Sector SPDR ETF	51.6	30.6	14.2%	-1.7	28-Sep
MSFT	Microsoft Corp	3779.3	30.4	0.9%	-0.9	25-Sep
RKLB	Rocket Lab Corp	44.6	30.2	7.4%	-1.4	24-Sep
GOOG	Alphabet Inc	4148.1	29.9	1.0%	2.6	23-Sep
MRNA	Moderna Inc	81.2	29.5	9.1%	-1.4	23-Sep
SOXL	Direxion Daily Semiconductor Bull 3X ETF	23.9	29.4	17.5%	-0.6	25-Sep

Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

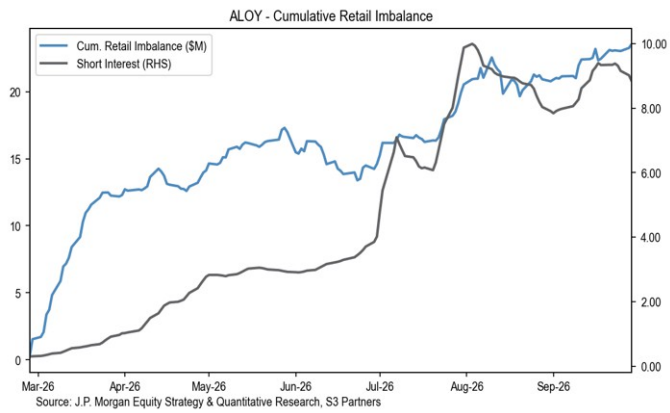
Figure 17: Decreasing Squeeze Risk in Meme Stocks: Retail Selling in High Short Interest Names

Positive Slope = Opposite Positioning (Heightened Risk of Short Squeeze or Retail Losses); Negative Slope = Similar Positioning (Diffusing Squeeze Risk)



Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Figure 18: Retail Activity in ALOY

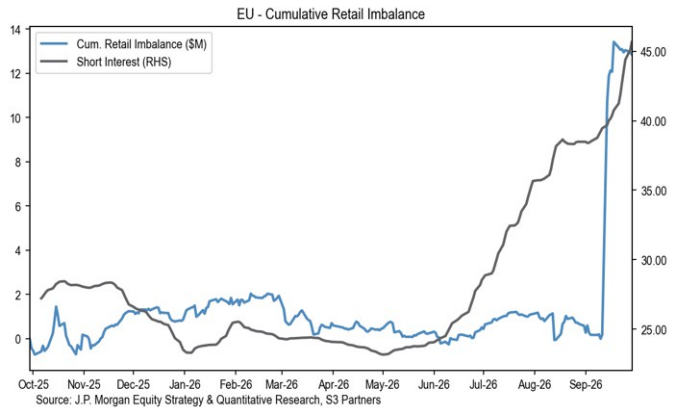


Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

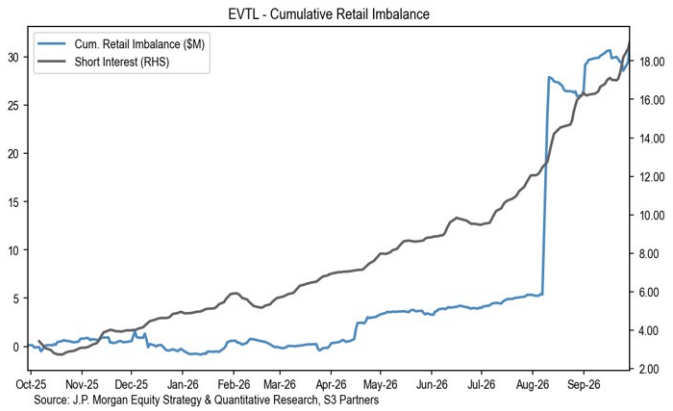
J.P.Morgan

Figure 19: Retail Activity in EU



Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Figure 20: Retail Activity in EVTL



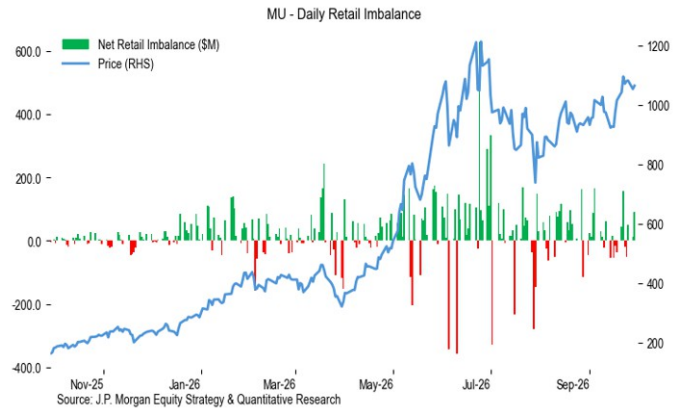
Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

Macro & Fundamental Stories

Figure 21: Retail Imbalance in MU

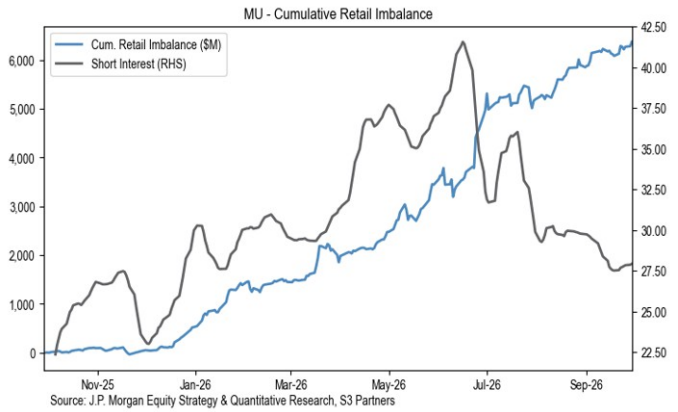
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 22: Cumulative Retail Imbalance in MU

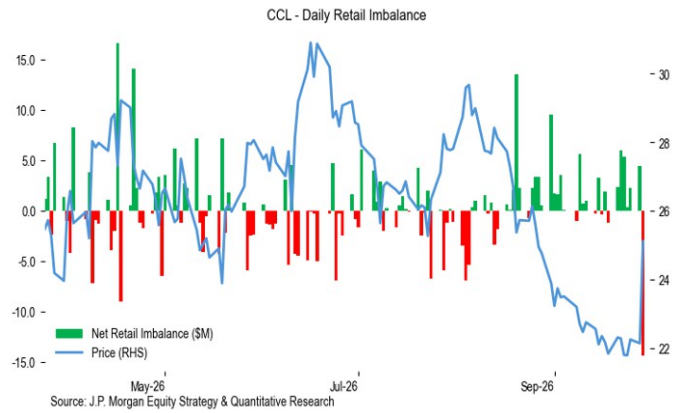
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Figure 23: Retail Imbalance in CCL

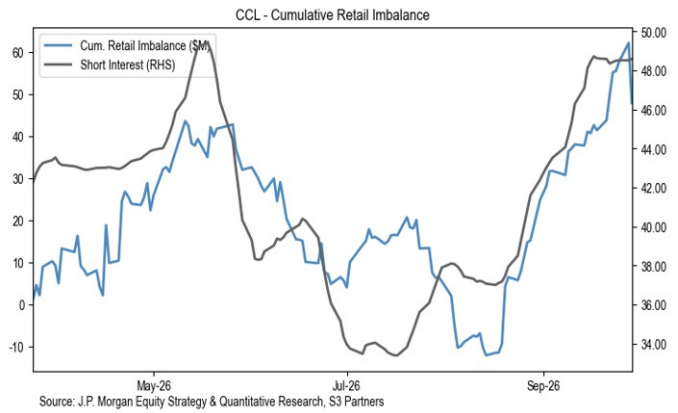
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 24: Cumulative Retail Imbalance in CCL

As of Sep 29th



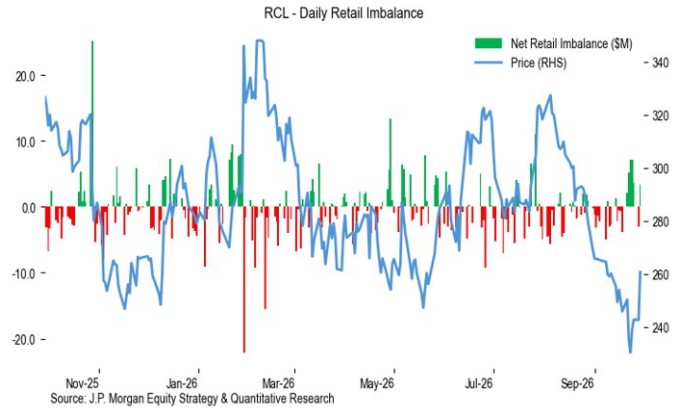
Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

J.P.Morgan

Figure 25: Retail Imbalance in RCL

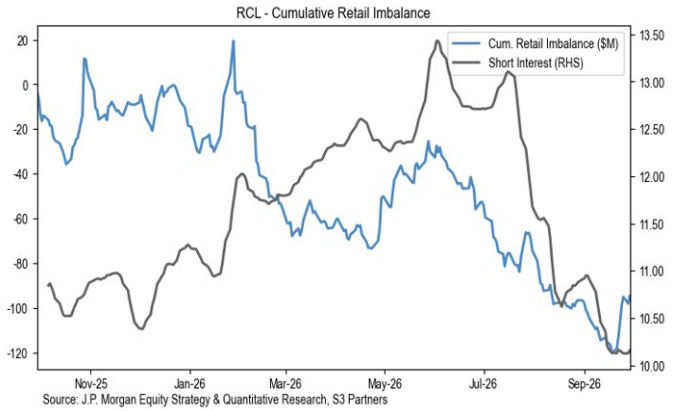
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 26: Cumulative Retail Imbalance in RCL

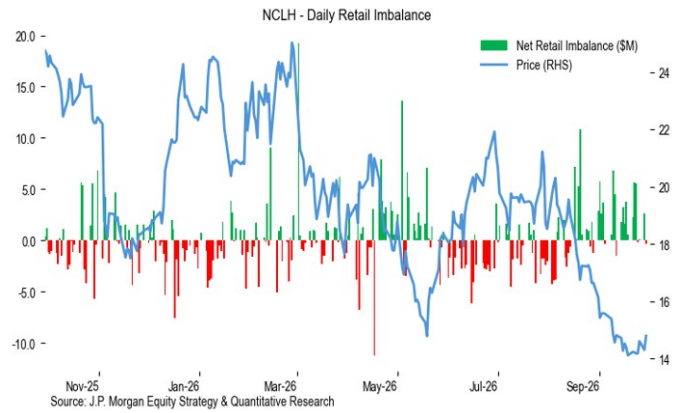
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Figure 27: Retail Imbalance in NCLH

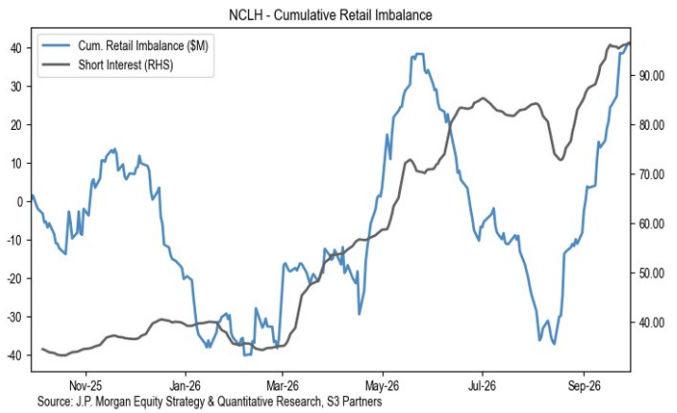
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 28: Cumulative Retail Imbalance in NCLH

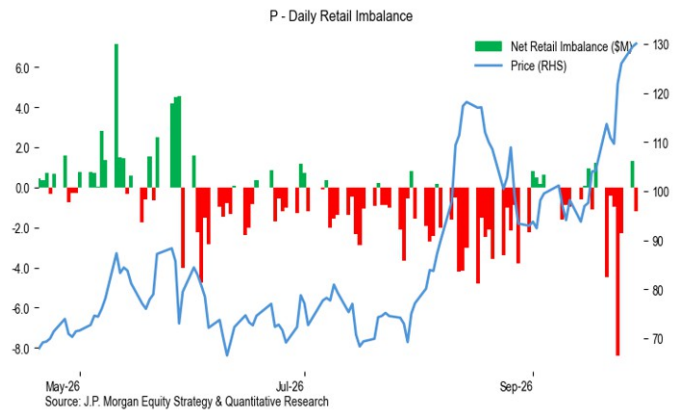
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Figure 29: Retail Imbalance in P

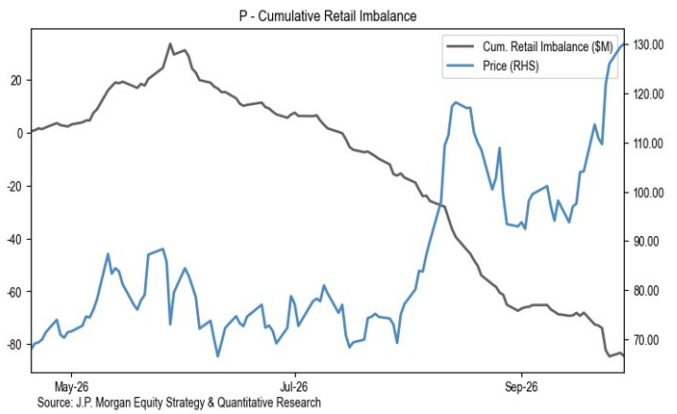
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 30: Cumulative Retail Imbalance in P

As of Sep 29th



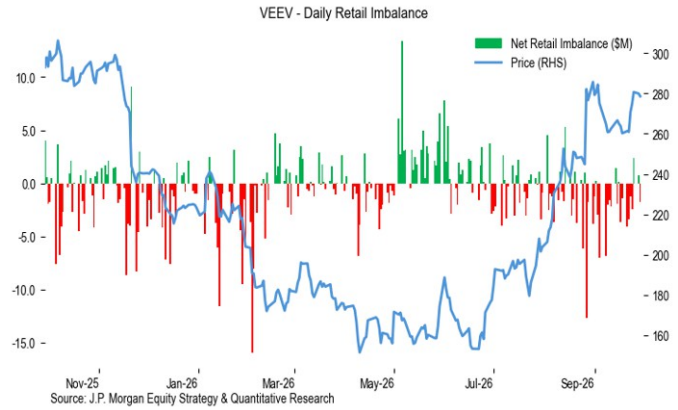
Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

J.P.Morgan

Figure 31: Retail Imbalance in VEEV

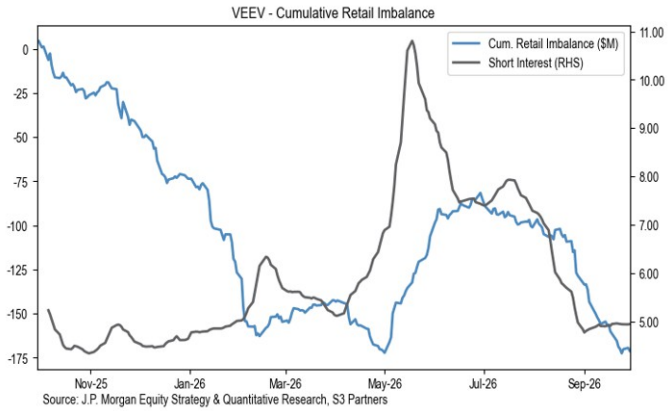
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 32: Cumulative Retail Imbalance in VEEV

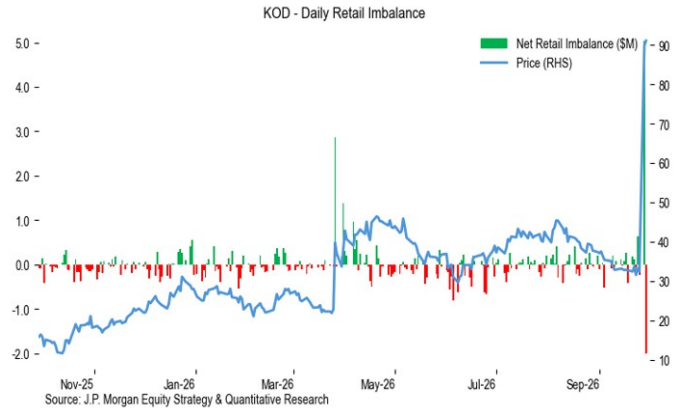
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Figure 33: Retail Imbalance in KOD

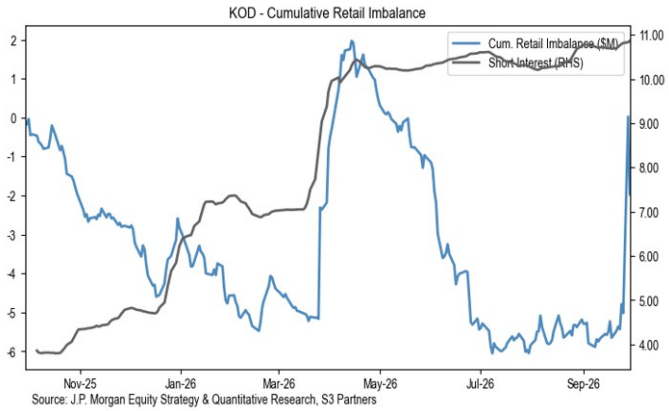
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 34: Cumulative Retail Imbalance in KOD

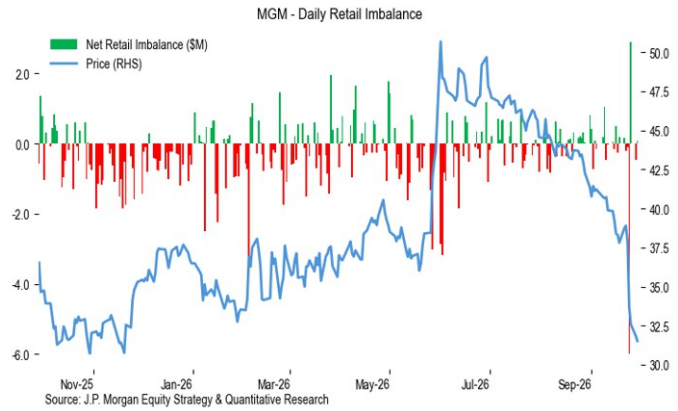
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Figure 35: Retail Imbalance in MGM

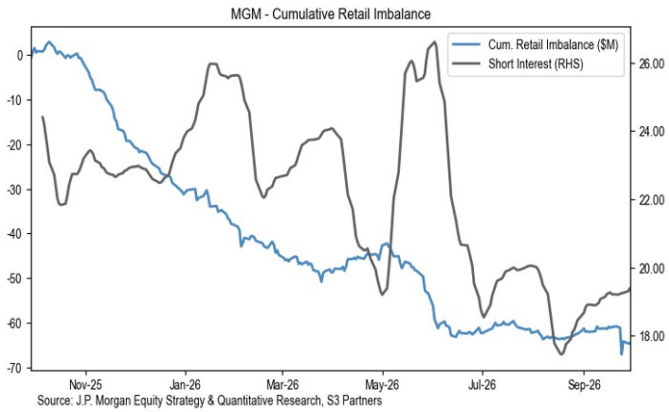
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 36: Cumulative Retail Imbalance in MGM

As of Sep 29th



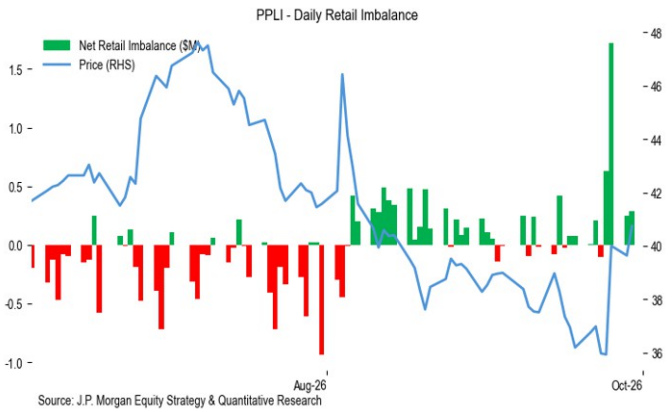
Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

J.P.Morgan

Figure 37: Retail Imbalance in PPLI

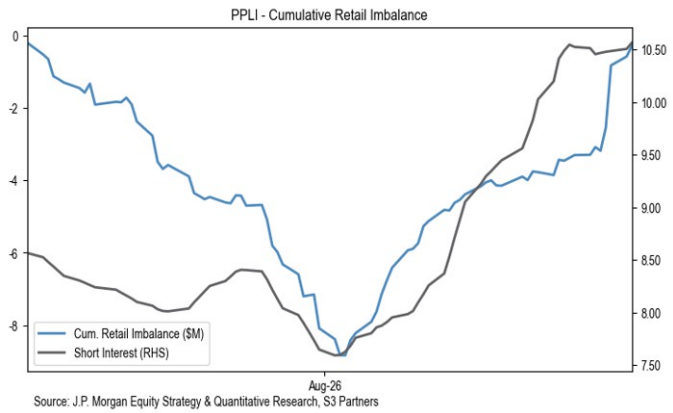
As of Sep 29th



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 38: Cumulative Retail Imbalance in PPLI

As of Sep 29th

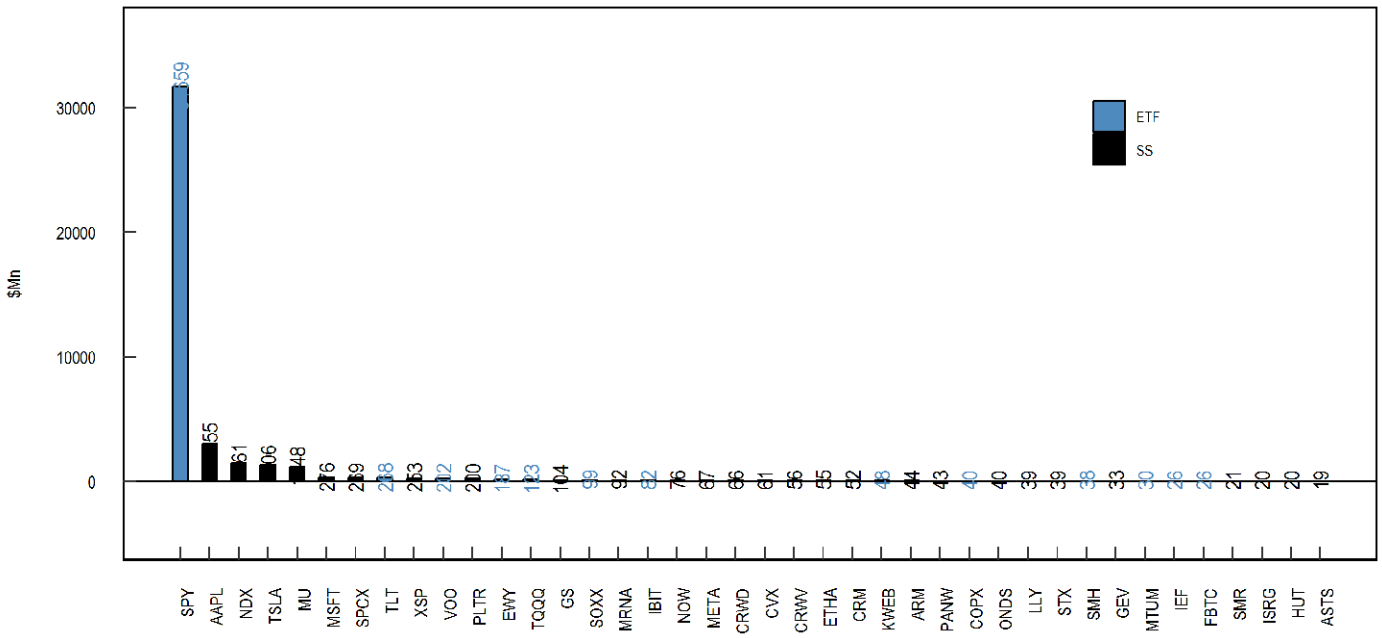


Source: J.P. Morgan Equity Strategy & Quantitative Research, S3 Partners

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

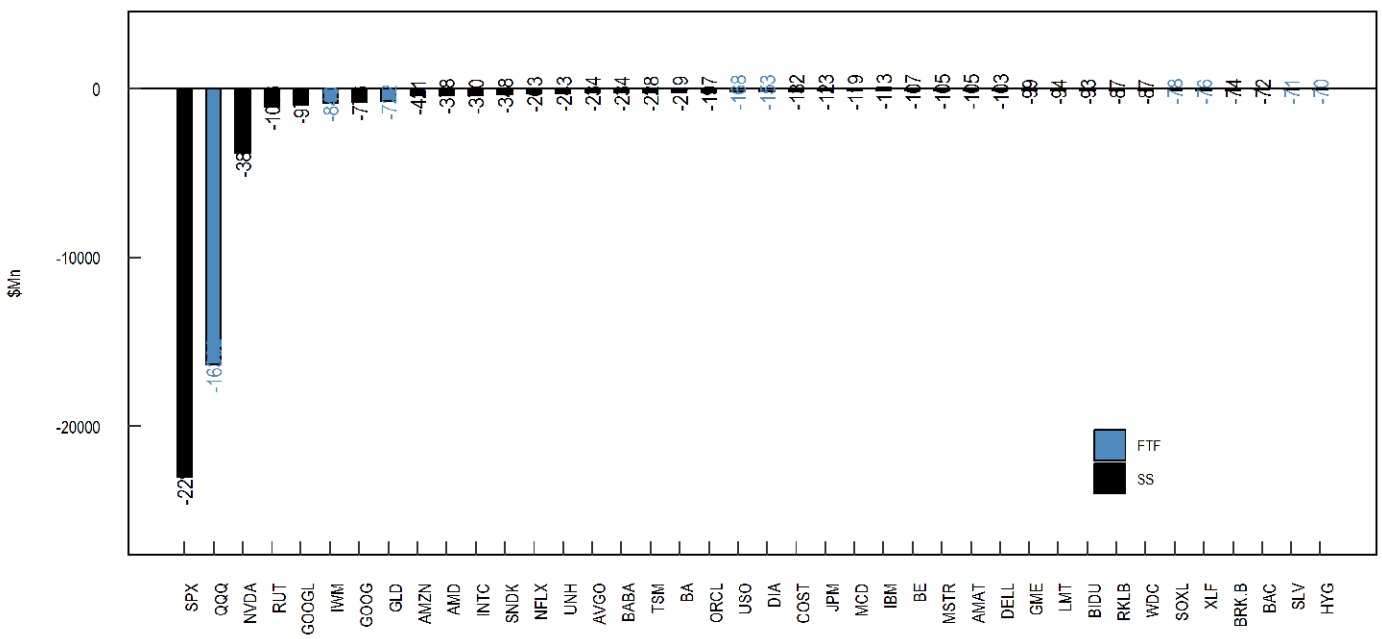
Retail Activity in Options

Figure 39: Top 40 Equities with Most Delta Bought (in $Mn)



Source: J.P. Morgan Equity Strategy & Quantitative Research

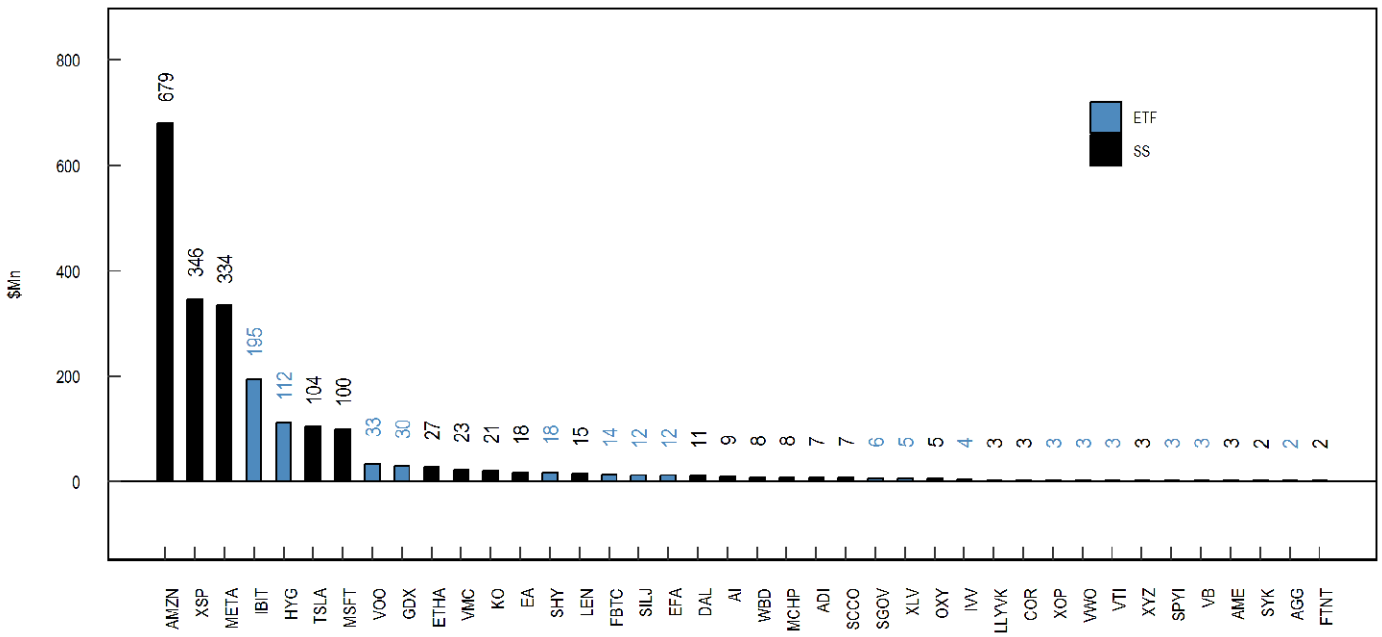
Figure 40: Top 40 Equities with Most Delta Sold (in $Mn)



Source: J.P. Morgan Equity Strategy & Quantitative Research

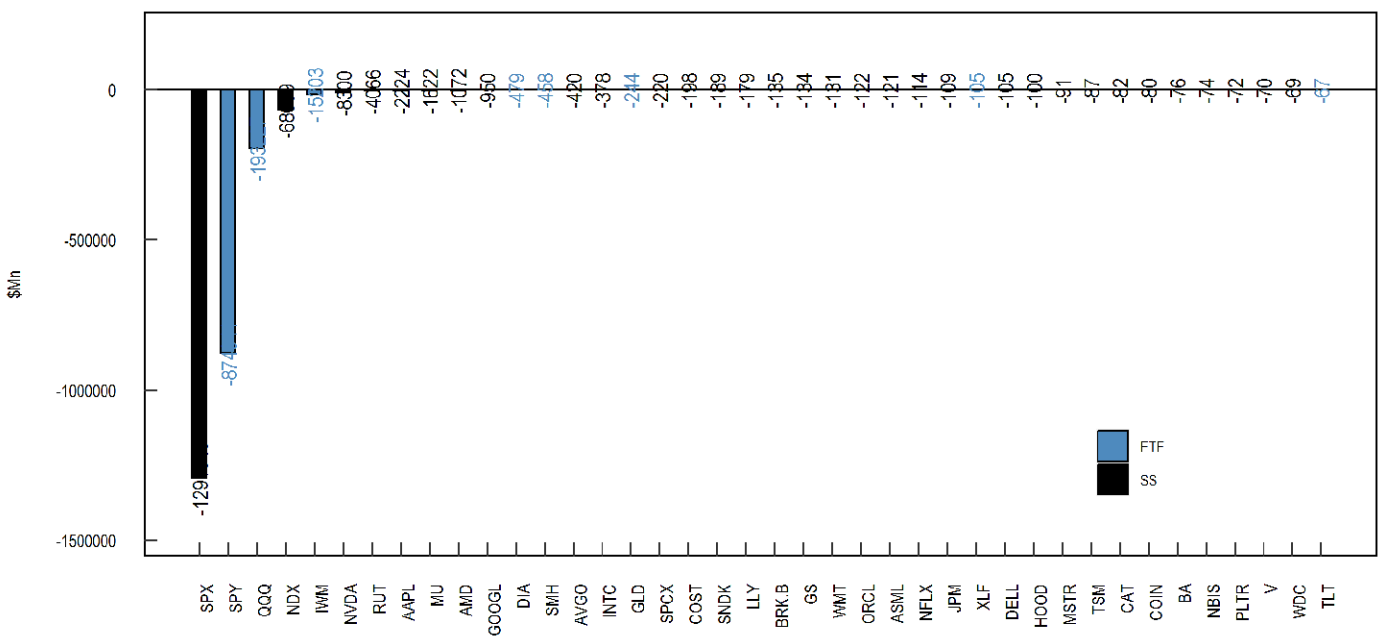
Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

Figure 41: Top 40 Equities with Most Gamma Bought (in $Mn)



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 42: Top 40 Equities with Most Gamma Sold (in $Mn)

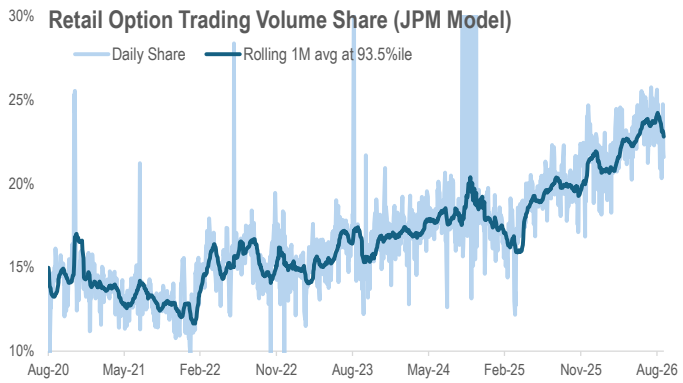


Source: J.P. Morgan Equity Strategy & Quantitative Research

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

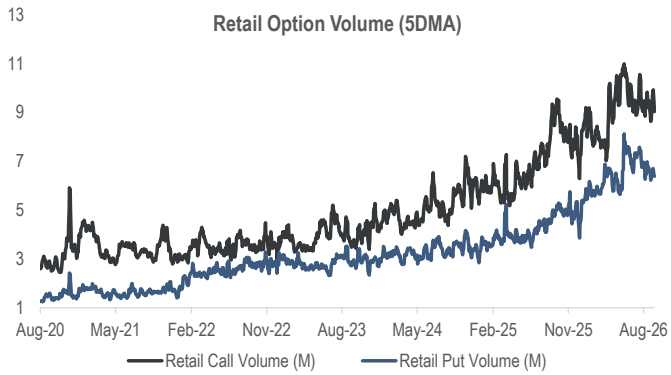
Retail Investors Options Activity by Sectors

Figure 43: Retail Options Trading Share



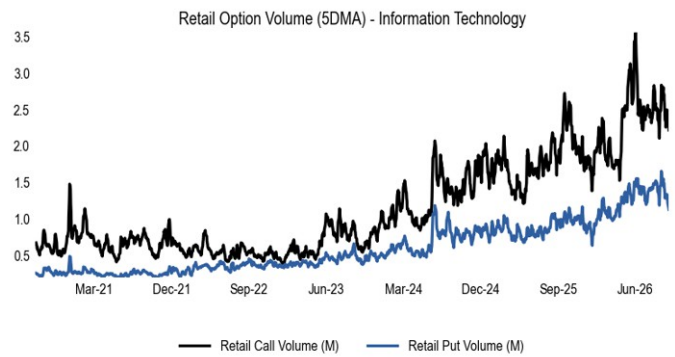
Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 44: Retail Options Volume (Calls and Puts)



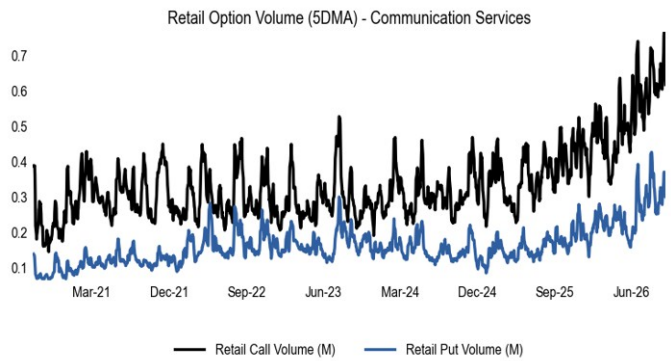
Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 45: Retail Options Volume (Calls and Puts), Information Technology



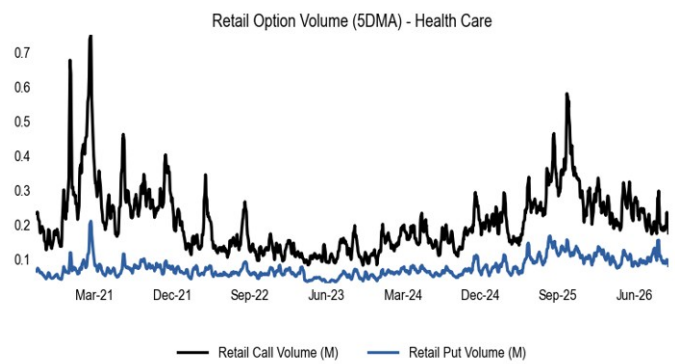
Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 46: Retail Options Volume (Calls and Puts), Communication Services



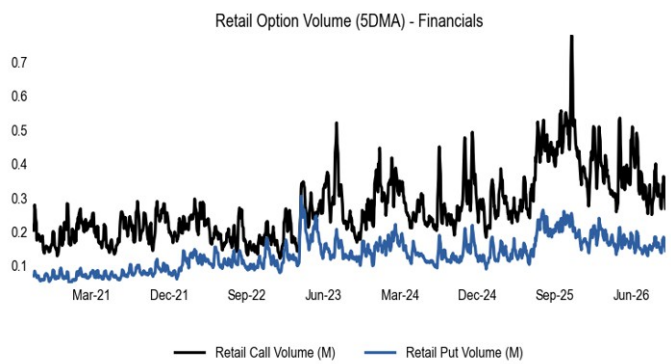
Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 47: Retail Options Volume (Calls and Puts), Health Care



Source: J.P. Morgan Equity Strategy & Quantitative Research

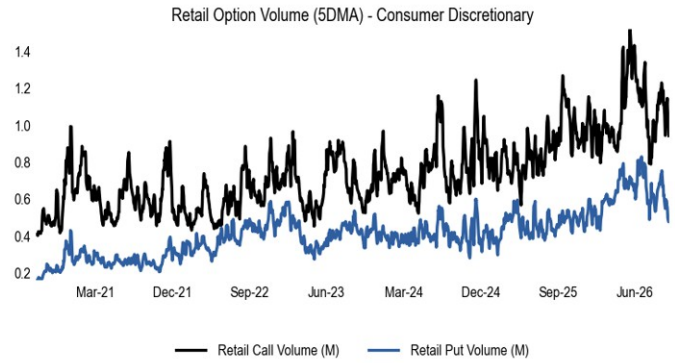
Figure 48: Retail Options Volume (Calls and Puts), Financials



Source: J.P. Morgan Equity Strategy & Quantitative Research

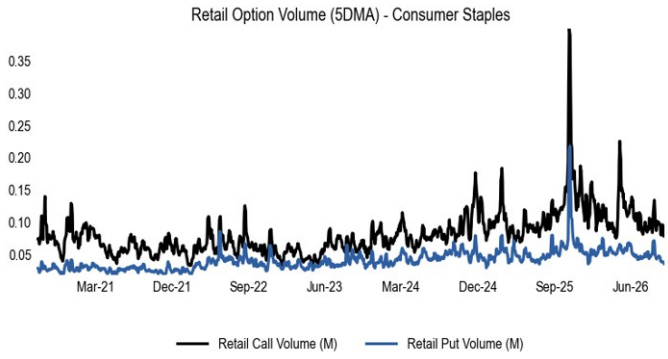
Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

Figure 49: Retail Options Volume (Calls and Puts), Discretionary



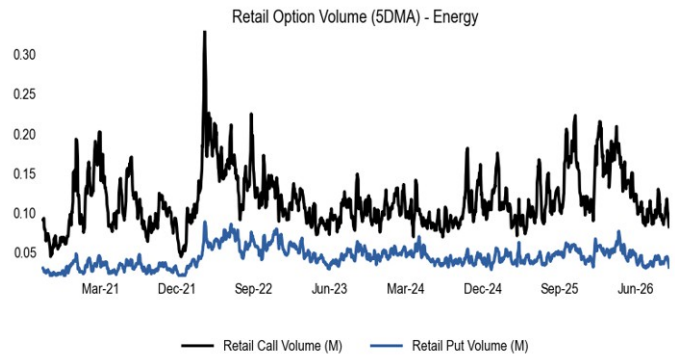
Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 50: Retail Options Volume (Calls and Puts), Staples



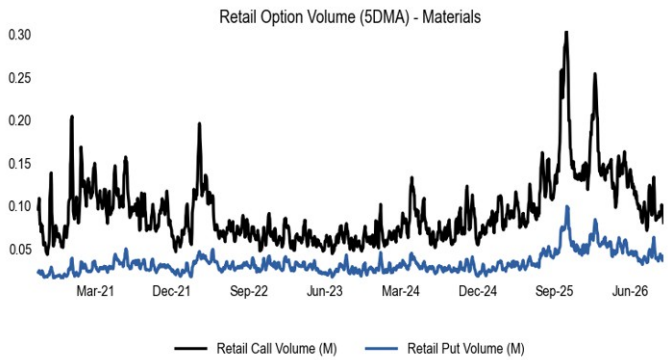
Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 51: Retail Options Volume (Calls and Puts), Energy



Source: J.P. Morgan Equity Strategy & Quantitative Research

Figure 52: Retail Options Volume (Calls and Puts), Materials



Source: J.P. Morgan Equity Strategy & Quantitative Research

Arun Jain AC
(1-212) 622-9454
arun.p.jain@jpmorgan.com

J.P.Morgan

Retail Investor Participation

Figure 53: Retail Brokerage Volume Share Hit Record ~37% in January 2021

Source Flow by Retail Brokerage, % of Overall US Equity Mkt Volume (Stocks + ETFs)

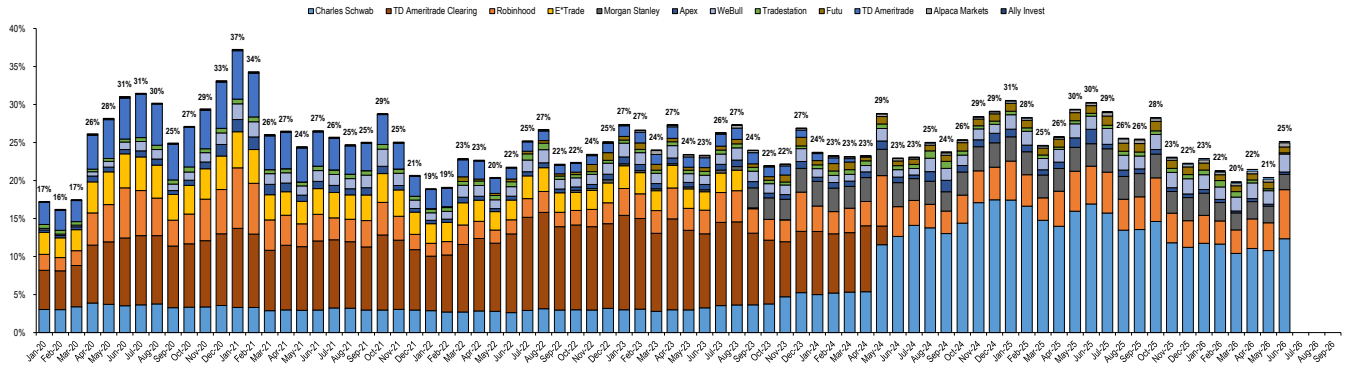
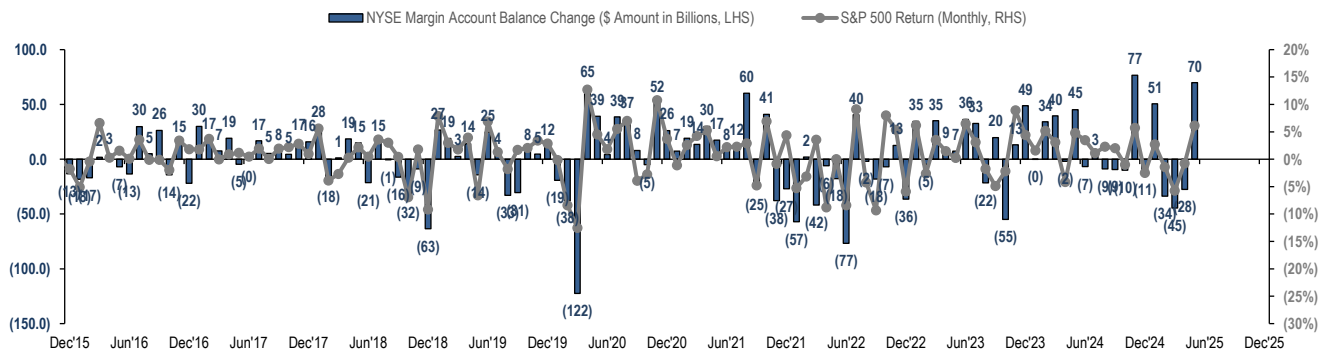


Figure 54: NYSE Margin Account – Monthly Net Debit Balance Change

$ in Billions, Net Debit balance equals margin debit balance less total credit balances



Source: J.P. Morgan Equity Strategy & Quantitative Research, Bloomberg Finance L.P., FINRA, Quarterly 606 Reports (for the two figures above).

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

J.P.Morgan

Companies Discussed in This Report (all prices in this report as of market close on 30 September 2026, unless otherwise indicated)
MGM Resorts International(MGM/$31.05/OW), People(PPLI/$41.96/OW)

Analyst Certification: The Research Analyst(s) denoted by an "AC" on the cover of this report certifies (or, where multiple Research Analysts are primarily responsible for this report, the Research Analyst denoted by an "AC" on the cover or within the document individually certifies, with respect to each security or issuer that the Research Analyst covers in this research) that: (1) all of the views expressed in this report accurately reflect the Research Analyst's personal views about any and all of the subject securities or issuers; and (2) no part of any of the Research Analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the Research Analyst(s) in this report. For all Korea-based Research Analysts listed on the front cover, if applicable, they also certify, as per KOFIA requirements, that the Research Analyst's analysis was made in good faith and that the views reflect the Research Analyst's own opinion, without undue influence or intervention.

All authors named within this report are Research Analysts who produce independent research unless otherwise specified. In Europe, Sector Specialists (Sales and Trading) may be shown on this report as contacts but are not authors of the report or part of the Research Department.

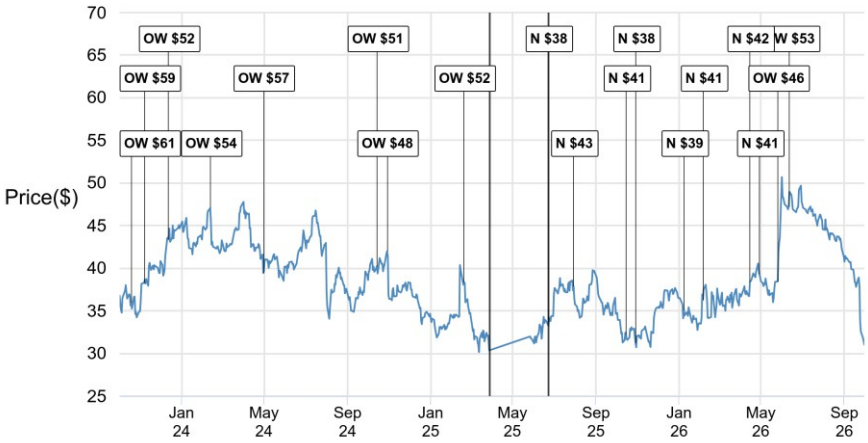
Important Disclosures

- **Market Maker/ Liquidity Provider:** J.P. Morgan is a market maker and/or liquidity provider in the financial instruments of/related to MGM Resorts International, People or related entities.
- **Client:** J.P. Morgan currently has, or had within the past 12 months, the following entity(ies) as clients: MGM Resorts International, People or related entities.
- **Client/Investment Banking:** J.P. Morgan currently has, or had within the past 12 months, the following entity(ies) as investment banking clients: MGM Resorts International, People or related entities.
- **Client/Non-Investment Banking, Securities-Related:** J.P. Morgan currently has, or had within the past 12 months, the following entity(ies) as clients, and the services provided were non-investment-banking, securities-related: MGM Resorts International, People or related entities.
- **Client/Non-Securities-Related:** J.P. Morgan currently has, or had within the past 12 months, the following entity(ies) as clients, and the services provided were non-securities-related: MGM Resorts International, People or related entities.
- **Investment Banking Compensation Received:** J.P. Morgan has received in the past 12 months compensation for investment banking services from MGM Resorts International, People or related entities.
- **Potential Investment Banking Compensation:** J.P. Morgan expects to receive, or intends to seek, compensation for investment banking services in the next three months from MGM Resorts International, People or related entities.
- **Non-Investment Banking Compensation Received:** J.P. Morgan has received compensation in the past 12 months for products or services other than investment banking from MGM Resorts International, People or related entities.
- **Debt Position:** J.P. Morgan may hold a position in the debt securities of MGM Resorts International, People or related entities, if any.

Company-Specific Disclosures: J.P. Morgan does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Important disclosures, including price charts and credit opinion history tables (if applicable), are available for compendium reports and all J.P. Morgan–covered companies, and certain non-covered companies, by visiting https://www.jpmm.com/research/disclosures, calling 1-800-477-0406, or e-mailing research.disclosure.inquiries@jpmorgan.com with your request.

Arun Jain [AC]
(1-212) 622-9454
arun.p.jain@jpmorgan.com

MGM Resorts International (MGM, MGM US) Price Chart



Source: Bloomberg Finance L.P. and J.P. Morgan; price data adjusted for stock splits and dividends.
Initiated coverage Sep 25, 2002. All share prices are as of market close on the previous business day.
Break in coverage Mar 28, 2025 - Jun 23, 2025.

Date	Rating	Price ($)	Price Target ($)
20-Oct-23	OW	35.99	61
08-Nov-23	OW	38.27	59
13-Dec-23	OW	43.37	52
13-Feb-24	OW	47.02	54
01-May-24	OW	39.44	57
15-Oct-24	OW	40.24	51
30-Oct-24	OW	41.99	48
20-Feb-25	OW	38.34	52
23-Jun-25	N	33.77	38
31-Jul-25	N	37.88	43
16-Oct-25	N	32.17	41
30-Oct-25	N	31.21	38
09-Jan-26	N	35.15	39
06-Feb-26	N	36.28	41
16-Apr-26	N	38.36	42
30-Apr-26	N	39.27	41
27-May-26	OW	38.45	46
12-Jun-26	OW	47.22	53

People (PPLI, PPLI US) Price Chart



Source: Bloomberg Finance L.P. and J.P. Morgan; price data adjusted for stock splits and dividends.
Initiated coverage Oct 11, 2016. All share prices are as of market close on the previous business day.

Date	Rating	Price ($)	Price Target ($)
21-Mar-25	OW	48.54	60
22-Apr-25	OW	32.90	45
04-Nov-25	OW	32.56	43
12-Dec-25	OW	38.15	46
03-May-26	OW	44.97	52
30-Jun-26	NR	46.37	--
11-Sep-26	OW	37.54	54

The chart(s) show J.P. Morgan's continuing coverage of the stocks; the current analysts may or may not have covered it over the entire period.
J.P. Morgan ratings or designations: OW = Overweight, N= Neutral, UW = Underweight, NR = Not Rated

Explanation of Equity Research Ratings, Designations and Analyst(s) Coverage Universe:
J.P. Morgan uses the following rating system: Overweight (over the duration of the price target indicated in this report, we expect this stock will outperform the average total return of the stocks in the Research Analyst's, or the Research Analyst's team's, coverage universe); Neutral (over the duration of the price target indicated in this report, we expect this stock will perform in line with the average total return of the stocks in the Research Analyst's, or the Research Analyst's team's, coverage universe); and Underweight (over the duration of the price target indicated in this report, we expect this stock will underperform the average total return of the stocks in the Research Analyst's, or the Research Analyst's team's, coverage universe. NR is Not Rated. In this case, J.P. Morgan has removed the rating and, if applicable, the price target, for this stock because of either a lack of a sufficient fundamental basis or for legal, regulatory or policy reasons. The previous rating and, if applicable, the price target, no longer should be relied upon. An NR designation is not a recommendation or a rating. Some stocks under coverage have a rating but no price target; in these cases, we expect the stock will outperform/perform in line/underperform the average total return of the stocks in the Research Analyst's, or the Research Analyst's team's, coverage universe of the relevant duration of the region. In our Asia (ex-Australia and ex-India) and U.K. small- and mid-cap Equity Research, each stock's expected total return is compared to the expected total return of a benchmark country market index, not to those Research Analysts' coverage universe. If it does not appear in the Important Disclosures section of this report, the certifying Research Analyst's coverage universe can be found on J.P. Morgan's Research website, https://www.jpmorganmarkets.com.

J.P. Morgan Equity Research Ratings Distribution, as of July 04, 2026

	Overweight (buy)	Neutral (hold)	Underweight (sell)
J.P. Morgan Global Equity Research Coverage*	53%	36%	12%
IB clients**	83%	80%	73%
JPMS Equity Research Coverage*	51%	37%	12%
IB clients**	95%	92%	87%

***Please note that the percentages may not add to 100% because of rounding.**
****Percentage of subject companies within each of the "buy," "hold" and "sell" categories for which J.P. Morgan has provided investment banking services within the previous 12 months.**
For purposes of FINRA ratings distribution rules only, our Overweight rating falls into a buy rating category; our Neutral rating falls into a hold rating category; and our Underweight rating falls into a sell rating category. Please note that stocks with an NR designation are not included in the table above. This information is current as of the end of the most recent calendar quarter.

Equity Valuation and Risks: For valuation methodology and risks associated with covered companies or price targets for covered companies, please see the most recent company-specific research report at http://www.jpmorganmarkets.com, contact the primary analyst or your J.P. Morgan representative, or email research.disclosure.inquiries@jpmorgan.com. For material information about the proprietary models used, please see the Summary of Financials in company-specific research reports and the Company Tearsheets, which are available to download on the company pages of our client website, http://www.jpmorganmarkets.com. This report also sets out within it the material underlying assumptions used.

History of Investment Recommendations:
A history of J.P. Morgan investment recommendations disseminated during the preceding 12 months can be accessed on the Research & Commentary page of http://www.jpmorganmarkets.com where you can also search by analyst name, sector or financial instrument.

Analysts' Compensation: The research analysts responsible for the preparation of this report receive compensation based upon various factors, including the quality and accuracy of research, client feedback, competitive factors, and overall firm revenues.

Registration of non-US Analysts: Unless otherwise noted, the non-US analysts listed on the front of this report are employees of non-US affiliates of J.P. Morgan Securities LLC, may not be registered as research analysts under FINRA rules, may not be associated persons of J.P. Morgan Securities LLC, and may not be subject to FINRA Rule 2241 or 2242 restrictions on communications with covered companies, public appearances, and trading securities held by a research analyst account.

Other Disclosures

J.P. Morgan is a marketing name for investment banking businesses of JPMorgan Chase & Co. and its subsidiaries and affiliates worldwide.

UK MIFID FICC research unbundling exemption: UK clients should refer to UK MIFID Research Unbundling exemption for details of J.P. Morgan's implementation of the FICC research exemption and guidance on relevant FICC research categorisation.

All research material made available to clients are simultaneously available on our client website, J.P. Morgan Markets, unless specifically permitted by relevant laws. Not all research content is redistributed, e-mailed or made available to third-party aggregators. For all research material available on a particular stock, please contact your sales representative.

Any long form nomenclature for references to China; Hong Kong; Taiwan; and Macau within this research material are Mainland China; Hong Kong SAR (China); Taiwan (China); and Macau SAR (China).

J.P. Morgan Research may, from time to time, write on issuers or securities targeted by economic or financial sanctions imposed or administered by the governmental authorities of the U.S., EU, UK or other relevant jurisdictions (Sanctioned Securities). Nothing in this report is intended to be read or construed as encouraging, facilitating, promoting or otherwise approving investment or dealing in such Sanctioned Securities. Clients should be aware of their own legal and compliance obligations when making investment decisions.

Digital assets, which may also be referred to as virtual or crypto assets or crypto currencies (e.g. bitcoin), discussed in this research report are subject to a rapidly changing regulatory landscape. The application of relevant laws in respect of such assets may be unsettled, and the legality of any digital asset investment may be unclear. Prior to making any investment decision regarding any digital asset, investors should seek their own legal advice and be aware of any legal considerations regarding the purchase, holding or selling of such an investment. For relevant regulatory advisories on digital assets, including bitcoin and ethereum, please see https://www.jpmorgan.com/disclosures/cryptoasset-disclosure.

The author(s) of this research report may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so.

Exchange-Traded Funds (ETFs): J.P. Morgan Securities LLC ("JPMS") acts as authorized participant for substantially all U.S.-listed ETFs. To the extent that any ETFs are mentioned in this report, JPMS may earn commissions and transaction-based compensation in connection with the distribution of those ETF shares and may earn fees for performing other trade-related services, such as securities lending to short sellers of the

ETF shares. JPMS may also perform services for the ETFs themselves, including acting as a broker or dealer to the ETFs. In addition, affiliates of JPMS may perform services for the ETFs, including trust, custodial, administration, lending, index calculation and/or maintenance and other services.

Options and Futures related research: If the information contained herein regards options- or futures-related research, such information is available only to persons who have received the proper options or futures risk disclosure documents. Please contact your J.P. Morgan Representative or visit https://www.theocc.com/components/docs/riskstoc.pdf for a copy of the Option Clearing Corporation's Characteristics and Risks of Standardized Options or https://www.finra.org/sites/default/files/2020-08/Security_Futures_Risk_Disclosure_Statement_2020.pdf for a copy of the Security Futures Risk Disclosure Statement.

Changes to Interbank Offered Rates (IBORs) and other benchmark rates: Certain interest rate benchmarks are, or may in the future become, subject to ongoing international, national and other regulatory guidance, reform and proposals for reform. For more information, please consult: https://www.jpmorgan.com/global/disclosures/interbank_offered_rates

Private Bank Clients: Where you are receiving research as a client of the private banking businesses offered by JPMorgan Chase & Co. and its subsidiaries ("J.P. Morgan Private Bank"), research is provided to you by J.P. Morgan Private Bank and not by any other division of J.P. Morgan, including, but not limited to, the J.P. Morgan Corporate and Investment Bank and its Global Research division.

Legal entity responsible for the production and distribution of research: The legal entity identified below the name of the Reg AC Research Analyst who authored this material is the legal entity responsible for the production of this research. Where multiple Reg AC Research Analysts authored this material with different legal entities identified below their names, these legal entities are jointly responsible for the production of this research. Where more than one legal entity is listed under an analyst's name, the first legal entity is responsible for the production unless stated otherwise. Research Analysts from various J.P. Morgan affiliates may have contributed to the production of this material but may not be licensed to carry out regulated activities in your jurisdiction (and do not hold themselves out as being able to do so). Unless otherwise stated below in the legal entity disclosures, this material has been distributed by the legal entity responsible for production, or where more than one legal entity is listed under the analyst's name, the first legal entity will be responsible for distribution. If you have any queries, please contact the relevant Research Analyst in your jurisdiction or the entity in your jurisdiction that has distributed this research material.

Legal Entities Disclosures and Country-/Region-Specific Disclosures:
Argentina: JPMorgan Chase Bank N.A Sucursal Buenos Aires is regulated by Banco Central de la República Argentina ("BCRA"- Central Bank of Argentina) and Comisión Nacional de Valores ("CNV"- Argentinian Securities Commission - ALYC y AN Integral N°51).

Australia: J.P. Morgan Securities Australia Limited ("JPMSAL") (ABN 61 003 245 234/AFS Licence No: 238066) is regulated by the Australian Securities and Investments Commission and is a Market Participant of ASX Limited, a Clearing and Settlement Participant of ASX Clear Pty Limited and a Clearing Participant of ASX Clear (Futures) Pty Limited. This material is issued and distributed in Australia by or on behalf of JPMSAL only to "wholesale clients" (as defined in section 761G of the Corporations Act 2001). A list of all financial products covered can be found by visiting https://www.jpmm.com/research/disclosures. J.P. Morgan seeks to cover companies of relevance to the domestic and international investor base across all Global Industry Classification Standard (GICS) sectors, as well as across a range of market capitalisation sizes. If applicable, in the course of conducting public side due diligence on the subject company(ies), the Research Analyst team may at times perform such diligence through corporate engagements such as site visits, discussions with company representatives, management presentations, etc. Research issued by JPMSAL has been prepared in accordance with J.P. Morgan Australia's Research Independence Policy which can be found at the following link: J.P. Morgan Australia - Research Independence Policy.

Brazil: Banco J.P. Morgan S.A. is regulated by the Comissao de Valores Mobiliarios (CVM) and by the Central Bank of Brazil. Ombudsman J.P. Morgan: 0800-7700847 / 0800-7700810 (For Hearing Impaired) / ouvidoria.jp.morgan@jpmchase.com.

Canada: J.P. Morgan Securities Canada Inc. is a registered investment dealer, regulated by the Canadian Investment Regulatory Organization and the Ontario Securities Commission and is the participating member on Canadian exchanges. This material is distributed in Canada by or on behalf of J.P.Morgan Securities Canada Inc.

Chile: Inversiones J.P. Morgan Limitada is an unregulated entity incorporated in Chile.

China: J.P. Morgan Securities (China) Company Limited has been approved by CSRC to conduct the securities investment consultancy business.

Colombia: Banco J.P. Morgan Colombia S.A. is supervised by the Superintendencia Financiera de Colombia (SFC). Any reference in this material to products or services offered abroad by entities other than the Bank in Colombia is included exclusively for descriptive purposes. Such references do not constitute, and should not be construed as, promotional activity or the provision of financial products or services within Colombian territory, as defined under applicable Colombian regulation.

Dubai International Financial Centre (DIFC): JPMorgan Chase Bank, N.A., Dubai Branch is regulated by the Dubai Financial Services Authority (DFSA) and its registered address is Dubai International Financial Centre - The Gate, West Wing, Level 3 and 9 PO Box 506551, Dubai, UAE. This material has been distributed by JP Morgan Chase Bank, N.A., Dubai Branch to persons regarded as professional clients or market counterparties as defined under the DFSA rules.

European Economic Area (EEA): Unless specified to the contrary, research is distributed in the EEA by J.P. Morgan SE ("JPM SE"), which is

authorised as a credit institution by the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB). JPM SE is a company headquartered in Frankfurt with registered address at TaunusTurm, Taunustor 1, Frankfurt am Main, 60310, Germany. The material has been distributed in the EEA to persons regarded as professional investors (or equivalent) pursuant to Art. 4 para. 1 no. 10 and Annex II of MiFID II and its respective implementation in their home jurisdictions ("EEA professional investors"). This material must not be acted on or relied on by persons who are not EEA professional investors. Any investment or investment activity to which this material relates is only available to EEA relevant persons and will be engaged in only with EEA relevant persons.

Hong Kong: J.P. Morgan Securities (Asia Pacific) Limited (CE number AAJ321) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission in Hong Kong, and J.P. Morgan Broking (Hong Kong) Limited (CE number AAB027) is regulated by the Securities and Futures Commission in Hong Kong. JP Morgan Chase Bank, N.A., Hong Kong Branch (CE Number AAL996) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission, is organized under the laws of the United States with limited liability. Where the distribution of this material is a regulated activity in Hong Kong, the material is distributed in Hong Kong by or through J.P. Morgan Securities (Asia Pacific) Limited and/or J.P. Morgan Broking (Hong Kong) Limited.

India: J.P. Morgan India Private Limited (Corporate Identity Number - U67120MH1992FTC068724), having its registered office at J.P. Morgan Tower, Off. C.S.T. Road, Kalina, Santacruz - East, Mumbai – 400098, is registered with the Securities and Exchange Board of India (SEBI) as a 'Research Analyst' having registration number INH000001873. J.P. Morgan India Private Limited is also registered with SEBI as a member of the National Stock Exchange of India Limited and the Bombay Stock Exchange Limited (SEBI Registration Number – INZ000239730) and as a Merchant Banker (SEBI Registration Number - MB/INM000002970). Telephone: 91-22-6157 3000, Facsimile: 91-22-6157 3990 and Website: http://www.jpmipl.com. JPMorgan Chase Bank, N.A. - Mumbai Branch is licensed by the Reserve Bank of India (RBI) (Licence No. 53/ Licence No. BY.4/94; SEBI - IN/CUS/014/ CDSL : IN-DP-CDSL-444-2008/ IN-DP-NSDL-285-2008/ INBI00000984/ INE231311239) as a Scheduled Commercial Bank in India, which is its primary license allowing it to carry on Banking business in India and other activities, which a Bank branch in India are permitted to undertake. For non-local research material, this material is not distributed in India by J.P. Morgan India Private Limited. Compliance Officer: Ashutosh Sharma; ashutosh.j.sharma@jpmchase.com; +912261575002. Grievance Officer: Ramprasadh K, jpmipl.research.feedback@jpmorgan.com; +912261573000. Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors. Please visit Terms and Conditions and Most Important Terms and Conditions (MITC). The annual Compliance audit report is available at http://www.jpmipl.com/#research.

Indonesia: PT J.P. Morgan Sekuritas Indonesia is a member of the Indonesia Stock Exchange and is registered and supervised by the Otoritas Jasa Keuangan (OJK).

Korea: J.P. Morgan Securities (Far East) Limited, Seoul Branch, is a member of the Korea Exchange (KRX). JPMorgan Chase Bank, N.A., Seoul Branch, is licensed as a branch office of foreign bank (JPMorgan Chase Bank, N.A.) in Korea. Both entities are regulated by the Financial Services Commission (FSC) and the Financial Supervisory Service (FSS). For non-macro research material, the material is distributed in Korea by or through J.P. Morgan Securities (Far East) Limited, Seoul Branch.

Japan: JPMorgan Securities Japan Co., Ltd. and JPMorgan Chase Bank, N.A., Tokyo Branch are regulated by the Financial Services Agency in Japan.

Malaysia: This material is issued and distributed in Malaysia by JPMorgan Securities (Malaysia) Sdn Bhd (18146-X), which is a Participating Organization of Bursa Malaysia Berhad and holds a Capital Markets Services License issued by the Securities Commission in Malaysia.

Mexico: J.P. Morgan Casa de Bolsa, S.A. de C.V., J.P. Morgan Grupo Financiero is member of the Mexican Stock Exchange ("Bolsa Mexicana de Valores") and the Institutional Stock Exchange ("Bolsa Institucional de Valores"), and it is authorized to act as a broker dealer by the National Banking and Securities Exchange Commission ("Comisión Nacional Bancaria y de Valores").

New Zealand: This material is issued and distributed by JPMSAL in New Zealand only to "wholesale clients" (as defined in the Financial Markets Conduct Act 2013). JPMSAL is registered as a Financial Service Provider under the Financial Service providers (Registration and Dispute Resolution) Act of 2008.

Philippines: J.P. Morgan Securities Philippines Inc. is a Trading Participant of the Philippine Stock Exchange and a member of the Securities Clearing Corporation of the Philippines and the Securities Investor Protection Fund. It is regulated by the Securities and Exchange Commission.

Singapore: This material is issued and distributed in Singapore by or through J.P. Morgan Securities Singapore Private Limited (JPMSS) [MDDI (P) 070/08/2026 and Co. Reg. No.: 199405335R], which is a member of the Singapore Exchange Securities Trading Limited, and/or JPMorgan Chase Bank, N.A., Singapore branch (JPMCB Singapore), both of which are regulated by the Monetary Authority of Singapore. This material is issued and distributed in Singapore only to accredited investors, expert investors and institutional investors, as defined in Section 4A of the Securities and Futures Act, Cap. 289 (SFA). This material is not intended to be issued or distributed to any retail investors or any other investors that do not fall into the classes of "accredited investors," "expert investors" or "institutional investors," as defined under Section 4A of the SFA. Recipients of this material in Singapore are to contact JPMSS or JPMCB Singapore in respect of any matters arising from, or in connection with, the material.

South Africa: J.P. Morgan Equities South Africa Proprietary Limited and JPMorgan Chase Bank, N.A., Johannesburg Branch are members of the Johannesburg Securities Exchange and are regulated by the Financial Services Conduct Authority (FSCA).

Taiwan: J.P. Morgan Securities (Taiwan) Limited is a participant of the Taiwan Stock Exchange (company-type) and regulated by the Taiwan

Securities and Futures Bureau. Material relating to equity securities is issued and distributed in Taiwan by J.P. Morgan Securities (Taiwan) Limited, subject to the license scope and the applicable laws and the regulations in Taiwan. **To the extent that J.P. Morgan Securities (Taiwan) Limited produces research materials on securities not listed on the Taiwan Stock Exchange or Taipei Exchange ("Non-Taiwan Listed Securities"), these materials shall not constitute securities recommendations for the purpose of applicable Taiwan regulations, and, for the avoidance of doubt, J.P. Morgan Securities (Taiwan) Limited does not act as broker for Non-Taiwan Listed Securities.** According to Paragraph 2, Article 7-1 of Operational Regulations Governing Securities Firms Recommending Trades in Securities to Customers (as amended or supplemented) and/or other applicable laws or regulations, please note that the recipient of this material is not permitted to engage in any activities in connection with the material that may give rise to conflicts of interests, unless otherwise disclosed in the "Important Disclosures" in this material.

Thailand: This material is issued and distributed in Thailand by JPMorgan Securities (Thailand) Ltd., which is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission. The registered address is 548 One City Center Building, 50th Floor, Ploenchit Road, Lumphini, Pathum Wan, Bangkok 10330.

UK: Research is produced in the UK by J.P. Morgan Securities plc ("JPMS plc") which is a member of the London Stock Exchange and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority or J.P. Morgan Markets Limited ("JPMML Ltd") which is authorised and regulated by the Financial Conduct Authority. Unless specified to the contrary, this material is distributed in the UK by JPMS plc and is directed in the UK only to: (a) persons having professional experience in matters relating to investments falling within article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) (Order) 2005 ("the FPO"); (b) persons outlined in article 49 of the FPO (high net worth companies, unincorporated associations or partnerships, the trustees of high value trusts, etc.); or (c) any persons to whom this communication may otherwise lawfully be made; all such persons being referred to as "UK relevant persons". This material must not be acted on or relied on by persons who are not UK relevant persons. Any investment or investment activity to which this material relates is only available to UK relevant persons and will be engaged in only with UK relevant persons. A description of J.P. Morgan EMEA's policy for prevention and avoidance of conflicts of interest related to the production of Research can be found at the following link: J.P. Morgan EMEA - Research Independence Policy.

U.S.: J.P. Morgan Securities LLC ("JPMS") is a member of the NYSE, FINRA, SIPC, and the NFA. JPMorgan Chase Bank, N.A. is a member of the FDIC. Material published by non-U.S. affiliates is distributed in the U.S. by JPMS who accepts responsibility for its content.

General: Additional information is available upon request. The information in this material has been obtained from sources believed to be reliable. While all reasonable care has been taken to ensure that the facts stated in this material are accurate and that the forecasts, opinions and expectations contained herein are fair and reasonable, JPMorgan Chase & Co. or its affiliates and/or subsidiaries (collectively J.P. Morgan) make no representations or warranties whatsoever to the completeness or accuracy of the material provided, except with respect to any disclosures relative to J.P. Morgan and the Research Analyst's involvement with the issuer that is the subject of the material. Accordingly, no reliance should be placed on the accuracy, fairness or completeness of the information contained in this material. There may be certain discrepancies with data and/or limited content in this material as a result of calculations, adjustments, translations to different languages, and/or local regulatory restrictions, as applicable. These discrepancies should not impact the overall investment analysis, views and/or recommendations of the subject company(ies) that may be discussed in the material. Artificial intelligence tools may have been used in the preparation of this material, including assisting in data analysis, pattern recognition, and content drafting for research material. J.P. Morgan accepts no liability whatsoever for any loss arising from any use of this material or its contents, and neither J.P. Morgan nor any of its respective directors, officers or employees, shall be in any way responsible for the contents hereof, apart from the liabilities and responsibilities that may be imposed on them by the relevant regulatory authority in the jurisdiction in question, or the regulatory regime thereunder. Opinions, forecasts or projections contained in this material represent J.P. Morgan's current opinions or judgment as of the date of the material only and are therefore subject to change without notice. Periodic updates may be provided on companies/industries based on company-specific developments or announcements, market conditions or any other publicly available information. There can be no assurance that future results or events will be consistent with any such opinions, forecasts or projections, which represent only one possible outcome. Furthermore, such opinions, forecasts or projections are subject to certain risks, uncertainties and assumptions that have not been verified, and future actual results or events could differ materially. The value of, or income from, any investments referred to in this material may fluctuate and/or be affected by changes in exchange rates. All pricing is indicative as of the close of market for the securities discussed, unless otherwise stated. Past performance is not indicative of future results. Accordingly, investors may receive back less than originally invested. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients. This material may include views on structured securities, options, futures and other derivatives. These are complex instruments, may involve a high degree of risk and may be appropriate investments only for sophisticated investors who are capable of understanding and assuming the risks involved. The recipients of this material must make their own independent decisions regarding any securities or financial instruments mentioned herein and should seek advice from such independent financial, legal, tax or other adviser as they deem necessary. J.P. Morgan may trade as a principal on the basis of the Research Analysts' views and research, and it may also engage in transactions for its own account or for its clients' accounts in a manner inconsistent with the views taken in this material, and J.P. Morgan is under no obligation to ensure that such other communication is brought to the attention of any recipient of this material. Others within J.P. Morgan, including Strategists, Sales staff and other Research Analysts, may take views that are inconsistent with those taken in this material. Employees of J.P. Morgan not involved in the preparation of this material may have investments in the securities (or derivatives of such securities) mentioned in this material and may trade them in ways different from those discussed in this material. This material is not an advertisement for or marketing of any issuer, its products or services, or its securities in any jurisdiction.

Confidentiality and Security Notice: This transmission may contain information that is privileged, confidential, legally privileged, and/or exempt from disclosure under applicable law. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or use of the information contained herein (including any reliance thereon) is STRICTLY PROHIBITED. Although this transmission and any attachments are believed to be free of any virus or other defect that might affect any computer system into which it is received and opened, it is the responsibility of the recipient to ensure that it is virus free and no responsibility is accepted by JPMorgan Chase & Co., its subsidiaries and affiliates, as applicable, for any loss or damage arising in any way from its use. If you received this transmission in error, please immediately contact the sender and destroy the material in its entirety, whether in electronic or hard copy format. This message is subject to electronic monitoring: https://www.jpmorgan.com/disclosures/email

MSCI: Certain information herein ("Information") is reproduced by permission of MSCI Inc., its affiliates and information providers ("MSCI") ©2026. No reproduction or dissemination of the Information is permitted without an appropriate license. MSCI MAKES NO EXPRESS OR IMPLIED WARRANTIES (INCLUDING MERCHANTABILITY OR FITNESS) AS TO THE INFORMATION AND DISCLAIMS ALL LIABILITY TO THE EXTENT PERMITTED BY LAW. No Information constitutes investment advice, except for any applicable Information from MSCI ESG Research. Subject also to msci.com/disclaimer

Any mentions of third-party trademarks, brand names, products, and services are for referential purposes only and any mention thereof is not meant to imply any sponsorship, endorsement, or affiliation.

Sustainalytics: Certain information, data, analyses and opinions contained herein are reproduced by permission of Sustainalytics and: (1) includes the proprietary information of Sustainalytics; (2) may not be copied or redistributed except as specifically authorized; (3) do not constitute investment advice nor an endorsement of any product or project; (4) are provided solely for informational purposes; and (5) are not warranted to be complete, accurate or timely. Sustainalytics is not responsible for any trading decisions, damages or other losses related to it or its use. The use of the data is subject to conditions available at https://www.sustainalytics.com/legal-disclaimers. ©2026 Sustainalytics. All Rights Reserved.

"Other Disclosures" last revised August 29, 2026.

Copyright 2026 JPMorgan Chase & Co. All rights reserved. This material or any portion hereof may not be reprinted, sold or redistributed without the written consent of J.P. Morgan. It is strictly prohibited to use or share without prior written consent from J.P. Morgan any research material received from J.P. Morgan or an authorized third-party ("J.P. Morgan Data") in any third-party artificial intelligence ("AI") systems or models when such J.P. Morgan Data is accessible by a third-party.

Completed 30 Sep 2026 11:42 PM EDT

Disseminated 01 Oct 2026 02:49 AM EDT