

Morning Meeting Notes

QuickNotes

Morning Call

US EQUITIES RESEARCH

Initiations & Reinstatements

[Super Micro](#) | BUY | SMCI US | Mkt Cap:USD49,252mn | Ruplu Bhattacharya
AI driving meaningful shift in server market, Initiate at Buy, PO of \$1040

- We initiate coverage of Super Micro Computer Inc. (SMCI) with a Buy rating and \$1040 PO on 26x our C25 EPS
- We expect SMCI to see strong revenue growth over the next several years driven by AI related demand
- The company has a growing backlog and is expanding capacity to support strong revenue growth

PO Raised

[Air Products](#) | BUY | APD US | Mkt Cap:USD48,285mn | Steve Byrne
Base business is better than the market thinks, Upgrading to Buy

- We are upgrading APD to Buy due to valuation disconnect, project backlog has less risks, and a robust base business
- We recently hosted investor meetings w/ APD that highlighted concerns about the base business. We compare APD & LIN by region
- Prior to a year ago, forward P/E for APD and LIN moved together and now there is 10x spread, which could close in coming qtrs

PO Raised

[AppLovin](#) | BUY | APP US | Mkt Cap:USD17,511mn | Omar Dessouky
4Q23 Result: Sequential growth in core business to continue, driven by AI Engine

- Size of 4Q23 beat slightly unexpected, but guidance for seq. growth thru 4Q24 paints LT growth picture, unexpected by market
- BofA sees eye-popping 50% Y/Y Software growth at 70% EBITDA margins in CY24 driven by continue AI engine improvement
- APP is top pick for 2024, Raise PO & CY24 ests, remains cheap at 10x EV/EBITDA, see re-rating potential & beat/raise cycle

15 February 2024

Equity
United StatesInvestor Support
BofAS

Today's Events: Economic Indicators

- 8:30 Initial Jobless Claims
- 8:30 Empire Manufacturing
- 8:30 Import Price Index (mom)
- 8:30 Import Price Index ex Petroleum (mom)
- 8:30 Advance Retail Sales
- 8:30 Retail Sales Less Autos
- 8:30 Retail Sales Less Autos and Gas
- 8:30 Core Control
- 9:15 Industrial Production
- 9:15 Manufacturing Production
- 9:15 Capacity Utilization
- 10:00 Business Inventories
- 10:00 NAHB Housing Market Index
- 16:00 Net Long-term TIC Flows

Table of Contents

US EQUITIES RESEARCH	1
Initiations & Reinstatements	1
PO Raised	1
PO Lowered	5
Significant EPS Change	6
Buy Reiterations	7
Macro & Strategy	9

QuickNotes is a list of today's Global Research activities. Please use the links to read the full Research report before making investment decisions. The reports also contain important disclosures.

[Arch Capital](#) | BUY | ACGL US | Mkt Cap:USD31,671mn | Joshua Shanker
2024 closes with an EPS beat and large jump in book value per share

- Arch delivered a 4Q23 EPS beat with better "Other" income and healthy underlying underwriting margins
- Investment income rose faster than anticipated, which causes us to roll that benefit into higher returns in 2024
- We are increasing our EPS forecast for 2024 and 2025 as well as lifting our price objective to \$100

[Atmus](#) | BUY | ATMU US | Mkt Cap:USD1,838mn | Andrew Obin
Multi-industrial Question Bank: A Guide for the Perplexed

- This report contains an extensive question bank for management meetings with 28 multi-industrial companies in our coverage.
- We provide questions for: MMM, ALLE, AME, APG, AZPN, ATMU, CARR, CNM, DOV, ETN, EMR, FLS, FTV, GE, HON,...
- ...ITT, ITW, JBT, JCI, MEG, PH, PNR, PTC, ROK, RUSHA, TT, VRT, and VNT.

[Bath & Body Works](#) | BUY | BBWI US | Mkt Cap:USD11,979mn | Lorraine Hutchinson
Consumer survey shows great reception to new categories & higher intent to purchase

- Our consumer sentiment survey shows improving brand strength, great uptake on category expansions, higher intent to purchase
- 96% of respondents who have tried the men's product liked it, primarily citing great scent, quality, and value for price
- We see further upside from here driven by a sales inflection, margin recapture opportunity, and strong FCF generation

[Charles River](#) | BUY | CRL US | Mkt Cap:USD11,676mn | Derik De Bruin
NHP asset drives margins, DSA recovery timeline uncertain, Mfg rebounds

- CRL finished '23 on a strong note with both 4Q sales and Adj. EPS modestly ahead, but FY24 guide was a mixed bag
- DSA to see flat to LSD in FY24, as NHP pricing offsets muted volume, Adj. OpM to expand 50bps on NHP asset acquisition
- We update our ests and reiterate Buy rating on CRL's competitive positioning and LT trends, valuation, PO raised to \$270

[CME Group Inc](#) | NEUTRAL | CME US | Mkt Cap:USD77,463mn | Craig Siegenthaler

Our question lists – Prepping for the BofA Financials Conference next week

- Publishing our client question lists for Alts, Trads, Brokers & Exchanges before the 32nd Annual BofA Financials Conference
- The question lists are formed around key buy-side topics: bond reallocations, Alt fundamentals, Fed cuts & cash sweep revs
- A soft landing scenario favors the asset managers vs. exchanges while rate cuts provide a headwind for retail brokers

[CNH Industrial NV](#) | BUY | CNHI US | Mkt Cap:USD16,742mn | Michael**Feniger****Case for Case: Story starting to come together**

- In our view, the positive thesis on CNHI is starting to bear fruit: Q4 Ag EBIT margin up 50bps YoY on 8% YoY sales decline...
- ...and 2024 outlook: Ag decremental margin near 20% range given cost savings initiatives to offset volume downturn.
- Buy: investor day likely comes with new targets, begging the question: what is CNH EPS power on the other side of the cycle?

[General Electric](#) | BUY | GE US | Mkt Cap:USD159,337mn | Andrew Obin**Multi-industrial Question Bank: A Guide for the Perplexed**

- This report contains an extensive question bank for management meetings with 28 multi-industrial companies in our coverage.
- We provide questions for: MMM, ALLE, AME, APG, AZPN, ATMU, CARR, CNM, DOV, ETN, EMR, FLS, FTV, GE, HON,...
- ...ITT, ITW, JBT, JCI, MEG, PH, PNR, PTC, ROK, RUSHA, TT, VRT, and VNT.

[HubSpot](#) | BUY | HUBS US | Mkt Cap:USD32,425mn | Brad Sills**Solid Q4, see potential for better monetization of FY24 adds over time**

- Solid Q4, with billings upside (21% cc growth (excluding Clearbit acquisition) vs our 17%) on starter edition strength.
- Guidance for 17% cc growth excluding the price increase (1%) and Clearbit (<1%) is toward the low end of expectations.
- Though see a number of potential catalysts for reaccel to mid 20s growth. Reiterate Buy, a top pick, raise PO to \$750.

[Informatica Inc.](#) | BUY | INFA US | Mkt Cap:USD7,444mn | Koji Ikeda**Strong finish to 2023, attractive outlook for 2024, Reiterate Buy, Raise PO to \$39**

- Strong 4Q results above Street estimates, and strong FY24 cloud ARR/revenue/FCF outlook highlight its ability to execute
- Cloud growth driven by: 1) vendor consolidation, 2) attractive and pricing model, and 3) its partner network
- Reiterate Buy and raise PO to \$39 (from \$33), SOTP implies 8.0x EV/CY24E revenue

[IQVIA Holdings](#) | BUY | IQV US | Mkt Cap:USD45,918mn | Derik De Bruin**Solid 4Q23 print & FY24 base business outlook, biopharma spending steady**

- IQV's 4Q was largely in-line with BofAe/Street, '24 guide for sales and Adj EPS also in-line with expectations
- IQV remains positive on end-market fundamentals. Mgmt sees stable research spending and improving EBP customer dynamics
- We update our forecasts and raise PO to \$275, Reiterate Buy improving fundamentals and secular CRO industry trends



[JFrog](#) | BUY | FROG US | Mkt Cap:USD3,829mn | Koji Ikeda
Strong 4Q, bullish '24 cloud growth guide of mid-40s, Reit Buy, raise PO to \$54

- Beat on revenue and profitability metrics, and initiated 2024 revenue and operating income guides above Street estimates
- SaaS revenue growth expected to be mid-40% in 2024 based on consumption normalization and higher cloud migrations
- Reit. Buy, raise PO to \$54 based on 12.7x EV/CY24E revenue

[Louisiana-Pacific](#) | UNDERPERFORM | LPX US | Mkt Cap:USD5,049mn | George Staphos
Post 4Q: “Constructive” set up, Siding progressions and commercial trends

- Post reporting we raise our earnings forecasts about 14% and our PO to \$68 from \$65.
- Key points going into reporting: a) Commercial trends in Siding, b) Construction backdrop and lead times. Positive so far.
- Siding guide somewhat below our prior forecasts but marketing spend, inflation are considerations. Watch trends in siding.

[LPL Financial](#) | NEUTRAL | LPLA US | Mkt Cap:USD19,037mn | Craig Siegenthaler
Our question lists – Prepping for the BofA Financials Conference next week

- Publishing our client question lists for Alts, Trads, Brokers & Exchanges before the 32nd Annual BofA Financials Conference
- The question lists are formed around key buy-side topics: bond reallocations, Alt fundamentals, Fed cuts & cash sweep revs
- A soft landing scenario favors the asset managers vs. exchanges while rate cuts provide a headwind for retail brokers

[Martin Marietta Mate](#) | NEUTRAL | MLM US | Mkt Cap:USD33,716mn | Michael Feniger
MLM's three Ps in focus: Pricing, Portfolio, & Public (construction)

- MLM capped off a positive 2023 on a solid note: 'value over volume' comes through (pricing 15% YoY vs shipments -2% YoY).
- BofA hosting MLM CEO in Florida (Feb 28th) - look for more clues on portfolio transformation playing out and next steps.
- 2024 flat shipments: nonres down mid to high single digits offset by infrastructure - state budgets robust in Texas, Florida.

[NMI Holdings](#) | BUY | NMIH US | Mkt Cap:USD2,456mn | Mihir Bhatia
Solid results, credit drives EPS beat

- NMIH reported EPS of \$1.01 above BofAe/cons at \$0.97/\$0.96 driven by a \$10M reserve release.
- Most other line items were broadly in-line with expectations. Avg premium rate was flat q/q.
- Housing credit remains favorable and higher rates are driving strong persistency trends. Reiterate Buy.

[Uber Technologies](#) | BUY | UBER US | Mkt Cap:USD162,879mn | Justin Post
Bullish growth outlook exceeds large-cap peers, expect continued re-rating, Buy

- Today's Investor Update included an above-Street 3-Yr outlook for Bookings, EBITDA, and FCF.
- Disclosures highlight benefit of two-sided market and growing economies of scale, with subscriptions driving volume/retention.
- Top line outlook will require execution, bottom line still beatable. Raise 2025 EBITDA by 3%, PO to \$91, Buy.

PO Lowered

[BHP Group-ADR](#) | BUY | BHP US | Mkt Cap:USD148,156mn | James Redfern
Samarco settlement moving closer? \$5.7bn impairment for Nickel and Samarco

- BHP will report 1H FY24 results on 20 Feb and will take a \$2.5bn impairment against its Western Australian Nickel business.
- BHP has also raised its Samarco provision by \$3.2bn to a best estimate \$6.5bn as negotiations progress towards a settlement.
- We now assume BHP agrees to \$6.5bn settlement for Samarco paid over 10 years. PO lowered to A\$53 from A\$55, reiterate Buy.

[Herbalife](#) | UNDERPERFORM | HLF US | Mkt Cap:USD1,162mn | Anna Lizzul
4Q EPS misses, continued investment for growth ahead

- HLF reported 4Q23 EPS of \$0.28 vs. BofAe of \$0.43 and consensus of \$0.40, driven by higher SG&A costs and higher tax rate.
- Herbalife provided 2024 guidance of net sales expected to be flat y/y and gross margin flat y/y.
- We reiterate our Underperform rating and lower our PO to \$10 from \$12 prior which continues to be based on 4.5x CY25e EBITDA.

[IPG Photonics](#) | UNDERPERFORM | IPGP US | Mkt Cap:USD4,070mn | Michael Feniger
Laser beam misses the mark - disappointing guide

- Underperform: IPGP shares fell 16% as Q1 guide disappointed (EPS \$0.30-0.60 vs cons \$1.03) on weak demand, lower gross margin
- Book to bill sub 1x: OEMs reduce purchases/working down inventories, China increased competition, low PMIs weigh on demand.
- EV: positive l-term story (20% of sales) yet incremental capacity slowing in China near-term & monitor NA build-out headlines



[Williams Companies](#) | BUY | WMB US | Mkt Cap:USD40,411mn | Indraneel**Mitra****WMB & ET recaps: High expectations in a low commodity environment, Reit.****Buy**

- Following WMB & ET's 4Q & guidance releases, we believe investors' expectations for EBITDA are high given current NGL/gas px
- WMB u/p the AMNA 2.5% from its '25 guide & ET's guided '24 midpoint is \$14.6 bn w/ many expecting \$15bn even w/ weak comm px
- We outline WMB's utility demand opp & ET's FCF in detail. Both remain Buy rated w/ WMB PO at \$40 (-\$1) and ET at \$18 (unch)

Significant EPS Change**[Energy Transfer LP](#) | BUY | ET US | Mkt Cap:USD43,699mn | Indraneel Mitra****WMB & ET recaps: High expectations in a low commodity environment, Reit.****Buy**

- Following WMB & ET's 4Q & guidance releases, we believe investors' expectations for EBITDA are high given current NGL/gas px
- WMB u/p the AMNA 2.5% from its '25 guide & ET's guided '24 midpoint is \$14.6 bn w/ many expecting \$15bn even w/ weak comm px
- We outline WMB's utility demand opp & ET's FCF in detail. Both remain Buy rated w/ WMB PO at \$40 (-\$1) and ET at \$18 (unch)

[Fastly](#) | BUY | FSLY US | Mkt Cap:USD2,950mn | Madeline Brooks**A slight hiccup, but story still intact.**

- Mixed 4Q result, rev missed by -2%, EPS beat by 3c. FY24 guide came in light to account for traffic pattern volatility
- Outside of the traffic hiccup, demand trends remain strong and new product and GTM initiatives could lead to CY topline beat
- In our view guidance could be overly conservative to take into account traffic pattern risks, we see multiple paths to upside

[Genmab](#) | BUY | GMAB US | Mkt Cap:USD17,830mn | Sachin Jain**Key takes FY23: Capital allocation shifts, 1046 PI/II 1H, CD38 data 2H**

- Key takes from call 1) Capital allocation shifts. Larger BD and buyback started 2) Opex discipline detailed 3) 1046, CD38
- Pipeline progress important given increasing Darzalex LOE debate from FY29, c50% of revenues but higher EBIT contribution
- Most focus GEN1046 (PI/II data 1H) and CD38 (head to head vs Darzalex 2H).

[Occidental](#) | BUY | OXY US | Mkt Cap:USD53,816mn | Doug Leggate**4Q23 recap: EPS beat, transitory GoM impacts '24 outlook – awaiting****CrownRock**

- Adj EPS beats on higher than expected production and OxyChem outperformance
- 2024 budget & prod'n guide is light vs consensus noting less activity in the Perm & 3rd party pipeline outages in the GoM
- A headline beat & mixed guide leaves OXY's outlook rangebound pending the close of CrownRock

Owens Corning | BUY | OC US | Mkt Cap:USD13,001mn | Rafe Jadrosich
4Q23: DOOR deal could be overhang, but long-term margins & valuation attractive

- OC reported 4Q23 adjusted EPS ahead of consensus driven by upside in roofing and insulation margins.
- 1Q guide in line despite weak composites outlook. Roofing/insulation (80% of EBIT) still strong & OC raised LT roofing guide.
- DOOR acquisition could be overhang to sentiment. Underlying earnings are strong and valuation attractive. Reiterate Buy.

Playa Hotels | UNDERPERFORM | PLYA US | Mkt Cap:USD1,180mn | Shaun Kelley

Weekly RevPAR: US 4%, EU +8%, APAC +17%

- US RevPAR was 3.9% this week, with resorts outperforming driven by Las Vegas (140%)
- RevPAR was 8% in Europe, 17% in Asia Pacific, and -2% in the Caribbean

Twilio | UNDERPERFORM | TWLO US | Mkt Cap:USD13,397mn | Michael Funk

4Q23 Wrap: Light guidance and strategic uncertainty support cautious view

- TWLO's 4Q23 revenues were in line with its preannouncement for a beat, but 1Q24 topline guidance was below Street ests.
- Mgmt announced an operational review of Segment (completion expected in March), did not issue FY24 guidance pending clarity.
- A volume-based recovery remains elusive and the Segment go-to-market revamp continues to present challenges. Reit U/P.

Udemy Inc | BUY | UDMY US | Mkt Cap:USD2,074mn | Curtis Nagle
Outlook suggests NT execution and macro hiccups, but acceleration in 2H, Buy

- 4Q revenue/EBITDA beat Street est. with more mix shift to UB and opex leverage. But 1Q and 2024 outlook below Street.
- Mgmt. highlighted macro weakness in EMEA and execution issues in Vietnam and Korea, extending to 1H24. 2024 to be opex heavy.
- We see these as NT challenges, and like Udemy for UB and strong margin potential. Stock inexpensive vs peers. Reiterate Buy.

Buy Reiterations

Financials

Discover Finl | BUY | DFS US | Mkt Cap:USD27,284mn | Mihir Bhatia
Disappointing credit results in January operating metrics

- Discover reported January operating metrics highlighted by weaker than expected credit and somewhat resilient loan balances.
- Loan balances were up 12.2% y/y and are trending ahead of BofAe/consensus 1Q expectations.
- Loss rates increase 33bps m/m to 5.23%. 30 day DQs also increased 15bps m/m which implies higher near-term losses.



[Jack Henry](#) | BUY | JKH US | Mkt Cap:USD12,771mn | Jason Kupferberg
Positive vibes on the road with management

- We hosted investor meetings with JKH in SF and LA, expect seamless CEO transition
- Tone of meetings was positive, JKH is benefitting from tech modernization and share gains
- Management confidence in F24 and med-term guidance is high, maintain Buy

Health Care

[Insmmed](#) | BUY | INSM US | Mkt Cap:USD3,926mn | Jason Zemansky
Clearing the air: Deep dive on brenso's mechanism bolsters confidence in ASPEN

- We'd argue concerns for brenso reflect questions over: 1) the MoA, and 2) its ability to capture much of an estimated \$5B TAM
- In this note, we address the first, reviewing the science and brenso's development strategy with our pulmonology KOLs
- Our experts were optimistic for positive data, and given solid risk/ reward for shares, we would be buyers on the pullback

Industrials

[Wabtec](#) | BUY | WAB US | Mkt Cap:USD24,397mn | Ken Hoexter
Transport Tracker

- Hoexter's Thought of the Week: Coal rail volumes strong despite multi-yr low nat gas lvls. Reversal possibly due to weather.
- Red Sea aftermath: Liner rates moderating on seasonal demand lull post CNY. Tanker rates strong given already tight supply.
- Key Data: Wk 6 carloads 0.9% vs 7.2% last wk, DAT Load To Truck Ratio= 1.44 v 2.07 last wk, Truckload Spot= \$1.46 v \$1.47

Materials

[Sonoco Products](#) | BUY | SON US | Mkt Cap:USD5,647mn | George Staphos
4Q Flash: Qtr below our est on mixed biz results, other items, '24 guide also < BofA

- SON 4Q adj. EPS of \$1.02 was below BofA/Street at \$1.08. Versus our model, lower seg. income, higher intex tax were drags.
- Vols looked lower across all segs. and price/cost and FX were also negative impacts on income. That said, productivity...
- ...benefits strong at \$49mn y/y. Full year/1Q adj EPS guide light v our ests, more in-line w/ Street. Op cash flow down '24.

Real Estate

[Equinix](#) | **BUY** | **EQIX US** | **Mkt Cap:USD78,187mn** | **David Barden**

4Q23 First Look: 2024 adj. EBITDA and AFFO/sh guide above the Street

- EQIX reported 4Q23 results in line with BofA and the Street on adj. EBITDA and slightly ahead on AFFO/sh.
- The 2024 revenue guidance range is in line with Street estimates while adj. EBITDA and AFFO/sh guidance ranges are above.
- We view 4Q23 earnings positively given strong 2024 adj. EBITDA and AFFO/sh guidance and expect EQIX shares will outperform.

Macro & Strategy

[US Rates Watch](#) | **US Rates Research**

Rates basics: spot vs forward

- In this first edition of Rates Basics, we look at spot vs forward rates, how to choose between them and why.
- Forward rates are a reflection of carry and are below spot rates when carry is negative, above when carry is positive.
- Forwards are building blocks of term rates, by no arbitrage. Forwards allow expression of targeted views across the curve.

[Emerging Insight](#) | **GEMs FI Strategy & Economics**

Korea: BoK preview – A prolonged balancing act

- BoK likely to hold rates at 3.5% on Feb 22, the 13 straight month. One new MPC member (Kunil Hwang) assigned this week
- We expect balanced tones amid ongoing disinflation but mixed external factors (mainly better C/A but less dovish Fed)
- Key to watch: BoK's view on Fed, disinflation trend, housing market, Corp Value-Up Program, and MPC members' policy stance

[BofA on USA](#) | **US Economics**

Weekly spending update through Feb 10

- Total card spending per HH was down 0.7% y/y in the week ending Feb 10, according to BAC aggregated credit & debit card data.
- Retail ex auto spending per HH came at -1.6%/y/y in the week ending Feb 10. Overall, spending growth remained relatively soft.
- This was despite the week ending Feb 10 not having any big weather disruptions, which were likely behind the weak Jan prints.

[GEMs FI & FX Strategy Watch](#) | **Claudio Piron**

Real Money Tracker – Playing defense

- Real money investors increased underweight bond positions to 4.21% in Dec, FX positions turned slightly underweight
- Among EM bonds: Colombia is most favored (O/W 2.6%), followed by S. Africa (O/W 1.6%), Thailand is the biggest underweight
- in EM FX: MXN followed by ZAR are most overweight positions In December, while underweights remain in CNY, MYR, THB and PLN



[Small/Mid Cap Strategy](#) | Jill Carey Hall

SMID cap theme screens

- We highlight theme screens for opportunities within SMID, from Value stocks and SMEARNERS (small cap earners)...
- ...to stocks for an ISM rebound and for a broadening market, to stocks that perform well in both Downturn/Recovery regimes...
- ...to potential small cap M&A candidates and more.

[Investment Strategy](#) | Thomas (T.J.) Thornton

From AI to EVs - 10 Themes for 2024 from Fundamental Analysts

- Late last year, we published on the 10 key global macro themes for 2024 based on Year Ahead notes from macro and strategy.
- This note leverages Year Ahead notes from US fundamental analysts to identify key themes that have impact across sectors.
- These are themes that we expect to update readers on throughout the year.

Disclosures

Important Disclosures

FUNDAMENTAL EQUITY OPINION KEY: Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. **VOLATILITY RISK RATINGS**, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. **INVESTMENT RATINGS** reflect the analyst's assessment of both a stock's absolute total return potential as well as its attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). Our investment ratings are: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. An investment rating of 6 (No Rating) indicates that a stock is no longer trading on the basis of fundamentals. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R1}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R1} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

INCOME RATINGS, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. *Coverage Cluster* is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofA Global Research report referencing the stock.

Other Important Disclosures

Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks.

The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

"BofA Securities" includes BofA Securities, Inc. ("BofAS") and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Securities" is a global brand for BofA Global Research.

Information relating to Non-US affiliates of BofA Securities and Distribution of Affiliate Information:

BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at www.bofam.com/BofASEdisclaimer; BofA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BofA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BofA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSF); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofAS India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSF; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities, including BofA Europe and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the [Electronic Communications Disclaimers](#) for further information.

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information 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. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security

discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities. This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

Copyright and General Information:

Copyright 2024 Bank of America Corporation. All rights reserved. iQdatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities.

Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein.

Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.