

# **India** Flow Trails

# Jan'24: FII outflows led by Financials

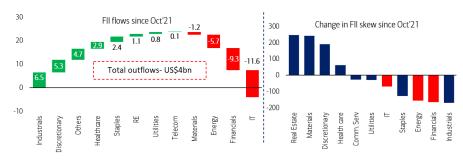
**Equity Strategy** 

### Financials lead FII outflow, DII momentum strong

- After witnessing record FII inflows in Dec'23, **Jan'24 saw reversal of FII flows** (-US\$3bn vs +US\$8bn in Dec'23). Feb'24 tracking at -US\$0.5bn.
- FII Outflows were led by Financials (-US\$3.6bn, highest FII outflow), followed by Staples & Discretionary (-US\$0.3bn each). FII AUM stands at US\$757bn (+2.7% MoM)
- **DII flows came in at US\$4.4bn** in Jan'24 (vs US\$3.1bn in Dec'23). Active DII flows stood at US\$4bn constituting 90% of total DII flows (vs US\$3bn in Dec'23), while passive flows came in at US\$0.4bn (vs US\$0.1bn in Dec'23). DII AUM stood at US\$414bn. (+2.8% MoM)
- **DII inflows across schemes:** SMID caps continue to see strong inflows US\$0.6bn while large cap saw subdued inflows of US\$0.2bn in Jan'24. Only focused funds saw minor outflows in Jan'24.
- **Continued upward momentum of SIP** with Jan'24 coming in at US\$2.3bn (vs US\$2.1bn in Dec'23). Jan'24 IPO announcements stand at US\$0.7bn, on track to achieve the CY24 target of US\$8bn.
- EM funds' positioning reverse: EM fund positioning towards India remained at Neutral in Dec'23 after turning negative for the first time in Sep'23, China's position further dropped to 31% (vs 33 in Nov'23).
- FII outflows since Oct'21-Since the market started pricing in rate hikes in Oct'21, India has seen FII outflows of US\$4bn till date, with IT, Financials and Energy seeing the highest outflows. In anticipation of rate cuts and reversal of FII outflows, these sectors could see revival of flows.

### Exhibit 1: FII outflows since Oct'21.

In anticipation of rate cuts, IT, Financials and Energy could see revival of FII flows



Source: BofA Global Research, Bloomberg, NSDL

BofA GLOBAL RESEARCH

### Details on page 2....

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.

>> Employed by a non-US affiliate of BofAS and is not registered/qualified as a research analyst under the FINRA rules.

Refer to "Other Important Disclosures" for information on certain BofA Securities entities that take responsibility for the information herein in particular jurisdictions.

BofA Securities does and seeks to do business with issuers 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.

Refer to important disclosures on page 13 to 15.

### 20 February 2024

Equity Strategy India

Amish Shah, CFA >> Research Analyst BofAS India +91 22 6632 8656 shah.amish@bofa.com

Udit Dhekale >> Research Analyst BofAS India udit.dhekale@bofa.com

### **Abbreviations:**

UW = Underweight

OW = Overweight

NW - Neutral weight

RE – Real Estate

EMs = Emerging markets

MoM = Month on Month

TTM = Trailing 12M

MTD = Month-to-Date

YTD = Year-to-Date

EMs- Emerging Markets

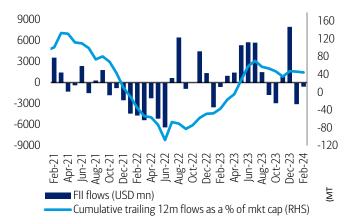
- FII flows for India: After witnessing record inflows of US\$8bn by FIIs in Dec'23, Jan'24 saw outflows of US\$3bn (highest outflows since Jan'23). Feb'24 tracking at US\$0.5bn.
- FII flows India vs other EMs: India had the highest FII inflows among the EM basket on TTM basis at US\$18bn followed by South Korea (US\$13bn) and Taiwan (US\$8bn). Although EM fund allocation to India remains strong at 25% (vs 23.8% in Nov'23), EM fund positioning to India remained neutral after turning negative in Sep'23 while China's position further dropped to 31% in Dec23 (vs 33% in Nov'23)
- FII sectoral deployment and ownership: FII ownership remained steady at 18.7% in Jan'24. Outflows were seen in 6/11 sectors with Financials (-US\$3.6bn; highest ever outflow) leading the pack. Inflows were seen in IT (US\$0.5), Utilities & Energy (US\$0.3bn each).
- **FII AUM:** FII AUM reached US\$757bn in Jan'24 led by Energy (10.56% +37bps), IT (10.04%, +22bps) and RE (4.2%, +18bps), while Financials (31.34%, -53 bps) saw sharp AUM decline.
- FIIs sector positioning: FII remains most OW in RE (+298 bps) followed by Financials, (+269bps), Energy (+267bps) & Discretionary (+244ps) while Materials (-487bps), Industrials (-424bps), and Staples (-109bps) were the most UW sectors.
- **DII flows:** DII flows came in strong at US\$4.4bn in Jan'24 (vs US\$3.1bn in Dec'23) higher than its LTA of US\$2.6bn. Active funds contributed 90% of the total DII flows (US\$4bn) while passive funds inflows were at US\$0.4bn. SMID cap funds continue to witness strong inflows of US\$0.6bn in Jan'24. Sectoral /Arbitrage funds both recorded inflows of US\$0.6bn (vs US\$0.6bn/US\$0.7bn in Dec'23) Large cap funds saw subdued inflows of US\$0.2bn with only one fund (Focused fund) seeing outflows in Jan'24 (-US\$0.02bn)
- **DII sector allocation**: DIIs ownership levels remain steady at 9.2% (+0.1% QoQ). Sectorally, Industrials saw a higher allocation (10.5%, +96bps) while allocation to Financials (32.3%, -132bps) and Healthcare (6.9%, -52bps) dropped further. Rest of the sectors remained steady.
- **DII sector positioning**: DMFs were most OW in Financials (+363bps), Healthcare (+96bps), and Discretionary (+40bps) while most UW on Staples (-149bps), Energy (-148bps) and IT (-99bps)
- SIP inflows & Retail volumes SIP inflows continued its upward momentum, with Jan'24 inflows at US\$2.3bn (vs US\$2.1bn in Dec'23). Retail trading activity continued its upward trajectory and currently stands at 58% while the share of FII and DII continue to fall (24%/18%).
- **Primary Market Flows**: Deal count went up to 61 in Jan'24 (vs 61 in Dec'23) while deal value dropped down to US\$3bn (vs US\$6bn in Dec'23). Feb'24 tracking at US\$ 0.9bn. Jan'24 IPO announcements stand at US\$0.7bn, on track to achieve the CY24 target of US\$8bn.



## **Focus Charts**

### **Exhibit 2: FII Inflows into Indian Equities Market**

After witnessing record inflows in Dec'23, Flls recorded outflows of US\$3bn in Jan'24, its highest since Jan'23. Feb'24 flows tracking weak at -US\$0.5bn

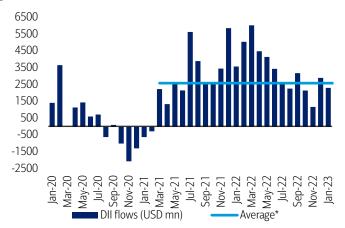


Source: BofA Global Research, NSDL; \*February data is till Feb 19th

BofA GLOBAL RESEARCH

### Exhibit 4: DII flows into Indian equities market

Jan'24 saw strong Dll inflow of US\$4.4bn (vs US\$3.1bn in Dec'23); higher than its LTA of US\$2.6bn.



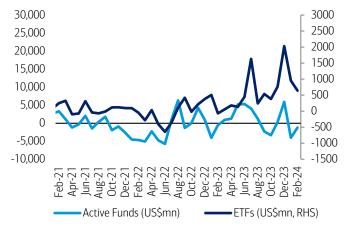
Source: BofA Global Research, AMFI, Bloomberg

\*Average excludes periods between witnessing exceptionally high flows >U\$\$4bn/month

BofA GLOBAL RESEARCH

### Exhibit 3: FII flows through active and passive funds

Active funds saw outflows to the tune of US\$4bn (highest outflow since June'22) while passive funds saw moderate inflows of US\$0.9mn in Jan'24

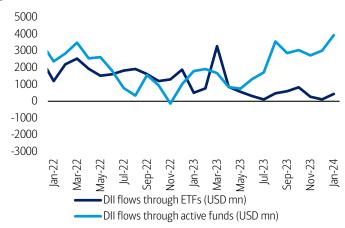


Source: BofA Global Research, NSDL, Bloomberg; \*February data is till Feb 19th

BofA GLOBAL RESEARCH

### Exhibit 5: DII flows through active & passive funds

Active DII flows for Jan'24 came in at US\$4bn (highest since July'21) while passive flows were at US\$0.4bn (vs US\$3bn/US\$0.1bn in Dec'23)

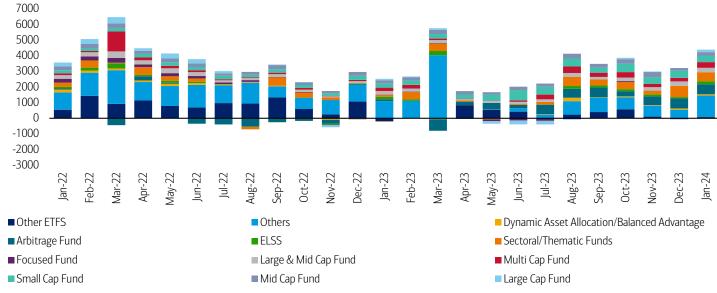


Source: BofA Global Research, AMFI, Bloomberg



### **Exhibit 6: Monthly DII flows: split across fund types**

SMID cap funds continue to witness strong inflows of US\$0.6bn in Jan'24. Sectoral /Arbitrage funds both recorded inflows of US\$0.6bn (vs US\$0.6bn/US\$0.7bn in Dec'23) Large cap funds saw subdued flows at US\$0.2bn with only one fund (Focused fund) seeing outflows in Jan'24

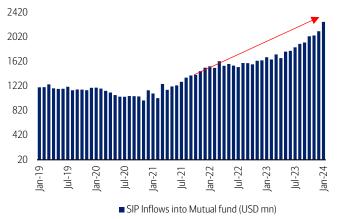


Source: BofA Global Research, AMFI, Bloomberg

BofA GLOBAL RESEARCH

### **Exhibit 7: SIP inflows into Mutual Funds**

SIP flows continue to remain strong at US\$2.3bn in Jan'24 (vs US\$2.1bn in Dec'23) registering a growth of 7% MoM

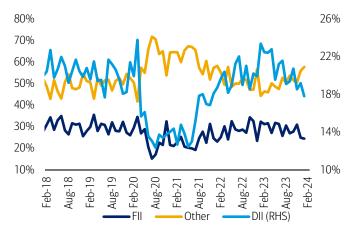


Source: BofA Global Research, AMFI, CMIE

BofA GLOBAL RESEARCH

### Exhibit 8: Retail trading activity by FII, DII & Others

Retail trading activity continued its upward trajectory and currently stands at 58% while the share of FII and DII continue to fall (24%/18%).

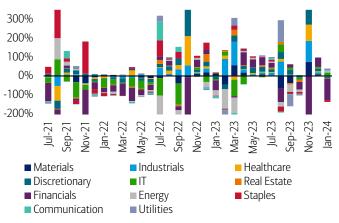


Source: BofA Global Research, Bloomberg

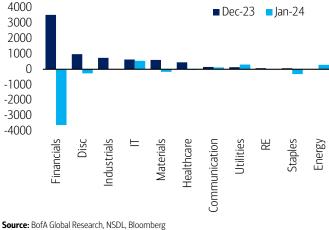


### **Exhibit 9:- Sector wise monthly FII flows allocation**

After witnessing highest inflows post covid in Dec'23, Jan'24 witnessed highest ever outflows in Financials since Mar'17(-US\$3.6bn), followed by Staples (-US\$0.3bn) and Disc (-US\$0.2bn). IT (US\$0.5bn), Utilities (US\$0.3bn) and Energy (US\$0.3bn) saw inflows.



**Exhibit 10: Sector-wise monthly FII flows allocation (\$mn)** Outflows were seen in 6/11 sectors with Financials leading the pack.

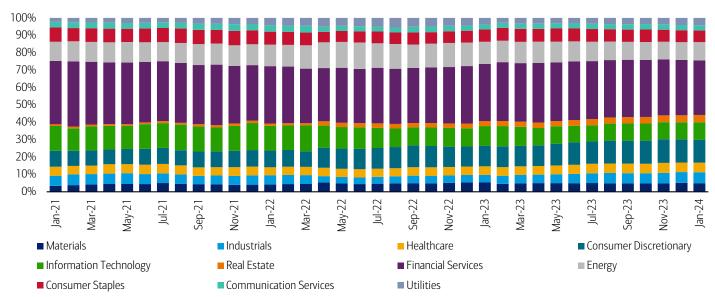


Source: BofA Global Research, NSDL, Bloomberg

BofA GLOBAL RESEARCH

### **Exhibit 11: Sector-wise split of FII AUM**

FII AUM reached US\$757bn in Jan'24 led by Energy (10.56% +37bps), IT (10.04%, +22bps) and RE (4.2%, +18bps), while Financials (31.34%, -53 bps) saw sharp AUM decline.

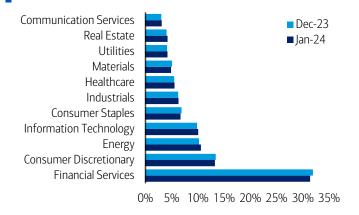


Source: BofA Global Research, NSDL, Bloomberg

BofA GLOBAL RESEARCH

### **Exhibit 12: FII AUM allocation amongst sectors**

...while rest remained at similar level

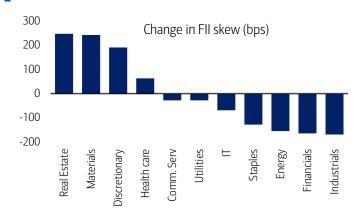


Source: BofA Global Research, NSDL, Bloomberg

BofA GLOBAL RESEARCH

### Exhibit 14: Change in FII skew (in bps) vs Oct'21 peak

From the time the markets started pricing in rate hikes in Oct'21, RE (247bps), Materials(242bps) and Discretionary (191bps) saw the highest increase in allocation while Industrials (169bps), Financials (165bps), Energy (155bps) and Staples (128bps) saw the fall in allocations.

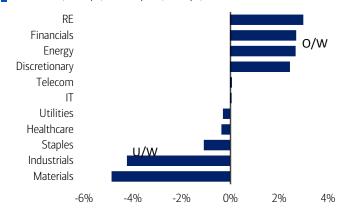


Source: BofA Global Research, NSDL, Bloomberg

BofA GLOBAL RESEARCH

### **Exhibit 13: FII sector positioning**

FII remains most OW in RE (+298 bps) followed by Financials. (+269bps), Energy (+267bps) & Discretionary (+244ps) while Materials (-487bps), Industrials (-424bps), and Staples (-109bps) were the most UW sectors

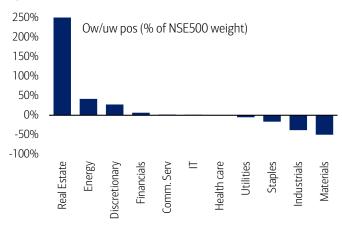


Source: BofA Global Research, NSDL, Bloomberg

BofA GLOBAL RESEARCH

### **Exhibit 15: FII sector positioning intensity**

Benchmarked to NSE500 weights, FII ow/uw skew intensity is most significant on RE, Energy, Discretionary, Materials & Industrials indicating higher conviction

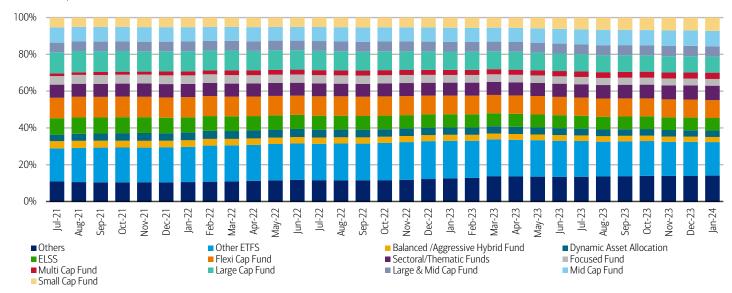


Source: BofA Global Research, NSDL, Bloomberg



### **Exhibit 16: Split of Domestic equity AUM**

DII equity AUM inched up to US\$415bn in Jan'24 with Small cap funds (7.2%, +20bps), Sectoral funds (7.9%, +15bps) seeing their highest AUM allocation while Large cap funds (8.7%, 13bps) saw its lowest AUM allocation.

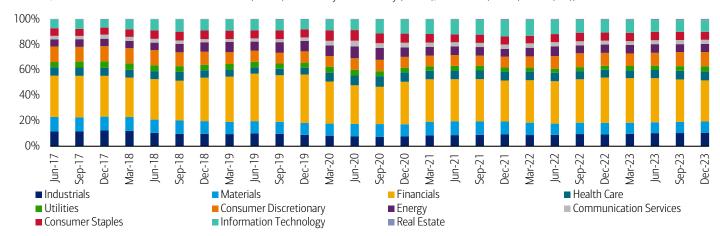


Source: BofA Global Research, AMFI, Bloomberg

BofA GLOBAL RESEARCH

### **Exhibit 17: Sector wise DIIs AUM split**

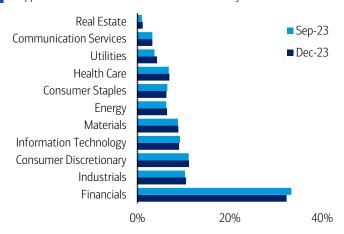
As of Dec'23, DII allocation was favored towards Financials (32.3%) followed by Discretionary (11.2%), Industrials (10.5%) and IT (9%))



Source: BofA Global Research, CMIE

### **Exhibit 18: DMF AUM allocation amongst sectors**

As of Dec'23, Industrials saw a higher allocation (10.5%, +96bps) while allocation to Financials (32.3%, -132bps) and Healthcare (6.9%, -52bps) dropped further. Rest of the sectors remained steady

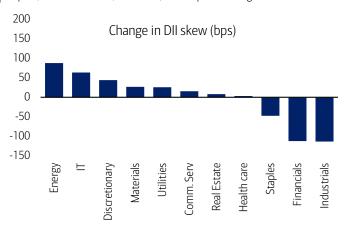


Source: BofA Global Research, CMIE

BofA GLOBAL RESEARCH

# Exhibit 20: Change in DII skew (in bps) vs Sep'21 (near market high)

DIIs have increased their allocation to Energy, IT, Discretionary the most since Sep'21, while Industrials, Financials, and Staples saw largest cuts

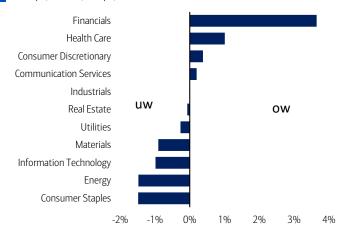


Source: BofA Global Research. CMIE

BofA GLOBAL RESEARCH

### **Exhibit 19: DMF Sector Positioning**

DMF's were most OW in Financials (+363bps), Healthcare (+96bps), and Discretionary (+40bps) while most UW on Staples (-149bps), Energy (-148bps) and IT (-99bps)

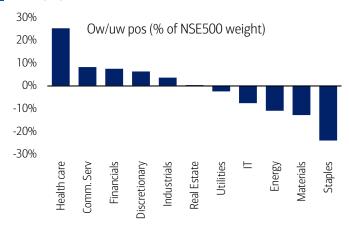


Source: BofA Global Research, CMIE

BofA GLOBAL RESEARCH

### **Exhibit 21: DII sector positioning intensity**

Benchmarked to NSE500 weights, DII OW/UW skew intensity is more significant on Healthcare, Comm. Serv, Financials, Staples, and Materials showing higher conviction

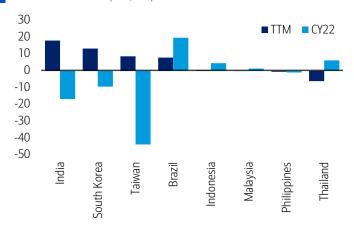


Source: BofA Global Research, CMIE



#### **Exhibit 22: Cumulative FII flows**

Since Jan'23, India saw highest inflows (US\$18bn) within the EM basket, followed by South Korea (US\$13bn) and Taiwan (US\$8.n), while outflows were seen in Thailand (-US\$6bn)

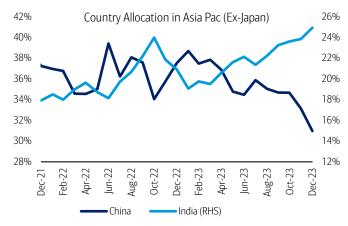


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

### Exhibit 24: EM AUM: country allocation (%) for India & China

EM fund allocation to India continued its upward trajectory in Dec'23 (25%, +109bps MoM) while allocation to China shrank by 218bps MoM to 31%

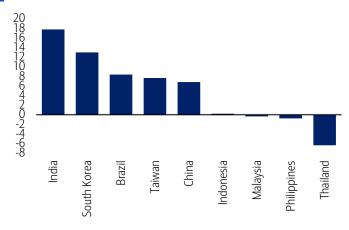


**Source:** BofA Global Research, BofA Asia Pac Quantitative Strategy, MSCI, FTSE, FactSet, 13F Filings, Benchmark Indices, Country Stock Exchanges

BofA GLOBAL RESEARCH

### **Exhibit 23: Cumulative FII flows**

Since Jan'23, FlIs have withdrawn money from Thailand, while all major EM countries have seen inflows,

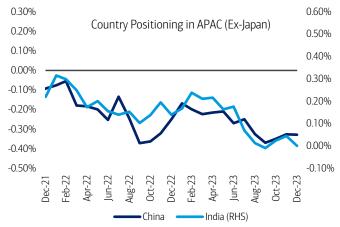


Source: BofA Global Research, Bloomberg \*Data of China till 30th June 23.

BofA GLOBAL RESEARCH

### Exhibit 25: Country positioning for India and China (ow/uw)

India's position remained Neutral in Dec'23, after moving into the negative territory in Sep'23. China position declined further (-0.33% vs -0.32% in Nov'23)

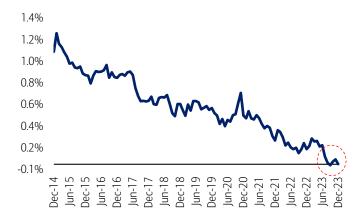


**Source:** BofA Global Research, BofA Asia Pac Quantitative Strategy, MSCI, FTSE, FactSet, 13F Filings, Benchmark Indices, Country Stock Exchanges



### **Exhibit 26: India Country Positioning**

After moving into the negative territory for the first time in Sep'23, India's active positioning moved up to Neutral weight in Dec'23.

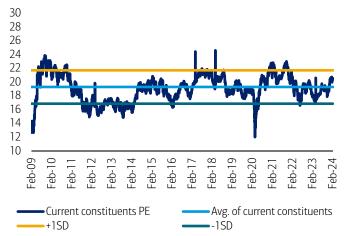


**Source:** BofA Global Research, BofA Asia Pac Quantitative Strategy, MSCI, FTSE, FactSet, 13F Filings, Benchmark Indices, Country Stock Exchanges

BofA GLOBAL RESEARCH

### **Exhibit 28: BofA Nifty Band Chart**

Nifty trading at 20.3x vs long-term average at 19x basis bottom-up weighted average of 1yr fwd earnings of current Nifty constituents



**Source:** BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

### Exhibit 27: FII ownership % (NSE500)

FII ownership levels fell to 18.7% from 19.1% in June 23 largely on the back of DIIs and retails participants increasing their share at a faster pace than FIIs.

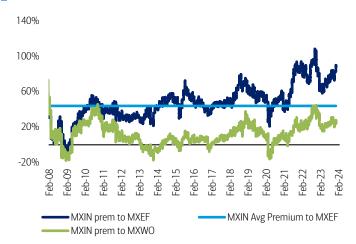


Source: BofA Global Research, CMIE, Bloomberg

BofA GLOBAL RESEARCH

### Exhibit 29: MSCI India premium to EM, World

MSCI India valuation premiums to EM/World at shrunk to 94%/23% from the peak of 117%/48%, but remains elevated vs average levels (44%/11%)

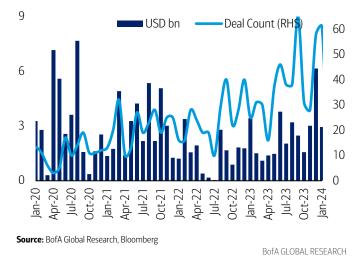


Source: BofA Global Research, Bloomberg



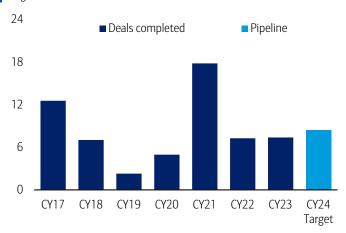
### **Exhibit 30: Primary Market Deals**

Deal count went up to 61 in Jan'24 (vs 61 in Dec'23) while deal value dropped down to US\$3bn (vs US\$6bn in Dec'23). Feb'24 tracking at US\$ 0.9bn



### **Exhibit 31: IPO expectations for CY24**

Jan'24 IPO announcements stand at US\$0.7bn, on track to achieve the CY24 target of US\$8bn..



Source: BofA Global Research, Bloomberg, Media articles

BofA GLOBAL RESEARCH

## **Special Disclosures**

In accordance with the SEBI (Foreign Portfolio Investors) Regulations, 2019 and with guidelines issued by the Securities and Exchange Board of India (SEBI), foreign investors (individuals as well as institutional) that wish to transact the common stock of Indian companies must have applied to, and have been approved as per SEBI (Foreign Portfolio Investors) Regulations, 2019. Each investor who proposes to transact common stock of Indian companies will be required to obtain Foreign Portfolio Investor (FPI) registration as per SEBI (Foreign Portfolio Investors) Regulations, 2019. Certain other entities are also entitled to transact common stock of Indian companies under the Indian laws relating to investment by foreigners. BofA Securities reserves the right to refuse to provide a copy of research on common stock of Indian companies to a person not resident in India. American Depositary Receipts (ADR) representing such common stock are not subject to these Indian law restrictions and may be transacted by investors in accordance with the applicable laws of the relevant jurisdiction. Global Depository Receipts (GDR) and the Global Depository Shares (GDS) of Indian companies, Indian limited liability corporations, have not been registered under the U.S. Securities Act of 1933, as amended, and may only be transacted by persons in the United States who are Qualified Institutional Buyers (QIBs) within the meaning of Rule 144A under the Securities Act. Accordingly, no copy of any research report on Indian companies' GDRs or GDSs will be made available to persons who are not QIBs.

BofA Securities India Limited (BofAS India) is regulated by the Securities and Exchange Board of India (SEBI) and provides the following services in India: Research, Equity Sales & Trading, Futures & Options, Electronic Trading, Equity Capital Markets, Debt Capital Markets and M&A. SEBI Registration Nos. Research Analyst: INH000000503, Stock Broking: INZ000217333 (Trading and Clearing Member of NSE and BSE – Capital Markets and Equity Derivatives), Merchant Banker: INM000011625, CIN U74140MH1975PLC018618. Registration granted by SEBI and certification from National Institute of Securities Markets (NISM) in no way guarantee performance of the intermediary or provide any assurance of returns to investors. BofAS India's registered office is at Ground Floor, A Wing, One BKC, G



Block, Bandra Kurla Complex, Bandra (East), Mumbai 400 051, India, Tel: +91 22 6632 8000 and the contact details of its Compliance Officer (Shervin Purohit) are: Tel: (91-22) 6632 8853, Email: shervin.purohit@bofa.com. For specific grievances, if any, please contact the Grievance Officer (Amish Shah) and contact details are: Tel: (91-22) 6632 8000, Email: dg.rsch\_in\_complaint@bofa.com. Investment in securities market are subject to market risks. Read all the related documents carefully before investing.



# **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<sup>R1</sup>

Buy	≥ 10%	≤ /0%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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.

BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

## **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.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.

Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments. Refer to BofA Global Research policies relating to conflicts of interest.

\*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 Research Reports:

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 Prudential 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.bofaml.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 (Hong Kong): Merr (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSFC); 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 (Israel): Merrill (Israel): Merrill Lynch (Israel): Merrill (Israel): Merr 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 HKSFC; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in 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.7616 of the Corporations Act 2001. With the exception of Bank of America NA., 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.

This report may contain a short-term trading idea or recommendation, which highlights a specific near-term catalyst or event impacting the issuer or the market that is anticipated to have a short-term price impact on the equity securities of the issuer. Short-term trading ideas and recommendations are different from and do not affect a stock's fundamental equity rating, which reflects both a longer term total return expectation and attractiveness for investment relative to other stocks within its Coverage Cluster. Short-term trading ideas and recommendations may be more or less positive than a stock's fundamental equity rating.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned herein. Investors in such securities and instruments, including ADRs, effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

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 inform

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.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

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.

