

## Turkish Banks

# Why domestic-retail investors shouldn't be a worry

**Industry Overview** 

## Fears of possible overhang as retail clients feel squeeze

One issue that frequently comes up during meetings is the outlook for domestic investors. These stakeholders have come to dominate the Turkish stock market over the past three years, with the number of retail accounts exceeding 8mn (vs. <1.2mn in early 2020) and domestic ownership reaching multi-decade high levels. The key concern is a potential overhang in light of past years' gains and the revival of alternative products (+40% rates in deposits and bonds) as affordability becomes a growing problem. While this could be a drag for the broader stock market performance, large-cap private banks are likely to be less affected (see below). We reiterate our positive view (see our indepth report: Turkish Banks: The Great Normalization - Buy private banks.)

## Retail investors +5x since 2020; affordable inflation hedge

The absence of alternative investment products and constraints on buying big-ticket tangible assets have positioned stocks as an attractive and 'affordable' inflation hedge for a broad audience. Retail accounts now exceed 8mn from 1.2mn in 2020 (Exhibit 3). Rising demand and regulatory actions have also led local institutional investors to raise their equity exposures. The percentage of foreign ownership has declined to multidecade lows (Exhibit 5). Meanwhile, corporates have reaped the benefit of the increased popularity of the stock market, and IPO and SPO numbers have risen steeply (Exhibit 10, Exhibit 12).

## Flood of retail investors not a concern for large-cap banks

The Turkish stock market may seem to have the usual ingredients for an inflated market: rising popularity among retail investors; continuing IPO wave; and triple-digit real returns in various indices. We argue that this top-down approach is misleading as it is not a widespread theme across sectors. Incremental retail demand has mostly targeted small caps (Exhibit 16) and IPOs (Exhibit 15). Our focus is blue-chip bank stocks and we see limited risks for a domestic-retail driven overhang, particularly for Buy-rated private banks. Higher free-float market caps, decent trading volumes and benign performance and valuation levels suggest to us that retail involvement in these stocks is limited.

## Buy Akbank, Garanti, Isbank and Yapi

Turkish private banks have performed well in 2023 versus EM peers (Exhibit 19), though recovering off a low base. Their longer-term performances remain significantly below EM banks (Exhibit 20) as well as Turkish Industrial companies (Exhibit 21). We think valuations remain attractive within the EEMEA and GEM universe (Exhibit 22). We reiterate our Buy ratings for Akbank, Garanti, Isbank and Yapi.

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.

Bof A 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 12 to 15. Analyst Certification on page 11. Price Objective Basis/Risk on page 9.

Timestamp: 11 December 2023 12:15AM EST

>> Employed by a non-US affiliate of BofAS and is not registered/qualified as a research analyst

#### 11 December 2023

Eauity Turkey Banks

David Taranto >> Research Analyst +44 20 7996 7510 david.taranto@bofa.com

#### Exhibit 1: # of investors in Turkish stock markets

Up from 1.2mn in 2020 to +8mn in 2023

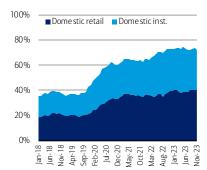


Source: Turkish Capital Markets Board Association. BofA Global Research

BofA GLOBAL RESEARCH

## **Exhibit 2: Ownership of equities**

Locals own >70% of equities



Source: Turkish Capital Markets Board Association, BofA Global Research

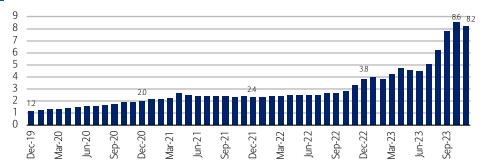
\*Figures are adjusted to exclude unlisted stakes of ONB Finansbank (ONBFB)

## Domestic retail ownership has doubled

- Number of domestic investors in Turkish stock market exceeds 8mn. This was less than 2mn in early 2020.
- Domestic retail investors' ownership has doubled to c.40%. Foreign ownership remains near all-time lows at <30%.
- Equities constitute 13% of residents' financials assets vs. 7% in 2020.

### Exhibit 3: # of investors in Turkish stock market (in mn)

Number of investors have exceeded 8mn vs. <2mn in 2020

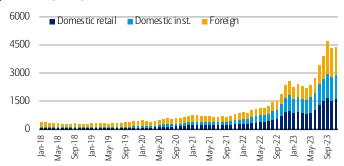


**Source:** Capital Markets Board (SPK), Turkish Capital Markets Board Association, BofA Global Research

BofA GLOBAL RESEARCH

## Exhibit 4: Progression of equity ownership\*

Domestic participation has increased



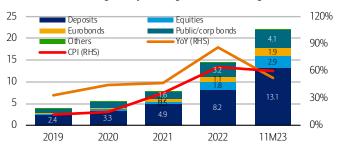
**Source:** Turkish Capital Markets Board Association, BofA Global Research

\*Figures are adjusted to exclude unlisted stakes of QNB Finansbank (QNBFB)

BofA GLOBAL RESEARCH

### Exhibit 6: Progression of residents' financial assets

Financials assets have generally been a good inflation hedge

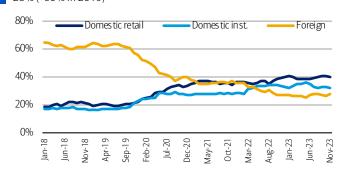


 $\textbf{Source:} \ \ \text{Turkish Capital Markets Board Association, TUIK, BofA Global Research *YtD growth rate and YtD CPI figure for 11M23$ 

BofA GLOBAL RESEARCH

## Exhibit 5: Breakdown of equity ownership

Domestic retail ownership at 40% (vs. 20 %in 2019), foreign ownership at 28% (+60% in 2019)



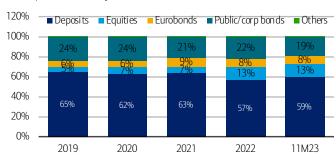
**Source:** Turkish Capital Markets Board Association, BofA Global Research

\*Figures are adjusted to exclude unlisted stakes of QNB Finansbank (QNBFB)

BofA GLOBAL RESEARCH

## Exhibit 7: Breakdown of residents' financial assets

% of equities has nearly doubled



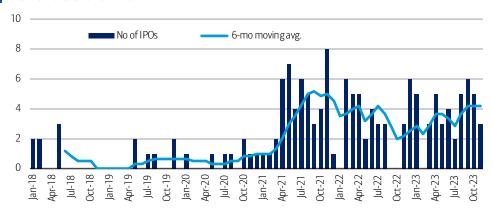
**Source:** Turkish Capital Markets Board Association, BofA Global Research

## The IPO wave remains intact

- IPO wave that has started in 2021 has not slowed down.
- SPOs and capital injections have also been on the rise.

### Exhibit 8: Progression of IPOs - number of new listings

The IPO wave remains intact

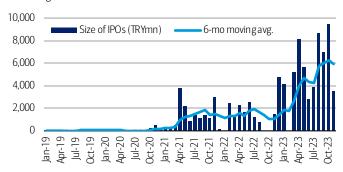


Source: Turkish Capital Markets Board Association, BofA Global Research

BofA GLOBAL RESEARCH

#### Exhibit 9: Size of the IPOs (in TRYmn)

Increasing in TRY terms...

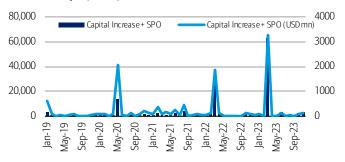


**Source:** Turkish Capital Markets Board Association, BofA Global Research

BofA GLOBAL RESEARCH

#### Exhibit 11: Size of SPOs and capital injections

Peaks driven by capital injections at state banks

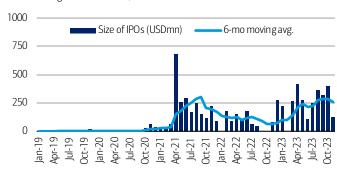


Source: Turkish Capital Markets Board Association, BofA Global Research

BofA GLOBAL RESEARCH

## Exhibit 10: Size of the IPOs (in USDmn)

...remains high in USD terms, as well

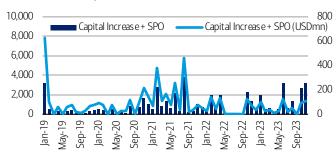


**Source:** Turkish Capital Markets Board Association, BofA Global Research

BofA GLOBAL RESEARCH

#### Exhibit 12: Size of SPOs and capital injections (excl. state banks)

Flows remain above pre-2020 levels



 $\textbf{Source:} \ \ \mathsf{Turkish} \ \ \mathsf{Capital} \ \ \mathsf{Markets} \ \mathsf{Board} \ \mathsf{Association}, \ \mathsf{BofA} \ \mathsf{Global} \ \mathsf{Research}$ 

The peak in Jan19 is related to Akbank's right issue

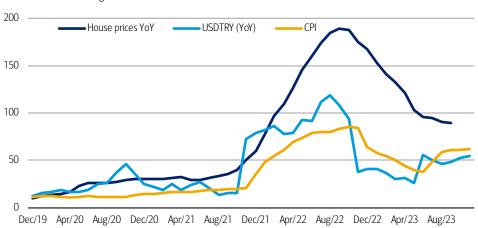


# Stocks are no longer the only option

 Deposit rates and bond yields have risen. Hence, stock market is no longer the only viable option for inflation hedge.

## Exhibit 13: Backward looking indicators (CPI, House prices and Currency)

Inflation has been a big constraint

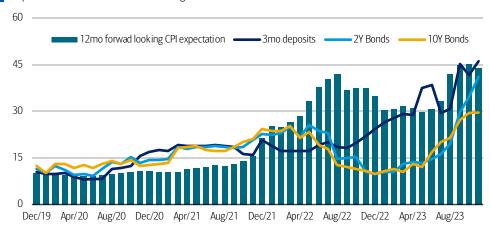


Source: Bloomberg, TUIK, CBT

BofA GLOBAL RESEARCH

## Exhibit 14: Forward looking indicators (interest rates vs. CPI expectations)

Deposit and bond rates are attractive again



Source: Bloomberg, TUIK, CBT

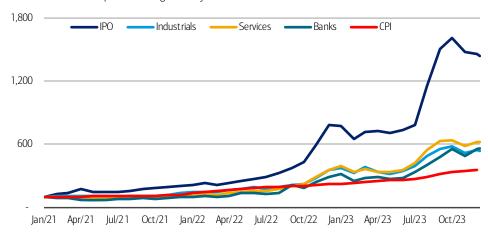


# Inflows mostly targeted IPOs & small caps

 The IPO Index and small caps have outperformed other indices in the Turkish stock market by a wide margin.

### Exhibit 15: Performance comparisons across key sectors in Turkish stock market

The IPO Index has outperformed significantly

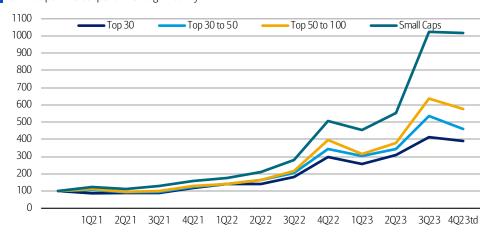


Source: Bloomberg \* IPO: XHARZ Index, Industrials: XUSIN Index, Services: XUHIZ Index, Banks: XBANK Index,

BofA GLOBAL RESEARCH

## Exhibit 16: Performance comparisons across key indices in Turkish stock market

Small caps have outperformed significantly



**Source:** Bloomberg, BofA Global Research

Calculations are based on aggregate FF Market Caps of XU030, XU050, XU100 and XUTUM indices. Performances are based on intra-quarter returns to avoid the implications caused by the revisions in the indices.

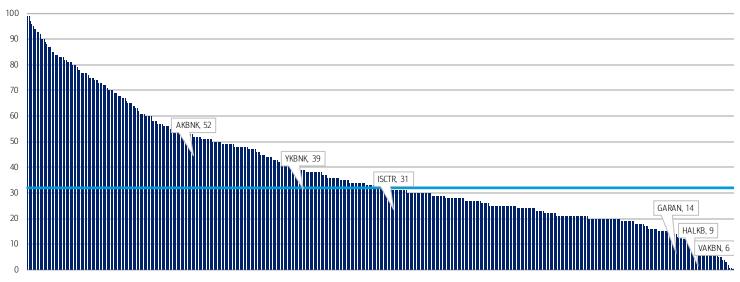


## Private banks are fine

 Private banks' free float Mcaps are materially above the stock markets' average (Akbank highest, Garanti lowest among private peers).

## Exhibit 17: % of free floats – Ranking of all listed stocks (516 in total)

Akbank, Yapi and Isbankhave decent free floats. Garanti's float have declined in recent years. State banks floats are in single digits.

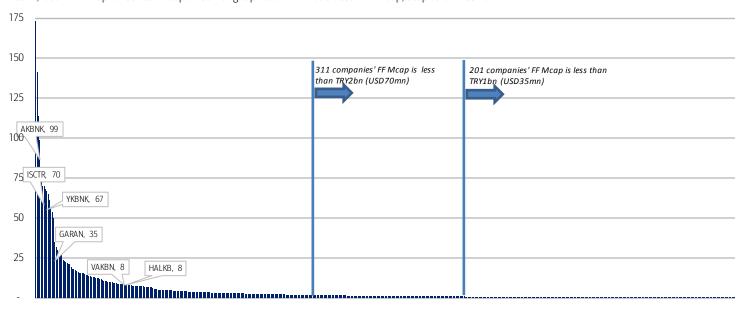


Source: Rasyonet, BofA Global Research

BofA GLOBAL RESEARCH

## Exhibit 18: Ranking of free-float Mcaps (in TRYbn, 516 stocks in total)

Akbank, Isbank and Yapi's free-float Mcaps are among top 10. Garanti has a decent FF Mcap, despite low free-float



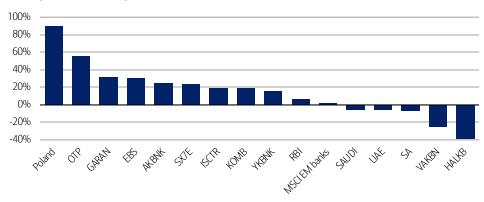
Source: Rasyonet, BofA Global Research



- Turkish private banks have generally performed well this year when compared with EM peers. However, it was a recovery off a low base.
- Longer-term performance vs. EM banks and Turkish Industrial companies remain in the negative territory

### Exhibit 19: EEMEA banks - YtD performance comparison (USD terms)

Turkish private banks have performed well YtD...

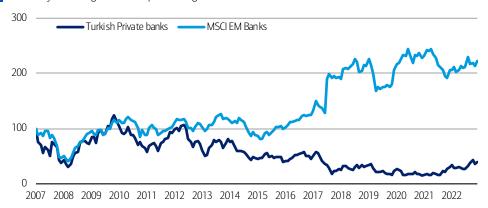


Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

#### Exhibit 20: Turkish private banks' total Mcap vs. MSCI EM banks

...but they have long been underperforming EM banks

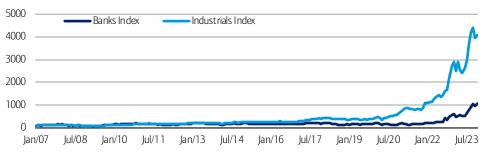


Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

### Exhibit 21: Turkish banks vs. Turkish Industrials

Banks have underperformed industrials in the long-run



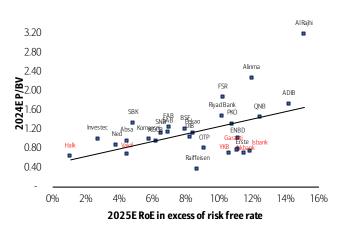
**Source:** Bloomberg, BofA Global Research



- Turkish banks' valuations remain attractive within EEMEA / GEM context.
- Rerating in the Turkish banks has been muted vs. Turkish industrials and Turkish IPO index.

# Exhibit 22: EEMEA banks – 2025 RoE in excess of 10Y rates vs. 2024E PB

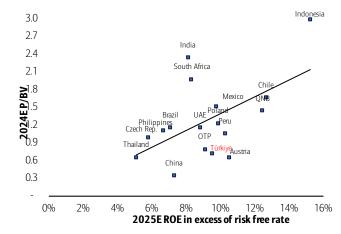
Private banks appear in the attractive zone (below the trend line)



**Source:** Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

# **Exhibit 23: GEM banks – 2025 RoE in excess of 10Y rates vs. 2024E PB** Türkiye is in the attractive zone (below the trend line)

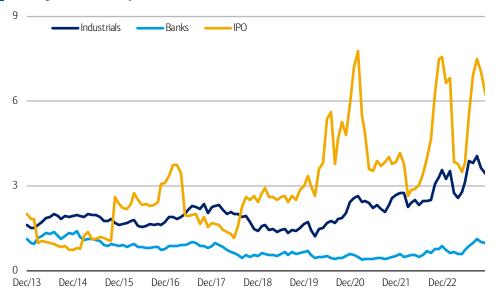


**Source:** Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

## Exhibit 24: P/BV comparison of Turkish banks vs. Turkish Industrials and Turkish IPO Index

Re-rating has been relatively muted at banks



Source: Bloomberg, BofA Global Research



### Exhibit 25: Companies mentioned in this report

Companies mentioned in this report are as follows:

Name	BofA Ticker	Bloomberg Ticker	Opinion	Q-R-Q	Price
Akbank	XHRAF	AKBNK TI	Buy	C-1-7	35.88
Garanti Bank	TKGBF	GARAN TI	Buy	C-1-7	59.4
Vakif Bank	TKYVF	VAKBNTI	Underperform	C-3-9	13.5
Yapi Kredi Bank	YVKBF	YKBNK TI	Buy	C-1-7	19.89
Isbank	TYIBF	ISCTR TI	Buy	C-1-7	22.44
Halkbank	THBIF	HALKB TI	Underperform	C-3-9	12.58

BofA GLOBAL RESEARCH

## Price objective basis & risk

## Akbank (XHRAF)

Source: BofA Global Research

Our TRY53.50 PO values Akbank with BRSA consolidated financial forecasts, using a dividend discount model and a Gordon Growth model, assigning equal weight to each method.

In Gordon Growth methodology we use 2025-27 average RoE and CoE assumptions and 2025E BV to calculate the YE2025 value. We then discount it to 12-mo ahead using our 24 CoE assumptions. In our dividend discount framework, we assume 15% payout in 2023-24, 20% in 2025 and 25% thereafter. For both methodologies we use a 15% terminal growth rate.

We see the following risks to our PO: The bank uses short-term repo markets and external borrowing to fund a part of its balance sheet. As a result, its profitability is impacted by changes in global and local short-term interest rates, as well as by currency volatility. Severe currency volatility, increasing unemployment, and slower GDP growth could potentially lead to higher than expected cost of risk charges.

On the other hand, the bank also carries a sizeable CPI inflation-linked bond portfolio on its balance sheet which would limit the potential negative impact of higher CPI (on funding cost and opex) via increased security yield. Additionally, the bank's valuation is highly sensitive to CoE assumptions hence an improvement in TRY sovereign rates would have a positive impact on our PO

### Garanti Bank (TKGBF)

Our TRY78 PO values Garanti with BRSA consolidated financial forecasts, using a dividend discount model and a Gordon Growth model, assigning equal weight to each method.

In Gordon Growth methodology we use 2025-27 average RoE and CoE assumptions and 2025E BV to calculate the YE2025 value. We then discount it to 12-mo ahead using our 24 CoE assumptions. In our dividend discount framework, we assume 15% payout in 2023-24, 20% in 2025 and 25% thereafter. For both methodologies we use a 15% terminal growth rate.

We see the following potential risks to our PO: The bank uses short-term repo markets to fund a part of its balance sheet. As a result, its profitability is impacted by changes in global and local short-term interest rates, as well as by currency volatility. The bank also carries a sizeable CPI inflation-linked bond portfolio on its balance sheet and its net interest revenues can be impacted by changes in inflation dynamics in Türkiye. Severe currency volatility, increasing unemployment, and slower GDP growth could potentially lead to higher than expected cost of risk charges.

## Halkbank (THBIF)



Our TRY10 PO values Halkbank with BRSA bank only financial forecasts, using a dividend discount model and a Gordon Growth model, assigning equal weight to each method.

In Gordon Growth methodology we use 2025-27 average RoE and CoE assumptions and 2025E BV to calculate the YE2025 value. We then discount it to 12-mo ahead using our 24 CoE assumptions. In our dividend discount framework, we assume 10% payout in 2026-27. In this approach, the lion's share of the valuation comes from the terminal value. For both methodologies we use a 15% terminal growth rate.

We see the following potential downside risks to our PO. A significant downturn in the economy may lead to a faster deterioration in the bank's asset quality, in absolute terms and also relative to peers.

The bank's NIM progression has been disconnected from peers on a negative basis due to lower lending yields and sustained pressure on the deposit side as a result of declining external borrowing. Therefore, diversification in funding sources and improvement in lending yields would support the revenues and is an upside risk. Additionally, the bank has room for improvement in fee income and efficiency metrics. Any progress at these metrics would support the valuation.

#### Isbank (TYIBF)

Our TRY34.50 PO values Isbank with BRSA bank only financial forecasts, using a dividend discount model and a Gordon Growth model, assigning equal weight to each method.

In Gordon Growth methodology we use 2025-27 average RoE and CoE assumptions and 2025E BV to calculate the YE2025 value. We then discount it to 12-mo ahead using our 24 CoE assumptions. In our dividend discount framework, we assume 15% payout in 2023-24, 20% in 2025 and 25%. For both methodologies we use a 15% terminal growth rate.

Upside risks for Isbank: Apart from top-down macro upside risks we think Isbank-specific upside risks would be successful implementation of a successful cost-cutting programme, and non-core asset sales.

Downside risks to our PO: If the economy slows down considerably, then Isbank's income from NPL recoveries may decrease substantially, posing a threat to earnings. Isbank also generates a material portion of its bottom line through dividend income from subsidiaries. Any risks regarding the stream of subsidiary income would be negative for the earnings outlook.

## Vakif Bank (TKYVF)

Our TRY14 PO values Vakifbank with BRSA bank only financial forecasts, using a dividend discount model and a Gordon Growth model, assigning equal weight to each method.

In Gordon Growth methodology we use 2025-27 average RoE and CoE assumptions and 2025E BV to calculate the YE2025 value. We then discount it to 12-mo ahead using our 24 CoE assumptions. In our dividend discount framework, we assume 10% payout in 2026-27. In this approach, the lion's share of the valuation comes from the terminal value. For both methodologies we use a 15% terminal growth rate.

Upside risks for Vakifbank: Efficiency improvement and faster than expected loan repricing would be a positive contributor to valuation.

Downside risks to our PO: If the economy slows down considerably, then Vakifbank's income from NPL recoveries may decrease substantially, posing a risk to earnings.



### Yapi Kredi Bank (YVKBF)

Our TRY28.50 PO values Yapi Kredi with BRSA consolidated financial forecasts, using a dividend discount model and a Gordon Growth model, assigning equal weight to each method.

In Gordon Growth methodology we use 2025-27 average RoE and CoE assumptions and 2025E BV to calculate the YE2025 value. We then discount it to 12-mo ahead using our 24 CoE assumptions. In our dividend discount framework, we assume 15% payout in 2023-24, 20% in 2025 and 25% thereafter for the private banks. For both methodologies we use a 15% terminal growth rate.

Upside risks: The bank carries a sizeable CPI inflation-linked bond portfolio on its balance sheet which would limit the potential negative impact of higher CPI (on funding cost and opex) via increased security yield. Additionally, the bank's valuation is highly sensitive to CoE assumptions, and hence an improvement in TRY sovereign rates would have a positive impact on our PO.

Downside risks to our price objective: The bank utilizes short-term cross-currency swaps, allowing it to effectively swap its foreign-exchange-denominated liabilities into local currency. Also, it uses short-term repo markets (from time to time) to fund part of its balance sheet. As a result, its profitability is impacted by changes in global and local short-term interest rates, as well as currency volatility.

## **Analyst Certification**

I, David Taranto, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.



### **EEMEA - Financials Coverage Cluster**

Investment rating	Company	Bof A Ticker	Bloomberg symbol	Analyst
BUY				
	Absa Group Ltd	AGRPF	ABG SI	Bankole Ubogu, CFA
	Abu Dhabi Islamic Bank	XQPVF	ADIB ÚH	Olga Veselova
	Akbank	XHRAF	AKBNK TI	David Taranto
	Emirates NBD	XHGGF	EMIRATES UH	Olga Veselova
	Garanti Bank	TKGBF	GARAN TI	David Taranto
	Investec	XBZGF	INVP LN	Bankole Ubogu, CFA
	Investec	IVTJF	INP SI	Bankole Ubogu, CFA
	Isbank	TYÍBF	ISCTŘ TI	David Taranto
	Komercni Banka	KMERF	KOMB CP	Olga Veselova
	Nedbank	NDBKF	NED SI	Bankole Ubogu, CFA
	Pekao S.A.	BKPKF	PEO PW	Olga Veselova
	Riyad Bank	XRYDF	RIBL AB	Olga Veselova
	Saudi Awwal Bank	XBUAF	SABB AB	Olga Veselova
	Saudi National Bank	XBYNF	SNB AB	Olga Veselova
	Standard Bank	SBGOF	SBKSJ	Bankole Ubogu, CFA
	Yapi Kredi Bank	YVKBF	YKBNK TI	David Taranto
NEUTRAL				
	Al Rajhi Bank	XRHJF	rjhi ab	Olga Veselova
	Alinma	XALBF	ALINMA AB	Olga Veselova
	Dubai Islamic Bank	XUIBF	DIB UH	Olga Veselova
	FirstRand	FANDF	FSR SJ	Bankole Ubogu, CFA
	OTP Bank	OTPBF	OTP HB	Olga Veselova
	PKO BP	PSZKF	PKO PW	Olga Veselova
	Qatar National Bank	XQTNF	QNBK QD	Olga Veselova
UNDERPERFORM				
	Abu Dhabi Commercial Bank	XBUDF	ADCB UH	Olga Veselova
	Banque Saudi Fransi	XRDCF	BSFR AB	Olga Veselova
	Capitec Bank	CKHGF	CPI SJ	Bankole Ubogu, CFA
	First Abu Dhabi Bank	XNBUF	FAB UH	Olga Veselova
	Halkbank	THBIF	HALKB TI	David Taranto
	National Bank of Kuwait	XPOBF	NBK KK	Olga Veselova
	Vakif Bank	TKYVF	VAKBN TI	David Taranto
RVW				
	Moscow Exchange	XMCSF	MOEX RX	Olga Veselova
	Sberbank	AKSJF	SBER RM	Olga Veselova
	Sberbank preferred shares	AGNYF	SBERP RM	Olga Veselova
	TCS Group	XCIXF	TCS LI	Olga Veselova

# **Disclosures**

## **Important Disclosures**

Equity Investment Rating Distribution: Banks Group (as of 30 Sep 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	98	50.78%	Buy	81	82.65%
Hold	47	24.35%	Hold	35	74.47%
Sell	48	24.87%	Sell	36	75.00%

### Equity Investment Rating Distribution: Global Group (as of 30 Sep 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	1869	53.48%	Buy	1046	55.97%
Hold	828	23.69%	Hold	461	55.68%
Sell	798	22.83%	Sell	370	46.37%

<sup>&</sup>lt;sup>81</sup> Issuers that were investment banking dients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.



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>R2</sup>

 Buy
 ≥ 10%
 ≤ 70%

 Neutral
 ≥ 0%
 ≤ 30%

 Underperform
 N/A
 ≥ 20%

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.

Price Charts for the securities referenced in this research report are available on the Price Charts website, or call 1-800-MERRILL to have them mailed. BofAS or an affiliate was a manager of a public offering of securities of this issuer within the last 12 months: Yapi Kredi Bank.

The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one or more of its affiliates: Akbank, Garanti Bank, Halkbank, Isbank, Vakif Bank, Yapi Kredi Bank. BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: Akbank, Garanti Bank, Isbank, Vakif Bank, Yapi Kredi Bank.

The issuer is or was, within the last 12 months, a non-securities business client of BofAS and/or one or more of its affiliates: Akbank, Garanti Bank, Vakif Bank, Vapi Kredi Bank. In the US, retail sales and/or distribution of this report may be made only in states where these securities are exempt from registration or have been qualified for sale: Akbank, Garanti Bank, Halkbank, Isbank, Vakif Bank, Yapi Kredi Bank.

BofAS or an affiliate has received compensation for investment banking services from this issuer within the past 12 months: Garanti Bank, Halkbank, Isbank, Vakif Bank, Yapi Kredi Bank. BofAS or an affiliate expects to receive or intends to seek compensation for investment banking services from this issuer or an affiliate of the issuer within the next three months: Akbank, Garanti Bank, Halkbank, Isbank, Vakif Bank, Yapi Kredi Bank.

BofAS together with its affiliates beneficially owns one percent or more of the common stock of this issuer. If this report was issued on or after the 9th day of the month, it reflects the ownership position on the last day of the previous month. Reports issued before the 9th day of a month reflect the ownership position at the end of the second month preceding the date of the report: Akbank.

The issuer is or was, within the last 12 months, a securities business client (non-investment banking) of BofAS and/or one or more of its affiliates: Akbank, Garanti Bank, Isbank, Vakif Bank, Yapi Kredi Bank

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

From time to time research analysts conduct site visits of covered issuers. BofA Global Research policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits.

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 <a href="https://www.bofaml.com/BofASEdisclaimer">www.bofaml.com/BofASEdisclaimer</a>; BofA Europe (Milan): Bank of America Europe Designated Áctivity 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 (HKSFC); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): 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



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.

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 Initiation in Hong Kong 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 in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You m

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 2023 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.

Subject to the quiet period applicable under laws of the various jurisdictions in which we distribute research reports and other legal and BofA Securities policy-related restrictions on the publication of research reports, fundamental equity reports are produced on a regular basis as necessary to keep the investment recommendation current.

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

