Turkish Banks

Back on the radar

Industry Overview

08 January 2024

Equity
Turkey
Banks

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

Investor interest has picked up substantially

Investors have been keen to refresh their views on Turkish banks after several years of disengagement. The intensity of recent interactions reminds us of the pre-2013 period – years of heavy positioning, single-digit rates, and anticipation of investment grade. This time around the triggers are low positioning and the 'normalization' outlook for inflation, rates, and banks' real returns (see report: The Great Normalization – Buy private banks).

Long-only funds are doing a deep dive

Recent interactions have been dominated by long-only investors, unlike prior years. Most highlight that they haven't done work on Türkiye for some time, but they are following it closely now. The common view is banks would offer the best exposure to Türkiye's 'normalization' theme. Almost all meetings are dominated by questions on inflation expectations, the currency outlook and the sustainability of orthodox policies.

Regulations limit hedge funds' playing field

Hedge funds have been up to date on macro and banks' outlook. They highlight that they have 'trading ideas' not only for banks but also for other sectors. Yet, most funds' models do not allow them to take a country position *(invest via pair trades)*. Hence, the short ban and high offshore TL funding costs prevent them executing these trades.

The bull case vs. main concerns

The bulls believe this could be the beginning of a multi-year re-rating story – similar to early 2000s. Conversely, valuation remains an issue for bears as they argue with P/BV around 1x and USD Mcaps close to 5-year highs, positives are largely in the price. Other concerns are a possible overhang from retail investors (report link: Why domestic-retail investors shouldn't be a worry), the complexities of putting returns/multiples in an EM context in absence of inflation accounting and, 'timing' worries given TRY depreciation.

Discussions have shifted away from short-term trends

Turkish banks have long been a 'trading universe' with focus largely on the next quarter's outlook. The key change for us, in this cycle, is questions have shifted to the mid-term outlook. This bodes well given current prospects, as the banks' fundamental story is likely to take off post 1Q24, after the rates peak.

Don't miss the forest for the trees

Private banks' aggregate Mcap to GDP has declined from c11% in 2010 to c3%. Similarly, the largest bank's Mcap to GDP remains among the lowest in EM given macro volatility, increased state bank involvement and diminishing real returns. Note, though, credit penetration, LtD and provisioning have improved significantly in recent years – a good starting point for the post-tightening period. We argue that private banks can deliver RoEs in excess of long-term CoEs. Yes, this is not imminent, but the markets look ahead. The recovery has been fast in the CDS and fixed income market. Equities are likely to follow suit. Buy Turkish private banks: Akbank, Garanti, Isbank and Yapi.

Exhibit 1: Rating and PO summary
Buy ratings for private banks

	Rating	PO
AKBNK	Buy	53.5
GARAN	Buy	78.0
YKBNK	Buy	28.5
ISCTR	Buy	34.5
HALKB	Underperform	10.0
VAKBN	Underperform	14.0

Source: BofA Global Research
BofA GLOBAL RESEARCH

Exhibit 2: Key valuation metrics
Private banks' 24E PB is below 0.8x

	P/E		P/BV		ROE	
	24E	25E	24E	25E	24E	25E
AKBNK	2.8	1.7	0.73	0.52	29%	36%
GARAN	2.8	1.8	0.77	0.56	31%	35%
YKBNK	2.5	1.8	0.72	0.53	34%	35%
ISCTR	3.2	1.8	0.77	0.55	27%	36%
HALKB	4.0	2.0	0.59	0.46	16%	25%
VAKBN	4.0	2.1	0.71	0.53	20%	29%

Source: BofA Global Research
BofA GLOBAL RESEARCH

Commonly used acronyms:
CoE: Cost of equity
LtD: Loan to deposit ratio
RoE: Return on equity

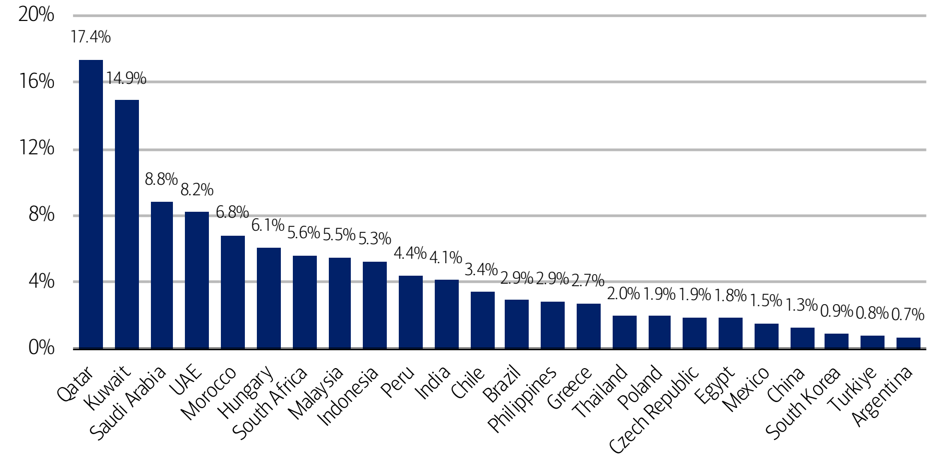
>> Employed by a non-US affiliate of BofAS and is not registered/qualified as a research analyst under the FINRA rules.
Refer to "Other Important Disclosures" for information on certain BofA Securities entities that take responsibility for the information herein in particular jurisdictions.
BofA Securities 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 12 to 15. Analyst Certification on page 11. Price Objective Basis/Risk on page 9. 12642004

Timestamp: 08 January 2024 12:15AM EST

Banks are leveraged macro plays

The largest bank's Mcap to GDP remains among the lowest in EM. We acknowledge the differences in macro structures, rates and competition / profitability dynamics across countries as well as international presence of several peers. However, the chart below does show the potential of where the valuations could evolve in the 'normalization' environment.

Exhibit 3: Largest bank's Mcap / GDP – Comparison across EM countries
Türkiye ranks at the bottom together with Argentina



Source: BofA Global Research, IMF, Bloomberg *Largest listed bank's Mcap / 2023E GDP (BofA GDP estimates for covered countries, IMF estimates for others).

BofA GLOBAL RESEARCH

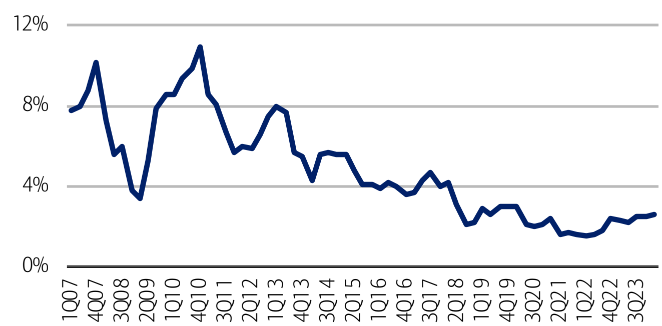
Largest Turkish bank's Mcap is 0.8% of GDP. The peak was >3% during the boom years. A more realistic benchmark – the pre-unorthodox policy period average (1Q15-1Q18) – was 1.4%. The trend is similar when we apply the same analysis to the aggregate Mcap for covered private banks.

Exhibit 4: Türkiye – Progression of largest bank's Mcap / GDP
At 0.8% vs. 1Q15-1Q18 avg. of 1.4% (peak at 3.4%)

Source: BofA Global Research, Bloomberg *Average quarterly Mcap / 4 quarter trailing GDP. Latest data set is yesterday's MCap/ 2023E GDP

BofA GLOBAL RESEARCH

Exhibit 5: Türkiye – Progression of private banks' aggregate Mcap / GDP
At 2.8% vs. 1Q15-1Q18 avg. of 4.2% (peak at c11%)



Source: BofA Global Research, Bloomberg *Average quarterly Mcap / 4 quarter trailing GDP. Latest data set is yesterday's MCap/ 2023E GDP.

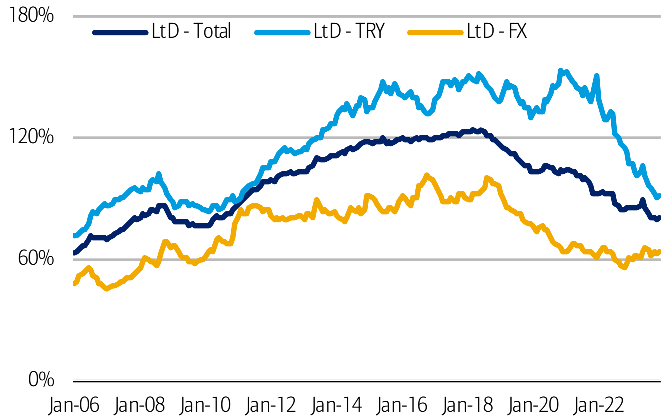
BofA GLOBAL RESEARCH

Good foundation for post-tightening period

Despite the high nominal growth rates in recent years, the banking system has deleveraged. Credit penetration and loan to deposit ratios have declined back to levels seen over a decade ago.

Exhibit 6: Loan to deposit ratios

Back to 2012 levels

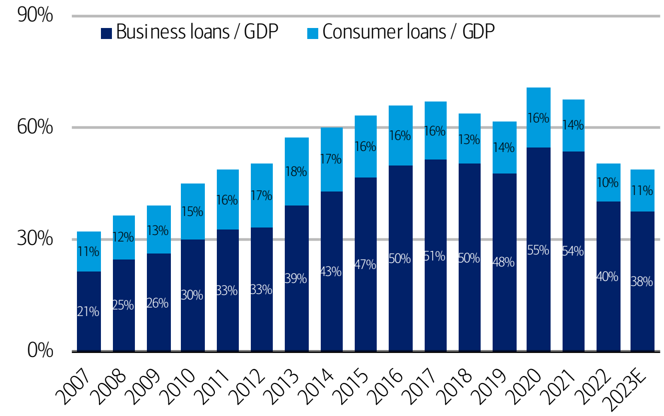


Source: BDDK, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 7: Loan penetration progression

Consumer loan penetration at 2007, business loan penetration at 2013 levels



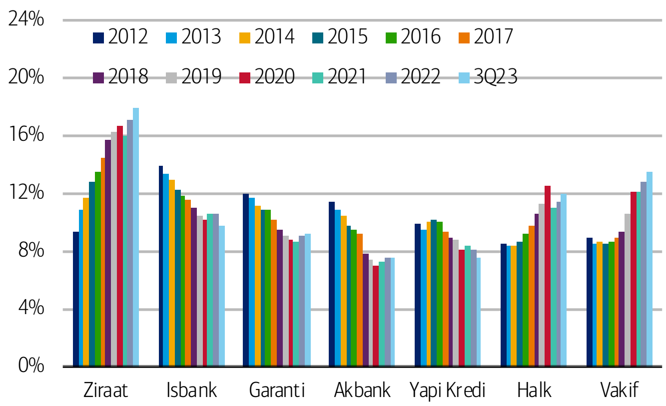
Source: BDDK, CBT, TUIK, BofA Global Research

BofA GLOBAL RESEARCH

Private banks have deliberately given away market share over the past decade and have the muscle to grow if/when macro conditions allow.

Exhibit 8: Loan market share progression over the past decade

Private banks under coverage gave away decent market share

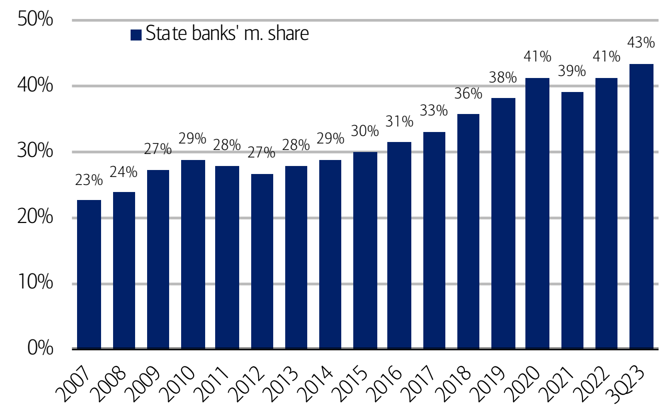


Source: Company financials, Turkish banks association

BofA GLOBAL RESEARCH

Exhibit 9: State banks' aggregate market share progression

Nearly doubled



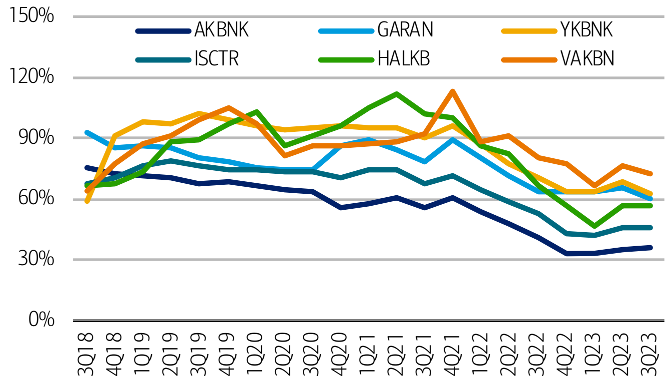
Source: Turkish banks association

BofA GLOBAL RESEARCH

In geographies with relatively higher asset quality issues, investors tend to focus on the 'Texas ratio', which measures potential asset quality implications for capital.

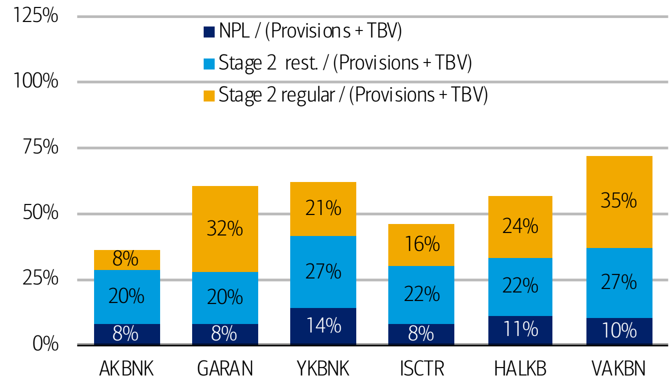
The traditional Texas ratio compares NPLs with tangible BV + loan loss reserves. A lower ratio means better resilience and one above 100% is usually a red flag. We conservatively add Stage 2 loans to the equation. Yet, ratios remain well below 100% for all banks.

Exhibit 10: Progression of adjusted Texas ratios
Adjusted Texas ratios have been on a downward trend



Source: Company financials, BofA Global Research * Based on consolidated financials
BofA GLOBAL RESEARCH

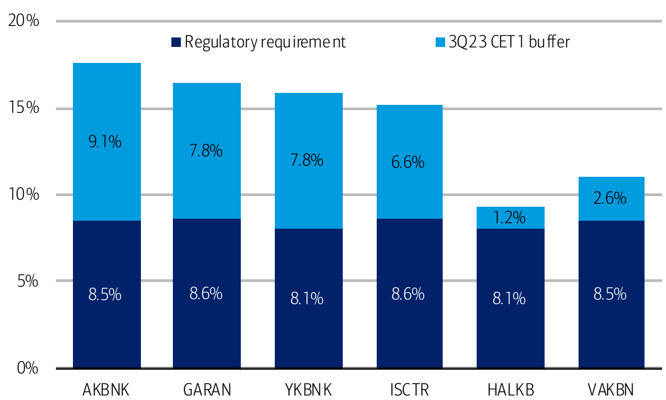
Exhibit 11: Comparison and breakdown of 3Q23 adjusted Texas ratios
Texas ratios better at Akbank and Isbank



Source: Company financials, BofA Global Research * Based on consolidated financials
BofA GLOBAL RESEARCH

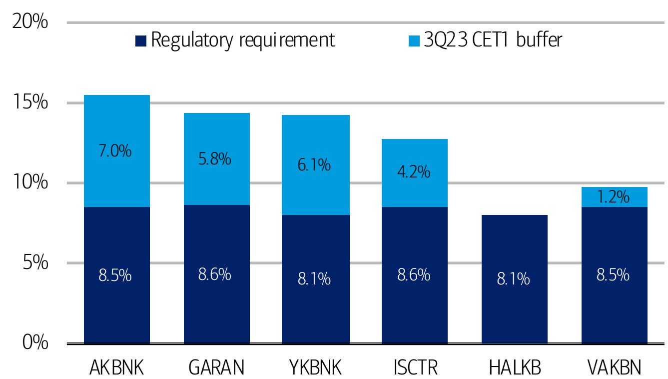
Turkish private banks have sizeable capital buffers even without the forbearance measures.

Exhibit 12: CET1 buffers with forbearance measures (consolidated)
Private banks' buffers above 6pp, highest at Akbank (9.1pp)



Source: Company financials, BofA Global Research
BofA GLOBAL RESEARCH

Exhibit 13: CET1 buffers without forbearance measures (consolidated)
Private banks' buffers above 4pp, highest at Akbank (7pp)



Source: Company financials, BofA Global Research *Halkbank's adjusted capital ratios have not been communicated to the market.
BofA GLOBAL RESEARCH

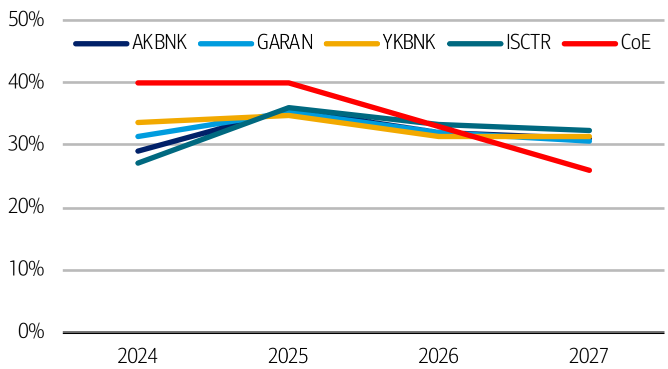
RoEs to exceed long-term CoE

Long-term RoE is a function of inflation / the interest rate environment and the banks' ability to price and manage risk. Turkish banks have proved their ability to cope with macro volatility numerous times over the past two decades.

Our CoE assumptions remain conservative vs. market rates. Yet, we think Turkish private banks' B/S dynamics could lead them to deliver RoEs north of CoE in the long term.

Exhibit 14: Private banks – RoE vs. CoE

RoEs to exceed CoE in the long term

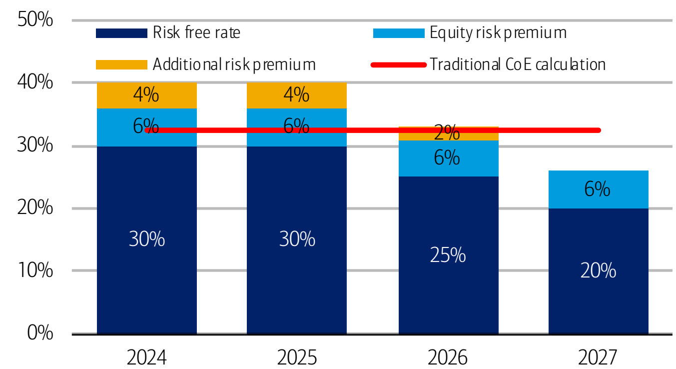


Source: BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 15: Breakdown of our CoE assumptions

Our CoE assumption for 2024-25 is conservative vs. market-implied levels



Source: BofA Global Research * Traditional CoE calculation: 10Y rate + 5.5% equity risk premium

BofA GLOBAL RESEARCH

Recent moves in CDS and long-term rates, if they prove sticky, could bring forward the CoE rally (i.e. re-rating via lower discount rate).

Exhibit 16: Türkiye – 5-year CDS

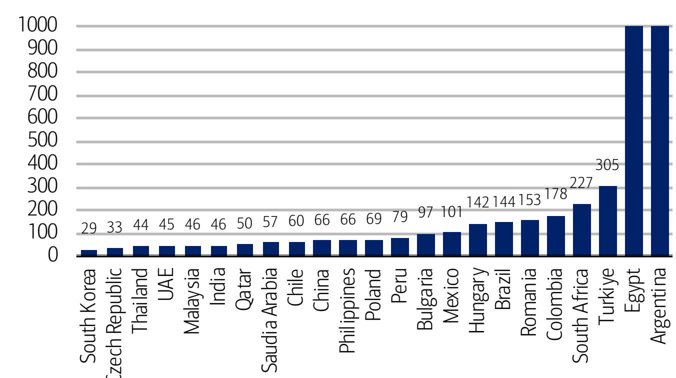
Back to c300bp levels

Source: Bloomberg

BofA GLOBAL RESEARCH

Exhibit 17: Comparison of CDS across EM countries

Large room for improvement vs. peers' levels

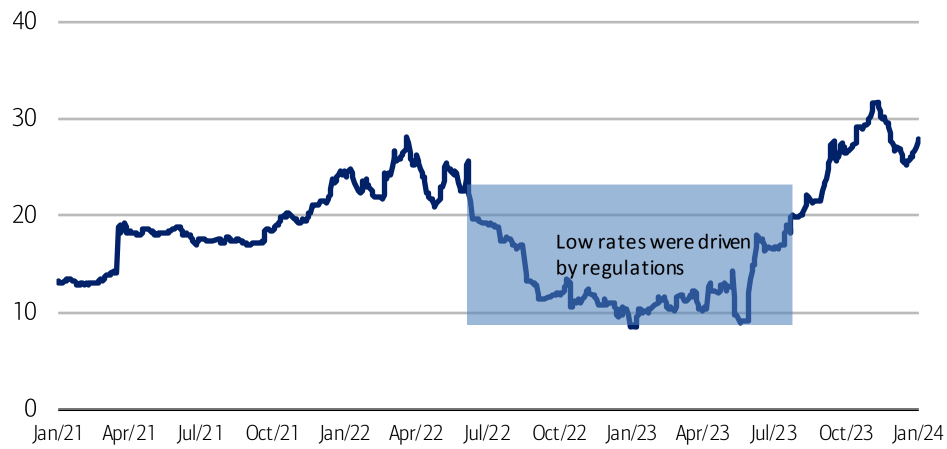


Source: Bloomberg *Egypt:1,300, Argentina: 4,780

BofA GLOBAL RESEARCH

All else being equal, a 2.5pp decline in our 2024-25 risk-free rate assumptions would mean c7% additional upside to our price objectives.

Exhibit 18: 10-year local currency interest rates
Current level of risk-free rate is below our 30% assumption used in our CoE calculation



Source: Bloomberg

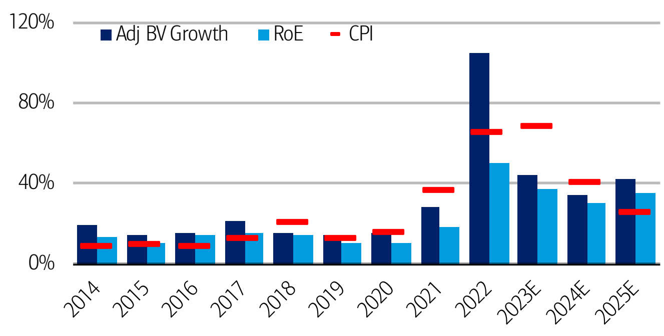
BofA GLOBAL RESEARCH

Private banks' adjusted BV growth has generally been higher vs RoEs and CPI. Yet, the growth in 2018-21 was lower or in line with inflation.

2022 was a remarkable year as high CPI linker income and MtM gains on real estate portfolios boosted book values. This growth has more than offset the negative real BV growth in 2023E in cumulative terms.

We expect private banks' adjusted BV growth to remain slightly below inflation in 2024E but to outpace it from 2025E.

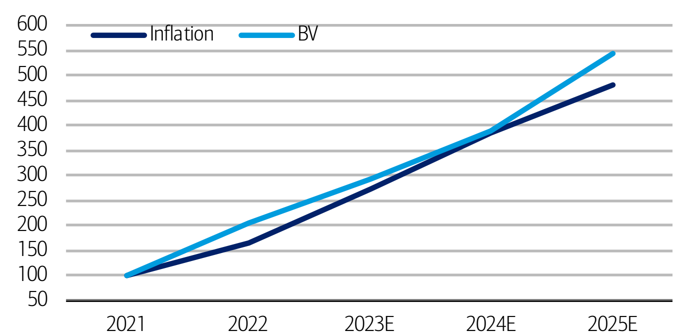
Exhibit 19: Private banks - adjusted BV growth vs. RoE and CPI
Adj BV growth to outpace inflation from 2025E



Source: BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 20: Private banks - cumulative inflation vs. adj BV growth
Adj BV growth outpaces inflation in the long term



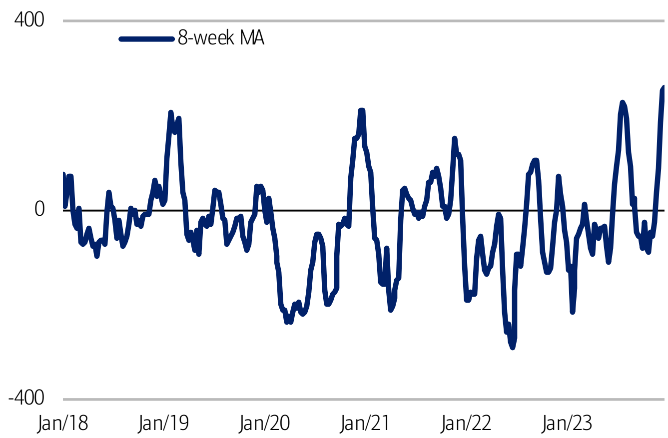
Source: BofA Global Research

BofA GLOBAL RESEARCH

Foreign inflows have already started

Foreign inflows to equity and the fixed income market have already taken off after several years of disengagement.

Exhibit 21: Equities - Net Foreign Transactions (8 week moving avg, USDmn)
Foreign inflows have accelerated in recent weeks

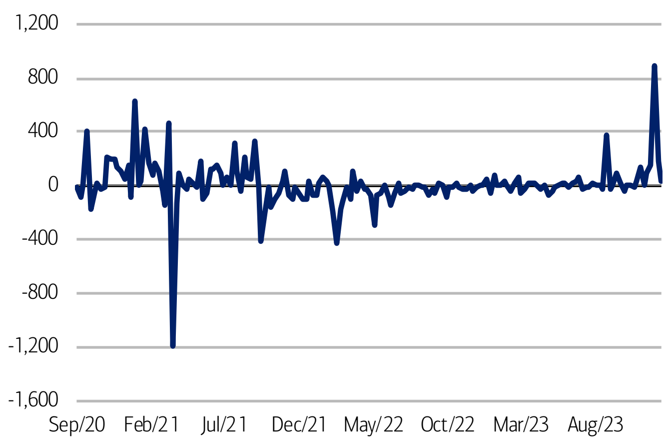


Source: CBRT, BofA Global Research * Adjusted for Foreign Exchange and Market Price Effects
BofA GLOBAL RESEARCH

Exhibit 22: Equities - Net Foreign Transactions (Cumulative since Jan 2018, USDmn)
USD9bn net outflow since January 2018

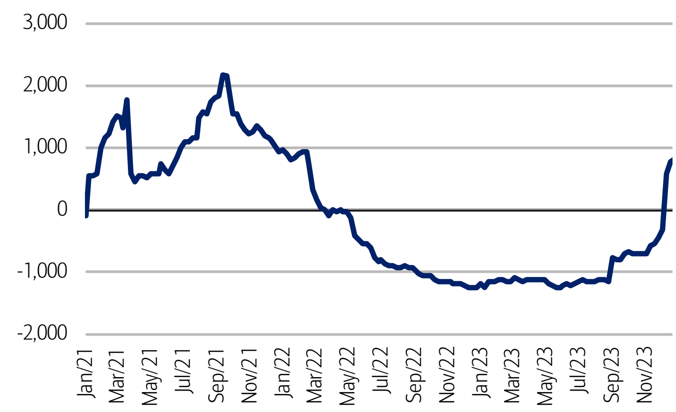
Source: CBRT, BofA Global Research
BofA GLOBAL RESEARCH

Exhibit 23: Bonds - Net Foreign Transactions (Weekly, USDmn)
Pick up off a low base in recent weeks



Source: CBRT, BofA Global Research * Adjusted for Foreign Exchange and Market Price Effects
BofA GLOBAL RESEARCH

Exhibit 24: Bonds - Net Foreign Transactions (Cumulative since Jan 2021, USDmn)
USD1bn net inflow since January 2021



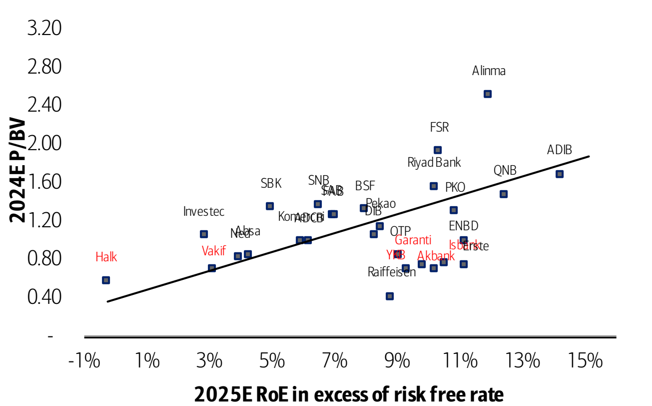
Source: CBRT, BofA Global Research
BofA GLOBAL RESEARCH

Most valuations are attractive

Turkish banks' valuations remain attractive within EEMEA / GEM context.

Exhibit 25: EEMEA banks – 2025 RoE in excess of 10Y rates vs. 2024E PB

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

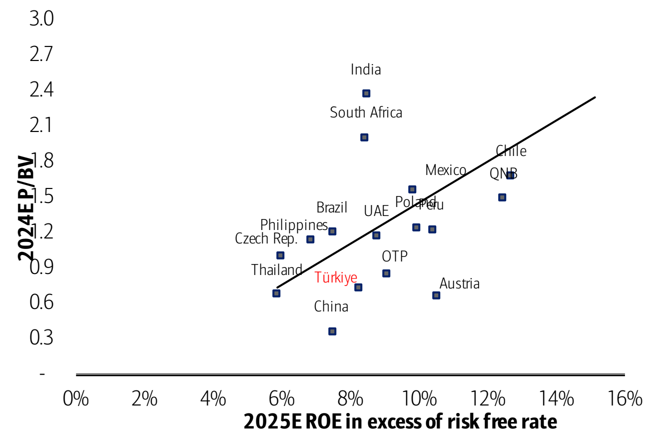


Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 26: 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

Stocks mentioned

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
XHRAF	AKBNK TI	Akbank	TRY 36.3	C-1-7
TKGBF	GARAN TI	Garanti Bank	TRY 57.6	C-1-7
THBIF	HALKB TI	Halkbank	TRY 12.02	C-3-9
TYIBF	ISCTR TI	Isbank	TRY 22.96	C-1-7
TKYVF	VAKBN TI	Vakif Bank	TRY 13.93	C-3-9
YVKBF	YKBNK TI	Yapi Kredi Bank	TRY 19.91	C-1-7

Source: BofA Global Research

Price objective basis & risk

Akbank (XHRAF)
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: Efficicency 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	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Absa Group Ltd	AGRPF	ABG SJ	Bankole Ubogu, CFA
	Abu Dhabi Islamic Bank	XQPVF	ADIB UH	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 SJ	Bankole Ubogu, CFA
	Isbank	TYIBF	ISCTR TI	David Taranto
	Komercni Banka	KMERF	KOMB CP	Olga Veselova
	Nedbank	NDBKF	NED SJ	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	SBK SJ	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

Disclosures

Important Disclosures

Equity Investment Rating Distribution: Banks Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships [R1]	Count	Percent
Buy	100	49.75%	Buy	84	84.00%
Hold	54	26.87%	Hold	41	75.93%
Sell	47	23.38%	Sell	35	74.47%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships [R1]	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

[R1] Issuers that were investment banking clients 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[R2]
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

[R2]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.

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, Isbank, Vakif Bank, Yapi 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, Yapi Kredi Bank.
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 Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at www.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 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 Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofAS India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai

Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

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

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities.

This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

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

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:

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

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

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 information.