

US Banks

4Q23 Preview: Reluctant bulls

Earnings Preview

Investor feedback: Need more

Our investor conversations indicate to us healthy skepticism on the prospects for a continuing rally in bank stocks given potential for negative EPS revisions on rate-cuts, lingering credit concerns, outlook for muted loan growth and uncertainty around a rebound in investment banking activity. However, not many view the group as overvalued, which implies that either we see potential buying on pullbacks or on improved EPS visibility coming out of 4Q23 prints. Relevant research: US Banks: 2024 Year Ahead: Top ten questions asked (and answered) / 2024 Stock Picks: Prepare for an overshoot

See **Exhibits** 1-53 for tear sheets with management commentary on operating trends vs. BofA/consensus forecast, stock performance, valuation and EPS revisions, short interest, online deposit pricing trends and credit exposures.

Mapping out the next two weeks: C, WFC in focus

4Q23 EPS season kicks-off with JPM, BAC, WFC, C, BK on Friday. Historically, bank stocks tend to sell-off on day one. Given the recent run-up, we see potential for an outsized reaction to any negative surprises. Potential catalyst quarter for Citigroup-C, expense outlook/NII defensibility most important. We remain positively biased on Wells Fargo-WFC where investor sentiment on near-term NII/EPS outlook has turned quite negative and consider any potential pullback as an opportunity to add exposure. WFC still possesses self-help on expenses/capital return, idiosyncratic catalyst on regulatory relief and mgmt. making progress towards an improved ~15% ROTCE. We remain positively biased on BNY Mellon-BK, under-the-radar turnaround story with strong execution.

MS, GS go head-to-head on Tuesday...déjà vu

Same as last January when investor positioning led to outsized stock reactions. Our sense is that positioning is not the same YoY given the bounce in both stocks and preference to own the boutiques to position for an investment banking (IB) rebound. Investors biased positively on Goldman Sachs-GS vs. Morgan Stanley-MS. Unlikely a catalyst quarter, but inline 4Q prints, messaging on 2024 outlooks, potential regulatory relief and continued optimism for an IB rebound should be enough to support the recent move in both stocks. Click here for 2024 Year Ahead reports: <u>IPM / C / WFC / MS / GS</u>

PNC kicks-off regional bank earnings

PNC Financial-PNC's results on Tuesday kick-off regional bank results providing important data points on commercial credit quality, NII sensitivity to rate-cuts and customer sentiment (= potential for loan growth, middle market IB rebound). Among the three "super" super-regionals, we see risk/reward most attractive at recently upgraded Truist-TFC Financial with confidence in PPNR defensibility likely enough to drive investor interest in the stock. Relevant research: TFC: Upgrade to Buy. USB Bancorp-USB shares could benefit on confidence that NII is at/near trough and on fee revenue resiliency (payments, M&A synergies) which could be a differentiator in an otherwise tough revenue growth backdrop. Continued on page 2...

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 52 to 55. Analyst Certification on page 50. Price Objective Basis/Risk on page 44. 12644320

11 January 2024

Equity **United States** Banks

Ebrahim H. Poonawala

Research Analyst +1 646 743 0490 ebrahim.poonawala@bofa.com

Brandon Berman Research Analyst +1 646 855 3933 brandon.berman@bofa.com

Isiah Austin Research Analyst **BofAS** +1 646 855 0472 isiah.austin@bofa.com

Christian Panebianco Research Analyst BofAS +1 646 855 3912 $christian.pane\,bian\,co\,@bofa.com$

Gabriel Angelini Research Analyst +1 646 855 3081 gabriel.angelini@bofa.com

Acronyms on page 11

Timestamp: 11 January 2024 05:30AM EST

Continued from page 1...

KEY, FHN well-positioned, negative skew on NYCB

KeyCorp-KEY, stock momentum could continue on confidence in NII outlook (on the back of a roll-off in swaps, low yielding bond maturities), signs of a pick-up in investment banking fees.

First Horizon-FHN and **Western Alliance-WAL** both positioned to benefit from paydown in higher cost funding (raised last summer), rebound in countercyclical businesses (fixed income for FHN, mortgage for WAL and FHN).

East West-EWBC, remains well positioned to outperform on potential to deliver above average loan growth that should serve as an offset (combined with higher cost CDs) to rate-cuts. Plus, the bank boasts of a best-in-class ROA/ROTCE, has excess capital and should be a market share beneficiary from the demise of SVB/First Republic.

New York Community-NYCB shares have underperformed on expectations for an increase in nonperforming loans (impact on credit costs, capital/risk weighted assets), upward push on expenses (rising regulatory burden) and execution risk tied to its recent acquisitions (Flagstar, Signature). While we do not rule out the potential for the stock to lag the group over the next couple of quarters given the idiosyncratic risk factors, absent a negative surprise on credit (credit migration translating into material/persistent losses) we expect the stock to find support near TBV (\$10.25/share as of 09/30). We believe, that deal synergies, exposure to the mortgage business, franchise investments and the potential for lower rates over the next twelve months should lead to renewed investor interest in the stock Maintain Buy rating.

What matters? Margin, credit outlooks

Confidence that EPS outlooks (especially looking into 2025) can hold despite rate-cuts and confirmation that credit losses are more likely to "normalize" vs. "spike" could see bank stocks continue their recent rally. We believe that stocks remain attractively valued (absolute and relative to S&P), to the extent a US recession is avoided and the Fed's next move on rates is lower, not higher.

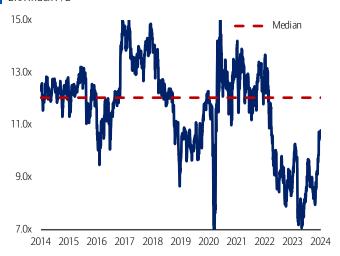
What will they say? Rate-cut impact, credit, loan growth

Mgmt. comments on trajectory of net interest income (NII) with or without rate cuts should help frame downside EPS risk (potentially positive for P/Es). Commercial real estate (CRE) to remain a source of higher credit costs. Visibility on whether credit issues spreading beyond office-CRE/lower FICO consumer (such as multifamily, C&I, cards/auto) also a focus area. Buybacks likely start the year slow (potential for a pick-up in 2H24).



Valuation and stock performance

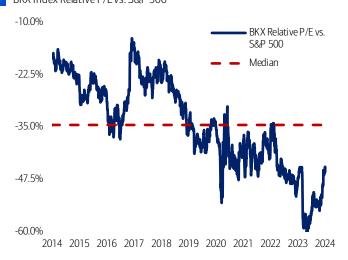
Exhibit 1: Banks index trading at 10.7x, below 10yr median of 12x BKX Index P/E



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 2: Banks trading at -46% discount to S&P, below 35% median BKX Index Relative P/E vs. S&P 500

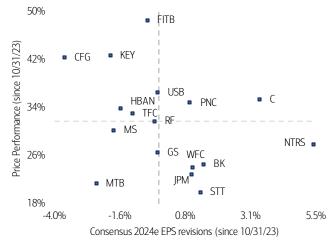


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Recent stock performance has had little correlation to EPS revisions...

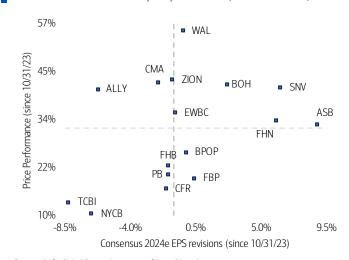
Exhibit 3: FITB has outperformed peers while seeing modest revisions Cons. 2024e EPS revisions vs. price performance (both since 10/31)



Source: BofA Global Research, company filings, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 4: WAL has outperformed peers while seeing modest revisions Cons. 2024e EPS revisions vs. price performance (both since 10/31)



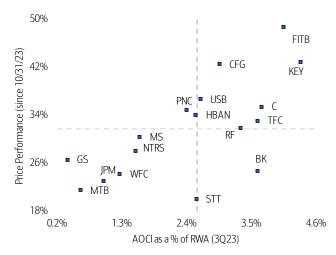
 $\textbf{Source:} \ \ \textbf{BofA Global Research, company filings, Bloomberg}$



...but more closely correlated to AOCI for super-regional banks...

Exhibit 5: KEY/CFG have seen outperformance as AOCI reverses

AOCI as a % of RWA at 3Q23 vs. price performance since 10/31

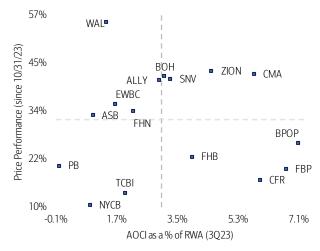


Source: BofA Global Research, company filings, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 6: ZION/CMA have seen outperformance as AOCI reverses

AOCI as a % of RWA at 3Q23 vs. price performance since 10/31



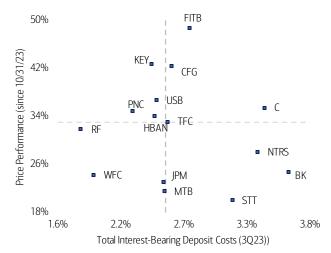
Source: BofA Global Research, company filings, Bloomberg

BofA GLOBAL RESEARCH

...and deposit costs for smid-caps.

Exhibit 7: KEY/CFG have risen assuming near-term relief on costs

Interest-bearing deposit costs at 3Q23 vs. price performance since 10/31

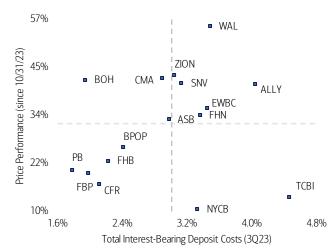


Source: BofA Global Research, company filings, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 8: WAL/ZION have risen assuming near-term relief on costs

Interest-bearing deposit costs at 3Q23 vs. price performance since 10/31

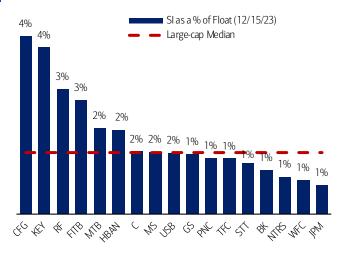


Source: BofA Global Research, company filings, Bloomberg



Exhibit 9: Median short interest among large-caps: 1.5%

Short interest as a % of float

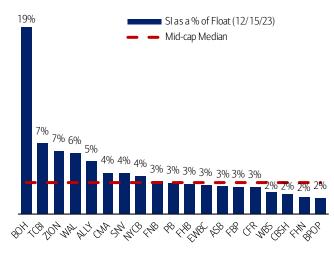


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 10: Median short interest among mid-caps: 3.3%

Short interest as a % of float



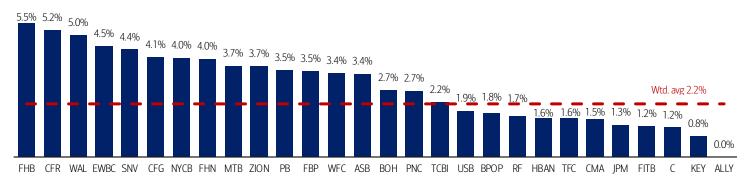
Source: BofA Global Research, Bloomberg



Credit Snapshot

Exhibit 11: Average exposure to office CRE: 2.2% of total loans

Office CRE exposure as a % of total loans

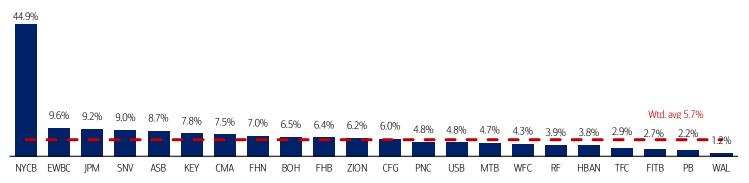


Source: BofA Global Research, company filings

BofA GLOBAL RESEARCH

Exhibit 12: Average exposure to multifamily CRE: 5.7% of total loans

Multifamily CRE exposure as a % of total loans

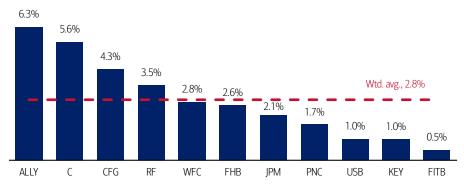


Source: BofA Global Research, company filings

BofA GLOBAL RESEARCH

Exhibit 13: Average exposure to low FICO consumer: 2.8% of total loans

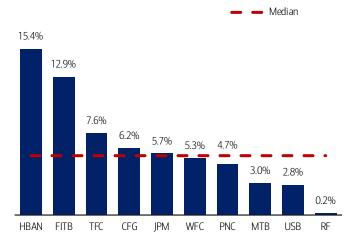
Low FICO consumer exposure as a % of total loans



Source: BofA Global Research, company filings

Exhibit 14: Median auto loan exposure at large-caps: 5.5% of loans

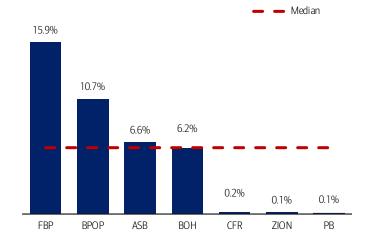
Auto loans as a % of total loans



Source: BofA Global Research, company filings

BofA GLOBAL RESEARCH

Exhibit 15: Mid cap auto exposure mainly limited to Puerto Rico/Hawaii Auto loans as a % of total loans



Source: BofA Global Research, company filings

*Excludes ALLY (75.9%), FHN/CMA/NYCB (<10bp of loans)

BofA GLOBAL RESEARCH

Exhibit 16: Heatmap: Highlights exposure to specific sectors of CRE for BofA Large-cap banks

CRE exposure heat map for large-cap coverage

As of 3Q23	С	CFG	FITB	HBAN	JPM	KEY	MTB	PNC	RF	TFC	USB	WFC
Office	1.2%	4.1%	1.2%	1.6%	1.3%	0.8%	3.7%	2.7%	1.7%	1.6%	1.9%	3.4%
Multifamily	0.0%	6.0%	2.7%	3.8%	9.2%	7.8%	4.7%	4.8%	3.9%	2.9%	4.8%	4.3%
Retail	0.0%	2.3%	1.0%	1.5%	1.0%	1.0%	5.7%	0.8%	1.4%	1.4%	0.0%	2.1%
Hotel	0.0%	0.4%	1.2%	0.9%	0.3%	0.2%	2.0%	0.6%	0.8%	0.8%	0.0%	1.4%
Industrial/Warehouse	0.0%	2.5%	0.9%	1.7%	1.6%	0.7%	1.6%	1.3%	2.2%	1.6%	1.4%	2.6%

Source: BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 17: Heatmap: Highlights exposure to specific sectors of CRE for BofA Mid-cap banks

CRE exposure heat map for mid-cap coverage

As of 3Q23	ASB	ВОН	BPOP	CFR	CMA	EWBC	FBP	FHB	FHN	NYCB	PB	SNV	TCBI	WAL	ZION
Office	3.4%	2.7%	1.8%	5.2%	1.5%	4.5%	3.5%	5.5%	4.0%	4.0%	3.5%	4.4%	2.2%	5.0%	3.7%
Multifamily	8.7%	6.5%	0.0%	0.0%	7.5%	9.6%	0.0%	6.4%	7.0%	44.9%	2.2%	9.0%	0.0%	1.2%	6.2%
Retail	2.2%	4.9%	5.0%	0.0%	1.0%	8.4%	0.0%	5.4%	4.0%	2.7%	6.6%	3.0%	0.0%	1.4%	2.5%
Hotel	0.7%	0.0%	3.1%	0.0%	0.0%	4.5%	0.0%	2.8%	2.0%	0.0%	2.0%	4.1%	0.0%	0.0%	0.0%
Industrial/Warehouse	6.5%	5.4%	0.7%	0.0%	5.7%	7.7%	0.0%	4.5%	4.0%	1.7%	5.9%	2.3%	0.0%	1.5%	5.1%

Source: BofA Global Research

Exhibit 18: Mega-cap banks either near or above 4Q19 delinquencies Credit card 30+ day delinquency rates

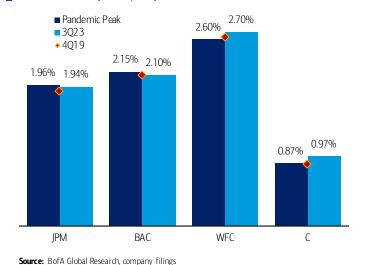
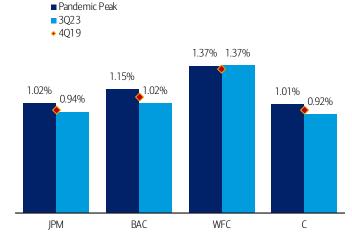


Exhibit 19: Most mega-caps still below 4Q19 90+ day delinquencies Credit card 90+ day delinquency rates



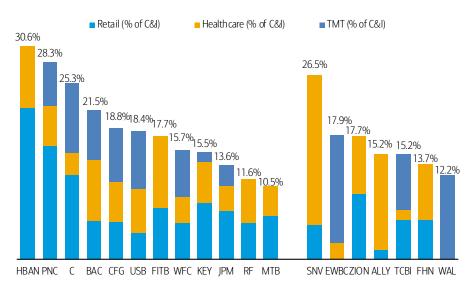
Source: BofA Global Research, company filings

BofA GLOBAL RESEARCH

BofA GLOBAL RESEARCH

BofA High Yield analysts expects the **retail**, **health**, **cable**, and **technology-media-telecom** sectors to be responsible for 90% of all defaults, credit losses to average 320bp across these sectors in 2024. We note that credit characteristics of bank loans not the same as high yield bonds. Link to note: Global Credit Strategy Year Ahead: A cut above the rest

Exhibit 20: HBAN and SNV among large and mid-caps most exposed to "at-risk" C&I sectors* Exposure to retail, healthcare, and TMT as a % of C&I loans



Source: BofA Global Research, company filings *USB and TCBI as of 4Q22

Online deposit pricing trends



Exhibit 21: Average CD rates have increased 18bp since the beginning of September

Savings account, CD rates

Wk beginning	4-Sep	11-Sep	18-Sep	25-Sep	2-0ct	9-Oct	16-0ct	23-0ct	30-Oct	6-Nov	13-Nov	20-Nov	27-Nov	4-Dec	11-Dec	18-Dec	25-Dec	1-Jan	8-Jan
Savings accounts																			
Bask Bank	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%
My Banking Direct	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.35%	5.35%	5.35%	5.35%	5.35%	5.35%	5.35%	5.35%	5.35%	5.35%
LendingClub	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.65%	4.65%	4.65%	4.65%	4.65%	4.65%
Live Oak Bank	4.15%	4.15%	4.15%	4.15%	4.15%	4.15%	4.15%	4.15%	4.15%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%
Synchrony	4.50%	4.50%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%
CIBC	4.76%	4.76%	4.76%	4.76%	4.76%	4.76%	5.01%	5.01%	5.01%	5.01%	5.01%	5.01%	5.01%	5.01%	5.01%	5.01%	5.01%	5.01%	5.01%
GS Bank USA	4.30%	4.30%	4.30%	4.30%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%	4.40%
Amex	4.25%	4.25%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.35%	4.35%	4.35%	4.35%
Ally Financial	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.35%
Citibank	4.25%	4.25%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.45%	4.45%	4.45%	4.45%	4.45%	4.45%
Capital One	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.35%	4.35%	4.35%	4.35%	4.35%
Barclays	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%	4.35%
Citizens Access	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
SoFi	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.60%	4.60%	4.60%	4.60%	4.60%	4.60%	4.60%	4.60%	4.60%	4.60%	4.60%	4.60%
Laurel Road	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
CDs (term: 1-year)																			
My Banking Direct	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%
Live Oak Bank	5.20%	5.20%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%
LendingClub	5.50%	5.50%	5.50%	5.50%	5.65%	5.65%	5.65%	5.65%	5.65%	5.65%	5.55%	5.55%	5.55%	5.55%	5.55%	5.55%	5.55%	5.55%	5.55%
Synchrony	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%
GS Bank USA	5.00%	5.00%	5.00%	5.00%	5.10%	5.10%	5.10%	5.20%	5.20%	5.30%	5.30%	5.30%	5.30%	5.30%	5.30%	5.50%	5.50%	5.50%	5.50%
Capital One	4.85%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.25%	5.25%	5.25%	5.25%	5.25%
Sallie Mae	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.25%	5.25%	5.25%	5.25%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.35%
Ally Financial	4.85%	4.85%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.10%	5.10%	5.10%	5.10%	5.10%	5.25%	5.25%	5.25%	5.25%	5.25%
BankUnited Direct	4.80%	5.25%	5.25%	5.25%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.00%	5.00%	4.50%	4.50%	4.50%	4.50%
Citizens Access	5.00%	5.00%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
CIBC	5.36%	5.36%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.62%	5.66%	5.66%	5.66%	5.66%	5.66%	5.66%	5.66%	5.66%
Barclays	5.00%	5.00%	5.15%	5.15%	5.15%	5.15%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.40%	5.40%	5.40%	5.40%	5.30%
Citibank	4.05%	4.05%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.00%	4.00%	4.00%	3.00%
VirtualBank	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%

Source: Company websites, CDrate.com

Exhibit 22: We recently revised our FY24 estimates by +40bp on average BofA Banks coverage EPS revision table

	4Q23e			FY24E		
	Old	New	%	Old	New	%
BK	\$1.14	\$1.10	-3.2%	\$5.00	\$4.74	-5.2%
С	\$0.64	\$0.64	0.0%	\$6.20	\$6.20	0.0%
CFG	\$0.85	\$0.85	0.0%	\$3.00	\$3.06	2.2%
FITB	\$0.89	\$0.88	-1.8%	\$3.06	\$3.04	-0.6%
GS	\$5.07	\$4.36	-13.9%	\$30.70	\$30.70	0.0%
HBAN	\$0.28	\$0.27	-2.4%	\$1.15	\$1.16	0.8%
JPM	\$3.67	\$3.63	-1.2%	\$14.80	\$15.00	1.4%
KEY	\$0.28	\$0.22	-22.3%	\$1.30	\$1.30	-0.5%
MS	\$1.14	\$1.10	-3.1%	\$6.10	\$6.25	2.4%
MTB	\$3.53	\$3.56	0.9%	\$13.60	\$13.33	-2.0%
NTRS	\$1.30	\$1.29	-0.8%	\$5.92	\$6.02	1.7%
PNC	\$2.72	\$2.79	2.5%	\$11.26	\$11.48	2.0%
RF	\$0.47	\$0.47	-1.0%	\$1.86	\$1.85	-0.9%
STT	\$1.85	\$1.90	2.6%	\$7.27	\$7.17	-1.4%
TFC	\$0.88	\$0.89	0.9%	\$3.10	\$3.15	1.5%
USB	\$0.99	\$0.99	0.3%	\$4.00	\$4.02	0.6%
WFC	\$1.14	\$1.09	-4.6%	\$4.38	\$4.60	5.0%
Large cap median			-1.0%			0.6%
ASB	\$0.57	\$0.55	-3.8%	\$2.25	\$2.12	-5.9%
ВОН	\$0.92	\$0.92	-0.5%	\$3.62	\$3.63	0.4%
BPOP	\$1.68	\$1.69	0.6%	\$7.19	\$7.45	3.6%
CFR	\$2.09	\$2.09	0.0%	\$8.10	\$8.21	1.3%
CMA	\$1.37	\$1.37	0.1%	\$5.70	\$5.52	-3.2%
EWBC	\$1.91	\$1.91	0.2%	\$7.52	\$7.55	0.4%
FBP	\$0.38	\$0.38	0.1%	\$1.53	\$1.53	0.3%
FHB	\$0.44	\$0.45	2.3%	\$1.72	\$1.73	0.4%
FHN	\$0.28	\$0.28	0.5%	\$1.25	\$1.30	4.2%
NYCB	\$0.28	\$0.25	-9.7%	\$1.30	\$1.16	-10.4%
PB	\$1.21	\$1.16	-3.9%	\$5.26	\$5.09	-3.3%
SNV	\$0.82	\$0.93	13.7%	\$3.32	\$3.80	14.6%
TCBI	\$0.57	\$0.60	5.8%	\$3.81	\$3.83	0.5%
WAL	\$1.84	\$1.91	4.0%	\$7.65	\$7.68	0.4%
ZION	\$1.02	\$1.05	2.9%	\$3.74	\$3.83	2.3%
Mid cap median			0.2%			0.4%

Source: BofA Global Research estimates

Acronyms:

AOCI - accumulated other comprehensive income (loss)

C&I - commercial & industrial

CDs - certificates of deposit

CRE - commercial real estate

FICO - Fair Isaac Corporation (credit rating)

IB - investment banking

NII - net interest income

PPNR - pre-provision net revenue

RWA - risk-weighted assets

ROA - return on assets

ROTCE - return on tangible common equity

SI - short interest



Company tear sheets



US Banks | 11 January 2024

Exhibit 23: ASB earnings tear sheet

BofA vs conser	ารนร

(\$ in mn except EPS)	BofA est	BofA est		BofA est	BofA est	BofA est		BofA est	
Associated Banc-Corp	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income	266	2.7%	263	1.0%	1,067	9.2%	1,064	0.3%	Expect total NII growth of 8% to 10% in 2023.
Net interest margin	2.77%	5.7bp	2.73%	3.4bp	2.84%	(7.3)bp	2.83%	0.9bp	Pace of downward pressure on margin has slowed. Expect NIM to reach an inflection point in 2024. Transaction adds +16bp to NIM. Revised higher medium-term NIM to 3%+ (vs. 2.75% previously).
Provisions	22	2.4%	23	-2.0%	84	156.0%	85	-0.5%	Expect provisions to exhibit similar pattern as last couple of quarters.
Fee income	64	-3.2%	64	0.5%	259	-7.2%	258	0.3%	Continue to expect fee income to compress by 8% to 10% in 2023. Anticipated compression is driven by current market dynamics and moderation in deposit account fee income.
Expenses	196	-0.3%	198	-1.2%	770	3.9%	772	-0.3%	See opportunity for investment but also see opportunity to decrease expenses in some areas. Noninterest expense is expected to grow by between 3% and 4% in both 2023 and 2024. Identified \$25mn to \$30mn in noninterest expense reductions for 2024. Expanding commercial middle market team with plans to hire over 20 additional relationship managers.
PPNR	135	4.3%	129.5	4.2%	555	8.1%	549	1.1%	Outlook implies total revenue growth of +5%to +7% in 2023.
Efficiency	59%	(108.4)bp	60.5%	(12.9)bp	58%	(95.6)bp	58%	(0.3)bp	Committed to keeping expense growth below revenue growth over the long-term.
Tax Rate (%)	20%	-	-	-	20%	-	-	-	Continue to expect the 2023 effective tax rate to be between 20% and 21%.
EPS	0.55	3.6%	0.52	5.7%	2.31	-2.2%	2.28	1.1%	
Dil. Shares Outstanding	151	0.0%	151	0.0%	151	0.4%	151	0.0%	
Loans	30,291	1.4%	30,059	0.8%	29,615	13.1%	29,570	0.2%	Expect full-year total loan growth of 5% to 6%. Lending activity has slowed in most categories as compared to 2022; pipelines have also slowed as customers making a more cautious approach. Do not intend to become disproportionately reliant on auto loans. Not growing the third-party originated mortgage portfolio (i.e., residential real estate most likely won't grow at the pace of the market). CRE is a very stable low to no growth category. Underpenetrated in deposits in key markets for commercial loans. Limiting construction lending. Reducing portfolio lending to private wealth, mass affluent and CRA customers only. Emphasizing the sale of conforming mortgage loans. Agreed to sell approximately \$1bn in mortgage loans (expected to dose by year-er 2023). Expect to reduce outstanding mortgage balances by \$600mn by YE2025. Cumulative incremental commercial loan growth of \$750mn by YE2025.
Net charge-offs / avg loans	0.26%	1.7bp	0.24%	2.3bp	0.18%	17.4bp	0.17%	0.7bp	Increases in credit metrics consistent with a gradual normalization. In terms of NALs, haven't seen a lot in rea estate rather been more on the C&I side. TTC NCO rate for auto portfolio 35-45bp. Medium-term target <35bp. Continue to expect total core customer deposits to decrease by 3% in 2023 on EOP basis. The mix shift
Total Deposits	32,122	0.4%	32,393	-0.8%	31,318	8.9%	31,398	-0.3%	impacting funding costs has begun to stabilize. Expect to hold wholesale network funding in check through remainder of year and into 2024. Near the bottom on noninterest-bearing deposit percentage. Cumulative incremental deposit balance growth of \$2.5bn by YE2025.
Profitability metrics (2023)	BofA est	VS.	Consensus						-
ROTCE (%)	12 56		7 77	Medium-te	orm ROTCE tar	get of mid-tea	one		

ı	Profitability metrics (2023)	BotA est	VS.	Consensus	
	ROTCE (%)	12.56		7.77	Medium-term ROTCE target of mid-teens
	ROA (%)	0.88		0.59	

Reiterated YE23 TCE target of 6.75-7.25%. Raised high-end of YE23 CET1 target (now 9.00-9.75%). Transaction reduces CET1 by 30bp but remains within 9.75% target range. Capital

Dividends

Outlook assumes no buybacks in 2023. Buybacks

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

Exhibit 24: BK earnings tear sheet

BofA vs consensus

(\$ in mn except EPS)	BofA est	BofA est		BofA est	BofA est	BofA est		BofA est	
The Bank New York Mellon	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income	947	-6.8%	981	-3.5%	4,192	19.3%	4,226	-0.8%	FY23 NIR +20% YoY. Asset yield pick up of 200-300bp. Good framework for 2024 is the implied 4Q x 4.
Net interest margin	1.10%	(8.5)bp	1.16%	(6.1)bp	1.19%	21.9bp	1.22%	(2.6)bp	
Provisions	5	66.7%	7	-24.5%	40	2.6%	42	-3.9%	
Fee income	3,310	-1.4%	3,317	-0.2%	13,257	-0.3%	13,221	0.3%	
Expenses	3,141	3.2%	3,160	-0.6%	12,328	2.9%	12,484	-1.2%	Internal program called Project Catalyst (1,500 ideas), ~40% of the way through. Expect QoQ step-up in expenses ex notables in 4Q23, seasonally higher business development expenses and discrete increases for professional services and occupancy. Confident in the closer to 3% expense guide for 2023. Determined to be lower again in 2024.
PPNR	1,116	-16.0%	1,137	-1.9%	5,121	6.0%	4,963	3.2%	
Efficiency	74%	418.6bp	74%	25.2bp	71%	(61.0)bp	72%	(90.1)bp	
Tax Rate (%)	21.00%	(233)bp	-	-	20%	104.3bp	21%	(83.4)bp	
EPS	1.10	-13.4%	1.13	-2.9%	4.87	8.0%	4.89	-0.4%	
Dil. Shares Outstanding	764,188	-2.3%	770,335	-0.8%	786,103	-3.5%	787,640	-0.2%	
Loans	67,072	1.5%	65,612	2.2%	67,072	18.9%	65,602	2.2%	
Net charge-offs / avg loans	0.02%	0.0bp	0.01%	0.5bp	0.01%	0.0bp	0.01%	(0.5)bp	
Total Deposits	271,362	-2.2%	275,957	-1.7%	271,362	13.6%	275,957	-1.7%	NIB to moderate to ~20% of total deposits in 2H. Some modest NIB + deposit growth in first two weeks of Oct. Have reached a more normalized level in deposits.
Profitability metrics (2023)	Bof A est	VS.	Consensus						_
ROTCE (%)	18%		20%						
ROA (%)	0.8%		0.9%						
Capital	FY23 outloo	ok to return	100%+ of earr	nings. Have ~	\$2.3bn of u	nrealized los	sses in AFS, ex	pect half to	come back into capital over next 12 months. Basel proposal impact 5-8%.
Dividends									

Buybacks Expect to continue SBB at a pace consistent with 2Q and 3Q. **Source:** BofA Global Research estimates, Bloomberg, Visible Alpha



US Banks | 11 January 2024

Exhibit 25: BOH earnings tear sheet

BofA vs consensus

Dil. Shares Outstanding

Net charge-offs / avg loans

(\$ in mn except EPS)	BofA est	BofA est		BofA est	BofA est	BofA est		BofA est	
Bank of Hawaii Corp	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income	118	-2.5%	120	-1.7%	501	-7.5%	503	-0.4%	Expect net interest income will be modestly lower QoQ in 4Q.
Net interest margin	2.16%	2.8bp	2.17%	(1.0)bp	2.25%	(25.8)bp	2.25%	(0.2)bp	Yield on fixed rate maturities and paydowns of loans and investments was 3.9% and 2.2% n 3Q vs. new loan yields of 7%+. Expect NIM will increase 3 to 5bp QoQ in 4Q.
Provisions	6	190.3%	4	60.6%	12	-257.8%	10	21.7%	
Fee income	41	-4.4%	41	-0.2%	169	-1.2%	167	1.5%	Expect fees income to be between \$41mn to \$42mn in 4Q.
Expenses	103	-0.2%	103	0.2%	419	1.3%	419	0.0%	Expenses expected to be relatively stable to slightly lower QoQ in 4Q (vs. \$103mn).
PPNR	57	-7.6%	59	-3.9%	252	-16.1%	251	0.2%	
Efficiency	64%	178.1bp	63%	1.0bp	62%	450.3bp	63%	(6.1)bp	
Tax Rate (%)	25%	-	-	-	24%	-	-	-	Tax rate for the fourth quarter is expected to be 24.5%.
EPS	0.92	-11.4%	1.00	-8.4%	4.23	-25.8%	4.38	-3.4%	

-1.0%

7.5%

2.3bp

39

13,857

0.06%

0.1%

0.0%

(0.0)bp

0.0%

Total Deposits	20,821	1.6%	20,802	0.1%	20,441	-0.5%	20,436
D (". 1"." /2022)	D CA		•				
Profitability metrics (2023)	Bof A est	VS.	Consensus				

0.0%

0.3%

1.4bp

39

13,943

0.07%

0.73

Capital

ROA (%)

Dividends

Loans

No shares of common stock were repurchased. Remaining buyback authority was \$126mn. Buybacks

39

13,929

0.07%

0.72

0.1%

0.1%

0.0bp

39

13,862

0.06%

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

BofA GLOBAL RESEARCH

Just 8% of commercial mortgage loans maturing prior to 2025 (minimizes re-pricing risk).

Expect moderate loan growth (i.e. flat to slightly up) in 2024 (rates impacting consumer

Estimate potential loss directly related to the area impacted by the fires at \$10.8mn.

end. Upwards of half of QoQ growth in 3Q would represent Maui-related funding.

Expect a moderate further mix shift from NIB deposits into savings/CDs but nearing an

customer, uncertainty impact commerical customers).

Exhibit 26: C earnings tear sheet BofA vs consensus

(\$ in mn except EPS) Citigroup Inc.	BofA est 4Q23e	BofA est QoQ	Consensus	BofA est	BofA est 2023e	BofA est YoY	Consensus	BofA est	Notes
Citigioupine.	40236	QuQ	Consensus	VS. COIIS	20236	101	Consensus	VS. COIIS	Expect NII ex. markets to be a "little" better than \$47.5bn guidance. NII expected to
Net interest income	13,258	-4.3%	13,293	-0.3%	54,414	11.4%	54,446	-0.1%	benefit from higher rates across currencies, interest-earning balance growth, US betas nearing terminal levels (non-US continue to increase), offset by drag from the exits.
Net interest margin	2.39%	(9.7)bp	2.40%	(0.5)bp	2.44%	19.7bp	2.44%	(0.1)bp	Taiwan exit expected to negatively impact 4Q NII.
Net linerest margin	2.33%	(3.7)up	2.4070	(υ.၁)υμ	Z. 44 %	13.70p	Z. 44 70	(υ. ι)υρ	Net build in allowance primarily driven by Branded Cards and Retail Services, largely
Provisions	2,225	19.8%	2,149	3.5%	7,881	50.4%	7,814	0.9%	related to growth in card balances expect cost of credit between \$2.2bn and \$2.3bn in 4Q. ROTCE outlook implies \$9bn in credit costs over medium-term.
Fee income	5,190	-12.3%	5,462	-5.0%	23,793	-8.0%	25,148	-5.4%	
Expenses	14,050	4.9%	14,797	-5.0%	54,227	5.9%	55,059	-1.5%	Optimized the top 2 management layers; Targeting a reduction of layers from 13 to 8. FDIC Special Assessment charge will be around \$1.650bn. Reiterated FY expenses of \$54bn ex divestitures & ex-FDIC, implies uptick in 4Q due to a restructuring charge of a couple hundred million dollars associated with the org simplification. Expect 2024 total reported expenses to be lower YoY (ex. FDIC special assessment and ex. the restructuring charge). ROTCE outlook implies expenses between \$51-53bn over medium-term.
									CFO indicated medium-term 4-5% revenue growth target "doable". FY revenue likely to
PPNR	4,397	-31.0%	3,958	11.1%	23,979	2.0%	24,535	-2.3%	be near low-end of \$78-79bn range (ex. divestitures), citing currency impact following
Efficiency	76%	838.5bp	79%	/272 2\hn	69%	81.3bp	69%	16.4bp	Argentina elections.
Tax Rate (%)	24%	- -	79%	(273.3)bp	25%	61.30p	- 09%	10.40p	Expect FY23 effective tax rate of 25%.
EPS	0.64	-57.6%	0.67	-3.9%	5.36	-21.0%	5.66	-5.3%	Expect 125 checave as rate of 25 h.
Dil. Shares Outstanding	1,940	-0.6%	1,938	0.1%	1,919	-2.3%	1,953	-1.8%	
Loans	667,221	0.7%	672,106	-0.7%	659,212	0.9%	664,432	-0.8%	
Net charge-offs / avg loans	1.23%	25.1bp	1.14%	9.3bp	0.99%	41.0bp	0.95%	3.7bp	Expect Branded Cards NCO rate of 3-3.25% and Retail Services NCO rate of 5-5.5% by year-end. Normalization expected to continue to increase through early-2024. Among lenders that have provided credit to a now-insolvent unit of Rene Benko's Signa group of companies; part of consortium that committed a loan facility worth \$110mn.
Total Deposits	1,267,382	-3.7%	1,268,193	-0.1%	1,313,606	-2.1%	1,302,509	0.9%	Decline in deposits largely due to a reduction in Services, reflecting QT, a shift of deposits to higher-yielding investments in GWM and a reduction of institutional CDs.
Profitability metrics (2023)	Bof A est	VS.	Consensus	_					
ROTCE (%)	7.31		6.7	Confident	t in ability to	achieve RoT	CE target of 11	% to 12% i	n the medium term.
ROA (%)	0.50		0.46						
Capital	QoQ incre	ease in CET1	ratio includes	10bps of dive	estiture-relate	ed impacts.	Medium-term	(3-5 yrs) CE	T1 target 11.5-12.0% dependent on future capital requirements.
Dividends	11000	,							
Buybacks	Will buyba	ack around \$	500mn in 4Q.						

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 27: CFR earnings tear sheet

BofA vs consensus

(\$ in mn except EPS)	BofA est	BofA est		BofA est	BofA est	Bof A est		BofA est
Cullen/Frost Bankers Inc.	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons
Net interest income	404	-0.7%	400	1.2%	1,646	18.7%	1,637	0.6%
Net interest margin	3.42%	(2.0)bp	3.42%	(0.4)bp	3.44%	64.2bp	3.45%	(1.0)bp
Provisions	20	78.8%	15	-	50	1573%	45	11%
Fee income	104	-1.5%	105	-0.7%	419	3.6%	420	-0.2%
Expenses	301	2.7%	306	-1.5%	1,165	13.7%	1,169	-0.4%
PPNR	208	-5.7%	199	4.3%	901	17.4%	887	1.5%
Efficiency	59%	208.6bp	61%	(137.2)bp	56%	(77.3)bp	57%	(46.1)bp
Tax Rate (%)	18%	-	-	-	17%	-	-	-
EPS	2.09	-12.2%	2.04	2.2%	9.64	9.4%	9.62	0.1%
Dil. Shares Outstanding	64	0.0%	64	0.0%	64	-0.2%	64	0.0%
Loans	18,564	3.2%	18,489	0.4%	17,883	6.9%	17,870	0.1%
Net charge-offs / avg loans	0.31%	20.3bp	0.21%	9.6bp	0.22%	12.2bp	0.19%	2.9bp

40,983

0.4%

41,437

-6.8%

41,414

NIM/NII will be flat with a downward bias into the fourth quarter. Will have some opportunity in early 2024 as the result of maturity in the investment portfolio. \$1bn in treasuries at 1% will mature in early 2024.

Flat with a downward bias for the fourth quarter.

Continue to expect FY23 expenses to be up mid-teens vs FY22 reported levels. Not in retrenchment mode at all for FY24. Do not expect to give a mid-teens guide for FY24 expenses. Mgmt. believes that expenses could be a little lighter than what they thought it would be a

FY23 tax rate will approximate 16.5-17%

0.1%

Sustainable loan growth target is high single-digits. Only 17% of multi-family loans mature in 2024. SNC portfolio is \$789mn, or 4.3% of period-end loans

October NIB avg. balances were down \$260mn from September avg. October IB balances were up \$102 vs the September average.

Profitability metrics (2023)	BofA est	VS.	Consensu	S
ROTCE (%)	27.5		25.3	-
ROA (%)	1.29		1.25	_

41,155

Capital

Dividends

Total Deposits

Buybacks Have \$70mn in buyback authorization remaining. Program expires in January.

0.8%

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

Exhibit 28: CMA earnings tear sheet

BofA vs consensus

(\$ in mn except EPS) Comerica Inc.	BofA est 4Q23e	BofA est QoQ	Consensus	BofA est	BofA est 2023e	BofA est YoY	Consensus	BofA est	Notes
Net interest income	566	-5.8%	566	0.1%	2,496	1.2%	2,497		Expect FY23 NII +1% to 2% YoY, 4Q NII -5% to -6% QoQ. Probably hit a trough in Q1. Do anticipate growing at some point in 2024. Believe down-shift in curve increases probability for stronger NII in 2024.
Net interest margin	2.94%	9.6bp	2.84%	9.2bp	3.15%	2.9bp	3.09%	5.8bp	Expect NIM percentage to improve as bring down cash and purchase funds over the next quarter. Wouldn't see fixed rate repricing having more than a couple of bps of impact on loan yields next year.
Provisions	31	121.4%	25	21.7%	108	80.0%	102	5.4%	
Fee income	284	-3.8%	285	-0.4%	1,164	9.0%	1,165	-0.1%	Expect FY23 fee income +9% YoY, 4Q fees -3% to -4% QoQ. Expect 2024 BOLI income closer to 5-yr avg (\$42.5mn). Potential debit interchange revenue subject to NPR is \$6mn.
Expenses	572	3.0%	584	-2.2%	2,213	10.7%	2,213	0.0%	Expect FY23 expenses +11% YoY (excl impact of FDIC special assessment), 4Q NIE +3% QoQ vs. \$555mn. Higher Salaries and benefits due to increases in temporary labor due to staff augmentation, advancing technology and wealth management initiatives. assumes no change in pension expense. Intend to keep expense growth modestly higher YoY in 2024. Yield curve coming down means benefits to pension expense.
PPNR	278	-18.3%	266	4.6%	1,447	-5.8%	1,449	-0.1%	
Efficiency	67.2%	530.2bp	68.7%	(145.0)bp	60%	391.6bp	60%	2.1bp	Remain committed to managing an efficient organization and are assessing opportunities to offset some of these pressures
Tax Rate (%)	24%	-	-	-	23%	-	-	-	
EPS	1.37	-25.4%	1.42	-3.2%	7.61	-10.1%	7.54	0.9%	
Dil. Shares Outstanding Loans	133 52,927	-2.0%	133 52,774	0.0%	53,938	6.9%	133 53,964	0.0%	Decline in loans reflect planned exit from the Mortgage Banker Finance business (expected to be mostly complete by YE2023) and increased selectivity in other lines of business. Expect FY23 avg loan growth of +7% and 4Q avg loans down 1% QoQ, driven by momentum in CRE & Dealer; considers impact of Mortgage Banker exit & increased selectivity. Lower utilization within general Middle Market reduced balances reflecting softening loan demand in this elevated rate environment middle Market, business banking, small business pipelines there are still pretty good relatively. Expect selectivity to drive avg loans lower than prior 4Q guidance; avg balances \$53bn QTD.
Net charge-offs / avg loans	0.13%	8.3bp	0.12%	1.0bp	0.04%	0.2bp	0.03%		Increase in criticized loans was primarily driven by CRE, predominantly multi-family and industrial.
Total Deposits	65,870	0.0%	66,034	-0.2%	65,980	-12.6%	66,745	-1.1%	Expect FY23 avg deposits decline 13% YoY. Expect avg deposits at higher end of prior range (i.e., flat QoQ) in 4Q; avg balances \$65.8bn QTD. IB deposit +\$1bn, NIB -\$1bn. NIB avg deposit mix 42% QTD. NIB deposits trending towards last guide, having more success than thought with interest-bearing deposits. Expect NIB mix to end up in the low-40s, could be down an extra percent if interest-bearing deposits continue to grow.
Profitability metrics (2023)	Bof A est	VS.	Consensus						
ROTCE (%)	21.82		21.5						
			1 12						

ROA (%) 1.13

Reiterated 10% CET1 target. Project a 25% improvement in unrealized securities losses over the next two years. Anticipate approximately a 37% reduction in our unrealized losses by the end of Capital 2025.

Dividends

Share repurchases remain paused considering the ongoing volatility within unrealized AOCI losses and subject to further regulatory clarity. Idea of buying back those shares is very attractive; will Buybacks

assess the uncertainty factor in 2024.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 29: CFG earnings tear sheet





(\$ in mn except EPS) Citizens Financial Group Inc	BofA est	BofA est OoO	Consensus	BofA est	BofA est 2023e	BofA est YoY	Consensus	BofA est	Notes
Net interest income	1,497	-1.9%	1,495	0.1%	6,263	4.0%	6,261	0.0%	Expect 4Q23 NII down 2%. QoQ, from continued mix-shift offsetting higher asset yields, non-core run-off and day count. Expect higher swap expense in 2024 to be partially offset by benefit to NII from non-core rundown. Expect swap expense drag to reduce meaningfully over 2025-27 as swaps run off and Fed cuts rates. Cuts from forward curve are helpful for alleviating pressure on deposit migration, lowering deposit pricing, reducing drag from swaps.
Net interest margin	2.98%	(4.5)bp	2.95%	3.3bp	3.12%	1.7bp	3.11%	1.0bp	Hoping to exit 2024 around a 3% NIM. Liquidity build in 4Q23 could have a couple bp impact on NIM. Expect NIM to fall to 2.98% pre-liquidity build, liquidity build could drop NIM further but have no impact on NII dollars. 60bp NIM tailwind to come from non-core runoff, terminated and active swaps.
Provisions	180	4.7%	183	-1.7%	696	128.2%	699	-0.4%	
Fee income	510	3.6%	508	0.4%	1,993	-0.8%	1,982	0.6%	Expecr 4Q23 Fees up 3-4% QoQ dependent on the market.
Expenses	1,271	0.0%	1,272	-0.1%	5,005	8.1%	5,003	0.0%	Expect 4Q23 expenses to be broadly stable QoQ. Expect 2024FY expenses to remain flat YoY (including Private Bank and non-core).
PPNR	736	-1.5%	731	0.6%	3,251	-4.4%	3,239	0.4%	
Efficiency	63%	34.9bp	63%	(15.5)bp	61%	297.9bp	61%	(7.7)bp	
Tax Rate (%)	22%	-	-	-	22%	-	-	-	Expect 4Q23 tax rate of ~22%.
EPS	0.85	-3.6%	0.85	0.6%	3.88	-19.8%	3.89	-0.1%	
Dil. Shares Outstanding	468	-0.7%	468	-0.1%	477	-0.2%	477	0.0%	
Loans	149,965	-1.5%	149,075	0.6%	153,927	1.1%	152,519	0.9%	Expect to see YoY loan growth begin in 2H24 from organic growth and Private Bank contribution. Expect to have net loan shrink as the bank enters 2024. Run-off portfolio running off at around \$1bn/qtr. Loan growth from Private Bank will be more weighted to capital call/commercial loans, will see retail pick up in mortgage/HELOC after rates peak.
Net charge-offs / avg loans	0.45%	5.1bp	0.46%	(0.7)bp	0.39%	21.8bp	0.40%	(0.4)bp	Expect 4Q23 NCOs to be in mid-40s range. Increased office CRE ACL from 8% to 9.5%. SNC exam this year led to more upgrades than downgrades, no forced charge-offs in SNC book.
Total Deposits	178,479	1.1%	178,321	0.1%	175,632	2.1%	175,497	0.1%	Expect mix-shift to moderate, dependent on path of rates and consumer behavior. Soon to launch checking program on Citizens Access.
Profitability metrics (2023)	Bof A est	VS.	Consensus						
ROTCE (%)	13.60		11.91						
ROA (%)	0.88		0.81						

Capital Expect 4Q23 CET1 ratio to be ~10.5%. 49% of AOCI burnoff expected by YE25.

Dividends

Buybacks Likely to buy little-to-no stock in 4Q23, should have strong levels of capital to purchase in 2024.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

Exhibit 30: EWBC earnings tear sheet

BofA vs consensus

(\$ in mn except EPS) East West Bancorp Inc.	BofA est 4Q23e	BofA est OoO	Consensus	BofA est	BofA est 2023e	BofA est YoY	Consensus	BofA est	Notes
Net interest income	561	-1.8%	568	-1.3%	2,298	12.3%	2,306	-0.3%	Increase in the range of 12-15% YoY, PPP impact immaterial. EWBC added \$750mn of swaps for the quarter, \$250mn of which were previously mentioned and another \$500mn that came after that. Cost for the quarter was \$24mn, cost 14bps to the NIM.
Net interest margin	3.45%	(3.2)bp	3.47%	(2.0)bp	3.61%	16.9bp	3.61%	(0.0)bp	Mgmt expects continued modest NIM compression, given the current rate outlook and given our expectation that there's potentially another Fed action towards year-end.
Provisions	42	0.0%	37	12.9%	130	76.9%	125	3.8%	Anticipate provision for credit losses in the range of \$110-130mn
Fee income	79	3.0%	74	6.3%	304	2.4%	291	4.5%	
Expenses	253	0.4%	255	-0.6%	985	14.6%	940	4.8%	FY23 expenses: increase in the range of 9-11% YoY. Anticipate delivering positive operating leverage on a full year basis. As of the 3Q call, anticipated that fourth quarter amortization of tax credit investments would be appx. \$45mn.
PPNR	387	-2.2%	388	-0.3%	1,617	9.0%	1,657	-2.4%	·
Efficiency	40%	62.5bp	40%	(9.3)bp	38%	118.1bp	36%	166.8bp	
Tax Rate (%)	22%	-	-	-	19%	-	-	-	Now expect FY23 tax rate will be between 19-20%.
EPS	1.91	-5.7%	1.92	-0.3%	8.46	6.7%	8.45	0.1%	
Dil. Shares Outstanding	142	-0.3%	141	0.5%	142	-0.4%	142	0.1%	
Loans	51,475	1.1%	50,784	1.4%	51,475	6.7%	50,781	1.4%	Expect FY23 YoY loan growth to be in the range of 5-7% YoY. PPP impact immaterial. Customer activity has slowed down somewhat.
Net charge-offs / avg loans	0.16%	1.1bp	0.09%	6.5bp	0.09%	5.3bp	0.09%	0.5bp	Not seeing sector-specific stresses. Do not have much exposure to central business districts.
Total Deposits	55,194	0.2%	55,359	-0.3%	55,194	-1.4%	55,359	-0.3%	Have already paid down \$1.6bn of \$1.75bn planned paydown of wholesale deposits. Will continue to evaluate the optimal level of cash. Will try to grow deposits with internal initiatives related to business checking accounts for small and medium-sized businesses. There will be a gradual increase in NIB deposits as they onboard commercial clients that have transferred their operating accounts to East West. As soon as the fed moves, how quickly they will be able to cut costs will depend on how quickly the fed cuts costs.
Profitability metrics (2023)	BofA est	VS.	Consensus						

Profitability metrics (2023)	Bot A est	VS.	Consensus
ROTCE (%)	19.99		19.3
ROA (%)	1.78		1.77

Capital

Dividends

Buybacks Intend to resume share repurchases in the fourth quarter. Don't expect to be aggressive with the buyback. Had repurchased 1.5mn shares as of early December.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 31: FBP earnings tear sheet

BofA vs consensus

(\$ in mn except EPS)	Bof A est	BofA est		BotA est	Bof A est	Bof A est		BotA est	
First BanCorp/Puerto Rico	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income	201	-1.8%	201	-0.1%	818	-1.3%	818	0.0%	Inflection point for NII/NIM should be in 1Q24 as deposits still reprice in 4Q.
Net interest margin	4.21%	(3.1)bp	4.24%	(3.2)bp	4.32%	3.2bp	4.32%	. , .	Expect a normalization in the margin towards the beginning of 2024, based on stable rates. Moving securities with yield of 1.33% to loans that either yield 600bp more, or keep in cash yielding 400bp more.
Dravisions	าว	421.00/	20	17.60/	CE	12400/	C)	E C0/	

THE ETTILLIESE THEOTILE	201	1.0 /0	201	0.170	010	1.5/0	010	0.0 /0	inflection point for Mi/MiN should be in 1924 as deposits still replice in 49.
Net interest margin	4.21%	(3.1)bp	4.24%	(3.2)bp	4.32%	3.2bp	4.32%	(0.4)bp	Expect a normalization in the margin towards the beginning of 2024, based on stable rates. Moving securities with yield of 1.33% to loans that either yield 600bp more, or keep in cash yielding 400bp more.
Provisions	23	421.9%	20	17.6%	65	134.9%	62	5.6%	yiciding 4000p more.
Fee income	33	8.8%	31	5.8%	127	3.8%	125	1.5%	
Expenses	120	3.2%	119	1.1%	465	5.1%	464	0.2%	
PPNR	113	-3.9%	113	0.3%	480	-5.6%	478	0.2%	
Efficiency	51%	177.7bp	51%	18.2bp	49%	266.9bp	49.2%	(0.7)bp	Target to remain close to 50% efficiency in the near-term.
Tax Rate (%)	25%	-	-	-	28%	-	-	-	
EPS	0.38	-18.6%	0.36	3.3%	1.60	1.0%	1.59	0.8%	
Dil. Shares Outstanding	171	-3.2%	173	-0.7%	177	-7.7%	178	-0.2%	
Loans	12,070	0.9%	12,139	-0.6%	12,070	4.4%	12,139	-0.6%	Reiterated mid-single-digit growth guidance. Expect facilities of construction loans that were approved this year to accelerate into disbursements. Committed \$150mn to the high way deal transaction, most of the benefit will come to balance sheets in 2024.
Net charge-offs / avg loans	0.56%	8.4bp	0.54%	2.3bp	0.54%	23.6bp	0.53%	0.8bp	NPAs increased by \$9mn primarily due to the inflow of a single commercial loan in Puerto Rico. Excess liquidity in the market has continued to taper off, starting to see normalization in delinquency trends.
Total Deposits	16,412	-0.1%	16,485	-0.4%	16,412	1.7%	16,485	-0.4%	Government deposits are close to having fully repriced assuming Fed is done.
Profitability metrics (2023)	Rof∆ est	VS	Consensus						-

Profitability metrics (2023)	BofA est	VS.	Consensus
ROTCE (%)	22.34		22.0
ROA (%)	1.52		1.49

Unrealized losses around \$151mn, represents around \$4.88 in tangible book value and reduction in TCE ratio of 409bp. Capital

Dividends

Expect to continue repurchasing shares of common stock during 4Q under \$225mn buyback plan. Buybacks

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

Exhibit 32: FHB earnings tear sheet

BofA vs consensus

(\$ in mn except EPS)	BofA est	BofA est		BofA est	BofA est	BofA est		BofA est	
First Hawaiian Inc	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income	155	-1.4%	154	0.7%	639	4.2%	640	0.0%	
Net interest margin	2.76%	(9.9)bp	2.76%	(0.3)bp	2.89%	13.9bp	2.91%	(1.3)bp	Decrease in NIM less than anticipated as deposit cost increase slowed. NIM expected to trough in the mid-270bp range sometime in 4Q. expect to start to see the NIM grind 2 to 3 basis points higher again assuming flat rates (even with slight downticks in the NIB deposits).
Provisions	7	-12.6%	7	0.9%	28	1901.3%	28	0.2%	Increase in the reserve reflects the possibility of losses on Maui related to the wildfires.
Fee income	47	2.0%	47	0.2%	190	5.6%	189	0.2%	
Expenses	119	0.4%	119	0.4%	474	7.6%	474	0.0%	Expect expenses to be flat to down QoQ in 4Q.
PPNR	83	-1.9%	82	1.0%	710	101.2%	355	100.0%	
Efficiency	59%	56.2bp	59%	(15.7)bp	114%	5,884.8bp	57%	5,719.6bp	
Tax Rate (%)	25%	-	-	-	24%	-	-	-	
EPS	0.45	-1.6%	0.45	1.5%	1.94	-6.5%	1.92	0.9%	
Dil. Shares Outstanding	128	-0.3%	128	-0.2%	128	-0.1%	128	-0.1%	
Loans	14,241	-0.6%	14,305	-0.5%	14,241	1.1%	14,305		Construction balances lower due to expected paydowns of completed projects; \$150mn of completed construction loans moved to CRE. Expect over time the rebuilding activity will spur economic stimulus for area impacted by wildfires. Additional paydowns from complete construction projects will cause loan balances to be relatively flat QoQ in 4Q; FY2023 loan growth will be about 1%. Have seen a softening in demand.
Net charge-offs / avg loans	0.13%	12.3bp	0.13%		0.08%	(0.2)bp	0.08%		Increase in commercial criticized assets primarily driven by a single credit downgraded to special mention. Preliminary estimate of the potential loss related to the fires is \$9.1mn. Decrease in criticized office CRE due primarily to loan payoff (only office property in Downtown, LA). Don't expect material declines in NIB deposits (36.7% of deposits) going forward. haven't seen a
Total Deposits	21,573	0.3%	21,312	1.2%	21,573	-0.5%	21,312	1.2%	significant amount of insurance payouts on b/s yet.
Profitability metrics (2023)	Bof A est	VS.	Consensus						

r 1 011 (2023)	DOLA CSC	V.S.	Conscisus
ROTCE (%)	18.36		18.1
ROA (%)	1.00		0.99

Capital TCE still probably a little lower than mgmt would like to operate at.

Dividends

Buybacks Did not repurchase any shares in the third quarter. No new plans in terms of executing on the buyback

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 33: FHN earnings tear sheet BofA vs consensus



BofA est			BofA est			_	BofA est	
4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
617	1.4%	614	0.6%	2,552	6.1%	2,547	0.2%	Expect NII will be up 6-9%, assuming no additional rate hikes in 2023 and DDA balances that return to pre-pandemic levels. FY24: NII +1-4%.
3.26%	8.5bp	3.23%	2.2bp	3.41%	29.2bp	3.41%	0.7bp	Expect net interest margin will increase next quarter. Two thirds of loan portfolio is floating rate remain positioned to benefit in a rising rate environment. Higher for longer is better for FHN.
50	-54.5%	47	7.4%	260	173.7%	254	2.2%	remain positioned to continuing late emission on a light to longer is contained.
173	-0.9%	175	-1.3%	692	-9.7%	694	-0.3%	Fee income is stabilizing near cyclical lows. Expect Fee income will be down 6-10% vs FY22. FY24: +4-6%. May have been conservative in guidance for counter-cyclical businesses. Won't be a huge driver, but can be an offset if the fed cuts rates. Both mortgage and fixed income.
522	12.5%	503	3.9%	1,905	6.0%	1,895	0.5%	Expect that expenses will be up 6-8% vs FY22 driven by increased investmetns in technology, marketing, and personnel. Expect that they will be on the low end of prior guidance. Believe that expenses can be up in 2024 and still drive positive operating leverage. FY24: Expenses +4-6%. Will make \$75-100mn of investments in technology and infrastructure. Worker costs up in the +3.5% area for 2024. 4Q23: Will come in a little bit on the lower side than guidance.
268	-16.0%	286	-6.4%	1,339	-2.5%	1,346	-0.5%	
66%	682.6bp	64%	235.8bp	59%	202.4bp	58%	25.7bp	
20%	-	-	-	21%	-	-	-	
0.28	4.5%	0.31	-9.8%	1.39	-17.1%	1.42	-1.8%	
561	0.0%	561	0.0%	564	-0.3%	564	0.0%	
62,496	0.5%	61,560	1.5%	61,009	7.4%	60,289	1.2%	Now expect loan growth of 7-9% for 4Q23. Some growth will come from fund-up in construction loans for the fourth quarter. Continue to expect charge-offs will remain within the prior guidance range. SNCs are less than 14% of loan balances, in the lead on 3-3.5% of that. Not ir RWA diet mode. No short-term limits to B/S growth.
0.32%	(28.8)bp	0.28%	3.9bp	0.30%	19.6bp	0.29%	1.4bp	Provision for loan losses increased by \$60mn to \$100mn, driven by a single C&I charge off of \$72mn. Did not have a specific reserve for this credit as they had an updated third-party valuation that supported the carrying value, and anticipated an imminent sale within the quarter. Do not currently expect significant, broad-based deterioration in the commercial credit portfolios. Expect NCOs to be between 25-35bps for FY23. Only seeing a slight increase in criticized assets to this point. A little bit more in CRE than they are in C&I. Believe credit quality will hold up in 2024.
67,412 BofA est	1.3% Vs.	67,097 Consensus	0.5%	64,614	-7.4%	61,396		Will have the opportunity to reprice promotional money market accounts acquired in the second quarter as well as the full benefit of July's rate hike For customers acquired in the second quarter, rate guarantees on money markets will come up for repricing in the back half of the fourth quarter. Have returned to pre-pandemic mix on a proportional basis, but deposit balances are still about \$2bn higher than they were pre-pandemic. Deposits essentially flat in the quarter as of GS conference. Have seen that they have the ability to reprice deposits lower through the first 4 week sof special rate repricing.
	4Q23e 617 3.26% 50 173 522 268 66% 20% 0.28 561 62,496 0.32%	4Q23e QoQ 617 1.4% 3.26% 8.5bp 50 -54.5% 173 -0.9% 522 12.5% 268 -16.0% 66% 682.6bp 20% - 0.28 4.5% 561 0.0% 62,496 0.5% 0.32% (28.8)bp 67,412 1.3%	4Q23e QoQ Consensus 617 1.4% 614 3.26% 8.5bp 3.23% 50 -54.5% 47 173 -0.9% 175 522 12.5% 503 268 -16.0% 286 66% 682.6bp 64% 20% - - 0.28 4.5% 0.31 561 0.0% 561 62,496 0.5% 61,560 0.32% (28.8)bp 0.28% 67,412 1.3% 67,097	4Q23e QoQ Consensus vs. cons 617 1.4% 614 0.6% 3.26% 8.5bp 3.23% 2.2bp 50 -54.5% 47 7.4% 173 -0.9% 175 -1.3% 522 12.5% 503 3.9% 66% 682.6bp 64% 235.8bp 20% - - - 0.28 4.5% 0.31 -9.8% 561 0.0% 561 0.0% 62,496 0.5% 61,560 1.5% 0.32% (28.8)bp 0.28% 3.9bp 67,412 1.3% 67,097 0.5%	4Q23e QoQ Consensus vs. cons 2023e 617 1.4% 614 0.6% 2,552 3.26% 8.5bp 3.23% 2.2bp 3.41% 50 -54.5% 47 7.4% 260 173 -0.9% 175 -1.3% 692 268 -16.0% 286 -6.4% 1,905 268 -16.0% 286 -6.4% 1,339 66% 682.6bp 64% 235.8bp 59% 20% - - - 21% 0.28 4.5% 0.31 -9.8% 1.39 561 0.0% 561 0.0% 564 62,496 0.5% 61,560 1.5% 61,009 0.32% (28.8)bp 0.28% 3.9bp 0.30% 67,412 1.3% 67,097 0.5% 64,614	4Q23e QoQ Consensus vs. cons 2023e YoY 617 1.4% 614 0.6% 2,552 6.1% 3.26% 8.5bp 3.23% 2.2bp 3.41% 29.2bp 50 -54.5% 47 7.4% 260 173.7% 173 -0.9% 175 -1.3% 692 -9.7% 522 12.5% 503 3.9% 1,905 6.0% 268 -16.0% 286 -6.4% 1,339 -2.5% 66% 682.6bp 64% 235.8bp 59% 202.4bp 20% - - - 21% - 0.28 4.5% 0.31 -9.8% 1.39 -17.1% 62,496 0.5% 61,560 1.5% 61,009 7.4% 67,412 1.3% 67,097 0.5% 64,614 -7.4%	4Q23e QoQ Consensus vs. cons 2023e YoY Consensus 617 1.4% 614 0.6% 2,552 6.1% 2,547 3.26% 8.5bp 3.23% 2.2bp 3.41% 29.2bp 3.41% 50 -54.5% 47 7.4% 260 173.7% 254 173 -0.9% 175 -1.3% 692 -9.7% 694 522 12.5% 503 3.9% 1,905 6.0% 1,895 268 -16.0% 286 -6.4% 1,339 -2.5% 1,346 66% 682.6bp 64% 235.8bp 59% 202.4bp 58% 20% - - - 21% - - 0.28 4.5% 0.31 -9.8% 1.39 -17.1% 1.42 561 0.0% 561 0.0% 564 -0.3% 564 62,496 0.5% 61,560 1.5% 61,009	4Q23e QoQ Consensus vs. cons 2023e YoY Consensus vs. cons 617 1.4% 614 0.6% 2,552 6.1% 2,547 0.2% 3.26% 8.5bp 3.23% 2.2bp 3.41% 29.2bp 3.41% 0.7bp 50 -54.5% 47 7.4% 260 173.7% 254 2.2% 173 -0.9% 175 -1.3% 692 -9.7% 694 -0.3% 522 12.5% 503 3.9% 1,905 6.0% 1,895 0.5% 66% 682.6bp 64% 235.8bp 59 20.4bp 58 25.7bp 20% - - - 21% - - - - 0.28 4.5% 0.31 -9.8% 1.39 -17.1% 1.42 -1.8% 561 0.0% 561 0.0% 564 -0.3% 564 0.0% 62,496 0.5% <

Profitability metrics (2023)	Bof A est	VS.	Consensus	
ROTCE (%)	12.86		13.3	Reiterated target for ROTCE of 15-18%. Still target 15+% ROTCE
ROA (%)	0.96		0.99	

Capital

Manage to a CET1 ratio of 9.5% to 10.5%. Expect CET1 will end the year between 11.0-11.2%. Even after adjusted for markets on the security portfolio and loan book, the pro-forma CET1 would be 8.6%. May not bring CET1 much below 11% in 2024. Won't bring capital down very much, but also will not allow it to rebuild. Evaluate capital repatriation through buybacks. 11% CET1 is higher than they need. Over time expect they'll operate in the middle of the 9.5-10.5% range.

Dividends

Buybacks Evaluating options to repatriate capital to shareholders.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

US Banks | 11 January 2024

(\$ in mn except EPS) Fifth Third Bancorp	BofA est 4Q23e	BofA est QoQ	Consensus	BofA est	BofA est 2023e	BofA est YoY	Consensus	BofA est	Notes
Net interest income	1,415	-2.1%	1,420	-0.3%	5,845	3.9%	5,850	-0.1%	4Q23 NII -1-2% QoQ (vs. \$1.445bn). Guidance assumes FF at 5.50% for remainder of 2023. Swap protection extends through 2031 ~\$125mn uplift in 2025 vs. 2023 regardless of rate environment. FY23 NII +3-5%. \$8bn of consumer loan payoffs in 2024, front book rates are 200-300bp higher than back book rates; take this coupled with \$4bn in securities maturities and cash flows, \$300mn tailwind annualized over 2024.
Net interest margin	2.89%	(8.8)bp	2.91%	(2.1)bp	3.07%	4.7bp	3.07%	(0.4)bp	NIM bottom 4Q or 1Q driven by excess cash from deposits NIM could be down 10bp in 4Q driven by cash. NIM drop in 4Q and trough if cut mid-year 2024; NII trough in 1Q with day count impact.
Provisions	130	9.2%	123	6.0%	590	15.9%	583	1.3%	Allowance for credit losses 4Q23 \$0-25mn build primarily due to Dividend Finance and assumes no significant change to macroeconomic outlook and risk profile as of 3Q23. Considers production from Dividend Finance of ~\$700mn in 4Q, carries reserve level ~9%.
Fee income	746	2.9%	744	0.3%	2,893	1.4%	2,939	-1.6%	4Q23 noninterest income +1-2% QoQ (vs. \$732mn). TRA \$22mn 4Q23, \$11mn 4Q24.
Expenses	1,198	0.9%	1,196	0.2%	4,924	4.3%	4,920	0.1%	4Q23 expenses stable to +1% QoQ (vs. \$1.188bn); guidance excludes the FDIC charge (\$224mn). Comp plans to change Jan 1, 2024 to be driven by RAROC and SBA as opposed to revenue growth and other measures.
PPNR	963	-1.9%	968	-0.5%	3,814	1.5%	3,868	-1.4%	4Q23 total revenue flat to down 1% QoQ (vs. \$2.170bn; includes securities g/l).
Efficiency	55%	70bp	55%	19bp	56%	68bp	56%	37bp	
Tax Rate (%)	23%	-	-	-	21%	-		-	4Q23 effective tax rate ~23%.
EPS	0.88	-5.0%	0.90	-2.2%	3.53	1.2%	3.51	0.6%	
Dil. Shares Outstanding Loans	119,063	-2.6%	686 119,608	0.1%	688 122,233	-1.1% 1.4%	687 117,989	3.6%	4Q23 avg loans & leases (including HFS) -2-3%, consumer loans -2%, commercial -3%. RWA optimization should be complete by end of 4Q and can return to loan growth next year. Expect Dividend to generate -\$3.3bn in 2024 originations, slightly below FY23e (-\$3.8bn). Goal for 2024 will be to grow on a point-to-point basis 2% from YE23 to YE24 but WA loan growth will be -2%; FY basis will be down but point-to-point will be up.
Net charge-offs / avg loans	0.35%	(5.2)bp	0.34%		0.32%	13.7bp	0.32%		4Q23 NCO ratio of 30-35bp. Expected to gradually normalize. TTC and 2024 NCOs 35-45bp. Dividend Finance: no change to loss expectations, TTC NCOs 125-130bp. 4Q23 NCO ratio of 30-35bp.
Total Deposits	167,080	0.9%	167,572	-0.3%	163,557	0.3%	168,791	-3.1%	mix of DDA to core to remain relatively stable given seasonal benefit. QTD avg deposits +1% QoQ.
Profitability metrics (2023)	Bof A est	VS.	Consensus						

ROTCE (%) 24.7% 21.4 ROA (%) 1.23% 1.12

Projected AOCI accretion assuming implied fwd curve ~35% capital accretion 12/31/25E, ~65% 12/31/28E. Assuming static rates, ~30%, ~60%. CET1 end year at or above 10%. Expected Capital TBV/share accretion (assuming no SBB or earnings, assuming implied fwd curve) ~14% YE24, ~23% YE25, ~29% YE26, ~35% YE27, ~41% YE28.

Dividends

Continued deferment of SBB Buybacks

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 35: GS earnings tear sheet

BofA vs consensus



\$ in mn except EPS)	BofA est	BofA est		BofA est	BofA est	BofA est		BofA est	
Goldman Sachs Group Inc.	4Q23e	QoQ	Consensus	vs. cons	2023E	YoY	Consensus	vs. cons	Notes
Investment banking	1,589	2.2%	1,686	(5.8%)	6,153	208.8%	5,862	5.0%	If conditions remain conducive, expect a continued recovery for both capital markets and strategic activity. Backlog fell QoQ as successfully brought transactions to market. Client engagement continues to be elevated. Expect sponsor activity to increase in the next 12-24 months. Confidence is building over 4Q. Turn of year is a good time for transactions to come to market. Expecting a dearer runway in 2024. Cost of capital for certain new transactions is now something more sensible so can bring new issue debt transactions, and price new acquisitions and commit to acquisition financing with a evel of certainty. Has been more subdued in 2H but macro more supportive of improved conditions into 2024. IB below trend at the moment, level of activity more muted.
Asset & Wealth Management	3,589	9.0%	3,678	(2.4%)	13,460	224.7%	13,263	1.5%	Focus is on ultra-high net worth management.
Platform Solutions	671	(4.3%)	638	5.0%	2,595	285.1%	2,461	5.4%	
Net interest income	1,397	(9.7%)	1,683	(17.0%)	6,409	(16.5%)	6,695	(4.3%)	
Total operating revenue	10,668	(9.7%)	10,891	(2.0%)	45,920	(3.0%)	45,846	0.2%	
Provisions	676	9557.1%	598	13.0%	1,692	(37.7%)	1,141	48.3%	
Total operating expenses	7,862	(4.0%)	8,214	(4.3%)	34,488	10.7%	34,188	0.9%	Tracking to surpass goal of \$600mn in run rate payroll efficiencies to be achieved in 2023 and 2024. Continue to focus on bringing down non-comp expenses and are making progress on \$400mn run rate efficiency goal. In Platform Solutions, don't think right run rate for expenses ex write-down, should outperform any run rate analysis. Don't expect another severance similar to earlier in the year. Comp and benefit expense up low single digits for FY including severance. FDIC special assessment \$525mn pre-tax this quarter.
Net earnings	1,661	(43.2%)	1,671	(0.6%)	9,639	(14.4%)	8,125	18.6%	
Tax rate (%)	22%	3bp	19%	(19bp)	21%	5bp	21%	(21bp)	FY23 under 23%
EPS	4.36	(28.6%)	4.70	(7.3%)	24.07	(19.9%)	23.71	1.6%	
	•	•		•		•	•	•	

<u> </u>	BofA est								
Profitability metrics	<u>2022</u>		Consensus	_					
ROE (%)	10%	VS.	10%						
ROTE (%)	11%	VS.	11%						
	BofA est			BofA est	BofA est			BofA est	
Trading	<u>4Q23e</u>	<u>YoY</u>	Consensus	vs. cons	2023E	<u>YoY</u>	Consensus	vs. cons	
FICC	2,490	(26.4%)	2,578	(3.4%)	12,516	(14.7%)	12,604	(0.7%)	
Equities	2,280	(23.0%)	2.336	(2.4%)	11,222	2.1%	11,278	(0.5%)	Equities performing better YoY. Driving market share and doing more financing to open up the addressable wallet is
Equities	2,200	(23.0%)	2,330	(2.470)	11,222	2.170	11,270	(0.570)	peneficial to keep revenue elevated vs 2019.
Banking									
Advisory	845	1.7%	911	(7.3%)	3,139	(33.3%)	3,205	(2.1%)	A lot of clients have appetite and interest in doing something strategic but holding back. Sponsor community in
AUVISOLY	043	1.7%	911	(7.5%)	3,139	(33.3%)	3,203	(2.1%)	particular is more cautious given uncertainty with respect to debt, capital markets, accessibility, overall cost of capital.
ECM	293	(4.9%)	292	0.2%	1,194	40.8%	1,193	0.0%	IPO market has started to reopen.
DCM	451	8.7%	403	11.9%	1,820	0.7%	1.772	2.7%	Market open across corporate, financial, sovereign, and high-quality non-IG. A lot of activity in non-IG debt capital
DCIVI	451	0.7%	403	11.9%	1,020	0.7%	1,//2	2.7%	markets is maturity, driven Credit spreads tightened so experturities, for dients to construct transactions

Capital

Dividends Committed to paying a sustainable growing dividend and maintaining a competitive yield.

Buybacks Expect to moderate 4Q SBB vs 3Q.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

BofA GLOBAL RESEARCH

markets is maturity-driven. Credit spreads tightened so opportunities for dients to construct transactions.

US Banks | 11 January 2024

Exhibit 36: HBAN earnings tear sheet

BofA vs consensus

(\$ in mn except EPS) Huntington Bancshares Inc		BofA est QoQ	Consensus	BofA est	BofA est 2023e	BofA est YoY	Consensus	BofA est	Notes
Net interest income	1,318	-4.4%	1,323	-0.4%	5,472	3.2%	5,477	-0.1%	4Q23 NII (ex-PPP, ex-PAA) -4-5% QoQ (vs. 3Q23 \$1.373bn). Expansion in 2024 from 4Q23 level throughout year. 4Q23 trough in both NIM and NII.
Net interest margin	3.07%	(13.3)bp	3.07%	(0.2)bp	3.19%	(5.5)bp	3.19%	(0.1)bp	4Q23 NIM 305-310bp, 5-10bp better than mgmt originally thought. Modest margin decline in 4Q23 followed by stable to expanding in 2024. 4Q23 trough in both NIM and NII.
Provisions	125	26.3%	117	6.9%	401	38.8%	393	2.1%	Expecting any builds from here would be similar to 3Q, fairly nominal from a dollar standpoint. Feel good about where reserve currently is. As economic outlook improves, mgmt could see bringing the coverage ratio back down into 1.60% range.
Fee income	479	-5.9%	439	9.0%	1,942	-2.0%	1,930	0.6%	4Q23 noninterest income (ex-notable items and MTM PF swaptions) flat QoQ (vs. 3Q23 \$476mn). Incremental growth in capital markets. Expect sequential growth in capital markets in 2024. Expecting solid fee growth in 2024, north of spread and loans. Termination of swaption program impact to noninterest income negative mark-to-market of ~\$74mn. Was -\$1mn 1Q23, +\$18mn 2Q23, +\$33mn 3Q23.
Expenses	1,119	4.0%	1,122	-0.3%	4,288	4.4%	4,291	-0.1%	4Q23 expense (ex-notable items) +4-5% QoQ (vs. 3Q23 \$1.075bn). Underlying growth rate of core expenses higher in 2024 vs 2023 (current est of 4% vs 2.5%), investments into treasury, risk mgmt, tech, focus on enhancing data, underlying process capabilities, and automation. Expense growth rate will come back down after 2024 exit. CRT expected to result in ~\$4mn of transaction-related expenses in 4Q, and ~\$19mn of premium expense recognized as contra-revenue within noninterest income during FY24. FDIC special assessment \$214mn in 4Q. Expects to complete staffing efficiencies and corporate real estate consolidation announced in Oct 2023, expected to result in ~\$12mn of non-recurring expenses incurred in 4Q23.
PPNR	678	-16.5%	641	5.9%	3,126	-1.7%	3,116	0.3%	
Efficiency	62%	530bp	64%	(140)bp	58%	147bp	58%	(10)bp	
Tax Rate (%)	21%	- '	-		21%	- '		-	
EPS	0.27	-24.4%	0.26	1.5%	1.36	-9.4%	1.35	0.8%	
Dil. Shares Outstanding	1,481	0.9%	1,469	0.8%	1,471	0.4%	1,468	0.2%	
Loans	121,926	0.9%	121,668	0.2%	121,926	2.0%	121,321	0.5%	~0.5% QoQ of loan growth (vs original expectations of 1%) driven by commitment delays from clients given economic uncertainty. FY23 loans +5% YoY. Will continue to see growth next year. Distribution finance business saw seasonality in 3Q, expect to see growth in 4Q. Secularly seeing nice growth there. Commercial dealer space continues to be active. Corporate Specialty and middle market continue to see growth opportunities. Auto and RV marine strong production with much higher yields. HELOC a little softer. Mortgage softer, stabilizing but down from last year. Volume of equipment finance is typically 4Q oriented. Pipeline backlog looks good, not as strong as last year. Shrinking CRE portfolio.
Net charge-offs / avg loans	0.33%	8.7bp	0.30%	8.8%	0.23%	12.5bp	0.22%	2.9%	FY23 NCOs 20-30bp. Continued normalization of net charge-offs. TTC range 25-45bp.
Total Deposits	149,445	0.4%	149,834	-0.3%	149,445	1.0%	149,834	-0.3%	4Q23 avg deposits +1% QoQ (vs. 3Q23 \$148.2bn). Expect NIB mix shift to moderate and stabilize in 2024. Expecting deposit growth into 4Q and 2024.
Profitability metrics (2023)	BofA est	VS.	Consensus						

 Profitability metrics (2023)
 BofA est
 vs.
 Consensus

 ROTCE (%)
 19.6%
 18.8

ROA (%) 1.15% 1.06

Continue to drive capital expansion for remainder of this year and 2024. Want to drive adj CET1 inclusive of AOCI into operating range of 9-10%. Basel RWA increase 5%, represent 40bp of CET1 in 2027. Projecting ~45% total AOCI accretion to tangible common equity by YE26 (22% YE24, 34% YE25). CRT benefit to CET1 ~17bp. FDIC special assessment ~12bp to CET1.

Dividends

Buybacks Share repurchase not expected through 2023 and 2024.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 37: JPM earnings tear sheet

BofA vs consensus

.41
- N.
- N /
•

(\$ in mn except EPS)	BofA est	BofA est		BofA est	BofA est	Bof A est		BofA est	
JPMORGAN CHASE & CO	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income	22,965	0.5%	22,990	-0.1%	88,535	31.9%	88,559	0.0%	In-line / a little better on FY23 \$89bn NII ex markets.
Net interest margin	2.68%	(4.0)bp	2.73%	(4.8)bp	2.66%	66.0bp	2.67%	(0.4)bp	
Provisions	2,985	115.7%	2,505	19.2%	9,543	49.4%	8,994		Net reserve build in Card Services was driven by loan growth, including increases in revolving balances, largely offset by changes in the macroeconomic outlook and reduced borrower uncertainty. Will see build in reserves in card.
Fee income	17,118	-7.8%	17,377	-1.5%	73,485	9.5%	74,161	-0.9%	Expect markets revenue to be flattish YoY in 4Q23. Expect IB fees up single digits QoQ.
Expenses	22,522	3.5%	23,679	-4.9%	85,208	11.9%	86,365	-1.3%	In-line / a little better on FY23 \$84bn adj expenses. FDIC ~\$3bn pretax in 4Q.
PPNR	17,561	-10.7%	16,688	5.2%	76,812	32.1%	76,355	0.6%	
Efficiency	56%	365.5bp	59%	(247.1)bp	53%	(411.3)bp	53%	(48.5)bp	
Tax Rate (%)	24%	-77.9bp	25%	-54.1bp	25%	95.6bp	24%	98.4bp	
EPS	3.63	-19.6%	3.86	-6.0%	16.47	30.8%	16.97	-2.9%	
Dil. Shares Outstanding	2,919	-0.5%	2,914	0.2%	2,943	-0.9%	2,940	0.1%	
Loans	1,315,770	0.7%	1,315,541	0.0%	1,247,488	13.4%	1,244,004	0.3%	Expect double-digit card loan growth in 2024 but lower than 2023, mortgage loans to be flat to down in 2024, overall consumer loan growth of mid-single digits in 2024, wholesale loan growth to be muted in 2024 (being prudent and selective). Looking at every opportunity to sell, securitize risk transfer.
Net charge-offs / avg loans	0.52%	6.5bp	0.45%	7.2bp	0.46%	20.3bp	0.47%	-0.8bp	Lowered FY23 card NCO rate to ~2.5% (vs. 2.6% previously). Credit has normalized, in line with expectations, but not yet deteriorated. Card delinquencies normalized by middle of this year as expected (2Q23), expect loss rates to normalize to pre-pandemic levels by YE into 1Q24.
Total Deposits	2,375,140	0.8%	2,342,433	1.4%	2,359,693	-4.4%	2,351,889	0.3%	Expect deposits to modestly decline in 2024, then stabilize in 1Q25 and grow as lower rates take hold.
Profitability metrics (2022)	BofA est	VS.	Consensus				•		-

I	Profitability metrics (2022)	Bof A est	VS.	Consensus	
	ROTCE (%)	20.64		21.3	Reiterated 17% TTC ROTCE target.
	ROA (%)	1.23		1.30	

CapitalDividends

Buybacks

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

As proposed, US Basel III NPR increases JPM's RWA by 30% (\$500bn) and required capital by 25% (\$50bn); \$22.5bn is directly linked to 4.5% GSIB surcharge. Est SCB already includes \$15bn capital for operational risk.

Exhibit 38: KEY earnings tear sheet

BofA vs consensus

(\$ in mn except EPS) KeyCorp	BofA est 4Q23e	BofA est QoQ	Consensus	BofA est	BofA est 2023e	BofA est YoY	Consensus	BofA est	Notes
Net interest income	913	-1.1%	921	-0.9%	3,928	-13.8%	3,932	-0.1%	-\$1bn annualized NII benefit by 1Q25 from short-dated maturities. 4Q23 NII (TE) relatively stable QoQ. FY23 -12-14% YoY. At or near bottom on NII.
Net interest margin	2.13%	11.7bp	2.11%	1.3bp	2.24%	(46.5)bp	2.21%	3.1bp	3Q23 a low point in the cycle. High 2s, 3ish% margin is not out of the realm.
Provisions	100	23.5%	103	-3.1%	487	-3.0%	490	-0.6%	
Fee income	599	-6.8%	607	-1.3%	2,459	-9.5%	2,468	-0.4%	4Q23 noninterest income -5-8% QoQ (vs. +1-3%); weaker capital markets conditions and lower corporate services income driven by a decline in client derivative activity. FY23 -7-9% YoY.
Expenses	1,113	0.3%	1,105	0.7%	4,475	1.5%	4,407	1.5%	4Q23 noninterest expense relatively stable QoQ; notable items \$190mn pretax FDIC, \$50mn efficiency-related expenses, \$20mn pension settlement charge. FY23 relatively stable YoY. FY24 expenses relatively stable. Goal to keep core expenses flat in 2024 (vs. \$4.4bn), taking a look at real estate positioning, third-party contracts, and personnel. Expect to have additional efficiency-related expenses in 4Q connected with efficiency efforts est to be in range of \$50mn.
PPNR	399	-12.5%	422	-5.5%	1,912	-33.2%	1,993	-4.1%	
Efficiency	74%	273bp	72%	126bp	70%	942bp	69%	121bp	
Tax Rate (%)	18%	-	-	-	20%	-	-	-	4Q23 GAAP tax rate 18-19%. FY23 18-19%.
EPS	0.22	-22.5%	0.22	-1.6%	1.07	-44.3%	1.12	-4.3%	
Dil. Shares Outstanding	936	0.5%	935	0.2%	933	0.0%	933	0.0%	
Loans	113,894	-1.4%	114,119	-0.2%	113,894	-4.6%	114,119	-0.2%	4Q23 avg loans -1-3% QoQ. FY23 +6-9% YoY.
Net charge-offs / avg loans	0.34%	10.7bp	0.31%	10.9%	0.22%	8.2bp	0.22%	0.1%	4Q23 NCOs 25-35bp. FY23 25-30bp.
Total Deposits	146,826	1.8%	144,014	2.0%	146,826	3.0%	143,963	2.0%	4Q23 avg deposits relatively stable QoQ. FY23 flat to -2% YoY. NIB while running off still is stabilizing.
Profitability metrics (2023)	Bof A est	VS.	Consensus						

Profitability metrics (2023)	Bof A est	VS.	Consensus	
ROTCE (%)	11.7%		10.3	
ROA (%)	0.60%		0.53	

Projected AOCI accretion: \$6.6bn 9/30/23, \$6.2bn 12/31/23, \$4.8bn 12/31/24, \$4.1bn 12/31/2025; ~27% AOCI burn down by end of 2024, ~39% by end of 2025. ~\$2.5bn capital build contribution by YE25, only 10% is rate dependent. Proposal impact RWAs increase low to mid-single digit range. CET1 target 9-9.5%.

Dividends Mgmt views on dividend unchanged. Confident in supporting the dividend. Good number for dividend payout over time 40-50%.

Buybacks No SBB until clarity on Basel III Endgame.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 39: MS earnings tear sheet

BofA vs consensus

(\$ in mn except EPS)	BofA est	BofA est		BofA est	Bof A est	BofA est		BofA est	
Morgan Stanley	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Investment banking	1,136	8.4%	1,281	(11.4%)	4,669	(16.6%)	4,822	(3.2%)	Seeing increasing evidence of M&A and underwriting calendars building. While mgmt expects momentum to continue this year, given 4Q has some seasonal considerations, expect most of the activity to materialize in 2024. Leading indicators across advisory and underwriting progressed positively, evidenced by a notable increase of MS's announced volumes in 3Q YoY. Key themes: financial sector consolidation, energy transitions, tech/AI.
Trading	3,692	0.4%	3,297	12.0%	15,650	12.4%	15,272	2.5%	Global wallet expected to trend higher than 2019 over medium/long-term.
Investments	0	(100.0%)	105	(100.0%)	384	2460.0%	469	(18.1%)	
Commissions and fees	712	(35.2%)	1,032	(31.0%)	4,139	(16.2%)	4,489	(7.8%)	
Asset management, dist and admin fees	4,921	(2.2%)	4,968	(0.9%)	19,497	(0.4%)	19,557	(0.3%)	
Other	183	(38.2%)	230	(20.3%)	1,219	330.7%	1,180	3.3%	
Total non-interest revenues	10,644	(5.8%)	10,937	(2.7%)	45,558	2.7%	45,847	(0.6%)	
Net interest income	1,808	(8.5%)	1,862	(2.9%)	8,141	(12.7%)	8,195	(0.7%)	Expect NII to trend lower, magnitude will be a function of deposit mix and trajectory of rates.
Total net revenue	12,452	(6.2%)	12,738	(2.2%)	53,699	0.1%	53,982	(0.5%)	
Provisions	141	5.2%	116	21.2%	670	139.3%	643	4.1%	
Total non-interest expenses	9,733	(1.9%)	10,142	(4.0%)	40,490	4.3%	41,156	(1.6%)	Completed E*TRADE integration. Integration-related expenses were \$68mn in 3Q and anticipate a similar amount in 4Q as previously communicated.
Net earnings	1,929	(20.4%)	1,889	2.1%	9,550	(16.2%)	9,463	0.9%	
Tax rate (%)	24%	0bp	24%	(24bp)	23%	2bp	22%	(21bp)	
EPS	1.10	(20.0%)	1.11	(0.6%)	5.43	(14.6%)	5.46	(0.6%)	

Profitability metrics (2023)	BofA est FY-2023		Consensus					
ROAE (%)	10%	VS.	10%					
ROATE (%)	13%	VS.	13%					
	BofA est			BofA est	BofA est			BofA est
Trading	<u>4Q23e</u>	<u>YoY</u>	<u>Consensus</u>	vs. cons	<u>2023e</u>	<u>YoY</u>	<u>Consensus</u>	vs. cons
FICC	1,418	(27.2%)	1,466	(3.3%)	7,657	(15.1%)	7,705	(0.6%)
Equities	2,176	(13.2%)	2,219	(1.9%)	9,960	(7.5%)	10,003	(0.4%)

More central bank action and broadly associated vol is fundamentally positive.

Ra	n	Ŀ	'n	~

Advisory	498	10.8%	554	(10.1%)	2,040	(30.8%)	2,096	(2.7%)
ECM	261	10.1%	262	(0.5%)	925	8.7%	926	(0.1%)
DCM	377	49.5%	311	21.3%	1,431	(0.5%)	1,365	4.8%

Pickup in announced M&A volumes in 3Q, won't translate into revenues in 4Q but in 1Q/2Q. Corporate confidence will argely be determined by the overall health of the consumer and stability of input costs. While risks remain, underlying trends suggest activity is building and there is desire among dients to pursue long-term strategic objectives.

Capital

Dividends

Buybacks Going to continue SBB.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

Exhibit 40: MTB earnings tear sheet

BofA vs consensus

(\$ in mn except EPS) M&T Bank Corp.	BofA est 4Q23e	BofA est QoQ	Consensus		BofA est 2023e	BofA est YoY	Consensus	BofA est	Notes
Net interest income	1,729	-3.4%	1,730	-0.1%	7,164	22.2%	7,168	-0.1%	4Q23 NII (TE) \$1,710-1,740mn; tracking to middle of range. Continued cost pressure from funding mix-shift.
Net interest margin	3.58%	(21.1)bp	3.61%	(3.6)bp	3.83%	43.1bp	3.84%	(1.0)bp	Comfortable that M&T will have a good margin on a relative basis vs the industry. Advantage because of the mix on funding and assets. Probably going to go under 3.60% some time next year.
Provisions	175	16.7%	163	7.5%	595	14.8%	583	2.1%	Aren't seeing pressure from an allowance perspective. Basically in the range, bounce up or down a little over next couple of quarters.
Fee income	556	-0.7%	559	-0.6%	2,506	7.4%	2,357	6.3%	4Q23 fee income +/- \$560mn. Continuation of current fee income trends.
Expenses	1,466	14.7%	1,298	13.0%	5,396	6.8%	5,216	3.4%	4Q23 operating expense (excludes intangible amortization) \$1,245-1,265mn; tracking to middle of range. Continued focus on diligently managing expenses. Does not include ~\$15mn in intangible amortization expense. Does not include \$197mn FDIC special assessment. For 2024, businesses agreed to come in flat on expenses, self-fund merit (3.5%) and +1-2% in investments.
PPNR	819	-23.6%	992	-17.4%	4,274	36.0%	4,309	-0.8%	
Efficiency	64%	977bp	57%	748bp	56%	(584)bp	55%	104bp	
Tax Rate (%)	25%	-	-		23%	-		-	4Q23 taxable equivalent tax rate ~25%
EPS	3.56	-10.5%	3.63	-1.9%	15.66	25.8%	15.81	-1.0%	
Dil. Shares Outstanding	166	-0.4%	166	-0.3%	167	1.8%	167	-0.1%	
Loans	132,757	0.3%	132,687	0.1%	132,757	0.9%	132,687	0.1%	4Q23 avg loans \$133bn+. Bought two loans from same purchase as PNC from FDIC, ~\$300mn in commitments, fund banking. Not on an RWA diet, trying to grow loans with the exception of CRE. Will continue to decrease CRE in 4Q and FY24 probably another \$3-4bn (-\$10bn since 2020) with mostly attrition and less originations but may see some occasional sales. 4Q23 Nov QTD avg loans \$132.5bn. Loan growth flat. C&I and Consumer loan growth, continued decline in CRE, modest decline in Residential Mortgage. C&I growth in middle market, large corporate, specialty categories. In consumer, home equity decreasing and auto and rec fi is growing.
Net charge-offs / avg loans	0.37%	8.7bp	0.36%	3.6%	0.32%	18.1bp	0.31%	1.2%	4Q23 NCOs likely above 3Q23. FY23 still expected to be near LT avg of 33bp, may be a little better.
Total Deposits	165,264	0.7%	164,237	0.6%	165,264	1.1%	166,453	-0.7%	4Q23 avg deposits near 3Q23 levels. Mix shift into higher yielding deposits continues. Growth in interest bearing customer deposits. Continued decline in demand deposits. Think mix shift is slowing down. 4Q23 Nov QTD avg deposits \$164.6bn. Primary growth in customer deposits. Disintermediation of deposits hard to predict; still have DDA shrinking and going into sweeps, CDs growing. Deposits +1% overall. In 4Q, DDA fell; NIB mix QTD ~31% down from 33%; 30% threshold.
Profitability metrics (2023)	Bof A est	VS	Consensus						

Profitability metrics (2023)	Bof A est	VS.	Consensus
ROTCE (%)	17.5%		16.7
ROA (%)	1.43%		1.29

Will probably have a higher CET1 buffer at first and will tighten over time as mgmt gets used to rules. AFS-related AOCI represents 22bp potential negative impact on CET1 ratio; 36bp total negative impact when also including pension related AOCI. Will probably have a cushion of 100-150bp over final threshold after regulations.

Dividends

Buybacks Pausing SBB. Will return to SBB at some point. Still big believers in SBB but want to keep capital strong in challenging times.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 41: NTRS earnings tear sheetBofA vs consensus



(\$ in mn except EPS) BofA est BofA est BofA est BofA est BofA est BofA est Northern Trust Corp. Consensus vs. cons 2023e YoY Consensus Notes 4Q23e QoQ vs. cons 4Q NII roughly flat QoQ. 2024 repricing benefit to NII pulled forward with securities 466 -0.8% 466 0.0% 2,004 3.7% 2,004 0.0% Net interest income portfolio restructuring. 1.52% Net interest margin 1.43% (0.0)bp 1.46% (1.4)bp0.1bp 1.52% (1.5)bp Pricing should remain under pressure, with further NIM compression possible. Provisions -64.3% -32.6% 19 54.2% 21 -11.6% Because a significant portion of fees are billed on a lagged basis, the sequential decline in AUM will impact 40 trust fees. Financial model is based upon mid-singledigit trust fee growth from a combination of organic growth and market appreciation; against this backdrop, hope to generate 100-200bp in trust fee operating leverage in Fee income 1.237 -2.7% 1.253 -1.3% 4.966 -2.4% 4.980 -0.3% normal macro environments. Over time lift from equity markets and low to midsingle-digit organic growth. Other income prior run rates are too low, current run rate too high. Currently less activity/money in motion is more challenging for fees. FX fees \$30mn OTD. lower run rate than normal. Expense improvement expected in 4Q. Compensation expense +\$5mn. Benefits expense normal 4Q lift of \$3-5mn. Outside services +\$10mn. Equipment and software +\$10mn vs adj 3Q. Occupancy increase a few \$mn vs adj 3Q. Other operating Expenses 1.325 3.7% 1,315 0.7% 5,156 4.6% 5,141 0.3% expenses tend to increase in 4Q. FY23 adj expense +5% YoY. Aiming to continue to work YoY growth rate down next year. Productivity Office \$100mn in savings this year with most on a recurring basis; should be getting above 2% per year in help from roductivity. **PPNR** 377 -18.2% 404 -6.5% 1.814 -13.2% 1.842 -1.5% 436.0bp 77% 374.8bp 74% 35.9bp Efficiency 78% 131.6bp 74% 23.5% Tax Rate (%) 24.4% EPS 1.29 -13.3% 1.35 -4.2% 6.08 -14.3% 6.14 -1.0% Dil. Shares Outstanding 207 -0.3% 207 208 208 -0.1% -0.3% -0.6% ~70% of loan portfolio is floating and overall duration is less than 1 year. 45.102 3.5% 44.485 1.4% 45.102 5.1% 44,485 1.4% Net charge-offs / avg loans 0.00% (0.0)bp 0.04% (0.0)bp 0.01% 4.4bp 0.00% (1.4)bp Deposits \$95-100bn during quarter so far. Excess deposits burned off, existing base **Total Deposits** 108,057 -1.9% 106,406 1.6% 108,057 -12.8% 106,406 1.6% now more operational in nature.

Profitability metrics (2023)	Bof A est	VS.	Consensus
ROTCE (%)	11.7%		11.1%
ROA (%)	0.8%		0.8%

Capital

Dividends Buybacks

Source: BofA Global Research, Bloomberg, Visible Alpha

Exhibit 42: NYCB earnings tear sheet

BofA vs consensus

\$ in mn except EPS)	BofA est	BofA est		BofA est	BofA est	BofA est		BofA est	
New York Community Bancorp	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income	787	-10.7%	790	-0.3%	3,124	123.8%	3,127	-0.1%	Have \$18bn of CRE multi-family coming due over the next 36 months. Between \$4bn and \$7bn will come due each year. Could see a 300bp benefit from loans that will roll off the book
Net interest margin	3.07%	(19.8)bp	3.06%	94.1bp	3.07%	70.9bp	3.05%	152.1bp	Remain constructive on the NIM. Expect NIM in the range of 3-3.10%. Margin guide does not assume that much by way of custodial deposits remains. \$100mn in PAA for September, 70% Signature and 30% from the Flagstar transaction.
Provisions	75	21.0%	46	63.9%	204	1175.0%	305	-33.1%	Slight increase in provision as a result of qualitative overlay to office portfolio provisions. Both of the idiosyncratic loans have been recently reappraised. "Especially" comfortable with the Syracuse loan.
Fee income	139	-13.1%	143	-2.5%	558	520.0%	864	-35.4%	Expect mortgage gain on sale of \$16-20mn. Net return on MSR assets of 8-10%. Loan administration income of \$15mn.
Expenses	608	-2.1%	608	0.0%	2,190	375.0%	2,184	0.3%	Annualized operating expenses in the range of \$2bn to \$2.1bn. Back-office expense head winds (tied to regulatory requirements related to the \$100bn threshold) + PCG expenses in 2024. Flagstar systems conversion in the first quarter of 2024 will likely be a tailwind. Unwinding the legacy signature portfolio will be a tailwind. Plan is to achieve positive operating leverage next year. Don't expect fourth quarter run-rate to be above the third quarter. Will participate in DFAST in 2024.
PPNR	319	-24.3%	324	-1.8%	1,493	45.6%	1,807	-17.4%	
Efficiency	66%	602bp	65%	40bp	59%	2,845bp	55%	474bp	
Tax Rate (%)	23%	-	-	-	27%	-	-	- '	FY23: Approximately 23%.
EPS	0.25	-30.4%	0.29	-13.2%	1.24	-0.1%	1.32	-6.4%	
Dil. Shares Outstanding	722	-0.3%	725	-0.3%	715	47.5%	716	-0.2%	
Loans	83,777	-0.3%	84,292	-0.6%	83,777	21.4%	84,292	-0.6%	
Net charge-offs / avg loans	0.07%	(4.2)bp	0.09%	-26.5%	0.05%	5.5bp	0.05%	-9.4%	Not seeing any delinquency trends of any materiality at all in the multi-family space.
Total Deposits	80,810	-2.3%	81,341	-0.7%	80,810	37.6%	81,341	-0.7%	Fund banking loans are paying down quickly. That will drop dramatically at November 1. Ended the quarter at \$2bn. Goal is to bring the L/D ratio inside of 100. Want to operate on more of a commercial banking model. California Unemployment Fund coming on some time in early 2024. Have continued to have a lot of success in the consumer book expect \$3bn (@4%) to refi unless they are able to have enough deposit growth to pay them off. Will not continue to use cash to pay down wholesale deposits.

Profitability metrics (2023)	DOTA EST	VS.	consensus
ROTCE (%)	12.6%		38.8
ROA (%)	0.82%		1.45

CapitalDividends Buybacks

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 43: PB earnings tear sheet BofA vs consensus

BOIA	٧S	COL	isei	ISU
ļ!				

(\$ in mn except EPS)	BofA est	BofA est		Bof A est	Bof A est	Bof A est		Bof A est	
Prosperity Bancshares Inc.	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income	236	-1.8%	241	-1.8%	958	-4.8%	963	-0.4%	Swaps impact minimial. Total client swaps portfolio \$100mn.
Net interest margin	2.73%	1.1bp	2.76%	(249.7)bp	2.78%	(22.8)bp	2.78%	(49.1)bp	Models show net interest margin improving on a 12-month and 24-month time period. Mgmt feels that they have already hit a bottom for the NIM. Will use the bond portfolio to pya off higher cost borrowings. NIM guidance assumes a static balance sheet. In the short-term, PB could do better if rates are cut, but in the long term they will benefit either way. Deposit costs could continue to rise for 3 or 6m after the fed pauses.
Provisions	0	-	3	-100.0%	0	-	20	-100.0%	
Fee income	39	0.7%	39	0.3%	156	7.3%	155	0.2%	
Expenses	136	1.2%	140	-2.7%	526	8.6%	541	-2.7%	Expect expenses to be in the range of \$134-136mn. Anticipate 2-3% expense growth for 2024. Nothing special. That does not include the FDIC special assessment.
PPNR	139	-3.9%	140	-0.4%	588	-11.9%	577	1.9%	
Efficiency	49%	129.7bp	50%	(58.8)bp	47%	517.7bp	48%	(115.7)bp	
Tax Rate (%)	21%		-		21%				
EPS	1.16	-3.6%	1.19	-2.2%	4.96	-13.5%	4.89	1.4%	
Dil. Shares Outstanding	94	0.0%	94	0.0%	93	1.4%	93	0.0%	
Loans	21,052	-1.8%	21,356	-1.4%	21,052	11.7%	21,356		Expect mortgage warehouse lending will be in the neighborhood of \$725mn on average. Except overall loan growth of the low-to-mid single digits for next year. Loan demand has slowed down. Expect \$5bn in cash flow from loans over the next twelve months.
Net charge-offs / avg loans	0.09%	3.1bp	0.10%	-0.7bp	0.12%	9.0bp	0.12%		Typically do owner-occupied CRE as opposed to non owner-occupied CRE. Not expecting to take money out of the reserve. Don't see any huge additions to the reserve either based on what they are seeing.
Total Deposits	27,873	2.1%	27,475	1.4%	27,873	-2.3%	27,475	1.4%	Will see some seasonal strength in public fund deposits in the fourth quarter as a result of tax payments. That tends to hit at the end of December or even into January.

Profitability metrics (2023)	Bot A est	VS.	Consensus	
ROTCE (%)	13.1%		12.3	
ROA (%)	1.18%		1.10	

Capital

Dividends Buybacks

Like to use capital primarily for M&A and the dividend. Waiting for clarity on regulatory changes and capital requirements.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

Exhibit 44: PNC earnings tear sheet

BofA vs consensus

\$ in mn except EPS)	BofA est	BofA est		Bof A est	BofA est	BofA est		BofA est	
The PNC Finl Svcs Grp	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income (FTE)	3,386	-2.0%	3,394	-0.2%	14,010	6.7%	14,018	-0.1%	See a turn in NIM/NII in mid-2024. NII should trough sometime in 2024, then inflect to produce record NII in 2025. Higher for longer rates should be positive for NII, steeper curve is better.
Net interest margin	2.68%	(2.9)bp	2.68%	0.0bp	2.76%	12.5bp	2.76%	(0.5)bp	See a turn in NIM/NII in mid-2024.
Provisions	350	171.3%	302	15.8%	860	80.3%	812	5.9%	
Fee income	1,914	2.5%	1,918	-0.3%	7,664	-6.2%	7,545	1.6%	Capital markets pipelines are being realized in 4Q, on track with guidance to be in line with 1Q23.
Expenses	3,358	3.5%	3,391	-1.0%	13,296	1.2%	13,329	-0.2%	Sees 2024 personnel expense reduction of \$325mn (will drop to bottom line in 2024). Implemented expense management plan that includes \$725mn+ of planned expense actions benefiting 2024. expect to have CIP savings within \$450mn for 2024 (similar to 2023). 2024 to be one of the largest investment years.
PPNR	1,941	-6.5%	1,921	1.0%	8,377	2.8%	8,234	1.7%	
Efficiency	63%	237.7bp	64%	(46.4)bp	61%	(37.4)bp	62%	(46.7)bp	Operating leverage in 2024 will be difficult given declining NII, after NII troughs, positive operating leverage will be "fairly easy to achieve."
Tax Rate (%)	19%	-	-	-	16%	-	-	-	
EPS	2.79	-24.7%	2.95	-5.5%	14.01	-0.3%	13.98	0.2%	
Dil. Shares Outstanding	400	-0.1%	399	0.3%	401	-2.7%	401	0.0%	
Loans	328,157	2.7%	327,423	0.2%	324,430	5.5%	324,247	0.1%	extending less credit into credit-only new relationships. NII assumptions for 2024 and beyond assume low-single digit loan growth in 2024 and beyond.
Net charge-offs / avg loans	0.30%	15.3bp	0.27%	305.9bp	0.23%	5.1bp	0.23%	77.7bp	reserves on the office portfolio were 8.5% of total office loans; and inside of that, 12.5% on the multitenant portfolio. move to NPLs from already being criticized as cap rates creep higher and adjust the underlying value of the properties. Half of multi-tenant loans should mature by YE24, avg. life on multitenant book around 5.1yrs. Vast majority of the criticized office portfolio has been reappraised in last year, appraisals at 80-85% LTV.6x DSC. 12.5% reserves vs. office CRE loan books, was originally underwritten at 55-60% LTV. 59 properties total in criticized list (\$5mn+).
Total Deposits	417,515	-1.2%	421,931	-1.0%	425,505	-4.1%	426,609	-0.3%	Could be scenario in 2024 where rates remain stable/come down and some retail deposits continue to price up. Deposits should trend similarly to what's going on with Fed actions (QT) absent new client growth. Expect to see continued shift in commercial NIB to IB.

From Labinity metrics (2023)	DOLA G20	V5.	Consensus
ROTCE (%)	18.43		17.06
ROA (%)	1.10		1.01

Capital Expect AOCI to decline 47% through 2025. See themselves in a position to be offensive with capital, will be thoughtful around share repurchases, on pause until rules are close to being finalized.

Dividends Buybacks

may resume share repurchases activity depending on market and economic conditions. Have been repurchasing small amounts.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 45: RF earnings tear sheet

BofA vs consensus



Q23e 1,242 3.54% 160 562	QoQ -4.7% (19.4)bp	1,239 3.57%	0.2% (3.9)bp	2023e 5,369	YoY 11.1%	Consensus 5,367	0.1%	Notes Expect 4Q23 NII to decline 5% QoQ. Expect FY23 NII to grow 11% YoY. Expect 1H24 NII to be stable, 2H24 NII to grow. New hedges in 1Q24 should have a -10mn impact to NII. Will see headwind from negative carry in swaps, but tailwind from repricing of \$12-14bn of fixed
3.54%	(19.4)bp	,		5,369	11.1%	5,367	0.1%	be stable, 2H24 NII to grow. New hedges in 1Q24 should have a -10mn impact to NII. Will
160	. , ,	3.57%	(3 9)hn					rate loans (+200bp), will continue into 2025.
	10.3%		(3.3/0)	3.88%	52.2bp	3.89%	(1.3)bp	Expect NIM to bottom at 3.50%. Will likely see 3.50% trough in 1Q24 and drift higher towards 3.60% by YE24. Expects NIM to bottom at 3.50%. Margin to come down in 4Q23, slightly more in 1Q24, down 1-2bp in 2Q24, then grow. Expect long-term range for NIM will stay at 3.6-4% due to funding advantage from deposit base.
562		146	9.3%	558	105.9%	543	2.9%	
	-0.9%	567	-0.8%	2,242	-5.8%	2,259	-0.7%	Expect FY23 service charges to be \$590mn. Expect 4Q23 capital markets revenue to be between \$60-80mn ex. CVA/DVA. Service charge run rate is fully reflected in 3Q23.
1,031	-5.3%	1,039	-0.7%	4,255	9.5%	4,236	0.5%	Expect FY23 adjusted expenses to be up 9.5% YoY/6% YoY ex-fraud losses, 4Q23 fraud losses of \$25mn and run-rate of \$25mn per quarter of fraud losses in 2024. Expect FY24 expense number to be below 2023 reported. Believes the bank needs to be under 2.3% expense growth in 2024 (CAGR since 2016), would like for expenses to be flat, but not committing to that as of now. Expense saves will come from headcount. Should return to positive operating leverage in 2025, 2024 will be challenging.
773	-1.2%	767	0.7%	3,356	0.9%	3,389	-1.0%	Expect FY23 Adjusted Revenue to be up 5-6% YoY.
57%	(104.4)bp	58%	(35.6)bp	56%	202.6bp	56%	35.8bp	
23%	-	-	-	22%	-	-	-	Expect FY23 tax rate to be between 21-22%.
0.47	-3.2%	0.48	-0.8%	2.18	-8.5%	2.21	-1.6%	
934	-0.6%	935	-0.1%	939	-0.3%	939	0.0%	
9,418	-0.3%	98,918	0.5%	98,975	6.5%	98,414	0.6%	Expect FY23 EOP loans to be up low-single digits YoY. Not going to see a lot of loan growth in 4Q23 or next year. Havent seen the credit card growth that other banks have due to credit cards requiring you to have an existing deposit account with RF already. Expecting flat-to-modest growth for loans in 2023 and 2024. Growth would come from continued fundings in multifamily, middle market and commercial business, and asset based lending. Mortgage and HELOC down but still see good activity in consumer unsecured for home improvement and will continue to provide growth.
).50%	9.7bp	0.47%	2.6bp	0.39%	11.1bp	0.39%	0.6bp	Expect FY23 to be slightly above 35bp, 4Q23 chargeoffs ex-Greensky to be in 40bp range. Expect FY24 to return to historical TTC annual NCO range of 35-45bp. GreenSky sale will create 14bp of incremental charge-offs in 4Q23. 4Q23 charge-offs can be expected to be around 40bp, possibly 1bp less.
26,127	0.7%	125,569	0.4%	126,482	-7.5%	126,618	-0.1%	Expect FY23 EOP deposits to be stable/modestly lower from 3Q. Expect NIB to ultimately end in low 30% range. Believe there is \$3-5bn more in deposits that will remix from NIB to IB by mid-2024. Can see CDs as a % of total deposits grow 2-3% from 3Q (10%). Expect NIB mix to get back into low 30% range. Around 15% of deposit base is indexed market rates.
777 57 23 0.4 93	773 7% 83% 447 84 418	73 -1.2% 7% (104.4)bp 	73 -1.2% 767 7% (104.4)bp 58% 3% 47 -3.2% 0.48 84 -0.6% 935 418 -0.3% 98,918 0% 9.7bp 0.47%	73 -1.2% 767 0.7% 7% (104.4)bp 58% (35.6)bp 47 -3.2% 0.48 -0.8% 84 -0.6% 935 -0.1% 418 -0.3% 98,918 0.5% 0% 9.7bp 0.47% 2.6bp	73 -1.2% 767 0.7% 3,356 7% (104.4)bp 58% (35.6)bp 56% 83% 22% 47 -3.2% 0.48 -0.8% 2.18 84 -0.6% 935 -0.1% 939 418 -0.3% 98,918 0.5% 98,975 0% 9.7bp 0.47% 2.6bp 0.39%	73	73	73

Profitability metrics (2023)	Bof A est	VS.	Consensus
ROTCE (%)	22.86		22.13
ROA (%)	1 39		1 34

ROA (%)

1.39
1.34

Expect to manage CET1 at 10% over the near term. Expect pre-tax AFS AOCI to reduce 36% by YE25. Expect a low-mid single digit increase in RWA under current B3EG proposal. Buybacks to resume once RF exits the blackout period. Sees 9.25-9.75% as the proper operating range for the bank. Stress tests tell them that 9.25-9.75% is the right operating range. Has been buying stock

Dividends

Dividends Buybacks

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

Exhibit 46: SNV earnings tear sheet

BofA vs consensus

(\$ in mn except EPS)	BofA est	BofA est		BofA est	BofA est	BofA est		BofA est	
Synovus Financial Corp.	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income	432	-2.7%	433	-0.2%	1,815	0.8%	1,816	0.0%	
Net interest margin	3.05%	(5.9)bp	3.05%	(0.1)bp	3.18%	(11.7)bp	3.20%	(1.8)bp	Anticipate a similar decline 4Q23 vs 3Q23. FY24: Anticipate margin expansion as fixed-rate asset repricing overcomes moderating headwinds from higher deposit costs. FY24: +20bp 4Q24 vs 4Q23 level of ~3.05%
Provisions	50	-31.1%	47	7.2%	194	129.0%	190	1.8%	
Fee income	116	8.4%	114	2.1%	452	9.2%	452	0.0%	Sale of GLOBALT should reduce fee income by \$10mn/year. Contemplating a new banking as a service program with Greensky following GS sale. Greensky could add \$20mn in fee revenue on a go-forward basis.
Expenses	303	-1.1%	303	-0.2%	1,214	4.3%	1,215	-0.1%	
PPNR	246	0.2%	244	0.8%	1,053	0.2%	1,052	0.1%	
Efficiency	55%	(30.3)bp	55%	(24.9)bp	54%	99.6bp	54%	(4.6)bp	Expect adjusted expense growth of 4-5%. Sale of GLOBALT should reduce FY expenses by \$8mn. Anticipate that adjused expenses will be relatively flat (ex. FDIC) for 2024. Positive operating leverage will be challenging in 2024. Adjusted NIE \$350-\$355mn w/ FDIC, \$300-\$305mn ex. FDIC. Expect FDIC charge of \$51mn. FY24: -5% to -1%
Tax Rate (%)	25%	-	-	-	23%	-	-	-	M&A not on the table until the bank has a "premium" currency.
EPS	0.93	10.7%	0.97	-3.9%	4.26	-13.7%	4.23		
Dil. Shares Outstanding	147	0.0%	147	0.0%	147	0.1%	147	0.0%	
Loans	43,942	-1.1%	43,829	0.3%	44,338	5.6%	43,792	1.2%	Expect FY23 growth of 0-2%. Not contemplating any meaningful loan sales in the forseeable future. Manage business to 5-10% of portfolio in SNC loans. Will continue to exceed rate of growth in the underlying economy. Expect EOP loans +0-1% QoQ. FY24: +0-3% EOP.
Net charge-offs / avg loans	0.36%	(23.5)bp	0.34%	1.8bp	0.34%	21.6bp	0.34%	(0.2)bp	
Total Deposits	50,209	0.2%	50,457	-0.5%	49,762	1.7%	49,834	-0.1%	Expect FY23 core deposit growth of 1-3%, betas of 46-47%, deposit costs in the mid-to-upper 250s, 25% NIB deposits. Expect EOP core deposits +1-2%. FY24: +2-6% EOP. Could have a 45% deposit beta on the way down. Fairly neutral to the front end of the curve.
Profitability metrics (2023)	Bof A est	VS.	Consensus						

Profitability metrics (2023)	Bof A est	VS.	Consensus
ROTCE (%)	17.51		16.8

ROA (%) 1.10 1.03 FY23: ~22%. ~25% (~22% ex. DTA write-off). FY24: 21-22%.

CapitalExpect NCOs to be in the range of 30-40bp in the 4th quarter. Asset quality would have been within previous guidance range of 20-30bp excluding SNC credit. **GS Conference:** Confident in 2H guidance of 30-40bp going forward. Expect NCOs 30-40bp.

Dividends Will appropriately manage capital, including the use of share repurchases.

Buybacks CET1: Appx. 10%. Will continue to preserve capital over the near term. Would consider repositioning the bond book. CET1 ~10%. FY24: 10-10.5%. **GS Conference**: Will use share repurchases opportunistically. May not use repurchases if it would make SNV screen negatively vs peers on capital.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 47: STT earnings tear sheet BofA vs consensus



(\$ in mn except EPS) State Street Corp.	BofA est 4Q23e	BofA est QoQ	Consensus	BofA est	BofA est 2023e	BofA est YoY	Consensus	BofA est	Notes
Net interest income	576	-7.7%	576	0.0%	2,659	4.1%	2,659	0.0%	2024 NII toward higher end \$550-600mn per quarter reflecting portfolio repositioning. 4Q NII likely to be the low point and see some tick up in following quarters. 4Q NII higher end of \$550-600mn range as NIB deposit rotation repricing moving slower than expected.
Net interest margin	1.03%	(0.09)bp	1.06%	(3bp)	1.16%	0.1bp	1.20%	(118.6)bp	
Provisions	20	#DIV/0!	18	10.4%	46	130.0%	43	6.5%	Have been some puts and takes. Expect ~\$20mn in 4Q.
Fee income	2,374	0.5%	2,359	0.6%	9,489	-1.2%	9,472	0.2%	Total fee revenue flat to down slightly YoY. Servicing fees in line with previous guide of roughly flat YoY reflecting higher avg equity markets, offset by little client activity. Mgmt fees +2% YoY reflecting higher equity markets. Trading and markets businesses to see a more pronounced YoY decline reflecting low market vol. Software and processing fees +10% YoY reflecting timing of some on-premise renewals and expected new SaaS installations. Other fee revenue line slightly above higher end of \$30-40mn in 4Q.
Expenses	2,181	0.1%	2,291	-4.8%	8,942	2.4%	9,052	-1.2%	Plan to deliver positive fee operating leverage in 2024. 4Q expenses ex notables flat QoQ. Charge in 4Q of \$175-200mn from severance (1,500 in headcount reductions). Expected avg payback of under 6 quarters for each action, actions beginning start of 2024, two-thirds of payback realized by end of 2024.
PPNR	769	-4.5%	643	19.5%	3,206	-6.4%	3,078	4.1%	
Efficiency	73.9%	90.9bp	78.1%	(413.8)bp	74%	176.9bp	75%	(101.2)bp	
Tax Rate (%)	18%	- '	-	- '	19%	- '	-		4Q23 effective tax rate ex notables 1-2pts below ~20% guide.
EPS	1.90	-1.9%	1.69	12.0%	7.51	3.0%	7.25		
Dil. Shares Outstanding Loans	304,419 35,301	-4.1% 0.0%	304,534 35,329	0.0% -0.1%	325,190 35,301	-12.1% 10.1%	325,219 35,329	0.0% -0.1%	
Net charge-offs / avg loans	,	0.0bp	N/A	N/A	0.05%	0.0bp	N/A	N/A	
Total Deposits	205,894	-3.3%	211,517	-2.7%	205,894	-12.6%	211,517	-2 706	Overall deposits roughly flattish 4Q vs 3Q. Had expected \$3-4bn of reduction in NIB, not even seeing half of that movement yet.
Profitability metrics (2023)	Rof∆ est	VS	Consensus						-

 Profitability metrics (2023)
 BofA est
 vs.
 Consensus

 ROTCE (%)
 13%
 18%

 ROA (%)
 0.9%
 0.8%

Capital CET1 (standardized) target of 10-11%, middle of range is good place to aim. Tier 1 leverage target of 5.25-5.75%. RWA inflation ~15%. Medium-term target of 80%+ of earnings back to investors through dividends and SBB.

Dividends Buybacks

4Q intention to continue SBB under existing authorization of up to \$4.5bn for 2023. Would like to return capital at pace and see healthy SBB in 4Q. Thinking about 2024 ~80% of earnings.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

Exhibit 48: TCBI earnings tear sheet

BofA vs consensus

(\$ in mn except EPS)	BofA est	BofA est		BofA est		BofA est		BofA est	
Texas Capital Bancshares Inc	4Q23e	QoQ	Consensus		2023e	YoY	Consensus	vs. cons	Notes
Net interest income	209	-9.7%	218	-3.8%	909	-0.7%	917	-0.9%	
Net interest margin	2.94%	(19.0)bp	3.02%	(7.8)bp	3.20%	(52.3)bp	3.22%	(1.1)bp	Expect ratio of average mortgage finance deposits to average mortgage financial loans to increase in 4Q, pressuring NIM.
Provisions	16	-11.1%	16	-1.3%	69	-20.7%	69	-0.3%	Quantitative est of the ACL would increase by approx \$183.7mn under sole consideration of the most severe downside scenario.
Fee income	33	-29.9%	33	-0.8%	163	109.1%	163	-0.2%	Targeting fee income contribution of 15-20% by 2025.
Expenses	180	-0.2%	195	-7.8%	735	40.0%	750	-2.0%	Expect another quarterly contraction in YoY noninterest expense. Expect FY2023 expenses of \$735mn. Outlook doesn't include FDIC special assessment (\$18.5mn).
PPNR	63	-36.6%	56	11.9%	337	-28.0%	331	1.9%	Expect FY2023 total revenue up low double digit % YoY. Historically challenging environment for mortgage clients resulted in lowering of PPNR expectations in 4Q to below 4Q22.
Efficiency	74%	960.2bp	78%	(353.4)bp	69%	1,568.6bp	69%	(84.4)bp	Maintained expectation to achieve positive operating leverage in 2023, but don't expect to achieve positive operating leverage in 4Q.
Tax Rate (%)	28%	-	-	-	24%	-	-	-	
EPS	0.60	-48.9%	0.53	14.2%	3.82	-34.0%	3.74	2.1%	
Dil. Shares Outstanding	49	0.0%	49	0.0%	49	-3.4%	49	0.0%	
Loans	20,566	-1.0%	20,108	2.3%	20,566	-16.2%	20,108	2.3%	
Net charge-offs / avg loans	0.20%	3.1bp	0.22%	-	0.23%	23.4bp	0.24%	-	Net downward grade migrations to special mention in Q3 predominantly related to consumer dependent commercial loans and CRE.
Total Deposits	23,513	-3.0%	23,982	-2.0%	23,657	78.0%	22,877		Uninsured deposits were \$9.8bn, or 40% of total deposits at period end. \$124mn of CDs maturing in 4Q not expected to be replaced. Expect NIB mix ex mortgage finance to continue to decline but at a decelerating pace in the near term.
Profitability metrics (2023)	Bof A est	VS.	Consensus						
ROTCE (%)	7 30		66						

| ROTCE (%) | ROA (%) | RO

Capital Expect CET1 ratio of 12%+ at YE2023. Reiterated medium-term target of 11%+.

Dividends

Buybacks May repurchase up to \$150mn in shares.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 49: TFC earnings tear sheet





(\$ in mn except EPS)	BofA est			BofA est	BofA est			BofA est	
Truist Financial Corp	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income	3,512	-3.0%	3,535	-0.6%	14,731	1.9%	14,741	-0.1%	Expect to see continued pressure on NII into 1H24. NII/NIM should bottom somewhere in 1H24, then grow as the economy recovers.
Net interest margin	2.88%	(6.9)bp	2.91%	(2.8)bp	2.99%	(1.9)bp	2.99%	0.2bp	4Q23 NIM should be down a few basis points. Seeing widening credit spreads. Expecting spreads to stabilize if hikes have stopped (fixed asset repricing, credit spread widening). NII/NIM should bottom somewhere in 1H24, then grow as the economy recovers.
Provisions	550	10.7%	514	7.1%	2,087	168.6%	2,051	1.8%	
Fee income	2,170	2.9%	2,171	-0.1%	8,805	1.0%	8,805	0.0%	Continuing to experience high-single-digits organic growth on insurance. Expect 2024 to have greater levels of investment banking activity. Contemplating growth in the fee businesses next year however there will probably be pressure on mortgage and deposit service charges.
Expenses	3,562	-3.0%	3,540	0.6%	14,556	6.6%	14,505	0.4%	\$750mn gross cost savings program to be realized over 12-18 months. Labor reductions can save \$300mn. Other expense includes \$70mn of costs associated with a revision in deposit service fee protocols. Expect 4Q23 adjusted expenses down 3.5% QoQ (vs. \$3.5bn, ex. TIH readiness costs of \$35mn), Expect FY23 adjusted expenses to be up 7% YoY (vs. \$13.1bn) Operating leverage should be difficult in 1H given revenue environment.
PPNR	2,119	3.0%	2,166	-2.2%	8,979	-5.7%	9,040	-0.7%	Expect 4Q23 adj. Revenue to be flat-to-down 1% QoQ (vs. \$5.7bn). Expect FY23 adj. revenue to be up 1.5% (vs. 23.2bn).
Efficiency	63%	(139.7)bp	62%	66.5bp	62%	294.6bp	62%	24.2bp	
Tax Rate (%)	16%	-	-	-	18%	-	-	-	Expect FY23 effective/FTE tax rate to be 18%/20%.
EPS	0.89	5.8%	0.92	-3.2%	3.78	-23.9%	3.86	-2.2%	
Dil. Shares Outstanding	1,341	0.0%	1,341	0.0%	1,339	0.1%	1,340	0.0%	
Loans	315,543	-1.4%	314,300	0.4%	322,807	5.2%	321,290	0.5%	Expect avg. commercial and consumer balances to decline modestly in 4Q23. Caution in commercial clients showing up in loan demand. Loans should trend down due to overall demand.
Net charge-offs / avg loans	0.60%	9.5bp	0.56%	3.2bp	0.50%	23.3bp	0.49%	0.7bp	Expect FY23 NCOs at 50bp.
Total Deposits	397,545	-0.9%	399,826	-0.6%	401,717	-3.9%	402,364	-0.2%	Expecting more deposit balance pressure in 4Q. On rate paid have been making adjustments to promo rates on money markets, seeing more interest in CDs so have been testing on pricing. Initiatives put in place should contribute to fourth quarter. Expect DDA as a % of total deposits to trend lower into the 20s.
Profitability matrics (2023)	Dof A oct	VC	Conconcue						

Profitability metrics (2023)	Bof A est	VS.	Consensus	
ROTCE (%)	18.54		17.78	
ROA (%)	0 99		0.89	

ROA (%) 0.99 0.89

Capital CET1 expected to reach and stay above 10% after year-end. Securities AOCI projected to decline by 28% by 12/31/26.

Dividends Buybacks

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

Exhibit 50: USB earnings tear sheet

BofA vs consensus

(\$ in mn except EPS)	BofA est	BofA est		BofA est	BofA est	BofA est		BofA est	
US Bancorp	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income	4,166	-2.4%	4,124	1.0%	17,551	18.2%	17,409	0.8%	Expect 4Q23 NII of \$4.1-\$4.2bn, includes \$65mn of PAA. Expect NII to trough in 4Q.
Net interest margin	2.74%	(7.4)bp	2.75%	(1.9)bp	2.89%	16.6bp	2.89%	(0.4)bp	Expect NIM to trough in 4Q.
Provisions	550	6.8%	515	6.8%	2,070	4.7%	2,232	-7.2%	Increased reserve coverage within CRE Office to 10% to reflect continued migration within the portfolio.
Fee income	2,693	-2.6%	2,718	-0.9%	10,712	8.7%	10,757	-0.4%	Outlook implies fees of \$2.6-2.8bn in 4Q. Union Bank provides greater opportunity for card revenue, corporate payments revenue, treasury management revenue than expected.
Expenses	4,200	-1.1%	4,220	-0.5%	17,016	16.7%	17,036	-0.1%	expect 4Q23 total adj. Noninterest expense of \$4.2bn, includes CDI of \$115mn. expect FY2024 expenses to be flat YoY. Comfortable with guide of flat expenses in 2024. \$900mn in cost savings will be fully in run rate by end of December (Q4), reflected in 2024FY. Operating leverage will be hard in 1H24 given comps in NII, but will be more of a focus in 2H24. Looking to leverage technology/centralization to take more expense out of operations functions, optimize real estate. Not spending more on investment, at the part of the curve where they are flat.
PPNR	2,659	-4.6%	2,622	1.4%	11,247	11.1%	11,130	1.1%	Expects Total Revenue of \$6.8-\$6.9bn in 4Q.
Efficiency	61%	85.8bp	62%	(44.0)bp	60%	119.4bp	60%	(27.8)bp	Goal is to drive efficiency ratio down into low 50s.
Tax Rate (%)	23%	-	-	-	23%	-	-	-	Expect 4Q tax rate of ~23%.
EPS	0.99	-5.4%	0.98	1.1%	4.32	6.3%	4.29	0.7%	
Dil. Shares Outstanding	1,557	0.5%	1,556	0.1%	1,543	3.6%	1,543	0.0%	
Loans	377,781	-0.5%	374,947	0.8%	384,479	14.0%	381,837	0.7%	higher utilization driven by working capital needs of corporate customers, slower pay-offs given higher volatility in the capital markets. Market is soft in terms of loan growth. Consistent with H.8 data for loans (relatively flat), Credit card continuing to grow, utilization in commercial relatively flat, CRE not growing at all. Corporations and businesses are being prudent when it comes to demand for loans.
Net charge-offs / avg loans	0.48%	3.3bp	0.47%	0.5bp	0.41%	9.6bp	0.48%	(6.4)bp	Consumer portfolio credit losses are normalizing amid rising delinquencies and lower collateral values. increase in NPAs primarily due to higher CRE NPLs.
Total Deposits	517,286	1.0%	515,670	0.3%	509,292	10.2%	508,849	0.1%	NIB mix shift and rate paid is starting to stabilize.
Profitability metrics (2023)	Bof A est	VS.	Consensus						
ROTCE (%)	22.22		17.73						
ROA (%)	1.06		0.92						

Capital

Expect 25% of unrealized losses to burndown by YE25. CET1 benefitted from an additional 20bp of RWA optimization activities. Future RWA optimization efforts now expected to have low-to-neutral EPS impact (vs. low-to-moderate). Expect continued capital generation of ~20-25bp per quarter.

Dividends

Buybacks Won't be in buyback game or set a capital target until clarity of the rules are given from CCAR, Basel III EG.

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 51: WAL earnings tear sheet

BOTA VS CONSENSUS
(\$ in mn except EPS)

\$ in mn except EPS)	BofA est	BofA est		BofA est	BofA est	BofA est		Bof A est	
Western Alliance Bancorp	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income	608	2.0%	594	2.3%	2,381	5.8%	2,376	0.2%	
Net interest margin	3.65%	(1.7)bp	3.67%	3.6bp	3.63%	(2.2)bp	3.63%	0.0bp	NIM should remain in-line, with a range of 3.60-3.70%.
Provisions	20	65.3%	19	6.4%	73	7.6%	72	1.7%	Conservative provision modeling. Assumptions imply 80% probability of recession.
Fee income	119	-8.1%	113	4.6%	470	47.9%	434	8.2%	Mortgage banking will act as a "shock absorber" to WAL's asset sensitive balance sheet from increased refinance activity and gain on sale margin expansion.
Expenses	429	0.6%	425	0.9%	1,603	38.7%	1,598	0.4%	Still view a mid-to-upper 40% efficiency ratio as the right level over the medium-term. 4Q23 adjusted efficiency should remain consistent with the third quarter. Drop off in mortgage banking could be more pronounced in the fourth quarter this year.
PPNR	298	-0.3%	283	5.3%	1,248	-11.6%	1,213	2.9%	In a down 100bp scenario, expect +2.2% to earnings.
Efficiency	59%	19.6bp	60%	(104.1)bp	56%	1,120.2bp	57%	(61.8)bp	
Tax Rate (%)	21%	-	-	-	21%	-	-	-	20-21% on a go forward basis.
EPS	1.91	-2.7%	1.87	2.6%	8.14	-16.1%	7.72	5.3%	
Dil. Shares Outstanding	110	0.9%	109	0.8%	109	0.9%	108	0.2%	
Loans	49,556	0.2%	49,622	-0.1%	49,556	-4.4%	49,622	-0.1%	Total fixed and variable loan maturities are expected to average \$2.4bn per quarter for the first three quarters of 2024. 4Q23: Flat to +\$300mn. Expect loans to reprice ~100bp higher.
Net charge-offs / avg loans	0.08%	1.6bp	0.11%	(2.9)bp	0.06%	5.7bp	0.07%	(1.0)bp	TTC NCOs still expected to be 5-15bp.
Total Deposits	54,982	1.3%	54,539	0.8%	54,982	2.5%	53,320	3.1%	NIB will be seasonally lower in the fourth quarter as a result of mortgage warehouse, as well as tax and insurance escrow funds as payments are made. 4Q23: flat to +\$500mn. Expect that ECRs will have a high beta on the way down. 4Q23 deposits flat-ish due to seasonality, L/D ratio target in the mid-80s.
Profitability metrics (2023)	Bof A est	VS	Consensus						-

Profitability metrics (2023)	Bof A est	vs. Consensus
ROTCE (%)	18.86	16.2
ROA (%)	1.28	1.20
Capital	Expect to g	row through 11% CET1.

CapitalDividends Buybacks

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

Exhibit 52: WFC earnings tear sheet BofA vs consensus

(\$mn except EPS)	BofA est		Conconcus	BofA est	BofA est 2023e	BofA est YoY	Consensus	BofA est	Nation
Wells Fargo & Co. Net interest income	4Q23e 12,682	QoQ -4.0%	Consensus 12,787	-0.8%	52,602	15.9%	52,701	vs. cons -0.2%	Notes Expect 2023 NII to be 16% higher YoY. Expect 4Q23 NII decline from additional mix shift into int-bearing accounts, deposit
Not interest margin	2 000/	(1.4.7)bp	2.020/	(4.7)bp	3.05%	41.9bp	2.000/	(0 0)hn	outflows, continued repricing.
Net interest margin Provisions	2.88%	(14.7)bp 46.2%	2.93% 1.377	(4.7)bp 27.1%	5.867	41.90p 282.5%	3.06% 5.494	(0.9)bp 6.8%	increased allowance primarily driven by office portfolio and growth in card portfolio.
LIONIZIONIZ	1,7 30	40.270	۱۱۲٫۱	27.170	3,007	202. 5%	3,434	0.070	Asset-based fees will reflect market valuations as of October 1st, higher from last year but lower from 3Q23 pricing date.
Fee income	7,383	-4.7%	7,525	-1.9%	29,888	-0.4%	30,029	-0.5%	Expects impact from CFPB late fees cap to be manageable.
Expenses	13,082	-0.2%	12,751	2.6%	52,858	2.5%	52,527	0.6%	Expect 2023 noninterest expense to be \$51.5bn/\$12.6bn in 4Q23. Increase in FY23 expense outlook reflects some lags in realizing efficiency saves. still have additional opportunities to reduce head count; likely result in additional severance expense for actions in 2024. Will continue to spend a huge amount of money on regulatory and control work and investments (Al/ML/Card/Digital). Will have more severance than expected in 4Q (\$750mn-1bn). May see flattish expenses in 2024 with revenue growth, otherwise will continue to drive decreases.
PPNR	6,983	-11.0%	7,561	-7.6%	29,632	24.3%	30,202	-1.9%	
Efficiency	65%	262.1bp	63%	242.3bp	64%	(430.2)bp	63%	58.5bp	Very few parts of the bank that are optimized, evaluating areas of the bank where they can drive more efficiency.
Tax Rate (%)	18%	-	-	-	17%	-	-	-	
EPS	1.09	-21.8%	1.21	-9.7%	4.97	10.4%	5.14	-3.4%	
Dil. Shares Outstanding	3,621	-1.6%	3,656	-1.0%	3,711	-2.5%	3,720	-0.2%	
Loans	944,474	-0.4%	941,300	0.3%	945,556	0.2%	944,763	0.1%	Revolver utilization rates declined in 3Q23 to levels similar to last year. Personal lending is currently at the size that WFC believes it will be for the foreseeable future. Expect credit card loan growth to continue given new product introductions. Home lending balances to continue to decline as they continue to de-emphasize the business. Corporate loans won't see a lot of growth for the next few quarters, then you will see some growth across the corporate spectrum.
Net charge-offs / avg loans	0.42%	6.3bp	0.44%	(2.0)bp	0.34%	16.8bp	0.34%	(0.4)bp	largest increase in consumer NCOs driven by auto portfolio. increase in CRE NALs driven by a \$1.3bn increase in office NALs. Consumer deterioration led by lower-income segment while middle dass/affluent customer maintains surplus from pandemic. Seeing current credit vintages at pre-pandemic levels of deterioration. Expecting to see losses in CIB office portfolio in 4Q and 2024. Have been tightening credit quality across all consumer products consistently for a year and a half. Credit quality of current credit card accounts is better than credit quality of accounts prior to changes made.
Total Deposits	1,355,104	1.1%	1,343,744	0.8%	1,349,888	-5.2%	1,347,150	0.2%	customers continuing to migrate to higher yielding alternatives. Expect to continue to be a beneficiary of deposit flows on a relative basis. Believes WFC does not have a lot of rate-seekers but expect deposits to continue to become more rate sensitive over a period of time if rates are higher for longer.
Profitability metrics (FY-2022)	BofA est	VS.	Consensus	_					
ROTCE (%)	13.48		13.36	Will get to	15% ROTCE by	both revenue	and expense o	pportunities.	
ROA (%)	1.04		0.97						
Capital					ease of ~14bp to I required minir				RWA would increase by 20%. still need to decide how much of an additional buffer want to maintain. Expect that based on as written.
Dividends									
Buybacks	Repurchase	d \$1.5bn of	stock in 3Q. A	pproved new	\$30bn share b	uyback progra	am.		

Source: BofA Global Research estimates, Bloomberg, Visible Alpha



Exhibit 53: ZION earnings tear sheet

nsus

	BofA vs conser
10.	(\$ in mn except F

(\$ in mn except EPS)	BofA est	BofA est		BofA est	BofA est	BofA est		BofA est	
Zions Bancorp NA	4Q23e	QoQ	Consensus	vs. cons	2023e	YoY	Consensus	vs. cons	Notes
Net interest income	580	-2.7%	589	-1.6%	2,466	-3.6%	2,474	-0.3%	Expect 3Q24 NII to be stable YoY.
Net interest margin	2.84%	(8.6)bp	2.91%	(6.1)bp	3.01%	(4.9)bp	3.02%	(1.4)bp	Margin is showing stability. Expect AEA yields increase by 5-10bp per quarter for foreseeable future. Combination of deposit migration and repricing will be roughly consistent with that expected for earning asset repricing. Expect to see margins vary from month-to-month and quarter-to-quarter, but believe NIM is pretty stable.
Provisions	50	22.0%	42	18.1%	182	49.2%	175	4.3%	QoQ increase in the reserve for CRE Office and other portfolios potentially impacted by higher interest rates.
Fee income	176	-0.2%	171	2.5%	689	10.2%	699	-1.5%	Expect 3Q24 customer fees to moderately increase YoY. Seeing some growth in wealth management. Currently running quarterly adjusted revenue of \$765mn.
Expenses	489	-1.4%	517	-5.5%	1,988	6.0%	2,027	-1.9%	Technology expense pressures more of a headwind than expected. Continuing to work actively to manage headcount in 2024. Costs of compliance of the capital rules are largely already embedded in costs. Expect modest expense growth in 2024. Reduced head count by ~3% 4QTD. Hope tech investments will be finished by late summer. Trying to keep expenses flat over the next year or two.
PPNR	267	-3.3%	243	9.6%	1,167	-10.7%	1,145	1.9%	
Efficiency	65%	44.0bp	68%	(330.8)bp	63%	405.6bp	64%	(88.6)bp	
Tax Rate (%)	24%	-	-	-	26%	-	-	-	
EPS	1.05	-7.1%	0.82	28.8%	4.67	-19.5%	4.41	6.1%	
Dil. Shares Outstanding	148	0.0%	148	-0.2%	148	-1.7%	148	-0.1%	
Loans	57,146	0.2%	56,939	0.4%	56,768	7.9%	56,685	0.1%	Loan demand weakened. Expect EOP loans to remain stable YoY in 3Q24. Outlook for flattish oan growth is because borrowers are just a lot more careful. Not waiting for rates to go down thinking that's going to generate demand. Not seeing very robust borrower demand. Experiencing some softening in CRE in some markets. See lower rates without recession being helpful.
Net charge-offs / avg loans	0.10%	0.7bp	0.14%	-	0.07%	(0.0)bp	0.08%	-	NPAs increased \$68mn primarily due to two suburban office CRE loans totaling \$46mn. Seen a very slight tick-up in NPAs. Had less than \$5mn in NCOs in the office portfolio so far this cycle. Goal to be in the top quartile of the industry in terms of charge-offs.
Total Deposits	75,740	0.5%	75,840	-0.1%	75,740	5.7%	73,052	3.7%	Recaptured some off-balance sheet deposits. Customer deposits replaced wholesale funding. Are seeing more utilization of cash (among customers) in the business. Expect additional deposit growth in 4Q. Believe that NIB mix is close to flattening out.

Į	Profitability metrics (FY-2022)	Bof A est	VS.	Consensus
	ROTCE (%)	18.36		17.6
	ROA (%)	0.82		0.74

Expectation is that AOCI will pull to par over a relatively short amount of time. Expect to continue building capital through 2024. Capital

Dividends Buybacks

Source: BofA Global Research estimates, Bloomberg, Visible Alpha

Table 1: Stocks mentioned

Prices and ratings for stocks mentioned in this report

Bof A Ticker	Bloomberg ticker	Company name	Price	Rating
ASB	ASB US	Associated Banc	US\$ 21.45	B-2-7
ВОН	BOHUS	Bank of Hawaii	US\$ 69.37	B-3-7
BK	BK US	BNY Mellon	US\$ 52.73	C-1-7
C	C US	Citigroup	US\$ 53.02	B-1-7
CFG	CFG US	Citizens Financial	US\$ 33.37	B-2-7
CMA	CMA US	Comerica	US\$ 55.55	C-2-7
CFR	CFR US	Cullen/Frost	US\$ 106.94	B-1-7
EWBC	EWBC US	East-West	US\$ 72.84	B-1-7
FITB	FITB US	Fifth Third Bank	US\$ 35.36	B-1-7
FBP	FBP US	First Bancorp PR	US\$ 16.08	B-1-7
FHB	FHB US	First Hawaiian Inc.	US\$ 21.92	B-3-7
FHN	FHN US	First Horizon Corp.	US\$ 14.22	C-1-7
GS	GS US	Goldman Sachs	US\$ 381.96	B-1-7
HBAN	HBAN US	Huntington	US\$ 12.93	B-2-7
JPM	JPM US	JP Morgan Chase	US\$ 171.02	B-1-7
KEY	KEY US	KeyCorp	US\$ 14.46	C-1-8
MTB	MTB US	M&T Bank	US\$ 136.84	B-1-7
MS	MS US	Morgan Stanley	US\$ 91.48	B-1-7
NYCB	NYCB US	New York Community	US\$ 10.53	B-1-7
NTRS	NTRS US	Northern Trust	US\$ 84.15	B-1-7
PB	PB US	Prosperity Bncsh	US\$ 65.71	B-3-7
RF	RF US	Regions Financial	US\$ 18.92	B-2-7
STT	STT US	State Street	US\$ 76.6	B-3-7
SNV	SNV US	Synovus	US\$ 36.88	B-1-7
TCBI	TCBIUS	Texas Capital Bancsh	US\$ 63.15	B-3-9
PNC	PNC US	The PNC Financial	US\$ 155.18	B-2-7
TFC	TFC US	Truist Financial	US\$ 37.73	B-1-7
USB	USB US	U.S. Bancorp	US\$ 43.4	B-1-7
WFC	WFC US	Wells Fargo	US\$ 49.08	B-1-7
WAL	WAL US	Western Alliance	US\$ 64.53	C-1-7
ZION	ZION US	Zions	US\$ 43.93	C-3-7

Source: BofA Global Research

BofA GLOBAL RESEARCH

Price objective basis & risk

Associated Banc-Corp (ASB)

Our \$23 PO is based on a 50%/50% weighting between our 2024e EPS and 2024e tangible book value (TBV). We assign 12.0x/1.0x multiples respectively, below peer multiples (12.3x/1.1x) due to its below-average EPS growth momentum.

Upside risk: stronger-than-expected balance sheet growth and greater NIM expansion relative to peers. Downside risk: higher-than-expected expense growth, accelerated credit migration, slower balance sheet growth.

Bank of Hawaii Corp. (BOH)

Our \$46 PO is based on applying a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 15x/1.0x multiples respectively, below the bank's 5 year prepandemic median of 16.5x/2.8x due to a lower return profile.

Downside risks to our price objective are a longer-than-anticipated low rate environment and a reversal of local economic improvement. Upside risks are a stronger-than-



expected economic rebound, better-than-expected capital distribution and a shorter-than-anticipated low rate environment.

Citigroup Inc. (C)

Our \$60 PO is based on a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 7.3x/0.8x multiples respectively, vs. large-cap peers (13.2x/1.6x) due to the bank's lower return metrics and risks to EPS defensibility.

Downside risks to our PO are execution risk tied to mgmt's franchise transformation efforts, an economic downturn or a macro-economic shock, increased costs tied to the regulatory consent orders, regulatory changes. Faster pace of share buybacks, better than expected operating leverage.

Citizens Financial Group (CFG)

Our \$35 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 12.0x/1.0x multiples respectively, below the bank's 5 year pre pandemic median of 13.2x/1.2x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop.

Downside risks to our PO: higher than expected credit losses, greater than expected revenue pressure, regulatory changes that would impact growth/profitability, less than expected synergies from acquisition of First Republic private bankers, JMP, HSBC New York branches and ISBC.

Comerica Incorporated (CMA)

Our \$56 PO is based on applying a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 12.5x/1.2x multiples respectively, below the bank's 5 year prepandemic median of 14.8x/1.6x given the bank's lack of idiosyncratic catalysts in the current environment.

Upside risks to our PO are stable-to-rising interest rates, continued improvement in credit quality, and/or higher-than-expected capital return. Downside risks to our PO are Fed rate cuts and/or higher-than-expected expenses.

Cullen/Frost Bankers Inc (CFR)

Our \$119 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 16.0x/2.4x multiples respectively, in-line with the bank's 5 year pre-pandemic medians of 15.7x/2.3x.

Downside risks to our PO are: worse than expected credit losses, greater than expected net interest margin compression, and slower than expected economic growth. Upside risks to our PO are: credit resilience, better than expected margin performance, and stronger than expected economic growth.

East West Bancorp, Incorporated (EWBC)

Our \$82 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 11.6x/1.5x multiples respectively, below the bank's 5 year pre pandemic median of 14.3x/2.4x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop.

Downside risks to our PO are: worse than expected credit losses, greater than expected net interest margin compression, and slower than expected economic growth. Upside risks to our PO are: credit resilience, better than expected margin performance, and stronger than expected economic growth.



Fifth Third Bank (FITB)

Our \$38 PO is based on a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 13.5x/2.2x multiples, respectively, above the bank's 5 year pre pandemic median of 12.0x/1.4x given favorable EPS/ROTCE outlooks.

Downside risks to our PO: slower-than-guided loan growth on weaker economic activity, and/or a deterioration in credit quality.

Upside risks to our PO are a better-than-expected improvement in the macro environment, stronger-than-anticipated balance sheet growth, and/or better expense management.

First Bancorp Puerto Rico (FBP)

Our \$18.50 PO is based on applying a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 13x/1.8x multiples respectively, in-line/above the bank's 5 year pre-pandemic median of 13.9x/0.8x due to a higher return profile.

Downside risks to our price objective are a worse-than-expected restructuring of PR government debt and a deterioration in the Puerto Rican economy that could hurt the ongoing credit and earnings recovery at FBP. Upside risks to our price objective are a much stronger economic improvement in Puerto Rico, deployment of excess capital into share purchase agreement and a better-than-expected improvement in asset quality trends at FBP.

First Hawaiian Inc. (FHB)

Our \$20 PO is based on applying a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 12.5x/1.4x multiples respectively, below the bank's 5 year prepandemic median of 14.3x/2.5x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop.

Downside risks are 1) FHB's reliance on the Hawaiian economy, with 80% of the franchise spread across Hawaii, Guam, and Saipan, poses downside risk to EPS from a severe economic downturn in this region. 2) While FHB has a history of conservative underwriting, its exposure to auto loans could serve as an overhang if investor concerns around the health of the auto sector and consumer increase. Upside risk to our PO is a quick economic recovery in Hawaii and better-than-expected NIM expansion.

First Horizon Corporation (FHN)

Our \$16 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 12.5x/1.2x multiples respectively, below the bank's 5 year pre pandemic median of 15.4x/1.7x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop.

Risks to the upside are stronger-than-expected loan/deposit growth and better-than-expected mgmt. execution post-TD acquisition termination. Risks to the downside are: greater than expected expense growth as mgmt plays catch-up on tech spend, a deterioration in the funding backdrop that drives higher than expected deposit pricing, worse than expected credit losses.

Goldman Sachs (GS)

Our \$412 PO is based on a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 13.5x/1.4x multiples, respectively, above the bank's 5 year pre pandemic median of 10.6x/1.2x given lower credit risk into a potential recession. Downside risks to our PO: weaker economy/capital markets, macro or geo-political issues, competition, structural pressures, tougher global regulation, and litigation. Upside risks: stronger capital markets activity.



Huntington Bancshares Inc. (HBAN)

Our \$13 PO is based on a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 12.5x/1.4x multiples, respectively, in-line with/below the bank's 5 year pre pandemic median of 12.5x/1.8x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop. Downside risks to our PO: higher for longer interest rate environment increasing deposit costs, greater than expected expenses. Upside risks: better than expected PPNR growth.

JPMorgan Chase & Co. (JPM)

Our \$188 PO is based on a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 13.2x/1.9x multiples, respectively, in-line with/above 5Y pre-pandemic average (11.8x/1.7x, respectively) due to the bank's best-in-class revenue generation and better EPS defensibility.

Downside risks to our price objective are macro risks, such as slower-than-expected rate increases, additional regulatory requirements, and scrutiny of the financials industry. Upside risks are better-than-expected credit quality (i.e., lower loan losses) and better interest rate defensibility

KeyCorp (KEY)

Our \$18 PO is based on a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 16.5x/1.7x multiples, respectively, above the bank's 5 year pre pandemic median of 11.9x/1.4x given expected tailwinds from asset repricing, owing to the macro backdrop. Downside risks to our PO: higher for longer interest rate environment increasing deposit costs, greater than expected expenses, inability to maximize balance sheet efficiency, and the announcement of expensive deals. Upside risks: lower than expected credit losses and better than expected PPNR growth.

M&T Bank (MTB)

Our \$157 PO is based on a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 11.5x/1.5x multiples, respectively, below the bank's 5 year pre pandemic median of 14.7x/2.2x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop. Downside risks to our PO: a significant deterioration in the CRE market beyond office that would weigh on credit quality, higher funding costs that would squeeze the net interest margin, and rising regulatory burden. Upside risks: stronger growth, lower funding costs, opportunistic M&A.

Morgan Stanley (MS)

Our \$100 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 19.5x/1.8x multiples respectively, above the bank's 5 year pre pandemic median of 11.7x/1.3x given an improved (stickier) revenue mix driven by its wealth and asset management segments.

Risks to the upside is stronger wealth/asset management trends and capital markets activity and higher rates. Risks to the downside are a weak economy/capital markets, increased macro issues, tougher regulation, and litigation.

New York Community Bancorp (NYCB)

Our \$13 PO is based on a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 11.5x/1.0x multiples, respectively, below the bank's 5 year pre pandemic median of 15.1x/1.7x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop. Upside risks to our price objective are: better than expected growth, steepening in the yield curve, and better than expected deal synergies. Downside risks to our price objective are: worse than expected growth, significantly higher than (market) expected Fed Funds rate, severe downturn in the NYC economy and the NYC commercial real estate market.



Northern Trust Corporation (NTRS)

Our \$92 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 17.0x/1.6x multiples respectively, in-line with/below the bank's 5 year pre pandemic median of 16.9x/2.3x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to uncertainty surrounding the outlook for interest rates and equity/bond prices.

Risks to the downside are a selloff in equity/bond markets that would put downward pressure on fee growth, rising deposit costs that would put downward pressure on net interest income, management's inability to execute on efficiency/profitability goals. Risk to the upside driven stronger equity/bond markets, sooner than expected achievement of mgmt's profitability/strategic targets.

Prosperity Bancshares Inc (PB)

Our \$60 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 12.5x/1.3x multiples respectively, below the bank's 5 year pre pandemic median of 14.6x/2.4x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop.

Downside risks to our PO are: worse than expected credit losses, greater than expected net interest margin compression, and slower than expected economic growth. Upside risks to our PO are: better than expected margin performance, and stronger than expected economic growth.

Regions Financial (RF)

Our \$19 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 12.0x/1.4x multiples respectively, below the bank's 5 year pre pandemic median of 12.3x/1.5x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop.

Downside risks to our PO: higher than expected credit losses, greater than expected revenue pressure, regulatory changes that would impact growth/profitability, greater than anticipated operating losses due to check fraud.

State Street Corporation (STT)

Our \$81 PO is based on a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 13.2x/1.4x multiples, respectively, below the bank's 5 year pre pandemic median of 13.5x/2.6x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop. Downside risks to our PO: severe selloff in equity/bond markets that that could put downward pressure on fee growth and M&A that could temper capital return. Upside risks: stronger equity/bond markets.

Synovus Financial Corp. (SNV)

Our \$40 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 12.5x/1.1x multiples respectively, below the bank's 5 year pre pandemic median of 16.0x/1.5x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop.

Downside risks: worse than expected margin compression, greater than expected deterioration in credit quality. Upside risks: better than expected margin performance, credit quality resilience.

Texas Capital Bancshares Inc. (TCBI)

Our \$53 PO is based on a 50%/50% weighting between our 2024e EPS and 2024e tangible book value (TBV). We assigned 10.8x/1.0x multiples, respectively, below relative history (16.3x/1.7x) due to limited EPS visibility.



Upside risk: stronger than expected balance sheet growth, quicker return to profitability and greater NIM expansion relative to peers Downside risk: higher than expected expense growth, accelerated credit migration, slower balance sheet growth.

The Bank of New York Mellon Corporation (BK)

Our \$58 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 13.8x/1.7x multiples respectively, in-line/below the bank's 5 year pre pandemic median of 13.4x/3.1x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to uncertainty surrounding the outlook for interest rates and equity/bond prices.

Risk to the upside is stronger equity/bond markets. Risks to the downside are a severe selloff in equity/bond markets that that could put downward pressure on fee growth and M&A that could temper capital return.

The PNC Financial Services Group, Inc. (PNC)

Our \$155 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 13.3x/1.7x multiples respectively, above the bank's 5 year pre pandemic median of 13.1x/1.7x given reduced uncertainty surrounding EPS/ROTCE outlooks, owing to the improving macro backdrop.

Downside risks to our PO: higher than expected credit losses, greater than expected revenue pressure, regulatory changes that would impact growth/profitability, an acquisition that is not well received by the markets.

Truist Financial (TFC)

Our \$43 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 13.5x/2.0x multiples respectively, in-line with the bank's 5 year pre pandemic median of 13.2x/2.2x given reduced uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop.

Downside risks to our PO: higher than expected credit losses, greater than expected revenue pressure, regulatory changes that would impact growth/profitability, execution risk tied to STI/BBT merger of equals that completed in December 2019.

U.S. Bancorp (USB)

Our \$49 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 13.0x/2.2x multiples respectively, below the bank's 5 year pre pandemic median of 13.3x/2.5x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop.

Downside risks to our PO: higher than expected credit losses, greater than expected revenue pressure, regulatory changes that would impact growth/profitability, not fully realizing synergies expected with the acquisition of Union Bank.

Wells Fargo & Company (WFC)

Our \$54 PO is based on a 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 12.5x/1.2x multiples, respectively, in-line/below the bank's 5 year pre pandemic median of 12.4x/1.8x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop.

Downside risks to our PO: worse-than-expected economic downturn that leads to significantly higher-than-expected credit losses, elevated expense trajectory, slower-than-expected resolution of its consent orders. Upside risks: better-than-expected credit quality (i.e., lower loan losses) and material expense management that improve visibility on future earnings.



Western Alliance Bancorp (WAL)

Our \$70 PO is based on 50%/50% weighting between our 2024e EPS and 2024e TBV. We assign 10.5x/1.1x multiples respectively, below the bank's 5 year pre pandemic median of 14.8x/2.8x given heightened uncertainty surrounding EPS/ROTCE outlooks, owing to the macro backdrop.

Downside risks to our PO are: worse than expected credit losses, greater than expected net interest margin compression, and slower than expected economic growth. Upside risks to our PO are: credit resilience, better than expected margin performance, and stronger than expected economic growth.

Zions Bancorp (ZION)

Our \$41 PO is based on a 50%/50% weighting between our 2024e EPS and 2024e tangible book value (TBV). We assign 11.5x and 1.1x multiples, respectively, below the bank's 5 year pre-pandemic median (15.2x and 1.4x) given the lack of idiosyncratic growth catalysts and risks to EPS visibility.

Upside risks to our PO are better-than-expected expense management and/or continued benign credit.

Downside risks are a deterioration in energy prices and/or an interest rate shock that drives higher debt service costs, potentially creating a credit issue.

Analyst Certification

We, Ebrahim H. Poonawala and Brandon Berman, hereby certify that the views each of us has expressed in this research report accurately reflect each of our respective personal views about the subject securities and issuers. We also certify that no part of our respective compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.



North America - Banks Coverage Cluster

nvestment rating	Company	Bof A Ticker	Bloomberg symbol	Analyst
DUT	Ares Capital Corporation	ARCC	ARCC US	Derek Hewett
	Ares Commercial Real Estate Corporation	ACRE	ACRE US	Derek Hewett
	Bank of Montreal	BMO	BMO US	Ebrahim H. Poonawala
	Bank of Montreal	YBMO	BMO CN	Ebrahim H. Poonawala
	Barings BDC Inc	BBDC	BBDC US	Derek Hewett
	Blackstone Mortgage Trust Inc	BXMT	BXMT US	Derek Hewett
	Blue Owl Capital Corporation	OBDC	OBDC US	Derek Hewett
	Carlyle Secured Lending Inc	CGBD	CGBD US	Derek Hewett
	Citigroup Inc.	С	C US	Ebrahim H. Poonawala
	Compass Diversified Holdings	CODI	CODIUS	Derek Hewett
	Crescent Capital BDC	CCAP	CCAP US	Derek Hewett
	Cullen/Frost Bankers Inc	CFR	CFR US	Ebrahim H. Poonawala
	East West Bancorp, Incorporated	EWBC	EWBC US	Ebrahim H. Poonawala
	Fifth Third Bank	FITB	FITB US	Ebrahim H. Poonawala
	First Bancorp Puerto Rico	FBP	FBP US	Brandon Berman
	First Horizon Corporation	FHN	FHN US	Ebrahim H. Poonawala
	Goldman Sachs	GS	GS US	Ebrahim H. Poonawala
	JPMorgan Chase & Co.	JPM	JPM US	Ebrahim H. Poonawala
	KeyCorp	KEY	KEY US	Ebrahim H. Poonawala
	M&T Bank	MTB	MTB US	Ebrahim H. Poonawala
	Morgan Stanley	MS	MS US	Ebrahim H. Poonawala
	New Mountain Finance Corporation	NMFC	NMFC US	Derek Hewett
	New York Community Bancorp	NYCB	NYCB US	Ebrahim H. Poonawala
	Northern Trust Corporation	NTRS	NTRS US	Ebrahim H. Poonawala
	Royal Bank of Canada	RY	RY US	Ebrahim H. Poonawala
	Royal Bank of Canada	YRY	RY CN	Fbrahim H. Poonawala
	Safehold, Inc	SAFE	SAFE US	Derek Hewett
	Sixth Street Specialty Lending, Inc	TSLX	TSLX US	Derek Hewett
	Starwood Property Trust	STWD	STWD US	Derek Hewett
	Synovus Financial Corp.	SNV	SNV US	Ebrahim H. Poonawala
	The Bank of New York Mellon Corporation	BK	BK US	Ebrahim H. Poonawala
	Truist Financial	TFC	TFC US	Ebrahim H. Poonawala
	U.S. Bancorp	USB	USB US	Ebrahim H. Poonawala
	Wells Fargo & Company	WFC	WFC US	Ebrahim H. Poonawala
	Western Alliance Bancorp	WAL	WAL US	Ebrahim H. Poonawala
EUTRAL	AGNC Investment Corp	AGNC	AGNC US	Derek Hewett
	Ally Financial	ALLY	ALLY US	
				Brandon Berman
	Annaly Capital Management	NLY	NLY US	Derek Hewett
	Apollo Commercial Real Estate Finance	ARI	ARIUS	Derek Hewett
	Associated Banc-Corp	ASB	ASB US	Brandon Berman
	Bain Capital Specialty Finance, Inc.	BCSF	BCSF US	Derek Hewett
	Bank of Nova Scotia	YBNS	BNS CN	Ebrahim H. Poonawala
	Bank of Nova Scotia	BNS	BNS US	Ebrahim H. Poonawala
	Blackstone Secured Lending Fund	BXSL	BXSL US	Derek Hewett
	BrightSpire Capital Inc.	BRSP	BRSP US	Derek Hewett
	Canadian Imperial Bank of Commerce	CM	CM US	Ebrahim H. Poonawala
	Canadian Imperial Bank of Commerce	YCM	CM CN	Ebrahim H. Poonawala
	Citizens Financial Group	CFG	CFG US	Ebrahim H. Poonawala
	,			
	Comerica Incorporated	CMA	CMA US	Ebrahim H. Poonawala
	Goldman Sachs BDC, Inc.	GSBD	GSBD US	Derek Hewett
	Golub Capital BDC, Inc.	GBDC	GBDC US	Derek Hewett
	Huntington Bancshares Inc.	HBAN	HBAN US	Ebrahim H. Poonawala
	Ladder Capital Corp	LADR	LADR US	Derek Hewett
	PennyMac Mortgage Investment Trust	PMT	PMT US	Derek Hewett
	Popular Inc	ВРОР	BPOP US	Brandon Berman
	Regions Financial	RF	RF US	Ebrahim H. Poonawala
	The PNC Financial Services Group, Inc.	PNC	PNC US	Ebrahim H. Poonawala
				Ebrahim H. Poonawala
	Toronto-Dominion Bank	TD	TD US	
	Toronto-Dominion Bank	YTD	TD CN	Ebrahim H. Poonawala
ND FDDFDFOR:	TPG RE Finance Trust, Inc.	TRTX	TRTX US	Derek Hewett
NDERPERFORM	Bank of Hawaii Corp.	ВОН	BOHUS	Brandon Berman



North America - Banks Coverage Cluster

Investment rating	Company	Bof A Ticker	Bloomberg symbol	Analyst
	First Hawaiian Inc.	FHB	FHB US	Brandon Berman
	Guild Holdings Company	GHLD	GHLD US	Derek Hewett
	Invesco Mortgage Capital, Inc.	IVR	IVR US	Derek Hewett
	loanDepot Inc	LDI	LDIUS	Derek Hewett
	MidCap Financial Investment Co	MFIC	MFIC US	Derek Hewett
	Prosperity Bancshares Inc	PB	PB US	Ebrahim H. Poonawala
	State Street Corporation	STT	STT US	Ebrahim H. Poonawala
	Texas Capital Bancshares Inc.	TCBI	TCBIUS	Brandon Berman
	Zions Bancorp	ZION	ZION US	Ebrahim H. Poonawala

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: Financial Services Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	156	53.79%	Buy	94	60.26%
Hold	72	24.83%	Hold	48	66.67%
Sell	62	21.38%	Sell	35	56.45%

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%

It 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 cluster⁸²

Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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

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

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 one of its affiliates acts as a market maker for the equity securities recommended in the report: Associated Banc, Bank of Hawaii, BNY Mellon, Citigroup, Citizens Financial, Comerica, Cullen/Frost, East-West, Fifth Third Bank, First Bancorp PR, First Hawaiian Inc., First Horizon Corp., Goldman Sachs, Huntington, JP Morgan Chase, KeyCorp, M&T Bank, Morgan Stanley, New York Community, Northern Trust, Prosperity Bncsh, Regions Financial, State Street, Synovus, Texas Capital Bancsh, The PNC Financial, Truist Financial, U.S. Bancorp, Wells Fargo, Western Alliance, Zions.

BofAS or an affiliate was a manager of a public offering of securities of this issuer within the last 12 months: Assoc Banc-Corp, Bank of New York Mel, Huntington Banc, M&T Bank, PNC, State Street, Truist Financial.

The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one or more of its affiliates: Assoc Banc-Corp, Bank Hawaii Corp, Bank of New York Mel, Citigroup, Citizens Financial G, Comerica, East-West, Fifth Third, First Bancorp PR, First Horizon Corp., Goldman Sachs, Huntington Banc, JP Morgan Chase, KeyCorp, M&T Bank, Morgan Stanley, New York Community B, Northern Trust Corpo, PNC, Regions Bank, State Street, Synovus, Texas Capital Bancsh, Truist Financial, U.S. Bancorp, Wells Fargo, Western Alliance, Zions.

BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: Assoc Banc-Corp, Bank Hawaii Corp, Bank of New



York Mel, Citigroup, Citizens Financial G, Comerica, Cullen/Frost Bankers, East-West, Fifth Third, First Bancorp PR, First Hawaiian Inc., First Horizon Corp., Goldman Sachs, Huntington Banc, JP Morgan Chase, KeyCorp, M&T Bank, Morgan Stanley, New York Community B, Northern Trust Corpo, PNC, Regions Bank, State Street, Synovus, Texas Capital Bancsh, Truist Financial, U.S. Bancorp, Wells Fargo, Western Alliance, Zions.

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: Assoc Banc-Corp, Bank Hawaii Corp, Bank of New York Mel, Citigroup, Citizens Financial G, Comerica, Cullen/Frost Bankers, East-West, Fifth Third, First Bancorp PR, First Hawaiian Inc., First Horizon Corp., Goldman Sachs, Huntington Banc, JP Morgan Chase, KeyCorp, M&T Bank, Morgan Stanley, New York Community B, Northern Trust Corpo, PNC, Regions Bank, State Street, Synovus, Truist Financial, U.S. Bancorp, Wells Fargo, Western Alliance, Zions. BofAS or an affiliate has received compensation for investment banking services from this issuer within the past 12 months: Assoc Banc-Corp, Bank of New York Mel, Citigroup, Citizens Financial G, Comerica, East-West, Fifth Third, First Bancorp PR, Goldman Sachs, Huntington Banc, JP Morgan Chase, KeyCorp, M&T Bank, Morgan Stanley, New York Community B, Northern Trust Corpo, PNC, Regions Bank, State Street, Synovus, Texas Capital Bancsh, Truist Financial, U.S. Bancorp, Wells Fargo, Zions.

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: Bank Hawaii Corp, Bank of New York Mel, Citigroup, Citizens Financial G, Comerica, Fifth Third, First Horizon Corp., Goldman Sachs, Huntington Banc, JP Morgan Chase, KeyCorp, M&T Bank, Morgan Stanley, New York Community B, Northern Trust Corpo, PNC, Regions Bank, State Street, Synovus, Truist Financial, U.S. Bancorp, Wells Fargo, Western Alliance.

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: Citigroup, Citizens Financial G, Cullen/Frost Bankers, Fifth Third, Goldman Sachs, Huntington Banc, JP Morgan Chase, KeyCorp, M&T Bank, Morgan Stanley, New York Community B, Northern Trust Corpo, PNC, Regions Bank, State Street, Truist Financial, U.S. Bancorp, Wells Fargo, Zions.

BofAS or one of its affiliates is willing to sell to, or buy from, clients the common equity of the issuer on a principal basis: Associated Banc, Bank of Hawaii, BNY Mellon, Citigroup, Citizens Financial, Comerica, Cullen/Frost, East-West, Fifth Third Bank, First Bancorp PR, First Hawaiian Inc., First Horizon Corp., Goldman Sachs, Huntington, JP Morgan Chase, KeyCorp, M&T Bank, Morgan Stanley, New York Community, Northern Trust, Prosperity Bncsh, Regions Financial, State Street, Synovus, Texas Capital Bancsh, The PNC Financial, Truist Financial, U.S. Bancorp, Wells Fargo, Western Alliance. Zions.

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: Assoc Banc-Corp, Bank Hawaii Corp, Bank of New York Mel, Citigroup, Citizens Financial G, Comerica, Cullen/Frost Bankers, East-West, Fifth Third, First Bancorp PR, First Hawaiian Inc., First Horizon Corp., Goldman Sachs, Huntington Banc, JP Morgan Chase, KeyCorp, M&T Bank, Morgan Stanley, New York Community B, Northern Trust Corpo, PNC, Regions Bank, State Street, Synovus, Texas Capital Bancsh, Truist Financial, U.S. Bancorp, Wells Fargo, Western Alliance, Zions.

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): Merrill Lynch (Canada): Merrill Lynch (Mexico): Merrill Ly 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 Australia 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.

BofA ESGMeter Methodology:

ESGMeter is a proprietary metric based on quantitative analysis and fundamental analyst inputs that reflects our assessment of a company's Environmental, Social and Governance-related attributes. The ESGMeter is intended to indicate a company's likelihood of experiencing stronger financial stability (higher return on equity and lower earnings and price volatility) over the next three years relative to peer group. There are three ESGMeter levels - Low, Medium, and High - which indicate whether a company has attributes most likely to translate into superior financial stability (in the case of a High level) or weaker financial stability (in the case of a Low level) over the next three years relative to its peer group. A Medium level suggests that a company exhibits ESG characteristics that are likely associated with financial stability results in line with its peer group over the next three years. Full details of our methodology, financial stability definition and disclaimers are available at BofA ESGMeter methodology. ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of the BofA Global Research fundamental equity analyst's investment rating, volatility risk rating, income rating or price objective for that company.

Copyright and General Information:

Copyright 2024 Bank of America Corporation. All rights reserved. iQdatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities. Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public inform

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

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

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

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

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.

