

XP Inc.

Easing cycle to support earnings and trading multiple; upgrade to Buy

Rating Change: BUY | PO: 29.00 USD | Price: 24.52 USD

Earnings boosted by lower rates and efficiency gains

We upgrade XP to Buy from Neutral. As the largest independent broker in Brazil, XP's earnings are poised to benefit from an easing cycle, while trading multiples have room to re-rate higher (our economists expect c.400bp cuts in Selic over the next 12 months). On top of this, recent cost control efforts should support better margins. Our new PO of US\$29 (from US\$16) reflects our new earnings estimates and a target P/E of 17x (from 13x) on '24E EPS (from '23E). Our target P/E is above XP's average during the high-rate scenario (12x) but below multiples of private M&A transactions (19x).

We expect earnings growth to accelerate in 2024

We raise our GAAP net income estimates by 6%/6%/1% in '23E/'24E/'25E, implying growth of 11%/18%/19%. Our new '23 estimates reflect lower expenses following a 15% cut in in headcount in early '23. Meanwhile, our '24 earnings also reflect higher revenue generation on retail, institutional and capital markets. Our estimates are c.10% above BBG Consensus. Our sensitivity analysis suggests that EPS growth could exceed 20% in '24 on a more positive scenario (better yields, inflows, margins).

Modal should be EPS neutral in '24

XP should incorporate Modal on July 1st, following the BCB's approval of the transaction in early June. Modal's AUC and earnings have been on a significant downtrend since the deal was announced in January '22, with net income of R\$36mn in LTM down c.80% and representing only c.1% of XP's. Meanwhile, XP is to issue c.3.5% more shares. However, we expect the deal to be EPS Neutral in '24, considering significant cost synergies.

Competition and recent run up are our main concerns

XP's share price rallied 120% in 3M, outperforming lbov (+35% in USD). Nonetheless, current market cap is in line with mid '22 levels (c.60% below highs). Also, we see more active banks as a risk for XP's AUC growth going forward, as they now use independent digital brands and increased their investment advisors' base. Finally, Itau/Itausa holds 10.5%/4.4% of shares, creating potential overhang that could harm stock performance.

Estimates (Dec) (BRL)	2021A	2022A	2023E	2024E	2025E
EPS	7.00	7.09	8.02	9.42	10.99
GAAP EPS	6.28	6.23	7.41	8.67	10.25
EPS Change (YoY)	72.4%	1.3%	13.1%	17.5%	16.7%
Consensus EPS (Bloomberg)			7.01	8.34	9.57
DPS	0	0	0	2.60	3.07
Valuation (Dec)					
P/E	19.5x	18.3x	14.6x	12.4x	10.6x
GAAP P/E	21.7x	20.8x	15.8x	13.5x	11.4x
Dividend Yield	0%	0%	0%	2.2%	2.6%
EV/EBITDA*	16.6x	19.1x	13.4x	11.6x	9.8x
Free Cash Flow Yield*	-4.6%	-9.7%	-3.7%	-25.1%	-77.7%
* For full definitions of <i>IQ</i> method SM measures, see page 9.					

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

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

Bof A Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Refer to important disclosures on page 10 to 12. Analyst Certification on page 8. Price Objective Basis/Risk on page 8.

Timestamp: 21 June 2023 05:32PM EDT

under the FINRA rules.

21 June 2023

Equity

Key Changes		
(BRL)	Previous	Current
Inv. Opinion	C-2-9	C-1-9
Inv. Rating	NEUTRAL	BUY
Price Obj.	US\$16.00	US\$29.00

Mario Pierry Research Analyst

+1 646 743 0047 mario.pierry@bofa.com

Antonio Ruette >> Research Analyst Merrill Lynch (Brazil) +55 11 2188 4225 antonio.ruette@bofa.com

Craig Siegenthaler, CFA Research Analyst **BofAS** +1 646 855 5004 craig.siegenthaler@bofa.com

Flavio Yoshida >> Research Analyst Merrill Lynch (Brazil) +55 11 2188 4588 flavio.yoshida@bofa.com

Ernesto Gabilondo >> Research Analyst Merrill Lynch (Mexico) +52 55 5201 3428 ernesto.gabilondo@bofa.com

Stock Data

Price	24.52 USD
Price Objective	29.00 USD
Date Established	21-Jun-2023
Investment Opinion	C-1-9
52-Week Range	10.30 USD -25.30 USD
Mrkt Val / Shares Out (mn)	13,166 USD / 536.9
Average Daily Value	162.14 BRL
BofA Ticker / Exchange	XP / NAS
Bloomberg / Reuters	XP US / XP.OQ
ROE (2023E)	23.0%
FSGMeter TM	Medium

ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BofA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to

BBG: Bloomberg

BCB: Brazilian Central Bank AUC: assets under custody

ECM/DCM: equity/debt capital markets

iQprofile[™]XP Inc.

iQmethod [™] – Bus Performance*					
(BRL Millions)	2021A	2022A	2023E	2024E	2025
Return on Capital Employed	10.5%	5.6%	4.8%	4.1%	3.6%
Return on Equity	31.7%	25.9%	23.0%	22.9%	22.89
Operating Margin	32.8%	28.9%	33.0%	32.8%	34.39
Free Cash Flow	(3,302)	(6,569)	(2,347)	(15,772)	(48,819
iQmethod [™] – Quality of Earnings*					
(BRL Millions)	2021A	2022A	2023E	2024E	2025
Cash Realization Ratio	-0.5x	-1.5x	-0.4x	-3.0x	-8.0
Asset Replacement Ratio	5.0x	1.8x	2.4x	2.5x	2.0
Tax Rate	5.9%	NM	1.5%	2.0%	5.49
Net Debt-to-Equity Ratio	-110.5%	-37.7%	-23.4%	41.5%	203.39
Interest Cover	29.1x	9.6x	7.6x	10.5x	13.7
Income Statement Data (Dec)					
(BRL Millions)	2021A	2022A	2023E	2024E	2025
Sales	12,077	13,348	14,098	16,186	18,69
% Change	48.2%	10.5%	5.6%	14.8%	15.5°
Gross Profit	8,555	9,382	9,619	10,893	12,44
% Change	56.9%	9.7%	2.5%	13.2%	14.20
EBITDA	4,364	3,792	5,407	6,228	7,35
% Change	64.7%	-13.1%	42.6%	15.2%	18.19
Net Interest & Other Income	(136)	(402)	(611)	(507)	(468
Net Income (Adjusted)	4,012	4,075	4,323	5,122	6,03
% Change	76.7%	1.6%	6.1%	18.5%	17.89
Free Cash Flow Data (Dec)					
(BRL Millions)	2021A	2022A	2023E	2024E	2025
Net Income from Cont Operations (GAAP)	3,599	3,580	3,995	4,713	5,62
Depreciation & Amortization	231	206	221	261	28
Change in Working Capital	(6,386)	(10,477)	(6,353)	(20,509)	(54,579
Deferred Taxation Charge	NA	NA	NA	NA	N
Other Adjustments, Net	404	494	328	409	41
Capital Expenditure	(1,151)	(372)	(539)	(647)	(56
Free Cash Flow	-3,302	-6,569	-2,347	-15,772	-48,81
% Change	-135.8%	-99.0%	64.3%	-571.9%	-209.5%
Balance Sheet Data (Dec)					
BRL Millions)	2021A	2022A	2023E	2024E	2025
Cash & Equivalents	42,299	51,979	68,508	82,342	76,27
Trade Receivables	469	598	701	793	92
Other Current Assets	50,150	73,960	99,827	143,288	241,58
Property, Plant & Equipment	314	311	679	1,065	1,33
Other Non-Current Assets	3,849	7,991	7,363	7,566	7,77
Total Assets	97,081	134,839	177,079	235,055	327,90
Short-Term Debt	26,358	45,550	63,692	92,405	134,44
Other Current Liabilities	48,032	60,155	78,554	101,041	143,69
Long-Term Debt	0	0	0	0	
Other Non-Current Liabilities	8,271	12,093	14,282	17,350	21,15
Total Liabilities	82,661	117,797	156,529	210,796	299,29
Total Equity	14,420	17,042	20,551	24,259	28,60
Total Equity & Liabilities	97,081	134,839	177,079	235,055	327,90

Company Sector

Financial Services-Consumer/Commercial

Company Description

XP is the leading independent investment platform in Brazil and offers low cost brokerage, investment advisory and asset management services through an omni-channel distribution network that includes the largest network of IFAs in the country. Its unique proprietary financial media content and online education portal help it to attract and engage clients. The company also expects to expand into complementary products and services such as insurance, cards, banking, and lending

Investment Rationale

As the largest independent broker in Brazil, XP's earnings are poised to benefit from cyclical tailwinds in an easing cycle (such as better inflows, revenue yield and capital markets activity). We also see room for trading multiple to re-rate. On top of this, recent cost control efforts should support better margins.

Stock Data

Average Daily Volume 6,612,754

Quarterly Earnings Estimates

	2022	2023
Q1	1.71A	1.48A
Q2	1.81A	1.96E
Q3	2.00A	2.11E
04	1.56A	2.43E

Revised earnings estimates

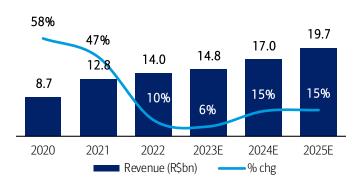
We expect GAAP net income of R\$4.0/R\$4.7/R\$5.6bn in '23E/'24E/'25E, suggesting growth of +12%/+18%/+19%. We assume +6%/+15%/+15% revenue growth, supported by higher revenue yield. Gross margin should be pressured by increased mix of equity trading, but operating margin should benefit from controlled SG&A expenses.

Revenue growth supported by retail

We increase our retail revenue yield by 2p/6bp/5bp in '23E/'24E/'25E, reflecting higher equity trading volumes. We also assume banking revenues to grow above 50% in coming years (reaching close to 30% of total revenues in '25E). All in, we expect retail revenue growth to accelerate to +19%/+19% in '24E/'25E, from +13% in '23. We also assume revenues from institutional clients to accelerate to +6%/+4% in '24E/'25E following a 29% contraction in '23, reflecting increased trading activity. We assume issuer services revenues in '24E to return to close to '22 levels (+7% growth), supported by increased ECM/DCM/M&A activity. Acceleration on retail, institutional and issuer revenues should lead to revenue growth of 15% in '24E. accelerating from +6% in '23.

Exhibit 1: Gross revenues evolution

We expect revenue growth to accelerate in coming years (+15% in '24E)

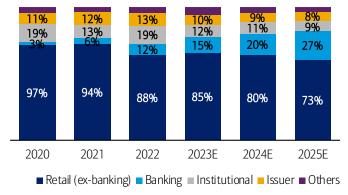


Source: Company, BofA Global Research estimates

BofA GLOBAL RESEARC

Exhibit 2: Gross revenue breakdown

We expect banking to reach almost 30% of revenues in '25E



Source: Company, BofA Global Research estimates

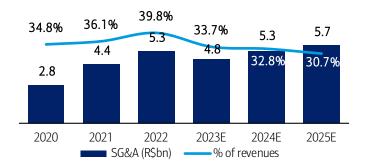
BofA GLOBAL RESEARCH

Focus on expenses should support sequential margin improvement

Management has promoted a strong efficiency agenda, which led to c.15% headcount reduction at the beginning of the year. We believe these efforts should allow the company to deliver SG&A close to the bottom of the guidance range of R\$5.0-R\$5.5bn in '23E. All in, we expect EBT margin to expand to 28.8%/29.7%/31.8% in '23E/'24E/'25E, within management's medium term guidance range of 26-32%.

Exhibit 3: SG&A evolution

We expect SG&A to fall in '23E following headcount reductions

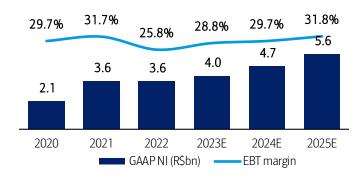


Source: Company, BofA Global Research estimates

BofA GLOBAL RESEARCH

Exhibit 4: GAAP net income evolution

We expect sequential net margin improvement through '25E



Source: Company, BofA Global Research estimates

BofA GLOBAL RESEARCH



Exhibit 5: New vs old estimates

We increase our '23E/'24E/'25E GAAP net income estimates by +6%/+6%/+1%

	2022		2023E			2024E			2025E			YoY Growth	
R\$ mn	Actual	Old	New	% Chg	Old	New	% Chg	Old	New	% Chg	23E/ 22	24E/ 23E	25E/ 24E
Retail	10,158	11,423	11,481	1%	13,185	13,642	3%	15,745	16,188	3%	13%	19%	19%
Institutional	1,918	1,285	1,359	6%	1,349	1,441	7%	1,417	1,499	6%	-29%	6%	4%
Issuer services	1,295	1,151	1,165	1%	1,208	1,246	3%	1,269	1,259	-1%	-10%	7%	1%
Other	666	757	837	11%	669	712	6%	706	732	4%	26%	-15%	3%
Gross revenues	14,036	14,617	14,842	2%	16,412	17,041	4%	19,137	19,677	3%	6%	15%	15%
Net revenues	13,348	13,916	14,098	1%	15,625	16,186	4%	18,219	18,690	3%	6%	15%	15%
COGS	3,966	4,312	4,478	4%	4,905	5,293	8%	5,904	6,249	6%	13%	18%	18%
Gross profit	9,382	9,603	9,619	0%	10,720	10,893	2%	12,315	12,442	1%	3%	13%	14%
SG&A	5,317	5,122	4,751	-7%	5,461	5,315	-3%	5,865	5,739	-2%	-11%	12%	8%
Adj. EBITDA	3,792	5,140	5,407	5%	5,919	6,228	5%	7,108	7,352	3%	43%	15%	18%
Financial expenses	402	578	611	6%	449	507	13%	415	468	13%	52%	-17%	-8%
D&A	206	232	221	-5%	282	261	-7%	314	287	-9%	8%	18%	10%
EBT	3,445	3,670	4,055	10%	4,529	4,810	6%	5,720	5,947	4%	18%	19%	24%
Net income - GAAP	3,580	3,758	3,995	6%	4,454	4,713	6%	5,554	5,623	1%	12%	18%	19%
Net income - non-GAAP	4,075	4,173	4,323	4%	4,869	5,122	5%	5,969	6,033	1%	6%	18%	18%
EPS (R\$)	6.23	6.52	7.41	14%	7.66	8.67	13%	9.48	10.25	8%	19%	17%	18%
EPS (US\$)	1.19	1.25	1.44	15%	1.44	1.63	13%	1.72	1.90	10%	20%	14%	16%
EPS - non-GAAP (R\$)	7.09	7.24	8.02	11%	8.38	9.42	12%	10.18	10.99	8%	13%	17%	17%
EPS - non-GAAP (US\$)	1.36	1.39	1.56	12%	1.58	1.78	12%	1.85	2.04	10%	14%	14%	15%
Gross margin	70.3%	69.0%	68.2%	-78bp	68.6%	67.3%	-131bp	67.6%	66.6%	-102bp	-206bp	-93bp	-73bp
EBT margin	25.8%	26.4%	28.8%	239bp	29.0%	29.7%	73bp	31.4%	31.8%	42bp	296bp	95bp	210bp
Adj. effective tax rate	14.7%	16.0%	17.4%	139bp	18.0%	18.0%	Obp	18.0%	20.0%	200bp	266bp	61bp	200bp
Net margin	26.8%	27.0%	28.3%	133bp	28.5%	29.1%	61bp	30.5%	30.1%	-40bp	151bp	78bp	97bp
Net margin - non-GAAP	30.5%	30.0%	30.7%	68bp	31.2%	31.6%	49bp	32.8%	32.3%	-48bp	14bp	98bp	63bp
Active clients - EOP (th)	3,877	4,177	4,191	0%	4,577	4,591	0%	4,977	4,991	0%	8%	10%	9%
Net client adds (th)	461	300	314	5%	400	400	0%	400	400	0%	-32%	27%	0%
Total AUC - EOP (R\$bn)	946	1,102	1,083	-2%	1.277	1,257	-2%	1,459	1,438	-1%	15%	16%	14%
Inflows (R\$bn)	148	116	96	-18%	128	128	0%	128	128	0%	-35%	34%	0%
Revenue yield	1.15%	1.12%	1.13%	2bp	1.11%	1.17%	6bp	1.15%	1.20%	5bp	-2bp	3bp	4bp
Course: DofA Clobal Dosoarch act	imates												

Source: BofA Global Research estimates

of A GLOBAL RESEARCH

Earnings sensitivity

We estimate revenue growth of 15% in 2024E, assuming monthly net inflows of R\$11bn and 4bp pick-up in revenue yield (reflecting improved AUC mix and successful development of banking verticals). Our estimates yield an EBT margin of 29.7% and net income of R\$4.7bn, for growth of 18%.

However, if inflows return to the top-end of management's medium-term guidance range of R\$10-15bn, and retail revenue yield rises almost 10bp instead (on better AUC mix, and faster growth of new revenue verticals) then our revenue growth estimate would exceed 20%. Considering EBT margin close to the top of management's medium-term guidance range of 26-32%, net income would grow to R\$5.2bn (30% growth in '24E).

Conversely, if i) inflows remain weak (R\$7bn/month), close to current levels (in light of already high market share and a more competitive industry), and ii) revenue yield fails to improve (due to competition), then our revenue growth would be closer to 10% (vs base case of 15% and bullish case of 20%). Considering EBT margin closer to the low-end of management's guidance range, we estimate net income estimate of R\$4.2bn, suggesting only marginal growth from '23E.

Exhibit 6: Net revenues sensitivity to revenue yield and monthly inflows (R\$bn) - '24E

We estimate revenues of R\$16.2bn in '24, considering net monthly inflow of R\$11bn (R\$8bn in '23E) and revenue yield of 1.17% (1.13% in '23E)

		Monthly net inflows (R\$bn)							
		7	9	11	13	15			
<u>p</u>	1.11%	15,267	15,393	15,519	15,645	15,771			
Yie	1.14%	15,594	15,723	15,853	15,982	16,112			
rev. Yield	1.17%	15,920	16,053	16,186	16,319	16,452			
Retail	1.22%	16,465	16,603	16,742	16,880	17,019			
R	1.27%	17,009	17,153	17,298	17,442	17,586			

Source: BofA Global Research estimates

BofA GLOBAL RESEARCH

Exhibit 7: Net revenue growth sensitivity to revenue yield and monthly inflows (R\$bn) - '24E

We estimate revenue growth of 15% in '24, considering net monthly inflow of R\$11bn (R\$8bn in '23E) and revenue yield of 1.17% (1.13% in '23E)

			Monthly net inflows (R\$bn)						
		7	9	11	13	15			
Ъ	1.11%	8%	9%	10%	11%	12%			
yiel	1.14%	11%	12%	12%	13%	14%			
rev. yield	1.17%	13%	14%	15%	16%	17%			
Retail r	1.22%	17%	18%	19%	20%	21%			
æ	1.27%	21%	22%	23%	24%	25%			

Source: BofA Global Research estimates

Exhibit 8: Net income sensitivity to revenue growth and EBT margin - '24E

We estimate net income of R\$4.7bn in '24, considering revenue growth of 15% (6% in '23E) and EBT margin of 30% (29% in '23E)

				EBT margin		
		28%	29%	30%	31%	32%
£	5%	4,013	4,158	4,302	4,447	4,592
Š.	10%	4,204	4,356	4,508	4,659	4,811
Revenue growth	15%	4,396	4,554	4,713	4,871	5,030
/eni	20%	4,587	4,752	4,918	5,083	5,249
Re	25%	4,778	4,951	5,123	5,296	5,468

Source: BofA Global Research estimates / Note: GAAP net income

BofA GLOBAL RESEARCH

Exhibit 9: Net income growth sensitivity to revenue growth and EBT margin - '24E

We estimate net income growth of 18% in '24, considering revenue growth of 15% (6% in '23E) and EBT margin of 30% (29% in '23E)

				EBT margin		
		28%	29%	30%	31%	32%
£	5%	0%	4%	8%	11%	15%
Vo.	10%	5%	9%	13%	17%	20%
Revenue growth	15%	10%	14%	18%	22%	26%
/eni	20%	15%	19%	23%	27%	31%
Re	25%	20%	24%	28%	33%	37%

Source: BofA Global Research estimates / Note: GAAP net income

Raising our PO to \$29

We increase our PO to \$29 from \$16, as we now apply a target P/E multiple of 17x (up from 13x before) to our '24 net income estimates (vs '23E before). Our new PO is just above the IPO level (\$27), when assets under custody were 60% smaller. Our PO suggests 21% upside potential, and we upgrade the stock to Buy.

Exhibit 10: Fair value/share sensitivity to earnings and target P/E

We reach a PO of US\$29, considering NI of R\$4.7bn and target P/E of 17x

		Net income (R\$bn)							
		4.4	4.6	4.7	4.9	5.0			
لنإ	13	20	21	22	23	23			
t P/E	15	24	24	25	26	27			
target	17	27	28	29	30	31			
4E të	19	30	31	32	33	34			
77	21	33	34	35	37	38			

Source: BofA Global Research estimates / Note: GAAP net income

BofA GLOBAL RESEARCH

Exhibit 11: Upside sensitivity to earnings and target P/E Our PO suggests 25% upside

			Net income (R\$bn)							
		4.4	4.6	4.7	4.9	5.0				
ш	13	-14%	-11%	-8%	-5%	-2%				
t P/	15	-1%	3%	6%	10%	14%				
24E target P/E	17	13%	17%	21%	25%	29%				
TT 53	19	26%	30%	35%	39%	44%				
24	21	39%	44%	49%	54%	59%				

Source: BofA Global Research estimates / Note: GAAP net income

RofA GLOBAL RESEARCH

Putting our target multiple into perspective

XP re-rated from 8x to 14x 12m forward P/E in only three months, as capital market stocks (and XP in particular) started to re-rate as the Market started to price in the benefits from an easing cycle on earnings momentum. Despite such impressive rerating, we believe there is further room for multiple expansion and use a target P/E multiple of 17x to derive our PO, which is the mid-point between what we think are the bottom and peak fair multiples.

Our target multiple reflects our view that XP should not trade below 12-13x P/E in an easing cycle, considering that it traded at an average P/E multiple of 12x during the tightening cycle, and SCHW (XP's closest comp) trades at 13x, although it provides lower



long-term growth potential given the more mature nature of the US market. However, we do not think that XP should trade above 19x P/E, considering that it was valued at c.19x during Itaú's acquisition of shares and XP's private transactions, when earnings expanded at a much stronger pace. The company is now expected to deliver softer earnings growth and competition is much stronger (limiting potential market share gains and pressuring revenue yield).

Exhibit 12: XP historical 12m forward P/E

We believe XP should trade at 17x, premium to SCHW, but still below historical levels given weaker earnings growth

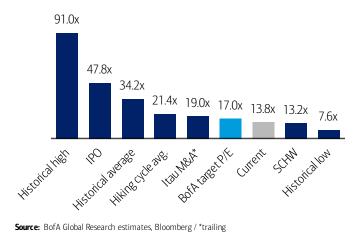
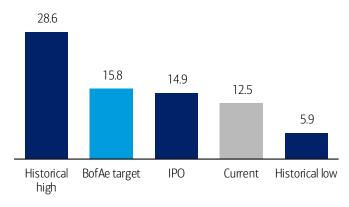


Exhibit 13: XP historical market cap (US\$bn)

Our PO suggests market cap below historical highs and IPO levels



Source: BofA Global Research estimates, Bloomberg

BofA GLOBAL RESEARCH

Acquisition of Modal could be EPS neutral

BofA GLOBAL RESEARCH

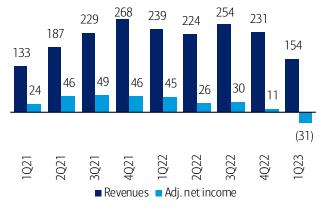
Modal's AUC and earnings have been on a significant downtrend since the deal with XP was announced in January '22, as the business is highly exposed to equity trading and capital markets activity. Modal's net income of R\$36mn in LTM declined c.80% and represented only c.1% of XP's, down from 5%. Meanwhile, XP is to issue c.3.5% more shares for the transaction, which makes the deal 2% dilutive in the absence of any cost or revenue synergies in '24. (This is a sharp contrast to our origination expectation for the deal to be 3% accretive at the time of the announcement).

However, we see significant potential cost synergies, as both companies operate very similar businesses. We estimate that most opportunities are concentrated on personnel, third-party and marketing expenses. Assuming a 50% reduction in Modal's expense base in '24E, we estimate the deal to be EPS Neutral. However, we think the transaction could also bring some revenue synergies, especially as XP's more robust product offering could be cross-sold to Modal's client base (not reflected on our estimates).



Exhibit 14: Modal revenues and adj. net income evolution

Revenues returned to '21 levels

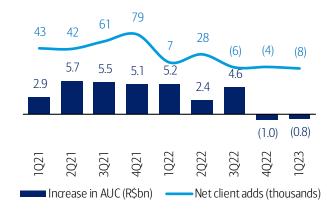


Source: Company

BofA GLOBAL RESEARCH

Exhibit 15: Modal AUC and clients' evolution

Modal lost AUC and clients in the last two quarters



Source: Company

BofA GLOBAL RESEARCH

Exhibit 16: Modal + XP (without synergies)

We estimate that the deal is 2% dilutive to XP, excluding synergies

XP net income '24E	4,713
XP shares outstanding (mn)	544
XP EPS	8.67
XP shares issued (mn)	18.7
Modal net income '24E	65
Pro-forma net income	4,778
Pro-forma shares outs.	562.5
Pro-forma EPS	8.49
Accretion/ (Dilution)	-2%

Source: BofA Global Research estimates

BofA GLOBAL RESEARCH

Exhibit 17: Modal + XP (including cost synergies)

We estimate the deal is EPS Neutral, including potential cost synergies

Potential synergies	
SG&A (50% savings)	181
Total pre-tax	181
Total synergies after tax	49
Pro-forma net income with synergies	4,851
Pro-forma EPS with synergies	8.62
Accretion/ (Dilution)	0%
Source: BofA Global Research estimates	
	BofA GLOBAL RESEARCH

Acronyms

AUC: assets under custody

BBG: Bloomberg

BCB: Brazilian Central Bank

DCM: debt capital markets

ECM: equity capital markets

SCHW: Charles Schwab (SCHW US)

Price objective basis & risk

XP Inc. (XP)

Our PO of \$29 is based on a target P/E multiple of 17x our '24 GAAP EPS estimate of \$1.68. Our target multiple is the midpoint of multiples during a high-rate environment and recent M&A transactions.

Downside risks are: 1) increased competition from incumbents and new players may lead to margin pressure, and limit XP's growth and profitability, 2) all of XP's revenues are denominated in BRL, and thus are vulnerable to FX volatility, and 3) potential share overhang as Itausa divests its stake.

Upside risks are: 1) continued growth of AUC as it gains share from incumbent banks, which should support solid growth over the medium to long-term, 2) the development of new banking products such as credit cards, credit, insurance, and pension, which could support revenue growth.

Analyst Certification

We, Mario Pierry, Antonio Ruette and Flavio Yoshida, 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.

Latin America - Financials Coverage Cluster

Investment rating	Company	Bof A Ticker	Bloomberg symbol	Analyst
BUY				
	ABC Brasil	XBABF	ABCB4 BZ	Flavio Yoshida
	B3	XIMAF	B3SA3 BZ	Mario Pierry
	B3	BOLSY	BOLSY US	Mario Pierry
	Banco do Brasil	XBBAF	BBAS3 BZ	Mario Pierry
	Banco do Brasil	BDORY	BDORY US	Mario Pierry
	Banorte	GBOOF	GFNORTEO MM	Mario Pierry
	Banorte	GBOOY	GBOOY US	Mario Pierry
	Bci	BZCIF	BCICI	Ernesto Gabilondo
	BTG Pactual	XNXCF	BPAC11 BZ	Flavio Yoshida
	Caixa Seguridade	XDXUF	CXSE3 BZ	Mario Pierry
	Cielo	CIOXF	CIEL3 BZ	Mario Pierry
	Cielo	CIOXY	CIOXY US	Mario Pierry
	ClearSale	XZUOF	CLSA3 BZ	Flavio Yoshida
	Credicorp Ltd	BAP	BAP US	Ernesto Gabilondo
	Gentera	CMPRF	GENTERA* MM	Ernesto Gabilondo
	Grupo BMV	BOMXF	BOLSAA MM	Ernesto Gabilondo
	IFS	IFS	IFS US	Ernesto Gabilondo
	Inter	XBZIF	INBR32 BZ	Mario Pierry
	Inter	INTR	INTR US	Mario Pierry
	PagSeguro Digital Ltd	PAGS	PAGS US	Mario Pierry
	Porto Seguro	PSGUF	PSSA3 BZ	Mario Pierry
	Regional	RGNLF	RA MM	Ernesto Gabilondo
	XP Inc.	XP	XP US	Mario Pierry
NEUTRAL				
	Bajio	BBAJF	BBAJIOO MM	Ernesto Gabilondo
	Banrisul	XGRBF	BRSR6 BZ	Flavio Yoshida
	BB Seguridade	XBDPF	BBSE3 BZ	Mario Pierry
	BB Seguridade	BBSEY	BBSEY US	Mario Pierry
	Bradesco	BRDPF	BBDC4 BZ	Mario Pierry
	Bradesco -A	BBD	BBD US	Mario Pierry
	Itau Unibanco	ITUBF	ITUB4BZ	Mario Pierry
	Itau Unibanco	ITUB	ITUB US	Mario Pierry
	Nubank	NU	NU US	Mario Pierry



Latin America - Financials Coverage Cluster

Investment rating	Company	Bof A Ticker	Bloomberg symbol	Analyst
	Qualitas	QUCOF	Q* MM	Ernesto Gabilondo
	StoneCo	STNE	STNE US	Mario Pierry
UNDERPERFORM				
	Banco Chile-ADR	BCH	BCH US	Ernesto Gabilondo
	Banco de Chile	XHNDF	CHILE CI	Ernesto Gabilondo
	Banco Macro	BMA	BMA US	Ernesto Gabilondo
	Banco Macro	BCVMF	BMA AR	Ernesto Gabilondo
	Banco Santander Chile	BSAC	BSAC US	Ernesto Gabilondo
	Banco Santander Chile	XLDTF	BSAN CI	Ernesto Gabilondo
	GFInbur	GPFOF	GFINBURO MM	Ernesto Gabilondo
	Grupo Financiero Galicia	GGAL	GGAL US	Ernesto Gabilondo
	Grupo Financiero Galicia	GGABF	GGAL AR	Ernesto Gabilondo
	Santander Brasil	XCBDF	SANB11 BZ	Mario Pierry
	Santander Brasil	BSBR	BSBR US	Mario Pierry
	Supervielle	SUPV	SUPV US	Ernesto Gabilondo
	Supervielle	XAZFF	SUPV AR	Ernesto Gabilondo
RSTR				
	Bancolombia	CIB	CIB US	Ernesto Gabilondo
	Bancolombia	XAFFF	PFBCOLO CB	Ernesto Gabilondo

*Q*method ^{su} Measures Definitions

flow statements for companies covered by BofA Global Research.

Numerator

Business Performance

Return On Capital Employed	NOPAT = (EBIT + Interest Income) \times (1 - Tax Rate) + Goodwill Amortization	Total Assets — Current Liabilities + ST Debt + Accumulated Goodwill
		Amortization
Return On Equity	Net Income	Shareholders' Equity
Operating Margin	Operating Profit	Sales
Earnings Growth	Expected 5 Year CAGR From Latest Actual	N/A
Free Cash Flow	Cash Flow From Operations – Total Capex	N/A
Quality of Earnings	Numerator	Denominator
Cash Realization Ratio	Cash Flow From Operations	Net Income
Asset Replacement Ratio	Capex	Depreciation
Tax Rate	Tax Charge	Pre-Tax Income
Net Debt-To-Equity Ratio	Net Debt = Total Debt — Cash & Equivalents	Total Equity
Interest Cover	EBIT	Interest Expense
		·
Valuation Toolkit	Numerator	Denominator
Price / Earnings Ratio	Current Share Price	Diluted Earnings Per Share (Basis As Specified)
Price / Book Value	Current Share Price	Shareholders' Equity / Current Basic Shares
Dividend Yield	Annualised Declared Cash Dividend	Current Share Price
Free Cash Flow Yield	Cash Flow From Operations – Total Capex	Market Cap = Current Share Price × Current Basic Shares
Enterprise Value / Sales	EV = Current Share Price × Current Shares + Minority Equity + Net Debt +	Sales
,	Other LT Liabilities	

Denominator

EV/EBITDA Enterprise Value Basic EBIT + Depreciation + Amortization

Momethod SM is the set of BofA Global Research standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and validations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

Modatabase is our real-time global research database that is sourced directly from our equity analysts' earnings models and includes forecasted as well as historical data for income statements, balance sheets, and cash

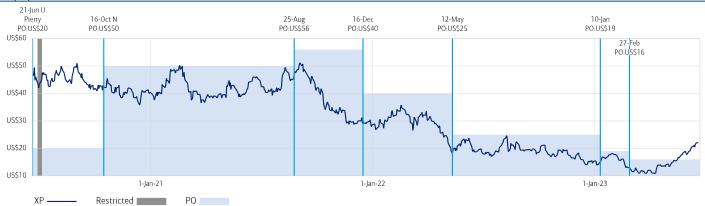
IQprofile SM, IQmethod SM are service marks of Bank of America Corporation. IQdatabase *is a registered service mark of Bank of America Corporation.



Disclosures

Important Disclosures

XP Inc. (XP) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

Equity Investment Rating Distribution: Financial Services Group (as of 31 Mar 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	152	52.41%	Buy	92	60.53%
Hold	73	25.17%	Hold	44	60.27%
Sell	65	22.41%	Sell	41	63.08%

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

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	1869	53.01%	Buy	1030	55.11%
Hold	827	23.45%	Hold	476	57.56%
Sell	830	23.54%	Sell	389	46.87%

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

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

Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
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: XP Inc.

BofAS or an affiliate was a manager of a public offering of securities of this issuer within the last 12 months: XP Inc.

The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one or more of its affiliates: XP Inc.

BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: XP Inc.

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: XP Inc.

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: XP Inc. 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: XP Inc.

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: XP Inc.

BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America



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

Other Important Disclosures

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

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

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

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

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

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

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

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

This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSFC; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rul

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. 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 2023 Bank of America Corporation. All rights reserved. iQdatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities. Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public inform

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

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

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

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

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

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

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

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

