BofA SECURITIES

Blackstone

4Q23E: Alt fundamentals broadly inflecting and should improve in 2024

Reiterate Rating: BUY | PO: 146.00 USD | Price: 124.66 USD

Alt fundamentals inflected and should improve in 2024

We look for fundraising, investing, returns and realizations to all broadly improve for BX and the Alts in 2024. This view is supported by the macro backdrop which includes (1) lower interest rates, (2) an acceleration in M&A and IPO activity and (3) a rebound in financial markets liquidity. BX's President reinforced this view on the call with three conclusions: real estate values are bottoming, momentum in private wealth channel is building and investment activity has picked up across all asset classes.

Expect BREIT limits to end by March

We initially thought that there could be some reaction to the negative 4Q23 performance. However, BX now expects limits to end in 1Q24 which was more bullish than our assumption (mid-2024). In December, BREIT's redemption requests were 80% lower than January. We continue to expect a significant increase in sales following the end of limits. BREIT saw \$9B of peak sales in 1Q22 and our channel checks indicate that there is significant pent-up demand for Alts and BREIT in the private wealth channel, but gatekeepers want to make sure that the period of limits are over first.

Reducing 2024 EPS but raising 2025-26 & PO

We lowered our 2024 EPS (\$4.82 from \$5.09) due to a 1-quarter delay to BREIT's FRPR return while we raised our 2025/26 EPS (\$6.53/\$7.61 from \$6.48/\$7.52) due to increases to our deployment and fundraising forecasts. Our PO increases to \$146 (21% total return potential) from \$135 (still applying 22.5x our '26 cash EPS estimate) due in part to a lower stock-based comp assumption. Our cash earnings definition is ~20% lower than DE as it excludes stock-based comp (our standard valuation method for the Alts).

Reiterate Buy – expect growth acceleration in '24

We are bullish on 2024 given: (1) improving retail net flows (BREIT: end of limits, BXPE ramp) and (2) Fed rate cuts in 2H24 - benefiting BX's real estate and private equity businesses. BofA's economists forecast Fed rate cuts in 2024 and BX has visibility into declining inflation via its portfolio companies (and doesn't expect a significant pick-up in credit losses). The secular growth trajectory of private assets and BX's deep/diverse product and distribution effort (especially in insurance & retail) provide a tailwind from general partner consolidations which support our long-term Buy thesis.

Estimates (Dec) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	5.17	3.94	4.82	6.53	7.61
GAAP EPS	9.98	7.97	9.19	11.93	13.55
EPS Change (YoY)	8.6%	-23.8%	22.3%	35.5%	16.5%
Consensus EPS (Bloomberg)			5.12	6.14	6.91
DPS	4.40	3.35	4.10	5.55	6.47
Valuation (Dec)					
P/E	24.1x	31.6x	25.9x	19.1x	16.4x
GAAP P/E	12.5x	15.6x	13.6x	10.4x	9.2x
Dividend Yield	3.5%	2.7%	3.3%	4.5%	5.2%

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Refer to important disclosures on page 8 to 10. Analyst Certification on page 6. Price
Objective Basis/Risk on page 6.

Timestamp: 25 January 2024 03:36PM EST

25 January 2024

Equity

Key Changes		
(US\$)	Previous	Current
Price Obj.	135.00	146.00
2024E Rev (m)	12,745.6	12,032.7
2025E Rev (m)	15,775.9	16,041.4
2026E Rev (m)	18,231.9	18,566.0
2024E EPS	5.09	4.82
2025E EPS	6.48	6.53
2026E EPS	7.52	7.61
2024E DPS	4.33	4.10

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Stock Data

Price	124.66 USD
Price Objective	146.00 USD
Date Established	25-Jan-2024
Investment Opinion	B-1-7
52-Week Range	76.19 USD -133.53 USD
Mrkt Val / Shares Out (mn)	94,115 USD / 755.0
Free Float	99.0%
Average Daily Value	487.29 USD
BofA Ticker / Exchange	BX / NYS
Bloomberg / Reuters	BX US / BX.N
ROE (2024E)	0.5%
ESGMeter™	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

iQprofile[™]Blackstone

Economic Income (Dec)	2022A	2023A	2024E	2025E	2026E
(US\$ Millions)					
Management fees	6,283	6,663	7,377	8,659	9,774
Other fees	1,449	859	1,304	1,815	1,685
Total fee-related revenue	7,732	7,522	8,682	10,474	11,459
Performance fees	4,461	2,061	3,197	5,389	6,895
Total revenue	12,590	9,694	12,033	16,041	18,566
Base compensation expense	(2,331)	(2,088)	(2,376)	(2,799)	(2,976)
Non-compensation expense	(989)	(1,084)	(1,241)	(1,358)	(1,431)
Total fee-related expenses	(3,320)	(3,172)	(3,617)	(4,158)	(4,408)
Performance fee compensation	(1,814)	(896)	(1,409)	(2,378)	(3,003)
Total expenses	(4,352)	(3,109)	(4,238)	(5,700)	(6,525)
Total fee-related earnings	4,413	4,349	5,065	6,317	7,051
Distributable earnings	8,207	6,691	7,832	10,404	12,081
Taxes	(792)	(671)	(795)	(1,126)	(1,379)
After tax distributable earnings	3,840	2,975	3,690	5,077	6,008
Distributable earnings per share	5.17	3.94	4.82	6.53	7.61
Distribution per share	4.40	3.35	4.10	5.55	6.47
Assets Under Management					
Assets under Management - EOP	974,673	1,040,192	1,152,541	1,285,086	1,423,820
Fee Paying AUM	718,387	762,608	878,000	994,048	1,111,190

Company Sector

Asset Management

Company Description

Blackstone is the largest alternative asset manager globally. Blackstone manages investments and provides services across four operating segments, including Private Equity, Real Estate, Credit, and Hedge Fund Solutions. Blackstone has offices worldwide and is headquartered in New York. Blackstone was founded in 1985 and publicly listed on the NYSE in 2007.

Investment Rationale

We think the BX stock remains undervalued as its three- to five-year earnings growth trajectory and earnings quality transformation is still underappreciated. This is supported by significant growth potential in its retail and insurance businesses.

Quarterly Earnings Estimates

	2023	2024
Q1	0.97A	1.01E
Q2	0.93A	1.09E
Q3	0.94A	1.21E
Q4	1.11A	1.52E



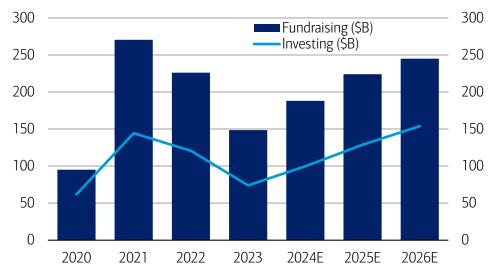
Additional details

Alt fundamentals bottomed and should improve in '24

Following the Fed rate hikes since 2021 and the 2022 bear market, we believe Alt fundamentals have broadly troughed in 2023 and should improve in 2024. This is supported by BX's deployment levels which likely bottomed in 1Q23 and realization levels which we think reached its floor in 3Q23. The bull market that emerged in 2023 in addition to the prospects of lower interest rates in 2024 should stimulate financial market liquidity and trigger Alt fundamentals to broadly reaccelerate. This should lead to higher FRE and distributable earnings. On the call, BX reinforced our view with three conclusions: real estate values are bottoming, momentum in private wealth channel is building and investing activity has picked up across all asset classes.

Exhibit 1: Fundraising vs. Investing

We believe 2023 was the inflection point in Alt fundamentals; Expect broad increases in 2024



Source: Company reports, BofA Global Research

BofA GLOBAL RESEARCH

Investment pipeline is building; Deployments +160% q/q

On his TV interview from Davos last week, BX CEO Steve Schwarzman highlighted the rebound in investment activity which included six large investments that were announced or closed since mid-December. Our Investment Tracker (Examiner database) highlights two public-to-privates (Rover, Adevinta) and four other transactions (Sony Payment Services, Power Grid Components, Energy Exemplar, and Civica) and Power Grid Components already closed in late December. In real estate, BX announced three large investments: Tricon Residential, Digital Realty partnership (data centers) and the joint venture with the FDIC (1st mortgage portfolio from Signature).

Expect BREIT limits to end by March post COO comments

While we initially thought that there could be some reaction to the negative 4Q23 performance which could cause BREIT redemptions to rise modestly in January, we are more confident that BREIT's limits will end earlier post the 4Q23 earnings call. Specifically, BX's President commented that they expect BREIT's limits to end in 1Q24, and given BX has better insight into intra-month redemption trends than we do, we are now more positive on the redemption levels. In December 2023, BREIT received \$1.1B in requests which was 80% lower than January and 41% lower m/m. BREIT is also able to handle all redemption requests within 2-3 months now. In any case, we expect to see a significant increase in sales levels following the end of limits. BREIT saw \$9B of peak sales in 1Q22 and our channel checks indicate that there is significant pent-up demand



for Alts and BREIT in the private wealth channel, but gatekeepers want to make sure that the period of limits are over first.

Exhibit 2: BREIT AuM roll-forward

Redemptions peaked in January and have continued to improve q/q through December; we estimate the limits will end in 1Q24 followed by COO's comments today.

	2023											2023	2024											2024
(\$M)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
BofP NAV	68,524	71,267	70,489	69,742	68,602	67,710	67,759	67,318	66,664	65,964	64,178	62,015	60,742	60,561	60,411	60,374	60,443	60,610	60,871	61,310	61,976	62,948	64,349	65,916
Sales	4701	161	715	175	118	122	130	121	129	119	116	115	143	150	165	182	200	220	329	494	741	1,112	1,223	1,345
DRIP	96	93	92	90	90	90	89	88	85	84	84	84	168	85	85	85	85	85	85	85	85	85	85	85
Redemption Requests	5,482	3,900	4,500	4,500	4,400	3,800	3,700	3,000	2,100	2,200	1,800	1,100	1,100	990	891	802	722	650	585	526	474	426	384	345
% of NAV	8.0%	5.5%	6.4%	6.5%	6.4%	5.6%	5.5%	4.5%	3.2%	3.3%	2.8%	1.8%	1.8%	1.6%	1.5%	1.3%	1.2%	1.1%	1.0%	0.9%	0.8%	0.7%	0.6%	0.5%
Redemptions Filled	1,370	1,400	666	1,300	1,300	628	1,300	1,300	625	1,300	1,200	569	1,100	990	891	802	722	650	585	526	474	426	384	345
% of NAV	2.0%	2.0%	0.9%	1.9%	1.9%	0.9%	1.9%	1.9%	0.9%	2.0%	1.9%	0.9%	1.8%	1.6%	1.5%	1.3%	1.2%	1.1%	1.0%	0.9%	0.8%	0.7%	0.6%	0.5%
% of redemptions filled	25%	36%	15%	29%	30%	17%	35%	43%	30%	59%	67%	52%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Net flow	3,426	(1,146)	140	(1,034)	(1,092)	(416)	(1,081)	(1,091)	(411)	(1,097)	(1,000)	(370)	(788)	(755)	(641)	(535)	(437)	(345)	(170)	53	353	771	924	1,085
Organic Growth	5.0%	-1.6%	0.2%	-1.5%	-1.6%	-0.6%	-1.6%	-1.6%	-0.6%	-1.7%	-1.6%	-0.6%	-1.3%	-1.2%	-1.1%	-0.9%	-0.7%	-0.6%	-0.3%	0.1%	0.6%	1.2%	1.4%	1.6%
Ann. Organic Growth	60.0%	-19.3%	2.4%	-17.8%	-19.1%	-7.4%	-19.2%	-19.4%	-7.4%	-20.0%	-18.7%	-7.2%	-15.6%	-15.0%	-12.7%	-10.6%	-8.7%	-6.8%	-3.4%	1.0%	6.8%	14.7%	17.2%	19.8%
Mark	-0.3%	0.7%	-1.1%	0.1%	0.6%	0.9%	1.2%	0.9%	-0.2%	-1.0%	-1.6%	-1.3%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
EofP NAV	71,267	70,489	69,742	68,602	67,710	67,759	67,318	66,664	65,964	64,178	62,015	60,742	60,561	60,411	60,374	60,443	60,610	60,871	61,310	61,976	62,948	64,349	65,916	67,661

Source: Company reports, BofA Global Research

BofA GLOBAL RESEARCH

Management fee math on flagship near-term fundraises

BX has raised 80% of its \$150B flagship fundraising target but more than 50% of the \$150B has yet to see its management fees turn on. A lot of these fees will turn on in 2H24 which is why we expect to see a big step-up in management fees and FRE in 2H24-1H25.

- BREP X is fully in the management fee run rate and the BREP IX step-down (removes dry powder) has already occurred.
- BREP Europe and its \$5B has entered FE AuM and was activated in late 3Q. It's in its fee holiday period but will see its fees turn on in 1Q24.
- BCP IX will likely start its activation period in 1Q24 and after a 4-month fee
 holiday will see its full fees turn on in 3Q24. However, BCP VIII will see a step
 down in fees by 25bps as its fee will be generated on invested capital (versus
 committed). BX's revised target for BCP IX is in the low \$20B range (similar to
 APO's Fund X) and it has raised \$18B to date.
- BX is raising several smaller funds (energy transition, growth equity, infra secondaries) which will impact fees in 2H24 and in 2025 we anticipate raises in GP stakes and life sciences.

FRPR Math

BX has many vehicles that generate FRPR. This includes BREIT, BPP, BCRED, Infra, BXMT and BXSL. We are still expecting a big acceleration in FRPR in 2H24.

- **BREIT:** We apply a 50% probability that BREIT will generate a normal performance fee in 3Q24 and a 100% for 4Q24. 3Q24 Calc = 50% x \$63B x 2% x 12.5% = \$79M
- Infra: Its next big crystallization will be in 4Q24 which is the three-year anniversary from its last big crystallization and 6 years after its first big raise. We then estimate the 4Q24 FRPR level at 40% higher than the 4Q21 level (\$300M). In 2025, we estimate small quarterly FRPR levels as new capital raised switched out of the 3Y calc. Given that Infra has generated a 17% net IRR, Infra's FRPR should be significantly larger than its 4Q21 level. Infra's net accrued carry was \$333M net / \$555M gross as of 12/31/23 which signals that the 4Q24 FRPF could be sizable.



- **BPP:** We estimate 3Q25 will be the next big FRPR quarter for BPP given the crystallization of its Mileway vehicle. BPP's net accrued carry balance was \$129M / \$215M gross as of 12/31/23 and we estimate most of this is from Mileway.
- Others: BCRED should generate FRPR every quarter based on its portfolio's yield and asset base both are rising (we apply 3% q/q growth) while future Fed rate cuts will reduce this FRPR level too. BXSL is BX's public BDC and is much smaller than BCRED, but its FRPR should track a similar trajectory. BXMT's FRPR is small but generates a consistent level around \$16M.

The LT bull case for BX, BREIT & retail Alts

The TAM of global retail AuM is \$80Tn and the level investing in Alts is 1-2% relative to 20% in the more sophisticated institutional channel. While both channels are reallocating into Alts, the potential upside is much higher in retail. Additionally, the competitive landscape is very different with many large, mid, and small competitors in the institutional channel versus a single category winner (BX) in retail and no close peers. We believe there will be a much smaller group of winners in the retail channel too. Many Alts are now focused on retail, but BX had a 10Y first mover advantage and its distribution size is much larger. Relative to BREIT's \$61B AuM base, the 2nd biggest player is SREIT (Starwood Real Estate Investment Trust) with \$10B AuM (BX is 6x bigger).

EPS not most important earnings day factor for Alts

We don't view EPS as one of the most important factors on the day of earnings as we continue to evaluate Alt quarters through the lenses of our four Examiner data bases (1. Fundraising, 2. Investing, 3. Returns and 4. Realizations). This has been our consistent process for 12+ years. We place the most importance on fundraising which is the first stage of the Alt cycle of capital and will drive factors 2-4 in future periods in addition to LT earnings revisions. Fundraising also directly translates into FRE (fee-related earnings) which is the highest quality profit source.

Glossary:

- FRE: Fee-related earnings
- FRPR: Fee related performance revenues
- DE: Distributable earnings
- BREIT: Blackstone Real Estate Income Trust
- BCRED: Blackstone Private Credit Fund
- BPP: Blackstone Property Partners
- BXPE: Blackstone Private Equity Strategies Fund
- BXSL: Blackstone Secured Lending Fund
- BXMT: Blackstone Mortgage Trust
- AUM: Asset under management
- RE: Real estate
- CRE: Commercial real estate
- LT/NT: Long-term/near-term
- SMA: Separately managed accounts
- LTV: Loan-to-value
- APO: Apollo



Price objective basis & risk

Blackstone (BX)

Our price objective (PO) for Blackstone is \$146 and is derived from 22.5x 2026E cash earnings. Our definition of cash earnings uses the company's distributable earnings metric and adds back stock-based comp expense. Risks to our PO are a weaker macro and capital markets backdrop, legal and political risk, increased regulation and tax reform, key person risk and a unique corporate structure.

Analyst Certification

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

Special Disclosures

BofA Securities is currently acting as Financial Advisor to Blackstone Inc in connection with its proposed arrangement agreement under which Blackstone Real Estate Partners X LP together with Blackstone Real Estate Income Trust Inc will acquire Tricon Residential Inc, which was announced on Jan 19, 2024. The proposed transaction is subject to approval by shareholders of Tricon Residential Inc. This research report is not intended to provide voting advice, serve as an endorsement of the proposed transaction, or result in the procurement, withholding or revocation of a proxy.

US - Brokers, Asset Managers, & Exchanges Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	AllianceBernstein	AB	AB US	Craig Siegenthaler, CFA
	Ameriprise Financial	AMP	AMP US	Craig Siegenthaler, CFA
	Ares Management Corp	ARES	ARES US	Craig Siegenthaler, CFA
	BlackRock, Inc.	BLK	BLK US	Craig Siegenthaler, CFA
	Blackstone	BX	BX US	Craig Siegenthaler, CFA
	Blue Owl Capital	OWL	OWL US	Craig Siegenthaler, CFA
	Cboe Global Markets	CBOE	CBOE US	Craig Siegenthaler, CFA
	Interactive Brokers	IBKR	IBKR US	Craig Siegenthaler, CFA
	Intercontinental Exchange	ICE	ICE US	Craig Siegenthaler, CFA
	KKR & Co. Inc.	KKR	KKR US	Craig Siegenthaler, CFA
	Raymond James Financial	RJF	RJF US	Mark McLaughlin, CFA
	TPG Inc	TPG	TPG US	Craig Siegenthaler, CFA
	Tradeweb Markets Inc.	TW	TW US	Craig Siegenthaler, CFA
	Victory Capital Holdings, Inc.	VCTR	VCTR US	Craig Siegenthaler, CFA
	Virtu Financial	VIRT	VIRT US	Craig Siegenthaler, CFA
NEUTRAL				
REGINAL	Affiliated Managers Group	AMG	AMG US	Craig Siegenthaler, CFA
	Apollo Global Management	APO	APO US	Craig Siegenthaler, CFA
	Brookfield Asset Management	BAM	BAM US	Craig Siegenthaler, CFA
	CME Group Inc	CME	CME US	Craig Siegenthaler, CFA
	Invesco	IVZ	IVZ US	Craig Siegenthaler, CFA
	Janus Henderson Group	IHG	JHG US	Craig Siegenthaler, CFA
	LPL Financial Holdings	LPLA	LPLA US	Craig Siegenthaler, CFA
	Patria	PAX	PAX US	Craig Siegenthaler, CFA
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UNDERPERFORM				
	Charles Schwab Corp.	SCHW	SCHW US	Craig Siegenthaler, CFA
	Franklin Resources	BEN	BEN US	Craig Siegenthaler, CFA
	Nasdaq	NDAQ	NDAQ US	Craig Siegenthaler, CFA
	Robinhood Markets	HOOD	HOOD US	Craig Siegenthaler, CFA
	T. Rowe Price	TROW	TROW US	Craig Siegenthaler, CFA
	The Carlyle Group	CG	CG US	Craig Siegenthaler, CFA

US - Brokers, Asset Managers, & Exchanges Coverage Cluster

Investment rating Company BofA Ticker Bloomberg symbol Analyst

*i***@**method[™] Measures Definitions

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

Manethod 3^{ss} 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.

Related base 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 flow statements for companies covered by BofA Global Research.

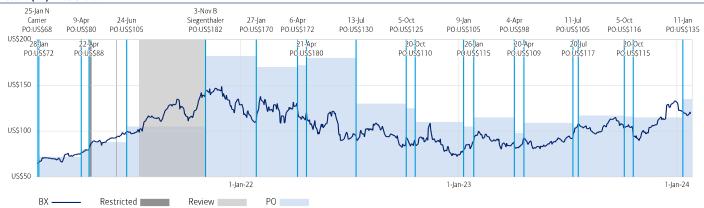
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Disclosures

Important Disclosures

Blackstone (BX) 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 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%

R1 Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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

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

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

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