

PagerDuty

Upmarket strategy working, but FY25 growth outlook soft; Reiterate Buy, \$28 PO

Reiterate Rating: BUY | PO: 28.00 USD | Price: 22.93 USD

Likely needs several quarters of consistent execution

Our long-term Buy thesis on PagerDuty, an incident response platform, remains intact following F4Q results. However, soft FY25 revenue guidance (2% below Street) and back-end loaded growth could pressure the stock until several quarters of consistent execution is achieved to get comfortable with upside potential. Positively, upmarket execution appears solid, which can be seen in remaining performance obligations (RPO) growth of 30% y/y (versus +18% last quarter). This lends support for ARR, billings, and revenue growth to potentially reaccelerate, which would be a catalyst. Update forecast for F4Q results and guidance. Reiterate Buy. Lower PO to \$28 (from \$30) for lower ests.

Noisy revenue rec change results in soft F1Q guide

A change in ratable revenue recognition to daily from monthly will impact F1Q25 revenue by approximately \$3mn, driving a soft guide which could be a hurdle. Revenue is now recognized ratably daily vs monthly shifting that revenue away from F1Q25, as the quarter has fewer days versus the others. Additionally, net revenue retention (NRR) is expected to bottom in F1Q25 at 106% and should expand from there, suggesting improving model visibility and the ability to deliver consistent results in the future.

Pos: New/expand ARR strong. Neg: NRR contracts again

Positive: New and expand ARR in F4Q was the highest all year; net-new ARR was \$13mn, \$5.1mn higher than last quarter; and net-new \$1mn+ ARR customers increased by 8 in FY24, versus +7 in FY23. This suggests improving execution in the upmarket, which exhibits higher ASPs, better retention, and greater lifetime values.

Negative: While ARR grew 10% y/y, the incident management mix shifted to 73% in FY24 from 77% in FY23, implying low single digit (LSD) core incident management growth, which could be viewed negatively because this is where PagerDuty's brand is the strongest and often serves as an entry point for future cross-sell opportunities.

\$28 PO is based on 5.4x EV/CY24E revs, 0.5x EV/R/G

This is a discount to the infrastructure software peer group that is currently trading at 8.0x EV/CY24 revenue, or 0.6x EV/R/G. We use EV/revenue multiple that is a discount to peers, and lower than our prior (was 5.8x) for its slower growth profile and soft guidance, balanced against its leadership position in the incident response category.

Estimates (Jan) (US\$)	2023A	2024A	2025E	2026E	2027E
EPS	0.04	0.73	0.66	0.79	0.90
GAAP EPS	(1.45)	(0.89)	(0.84)	(0.68)	(0.66)
EPS Change (YoY)	NM	NM	-9.6%	19.7%	13.9%
Consensus EPS (Bloomberg)			0.82	0.95	NA
DPS	0	0	0	0	0
Valuation (Jan)					
P/E	573.3x	31.4x	34.7x	29.0x	25.5x
EV / EBITDA*	529.2x	26.6x	21.6x	18.1x	15.6x
Free Cash Flow Yield*	0.7%	3.4%	4.2%	5.2%	6.0%

* For full definitions of *IQmethod*SM measures, see page 6.

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 7 to 9. Analyst Certification on page 5. Price Objective Basis/Risk on page 5.

12671088

Timestamp: 15 March 2024 09:12AM EDT

15 March 2024

Equity

Key Changes

(US\$)	Previous	Current
Price Obj.	30.00	28.00
2025E Rev (m)	474.6	474.3
2026E Rev (m)	537.2	522.3
2027E Rev (m)	NA	574.1
2025E EPS	0.82	0.66
2026E EPS	1.00	0.79
2027E EPS	NA	0.90

Koji Ikeda, CFA
Research Analyst
BofAS
+1 415 913 2106
koji.ikeda@bofa.com

George McGreehan
Research Analyst
BofAS
+1 415 913 4315
george.mcgreehan@bofa.com

Natalie Howe
Research Analyst
BofAS
+1 415 436 1103
natalie.howe@bofa.com

Stock Data

Price	22.93 USD
Price Objective	28.00 USD
Date Established	15-Mar-2024
Investment Opinion	C-1-9
52-Week Range	19.18 USD - 35.33 USD
Mrkt Val (mn) / Shares Out (mn)	2,107 USD / 91.9
Free Float	91.3%
Average Daily Value (mn)	22.15 USD
BofA Ticker / Exchange	PD / NYS
Bloomberg / Reuters	PD US / PD.N
ROE (2025E)	29.3%
Net Dbt to Eqty (Jan-2024A)	-200.0%

ARR = annual recurring revenue

ASP = average selling price

EV/R/G = enterprise value / revenue / growth

iQprofileSM PagerDuty

iQmethodSM – Bus Performance*

(US\$ Millions)	2023A	2024A	2025E	2026E	2027E
Return on Capital Employed	1.5%	13.4%	10.9%	11.6%	11.8%
Return on Equity	1.5%	35.2%	29.3%	24.6%	21.1%
Operating Margin	0.9%	13.1%	15.1%	17.0%	18.3%
Free Cash Flow	15	72	89	110	125

iQmethodSM – Quality of Earnings*

(US\$ Millions)	2023A	2024A	2025E	2026E	2027E
Cash Realization Ratio	4.6x	1.0x	1.4x	1.4x	1.4x
Asset Replacement Ratio	0.1x	0x	0x	0x	0x
Tax Rate	0.6%	0%	NM	NM	NM
Net Debt-to-Equity Ratio	-111.5%	-200.0%	-162.0%	-144.2%	-132.2%
Interest Cover	0.7x	7.0x	23.9x	44.3x	NM

Income Statement Data (Jan)

(US\$ Millions)	2023A	2024A	2025E	2026E	2027E
Sales	371	431	474	522	574
% Change	31.8%	16.2%	10.1%	10.1%	9.9%
Gross Profit	315	369	404	447	492
% Change	32.4%	17.2%	9.5%	10.6%	9.9%
EBITDA	4	80	99	118	137
% Change	NM	NM	23.4%	19.5%	15.9%
Net Interest & Other Income	1	24	9	10	10
Net Income (Adjusted)	4	73	64	78	91
% Change	NM	NM	-11.8%	21.8%	16.2%

Free Cash Flow Data (Jan)

(US\$ Millions)	2023A	2024A	2025E	2026E	2027E
Net Income from Cont Operations (GAAP)	(129)	(77)	(81)	(67)	(66)
Depreciation & Amortization	17	20	21	24	26
Change in Working Capital	(7)	(26)	(3)	(5)	(10)
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	136	156	151	159	176
Capital Expenditure	(2)	0	0	0	0
Free Cash Flow	15	72	89	110	125
% Change	NM	375.5%	23.1%	23.8%	14.4%
Share / Issue Repurchase	12	10	0	0	0
Cost of Dividends Paid	0	0	0	0	0
Change in Debt	(29)	30	0	0	0

Balance Sheet Data (Jan)

(US\$ Millions)	2023A	2024A	2025E	2026E	2027E
Cash & Equivalents	274	363	447	547	663
Trade Receivables	91	100	104	123	146
Other Current Assets	235	240	241	248	257
Property, Plant & Equipment	18	18	15	13	10
Other Non-Current Assets	199	204	215	216	226
Total Assets	818	925	1,022	1,147	1,302
Short-Term Debt	0	0	0	0	0
Other Current Liabilities	271	282	290	312	345
Long-Term Debt	4	5	6	6	7
Other Non-Current Liabilities	301	459	460	460	461
Total Liabilities	576	746	755	778	812
Total Equity	242	179	272	375	496
Total Equity & Liabilities	818	925	1,028	1,153	1,308

* For full definitions of iQmethodSM measures, see page 6.

Company Sector

Server & Enterprise Software

Company Description

PagerDuty is an incident response management platform vendor which helps organizations troubleshoot digital experience issues efficiently in order to reduce downtime and drive good end-user outcomes. Its platform is used by 27k+ enterprises, midmarkets, and SMBs around the world. The company was founded in 2009 and its headquarters are in San Francisco.

Investment Rationale

PagerDuty is a best-of-breed incident response management platform operating in a \$23bn TAM, which supports a long runway for the business to scale. With a profitable growth strategy, we expect PagerDuty's operating margins and free cash flow margins to continue expanding over the medium-term. While the company has faced macro-related demand challenges, we believe it is positioned to reaccelerate growth over the next 12 months which should catalyze shares higher.

Stock Data

Average Daily Volume 965,782

Quarterly Earnings Estimates

	2024	2025
Q1	0.19A	0.13E
Q2	0.18A	0.15E
Q3	0.20A	0.18E
Q4	0.17A	0.20E

Key Metrics

F4Q24 Performance

- Total revenue of \$111.1mn (+10.1% y/y) exceeded our/Street \$110.5mn/\$110.4mn
- Total customers of 15,039 as compared to our/Street 14,939/15,210
- ARR of \$451.9mn was higher compared to our/Street \$446.1mn/\$448.0mn
- NRR was 107%, as compared with 110% last quarter

FY25 Guidance

- FY25 revenue guidance is \$470-478mn, as compared to our/Street \$474.6mn/\$482.2mn prior
- PF EPS guidance is \$0.65-\$0.70, is below our/Street \$0.82/\$0.80

Exhibit 1: Variance

Total revenue was 0.6% higher than our prior estimate

\$ in millions			
	Actual	BofA Estimate	Variance
Total revenue	111,117	110,495	0.6%
Y/Y change %	10.1%	9.4%	62bps
Guidance	109.5-111.5		
Quarterly billings	142,859	142,904	(0.0%)
Y/Y growth %	9.6%	9.7%	(3bps)
Income (Loss) from Operations	11,016	9,392	17.3%
Operating Margin	9.9%	8.5%	141bps
Adjusted EBITDA	14,749	15,859	(7.0%)
Adjusted EBITDA margin	13.3%	14.4%	(108bps)
EPS (Pro Forma)	\$0.17	\$0.14	13.6%
Shares outstanding diluted	95,192	95,273	(0.1%)
Guidance	0.14-0.15		
Cash Flow from Operations	22,155	20,596	7.0%
OCF margin	19.9%	18.6%	130bps
Free cash flow	19,612	18,662	4.8%
FCF margin	17.6%	16.9%	76bps

Source: Company filings, BofA Global Research estimates

BofA GLOBAL RESEARCH

Exhibit 2: Estimate revisions

We now forecast FY25 revenue growth of 10.1%

	1Q25E			FY25E			FY26E			FY27E		
	New Estimate	Old Estimate	Change %	New Estimate	Old Estimate	Change %	New Estimate	Old Estimate	Change %	New Estimate	Old Estimate	Change %
Total revenue	111,004	112,522	(1.3%)	474,269	474,583	(0.1%)	522,345	537,241	(2.8%)	574,074	NA	NA
Y/Y change %	7.5%	9.0%	(147bps)	10.1%	10.3%	(23bps)	10.1%	13.2%	(307bps)	9.9%	NA	NA
Guidance	110.5-112.5			470-478								
Quarterly billings	104,159	105,657	(1.4%)	495,835	511,300	(3.0%)	543,894	572,558	(5.0%)	601,112	NA	NA
Y/Y growth %	8.5%	10.1%	(156bps)	10.2%	13.7%	(343bps)	9.7%	12.0%	(229bps)	10.5%	NA	NA
Income (Loss) from Operations	14,542	14,740	(1.3%)	71,554	71,416	0.2%	88,655	91,405	(3.0%)	105,068	NA	NA
Operating Margin	13.1%	13.1%	0bps	15.1%	15.0%	4bps	17.0%	17.0%	(4bps)	18.3%	NA	NA
Adjusted EBITDA	21,032	21,299	(1.3%)	98,876	98,752	0.1%	118,140	121,561	(2.8%)	136,881	NA	NA
Adjusted EBITDA margin	18.9%	18.9%	2bps	20.8%	20.8%	4bps	22.6%	22.6%	(1bps)	23.8%	NA	NA
EPS (Pro Forma)	\$0.13	\$0.18	(31.9%)	\$0.66	\$0.82	(24.4%)	\$0.79	\$1.00	(26.6%)	\$0.90	NA	NA
Shares outstanding diluted	96,144	95,749	0.4%	96,867	96,470	0.4%	98,819	98,413	0.4%	100,811	NA	NA
Guidance	0.12-0.13			0.65-0.70								
Cash Flow from Operations	17,245	19,634	(13.9%)	88,588	93,939	(6.0%)	109,630	117,039	(6.8%)	125,435	NA	NA
OCF margin	15.5%	17.4%	(191bps)	18.7%	19.8%	(112bps)	21.0%	21.8%	(80bps)	21.8%	NA	NA
Free cash flow	15,302	17,665	(15.4%)	80,289	85,634	(6.7%)	100,489	107,638	(7.1%)	115,389	NA	NA
FCF margin	13.8%	15.7%	(191bps)	16.9%	18.0%	(112bps)	19.2%	20.0%	(80bps)	20.1%	NA	NA



Exhibit 2: Estimate revisions
We now forecast FY25 revenue growth of 10.1%

Source: Company filings, BofA Global Research estimates

BofA GLOBAL RESEARCH



Price objective basis & risk

PagerDuty (PD)

Our \$28 PO is based on an EV/revenue multiple of 5.4x to our CY24E revenue estimate of \$474mn. The 5.4x multiple is below infrastructure peers at 8.0x, which we believe is warranted given its growth acceleration potential, large TAM and platform differentiation, balanced against execution risks. On an EV/R/G basis, the 5.4x multiple translates to 0.53x, which is below the peer group at 0.60x.

Risks to our PO: 1) decelerating growth metrics such as revenue, billings and RPO, 2) increased competition driving pricing pressure, 3) compressing NRR trends, 4) execution around its core growth strategy and international expansion, and 5) enterprise software spend can be cyclical.

Analyst Certification

I, Koji Ikeda, 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.

US - Enterprise Software Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	8x8	EGHT	EGHT US	Michael J. Funk
	Adobe	ADBE	ADBE US	Brad Sills
	Alarm.com	ALRM	ALRM US	Michael J. Funk
	Amplitude, Inc.	AMPL	AMPL US	Koji Ikeda, CFA
	Asana	ASAN	ASAN US	Michael J. Funk
	BILL	BILL	BILL US	Brad Sills
	CCC Intelligent Solutions	CCCS	CCCS US	Michael J. Funk
	Dynatrace	DT	DT US	Koji Ikeda, CFA
	Elastic NV	ESTC	ESTC US	Koji Ikeda, CFA
	GitLab Inc.	GTLB	GTLB US	Koji Ikeda, CFA
	Global-e Online Ltd.	GLBE	GLBE US	Koji Ikeda, CFA
	HubSpot	HUBS	HUBS US	Brad Sills
	Informatica Inc.	INFA	INFA US	Koji Ikeda, CFA
	Intapp Inc.	INTA	INTA US	Koji Ikeda, CFA
	Intuit	INTU	INTU US	Brad Sills
	JFrog Ltd	FROG	FROG US	Koji Ikeda, CFA
	MeridianLink, Inc.	MLNK	MLNK US	Koji Ikeda, CFA
	Microsoft Corporation	MSFT	MSFT US	Brad Sills
	Monday.com	MNDY	MNDY US	Michael J. Funk
	MongoDB Inc	MDB	MDB US	Brad Sills
	nCino, Inc.	NCNO	NCNO US	Adam Bergere
	NICE Ltd.	NICE	NICE US	Michael J. Funk
	NICE Ltd.	NCSYF	NICE IT	Michael J. Funk
	PagerDuty	PD	PD US	Koji Ikeda, CFA
	PowerSchool Holdings, Inc.	PWSC	PWSC US	Koji Ikeda, CFA
	RingCentral	RNG	RNG US	Michael J. Funk
	Salesforce.com	CRM	CRM US	Brad Sills
	ServiceNow	NOW	NOW US	Brad Sills
	UiPath	PATH	PATH US	Brad Sills
	Unity	U	U US	Michael J. Funk
	Weave	WEAV	WEAV US	Michael J. Funk
	Workday Inc.	WDAY	WDAY US	Brad Sills
	Zeta Global	ZETA	ZETA US	Koji Ikeda, CFA
	ZoomInfo	ZI	ZI US	Koji Ikeda, CFA
NEUTRAL				
	Autodesk	ADSK	ADSK US	Michael J. Funk
	Bentley Systems	BSY	BSY US	Michael J. Funk
	BigCommerce Holdings, Inc.	BIGC	BIGC US	Koji Ikeda, CFA



US - Enterprise Software Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	Coveo	YCOV	CVO CN	Koji Ikeda, CFA
	Datadog Inc	DDOG	DDOG US	Koji Ikeda, CFA
	DocuSign	DOCU	DOCU US	Brad Sills
	Freshworks, Inc.	FRSH	FRSH US	Adam Bergere
	HashiCorp	HCP	HCP US	Brad Sills
	Jamf	JAMF	JAMF US	Koji Ikeda, CFA
	Lightspeed Commerce Inc.	LSPD	LSPD US	Koji Ikeda, CFA
	Lightspeed Commerce Inc.	YLSPD	LSPD CN	Koji Ikeda, CFA
	Oracle Corporation	ORCL	ORCL US	Brad Sills
	Paycom	PAYC	PAYC US	Adam Bergere
	Paylocity	PCTY	PCTY US	Adam Bergere
	Shopify, Inc.	SHOP	SHOP US	Brad Sills
	Snowflake	SNOW	SNOW US	Brad Sills
	Veeva Systems, Inc.	VEEV	VEEV US	Brad Sills
	Vertex, Inc.	VERX	VERX US	Brad Sills
	Zoom Video Communications	ZM	ZM US	Michael J. Funk

UNDERPERFORM

	AvidXchange, Inc.	AVDX	AVDX US	Brad Sills
	Blackbaud, Inc.	BLKB	BLKB US	Koji Ikeda, CFA
	BlackLine, Inc.	BL	BL US	Koji Ikeda, CFA
	C3.ai	AI	AI US	Brad Sills
	Confluent	CFLT	CFLT US	Brad Sills
	CS Disco, Inc.	LAW	LAW US	Koji Ikeda, CFA
	Dropbox	DBX	DBX US	Michael J. Funk
	Enfusion, Inc.	ENFN	ENFN US	Koji Ikeda, CFA
	Five9	FIVN	FIVN US	Michael J. Funk
	Guidewire Software, Inc.	GWRE	GWRE US	Michael J. Funk
	Smartsheet	SMAR	SMAR US	Michael J. Funk
	Twilio	TWLO	TWLO US	Michael J. Funk

RSTR

	Splunk	SPLK	SPLK US	Brad Sills
--	--------	------	---------	------------

IQmethodSM Measures Definitions

Business Performance

Return On Capital Employed

Return On Equity
Operating Margin
Earnings Growth
Free Cash Flow

Numerator

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income
Operating Profit
Expected 5 Year CAGR From Latest Actual
Cash Flow From Operations – Total Capex

Denominator

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill
Amortization
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
Enterprise Value

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

Basic EBIT + Depreciation + Amortization

IQmethodSM 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.

IQdatabase[®] 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.

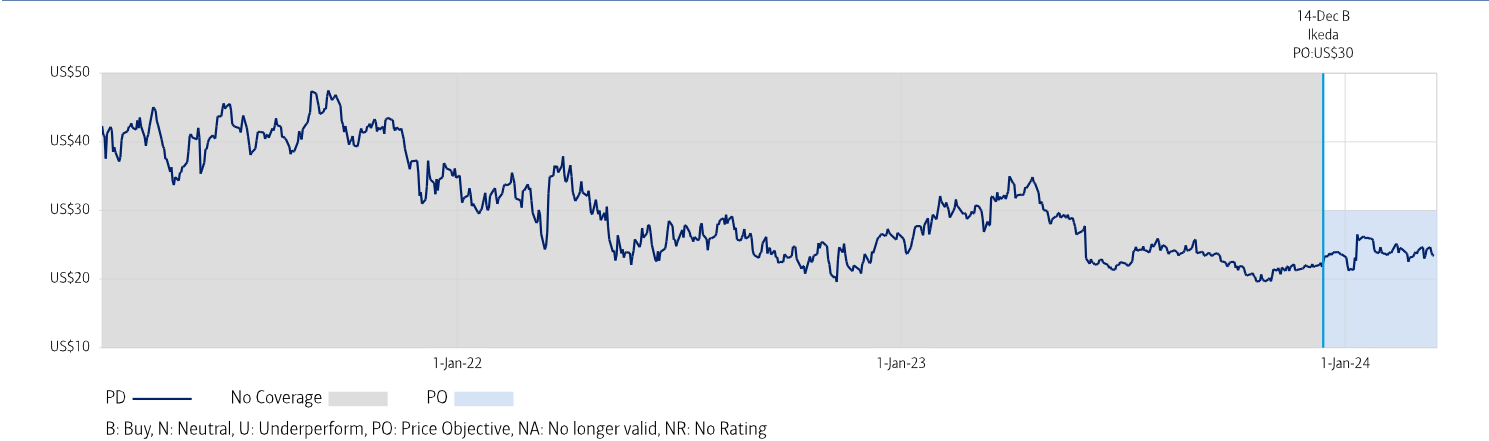
IQprofileSM, *IQmethodSM* are service marks of Bank of America Corporation. *IQdatabase[®]* is a registered service mark of Bank of America Corporation.



Disclosures

Important Disclosures

PagerDuty (PD) Price Chart



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: Technology Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	215	53.09%	Buy	111	51.63%
Hold	97	23.95%	Hold	45	46.39%
Sell	93	22.96%	Sell	24	25.81%

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

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

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

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

Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R2} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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

Price Charts for the securities referenced in this research report are available on the [Price Charts website](#), or call 1-800-MERRILL to have them mailed. BofAS or one of its affiliates acts as a market maker for the equity securities recommended in the report: PagerDuty. BofAS or an affiliate was a manager of a public offering of securities of this issuer within the last 12 months: PagerDuty. The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one or more of its affiliates: PagerDuty. BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: PagerDuty. 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: PagerDuty. BofAS or an affiliate has received compensation for investment banking services from this issuer within the past 12 months: PagerDuty. 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: PagerDuty.

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: PagerDuty.

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: PagerDuty.

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.bofam.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 (HKSF); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofAS India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

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

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

General Investment Related Disclosures:

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

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



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

This report may contain a short-term trading idea or recommendation, which highlights a specific near-term catalyst or event impacting the issuer or the market that is anticipated to have a short-term price impact on the equity securities of the issuer. Short-term trading ideas and recommendations are different from and do not affect a stock's fundamental equity rating, which reflects both a longer term total return expectation and attractiveness for investment relative to other stocks within its Coverage Cluster. Short-term trading ideas and recommendations may be more or less positive than a stock's fundamental equity rating.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned herein. Investors in such securities and instruments, including ADRs, effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information. In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

Copyright and General Information:

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 information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS or 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.