

ASML Holding N.V.

Growing confidence in '25 acceleration backed by AI; Reiterate Top Pick

Reiterate Rating: BUY | PO: 904.00 EUR | Price: 775.80 EUR

Top Pick in EU Semicaps; PO raised to €904 (\$949)

Post ASML's [blowout order intake](#) (see report) and confident call, we raise our '24E sales estimates by 3%, reflecting higher DUV units/higher EUV ASPs (see [Glossary on page 2](#)). We slightly cut our FY24E GM resulting from lower immersion systems and high NA ramp to 50.8% (prev 52%), which results in a 4.6% EPS cut to '24E. For '25E, we raise both DUV and EUV units/ASPs, driven by tech transition. We now expect ASML group sales to reach €36.3bn (12.5% increase) in FY25E, around the midpoint of its €30-40bn revenue guide. We raise our PO to €904 (\$949 for the ADR), from €760/\$798, on higher multiple (24.6x '25E EV/EBITDA vs 23x previously), reflecting better visibility on '25, multiple expansion in the sector and AI exposure. Reiterate Buy in EU semicaps.

Likes: '24 guide, '25 targets, China, High-NA, CMD

(A) ASML '24 flat sales guide is likely conservative and could eventually change (we expect 1.6% yoy) with upside coming from 1) upgrades within IBM, 2) potential demand pulled into '24, and 3) tech transition (especially in Memory) with AI ramp requiring increasing demand for Memory (HBM and DDR5). **(B)** ASML is feeling increasingly confident on its ability to deliver on its FY25 guide (€30-40bn), but with €40bn being contingent on timing of new fabs (i.e Intel EUV). It is worth noting pull-ins into '24 may mean high-end of '25 targets may not be reachable. **(C)** ASML is concerned 90 EUV units capacity for 2030 might be too low, as demand for AI requires HBM DRAM which themselves require EUV. **(D)** ASML has growing confidence in High-NA adoption beyond Intel given attractive economical model vs low-NA. High NA orders now account for "double digit" units in the backlog (we think 14). **(E)** China expected to remain resilient through '24 despite concerns post export control restrictions. **(F)** CMD as next catalyst (Nov 14th), where ASML could lift its '2030 targets given points discussed above.

Risks: lower Immersion impacting GM, booking lumpiness

(A) We note GM is likely to come down in FY24E as a result of lower immersion units in the mix and high NA ramp. **(B)** Given the lumpiness of orders, it is likely that order intake will moderate in coming quarters.

Estimates (Dec) (EUR)	2022A	2023A	2024E	2025E	2026E
EPS (Adjusted Diluted)	14.3	20.0	19.0	30.3	34.7
EPS Change (YoY)	1.9%	40.0%	-4.9%	59.4%	14.6%
Dividend / Share	5.80	6.10	7.15	7.50	7.50
ADR EPS (Adjusted Diluted - US\$)	15.0	21.6	20.6	32.8	37.6
ADR Dividend / Share (US\$)	6.10	6.60	7.75	8.12	8.12
Valuation (Dec)					
P/E	54.3x	38.8x	40.8x	25.6x	22.3x
Dividend Yield	0.75%	0.79%	0.92%	0.97%	0.97%
EV / EBITDA*	42.5x	30.9x	32.4x	21.2x	18.9x
Free Cash Flow Yield*	2.32%	1.06%	3.01%	4.04%	4.36%

* For full definitions of [IQmethodSM](#) measures, see page 5.

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Refer to important disclosures on page 6 to 9. Analyst Certification on page 4. Price Objective Basis/Risk on page 4.

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Timestamp: 24 January 2024 01:51PM EST

24 January 2024

Equity

Key Changes

(EUR)	Previous	Current
Price Obj.	760.00	904.00
2024E Rev (m)	27,152.8	28,010.7
2025E Rev (m)	32,240.3	36,266.8
2026E Rev (m)	NA	40,218.5
2024E EPS	19.93	19.01
2025E EPS	27.97	30.31
2026E EPS	NA	34.75
2024E DPS	7.00	7.15

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Stock Data

Price (Common / ADR)	775.80 EUR / 860.02 USD
Price Objective	904.00 EUR / 949.00 USD
Date Established	24-Jan-2024 / 24-Jan-2024
Investment Opinion	B-1-7 / B-1-7
52-Week Range	534.40 EUR-778.90 EUR
Market Value (mn)	305,200 EUR
Shares Outstanding (mn)	393.4 / 393.4
Average Daily Value (mn)	422.98 USD
Free Float	82.0%
BofA Ticker / Exchange	ASMLF / ENA
BofA Ticker / Exchange	ASML / NAS
Bloomberg / Reuters	ASML NA / ASMLAS
ROE (2024E)	55.8%
Net Dbt to Eqty (Dec-2023A)	-17.7%
ESGMeter™	High

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 ["BofA ESGMeter Methodology"](#).

iQprofileSM ASML Holding N.V.

Key Income Statement Data (Dec)	2022A	2023A	2024E	2025E	2026E
(EUR Millions)					
Sales	21,173	27,559	28,011	36,267	40,219
EBITDA Adjusted	7,164	9,862	9,418	14,370	16,100
Depreciation & Amortization	(584)	(740)	(777)	(816)	(857)
EBIT Adjusted	6,581	9,122	8,641	13,554	15,244
Net Interest & Other Income	(44.6)	41.2	44.0	96.0	125
Tax Expense / Benefit	(970)	(1,436)	(1,420)	(2,239)	(2,523)
Net Income (Adjusted)	5,682	7,876	7,417	11,604	13,052
Average Fully Diluted Shares Outstanding	398	394	390	383	376

Key Cash Flow Statement Data					
Net Income (Reported)	5,624	7,827	7,368	11,567	13,028
Depreciation & Amortization	584	740	777	816	857
Change in Working Capital	2,441	(3,664)	3,115	1,243	175
Deferred Taxation Charge	0	0	0	0	0
Other CFO	(162)	540	40.0	40.0	40.0
Cash Flow from Operations	8,487	5,443	11,300	13,666	14,100
Capital Expenditure	(1,319)	(2,196)	(2,200)	(1,600)	(1,300)
(Acquisition) / Disposal of Investments	290	(493)	0	0	0
Other CFI	0	0	0	0	0
Cash Flow from Investing	(1,029)	(2,689)	(2,200)	(1,600)	(1,300)
Share Issue / (Repurchase)	(4,640)	(1,000)	(5,050)	(6,550)	(6,500)
Cost of Dividends Paid	(2,560)	(2,348)	(2,657)	(2,801)	(2,817)
Increase (decrease) debt	(561)	1,117	0	0	0
Other CFF	622	(773)	0	0	0
Cash Flow from Financing	(7,138)	(3,004)	(7,707)	(9,351)	(9,317)
Total Cash Flow (CFO + CFI + CFF)	320	(250)	1,393	2,715	3,483
FX and other changes to cash	(534)	(116)	0	0	0
Change in Cash	(214)	(366)	1,393	2,715	3,483
Change in Net Debt	(347)	1,483	(1,393)	(2,715)	(3,483)
Net Debt	(3,862)	(2,379)	(3,771)	(6,486)	(9,969)

Key Balance Sheet Data					
Property, Plant & Equipment	3,944	5,493	6,916	7,700	8,144
Goodwill	4,556	4,589	4,589	4,589	4,589
Other Intangibles	842	742	742	742	742
Other Non-Current Assets	3,893	4,740	4,700	4,660	4,620
Trade Receivables	6,681	5,713	8,417	9,953	10,468
Cash & Equivalents	7,376	7,010	8,403	11,118	14,600
Other Current Assets	9,008	11,671	12,347	12,995	13,457
Total Assets	36,300	39,958	46,113	51,756	56,620
Long-Term Debt	3,514	4,632	4,632	4,632	4,632
Other Non-Current Liabilities	5,992	5,599	5,599	5,599	5,599
Short-Term Debt	0	0	0	0	0
Other Current Liabilities	17,984	16,275	22,769	26,196	27,349
Total Liabilities	27,490	26,505	33,000	36,427	37,579
Total Equity	8,811	13,452	13,113	15,329	19,041
Total Equity & Liabilities	36,300	39,958	46,113	51,756	56,620

Business Performance*					
Return On Capital Employed	30.9%	36.7%	30.8%	46.6%	46.8%
Return On Equity	60.0%	70.8%	55.8%	81.6%	75.9%
Operating Margin	30.7%	32.8%	30.6%	37.2%	37.7%
Free Cash Flow (MM)	7,168	3,247	9,100	12,066	12,800

Quality of Earnings*					
Cash Realization Ratio	1.49x	0.69x	1.52x	1.18x	1.08x
Asset Replacement Ratio	2.26x	2.97x	2.83x	1.96x	1.52x
Tax Rate	15.0%	15.8%	16.5%	16.5%	16.5%
Net Debt/Equity	-43.8%	-17.7%	-28.8%	-42.3%	-52.4%
Interest Cover	NM	NA	NA	NA	NA

* For full definitions of iQmethodSM measures, see page 5.

Company Sector

Semiconductor Capital Equipment

Company Description

ASML is the market leader in lithography tools, a critical part of the semiconductor manufacturing process enabling 'Moore's law'. The company benefits from technology transitions as well as new additions in leading edge logic and memory chip capacity. ASML currently has a market share of close to 90%, which is a monopoly in next-generation EUV lithography.

Investment Rationale

ASML has industrialised next gen EUV (Extreme Ultraviolet) lithography technology, which we believe will underpin many of the disruptive trends of this decade. Our Buy rating is predicated on 1) our long-term forecasts calling for 17% revenue CAGR and 20% EBITDA CAGR over the next four years, and 2) potential upside to ASML's 2025 targets from its Capital Markets Day in November due to reshoring and stronger industry demand.

Stock Data

Shares / ADR	1.00
Price to Book Value	23.1x

Quarterly Earnings Estimates

	2023	2024
Q1	4.98A	2.73E
Q2	4.94A	3.97E
Q3	4.83A	5.24E
Q4	5.23A	7.07E

Key Changes

(US\$)	Previous	Current
Price Obj.	798.00	949.00
2024E EPS	21.59	20.59
2025E EPS	30.30	32.83
2026E EPS	NA	37.64
2024E DPS	7.58	7.75

Changes to estimates

Exhibit 1: We now expect ASML group sales to reach €36.3bn (12.5% increase) in FY25E, at the higher end of its €30-40bn revenue guide

ASML changes to estimates table, FY23-25E

€m	2023E			2024E			2025E		
	Old	New	% chg	Old	New	% chg	Old	New	% chg
Total Product sales	21,810.3	21,938.6	0.6%	20,652.8	22,310.7	8.0%	25,090.3	29,766.8	18.6%
YoY growth (%)	41.3%	42.2%	0.8%	-5.3%	1.7%	7.0%	21.5%	33.4%	11.9%
Installed base management	5,465.4	5,620.4	2.8%	6,500.0	5,700.0	-12.3%	7,150.0	6,500.0	-9.1%
YoY growth (%)	-4.8%	-2.1%	2.7%	18.9%	1.4%	-17.5%	10.0%	14.0%	4.0%
Revenue	27,275.7	27,559.0	1.0%	27,152.8	28,010.7	3.2%	32,240.3	36,266.8	12.5%
YoY growth (%)	28.8%	30.2%	1.3%	-0.5%	1.6%	2.1%	18.7%	29.5%	10.7%
Gross Profit	13,935.4	14,136.1	1.4%	14,127.3	14,226.4	0.7%	17,667.6	19,853.9	12.4%
Gross margin (%)	51.1%	51.3%	0.2%	52.0%	50.8%	-1.2%	54.8%	54.7%	-0.1%
Adj. Gross Profit	13,935.4	14,136.1	1.4%	14,127.3	14,226.4	0.7%	17,667.6	19,853.9	12.4%
Adjusted Gross margin	51.1%	51.3%	0.2%	52.0%	50.8%	-1.2%	54.8%	54.7%	-0.1%
EBITDA	9,649.7	9,862.1	2.2%	9,604.3	9,418.4	-1.9%	12,991.6	14,369.8	10.6%
EBITDA margin (%)	35.4%	35.8%	0.4%	35.4%	33.6%	-1.7%	40.3%	39.6%	-0.7%
Adj. EBIT	8,932.0	9,122.3	2.1%	8,827.3	8,641.4	-2.1%	12,175.7	13,553.9	11.3%
EBIT margin (%)	32.7%	33.1%	0.4%	32.5%	30.9%	-1.7%	37.8%	37.4%	-0.4%
Operating expenses	5,083.4	5,093.8	0.2%	5,380.0	5,665.0	5.3%	5,571.9	6,380.0	14.5%
EBIT	8,852.0	9,042.3	2.1%	8,747.3	8,561.4	-2.1%	12,095.7	13,473.9	11.4%
EBIT margin (%)	32.5%	32.8%	0.4%	32.2%	30.6%	-1.7%	37.5%	37.2%	-0.4%
Adj. Net income	7,734.2	7,866.3	1.7%	7,723.5	7,404.8	-4.1%	10,622.4	11,595.0	9.2%
Net Margin (%)	28.4%	28.5%	0.2%	28.4%	26.4%	-2.0%	32.9%	32.0%	-1.0%
Reported Net income	7,694.6	7,827.3	1.7%	7,683.3	7,368.1	-4.1%	10,587.4	11,567.2	9.3%
Net Margin (%)	28.2%	28.4%	0.2%	28.3%	26.3%	-2.0%	32.8%	31.9%	-0.9%
Adjusted:									
Basic EPS (€)	19.66	20.00	1.7%	19.87	19.01	-4.3%	27.89	30.11	8.0%
Diluted EPS (€)	19.64	19.99	1.7%	19.93	19.01	-4.6%	27.97	30.31	8.4%
DPS (€)	5.90	6.10	3.4%	7.00	7.15	2.1%	7.50	7.50	0.0%
Net cash (debt)	2,684.7	2,378.6	-11.4%	1,651.5	3,771.2	128.4%	2,598.8	6,486.3	149.6%
Capex	-2,043.9	-2,196.2	7.5%	-1,700.0	-2,200.0	29.4%	-1,600.0	-1,600.0	0.0%
Bookings (total)	14,186.5	20,040.0	41.3%	19,812.8	26,255.7	32.5%	26,344.9	31,255.2	18.6%
Bookings (EUV)	5,002.0	9,300.0	85.9%	9,947.8	14,194.0	42.7%	15,802.5	16,810.5	6.4%
Bookings (ex-EUV)	9,184.5	10,740.0	16.9%	9,865.0	12,061.7	22.3%	10,542.4	14,444.7	37.0%
FCF	4,348.4	3,247.2	-25.3%	6,581.9	9,099.7	38.3%	10,295.3	12,066.2	17.2%

Source: BofA Global Research estimates

BofA GLOBAL RESEARCH

Glossary:

NA: numerical aperture
 EUV: extreme ultra violet
 DUV: deep ultra violet
 ASP: average selling price
 CMD: capital markets day
 GM: gross margin



Price objective basis & risk

ASML Holding N.V. (ASMLF / ASML)

We have set a PO of €904 (\$949 for the ADR). We use a 24.6x FY25E EV/EBITDA to derive our PO (c1.1x EBITDA CAGR). We view our target multiple as fair given we expect ASML's premium valuation to continue given dominant position in EUV and our expectations of 18% EBITDA CAGR '23-26E.

Upside risks to our PO are:

- 1) Higher-than-expected demand for EUV and DUV machines
- 2) Higher-than-expected gross margins on EUV machines and services
- 3) Stronger-than-expected Semi Capex environment driven by macroeconomic trends and higher capital intensity per wafer.

Downside risks to our PO are:

- 1) Delays in ramping volume shipments of EUV machines
- 2) Lower-than-expected gross margins on EUV machines
- 3) Weaker-than-expected Semi Capex driven by macro slowdown/oversupply

Analyst Certification

I, Didier Scemama, 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.

EMEA - Technology Hardware Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	ASMI	ASMXF	ASM NA	Didier Scemama
	ASML Holding N.V.	ASMLF	ASML NA	Didier Scemama
	ASML Holding N.V.	ASML	ASML US	Didier Scemama
	Comet Holding AG	XCHHF	COTN SW	Marie Ganneval
	Infineon Technologies AG	IFNNF	IFX GY	Didier Scemama
	Infineon Technologies AG	IFNNY	IFNNY US	Didier Scemama
	Logitech International S.A.	XLGKF	LOGN SW	Didier Scemama
	Logitech International S.A.	LOGI	LOGI US	Didier Scemama
	Nordic Semiconductor	NDCVF	NOD NO	Didier Scemama
	Soitec	SLOIF	SOI FP	Didier Scemama
	STMicroelectronics NV	STMEF	STMPA FP	Didier Scemama
	STMicroelectronics NV	STM	STM US	Didier Scemama
	Technoprobe S.p.A.	XMDDF	TPRO IM	Marie Ganneval
NEUTRAL				
	Aixtron	AIXXF	AIXA GR	Didier Scemama
	BE Semiconductor Industries N.V.	BESVF	BESI NA	Didier Scemama
	Nokia	NOKBF	NOKIA FH	Didier Scemama
	Nokia	NOK	NOK US	Didier Scemama
	VAT Group AG	VTTGF	VACN SW	Didier Scemama
UNDERPERFORM				
	ams Osram AG	AUKUF	AMS SW	Didier Scemama
	Ericsson	ERIXF	ERICB SS	Didier Scemama
	Ericsson	ERIC	ERIC US	Didier Scemama
	Inficon Holding AG	IFCNF	IFCN SW	Marie Ganneval
	Siltronic AG	SLLF	WAF GR	Marie Ganneval

iQmethodSM Measures Definitions

Business Performance

Return On Capital Employed

Return On Equity

Operating Margin

Earnings Growth

Free Cash Flow

Quality of Earnings

Cash Realization Ratio

Asset Replacement Ratio

Tax Rate

Net Debt-To-Equity Ratio

Interest Cover

Valuation Toolkit

Price / Earnings Ratio

Price / Book Value

Dividend Yield

Free Cash Flow Yield

Enterprise Value / Sales

EV / EBITDA

Numerator

$\text{NOPAT} = (\text{EBIT} + \text{Interest Income}) \times (1 - \text{Tax Rate}) + \text{Goodwill Amortization}$

Net Income

Operating Profit

Expected 5 Year CAGR From Latest Actual

Cash Flow From Operations – Total Capex

Numerator

Cash Flow From Operations

Capex

Tax Charge

Net Debt = Total Debt – Cash & Equivalents

EBIT

Numerator

Current Share Price

Current Share Price

Annualised Declared Cash Dividend

Cash Flow From Operations – Total Capex

$\text{EV} = \text{Current Share Price} \times \text{Current Shares} + \text{Minority Equity} + \text{Net Debt} +$

Other LT Liabilities

Enterprise Value

Denominator

$\text{Total Assets} - \text{Current Liabilities} + \text{ST Debt} + \text{Accumulated Goodwill}$

Amortization

Shareholders' Equity

Sales

N/A

N/A

Denominator

Net Income

Depreciation

Pre-Tax Income

Total Equity

Interest Expense

Denominator

Diluted Earnings Per Share (Basis As Specified)

Shareholders' Equity / Current Basic Shares

Current Share Price

$\text{Market Cap} = \text{Current Share Price} \times \text{Current Basic Shares}$

Sales

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.

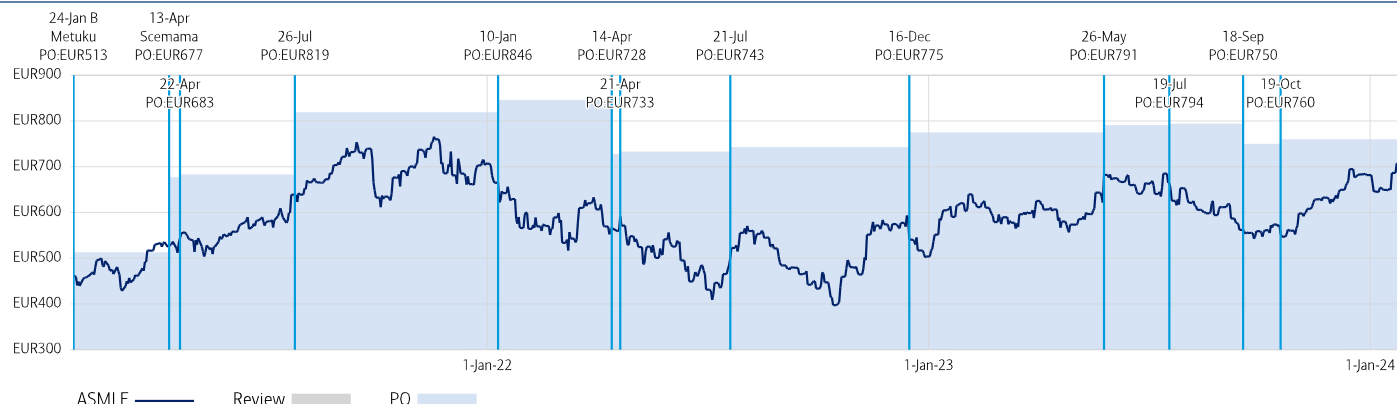
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Disclosures

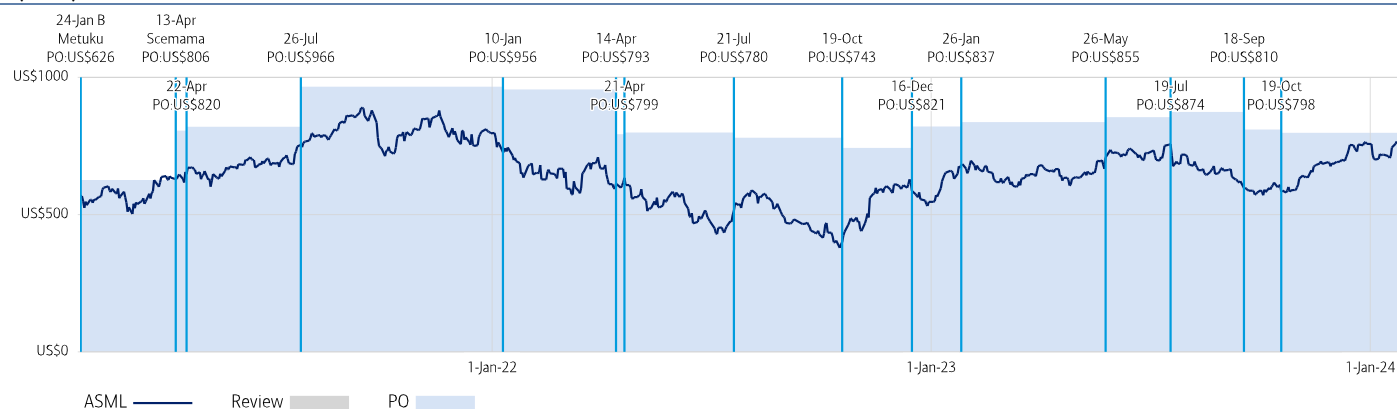
Important Disclosures

ASML NA (ASMLF) 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.

ASML (ASML) 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.

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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%

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