

## Microsoft Corporation

# Strength in AI adoption drives solid Q2; Outlook suggests sustaining momentum

Reiterate Rating: BUY | PO: 480.00 USD | Price: 408.59 USD

## Both OpenAI and Microsoft's own AI drive revenue upside

Microsoft reported solid Q2 results with topline upside (+\$1 billion) driven by Azure. Azure growth of 28% y/y cc nicely exceeded the high end of guidance from strength in both OpenAI consumption and Microsoft's AI offerings. Commercial Office growth of +16% y/y cc was in line with expectations from E5 strength offset by macro pressure on standalone Office sales.

## Guidance implies 30% Azure growth achievable sooner

Q3 revenue guidance was lower than street expectations (-\$500 million to our est) from a weaker gaming outlook. However, core Azure and Office outlook was solid. The outlook for Azure growth to hold in Q3 is an improvement over the Q2 guide for 2% decel, which suggests easing macro pressure on the consumption business. More importantly, the outlook suggests that 30%+ Azure growth is achievable in Q3, sooner than expected.

## Softer office growth likely temporary; Still see 20%+ pot'l

While commercial office growth was disappointing, commentary suggests that softness (in E3/E5 standalone) was the driver, which we view as temporary. While this sets a longer horizon to achieve 20%+ commercial office growth, we believe that level is still possible as early as H2FY25, with growing contribution from M365 copilot. On margin, despite ramping AI workloads, Activision dilution and the headwind from a lower depreciation benefit, our FY24E estimate moves higher (43.3% from previous 41.8%) driven by impressive scale on operating expense.

## Visibility for solid mid 20s FCF growth by FY26

In summary, key Azure and Office growth drivers are very much intact. With easing macro and growing contribution from promising AI product cycles, we believe topline growth can accelerate to mid/high teens in the coming quarters from current low double digits (organic). Coupled with ongoing operating expense scale, we see potential for FCF to accelerate to mid-20s in FY26, as capex tapers off. We reiterate our Buy rating and raise our estimates & PO to \$480 (43x C25E FCF; 1.8x adjusted) from \$450 (was 40x) for growing AI contribution, which improves Microsoft's durable growth outlook. Microsoft is a top pick among our software coverage group.

Estimates (Jun) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	9.21	9.70	11.49	13.48	15.76
GAAP EPS	9.65	9.45	11.49	13.48	15.76
EPS Change (YoY)	15.6%	5.3%	18.5%	17.3%	16.9%
Consensus EPS (Bloomberg)			11.34	13.05	15.45
DPS	2.41	2.65	2.91	2.91	3.16
Valuation (Jun)					
P/E	44.4x	42.1x	35.6x	30.3x	25.9x
GAAP P/E	42.3x	43.2x	35.6x	30.3x	25.9x
Dividend Yield	0.6%	0.6%	0.7%	0.7%	0.8%
EV / EBITDA*	33.5x	32.6x	25.5x	21.5x	18.4x
Free Cash Flow Yield*	2.1%	1.8%	2.0%	2.3%	2.9%

\* For full definitions of *IQmethod*<sup>SM</sup> measures, see page 7.

31 January 2024

### Equity

#### Key Changes

(US\$)	Previous	Current
Price Obj.	450.00	480.00
2024E Rev (m)	244,345.4	243,816.3
2025E Rev (m)	279,770.6	277,848.7
2026E Rev (m)	319,990.3	317,260.6
2024E EPS	11.02	11.49
2025E EPS	12.94	13.48
2026E EPS	15.13	15.76

#### Brad Sills

Research Analyst  
BofAS  
+1 415 676 3531  
[brad.sills@bofa.com](mailto:brad.sills@bofa.com)

#### Adam Bergere

Research Analyst  
BofAS  
+1 415 279 8591  
[adam.bergere@bofa.com](mailto:adam.bergere@bofa.com)

### Stock Data

Price	408.59 USD
Price Objective	480.00 USD
Date Established	31-Jan-2024
Investment Opinion	B-1-7
52-Week Range	242.95 USD - 413.05 USD
Mrkt Val (mn) / Shares Out (mn)	3,176,787 USD / 7,775.0
Free Float	99.9%
Average Daily Value (mn)	9851.07 USD
BofA Ticker / Exchange	MSFT / NAS
Bloomberg / Reuters	MSFT US / MSFT.OQ
ROE (2024E)	39.7%
Net Dbt to Eqty (Jun-2023A)	12.2%
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"](#).

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Timestamp: 31 January 2024 12:07AM EST

# iQprofile<sup>SM</sup> Microsoft Corporation

## iQmethod<sup>SM</sup> – Bus Performance\*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	27.7%	24.1%	25.3%	25.3%	27.1%
Return on Equity	45.0%	38.9%	39.7%	46.7%	53.9%
Operating Margin	42.1%	40.9%	43.3%	43.8%	44.3%
Free Cash Flow	65,149	57,703	64,183	74,473	92,173

## iQmethod<sup>SM</sup> – Quality of Earnings\*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	1.3x	1.2x	1.2x	1.3x	1.3x
Asset Replacement Ratio	1.7x	2.0x	1.8x	1.6x	1.5x
Tax Rate	13.1%	19.4%	18.0%	18.0%	18.0%
Net Debt-to-Equity Ratio	28.4%	12.2%	32.9%	68.2%	50.8%
Interest Cover	NA	NA	NM	NM	NA

## Income Statement Data (Jun)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	198,270	211,915	243,816	277,849	317,261
% Change	18.0%	6.9%	15.1%	14.0%	14.2%
Gross Profit	135,620	146,052	167,891	191,660	219,653
% Change	17.1%	7.7%	15.0%	14.2%	14.6%
EBITDA	97,843	100,612	128,390	152,471	177,668
% Change	19.9%	2.8%	27.6%	18.8%	16.5%
Net Interest & Other Income	333	788	(1,167)	(300)	0
<b>Net Income (Adjusted)</b>	<b>69,447</b>	<b>72,447</b>	<b>85,653</b>	<b>99,519</b>	<b>115,225</b>
<b>% Change</b>	<b>14.5%</b>	<b>4.3%</b>	<b>18.2%</b>	<b>16.2%</b>	<b>15.8%</b>

## Free Cash Flow Data (Jun)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	72,738	70,589	85,653	99,519	115,225
Depreciation & Amortization	14,460	13,861	22,812	30,807	37,150
Change in Working Capital	(10,201)	(7,923)	9,595	(19,461)	(19,276)
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	12,038	9,283	(11,675)	13,925	14,549
Capital Expenditure	(23,886)	(28,107)	(42,202)	(50,316)	(55,473)
<b>Free Cash Flow</b>	<b>65,149</b>	<b>57,703</b>	<b>64,183</b>	<b>74,473</b>	<b>92,173</b>
<b>% Change</b>	<b>16.1%</b>	<b>-11.4%</b>	<b>11.2%</b>	<b>16.0%</b>	<b>23.8%</b>
Share / Issue Repurchase	(30,855)	(20,379)	(15,363)	(16,000)	(16,000)
Cost of Dividends Paid	(18,135)	(19,800)	(21,721)	(21,484)	(23,067)
Change in Debt	(9,023)	(2,750)	44,283	29,477	33,319

## Balance Sheet Data (Jun)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	13,931	34,704	18,598	21,986	30,016
Trade Receivables	44,261	48,688	36,683	57,981	78,886
Other Current Assets	111,492	100,865	113,968	138,168	130,703
Property, Plant & Equipment	74,398	95,641	112,265	116,941	127,634
Other Non-Current Assets	120,758	132,078	180,227	180,950	177,880
<b>Total Assets</b>	<b>364,840</b>	<b>411,976</b>	<b>461,742</b>	<b>516,026</b>	<b>545,120</b>
Short-Term Debt	2,749	5,247	29,291	29,291	29,291
Other Current Liabilities	92,333	98,902	88,984	99,759	112,220
Long-Term Debt	58,521	54,718	63,554	129,393	116,208
Other Non-Current Liabilities	44,695	46,886	54,324	57,115	59,956
<b>Total Liabilities</b>	<b>198,298</b>	<b>205,753</b>	<b>236,154</b>	<b>315,558</b>	<b>317,675</b>
<b>Total Equity</b>	<b>166,542</b>	<b>206,223</b>	<b>225,588</b>	<b>200,467</b>	<b>227,445</b>
<b>Total Equity &amp; Liabilities</b>	<b>364,840</b>	<b>411,976</b>	<b>461,742</b>	<b>516,026</b>	<b>545,120</b>

\* For full definitions of iQmethod<sup>SM</sup> measures, see page 7.

## Company Sector

Server & Enterprise Software

## Company Description

Microsoft develops, manufactures, licenses, and supports a wide range of software products. MSFT has transformed its business model from a component driven model (PC, server) to one driven by the need for cloud capacity. Its Azure platform is growing triple digit and is placed second in public cloud. Products incl. O/S, server applns, O365, Xbox, Surface PC etc. The company has three businesses - Productivity and Business Processes (PBP), Intelligent Cloud (IC) and More Personal Computing (MPC).

## Investment Rationale

We believe that Microsoft is well positioned to generate sustained low double digit growth in the coming 3-5 years, led by continued adoption of Azure cloud infrastructure platform, cloud based Office 365 productivity suite and more profitable Games and Game Pass revenue in Xbox. While a revenue mix shift toward lower margin Azure and O365 segments is likely to offset scale benefits NT, operating expense scale is likely to drive stable 50bps annual margin expansion over the coming years.

## Stock Data

Average Daily Volume 24,109,908

## Quarterly Earnings Estimates

	2023	2024
Q1	2.35A	2.99A
Q2	2.32A	2.93A
Q3	2.57A	2.79E
Q4	2.45A	2.78E

## FQ2 earnings report recap

Microsoft reported solid Q2 results, with total revenue upside of \$1.1 billion. Revenue of \$62.0 billion (+18% y/y +16% y/y cc; +13% y/y organic) was ahead of our \$60.9 billion. Q3 implied total revenue guidance at the midpoint was lower than street expectations (\$60.5 billion versus street expectations for \$61.0 billion).

Intelligent Cloud revenue of \$25.9 billion (+20% y/y, +19% y/y cc) exceeded our \$25.2 billion. Azure growth of +28% y/y cc (+30% y/y reported) landed at the high end of the +26% y/y to +27% y/y cc guide, with AI-services doubling its contribution q/q to 6%-points of the growth in Azure.

Productivity and Business Processes revenue of \$19.2 billion (+13% y/y, +12% y/y cc) was above our \$19.0 billion primarily from Office 365 outperformance. Office 365 subscriber growth of +9% y/y was a slight deceleration from Q1's +10% y/y, despite a 2%-point easier comparison. Growth in this metric was once again driven by uptake of SMB and frontline worker offerings, though somewhat offset by slower growth trends in standalone business. Office 365 ASP (estimated) growth of +6% y/y cc was consistent with Q1. LinkedIn growth of +9% y/y (+8% y/y cc) in the quarter was driven by better-than-expected performance in the business. That said, job market weakness is still proving to be a headwind to total LinkedIn growth.

More Personal Computing revenue of \$16.9 billion (+19% y/y, +18% y/y cc; +4% y/y organic) exceeded our \$16.7 billion primarily from Activision contributing more than expected (\$2.1 billion versus our estimate for \$1.7 billion). Windows strength in the quarter driven by better-than-expected performance and higher monetizing consumer markets.

Pro forma EPS of \$2.93 (+26% y/y) meaningfully exceeded our \$2.74 despite a 5c headwind from Activision. The EPS beat was primarily driven by both top line and operating leverage. Operating margin in the quarter landed at 43.6%, ahead of our 42.5%. We note that excluding the impact of Activision, operating margin would have been 45.8%.

The implied total Q3 revenue outlook for \$60.5 billion is below the Street's \$61.0bn. Given the guide for Gaming, we estimate Activision will contribute \$1.6 billion in Q2. Guidance for Q2 Intelligent Cloud, Productivity and Business Processes, and More Personal Computing of \$26.0 billion to \$26.3 billion (+18% y/y), \$19.3 billion to \$19.6 billion (+11% y/y), and \$14.7 billion to \$15.1 billion (+13% y/y; +0% y/y organic) compared to our prior \$26.1 billion (+18% y/y), \$19.3 billion (+10% y/y), and \$16.6 billion (+25% y/y; +6% y/y organic).

The Q3 gross and operating margin guide for 69.1% and 42.9% at the midpoints landed significantly ahead of our 66.0% and 37.9%, respectively. Microsoft raised its full year outlook for to 1-2pts of operating margin expansion (previously was "flat y/y"). The company also reiterated its expectation full year capital expenditure, though expects a large step up in Q3 for a third-party capacity contract timing shift.



# Earnings review exhibits

## Exhibit 1: BofA estimates versus reported results

Revenue came in 2% ahead of our estimate

\$ in Millions (except per share data)	BofA Estimates	2Q24 Actuals	Variance
Productivity and Business Processes	\$18,951	\$19,249	2%
Intelligent Cloud	\$25,248	\$25,880	3%
More Personal Computing	\$16,737	\$16,891	1%
Total Revenues	\$60,936	\$62,020	2%
Total Revenues growth y/y	16%	18%	2%
Azure revenue	\$17,909	\$18,264	2%
Azure revenue growth y/y	27%	30%	3%
Total Cost of Revenue	\$19,500	\$19,623	1%
Gross Profit	\$41,437	\$42,397	2%
Operating Expenses:			
Research & Development	\$7,450	\$7,142	-4%
Sales & Marketing	\$6,378	\$6,246	-2%
General & Administration	\$1,737	\$1,977	14%
Total Operating Costs	\$15,564	\$15,365	-1%
Operating Income (Loss)	\$25,873	\$27,032	4%
Investment Income / (Expense)	(\$500)	(\$506)	NM
Pretax Income	\$25,373	\$26,526	5%
Income Tax Expense	\$4,948	\$4,656	-6%
Net Income	\$20,425	\$21,870	7%
pf EPS diluted	\$2.74	\$2.93	7%
Shares (fully diluted)	7,443	7,468	0%

Margin Analysis			
Total Gross Margin	68.0%	68.4%	0%
Research & Development	12.2%	11.5%	(1%)
Sales & Marketing	10.5%	10.1%	(0%)
General & Administration	2.9%	3.2%	0%
Operating Margin	42.5%	43.6%	1%
Proforma Tax Rate	19.5%	17.6%	(2%)
Net Margin	33.5%	35.3%	2%

Source: BofA Global Research estimates, company report

BofA GLOBAL RESEARCH

## Exhibit 2: Estimates

We revise our estimates post FQ4 earnings

	2Q24E				2024E				2025E			
	Previous Estimate	Previous Y/Y Growth	New Estimate	New Y/Y Growth	Previous Estimate	New Y/Y Growth	New Estimate	New Y/Y Growth	Previous Estimate	New Y/Y Growth	New Estimate	New Y/Y Growth
PBP revenue	\$18,951	11%	\$19,249	13%	\$77,114	11%	\$77,194	11%	\$87,098	13%	\$86,562	12%
Intelligent Cloud revenue	\$25,248	17%	\$25,880	20%	\$103,844	18%	\$104,842	19%	\$122,926	18%	\$124,005	18%
Azure revenues	\$17,909	27%	\$18,264	30%	\$63,387	16%	\$61,781	13%	\$69,747	10%	\$67,574	9%
More Personal Computing revenues	\$16,737	18%	\$16,891	19%	\$75,656	27%	\$76,719	29%	\$94,607	25%	\$96,021	25%
Total revenues	\$60,936	16%	\$62,020	18%	\$244,345	15%	\$243,816	15%	\$279,771	14%	\$277,849	14%
Proforma net income	\$20,425	18%	\$21,870	26%	\$81,932	10%	\$85,653	18%	\$95,240	16%	\$99,519	16%
Proforma EPS	\$2.74	18%	\$2.93	26%	\$11.02	11%	\$11.49	19%	\$12.94	17%	\$13.48	17%
Free cash flow	\$12,717	160%	\$9,118	86%	\$68,816	16%	\$64,183	11%	\$80,039	16%	\$74,473	16%

Source: BofA Global Research estimates, company report

BofA GLOBAL RESEARCH



## Price objective basis & risk

### Microsoft Corporation (MSFT)

Our PO of \$480 is based on an EV/FCF multiple of 43x our C25E free cash flow estimate. The growth-adjusted multiple of 1.8x trades at a premium to the large cap GARP group, which we view as warranted given our view of Microsoft as a leading AI play in software.

Downside risks to our price objective: 1) Microsoft could see some near term gross margin pressure as the Azure business grows as a percentage of overall revenue. While Microsoft's on premise offerings offer a high margin profile, growth in these lines of business is decelerating. 2) Enterprise application spending has proven to be highly cyclical, given the more discretionary nature of applications projects. During an economic slowdown, when firms are faced with shrinking IT budgets, projects involving application upgrades, migrations or new installations are often deferred. This could present a higher degree of risk for a bookings deceleration for Microsoft and other application vendors, in the event of an economic slowdown.

## Analyst Certification

I, Brad Sills, 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
<b>BUY</b>				
	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
	BILL	BILL	BILL US	Brad Sills
	CCC Intelligent Solutions	CCCS	CCCS US	Michael J. Funk
	Dropbox	DBX	DBX 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
	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

**US - Enterprise Software Coverage Cluster**

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
<b>NEUTRAL</b>				
	Autodesk	ADSK	ADSK US	Michael J. Funk
	Bentley Systems	BSY	BSY US	Michael J. Funk
	BigCommerce Holdings, Inc.	BIGC	BIGC US	Koji Ikeda, CFA
	Coveo	YCVO	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
	Zoom Video Communications	ZM	ZM US	Michael J. Funk
<b>UNDERPERFORM</b>				
	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
	Enfusion, Inc.	ENFN	ENFN US	Koji Ikeda, CFA
	Everbridge	EVBG	EVBG US	Koji Ikeda, CFA
	Five9	FIVN	FIVN US	Michael J. Funk
	Guidewire Software, Inc.	GWRE	GWRE US	Michael J. Funk
	Twilio	TWLO	TWLO US	Michael J. Funk
	Vertex, Inc.	VERX	VERX US	Brad Sills
<b>RSTR</b>				
	Splunk	SPLK	SPLK US	Brad Sills

**IQmethod<sup>SM</sup> 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**

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

**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  
EV = Current Share Price × Current Shares + Minority Equity + Net Debt + Other LT Liabilities  
Enterprise Value

**Denominator**

Total Assets – Current Liabilities + ST Debt + 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  
Market Cap = Current Share Price × Current Basic Shares  
Sales  
Basic EBIT + Depreciation + Amortization



Valuation Toolkit

Numerator

Denominator

*IQmethod*<sup>SM</sup> 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*<sup>®</sup> 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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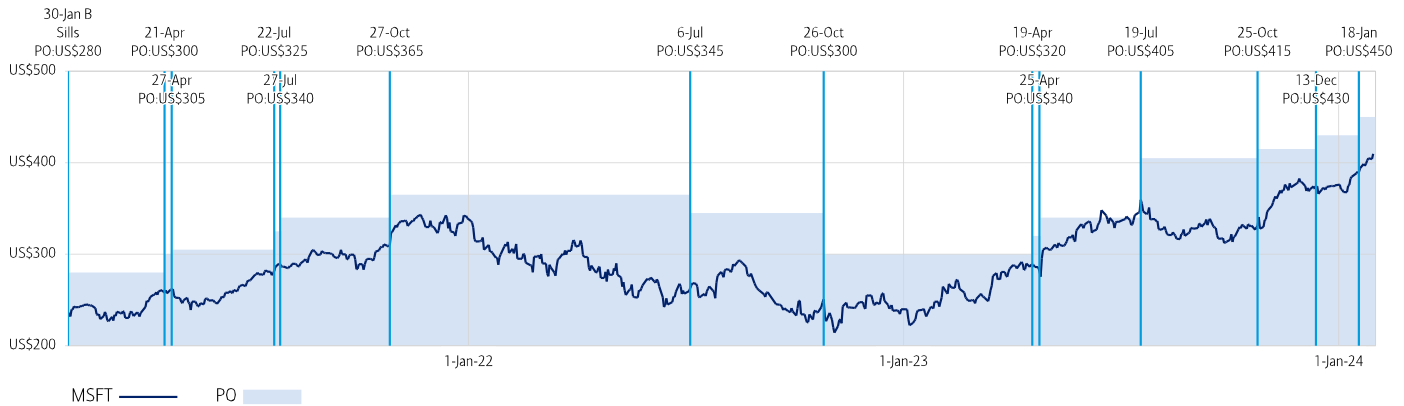




# Disclosures

## Important Disclosures

### Microsoft (MSFT) 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: Technology Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	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 <sup>R1</sup>	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%

<sup>R1</sup> 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 <sup>R2</sup>
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

<sup>R2</sup> 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.

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