

# International Business Machines Corp.

# Setting up for multi-year revenue and FCF growth; PO to \$200

Reiterate Rating: BUY | PO: 200.00 USD | Price: 173.93 USD

# **Guiding F24 FCF much better than expected**

IBM guided F24 better than our/Street expectations. The standout metric in F4Q and guide was FCF, where exit rate ending F23 was strong, and IBM guided F24 FCF to \$12bn on higher profitability, lower cash requirement given changes to retirement plans, offset by higher CapEx, cash taxes. This is much higher than our prior expectation of \$11.0-11.5bn. Given the strong trajectory of cash flow, we now expect IBM can deliver close to \$13bn FCF in F25. F24 rev growth in CC was guided to the low-end of the I-t mid-single-digit model (ex -1 point y/y from FX). This assumes Software revs grow above the high end of I-t mid-single-digit model, Consulting revs grow 6-8% y/y (accelerating throughout the year), while Infrastructure negatively impacts rev growth by over 1 point y/y. F24 guidance implies next mainframe launch in F25, which sets IBM up to see next two years of strong rev growth. Reiterate Buy as the turnaround at IBM (rev growth and FCF improvement) continues, with a defensive portfolio, attractive dividend yield and underappreciated Al portfolio.

# Software - expect re-acceleration in F24

Software growth exiting F23 was impacted by weak macro and difficult y/y compares (F4Q22 was a strong ELA quarter). SW revenues reaccelerate in F24 (2% y/y from recurring rev stream, 2.5% from Red Hat, 2% from M&A and 0.5% from Transaction Processing). Guidance implies low double-digit rev growth for Red Hat in F24 driven by strong signings, and consumption based services not getting incrementally any worse.

# Productivity improvements help margins and cash flow

Productivity improvements will come from workforce rebalancing, and optimization of back office processes, procurement, IT, supply chain and real estate. PTI margin in F24 improves 50bps y/y driven by 100bps improvement in both Software and Consulting, offset by lower PTI margin in Infrastructure.

# Adjusting Estimates; PO moves to \$200 (from \$170)

Our PO moves to \$200 (from \$170) on 17x EV/F25 FCF. Our prior PO was \$170 on 17x C24 EPS. We roll-over to a C25 based valuation. We move to a FCF based valuation (guidance metrics are rev, FCF) where our multiple is at the high end of the long-term range of 11-19x for EV/FCF given improving topline growth.

Estimates (Dec) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	9.13	9.62	10.00	10.47	11.18
GAAP EPS	1.94	8.14	8.89	9.40	10.12
EPS Change (YoY)	15.1%	5.4%	4.0%	4.7%	6.8%
Consensus EPS (Bloomberg)			9.91	10.47	11.49
DPS	6.86	7.26	7.66	8.06	8.46
Valuation (Dec)					
P/E	19.1x	18.1x	17.4x	16.6x	15.6x
GAAP P/E	89.7x	21.4x	19.6x	18.5x	17.2x
Dividend Yield	3.9%	4.2%	4.4%	4.6%	4.9%
EV / EBITDA*	14.3x	13.6x	13.5x	13.4x	13.0x
Free Cash Flow Yield*	5.4%	7.8%	7.5%	8.2%	8.8%
* For full definitions of IOmethod 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.

24 January 2024

#### Equity

Key Changes		
(US\$)	Previous	Current
Price Obj.	170.00	200.00
2024E Rev (m)	62,771.5	63,678.9
2025E Rev (m)	65,282.2	66,212.9
2026E Rev (m)	NA	69,929.9
2024E EPS	9.72	10.00
2025E EPS	9.91	10.47
2026E EPS	NA	11.18

Wamsi Mohan

Research Analyst BofAS +1 646 855 3854

wamsi.mohan@bofa.com

**Ruplu Bhattacharya** Research Analyst

BofAS +1 646 855 0315

ruplu.bhattacharva@bofa.com

Nathawan Asdornwised Research Analyst

Research Analyst BofAS

Joseph Leeman Research Analyst

#### **Stock Data**

BofAS

Price	173.93 USD
Price Objective	200.00 USD
Date Established	24-Jan-2024
Investment Opinion	B-1-7
52-Week Range	120.55 USD - 174.86 USD
Mrkt Val (mn) / Shares Out	158,819 USD / 913.1
(mn)	
Free Float	99.9%
Average Daily Value (mn)	763.45 USD
BofA Ticker / Exchange	IBM / NYS
Bloomberg / Reuters	IBM US / IBM.N
ROE (2024E)	43.1%
Net Dbt to Eqty (Dec-2023A)	192.9%
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".

CC: Constant Currency, FCF: Free Cash Flow

ELA: Enterprise License Agreement

# **iQ**profile<sup>™</sup> International Business Machines Corp.

<b>iQ</b> method <sup>SM</sup> −	Bus	Performance*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	8.2%	9.1%	9.6%	10.2%	10.5%
Return on Equity	40.8%	39.9%	43.1%	42.2%	36.2%
Operating Margin	16.4%	17.9%	18.4%	19.0%	19.2%
Free Cash Flow	8,574	12,442	11,916	13,052	13,999

## *iQ*method <sup>SM</sup> − Quality of Earnings\*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	1.3x	1.6x	1.5x	1.6x	1.6x
Asset Replacement Ratio	0.4x	0.3x	0.5x	0.8x	0.9x
Tax Rate	15.2%	14.0%	14.0%	16.0%	16.0%
Net Debt-to-Equity Ratio	195.8%	192.9%	182.3%	116.4%	70.0%
Interest Cover	8.2x	6.9x	9.0x	10.5x	12.1x

#### Income Statement Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	60,529	61,861	63,679	66,213	69,930
% Change	5.5%	2.2%	2.9%	4.0%	5.6%
Gross Profit	33,369	34,932	35,160	37,103	39,296
% Change	3.6%	4.7%	0.7%	5.5%	5.9%
EBITDA	14,739	15,445	15,630	15,708	16,166
% Change	-2.8%	4.8%	1.2%	0.5%	2.9%
Net Interest & Other Income	(116)	(741)	(947)	(901)	(805)
Net Income (Adjusted)	8,326	8,870	9,262	9,799	10,574
% Change	16.0%	6.5%	4.4%	5.8%	7.9%

#### Free Cash Flow Data (Dec)

(	(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
	Net Income from Cont Operations (GAAP)	1,773	7,508	8,237	8,797	9,572
	Depreciation & Amortization	4,802	4,393	3,913	3,142	2,774
	Change in Working Capital	(2,887)	900	536	2,160	2,817
	Deferred Taxation Charge	0	0	0	0	0
	Other Adjustments, Net	6,747	1,130	1,333	1,333	1,333
	Capital Expenditure	(1,861)	(1,489)	(2,103)	(2,380)	(2,496)
	Free Cash Flow	8,574	12,442	11,916	13,052	13,999
	% Change	-17.7%	45.1%	-4.2%	9.5%	7.3%
	Share / Issue Repurchase	0	0	1,329	1,359	1,389
	Cost of Dividends Paid	(5,948)	(6,040)	(6,997)	(7,441)	(7,892)
	Change in Debt	991	4,271	(4,000)	(4,000)	(4,000)

#### **Balance Sheet Data (Dec)**

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	7,989	13,089	15,337	18,307	21,802
Trade Receivables	15,148	14,647	14,329	13,776	13,194
Other Current Assets	5,981	5,171	6,376	6,539	6,820
Property, Plant & Equipment	5,334	5,501	431	404	1,036
Other Non-Current Assets	92,791	96,832	94,210	95,311	96,938
Total Assets	127,243	135,240	130,683	134,337	139,791
Short-Term Debt	4,760	6,426	6,426	6,426	6,426
Other Current Liabilities	26,745	27,695	28,608	29,668	31,141
Long-Term Debt	46,189	50,121	46,121	42,121	38,121
Other Non-Current Liabilities	27,528	28,384	29,114	30,132	31,625
Total Liabilities	105,222	112,626	110,269	108,347	107,314
Total Equity	21,944	22,534	20,414	25,990	32,478
Total Equity & Liabilities	127,166	135,160	130,683	134,337	139,791

<sup>\*</sup> For full definitions of  $\emph{\textbf{IQ}} \textit{method}^{\text{SM}}$  measures, see page 6.

## **Company Sector**

IT Hardware

## **Company Description**

International Business Machines (IBM) is a leading provider of enterprise solutions, offering a broad portfolio of IT hardware, business and IT services, and a full suite of software solutions. The company integrates its hardware products with its software and services offerings in order to provide high value solutions. IBM is comprised of four major segments: (1) Infrastructure, (2) Consulting, (3) Software, and (4) Financing.

#### **Investment Rationale**

We view IBM as a defensive investment given its high exposure to recurring sales, cost cutting levers, solid balance sheet, potential share gains, and relatively stable margins. We believe IBM will embark on further cost cutting, and enhance its services and software offerings through acquisitions. Longer term, we expect IBM to take share in IT spending with its Cloud and Al initiatives.

#### **Stock Data**

Average Daily Volume 4,389,405

#### **Quarterly Earnings Estimates**

	2023	2024		
Q1	1.36A	1.63E		
Q2	2.18A	2.36E		
Q3	2.20A	2.37E		
04	3.87A	3.63E		



# F4Q23 Performance by Segment

# F4Q revenue/EPS beat expectations

IBM reported F4Q23 rev/EPS of \$17.4bn/\$3.87 vs. consensus at \$17.3bn/\$3.74. Revenue increased +4% y/y (+3% y/y CC). Non-GAAP PTI margin came in at 24.0% while gross margin came in at 60.1%. IBM's Hybrid Platform & Solutions ARR (Annual Recurring Revenue) was about \$14bn.

# Software: Continued high single-digit growth in Red Hat

IBM reported Software revenue of \$7.5bn ( $\pm$ 3.1% y/y,  $\pm$ 2.0% y/y CC). The growth was driven by both Transaction Processing ( $\pm$ 5% y/y,  $\pm$ 4% y/y CC) and Hybrid Platform & solutions ( $\pm$ 2% y/y,  $\pm$ 1% y/y CC). Within Hybrid Platform & Solutions, Red Hat grew  $\pm$ 8% y/y ( $\pm$ 7% y/y CC). Data & Al grew  $\pm$ 1% y/y, and Automation grew  $\pm$ 1% y/y ( $\pm$ 0% y/y CC). However, Security revenues declined  $\pm$ 5% y/y ( $\pm$ 4% y/y CC). The growth in F24 needs to accelerate off the lower exit rates in 2023. Given the higher transaction component and tougher compares, we see the possibility of reacceleration of growth in 2024 in Software (Q1 driven by annuity business).

# Consulting: Growth across all segments

Consulting (incl. Business Transformation, Tech Consulting & Application Operations) reported revenue of \$5.0bn, growing +5.8% y/y (+5.5% y/y CC), slightly below street est. of \$5.1bn. Within Consulting, Business Transformation grew +6.0% y/y (+5.0% y/y CC). Technology Consulting increased by +5.0% y/y (+4.0% y/y CC), and Application Operations was up +7.0% y/y (+6.0% y/y CC).

# Infrastructure: Overall growth y/y despite support decline

Infrastructure revenues came in at \$4.6bn, up +2.7% y/y (+2.0% y/y CC). Within Infrastructure, Hybrid Infrastructure was up +8% y/y (+7% y/y CC), with IBM Z increased +8% y/y and distributed Infrastructure increased +8% y/ (+7% y/y CC). However, Infrastructure support declined -9% y/y.

#### Balance sheet and cash flow

IBM returned \$1.5bn to shareholders in dividends during F4Q23. IBM had approx. \$13.5bn in cash plus marketable securities and total debt of about \$56.5bn at end of the qtr. Net cash from operating activities excluding IBM Financing receivables was \$6.3bn. Free cash flow came in at \$6.1bn for F4Q23 and \$11.2bn for FY23. IBM guided \$12bn for its FY24 FCF.



# Model

## **Exhibit 1: IBM Income Statement**

We model F24 revenue/EPS of 63.7bn/10.00

IBM			2023A				2024E						
(\$ Millions Except Per Share Data)	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	2022A	2023A	2024E	2025E	2026E
Income Statement													
Total Revenue	\$14,252	\$15,475	\$14,752	\$17,381	\$14,664	\$15,812	\$15,220	\$17,983	\$60,529	\$61,861	\$63,679	\$66,213	\$69,930
Hybrid Platform & Solutions	\$4,203	\$4,707	\$4,500	\$5,315	\$4,473	\$5,005	\$4,801	\$5,617	\$17,846	\$18,725	\$19,897	\$20,872	\$21,923
Transaction Processing	\$1,718	\$1,901	\$1,765	\$2,199	\$1,718	\$1,920	\$1,782	\$2,243	\$7,190	\$7,583	\$7,663	\$7,663	\$7,663
Software	\$5,921	\$6,608	\$6,265	\$7,514	\$6,192	\$6,925	\$6,584	\$7,860	\$25,036	\$26,308	\$27,560	\$28,535	\$29,586
Business Transformation	\$2,324	\$2,227	\$2,312	\$2,265	\$2,440	\$2,339	\$2,435	\$2,384	\$9,017	\$9,128	\$9,598	\$10,028	\$10,480
Technology Consulting	\$939	\$1,022	\$955	\$998	\$1,007	\$1,095	\$1,024	\$1,070	\$3,764	\$3,914	\$4,196	\$4,310	\$4,430
Application Operations	\$1,699	\$1,764	\$1,696	\$1,786	\$1,869	\$1,940	\$1,865	\$1,965	\$6,327	\$6,944	\$7,639	\$7,639	\$7,639
Consulting	\$4,962	\$5,013	\$4,963	\$5,048	\$5,316	\$5,374	\$5,324	\$5,419	\$19,108	\$19,986	\$21,433	\$21,977	\$22,549
Hybrid Infrastructure	\$1,722	\$2,264	\$1,931	\$3,320	\$1,596	\$1,988	\$1,798	\$3,257	\$9,440	\$9,237	\$8,639	\$9,750	\$11,937
Infrastructure Support	\$1,376	\$1,354	\$1,341	\$1,284	\$1,307	\$1,286	\$1,274	\$1,219	\$5,850	\$5,355	\$5,087	\$4,985	\$4,886
Infrastructure	\$3,098	\$3,618	\$3,272	\$4,604	\$2,903	\$3,274	\$3,072	\$4,476	\$15,290	\$14,592	\$13,726	\$14,736	\$16,822
Financing	\$196	\$185	\$186	\$175	\$198	\$186	\$188	\$176	\$645	\$742	\$749	\$757	\$764
Other	\$74	\$52	\$67	\$41	\$54	\$53	\$52	\$52	\$452	\$234	\$211	\$209	\$208
Total Cost of Revenue	6,742	6,975	6,729	7,114	6,767	7,391	7,037	8,012	27,842	27,561	29,207	29,798	31,322
Cost of Software	1,214	1,368	1,284	1,375	1,269	1,433	1,350	1,423	5,096	5,241	5,475	5,669	5,879
Cost of Consulting	3,712	3,715	3,603	3,650	3,961	3,966	3,849	3,901	14,242	14,679	15,677	16,010	16,358
Cost of Infrastructure	1,497	1,599	1,521	1,814	1,262	1,695	1,567	2,362	7,221	6,431	6,887	6,955	7,919
Cost of Financing	110	94	94	87	111	95	94	88	398	385	388	391	394
Other	210	200	227	189	163	202	177	238	885	826	780	773	773
Operating Gross Profit	\$7,658	\$8,650	\$8,185	\$10,439	\$8,070	\$8,593	\$8,355	\$10,143	\$33,369	\$34,932	\$35,160	\$37,103	\$39,296
Total Operating Expense	6,262	6,342	5,866	6,268	6,179	6,037	5,778	6,251	24,095	24,738	24,245	25,199	26,602
R&D	1,655	1,687	1,685	1,748	1,659	1,676	1,693	1,755	6,567	6,775	6,782	7,052	7,450
SG&A	4,607	4,655	4,181	4,520	4,520	4,361	4,085	4,497	17,528	17,963	17,463	18,147	19,152
Intellectual Property Income	178	248	190	242	147	206	198	252	663	858	802	662	699
O	1.574	2.556	2.500	4.412	2.027	2.761	2 775	4144	0.027	11.053	11 716	12.566	12 202
Operating Income (Cont. Ops)	1,574	2,556	2,509	4,413	2,037	2,761	2,775	4,144	9,937	11,052	11,716	12,566	13,393
Net Interest Expense	(367)	(423)	(412)	(405)	(339)	(327)	(315)	(315)	(1,216)	(1,607)	(1,297)	(1,201)	(1,105)
Other Income	242	262	203	159	50	100	100	100	1,100	866	350	300	300
Pretax Income (Cont. Ops)	1,449	2,395	2,300	4,167	1,748	2,534	2,559	3,929	9,821	10,311	10,769	11,665	12,588
Income Taxes	200	393	268	580	245	355	358	550	1,495	1,441	1,508	1,866	2,014
Net Inc. avail. To Shareholders	1,249	2,002	2,032	3,587	1,503	2,179	2,201	3,379	8,326	8,870	9,262	9,799	10,574
Preferred Dividend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EPS (Cont. Ops)	\$1.36	\$2.18	\$2.20	\$3.87	\$1.63	\$2.36	\$2.37	\$3.63	\$9.13	\$9.62	\$10.00	\$10.47	\$11.18
Average Shares (MM Diluted)	918	920	924	927	923	925	927	930	912	922	926	936	945
Income Statement (Cont'd)													
Total Revenues (Y/Y)	0%	0%	5%	4%	3%	2%	3%	3%	6%	2%	3%	4%	6%
Operating Expense	5%	1%	2%	3%	-1%	-5%	-2%	0%	0%	3%	(2%)	4%	6%
R&D	-1%	1%	5%	9%	0%	-1%	0%	0%	1%	3%	0%	4%	6%
SG&A	7%	2%	1%	0%	-2%	-6%	-2%	-1%	(0%)	2%	(3%)	4%	6%
Operating Income	-4%	7%	28%	12%	29%	8%	11%	-6%	14%	11%	6%	7%	7%
Pretax Income	-4%	-5%	17%	9%	21%	6%	11%	-6%	25%	5%	4%	8%	8%
Net Income	-2%	-5%	23%	9%	20%	9%	8%	-6%	16%	7%	4%	6%	8%
EPS	-3%	-6%	22%	7%	20%	8%	8%	-6%	15%	5%	4%	5%	7%
Diluted Shares (Y/Y)	1%	1%	1%	1%	1%	1%	0%	0%	1%	1%	0%	1%	1%
% of Revenues													
Gross Profit	53.7%	55.9%	55.5%	60.1%	55.0%	54.3%	54.9%	56.4%	55.1%	56.5%	55.2%	56.0%	56.2%
Operating Expense	43.9%	41.0%	39.8%	36.1%	42.1%	38.2%	38.0%	34.8%	39.8%	40.0%	38.1%	38.1%	38.0%
R&D	11.6%	10.9%	11.4%	10.1%	11.3%	10.6%	11.1%	9.8%	10.8%	11.0%	10.7%	10.7%	10.7%
SG&A	32.3%	30.1%	28.3%	26.0%	30.8%	27.6%	26.8%	25.0%	29.0%	29.0%	27.4%	27.4%	27.4%
Operating Income	11.0%	16.5%	17.0%	25.4%	13.9%	17.5%	18.2%	23.0%	16.4%	17.9%	18.4%	19.0%	19.2%
Pretax Income	10.2%	15.5%	15.6%	24.0%	11.9%	16.0%	16.8%	21.8%	16.2%	16.7%	16.9%	17.6%	18.0%
Effective Tax Rate	13.8%	16.4%	11.7%	13.9%	14.0%	14.0%	14.0%	14.0%	15.2%	14.0%	14.0%	16.0%	16.0%
Net Income	8.8%	12.9%	13.8%	20.6%	10.3%	13.8%	14.5%	18.8%	13.8%	14.0%	14.5%	14.8%	15.1%
Net medite	0.070	12.370	13.070	20.0%	10.5%	13.0%	14.3%	10.070	13.070	14.5%	14.3%	14.070	13.170

**Source:** Company Reports, BofA Global Research estimates

BofA GLOBAL RESEARCH



# Price objective basis & risk

## International Business Machines Corp. (IBM)

Our PO of \$200 is based on 17x EV/C25 FCF. Our target multiple for IBM is at the high end of the historical range 11-19x. We believe a multiple at the high end of the historical range is justified given the company's improving growth and FCF trajectory with Red Hat.

Downside risks to our price objective are: (1) failure to execute on the company's growth roadmap, (2) inability to realize expected cost savings from restructuring, (3) technology/competitor risk in hardware, software, and services, (4) unforeseen currency impacts on revenue and profits, (5) acquisition integration, given IBM's acquisitive nature, and (6) increased concern of economic uncertainty and tightening corporate IT budgets.

Upside risks to our price objective are: (1) faster reacceleration of topline, (2) faster improvement in margins, (3) better-than-expected accretion from M&A, and (4) delivery of upside to FCF.

# **Analyst Certification**

I, Wamsi Mohan, 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 - IT Hardware and Technology Supply Chain Coverage Cluster** 

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst	
BUY					
	Amphenol	APH	APH US	Wamsi Mohan	
	Apple Inc.	AAPL	AAPL US	Wamsi Mohan	
	Corning Inc.	GLW	GLW US	Wamsi Mohan	
	Dell Technologies Inc.	DELL	DELL US	Wamsi Mohan	
	Flex Ltd.	FLEX	FLEX US	Ruplu Bhattacharya	
	HP Inc.	HPQ	HPQ US	Wamsi Mohan	
	International Business Machines Corp.	IBM	IBM US	Wamsi Mohan	
	Jabil Inc.	JBL	JBL US	Ruplu Bhattacharya	
	Nutanix Inc	NTNX	NTNX US	Wamsi Mohan	
	Roku, Inc.	ROKU	ROKU US	Ruplu Bhattacharya	
	Seagate Technology	STX	STX US	Wamsi Mohan	
	Sensata Technologies Holdings Plc	ST	ST US	Wamsi Mohan	
	TD Synnex Corp	SNX	SNX US	Ruplu Bhattacharya	
	TE Connectivity Ltd.	TEL	TEL US	Wamsi Mohan	
	Teradata Corporation	TDC	TDC US	Wamsi Mohan	
	Western Digital Corporation	WDC	WDC US	Wamsi Mohan	
NEUTRAL					
	Arrow Electronics Inc.	ARW	ARW US	Ruplu Bhattacharya	
	Avnet Inc.	AVT	AVT US	Ruplu Bhattacharya	
	CDW Corp	CDW	CDW US	Ruplu Bhattacharya	
	Concentrix Corporation	CNXC	CNXC US	Ruplu Bhattacharya	
	Hewlett-Packard Enterprise	HPE	HPE US	Wamsi Mohan	
	Pure Storage	PSTG	PSTG US	Wamsi Mohan	
UNDERPERFORM					
	DigitalOcean	DOCN	DOCN US	Wamsi Mohan	
	NetApp Inc.	NTAP	NTAP US	Wamsi Mohan	
	Sanmina Corporation	SANM	SANM US	Ruplu Bhattacharya	
	Vishay Intertechnology, Inc.	VSH	VSH US	Ruplu Bhattacharya	
	Vizio	VZIO	VZIO US	Wamsi Mohan	



#### **US - IT Hardware and Technology Supply Chain Coverage Cluster**

Investment rating Company BofA Ticker Bloomberg symbol Analyst

# *i***@**method<sup>™</sup> Measures Definitions

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

Manethod suis 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.

\*\*Redatabase\*\* 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.

*IQ*profile<sup>SM</sup>, *IQ*method<sup>SM</sup> are service marks of Bank of America Corporation. *IQ*database<sup>®</sup> is a registered service mark of Bank of America Corporation.



# **Disclosures**

# **Important Disclosures**

#### Int Business Machine (IBM) 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 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<sup>R2</sup>

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

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

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

Price Charts for the securities referenced in this research report are available on the Price Charts website, or call 1-800-MERRILL to have them mailed.

BofAS or one of its affiliates acts as a market maker for the equity securities recommended in the report: Int Business Machine.

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

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

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

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: Int Business Machine.

BofAS or an affiliate has received compensation for investment banking services from this issuer within the past 12 months: Int Business Machine.

BofAS or an affiliate expects to receive or intends to seek compensation for investment banking services from this issuer or an affiliate of the issuer within the next three months. Int Business Machine

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



U

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: Int Business Machine.

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: Int Business Machine.

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: Int Business Machine.

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 <a href="https://www.bofaml.com/BofASEdisclaimer">www.bofaml.com/BofASEdisclaimer</a>; 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 (Hong Kong): Merr (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSFC); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch (Canada): Merrill Lynch (Canada): Merrill Lynch (Mexico): Merrill Ly 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): Merrill Lynch (Israel): Merrill Lynch (Israel) (Israel): Merrill Lynch (Israel): Merr Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch KSA Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSFC; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in 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 or distribution prepared 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 in Germany and is regulated by Merrill Lynch (DIFC) is done so in accordance

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 in any securities referred to herein.

#### BofA ESGMeter Methodology:

ESGMeter is a proprietary metric based on quantitative analysis and fundamental analyst inputs that reflects our assessment of a company's Environmental, Social and Governance-related attributes. The ESGMeter is intended to indicate a company's likelihood of experiencing stronger financial stability (higher return on equity and lower earnings and price volatility) over the next three years relative to peer group. There are three ESGMeter levels - Low, Medium, and High - which indicate whether a company has attributes most likely to translate into superior financial stability (in the case of a High level) or weaker financial stability (in the case of a Low level) over the next three years relative to its peer group. A Medium level suggests that a company exhibits ESG characteristics that are likely associated with financial stability results in line with its peer group over the next three years. Full details of our methodology, financial stability definition and disclaimers are available at <a href="mailto:BGMeter methodology">BGMeter methodology</a>. ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of the BofA Global Research fundamental equity analyst's investment rating, volatility risk rating, income rating or price objective for that company.

#### Copyright and General Information:

Copyright 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 inform

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

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

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

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

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

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

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies. Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.

