

# Motorola Solutions

# A solid end to the year; demand for public safety marches on

Reiterate Rating: BUY | PO: 370.00 USD | Price: 328.35 USD

# Solid 4Q results with opportunity for growth acceleration

Motorola Solutions reported a solid end to the year, with 4Q23 revenue growth of 5.2% YoY above the Street's 4%, supported by better-than-expected performance in LMR Communications and the Software & Services (S&S) portion of Video Security. GM and OM were largely in-line with Street expectations, yet higher sales and a lower-than-expected tax rate drove EPS of \$3.90, with an adjusted 7c beat to consensus' EPS estimates when normalizing for the tax impact. FY24 revenue guidance was raised by approx. \$75mn, mostly attributed to the \$51mn beat to the Street's 1Q revenue expectations, yet we believe the modest raise reflects management conservatism. We see opportunity for growth acceleration, demonstrated by continued demand across public safety, and we reiterate our Buy rating and \$370 PO.

# Strong LMR and Video Security Software performance

Positively, the S&S portion of Video Security grew 25.9% YoY vs. Street's 17.6%, supported by the cloud-enabled Avigilon Alta platform, which accounted for 25% of the total Video Security growth in 2023. On the other hand, the Products & Systems Integration (P&SI) portion of Video Security grew 6.3% YoY below the Street's 12.2%, partially driven by reversion to the mean following strong fixed video growth in 2022. LMR growth of 3% YoY was above the Street's 1.2%, yet growth was roughly 6% on an adjusted basis when normalizing for Airwave and ESN headwinds and the transition of low-tier PCRs to a license model. Operating margin of 30.5% was in-line with the Street expectations, yet management expects further margin improvement in FY24.

# Backlog trends are positive, signaling demand remains

FY24 revenue growth guidance was slightly raised from 5.6% to 6% YoY, yet we believe the guidance may prove conservative as demand continues to remain strong. The P&SI portion of backlog grew 2% YoY, while the S&S portion grew 8.5% ex-Airwave and ESN impact, suggesting an adjusted 6.3% growth of the total backlog vs. the reported flat growth. We believe the backlog trends point towards a sustainable order pipeline, and improving duration and supply chain could support growth acceleration. Lastly, management guided to 2024 OCF of \$2.2bn and with a 2023 Net Debt to Adjusted EBITDA of 1.4, we believe the company will continue to drive its M&A strategy in FY24.

Estimates (Dec) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	10.36	11.95	12.67	13.89	15.41
GAAP EPS	8.14	10.23	11.04	12.17	13.53
EPS Change (YoY)	13.2%	15.3%	6.0%	9.6%	10.9%
Consensus EPS (Bloomberg)			12.68	13.89	15.96
DPS	3.08	3.42	3.41	3.41	3.46
Valuation (Dec)					
P/E	31.7x	27.5x	25.9x	23.6x	21.3x
GAAP P/E	40.3x	32.1x	29.7x	27.0x	24.3x
Dividend Yield	0.9%	1.0%	1.0%	1.0%	1.1%
EV / EBITDA*	21.9x	19.6x	18.0x	15.9x	14.5x
Free Cash Flow Yield*	2.9%	3.3%	3.5%	4.0%	4.3%
* For full definitions of <i>IQ</i> method <sup>SM</sup> measures, see page 7.					

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

Timestamp: 09 February 2024 01:00AM EST

#### 09 February 2024

### Equity

Key Changes		
(US\$)	Previous	Current
2024E Rev (m)	10,514.8	10,577.9
2025E Rev (m)	11,207.0	11,230.4
2026E Rev (m)	NA	11,895.3
2024E EPS	12.68	12.67
2025E EPS	14.10	13.89
2026E EPS	NA	15.41
2024E DPS	3.43	3.41

#### Tomer Zilberman

Research Analyst BofAS

+1 646 855 3203 tomer.zilberman@bofa.com

#### Tal Liani

Research Analyst BofAS

+1 646 855 5107 tal.liani@bofa.com

#### Madeline Brooks Research Analyst

BofAS

+1 646 855 1971

madeline.brooks@bofa.com

#### Ionathan Eisenson

Research Analyst

BofAS

+1 646 743 0186 jonathan.eisenson@bofa.com

# Stock Data

Price	328.35 USD
Price Objective	370.00 USD
Date Established	6-Dec-2023
Investment Opinion	B-1-7
52-Week Range	255.85 USD - 330.93 USD
Mrkt Val (mn) / Shares Out	54,496 USD / 166.0
(mn)	
Free Float	99.7%
Average Daily Value (mn)	200.51 USD
BofA Ticker / Exchange	MSI / NYS
Bloomberg / Reuters	MSI US / MSI.N
ROE (2024E)	266.2%
Net Dbt to Eqty (Dec-2023A	) NA
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".

# **iQ**profile<sup>™</sup> Motorola Solutions

iQmethod <sup>SM</sup> − Bus Performance*					
(US\$ Millions)	2022A	2023A	2024E	2025E	20261
Return on Capital Employed	26.0%	25.9%	26.5%	28.2%	29.2%
Return on Equity	3,296.3%	472.9%	266.2%	238.0%	205.4%
Operating Margin	26.0%	27.9%	28.3%	29.2%	29.7%
Free Cash Flow	1,567	1,791	1,907	2,191	2,341
<i>iQ</i> method <sup>SM</sup> − <b>Quality of Earnings*</b>					
(US\$ Millions)	2022A	2023A	2024E	2025E	2026
Cash Realization Ratio	1.0x	1.0x	1.0x	1.0x	1.1>
Asset Replacement Ratio	0.6x	0.7x	0.7x	0.5x	0.6
Tax Rate	9.8%	20.1%	20.0%	20.0%	20.0%
Net Debt-to-Equity Ratio	NM	NM	NM	456.1%	374.8%
Interest Cover	NA	NA	NA	NA	NA
Income Statement Data (Dec)					
(US\$ Millions)	2022A	2023A	2024E	2025E	20261
Sales	9,111	9,978	10,578	11,230	11.895
% Change	11.5%	9.5%	6.0%	6.2%	5.9%
Gross Profit	4,422	5,017	5.340	5,761	6,107
% Change	8.8%	13.5%	6.4%	7.9%	6.0%
EBITDA	2,809	3,140	3,424	3,877	4,251
% Change	9.9%	11.8%	9.0%	13.2%	9.6%
Net Interest & Other Income	(137)	(146)	(159)	(188)	(151)
Net Income (Adjusted)	1,780	2,057	2,168	2,377	2,598
% Change	12.0%	15.6%	5.4%	9.6%	9.3%
Free Cash Flow Data (Dec)					
(US\$ Millions)	2022A	2023A	2024E	2025E	2026
Net Income from Cont Operations (GAAP)	1,367	1,713	1,846	2,051	2,281
Depreciation & Amortization	440	356	429	597	721
Change in Working Capital	4	(243)	(9)	(132)	(198)
Deferred Taxation Charge	(334)	(32)	(43)	(45)	(47)
Other Adjustments, Net	346	250	0	0	0
Capital Expenditure	(256)	(253)	(317)	(281)	(416)
Free Cash Flow	1,567	1,791	1,907	2,191	2,341
% Change	-1.7%	14.3%	6.5%	14.9%	6.8%
Share / Issue Repurchase	(680)	(700)	(1,111)	(1,250)	(1,382)
Cost of Dividends Paid	(530)	(589)	(584)	(584)	(584)
Change in Debt	(285)	(1)	0	0	C
Balance Sheet Data (Dec)			20245		
(US\$ Millions)	2022A	2023A	2024E	2025E	2026
Cash & Equivalents	1,325	1,705	1,263	968	690
Trade Receivables	1,518	1,710	1,800	1,887	1,985
Other Current Assets	2,412	2,310	2,515	2,649	3,063
Property, Plant & Equipment	NA 7.550	NA 7.611	NA	NA	NA 0.257
Other Non-Current Assets Total Assets	7,559	7,611	8,218	8,809	9,257
Short-Term Debt	12,814	13,336	13,796	14,313	14,995
	1	1,313	1,313	1,313	1,313
Other Current Liabilities	4,559 6,013	4,423 4,705	4,649 4,705	4,860 4,705	5,127
Long-Term Debt Other Non-Current Liabilities	6,013 2,110	4,705 2,156	4,705 2,240	4,705 2,328	4,705 2,428
Total Liabilities	12,683	12,597	12,906	13,205	13,573
Total Equity	12,683	739	890	13,205	1,422
Total Equity & Liabilities	12,814	13,336	13,796	14,313	14,995
* For full definitions of <i>Omethod</i> sh measures see page 7		13,330	13,730	17,313	1-1,333

# **Company Sector**

Data Networking

## **Company Description**

Motorola Solutions (MSI) is a leading supplier of land mobile radio (LMR) systems, as well as providing software solutions for command centers and offering video security and analytics. Over the years, the company has transformed from a sole focus on LMR communications to a focus on physical security, for both public safety and enterprise security, providing an integrated ecosystem across LMR, video security, and command center.

#### **Investment Rationale**

We believe Motorola Solutions is well-positioned in its respective end-markets, for public safety and enterprise security use cases, and can expand into other use cases over time. We favor the company's focus on public safety and enterprise security, which merits solid pricing power as well as higher volume sales. The company's leading position in LMR with 28% share of an overall \$25bn TAM, represents solid upsell and cross-sell opportunity to its video security and command center businesses.

#### **Stock Data**

Average Daily Volume

610,671

## **Quarterly Earnings Estimates**

	2023	2024
Q1	2.22A	2.53E
Q2	2.65A	2.86E
Q3	3.19A	3.34E
Q4	3.90A	3.95E

\* For full definitions of  $\emph{IQ}$  method  $^{\text{SM}}$  measures, see page 7.

# Financial Highlights

# **Exhibit 1: Actual versus Estimated Results**

 $Actual\ revenue\ and\ EPS\ of\ \$2,848mn\ and\ \$3.90,\ respectively,\ was\ above\ BofA's\ expectations\ for\ \$2,815mn\ and\ \$3.65$ 

\$mn, except EPS	4Q22	1Q23	2Q23	3Q23	4Q23	Estimated	QoQ	YoY	Delta
Net Sales from Products	1,671	1,224	1,349	1,490	1,750	1,733	17.4%	4.7%	17
QoQ	16.1%	-26.8%	10.2%	10.5%	17.4%	16.3%			
YoY	23.0%	17.0%	11.3%	3.5%	4.7%	3.7%			
Net Sales from Services	1,035	947	1,054	1,066	1,098	1,082	3.0%	6.1%	16
QoQ	10.8%	-8.5%	11.3%	1.1%	3.0%	1.5%			
YoY	7.6%	11.9%	13.6%	14.1%	6.1%	4.5%			
Net Sales	2,706	2,171	2,403	2,556	2,848	2,815	11.4%	5.2%	33
QoQ	14.0%	-19.8%	10.7%	6.4%	11.4%	10.1%			
YoY	16.6%	14.7%	12.3%	7.7%	5.2%	4.0%			
Costs of Sales	1,347	1,109	1,207	1,264	1,381	1,385	9.3%	2.5%	(4)
Gross Profit	1,359	1,062	1,196	1,292	1,467	1,430	13.5%	7.9%	37
<b>Total Operating Expenses</b>	537	530	555	551	597	578	8.3%	11.2%	19
Operating Earnings	822	532	641	741	870	852	17.4%	5.8%	18
YoY	22.7%	42.2%	29.0%	9.6%	5.8%	3.7%			
Total Other Expense	(36)	(39)	(44)	(32)	(31)	(29)	-3.1%	-13.9%	(2)
Net Earnings Before Income Taxes	786	493	597	709	839	823	18.3%	6.7%	16
Income Tax Expense	167	108	137	161	170	198	5.6%	1.8%	(28)
Net Earnings Attributable to Motorola Solutions, Inc.	618	384	458	547	668	625	22.1%	8.1%	43
Non-GAAP EPS	3.60	2.22	2.65	3.19	3.90	3.65	22.3%	8.3%	0
YoY	26.0%	31.0%	28.1%	6.3%	8.3%	1.6%			
Diluted Share Count	171.9	172.6	172.6	171.7	171.5	171.0	-0.1%	-0.2%	1
Gross Margin	50.2%	48.9%	49.8%	50.5%	51.5%	50.8%	96 bps	128 bps	69 bps
Operating Margin	30.4%	24.5%	26.7%	29.0%	30.5%	30.3%	155 bps	17 bps	27 bps
Net Margin	22.8%	17.7%	19.1%	21.4%	23.5%	22.2%	205 bps	61 bps	126 bps

**Source:** BofA Global Research estimates, company report

BofA GLOBAL RESEARCH

# **Exhibit 2: Summary of Model Changes**

We fine-tune our estimates to be more streamlined with guidance

	Net	t Sales (\$mı	n)		Gro	ss Marg	gin	Opera	ating Ma	argin	ı	Diluted EP:	S		Fre	e Ca	sh Flow	I
	Old	New		Delta	Old	New	Delta	Old	New	Delta	Old	New		Delta	Old		New	Delta
FY23																		
1Q23	\$ 2,171	\$ 2,171	\$	-	48.9%	48.9%	0 bps	24.5%	24.5%	0 bps	\$ 2.22	\$ 2.22	\$	-	(62)	\$	(62)	\$ -
2Q23	\$ 2,403	\$ 2,403	\$	-	49.8%	49.8%	0 bps	26.7%	26.7%	0 bps	\$ 2.65	\$ 2.65	\$	-	40	\$	40	\$ -
3Q23	\$ 2,556	\$ 2,556	\$	-	50.5%	50.5%	0 bps	29.0%	29.0%	0 bps	\$ 3.19	\$ 3.19	\$	-	649	\$	649	\$ -
4Q23	\$ 2,815	\$ 2,848	\$	33	50.8%	51.5%	69 bps	30.3%	30.5%	27 bps	\$ 3.65	\$ 3.90	\$	0.24	1,039	\$	1,164	\$ 125
Total	\$ 9,945	\$ 9,978	\$	33	50.1%	50.3%	20 bps	27.8%	27.9%	8 bps	\$ 11.71	\$ 11.95	\$	0.24	1,666	\$	1,791	\$ 125
FY24E																		
1Q24E	\$ 2,307	\$ 2,345	\$	38	49.1%	49.1%	0 bps	24.6%	25.0%	45 bps	\$ 2.41	\$ 2.53	\$	0.11	352	\$	225	\$ (127)
2Q24E	\$ 2,541	\$ 2,526	\$	(15)	49.8%	49.9%	5 bps	26.6%	26.8%	21 bps	\$ 2.90	\$ 2.86	\$	(0.04)	449	\$	414	\$ (35)
3Q24E	\$ 2,712	\$ 2,710	\$	(2)	50.6%	50.8%	12 bps	28.9%	29.2%	26 bps	\$ 3.38	\$ 3.34	\$	(0.04)	578	\$	602	\$ 24
4Q24E	\$ 2,956	\$ 2,998	\$	42	51.5%	51.8%	26 bps	31.2%	31.4%	17 bps	\$ 3.99	\$ 3.95	\$	(0.04)	610	\$	666	\$ 56
Total	\$ 10,515	\$ 10,578	\$	63	50.4%	50.5%	11 bps	28.0%	28.3%	27 bps	\$ 12.68	\$ 12.67	\$	(0.01)	1,989	\$	1,907	\$ (83)
FY25E																		
1Q25E	\$ 2,512	\$ 2,533	\$	21	49.9%	50.1%	21 bps	25.5%	25.7%	27 bps	\$ 2.71	\$ 2.75	\$	0.03	760	\$	796	\$ 36
2Q25E	\$ 2,740	\$ 2,710	\$	(29)	50.5%	50.8%	27 bps	27.5%	27.9%	38 bps	\$ 3.23	\$ 3.15	\$	(0.08)	454	\$	450	\$ (4)
3Q25E	\$ 2,835	\$ 2,845	\$	10	51.4%	51.6%	12 bps	29.9%	29.8%	-9 bps	\$ 3.67	\$ 3.60	\$	(0.07)	195	\$	268	\$ 73
4Q25E	\$ 3,120	\$ 3,142	\$	22	52.5%	52.4%	-2 bps	33.0%	32.6%	-44 bps	\$ 4.49	\$ 4.39	\$	(0.10)	534	\$	677	\$ 144
Total	\$ 11,207	\$ 11,230	\$	23	51.2%	51.3%	14 bps	29.2%	29.2%	1 bps	\$ 14.10	\$ 13.89	\$	(0.21)	1,943	\$	2,191	\$ 248

**Source:** BofA Global Research estimates, company report

BofA GLOBAL RESEARCH



**Exhibit 3: Income Statement**Updated summary of financials; we raise our FY24 revenue estimate by \$63mn to \$10,587mn

	1022	2022	3Q22	4022	1023	2023	3023	4023	1024F	2024F	3024F	4024F	1025F	2Q25E 3	3025F 4	1025F	FV22	FV23	FV24F	FY25E	FV26F
Income statement in millions, except per share amounts	Mar-31	Jun-30	Sep-30	Dec-31	Mar-31	Jun-30	Sep-30	Dec-31	Mar-31	Jun-30	Sep-30	Dec-31	Mar-31	Jun-30	Sep-30	Dec-31				11232	11202
Products and Systems Integration	909	1,038	1,243	1,523	1,080	1,150	1,312	1,585	1,121	1,207	1,382	1,670	1,142	1,236	1,437	1,719	4,713	5,127	5,380	5,534	5,710
Software and Services	546	570	569	590	577	626	605	592	598	647	621	609	626	669	654	647	2.275	2.400	2.474	2.597	2.755
Land Mobile Radio (LMR) Communications	1,455	1,608	1,812	2,113	1,657	1,776	1,917	2,177	1,719	1,854	2,002	2,278	1,768	1,905	2,091	2,366	6,988	7,527	7,853	8,130	8,465
Products and Systems Integration	194	247	286	287	223	287	300	305	253	313	331	336	294	352	370	374	1,014	1,115	1,233	1,390	1,558
Software and Services	113	123	133	139	136	146	153	175	155	168	175	196	187	203	213	242	508	610	694	846	916
Video Security and Access Control	307	370	419	426	359	433	453	480	408	481	505	532	481	556	583	616	1,522	1,725	1,926	2,236	2,474
Products and Systems Integration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Software and Services	130	162	142	167	155	194	186	191	218	191	202	188	284	249	171	160	601	726	798	864	957
Command Center Software	130	162	142	167	155	194	186	191	218	191	202	188	284	249	171	160	601	726	798	864	957
Net sales from products	1,046	1,212	1,439	1,671	1,224	1,349	1,490	1,750	1,295	1,392	1,570	1,836	1,377	1,473	1,679	1,965	5,368	5,813	6,093	6,494	6,948
Net sales from services	846	928	934	1,035	947	1,054	1,066	1,098	1,050	1,134	1,139	1,162	1,156	1,237	1,165	1,177	3,743	4,165	4,485	4,736	4,947
Net sales	1,892	2,140	2,373	2,706	2,171	2,403	2,556	2,848	2,345	2,526	2,710	2,998	2,533	2,710	2,845	3,142	9,111	9,978	10,578	11,230	11,895
YoY%Chg	6.7%	8.6%	12.6%	16.6%	14.7%	12.3%	7.7%	5.2%	8.0%	5.1%	6.0%	5.3%	8.0%	7.3%	5.0%	4.8%	11.5%	9.5%	6.0%	6.2%	5.9%
Costs of sales	1,026	1,141	1,175	1,347	1,109	1,207	1,264	1,381	1,194	1,266	1,334	1,445	1,263	1,334	1,378	1,494	4,689	4,961	5,238	5,469	5,788
Gross profit (non-GAAP)	866	999	1,198	1,359	1,062	1,196	1,292	1,467	1,151	1,260	1,375	1,553	1,270	1,377	1,467	1,648	4,422	5,017	5,340	5,761	6,107
Gross margin (non-GAAP)	45.8%	46.7%	50.5%	50.2%	48.9%	49.8%	50.5%	51.5%	49.1%	49.9%	50.8%	51.8%	50.1%	50.8%	51.6%	52.4%	48.5%	50.3%	50.5%	51.3%	51.3%
Total appraising expenses	402	EUS	577	E27	E30		EE7	F07	ECA	500	FOF	612	618	620	620	674	2.052	7 722	2245	7 401	2 570
Total operating expenses  Operating earnings	492 374	502 497	522 676	537 822	530 532	555 641	551 741	597 870	564 587	583 677	585 790	613 940	652	620 756	620 847	624 1.024	2,053 2,369	2,233 2,784	2,345 2.995	2,481 3.280	2,578 3.530
Operating margin (non-GAAP)	19.8%	23.2%	28.5%	30.4%	24.5%	26.7%	29.0%	30.5%	25.0%	26.8%	29.2%	31.4%	25.7%	27.9%	29.8%	32.6%	26.0%	27.9%	28.3%	29.2%	29.7%
operating margin (non-than )	13.070	23.270	20.370	30.470	24.370	20.7 70	23.0%	30.370	23.070	20.670	23.270	31.470	23.770	27.570	23.070	32.0%	20.070	27.570	20.370	23.270	23.770
Total other expense	(26)	(40)	(35)	(36)	(39)	(44)	(32)	(31)	(21)	(37)	(44)	(57)	(40)	(55)	(47)	(46)	(137)	(146)	(159)	(188)	(151)
Net earnings before income taxes	348	457	641	786	493	597	709	839	566	640	746	883	611	702	801	978	2.232	2.638	2.836	3.092	3.379
Income tax expense	53	102	126	167	108	137	161	170	130	150	175	208	141	161	184	225	448	576	664	711	777
non-GAAP net earnings	295	355	515	619	385	460	548	669	436	490	571	676	471	540	616	753	1,784	2,062	2,172	2,381	2,602
Less: Earnings attributable to non-controlling interests	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	4	5	4	4	4
Net earnings attributable to Motorola Solutions, Inc.	294	354	514	618	384	458	547	668	435	489	570	675	470	539	615	752	1,780	2,057	2,168	2,377	2,598
Net margin, attributable to Motorola Solutions, Inc. (non-GAAP)	15.5%	16.5%	21.7%	22.8%	17.7%	19.1%	21.4%	23.5%	18.6%	19.4%	21.0%	22.5%	18.5%	19.9%	21.6%	23.9%	19.5%	20.6%	20.5%	21.2%	21.8%
Diluted Earnings per common share (non-GAAP)	1.70	2.07	3.00	3.60	2.22	2.65	3.19	3.90	2.53	2.86	3.34	3.95	2.75	3.15	3.60	4.39	10.36	11.95	12.67	13.89	15.41
Weighted average common shares outstanding, diluted	173.1	170.9	171.5	171.9	172.6	172.6	171.7	171.5	172.0	171.0	170.9	170.7	171.1	171.1	171.2	171.2	171.9	172.1	171.1	171.1	168.6
Margin Analysis																					
Gross margin (non-GAAP)	45.8%	46.7%	50.5%	50.2% 30.4%	48.9%	49.8%	50.5%	51.5%	49.1%	49.9%	50.8%	51.8%	50.1%	50.8%	51.6%	52.4%	48.5%	50.3%	50.5% 28.3%	51.3% 29.2%	51.3% 29.7%
Operating margin (non-GAAP)  Net margin, attributable to Motorola Solutions, Inc. (non-GAAP)	19.8% 15.5%	23.2% 16.5%	28.5% 21.7%	22.8%	24.5% 17.7%	26.7% 19.1%	29.0% 21.4%	30.5% 23.5%	25.0% 18.6%	26.8% 19.4%	29.2% 21.0%	31.4% 22.5%	25.7% 18.5%	27.9% 19.9%	29.8% 21.6%	32.6% 23.9%	26.0% 19.5%	27.9% 20.6%	20.5%	29.2%	29.7%
Effective tax rate (non-GAAP)	15.2%	22.3%	19.7%	21.2%	21.9%	22.9%	21.4%	20.3%	23.0%	23.5%	23.5%	23.5%	23.0%	23.0%	23.0%	23.9%	20.1%	21.8%	23.4%	23.0%	23.0%
YoY Growth	13.270	22.370	13.770	21.270	21.370	22.570	22.770	20.5%	23.0%	23.370	23.370	23.370	25.0%	23.0%	23.0%	23.070	20.170	21.070	23.470	23.0%	23.0%
Net sales	6.7%	8.6%	12.6%	16.6%	14.7%	12.3%	7.7%	5.2%	8.0%	5.1%	6.0%	5.3%	8.0%	7.3%	5.0%	4.8%	11.5%	9.5%	6.0%	6.2%	5.9%
Gross profit (non-GAAP)	0.0%	4.2%	14.0%	14.4%	22.6%	19.7%	7.8%	7.9%	8.4%	5.4%	6.5%	5.9%	10.3%	9.2%	6.6%	6.1%	8.8%	13.5%	6.4%	7.9%	6.0%
Total operating expenses (non-GAAP)	8.1%	5.2%	5.2%	3.7%	7.7%	10.6%	5.6%	11.2%	6.4%	5.0%	6.2%	2.7%	9.6%	6.4%	5.9%	1.7%	5.5%	8.8%	5.0%	5.8%	3.9%
Operating earnings (non-GAAP)	-9.0%	3.1%	21.8%	22.7%	42.2%	29.0%	9.6%	5.8%	10.3%	5.7%	6.7%	8.1%	11.1%	11.7%	7.2%	9.0%	11.9%	17.5%	7.6%	9.5%	7.6%
Net earnings attributable to Motorola Solutions, Inc. (non-GAAP)	-9.3%	-1.4%	25.7%	24.3%	30.6%	29.4%	6.4%	8.1%	13.3%	6.7%	4.2%	1.0%	8.0%	10.3%	8.0%	11.5%	12.0%	15.6%	5.4%	9.6%	9.3%
Diluted Earnings per common share (non-GAAP)	-9.2%	-0.1%	27.6%	26.0%	31.0%	28.1%	6.3%	8.3%	13.7%	7.7%	4.7%	1.5%	8.6%	10.2%	7.8%	11.2%	13.2%	15.4%	6.0%	9.6%	11.0%
QoQ Growth																					
Net sales	-18.4%	13.1%	10.9%	14.0%	-19.8%	10.7%	6.4%	11.4%	-17.7%	7.7%	7.3%	10.6%	-15.5%	7.0%	5.0%	10.4%	1				1
Gross profit (non-GAAP)	-27.1%	15.4%	19.9%	13.4%	-21.9%	12.6%	8.0%	13.5%	-21.6%	9.5%	9.1%	12.9%	-18.2%	8.4%	6.6%	12.3%					
Total operating expenses (non-GAAP)	-5.0%	2.0%	4.0%	2.9%	-1.3%	4.7%	-0.7%	8.3%	-5.5%	3.4%	0.4%	4.8%	0.8%	0.4%	-0.1%	0.7%					
Operating earnings (non-GAAP)	-44.2%	32.9%	36.0%	21.6%	-35.3%	20.5%	15.6%	17.4%	-32.6%	15.4%	16.7%	19.0%	-30.7%	16.0%	12.0%	20.9%					
Net earnings attributable to Motorola Solutions, Inc. (non-GAAP)	-40.8%	20.4%	45.2%	20.2%	-37.9%	19.3%	19.4%	22.1%	-34.9%	12.4%	16.6%	18.4%	-30.4%	14.8%	14.2%	22.2%					
Diluted Earnings per common share (non-GAAP)	-40.5%	22.0%	44.7%	20.0%	-38.1%	19.3%	20.1%	22.3%	-35.1%	13.0%	16.7%	18.5%	-30.5%	14.8%	14.1%	22.2%	-				
Cash Flow Analysis																					
Net cash provided by operating activities	152	10	388	1,273	(8)	93	714	1,245	295	490	683	756	860	517	339	756	1,823	2,044	2,224	2,472	2,757
OCF margin	8.0%	0.5%	16.4%	47.0%	-0.4%	3.9%	27.9%	43.7%	12.6%	19.4%	25.2%	25.2%	33.9%	19.1%	11.9%	24.1%	20.0%	20.5%	21.0%	22.0%	23.2%
Free cash flow	98	(49)	318	1,200	(62)	40	649	1,164	225	414	602	666	796	450	268	677	1,567	1,791	1,907	2,191	2,341
FCF per share	0.57	(0.29)	1.85	6.98	(0.36)	0.23	3.78	6.79	1.31	2.42	3.52	3.90	4.65	2.63	1.57	3.96	9.12	10.41	11.14	12.80	13.89
FCF margin	5.2%	-2.3%	13.4%	44.3%	-2.9%	1.7%	25.4%	40.9%	9.6%	16.4%	22.2%	22.2%	31.4%	16.6%	9.4%	21.6%	17.2%	17.9%	18.0%	19.5%	19.7%
0																					1
-	070	717	ררס	1 225	1022	710	010	1.705	1.450	1 220	1216	1 262	1 560	1 420	1000	nco	1 225	1.705	1 262	nco	600
Cash and cash equivalents	878 5.693	717	822 6.013	1,325	1,022	710	910	1,705	1,452	1,328	1,316	1,263	1,560	1,439	1,066	968	1,325	1,705	1,263	968	690 6018
-	878 5,693 (4,815)	717 6,013 (5,296)	822 6,013 (5,191)	1,325 6,014 (4,689)	1,022 6,015 (4,993)	710 6,015 (5,305)	910 6,017 (5,107)	1,705 6,018 (4,313)	1,452 6,018 (4,566)	1,328 6,018 (4,690)	1,316 6,018 (4,702)	1,263 6,018 (4,755)	1,560 6,018 (4,458)	1,439 6,018 (4,579)	1,066 6,018 (4,952)	968 6,018 (5,050)	1,325 6,014 (4,689)	1,705 6,018 (4,313)	1,263 6,018 (4,755)	968 6,018 (5,050)	690 6,018 (5,328)

**Source:** BofA Global Research estimates, company report



BofA GLOBAL RESEARCH

# Acronyms:

LMR - Land Mobile Radio

ESN - Emergency Services Network

PCR - Professional and Commercial Radio



# Price objective basis & risk

#### **Motorola Solutions (MSI)**

Our \$370 PO is based on roughly 26x our 2025E P/E. The company is at a premium to communications equipment peers that trade on average between 10x-20x. We believe a premium to the valuation is warranted as the company is in a multi-year runway with its Video Security and Command Center markets, representing robust top-line and margin growth. As the company grows further into software and continues its optimization of supply, as well as employing additional operating levers, we believe the valuation can expand. The positives of Motorola's growth and long-term opportunities are also supported by solid margins.

Upside risks to our PO are: 1) faster-than-expected Video Security and Command Center revenue growth, 2) faster-than-expected Software and Services growth, 3) higher enterprise security revenue contribution, and 4) growth into new use cases and adjacent markets, such as business analytics.

Downside risks to our PO are: 1) deterioration in the funding environment, 2) regulatory and legal issues, 3) a decrease or shift in government budgeting, and 4) slowdown in new customer adoption and expansion deals.

# **Analyst Certification**

I, Tomer Zilberman, 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 - Telecom and Data Networking Equipment Coverage Cluster** 

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Akamai	AKAM	AKAM US	Madeline Brooks
	Amdocs	DOX	DOX US	Tal Liani
	Arista Networks	ANET	ANET US	Tal Liani
	Check Point Software Technologies	CHKP	CHKP US	Tal Liani
	Ciena	CIEN	CIEN US	Tal Liani
	CrowdStrike Holdings Inc.	CRWD	CRWD US	Tal Liani
	CyberArk	CYBR	CYBR US	Tal Liani
	Fastly	FSLY	FSLY US	Madeline Brooks
	Fortinet	FTNT	FTNT US	Tal Liani
	Gen Digital, Inc.	GEN	GEN US	Jonathan Eisenson
	InterDigital, Inc.	IDCC	IDCC US	Tal Liani
	Motorola Solutions	MSI	MSIUS	Tomer Zilberman
	Qualcomm	QCOM	QCOM US	Tal Liani
	Zscaler	ZS	ZS US	Tal Liani
NEUTRAL				
	Cellebrite	CLBT	CLBT US	Tal Liani
	Cisco Systems	CSCO	CSCO US	Tal Liani
	Palo Alto Networks	PANW	PANW US	Tal Liani
	SentinelOne, Inc.	S	SUS	Tal Liani
UNDERPERFORM				
	Cloudflare	NET	NET US	Madeline Brooks
	CommScope	COMM	COMM US	Tal Liani
	F5 Inc	FFIV	FFIV US	Tal Liani
	Okta Inc	OKTA	OKTA US	Madeline Brooks
	SecureWorks	SCWX	SCWX US	Tal Liani

# *IQ*method<sup>™</sup> Measures Definitions

<b>Business Performance</b>	Numerator	Denominator
Return On Capital Employed	NOPAT = (EBIT + Interest Income) $\times$ (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 + Other LT Liabilities	Sales

EV / EBITDA Enterprise Value Basic EBIT + Depreciation + Amortization

\*\*Menethod 3\*\*\*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.

\*\*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.

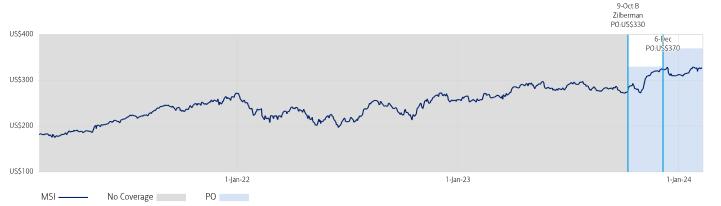
**IQ**profile<sup>≤M</sup>, **IQ**method<sup>≤M</sup> are service marks of Bank of America Corporation. **IQ**database® is a registered service mark of Bank of America Corporation.



# **Disclosures**

# **Important Disclosures**

#### Motorola Solutions (MSI) 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: Telecommunications Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	57	51.82%	Buy	43	75.44%
Hold	27	24.55%	Hold	17	62.96%
Sell	26	23.64%	Sell	12	46.15%

#### 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%	≤ 70%
Neutral	≥ 0%	≤ 30%
Inderperform	N/A	≥ 20%

R2Ratings 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: Motorola Solutions.

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

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

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: Motorola Solutions.

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

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: Motorola Solutions

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: Motorola Solutions.

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: Motorola Solutions.



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 Prudential 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 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 HKSFC; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in 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 conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is r

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.

#### 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 BofA ESGMeter methodology. 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.

