

Nova

Advanced packaging beneficiary, share gains, outgrowth; reit. Buy

Reiterate Rating: BUY | PO: 190.00 USD | Price: 166.45 USD

Reiterate Buy and \$190 PO on CY24E WFE outgrowth

DecQ sales were ahead, with EPS of \$1.36 12c/10% ahead of consensus on higher sales, modestly offset by lower GMs (product mix). For MarQ, NVMI guided modestly above (\$137mn; up +2% QoQ), much better than process control peer KLAC (guided -8% QoQ). Importantly, NVMI continues to see the proliferation of emerging advanced packaging (AP) applications (up +30% YoY in CY23) such as hybrid bonding and through-silicon via (TSV) and expects CY24E to be a big growth year for AP. Particularly, increased AI adoption is driving demand for NVMI's chemical metrology (HBM) and optical critical dimension PRISM (memory, logic, hybrid bonding) portfolio. When combined with potential recoveries in leading-edge logic in 2H and memory (materials metrology DRAM penetration), we see NVMI should comfortably outgrow the broader industry at +14% YoY in CY24E vs. +5% WFE. On the margin front, Q4 GMs were modestly hit on higher mix of margin-dilutive chemical metrology AP tools, but mgmt expects a healthy recovery in Q1 as product mix normalizes. For CY24E overall, we expect GMs to remain at the upper-end of 57-59% l-t guide on higher volume and a recovery of non-AP tools, modestly above our prior 57.9% est. Overall, we maintain our strong CY24/25E sales estimates (+13%/+14% YoY) unchanged but raise pf-EPS by 3%/3%. Reit. Buy and raise PO to \$190 (from \$160 prior), now on 30x CY25E P/E (still within with 15x-40x long-term range) vs. prior 26x as NVMI enters reacceleration.

Likes: AI ramp, CY24E WFE outgrowth, cash balance

(1) NVMI's materials metrology (GAA/memory) and advanced packaging solutions (chemical metrology, optical critical dimension or PRISM for hybrid bonding, etc.) should continue ramping in CY24E on AI demand. (2) NVMI expects broader WFE market to grow mid-single digits YoY in CY24E, and its tools business should comfortably outgrow at +14% YoY. (3) Net cash remains healthy at \$6.23/share from \$4.03 in 4Q22, and we expect \$5mn+ in quarterly interest income, representing 50c+ of pf-EPS for CY24E.

Risks: Product mix, order pull-ins, China exposure

(1) Q4 gross margin of 57.3% came in below 58.0% guide despite a strong top-line beat, suggesting a higher mix of advanced packaging, chemical metrology (margin dilutive) products. We highlight this trend reverses in Q1 though, suggesting packaging product orders might have been modestly pulled-in in Q4. (2) China exposure remains high at ~30-35% of sales, with risks of demand pull-in from potential broadening of export restrictions, particularly from CXMT (Chinese mature node DRAM vendor).

Estimates (Dec) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	5.07	4.88	5.28	6.12	6.78
GAAP EPS	4.40	4.27	4.46	5.19	5.78
EPS Change (YoY)	31.7%	-3.7%	8.2%	15.9%	10.8%
Consensus EPS (Bloomberg)			5.25	6.17	NA
DPS	0	0	0	0	0
Valuation (Dec)					
P/E	32.8x	34.1x	31.5x	27.2x	24.6x
GAAP P/E	37.8x	39.0x	37.3x	32.1x	28.8x
EV / EBITDA*	23.8x	27.6x	27.4x	23.0x	20.2x
Free Cash Flow Yield*	2.0%	2.2%	3.0%	4.0%	4.5%

* For full definitions of *IQmethod*SM measures, see page 15.

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Timestamp: 15 February 2024 01:10PM EST

15 February 2024

Equity

Key Changes

(US\$)	Previous	Current
Price Obj.	160.00	190.00
2024E Rev (m)	587.1	587.2
2025E Rev (m)	670.4	670.5
2026E Rev (m)	NA	740.0
2024E EPS	5.13	5.28
2025E EPS	5.94	6.12
2026E EPS	NA	6.78

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Stock Data

Price	166.45 USD
Price Objective	190.00 USD
Date Established	15-Feb-2024
Investment Opinion	B-1-9
52-Week Range	86.82 USD - 161.07 USD
Mrkt Val (mn) / Shares Out (mn)	4,829 USD / 29.0
Free Float	92.9%
Average Daily Value (mn)	22.41 USD
BofA Ticker / Exchange	NVMI / NAS
Bloomberg / Reuters	NVMI US / NVMI.LQ
ROE (2024E)	20.4%
Net Dbt to Eqty (Dec-2023A)	-8.1%
ESGMeter TM	Medium

ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BofA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to "BofA ESGMeter Methodology".

iQprofileSM Nova

iQmethodSM – Bus Performance*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	22.9%	16.5%	16.1%	15.9%	15.1%
Return on Equity	30.5%	23.3%	20.4%	19.5%	18.0%
Operating Margin	31.3%	30.2%	29.0%	30.3%	31.2%
Free Cash Flow	98	106	143	195	216

iQmethodSM – Quality of Earnings*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	0.7x	0.8x	1.0x	1.1x	1.1x
Asset Replacement Ratio	1.2x	1.4x	1.4x	1.4x	1.4x
Tax Rate	11.5%	11.9%	15.0%	15.0%	15.0%
Net Debt-to-Equity Ratio	22.9%	-8.1%	-20.1%	-33.0%	-43.1%
Interest Cover	NA	NA	NA	NA	NA

Income Statement Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	571	518	587	670	740
% Change	37.2%	-9.3%	13.4%	14.2%	10.4%
Gross Profit	330	304	344	396	441
% Change	37.6%	-7.9%	13.2%	15.1%	11.4%
EBITDA	196	169	170	203	231
% Change	42.5%	-14.0%	0.8%	19.5%	13.8%
Net Interest & Other Income	6	22	28	28	28
Net Income (Adjusted)	162	156	170	199	223
% Change	40.8%	-3.5%	8.9%	17.1%	12.1%

Free Cash Flow Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	140	136	143	169	190
Depreciation & Amortization	18	12	15	17	19
Change in Working Capital	(59)	(47)	(19)	5	2
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	21	22	25	28	31
Capital Expenditure	(21)	(17)	(21)	(23)	(26)
Free Cash Flow	98	106	143	195	216
% Change	-22.9%	8.3%	34.8%	36.3%	10.5%
Share / Issue Repurchase	(21)	0	(20)	(10)	0
Cost of Dividends Paid	0	0	0	0	0
Change in Debt	0	0	0	0	0

Balance Sheet Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	112	108	231	416	632
Trade Receivables	109	111	123	118	113
Other Current Assets	393	491	502	504	511
Property, Plant & Equipment	56	67	67	67	67
Other Non-Current Assets	315	357	379	402	428
Total Assets	984	1,134	1,303	1,508	1,750
Short-Term Debt	6	7	7	7	7
Other Current Liabilities	128	316	320	322	325
Long-Term Debt	240	40	40	40	40
Other Non-Current Liabilities	23	20	20	20	20
Total Liabilities	397	383	387	389	392
Total Equity	587	751	916	1,119	1,358
Total Equity & Liabilities	984	1,134	1,303	1,508	1,750

* For full definitions of iQmethodSM measures, see page 15.

Company Sector

Semiconductor Capital Equipment

Company Description

Nova Measuring Instruments is a leading innovator and key provider of dimensional and materials metrology solutions for process control used in semiconductor manufacturing. Nova's portfolio of metrology tools and related services and software helps integrated circuit manufacturers manage yield through the semiconductor fabrication process. Nova was founded in 1993 and is headquartered in Rehovot, Israel.

Investment Rationale

We rate Nova Buy. Nova is well positioned to benefit from the growing secular demand of semiconductor chips as well as the increasing complexity of manufacturing those devices. Nova's unique X-Ray metrology capabilities coupled with new product launches should enable it to sustainably outgrow peers and the broader market over the next three years.

Stock Data

Average Daily Volume 134,605

Quarterly Earnings Estimates

	2023	2024
Q1	1.23A	1.27E
Q2	1.06A	1.28E
Q3	1.23A	1.37E
Q4	1.36A	1.36E

Summary of model changes

Exhibit 1: Summary of estimate changes

We adjust our CY24/25E sales ests. by +0%/+0% and EPS ests. by +3%/+3% to \$5.28/\$6.12

	Sales (\$mn)			Non-GAAP EPS		
	Old	NEW	delta	Old	NEW	delta
Mar-23	\$132	\$132	\$0	\$1.23	\$1.23	\$0.00
Jun-23	\$123	\$123	\$0	\$1.06	\$1.06	\$0.00
Sep-23	\$129	\$129	\$0	\$1.23	\$1.23	\$0.00
Dec-23	\$128	\$134	\$7	\$1.23	\$1.36	\$0.13
FY23	\$511	\$518	\$7	\$4.75	\$4.88	\$0.13
YoY%	-10.4%	-9.3%	1.3%	-6.3%	-3.7%	2.8%
Mar-24E	\$136	\$137	\$1	\$1.23	\$1.27	\$0.04
Jun-24E	\$143	\$142	(\$1)	\$1.27	\$1.28	\$0.01
Sep-24E	\$151	\$151	\$0	\$1.34	\$1.37	\$0.03
Dec-24E	\$157	\$157	\$1	\$1.30	\$1.36	\$0.06
FY24E	\$587	\$587	\$0	\$5.13	\$5.28	\$0.14
YoY%	14.8%	13.4%	0.0%	8.1%	8.2%	2.8%
Mar-25E	\$162	\$162	\$0	\$1.42	\$1.47	\$0.05
Jun-25E	\$166	\$166	(\$0)	\$1.50	\$1.54	\$0.04
Sep-25E	\$169	\$169	(\$0)	\$1.52	\$1.57	\$0.04
Dec-25E	\$173	\$172	(\$0)	\$1.50	\$1.55	\$0.05
FY25E	\$670	\$670	\$0	\$5.94	\$6.12	\$0.18
YoY%	14.2%	14.2%	0.0%	15.7%	16.0%	3.1%

Source: BofA Global Research estimates, company reports

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DecQ quarter reported vs. expectations

Exhibit 2: Summary of DecQ earnings results vs. our/consensus expectations

DecQ sales were \$6mn/5% above Street and EPS beat by 12c/10%

	Dec-22	Sep-23	Dec-23						
			Guidance	Consensus	BofA	Reported	Delta	QoQ	YoY
Sales (\$mn)	\$151.2	\$128.8	\$127.5 (\$123-\$132)	\$128.4	\$127.5	\$134.2	5.2%	4.2%	(11.3%)
QoQ%	5.1%	5.0%		-0.3%	-1.0%	4.2%			
YoY%	24.5%	-10.5%			(15.7%)	(11.3%)			
Process Control Systems	123.5	100.0			98.0	104.1	6.3%	4.1%	(15.7%)
Testing Services	27.8	28.8			29.6	30.1	1.9%	4.4%	8.5%
Gross Margin % (GAAP)	55.4%	56.1%			56.0%	55.1%	-82	-94	-22
Gross Margin % (Non-GAAP)	56.1%	58.1%	58.0%	57.4%	58.0%	57.3%	-66	-76	118
Gross Profit (GAAP)	83.7	72.2			71.4	74.0	3.7%	2.5%	(11.6%)
Gross Profit (Non-GAAP)	84.9	74.8			73.9	76.9	4.0%	2.8%	(9.4%)
R&D	26.2	21.4			23.5	21.3	(9.4%)	(0.4%)	(18.8%)
S&M	14.1	12.4			12.6	13.6	8.1%	9.2%	(3.4%)
G&A	5.1	4.3			4.0	5.5	36.1%	27.9%	7.9%
Opex Total (GAAP)	46.8	38.1	42.0		40.1	40.4	0.6%	5.9%	(13.8%)
Opex Total (Non-GAAP)	42.9	34.6	37.0		36.6	36.1	(1.4%)	4.4%	(15.7%)
Operating Income (GAAP)	36.9	34.1			31.3	33.7	7.6%	(1.4%)	(8.8%)
Operating Income (Non-GAAP)	42.0	40.2		37.1	37.3	40.8	9.4%	1.4%	(2.9%)
Operating Margin % (GAAP)	24.4%	26.5%			24.5%	25.1%	56	-143	67
Operating Margin % (Non-GAAP)	27.8%	31.2%		28.9%	29.2%	30.4%	115	-83	260
Pretax Income (GAAP)	39.1	38.9			36.1	40.9	15.6%	(37.5%)	(1.3%)
Pretax Income (Non-GAAP)	44.8	45.7			42.8	47.6	22.0%	13.0%	5.5%
Tax Rate (Non-GAAP)	9.0%	13.9%	8.0%		8.0%	8.3%	10.7%	10.6%	6.9%
Tax expense (Non-GAAP)	4.0	6.3			3.4	4.0	22.1%	12.9%	4.5%
Net Income (GAAP)	36.1	33.7			31.2	38.1	10.7%	10.5%	6.0%
Net Income (Non-GAAP)	40.8	39.4			39.4	43.6	(0.1%)	0.1%	0.9%
Diluted EPS (GAAP)	\$1.14	\$1.05	\$1.035 (\$0.96-\$1.11)	\$1.04	\$0.97	\$1.19	22.1%	12.9%	4.5%
Diluted EPS (Non-GAAP)	\$1.28	\$1.23	\$1.235 (\$1.16-\$1.31)	\$1.24	\$1.23	\$1.36	10.7%	10.5%	6.0%
Diluted Shares	31.7	32.0			32.0	32.0	(0.1%)	0.1%	0.9%

Source: BofA Global Research estimates, company reports, Bloomberg

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MarQ quarter guidance vs. expectations

Exhibit 3: MarQ guidance vs. our/consensus expectations

MarQ sales guided \$3mn/2% above consensus and EPS 8c/6% ahead

	Dec-23		Mar-24E	
	Actual	Old BofA	Consensus	New BofA
Sales (\$mn)	\$134.2	\$136.4	\$134.0	\$137.0
QoQ%		7.0%	4.4%	2.1%
YoY%		3.2%		3.7%
Process Control Systems	104.1	106.3		106.6
Testing Services	30.1	30.1		30.4
Gross Margin % (GAAP)	55.1%	56.2%		57.0%
Gross Margin % (Non-GAAP)	57.3%	58.1%	57.6%	59.0%
Gross Profit (GAAP)	74.0	76.7		78.2
Gross Profit (Non-GAAP)	76.9	79.3		80.8
R&D	21.3	24.7		23.4
S&M	13.6	13.6		14.9
G&A	5.5	4.5		6.1
Opex Total (GAAP)	40.4	42.8		44.5
Opex Total (Non-GAAP)	36.1	39.0		40.0
Operating Income (GAAP)	33.7	34.0		33.7
Operating Income (Non-GAAP)	40.8	40.3	38	40.9
Operating Margin % (GAAP)	25.1%	24.9%		24.6%
Operating Margin % (Non-GAAP)	30.4%	29.5%	28.4%	29.8%
Pretax Income (GAAP)	40.9	38.8		40.9
Pretax Income (Non-GAAP)	47.6	45.8		47.9
Tax Rate (Non-GAAP)	8.3%	14.0%		15.0%
Tax expense (Non-GAAP)	4.0	6.4		7.2
Net Income (GAAP)	38.1	33.5		34.8
Net Income (Non-GAAP)	43.6	39.4		40.7
Diluted EPS (GAAP)	\$1.19	\$1.04	\$1.05	\$1.08
Diluted EPS (Non-GAAP)	\$1.36	\$1.23	\$1.19	\$1.27
Diluted Shares	32.0	32.1		32.1

Source: BofA Global Research estimates, company reports, Bloomberg

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Balance sheet and cash flow snapshot

Exhibit 4: Summary of balance sheet and cash flow statement

Net cash decreased QoQ; inventory \$s decreased, while days decreased QoQ

	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	QoQ	YoY
Total cash	\$374	\$389	\$416	\$474	\$444	-6.4%	18.6%
ST debt	\$6	6	203	203	\$204		
LT debt	\$240	239	41	39	\$40		
Total debt	\$246	245	243	242	244		
Net cash	\$128	145	173	232	200	-14.1%	55.8%
Net cash / share	\$4.03	\$4.55	\$5.42	\$7.26	\$6.23	-14.2%	54.4%
Days sales outstanding (DSO)	65.8	69.5	61.5	64.9	75.4		
Days payables outstanding (DPO)	374.1	389.4	416.4	473.9	443.7		
Inventory \$	\$117	\$137	\$149	\$141	\$138	-2.1%	18.5%
Inventory turns	2.3	1.6	1.4	1.6	1.7		
Inventory days	157.6	227.8	256.3	227.8	209.5	(18.4)	51.9
Cash conversion days	165.8	225.9	256.1	250.5	231.7		
Cash flow from ops	\$50	\$23	\$24	\$47	\$30	-36.6%	-40.3%
Capex	(\$8)	(\$3)	(\$3)	(\$4)	(\$8)	113.8%	-9.8%
Free cash flow	\$41	\$20	\$21	\$43	\$22	-49.0%	-46.5%

Source: BofA Global Research estimates, company reports

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c – cents
CD – Critical Dimension
AP – Advanced Packaging
GM – Gross Margin
KLAC – KLA Corporation
NVMI – Nova Ltd
CXMT – ChangXin Memory Technologies
DRAM – Dynamic Random Access Memory
HBM – High-Bandwidth Memory
GAA – Gate All Around
Semicap – semiconductor capital equipment
WFE – Wafer Fab Equipment





Exhibit 5: NVMI – Income Statement (\$mn)

NVMI reported \$134mn in sales and \$1.36 in EPS in DecQ

FY (December)	Q1 Mar-23	Q2 Jun-23	Q3 Sep-23	Q4 Dec-23	Q1E Mar-24E	Q2E Jun-24E	Q3E Sep-24E	Q4E Dec-24E	Q1E Mar-25E	Q2E Jun-25E	Q3E Sep-25E	Q4E Dec-25E	FY24E Dec-24	FY25E Dec-25	FY26E Dec-26
Revenues	\$132	\$123	\$129	\$134	\$137	\$142	\$151	\$157	\$162	\$166	\$169	\$172	\$587	\$670	\$740
QoQ	-13%	-7%	5%	4%	2%	4%	6%	4%	3%	3%	2%	2%			
YoY	-1%	-13%	-10%	-11%	4%	16%	17%	17%	18%	17%	12%	10%	13%	14%	10%
Cost of Sales	55	53	57	60	59	62	66	68	70	71	72	73	254	286	310
Gross Profit (GAAP)	77	70	72	74	78	80	85	89	92	95	97	100	333	385	430
Gross Profit (Non-GAAP)	80	72	75	77	81	83	88	92	95	98	100	102	344	396	441
R&D Expense	23	22	21	21	23	25	26	30	28	29	30	32	104	120	132
S&M Expense	14	13	12	14	15	15	16	17	17	17	17	18	63	69	75
G&A Expense	5	6	4	5	6	7	7	7	7	7	7	7	26	27	29
Total Opex (GAAP)	42	41	38	40	44	47	49	53	52	53	54	57	193	216	236
Total Opex (Non-GAAP)	38	38	35	36	40	42	44	48	47	47	48	51	174	192	210
Operating Income (GAAP)	36	29	34	34	34	33	36	36	40	42	44	43	139	169	194
Operating Income (Non-GAAP)	42	34	40	41	41	41	44	44	48	51	52	52	170	203	231
Interest/other Income (GAAP)	5	6	5	7	7	7	7	7	7	7	7	7	29	29	29
Interest/other Income (Non-GAAP)	4	5	6	7	7	7	7	7	7	7	7	7	28	28	28
Pretax Income (GAAP)	40	34	39	41	41	41	44	43	47	50	51	50	169	198	223
Pretax Income (Non-GAAP)	46	39	46	48	48	48	51	51	55	58	59	59	198	231	259
Net Income (GAAP)	35	30	34	38	35	35	37	37	40	42	43	43	143	169	190
Net Income (Non-GAAP)	39	34	39	44	41	41	44	44	48	50	51	50	170	199	223
Diluted EPS (GAAP)	\$1.09	\$0.94	\$1.05	\$1.19	\$1.08	\$1.08	\$1.15	\$1.14	\$1.25	\$1.31	\$1.33	\$1.31	\$4.46	\$5.19	\$5.78
Diluted EPS (Non-GAAP)	\$1.23	\$1.06	\$1.23	\$1.36	\$1.27	\$1.28	\$1.37	\$1.36	\$1.47	\$1.54	\$1.57	\$1.55	\$5.28	\$6.12	\$6.78
Diluted Shares (GAAP)	32	32	32	32	32	32	32	32	32	32	32	33	32	32	33
Diluted Shares (Non-GAAP)	32	32	32	32	32	32	32	32	32	32	32	33	32	32	33
Margin Analysis (Non-GAAP)															
Gross Margin	60.3%	58.8%	58.1%	57.3%	59.0%	58.5%	58.3%	58.4%	58.6%	58.9%	59.1%	59.4%	58.5%	59.0%	59.6%
R&D (GAAP)	17.4%	18.3%	16.6%	15.9%	17.1%	17.5%	17.3%	19.1%	17.6%	17.5%	17.7%	18.7%	17.8%	17.9%	17.8%
S&M (GAAP)	10.2%	10.5%	9.7%	10.1%	10.9%	10.7%	10.6%	10.7%	10.6%	10.1%	10.1%	10.2%	10.7%	10.2%	10.1%
G&A (GAAP)	3.8%	4.6%	3.3%	4.1%	4.5%	4.8%	4.4%	4.2%	4.1%	4.2%	4.0%	4.0%	4.5%	4.1%	4.0%
Opex	28.9%	31.2%	26.9%	26.9%	29.2%	29.7%	28.9%	30.5%	28.8%	28.3%	28.3%	29.4%	29.6%	28.7%	28.3%
Operating Margin	31.5%	27.6%	31.2%	30.4%	29.8%	28.8%	29.4%	27.9%	29.8%	30.6%	30.8%	30.0%	29.0%	30.3%	31.2%
Tax rate	14.7%	13.4%	13.9%	8.3%	15.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.2%	14.0%	14.0%
Net Income	29.6%	27.6%	30.6%	32.5%	29.7%	29.0%	29.2%	27.8%	29.4%	29.9%	30.0%	29.2%	28.9%	29.6%	30.1%

Source: BofA Global Research estimates, company reports

BofA GLOBAL RESEARCH





We see NVMI sales growing +4% YoY in Q1

	Q1	Q2	Q3	Q4	Q1E	Q2E	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E	FY24E	FY25E	FY26E
FY (December)	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24E	Jun-24E	Sep-24E	Dec-24E	Mar-25E	Jun-25E	Sep-25E	Dec-25E	Dec-24	Dec-25	Dec-26
Process Control Systems	105	96	100	104	107	111	119	125	129	133	135	137	461	533	592
Memory	21	19	35	36	38	40	43	46	47	49	51	52	167	200	227
Foundry/Logic	84	77	65	68	68	71	75	79	82	83	84	85	294	334	365
Testing Services	27	27	29	30	30	31	32	33	33	34	35	35	126	137	148
Total Revenue	132	123	129	134	137	142	151	157	162	166	169	172	587	670	740
QoQ Change %															
Process Control Systems	-15%	-9%	5%	4%	2%	4%	7%	5%	3%	3%	2%	2%			
Memory	14%	-9%	83%	4%	5%	5%	8%	5%	4%	4%	3%	3%			
Foundry/Logic	-20%	-9%	-15%	4%	1%	4%	7%	5%	3%	2%	1%	1%			
Testing Services	-3%	1%	7%	4%	1%	3%	3%	2%	2%	2%	2%	2%			
Total Revenue	-13%	-7%	5%	4%	2%	4%	6%	4%	3%	3%	2%	2%			
YoY Change %															
Process Control Systems	-4%	-16%	-14%	-16%	1%	16%	19%	20%	21%	19%	13%	10%	14%	16%	11%
Memory	-45%	-33%	-14%	97%	82%	110%	24%	25%	24%	23%	17%	15%	50%	19%	14%
Foundry/Logic	18%	-11%	-14%	-36%	-19%	-8%	16%	17%	19%	18%	11%	7%	0%	14%	9%
Testing Services	12%	-2%	6%	9%	13%	15%	11%	8%	9%	9%	8%	8%	12%	9%	8%
Total Revenue	-1%	-13%	-10%	-11%	4%	16%	17%	17%	18%	17%	12%	10%	13%	14%	10%
% of Sales															
Process Control Systems	80%	78%	78%	78%	78%	78%	79%	79%	80%	80%	80%	80%	79%	80%	80%
Testing Services	20%	22%	22%	22%	22%	22%	21%	21%	20%	20%	20%	20%	21%	20%	20%
Total Revenue	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: BofA Global Research estimates, company reports

BofA GLOBAL RESEARCH





NVMI has \$6.23 net cash per share

FY (December)	Q1 Mar-23	Q2 Jun-23	Q3 Sep-23	Q4 Dec-23	Q1E Mar-24E	Q2E Jun-24E	Q3E Sep-24E	Q4E Dec-24E	Q1E Mar-25E	Q2E Jun-25E	Q3E Sep-25E	Q4E Dec-25E	FY24E Dec-24	FY25E Dec-25	FY26E Dec-26
Assets															
Cash & Equivalents	96	129	116	108	144	176	203	231	276	325	374	416	231	416	632
Short Term Investments	114	99	151	120	120	120	120	120	120	120	120	120	120	120	120
Marketable Securities	180	188	206	216	216	216	216	216	216	216	216	216	216	216	216
Accounts receivable	101	83	92	111	114	115	118	123	122	120	116	118	123	118	113
Inventory	137	149	141	138	132	135	143	149	149	148	149	151	149	151	158
Total current assets	649	665	725	710	743	779	818	857	900	946	992	1,039	857	1,039	1,256
Marketable Securities	155	148	134	191	191	191	191	191	191	191	191	191	191	191	191
PP&E	57	60	62	67	67	67	67	67	67	67	67	67	67	67	67
Intangible Assets	43	41	39	39	39	39	39	39	39	39	39	39	39	39	39
Goodwill	50	50	49	50	50	50	50	50	50	50	50	50	50	50	50
Total Assets	1,027	1,039	1,084	1,134	1,174	1,215	1,259	1,303	1,352	1,403	1,456	1,508	1,303	1,508	1,750
Liabilities & Equity															
Convertible Senior Notes	0	197	197	198	198	198	198	198	198	198	198	198	198	198	198
Accounts payable	43	36	26	35	34	35	38	39	39	40	40	41	39	41	44
Deferred revenues	30	27	42	42	42	42	42	42	42	42	42	42	42	42	42
Other current liabilities	56	47	51	41	41	41	41	41	41	41	41	41	41	41	41
Total current liabilities	136	313	322	323	321	323	325	327	327	328	328	329	327	329	332
Accrued Severance Pay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating leases	239	41	39	40	40	40	40	40	40	40	40	40	40	40	40
Other long-term liabilities	23	23	22	20	20	20	20	20	20	20	20	20	20	20	20
Total shareholders' equity	629	662	701	751	793	832	874	916	964	1,015	1,067	1,119	916	1,119	1,358
Total Liab. & Stock Equity	1,027	1,039	1,084	1,134	1,174	1,215	1,259	1,303	1,352	1,403	1,456	1,508	1,303	1,508	1,750
Cash and Liquidity Ratios															
Total Cash	389	416	474	444	480	512	540	567	612	661	710	752	567	752	968
Short-term debt	6	203	203	204	204	204	204	204	204	204	204	204	204	204	204
Long-term debt	239	41	39	40	40	40	40	40	40	40	40	40	40	40	40
Total debt	245	243	242	244	244	244	244	244	244	244	244	244	244	244	244
Net Cash	145	173	232	200	236	268	295	323	368	417	466	508	323	508	724
Net Cash/dil. share	\$4.55	\$5.42	\$7.26	\$6.23	\$7.37	\$8.35	\$9.18	\$10.01	\$11.37	\$12.87	\$14.33	\$15.60	\$10.04	\$15.66	\$22.05
Cash conversion ratios															
Days Sales Outstanding (DSO)	69.5	61.5	64.9	75.4	75.4	73.4	71.4	71.4	68.4	65.4	62.4	62.4			
Payable Days (DPO)	71.4	61.7	42.3	53.1	52.1	52.1	52.1	52.1	51.1	51.1	51.1	51.1			
Inventory Turns	1.6	1.4	1.6	1.7	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9			
Inventory Days (DIO)	227.8	256.3	227.8	209.5	204.5	199.5	199.5	199.5	194.5	189.5	189.5	189.5			
Cash Conversion Days	225.9	256.1	250.5	231.7	227.7	220.7	218.7	218.7	211.7	203.7	200.7	200.7			

Source: BofA Global Research estimates, company reports

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NVMI is investing capex in capacity for long-term growth

FY (December)	Q1 Mar-23	Q2 Jun-23	Q3 Sep-23	Q4 Dec-23	Q1E Mar-24E	Q2E Jun-24E	Q3E Sep-24E	Q4E Dec-24E	Q1E Mar-25E	Q2E Jun-25E	Q3E Sep-25E	Q4E Dec-25E	FY24E Dec-24	FY25E Dec-25	FY26E Dec-26
Operating Activities															
Net income	35	30	34	38	35	35	37	37	40	42	43	43	143	169	190
Depreciation and Amortization	4	2	3	3	3	4	4	4	4	4	4	4	15	17	19
Stock Compensation Expenses	4	4	5	6	6	6	6	7	7	7	7	7	25	28	31
Change In:															
Accounts receivable	9	(8)	(9)	(19)	(2)	(1)	(4)	(5)	2	2	3	(2)	(12)	5	6
Inventories	(20)	(15)	6	3	6	(3)	(9)	(6)	0	1	(2)	(2)	(11)	(2)	(7)
Accounts payable	1	18	(9)	9	(1)	2	2	1	0	1	1	0	4	2	3
Other liabilities	0	(10)	3	(7)	0	0	0	0	0	0	0	0	0	0	0
Deferred Revenues	(0)	(3)	15	(0)	0	0	0	0	0	0	0	0	0	0	0
Cash From Operations	23	24	47	30	47	42	37	38	53	58	57	51	164	219	242
Investing Activities															
Capex	(3)	(3)	(4)	(8)	(5)	(5)	(5)	(6)	(6)	(6)	(6)	(6)	(21)	(23)	(26)
Short and Long term bank deposits	(23)	(44)	(52)	31	0	0	0	0	0	0	0	0	0	0	0
Cash From Investing	(38)	9	(58)	(38)	(5)	(5)	(5)	(6)	(6)	(6)	(6)	(6)	(21)	(23)	(26)
Financing Activities															
Purchase of treasury shares	(0)	0	0	0	(5)	(5)	(5)	(5)	(3)	(3)	(3)	(3)	(20)	(10)	0
Shares issued upon exercise of options	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash From Financing	(0)	0	0	0	(5)	(5)	(5)	(5)	(2)	(2)	(2)	(2)	(20)	(10)	0
Net Change in Cash/Eqv.	(16)	33	(13)	(9)	37	32	27	27	45	50	48	43	123	185	216
Cash/Eqv. at beginning of period	112	96	129	116	108	144	176	203	231	276	325	374	108	231	416
Cash/Eqv. at end of period	96	129	116	108	144	176	203	231	276	325	374	416	231	416	632
Free Cash Flow	20	21	43	22	42	37	32	32	47	52	51	45	143	195	216
TTM FCF	109	109	126	106	128	144	133	143	149	164	183	195			
TTM FCF Margin	19.2%	19.9%	23.5%	20.5%	24.5%	26.5%	23.6%	24.4%	24.3%	25.7%	27.9%	29.1%			

Source: BofA Global Research estimates, company reports

BofA GLOBAL RESEARCH

Price objective basis & risk

Nova (NVMI)

We assign a \$190 PO, which is based on 30x our CY25E non-GAAP EPS, including stock comp and adjusted for net cash. This is at the high end of peers trading 11x-32x and is justified, in our view, given Nova's superior gross margin profile.

Downside risks: 1) potential restrictions on shipments of tools from US to China which would impact its X-Ray metrology portfolio, 2) strong competition from larger players such as KLA Corp, 3) historically cyclical nature of semiconductor capital spending.

Analyst Certification

I, Vivek Arya, 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 - Semiconductors and Semiconductor Capital Equipment Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Advanced Micro Devices, Inc	AMD	AMD US	Vivek Arya
	Analog Devices Inc.	ADI	ADI US	Vivek Arya
	Applied Materials, Inc.	AMAT	AMAT US	Vivek Arya
	Arm Holdings	ARM	ARM US	Vivek Arya
	Broadcom Inc	AVGO	AVGO US	Vivek Arya
	Cadence	CDNS	CDNS US	Vivek Arya
	Camtek	CAMT	CAMT US	Vivek Arya
	KLA Corporation	KLAC	KLAC US	Vivek Arya
	Lam Research Corp.	LRCX	LRCX US	Vivek Arya
	M/A-Com	MTSI	MTSI US	Vivek Arya
	Marvell Technology Group Ltd.	MRVL	MRVL US	Vivek Arya
	Microchip	MCHP	MCHP US	Vivek Arya
	Micron Technology, Inc	MU	MU US	Vivek Arya
	Nova	NVMI	NVMI US	Vivek Arya
	NVIDIA Corporation	NVDA	NVDA US	Vivek Arya
	NXP Semiconductors NV	NXPI	NXPI US	Vivek Arya
	onsemi	ON	ON US	Vivek Arya
	Synopsys	SNPS	SNPS US	Vivek Arya
NEUTRAL				
	Advanced Energy Industries	AEIS	AEIS US	Duksan Jang
	Allegro MicroSystems	ALGM	ALGM US	Blake Friedman
	Axcelis Technologies	ACLS	ACLS US	Duksan Jang
	Coherent Corp	COHR	COHR US	Vivek Arya
	GlobalFoundries	GFS	GFS US	Vivek Arya
	Intel	INTC	INTC US	Vivek Arya
	Lattice Semiconductor	LSCC	LSCC US	Blake Friedman
	Texas Instruments Inc.	TXN	TXN US	Vivek Arya
UNDERPERFORM				
	Ambarella	AMBA	AMBA US	Vivek Arya
	Credo Technology	CRDO	CRDO US	Vivek Arya
	Lumentum Holdings	LITE	LITE US	Vivek Arya
	Qorvo Inc.	QRVO	QRVO US	Vivek Arya
	Skyworks Solutions, Inc.	SWKS	SWKS US	Vivek Arya
	Teradyne	TER	TER US	Vivek Arya
	Wolfspeed Inc	WOLF	WOLF US	Vivek Arya

iQmethodSM Measures Definitions

Business Performance

Return On Capital Employed

Return On Equity

Operating Margin

Earnings Growth

Free Cash Flow

Numerator

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

Net Income

Operating Profit

Expected 5 Year CAGR From Latest Actual

Cash Flow From Operations – Total Capex

Denominator

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

Shareholders' Equity

Sales

N/A

N/A

Quality of Earnings

Cash Realization Ratio

Asset Replacement Ratio

Tax Rate

Net Debt-To-Equity Ratio

Interest Cover

Numerator

Cash Flow From Operations

Capex

Tax Charge

Net Debt = Total Debt – Cash & Equivalents

EBIT

Denominator

Net Income

Depreciation

Pre-Tax Income

Total Equity

Interest Expense

Valuation Toolkit

Price / Earnings Ratio

Price / Book Value

Dividend Yield

Free Cash Flow Yield

Enterprise Value / Sales

Numerator

Current Share Price

Current Share Price

Annualised Declared Cash Dividend

Cash Flow From Operations – Total Capex

EV = Current Share Price × Current Shares + Minority Equity + Net Debt +

Other LT Liabilities

Enterprise Value

Denominator

Diluted Earnings Per Share (Basis As Specified)

Shareholders' Equity / Current Basic Shares

Current Share Price

Market Cap = Current Share Price × Current Basic Shares

Sales

Basic EBIT + Depreciation + Amortization

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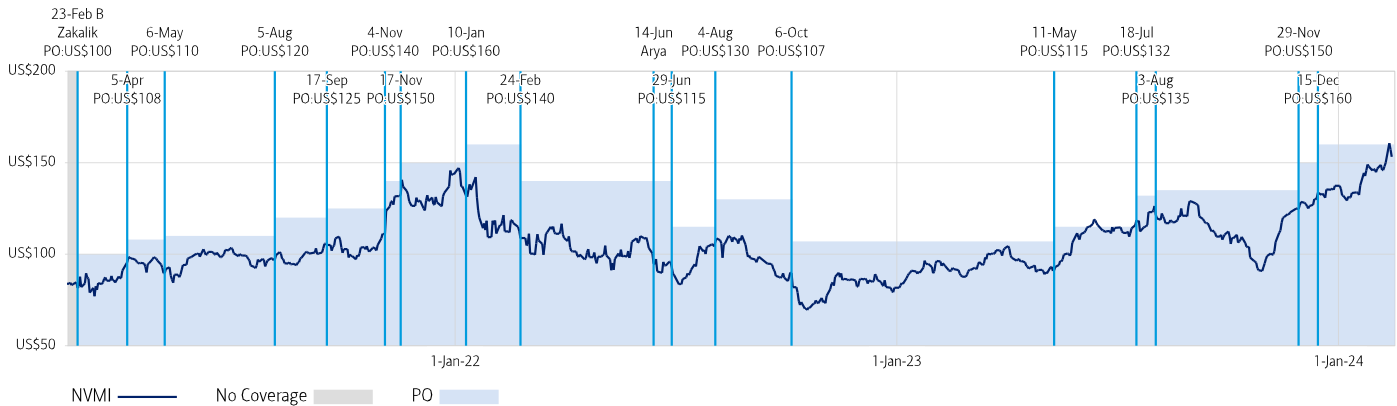
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Disclosures

Important Disclosures

Nova (NVMI) 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.

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

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

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