

# Teradyne

# Limited Al upside, test weakness continues, reiterate Underperform

Reiterate Rating: UNDERPERFORM | PO: 90.00 USD | Price: 104.59 USD

### Test weakness continues into 2024E, lower PO to \$90

We reiterate our Underperform rating and lower PO to \$90 (on an unchanged 22x CY25E P/E) from \$100. While Q4 was generally in line with expectations, Q1 sales guide of \$565mn (-16% QoQ) was below our \$618mn and the Street's \$624mn (-8% QoQ). Furthermore, the CY24 sales guide of \$2.68bn (flat YoY) was also considerably below the Street's \$2.97bn (+11% YoY). We attribute the shortfalls to: (1) semis test demand weakness now expanding broadly to automotive (where TER has the highest test share) from mobility and industrial; (2) limited Al compute upside as TER participates in select small ASIC programs (MRVL/TSLA), but not AVGO TPUs or NVDA GPUs (very low exposure here); (3) memory/HBM upside now generally behind as lead customer SK Hynix already holds enough testing equipment (TER has low exposure to emerging Samsung/Micron); and (4) System/Wireless tests lack big growth drivers in the coming quarters. While mgmt updated its CY26 mid-term model (\$4.25bn at midpoint vs. our new \$3.61bn) and maintained its confidence in the l-t outlook, we note this implies 26% sales CAGR from CY24-26E, a level that was only achieved once during the last ten years. Robotics could be the main source of growth, although we note Q1 guide already points to below-seasonal trends on potential over-shipping. Overall, we lower CY24/25E sales by -7%/-1% and EPS by -23%/-11% to \$2.63/\$3.87. Also, our new CY26E EPS is now \$4.65 (vs. \$4.87 prior), well below TER's \$6.50 guide at the midpoint.

### Likes: Robotics ramp, Mobility trough, new CY26 guide

(1) Following multiple delays, Robotics (Industrial Automation) increased strong double-digit for two consecutive quarters and should increase 10-20% YoY in CY24E (20-30% CAGR through CY26E). However, we highlight a stronger-than-seasonal decline in Q1 on potential over-shipments in 2H'23. (2) Mobility (phones) test has generally troughed and is generally de-risked at this point (potential upside if 3nm/2nm adoption accelerates).

### Risks: limited AI tailwinds, memory share, Apple exposure

(1) Although TER is engaged with testing for select ASIC programs (for example MRVL, TSLA), they are likely missing out on the largest AI opportunities of AVGO (Google TPU) and NVDA (GPUs), where main competitor Advantest leads. 2) Similarly, TER has high share at SK Hynix whose HBM (AI beneficiary) ramp already took place last year. (3) TER's AI upside generally exists in edge AI, particularly smartphones, which could once again result in high Apple exposure (generally receives lower multiple).

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Estimates (Dec) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	4.24	2.93	2.63	3.87	4.65
GAAP EPS	4.22	2.73	2.52	3.76	4.53
EPS Change (YoY)	-29.2%	-30.9%	-10.2%	47.1%	20.2%
Consensus EPS (Bloomberg)			3.64	5.51	6.56
DPS	0.42	0.41	0.48	0.52	0.56
Valuation (Dec)					
P/E	24.7x	35.7x	39.8x	27.0x	22.5x
GAAP P/E	24.8x	38.3x	41.5x	27.8x	23.1x
Dividend Yield	0.4%	0.4%	0.5%	0.5%	0.5%
EV / EBITDA*	15.3x	21.7x	28.9x	19.8x	16.6x
Free Cash Flow Yield*	2.6%	2.7%	2.2%	3.6%	4.3%
* For full definitions of <i>IQ</i> method <sup>SM</sup> measures, see page 12.					

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Refer to important disclosures on page 12 to 15. Analyst Certification on page 11. Price
Objective Basis/Risk on page 11.

Timestamp: 31 January 2024 02:01PM EST

### 31 January 2024

### Equity

Key Changes		
(US\$)	Previous	Current
Price Obj.	100.00	90.00
2024E Rev (m)	2,891.8	2,681.9
2025E Rev (m)	3,242.8	3,212.2
2026E Rev (m)	NA	3,608.3
2024E EPS	3.42	2.63
2025E EPS	4.32	3.87
2026E EPS	NA	4.65

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### Stock Data

Price	104.59 USD
Price Objective	90.00 USD
Date Established	31-Jan-2024
Investment Opinion	B-3-7
52-Week Range	81.08 USD - 119.20 USD
Mrkt Val (mn) / Shares Out	15,990 USD / 152.9
(mn)	
Free Float	99.6%
Average Daily Value (mn)	179.29 USD
BofA Ticker / Exchange	TER / NAS
Bloomberg / Reuters	TER US / TER.OQ
ROE (2024E)	15.7%
Net Dbt to Eqty (Dec-2023A)	-34.5%
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".

See page 7 for a glossary of industry terminology and stock symbols used in the

# *iQprofile*<sup>™</sup>Teradyne

<b>iQ</b> method <sup>™</sup> – Bus Performance*					
(US\$ Millions)	2022A	2023A	2024E	2025E	2026
Return on Capital Employed	25.0%	17.0%	14.5%	18.7%	19.5%
Return on Equity	28.4%	19.2%	15.7%	20.2%	20.9%
Operating Margin	27.5%	20.4%	19.3%	23.5%	25.1%
Free Cash Flow	415	426	349	571	685
i <b>Q</b> method <sup>™</sup> – <b>Quality of Earnings*</b>					
(US\$ Millions)	2022A	2023A	2024E	2025E	2026
Cash Realization Ratio	0.8x	1.2x	1.2x	1.2x	1.2x
Asset Replacement Ratio	1.8x	1.7x	1.6x	1.5x	1.5>
Tax Rate	16.3%	15.5%	16.0%	16.0%	16.0%
Net Debt-to-Equity Ratio	-36.3%	-34.5%	-37.9%	-44.6%	-51.0%
Interest Cover	50.8x	NA	43.2x	NM	NM
Income Statement Data (Dec)					
(US\$ Millions)	2022A	2023A	2024E	2025E	2026
Sales	3,155	2,676	2,682	3,212	3,608
% Change	-14.8%	-15.2%	0.2%	19.8%	12.3%
Gross Profit	1,867	1,537	1,568	1,912	2,148
% Change	-15.4%	-17.7%	2.0%	22.0%	12.3%
EBITDA	979	691	518	756	906
% Change	-27.8%	-29.4%	-25.0%	45.9%	19.8%
Net Interest & Other Income	(17)	20	(12)	(12)	(12)
Net Income (Adjusted)	713	479	425	625	751
% Change	-32.2%	-32.8%	-11.2%	47.0%	20.1%
(US\$ Millions)	2022A	2023A	2024E	2025E	2026
Net Income from Cont Operations (GAAP)	1,567	1,016	915	1,352	1,626
Depreciation & Amortization	111	111	120	144	161
Change in Working Capital	(272)	(10)	(68)	(47)	(60)
Deferred Taxation Charge	(39)	(38)	0 (457)	(605)	(027)
Other Adjustments, Net	(789)	(494)	(457)	(685)	(827)
Capital Expenditure Free Cash Flow	(163) <b>415</b>	(160) <b>426</b>	(161) <b>349</b>	(193) <b>571</b>	(216) <b>685</b>
% Change	-57.1%	2.6%	-18.1%	63.8%	19.9%
Share / Issue Repurchase	(723)	(363)	(50)	(100)	(100)
Cost of Dividends Paid	(723)	(68)	(78)	(84)	(91)
Change in Debt	(100)	(71)	0	0	(51)
	(100)	(71)	0	Ū	0
Balance Sheet Data (Dec)	2000	2022	202.5	202	
(US\$ Millions)	2022A	2023A	2024E	2025E	2026
Cash & Equivalents	1,005	937	1,158	1,545	2,039
Trade Receivables	491	422	492	537	594
Other Current Assets	872	920	924	938	954
Property, Plant & Equipment	419	445	513	513	513
Other Non-Current Assets	714	762	762	762	762
Total Assets	<b>3,501</b> 50	3,487	3,849	4,295	4,862
Short-Term Debt Other Current Liabilities	696	0 660	0 665	0 677	691
	64	65	65	65	65
Long-Term Debt Other Non-Current Liabilities	240	236	236	236	236
Total Liabilities	1,050	961	966	978	992
Total Equity	2,451	2,526	2,883	3,317	3,871
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Total Equity  Total Equity & Liabilities	3,501	3,487	3,849	4,295	4,862

### **Company Sector**

Semiconductor Capital Equipment

### **Company Description**

Teradyne is a supplier of automation equipment for test and industrial applications. The company designs automatic test systems (ATE) used to test semiconductors, wireless products, data storage, and electronic systems in the consumer, wireless, auto, industrial, computing, communications, and aerospace/defense markets. Industrial automation products include collaborative robots used by global manufacturing and light industrial customers to improve manufacturing efficiency and reduce costs.

### **Investment Rationale**

We rate Teradyne Underperform. We like TER's unique exposure to leading edge devices, but remain cautious on 1) delays in adoption of leading edge testing equipment, with higher rates of re-use (particularly as design costs increase), 2) long-term sluggishness in mobile market investment, and 3) potential for high growth opportunities in industrial business to see a near term deceleration

### **Stock Data**

Average Daily Volume

1,714,183

### **Quarterly Earnings Estimates**

	2023	2024
Q1	0.55A	0.30E
Q2	0.79A	0.50E
Q3	0.80A	0.84E
Q4	0.79A	0.99E



# **Summary of model changes**

### **Exhibit 1: Summary of TER model changes**

We update FY24E/25E sales by -7.3%/-0.9% and EPS by -23.1%/-10.5% to \$2.63/\$3.87

		Sales (\$mn)		EPS (	Non GAAP, ex o	ptions)
	Old	NEW	delta	Old	NEW	delta
1Q24E	\$618	\$565	(\$53)	\$0.51	\$0.30	(\$0.21)
2Q24E	\$689	\$616	(\$73)	\$0.75	\$0.50	(\$0.25)
3Q24E	\$753	\$719	(\$33)	\$0.98	\$0.84	(\$0.14)
4Q24E	\$832	\$781	(\$51)	\$1.18	\$0.99	(\$0.20)
FY24E	\$2,892	\$2,682	(\$210)	\$3.42	\$2.63	(\$0.79)
YoY%	8.1%	0.2%	-7.3%	20.5%	-10.1%	-23.1%
1Q25E	\$801	\$749	(\$52)	\$1.10	\$0.85	(\$0.25)
2Q25E	\$794	\$796	\$2	\$1.02	\$0.94	(\$0.08)
3Q25E	\$806	\$815	\$9	\$1.07	\$1.01	(\$0.06)
4Q25E	\$842	\$852	\$10	\$1.13	\$1.07	(\$0.06)
FY25E	\$3,243	\$3,212	(\$31)	\$4.32	\$3.87	(\$0.45)
YoY%	12.1%	19.8%	-0.9%	26.4%	47.1%	-10.5%
1Q26E	\$852	\$862	\$11	\$1.18	\$1.09	(\$0.08)
2Q26E	\$868	\$892	\$25	\$1.17	\$1.13	(\$0.04)
3Q26E	\$884	\$910	\$25	\$1.24	\$1.19	(\$0.04)
4Q26E	\$918	\$944	\$26	\$1.28	\$1.23	(\$0.05)
FY26E	\$3,522	\$3,608	\$86	\$4.87	\$4.65	(\$0.22)
YoY%	8.6%	12.3%	2.4%	12.5%	20.1%	-4.5%

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

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# Q4 reported vs. expectations

### Exhibit 2: TER reported DecQ earnings vs. our/consensus expectations

TER reported Q4 sales 1% below Street. EPS beat consensus estimates by 7c/10%

	Dec-22	Sep-23			Dec-	23			
			Guidance	Street	BofA	Reported	Delta vs. Cons	QoQ	YoY
Sales (\$mn)	\$731.8	\$703.7	\$670 (\$640 - \$700)	\$676.1	\$670.5	\$670.6	-0.8%	-4.7%	-8.4%
QoQ%	-11.5%	2.8%		-3.9%	-4.7%	-4.7%			
Semiconductor test	481.0	498.0		435	433.4	431.0	-0.9%	(13.5 %)	(10.4 %)
Industrial Automation	110.0	85.8		117.6	121.1	128.8	9.5%	50.1 %	17.0 %
System test	100.0	83.0		86.9	83.0	86.0	-1.0%	3.6 %	(14.0 %)
Wireless test	40.8	37.0		38	33.1	24.9	-34.6%	(32.8 %)	(39.1 %)
Gross Margin % (Non GAAP)	57.5%	56.6%		56.5%	56.7%	56.6%	11	0	(85)
E&D (Non-GAAP)	108.8	104.4			105.5	102.2		(2.1 %)	(6.1 %)
S&A (Non-GAAP)	142.8	138.3			139.7	142.3		2.9 %	(0.3 %)
Opex (GAAP)	253.9	254.3			249.9	255.2			
Opex (Non GAAP)	251.6	242.7			245.2	244.5		0.7 %	(2.8 %)
Operating Income (Non GAAP)	168.9	155.5			135.1	135.0		(13.2 %)	(20.1 %)
Op Margin % (Non GAAP)	23.1%	22.1%		20.2%	20.1%	20.1%	-6	(197)	(295)
Interest and other (Non-GAAP)	3.1	0.4			0.3	10.6			
Income tax expense (Non GAAP)	21.2	24.5			22.3	18.4			
Tax rate (Non-GAAP)	12.3%	15.7%			16.5%	12.6%			
Net Income (Non GAAP)	150.8	131.5			113.0	127.2		(3.2 %)	(15.6 %)
Diluted EPS (Non GAAP)	\$0.92	\$0.80	\$0.71 (\$0.61 - \$0.81)	\$0.72	\$0.70	\$0.79	9.5%	(2.3 %)	(14.4 %)
Diluted Shares	164.3	163.4			162.6	161.9		(0.9 %)	(1.5 %)

 $\textbf{Source:} \ \ \textbf{BofA Global Research estimates, company report, Bloomberg, Visible Alpha}$ 



# Q1 guidance vs. expectations

### Exhibit 3: TER guided MarQ earnings vs. our/consensus expectations

TER guided Q1 sales below Street while EPS guided 24c below Street at midpt

	Dec-23		Mar-2	4E	
	Reported	BofA	Street	Guidance	New BofA
Sales (\$mn)	\$670.6	\$617.9	\$624.3	\$565 (\$540 - \$590)	\$565.0
QoQ%	-4.7%	-7.8%	-7.7%		-15.7%
Semiconductor test	431.0	403.4	419.3		352.7
Industrial Automation	128.8	104.9	90.3		106.9
System test	86.0	76.2	78.4		78.1
Wireless test	24.9	33.4	38.9		27.3
Gross Margin % (Non GAAP)	56.6%	55.6%	55.7%	54.0% (53.5% - 54.5%)	54.0%
E&D (Non-GAAP)	102.2	104.4			102.2
S&A (Non-GAAP)	142.3	141.1			142.3
Opex (GAAP)	255.2	250.2			249.2
Opex (Non GAAP)	244.5	245.5		244.5	244.5
Operating Income (Non GAAP)	135.0	98.1			60.6
Op Margin % (Non GAAP)	20.1%	15.9%	16.3%		10.7%
Interest and other (Non-GAAP)	10.6	0.3			(3.0)
Income tax expense (Non GAAP)	18.4	16.2			9.2
Tax rate (Non-GAAP)	12.6%	16.5%			16.0%
Net Income (Non GAAP)	127.2	82.2			48.4
Diluted EPS (Non GAAP)	\$0.79	\$0.51	\$0.54	\$0.30 (\$0.22 - \$0.38)	\$0.30
Diluted Shares	161.9	161.8			161.8

 $\textbf{Source:} \ \mathsf{BofA} \ \mathsf{Global} \ \mathsf{Research} \ \mathsf{estimates}, \mathsf{company} \ \mathsf{report}, \ \mathsf{Bloomberg}, \ \mathsf{Visible} \ \mathsf{Alpha}$ 

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# Balance sheet, cash flow snapshot

### Exhibit 4: Summary of balance sheet and cash flow statements

Net cash increased QoQ; inventory dollars were down QoQ, days were up

	4Q22	1Q23	2Q23	3Q23	4Q23		
	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	QoQ	YoY
Total Cash	\$1,005	\$859	\$813	\$820	\$937	14.2%	-6.8%
ST Debt	\$50	\$35	\$33	\$24	\$0		
LT Debt	\$64	\$65	\$65	\$69	\$65		
Total Debt	\$114	\$100	\$98	\$93	\$65		
Net Cash	\$891	\$759	\$715	\$728	\$872	19.9%	-2.1%
Net Cash/Share	\$5.42	\$4.59	\$4.36	\$4.45	\$5.39	21.0%	-0.7%
DSO	61.1	67.1	65.6	58.9	57.3		
DPO	40.8	49.6	49.4	52.5	56.3		
Inventory \$	\$325	\$352	\$347	\$323	\$310	-3.9%	-4.6%
Inventory Turns	3.8	3.0	3.2	3.8	3.8		
Inventory Days	95.2	123.0	112.4	96.4	97.2	0.8	1.9
Cash Conversion days	115.5	140.5	128.5	102.9	98.1		
Cash Flow from Ops	\$183	\$19	\$143	\$174	\$249	42.7%	35.6%
Capex	(\$35)	(\$41)	(\$39)	(\$35)	(\$44)		
Free cash flow	\$149	(\$22)	\$104	\$140	\$204	46.3%	37%

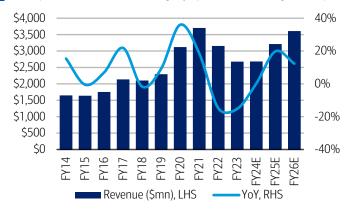
Source: Company report



## **Key Charts**

### Exhibit 5: TER - annual revenue and YoY growth

We expect TER's revenue to be slightly up in 2024 following 2023 dip

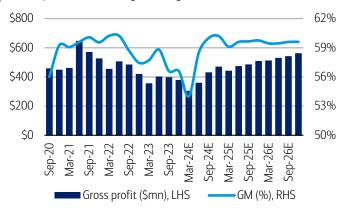


Source: BofA Global Research estimates, company report

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### Exhibit 7: TER - Gross profit dollars and margin (%)

We see path towards 60% gross margins

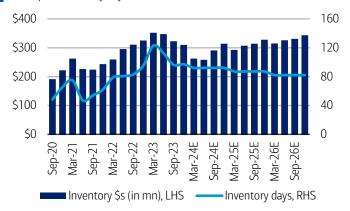


Source: BofA Global Research estimates, company report

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### Exhibit 9: TER - inventory dollars and days

We expect inventory days to decrease

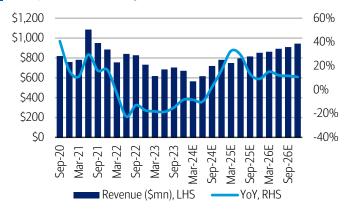


Source: BofA Global Research estimates, company report

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### Exhibit 6: TER - quarterly revenue and YoY growth

We expect TER revenue to grow to over \$5.6mn YoY in CY24E

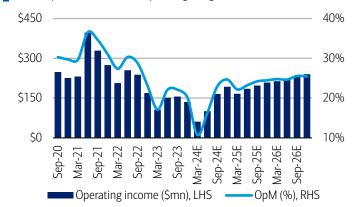


Source: BofA Global Research estimates, company report

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### Exhibit 8: TER - Operating income dollars and margin (%)

We see path towards <20% operating margins

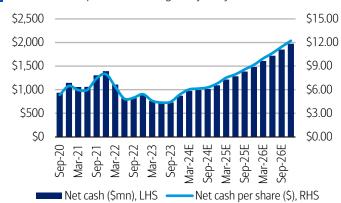


Source: BofA Global Research estimates, company report

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### Exhibit 10: TER – net cash and net cash per share trends

We see net cash per share reaching nearly \$1 by end-2025E

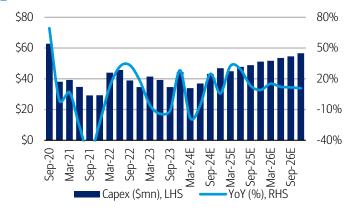


Source: BofA Global Research estimates, company report



### Exhibit 11: TER - quarterly capex and YoY growth

We expect capex to be in the \$30-\$50mn range on a quarterly basis

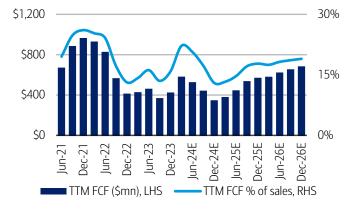


Source: BofA Global Research estimates, company report

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### Exhibit 12: TER – TTM free cash flow and FCF as a % of sales

We expect slight FCF decline in 1H24E



Source: BofA Global Research estimates, company report

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### Glossary:

ADAS: Advanced driver assistance system
Al: Artificial Intelligence
ASIC: Application-Specific Integrated Circuit EV: Electric vehicle
AVGO: Broadcom
GPU: Graphics Processing Unit
HBM: High Bandwidth Memory

HBM: High Bandwidth Memory MRVL: Marvell NVDA: Nvidia

OEM: Original Equipment Manufacturer SoC: System-on-chip TAM: Total Addressable Market

TER: Teradyne

TPU: Tensor Processing Unit

TSLA: Tesla

UR: Universal Robots

**Exhibit 13: TER – Income Statement** TER reported \$671mn/\$0.79 in sales/EPS for DecQ 2023

P&L Model (\$mn)	-	•	•	4Q23	-	•	-	4Q24E	-	-	3Q25E	-	_	FY24E	
Net revenues	Mar-23 \$618	Jun-23 \$684	Sep-23 \$704	\$671	Mar-24E \$565	Jun-24E \$616	Sep-24E \$719	\$781	Mar-25E \$749	Jun-25E \$796	Sep-25E \$815	\$852	Dec-23 \$2.676	Dec-24 \$2,682	
QoQ%	-15.6%	10.8%	2.8%		-15.7%	9.0%	16.8%	8.6%		6.3%	2.4%	4.6%	\$2,070	32,002	JJ,212
YoY%	-18.2%	-18.6%		-8.4%	-8.5%	-10.0%	2.2%	16.5%		29.2%	13.2%	9.1%	-15.2%	0.2%	19.8%
				21.72											
Cost of revenues (GAAP)	261.1	281.9	305.4	291.1	259.9	255.7	287.8	310.9	306.3	321.6	328.8	343.1	1,139.6	1,114.3	1,299.8
Gross profit (GAAP)	356.4	402.5	398.3	379.5	305.1	360.4	431.7	470.3	442.7	474.4	486.0	509.3	1,536.7	1,567.5	1,912.4
Gross profit (Non GAAP, incl. stock comp)	356.4	402.5	398.3	379.5	305.1	360.4	431.7	470.3	442.7	474.4	486.0	509.3	1,536.7	1,567.5	1,912.4
5	1050	1057	1044	100.0	1000	1100	1140	117.6	1100	1065	1265	1202	4101	445.0	F01.6
Engineering and development (Non-GAAP)	105.8	105.7	104.4	102.2	102.2	110.9	114.2	117.6	118.2	126.5	126.5	130.3	418.1	445.0	501.6
Selling and administrative (Non-GAAP)	145.1	145.7	138.3	142.3	142.3	149.5	152.4	160.1	158.5	163.2	162.4	170.5	571.4		654.6
Total operating expenses (GAAP)	263.6 <b>250.8</b>	262.6 <b>251.4</b>	254.3	255.2 <b>244.5</b>	249.2 <b>244.5</b>	265.0 <b>260.3</b>	271.3 <b>266.7</b>	282.4 <b>277.7</b>	281.4 <b>276.7</b>	294.4 <b>289.7</b>	293.6 <b>288.9</b>	305.5 <b>300.8</b>	1,035.7	1,067.9	
Total operating expenses (Non-GAAP) YoY%	0.0	(0.0)	<b>242.7</b> (0.0)	(0.0)	(0.0)	0.0	0.1	0.1	0.1	0.1	0.1	0.1	(0.0)	<b>1,049.3</b> 0.1	0.1
Operating Income (GAAP)	92.9	139.9	144.0	124.3	55.9	95.4	160.4	187.9	161.3	180.1	192.5	203.8	501.1	499.7	737.6
Operating Income (Non GAAP, incl. stock comp)		151.1	155.5	135.0	60.6	100.1	165.0	192.6	166.0	184.7	197.1	203.5	<b>547.2</b>		<b>756.2</b>
operating meanic (item erall ; men stock comp)	103.0		.55.5	155.0	00.0	100.1	105.0	132.0	100.0	101		200.5	317.2	310.3	750.2
Interest and other (Non-GAAP)	4.2	4.6	0.4	10.6	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	19.8	(12.0)	(12.0)
Income before tax (GAAP)	97.1	144.4	144.3	139.8	52.9	92.4	157.4	184.9	158.3	177.1	189.5	200.8	525.6	487.7	725.6
Income before tax (Non GAAP)	109.8	155.7	156.0	145.6	57.6	97.1	162.0	189.6		181.7	194.1	205.5	567.0	506.3	744.2
Provision for income tax (GAAP)	13.6	24.4	16.2	22.8	8.6	15.0	25.6	30.1	25.8	28.8	30.8	32.7	76.8	79.4	118.1
Provision for income tax (Non GAAP)	18.5	26.7	24.5	18.4	9.2	15.5	25.9	30.3	26.1	29.1	31.1	32.9	88.1	81.0	119.1
Net Income (GAAP)	83.5	120.1	128.1	117.1	44.3	77.4	131.8	154.8	132.5	148.2	158.6	168.1	448.8	408.3	607.6
Net income (Non GAAP, incl. stock comp)	91.3	129.0	131.5	127.2	48.4	81.5	136.1	159.3	136.9	152.6	163.1	172.6	479.0	425.3	625.2
Basic EPS (GAAP)	\$0.54	\$0.78	\$0.83	\$0.77	\$0.29	\$0.51	\$0.86	\$1.02	\$0.87	\$0.97	\$1.04	\$1.10	\$2.91	\$2.68	\$3.98
Diluted EPS (GAAP)	\$0.50	\$0.73	\$0.78	\$0.72	\$0.27	\$0.48	\$0.81	\$0.96	\$0.82	\$0.92	\$0.98	\$1.04	\$2.73	\$2.52	\$3.76
Diluted EPS (Non GAAP, incl. stock comp)	\$0.55	\$0.79	\$0.80		\$0.30	\$0.50	\$0.84	\$0.99	\$0.85	\$0.94	\$1.01	\$1.07	\$2.93	\$2.63	\$3.87
YoY%	-43.5%	-34.8%	-29.7%	-14.4%	-45.9%	-35.9%	4.6%	25.4%	183.5%	87.4%	19.9%	8.4%	-31.1%	-10.1%	47.1%
Diluted shares (GAAP)	166.3	164.8	164.1	162.1	162.0	161.9	161.9	161.8	161.8	161.8	161.8	161.8	164.3	161.9	161.8
Diluted shares (Non GAAP)	165.4	164.0	163.4	161.9	161.8	161.7	161.7	161.6	161.6	161.6	161.6	161.6	163.7	161.7	161.6
Cash dividend per share	\$0.11	\$0.11	\$0.11	\$0.11	\$0.12	\$0.12	\$0.12	\$0.12	\$0.13	\$0.13	\$0.13	\$0.13	\$0.44	\$0.48	\$0.52
Non-GAAP Margins (incl. stock comp)															
Gross Margin %	57.7%	58.8%	56.6%	56.6%	54.0%	58.5%	60.0%	60.2%	59.1%	59.6%	59.7%	59.8%	57.4%	58.4%	59.5%
E&D as a % of sales	17.1%	15.4%	14.8%	15.2%	18.1%	18.0%	15.9%	15.1%	15.8%	15.9%	15.5%	15.3%	15.6%	16.6%	15.6%
S&A as a % of sales	23.5%	21.3%	19.7%	21.2%	25.2%	24.3%	21.2%	20.5%	21.2%	20.5%	19.9%	20.0%	21.4%	22.5%	20.4%
Opex as a % of sales	40.6%	36.7%	34.5%		43.3%	42.3%	37.1%	35.5%	36.9%	36.4%	35.5%	35.3%	37.0%	39.1%	36.0%
Operating Margin %	17.1%	22.1%			10.7%	16.2%	22.9%	24.7%	22.2%	23.2%	24.2%	24.5%	20.4%	19.3%	23.5%
Pretax Income %	17.8%	22.7%	22.2%		10.2%	15.8%	22.5%	24.3%	21.8%	22.8%	23.8%	24.1%	21.2%	18.9%	23.2%
Tax rate %	16.9%	17.2%		12.6%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	15.5%	16.0%	16.0%
Net income %	14.8%	18.8%	18.7%	19.0%	8.6%	13.2%	18.9%	20.4%	18.3%	19.2%	20.0%	20.2%	17.9%	15.9%	19.5%
Incremental GM	56.0%	68.9%	-21.8%	56.6%	70.5%	108.3%	68.9%	62.5%	85.8%	67.6%	61.8%	61.9%	69.0%	552.1%	65.0%
Stock Comp as % of sales	3.1%	2.0%	1.8%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	2.2%	1.9%	1.9%

Segment Model (\$mn)	1Q23	2Q23	3Q23	4Q23	1Q24E	•	3Q24E				3Q25E	4Q25E	FY23	FY24E	FY25E
-	Mar-23	Jun-23	Sep-23		Mar-24E				Mar-25E		Sep-25E		Dec-23	Dec-24	Dec-25
Semiconductor test	415.0	475.0	498.0	431.0	352.7	399.7	482.7	529.0	498.7	526.7	537.2	559.7	1,819.0	1,764.1	2,122.4
Industrial Automation	88.8	71.8	85.8	128.8	106.9	103.0	107.7	114.5	115.2	133.3	141.6	152.5	375.0	432.1	542.5
System test	75.0	93.8	83.0	86.0	78.1	82.0	86.6	91.9	91.6	91.2	90.7	95.3	337.8	338.6	368.8
<u>Wireless test</u>	<u>38.8</u>	<u>43.9</u>	<u>37.0</u>	<u>24.9</u>	<u>27.3</u>	<u>31.4</u>	<u>42.4</u>	<u>45.8</u>	<u>43.5</u>	<u>44.8</u>	<u>45.3</u>	<u>44.8</u>	<u>144.5</u>	<u>147.0</u>	<u>178.5</u>
Net Revenues	617.5	684.4	703.7	670.6	565.0	616.1	719.5	781.2	749.0	796.0	814.8	852.4	2,676.3	2,681.9	3,212.2
<b>QoQ</b> %						0.4		0.6							
Semiconductor test	-13.7%	14.5%	4.8%	-13.5%	-18.2%	13.3%	20.8%	9.6%	-5.7%	5.6%	2.0%	4.2%			
Industrial Automation	-13.7%	-19.2%	19.5%	50.1%	-17.0%	-3.6%	4.5%	6.3%	0.6%	15.8%	6.2%	7.7%			
	-19.5%	25.1%	-11.5%	3.6%	-9.2%	-3.0% 4.9%	5.7%	6.1%	-0.4%	-0.4%	-0.5%	5.0%			
System test				-32.8%	-9.2% 10.0%		35.0%	8.0%	-5.0%	3.0%	1.0%				
Wireless test	-5.0%	13.2%	-15.7%			15.0%						-1.0%			
Net Revenues	-15.6%	10.8%	2.8%	-4.7%	-15.7%	9.0%	16.8%	8.6%	-4.1%	6.3%	2.4%	4.6%			
YoY%															
Semiconductor test	-13.9%	-12.2%	-13.5%	-10.4%	-15.0%	-15.9%	-3.1%	22.7%	41.4%	31.8%	11.3%	5.8%	-12.5%	-3.0%	20.3%
Industrial Automation	-13.8%	-29.0%	-3.7%	17.0%	20.5%	43.6%	25.6%	-11.1%	7.7%	29.4%	31.4%	33.2%	-6.9%	15.2%	25.6%
System test	-37.0%	-30.5%	-28.4%	-14.0%	4.1%	-12.6%	4.4%	6.9%	17.2%	11.2%	4.8%	3.7%	-28.1%	0.2%	8.9%
Wireless test	-24.5%	-31.2%	-19.7%	-39.1%	-29.5%	-28.4%	14.8%	84.4%	59.3%	42.7%	6.7%	-2.2%	-28.5%	1.8%	21.4%
Net Revenues	-18.2%	-18.6%	-14.9%	-8.4%	-8.5%	-10.0%	2.2%	16.5%	32.6%	29.2%	13.2%	9.1%	-15.2%	0.2%	19.8%
% of sales															
Semiconductor test	67.2%	69.4%	70.8%	64.3%	62.4%	64.9%	67.1%	67.7%	66.6%	66.2%	65.9%	65.7%	68.0%	65.8%	66.1%
		10.5%			18.9%		15.0%			16.8%					
Industrial Automation	14.4%	13.7%	12.2%	19.2%		16.7%		14.7%	15.4%		17.4%	17.9%	14.0% 12.6%	16.1%	16.9%
System test	12.1%		11.8%	12.8%	13.8%	13.3%	12.0%	11.8%	12.2%	11.5%	11.1%	11.2%		12.6%	11.5%
<u>Wireless test</u>	6.3%	6.4%	<u>5.3%</u>	3.7%	4.8%	5.1%	<u>5.9%</u>	<u>5.9%</u>	5.8%	5.6%	<u>5.6%</u>	<u>5.3%</u>	<u>5.4%</u>	5.5%	<u>5.6%</u>
Net Revenues	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Book-to-Bill	_			_				_				_		_	
Semiconductor test															
Industrial Automation															
System test															
Wireless test															
Total company	_			-				-				-		_	
PBT Margin (GAAP)	_			_				_				_		_	
Semiconductor test															
Industrial Automation															
System test															
Wireless test	=			_				=				-		_	
Total															

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



# Teradyne | 31 January 2024

**Exhibit 15: TER – Balance Sheet**TER has a solid balance sheet with over \$5 of net cash per share

Balance Sheet (\$mn)	1Q23 Mar-23	2Q23 Jun-23	3Q23 Sep-23	4Q23 Dec-23	1Q24E Mar-24E	-	3Q24E Sep-24E	•	-	2Q25E Jun-25E	3Q25E Sep-25E	4Q25E Dec-25E	FY23 Dec-23	FY24E Dec-24	FY25E Dec-25
Cash and cash equivalents	649.2	613.2	637.0	757.6	860.6	877.7	901.5	978.5	1,099.7	1,169.1	1,269.8	1,365.6	757.6	978.5	1,365.6
Marketable securities	92.9	95.2	79.6	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
Accounts receivables, net	455.3	493.2	455.9	422.1	355.7	387.8	452.9	491.8	471.5	501.1	512.9	536.5	422.1	491.8	536.5
Inventories	352.1	347.3	322.6	310.0	262.6	258.3	290.7	314.1	292.7	307.3	314.1	327.8	310.0	314.1	327.8
Prepayments	549.1	560.7	593.4	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
Other current assets	13.4	14.2	11.0	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
Total current assets	2,112.0	2,123.8	2,099.4	2,162.0	2,151.2	2,196.2	2,317.5	2,456.8	2,536.3	2,649.8	2,769.2	2,902.3	2,162.0	2,456.8	2,902.3
PP&E, net	432.4	437.1	436.4	445.5	459.8	475.4	493.6	513.4	513.4	513.4	513.4	513.4	445.5	513.4	513.4
Marketable securities	117	105	104	117	117	117	117	117	117	117	117	117	117	117	117
Deferred tax assets	148.5	152.5	162.7	175.8	175.8	175.8	175.8	175.8	175.8	175.8	175.8	175.8	175.8	175.8	175.8
Other assets	102.9	108.6	116.6	123.5	123.5	123.5	123.5	123.5	123.5	123.5	123.5	123.5	123.5	123.5	123.5
Retirement plans assets	11.7	11.5	11.4	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
Acquired intangible assets, net	49.2	44.6	39.2	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
Goodwill	409.8	412.1	401.1	415.7	415.7	415.7	415.7	415.7	415.7	415.7	415.7	415.7	415.7	415.7	415.7
Total assets	3,383.4	3,394.9	3,370.7	3,486.8	3,490.3	3,550.9	3,690.4	3,849.5	3,928.9	4,042.5	4,161.9	4,294.9	3,486.8	3,849.5	4,294.9
Accounts payable	142.4	153.2	176.1	180.1	155.1	152.6	171.8	185.6	176.1	184.9	189.0	197.2	180.1	185.6	197.2
Accrued employees compensation and withholdings	119.4	163.7	155.2	191.8	191.8	191.8	191.8	191.8	191.8	191.8	191.8	191.8	191.8	191.8	191.8
Deferred revenue and customer advances	119.4	120.1	109.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
Other accrued liabilities	114.7	114.4	122.6	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7
Contingent consideration				7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
Accrued income taxes	97.1	85.6	53.7	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2
Total current liabilities	628.1	669.8	640.7	660.0	635.0	632.4	651.6	665.4	655.9	664.7	668.8	677.1	660.0	665.4	677.1
Retirement plans liabilities	121.3	124.0	123.2	132.1	132.1	132.1	132.1	132.1	132.1	132.1	132.1	132.1	132.1	132.1	132.1
Long-term deferred revenue and customer advances	41.8	39.0	34.4	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3
Deferred tax liabilities	2.3	1.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Long-term other accrued liabilities	16.2	16.5	17.1	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Long-term contingent consideration				2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Long term debt	65.1	65.1	69.4	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1
Total liabilities	933.9	960.0	929.4	960.9	935.9	933.4	952.6	966.4	956.9	965.7	969.8	978.0	960.9	966.4	978.0
Stockholders' equity	2449.5	2434.9	2441.3	2525.9	2554.4	2617.4	2737.8	2883.1	2972.0	3076.8	3192.0	3316.9	2525.9	2883.1	3316.9
Total liabilities and equity	3383.4	3394.9	3370.7	3486.8	3490.3	3550.9	3690.4	3849.5	3928.9	4042.5	4161.9	4294.9	3486.8	3849.5	4294.9
Cash and Liquidity Ratios	<u>.</u>							<u> </u>				<u>-</u>		<del>.</del>	
Total cash & investments	859.0	813.1	820.4	937.2	1040.2	1057.3	1081.1	1158.1	1279.3	1348.7	1449.4	1545.2	937.2	1158.1	1545.2
Short-term debt	35.1	32.8	23.5												
Long-term debt	65.1	65.1	69.4	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1
Total debt	100.2	97.9	92.9	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1
Net Cash	758.9	715.2	727.5	872.1	975.1	992.2	1016.0	1093.0	1214.2	1283.6	1384.3	1480.1	872.1	1093.0	1480.1
Net Cash/dil. share	\$4.59	\$4.36	\$4.45	\$5.39	\$6.03	\$6.13	\$6.28	\$6.76	\$7.51	\$7.94	\$8.57	\$9.16	\$5.39	\$6.76	\$9.16
<u>Cash conversion ratios</u>	_			-				-				-		-	
Days Sales Outstanding (DSO)	67.1	65.6	58.9	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3			
Days Payables Outstanding (DPO)	49.6	49.4	52.5	56.3	54.3	54.3	54.3	54.3	52.3	52.3	52.3	52.3			
Inventory Turns	3.0	3.2	3.8	3.8	4.0	4.0	4.0	4.0	4.2	4.2	4.2	4.2			
Days of Inventory (DIO)	123.0	112.4	96.4	97.2	92.2	92.2	92.2	92.2	87.2	87.2	87.2	87.2			
Cash conversion days (DIO+DSO-DPO)	140.5	128.5	102.9	98.1	95.1	95.1	95.1	95.1	92.1	92.1	92.1	92.1			
C B (A CI I I B I I I I I I I I I I I I I I I															

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

# Exhibit 16: TER – Cash Flow Statement TER generated a 16% TTM FCF margin in DecQ 2023

Cash flow statement (\$mn)	1Q23 Mar-23	2Q23	3Q23 Sen-23					4Q24E Dec-24F	1Q25E Mar-25E		3Q25E Sen-25E		FY23 Dec-23	FY24E Dec-24	
Net income	83.5	120.1	128.1	117.1	44.3	77.4	131.8	154.8	132.5	148.2	158.6	168.1	448.8		607.6
Depreciation	22.7	22.6	23.6	23.3	19.6	21.4	25.0	27.1	26.0	27.6	28.3	29.6	92.1	93.0	
Amortization	4.9	4.7	4.5	4.7	5.7	6.2	7.2	7.8	7.5	8.0	8.1	8.5	18.8		32.1
Stock-based compensation	18.9	13.6	12.8	12.4	10.5	11.4	13.4	14.5	13.9	14.8	15.1	15.8	57.7	49.8	59.6
Provision for excess and obsolete inventory	5.6	5.7	11.7	5.3									28.4		
Contingent consideration fair value adjustment															
Deferred taxes	(7.6)	(5.9)	(10.5)	(13.6)									(37.6)		
Retirement plans actuarial gains	( ) ,	()	(,	2.6									2.6		
Gain on insurance recovery															
Other	0.1	(0.2)	0.1	(0.8)									(0.8)		
Net change in operating assets and liabilities:		(/		()									()		
Accounts receivable, net	37.2	(39.9)	32.9	40.8	66.5	(32.2)	(65.1)	(38.9)	20.3	(29.6)	(11.8)	(23.6)	71.0	(69.6)	(44.8)
Inventories	(23.7)	9.9	20.2	(1.1)	47.4	4.3	(32.4)	(23.4)	21.4	(14.6)	(6.9)	(13.7)	5.3	,	(13.7)
Prepayments and other assets	(15.4)	(14.2)	(34.4)	20.9	.,,,,	5	(32.1)	(23.1)	2	(1)	(0.5)	(.5.,)	(43.1)	( /	(13.7)
Accounts payable and other accrued expenses	(83.2)	58.7	28.5	42.8	(25.0)	(2.5)	19.2	13.8	(9.5)	8.8	4.1	8.2	46.8	5.5	11.6
Deferred revenue on customer advances	(32.7)	(2.2)	(14.6)	(7.7)	(25.0)	(2.5)		15.0	(3.3)	0.0		0.2	(57.2)		
Retirement plans contributions	(1.2)	(1.2)	(1.2)	(1.8)									(5.5)		
Income taxes	12.5	(26.1)	(29.1)	15.8									(26.9)		
Net cash (used in) provided by operating activities	19.3	142.8	174.3	248.8	168.9	85.9	98.9	155.8	212.2	163.2	195.6	193.0	585.2		763.9
Purchases of property, plant and equipment	(41.4)	(39.3)	(34.6)	(44.3)	(33.9)	(37.0)	(43.2)	(46.9)	(44.9)	(47.8)	(48.9)	(51.1)	(159.6)	(160.9)	(192.7)
Purchases of available-for-sale marketable securities	(69.3)	(29.7)	(38.8)	(24.1)	, ,	` ,	,	, ,	, ,	, ,	, ,	, ,	(161.9)		` ′
Proceeds from sales of available-for-sale marketable securities	7.5	27.6	1.4	24.4									60.9		
Proceeds from maturities of available-for-sale marketable securities	7.9	14.5	49.5	13.6									85.5		
Proceeds from property insurance			(5.0)										(5.0)		
Net cash provided by (used in) investing activities	(94.9)	(26.8)	(27.5)	(30.4)	(33.9)	(37.0)	(43.2)	(46.9)	(44.9)	(47.8)	(48.9)	(51.1)	(179.6)	(160.9)	(192.7)
Issuance of common stock under stock purchase and stock option plans	16.0	0.6	17.5	0.2									34.3		
Repurchase of common stock	(93.3)	(134.5)	(118.6)	(50.7)	(12.5)	(12.5)	(12.5)	(12.5)	(25.0)	(25.0)	(25.0)	(25.0)	(397.2)	(50.0)	(100.0)
Dividend payments	(17.2)	(17.0)	(16.9)	(16.8)	(19.4)	(19.4)	(19.4)	(19.4)	(21.0)	(21.0)	(21.0)	(21.0)	(67.9)	(77.7)	(84.1)
Payments of long-term debt	(15.2)	(2.3)	(9.3)	(23.5)									(50.3)		
Payments related to net settlement of employee stock compensation awards	(19.9)	(0.4)	(0.3)	(0.2)									(20.8)		
Payments of contingent consideration															
Tax benefit related to employee stock compensation awards															
Net cash from financing	(129.5)	(153.7)	(127.6)	(91.1)	(31.9)	(31.9)	(31.9)	(31.9)	(46.0)	(46.0)	(46.0)	(46.0)	(501.9)	(127.7)	(184.1)
Increase in cash & equivalents	(205.6)	(36.0)	23.8	120.6	103.1	17.0	23.8	77.0	121.2	69.4	100.7	95.8	(97.2)	221.0	387.0
Cash & equivalents at start	854.8	649.2	613.2	637.0	757.6	860.6	877.7	901.5	978.5	1,099.7	1,169.1	1,269.8	854.8	757.6	978.5
Cash & equivalents at end	649.2	613.2	637.0	757.6	860.6	877.7	901.5	978.5	1,099.7	1,169.1	1,269.8	1,365.6	757.6	978.5	1,365.6
Free cash flow (FCF)	(22.1)	103.5	139.7	204.4	135.0	49.0	55.8	108.9	167.2	115.4	146.7	141.8	425.6		571.2
FCF/share	(\$0.13)	\$0.63	\$0.85	\$1.26	\$0.83	\$0.30	\$0.34	\$0.67	\$1.03	\$0.71	\$0.91	\$0.88	\$2.59	\$2.15	\$3.53
TTM FCF	429.1	462.9	370.0	425.6	582.7	528.2	444.2	348.7	380.9	447.3	538.3	571.2			
TTM FCF as a % of sales	14.2%	16.2%	13.5%	15.9%	22.2%	20.7%	17.3%	13.0%	13.3%	14.7%	17.1%	17.8%			
Source: RofA Global Research estimates company report					-				-						-

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



### Price objective basis & risk

### Teradyne (TER)

Our \$90 price objective is based on 22x PE applied to our FY25E Non-GAAP EPS. Our choice of PE is in the middle end of Teradyne's long-term range of 13x-31x.

Upside risks to our price objective are (1) accelerated adoption of leading edge test equipment, (2) improved positioning in the compute market, (3) strong momentum at Apple in the semitest business.

### **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	ADIUS	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



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

Business Performance	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 + Other LT Liabilities	Sales

Method <sup>34</sup> is the set of BofA Global Research standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and validations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

Basic EBIT + Depreciation + Amortization

\*\*Rodatabase\*\* is our real-time global research database that is sourced directly from our equity analysts' earnings models and includes forecasted as well as historical data for income statements, balance sheets, and cash flow statements for companies covered by BofA Global Research.

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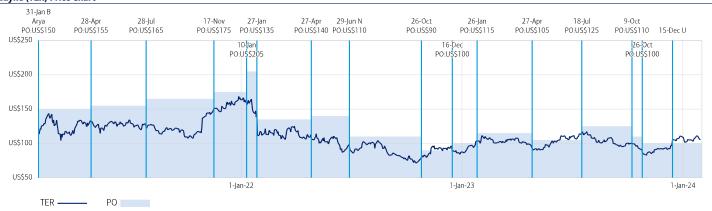
Enterprise Value

# **Disclosures**

EV / EBITDA

### **Important Disclosures**

### Teradyne (TER) 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<sup>R2</sup>

Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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