

## US Semiconductors

## State of the union: AI skepticism a contrarian positive for durable returns

Industry Overview

**AI skepticism healthy but overstated near/medium-term**

Reiterate Buys for top data center (NVDA, AVGO, AMD) and semicap (LRCX, KLAC, AMAT) stocks levered to the AI buildout. The pervasive skepticism re AI capex is understandable but likely a contrarian positive, helping minimize overcrowding. Yes, large-cap AI semis have been volatile (down 7-8% on average last week) but we argue that was driven by (correctable) macro factors (US govt. shutdown, weak jobs data, tariff turmoil, misstated OpenAI comments) rather than any negative datapoint about the AI spending cycle. In fact, the recent strength in AI ancillaries – memory, SMidcap optical stocks up 14% last wk.– as well as NVDA's \$500bn+ in CY25/26 data center outlook at recent GTC show, suggests the underlying demand environment remains robust.

**Bashing OpenAI ambitions misses the big picture**

The common argument that “AI stocks must be overvalued because OpenAI cannot justify \$1.4Tn of long-term commitments” is a lazy/cherry-picked argument in our view. While we agree OpenAI's plans are very ambitious, none of that spending has yet been put in place and will be gated by practical constraints such as access to power and data center space. The majority of AI spending is being done by profitable, public hyperscalers for whom upgrading infrastructure is mission-critical (upgrade to accelerated from traditional CPU-computing) and defensive (e.g. Google's \$92bn capex “defends” a \$200bn+ search leadership by providing Gemini-chatbot driven results to all customers who might otherwise defect to ChatGPT, Perplexity or other search engines.) Meanwhile private AI companies are making rapid strides attracting business customers (1mn+ by OpenAI, 300K+ by Anthropic) which will continue to put pressure on public software and infrastructure-as-a service vendors to raise AI investments.

**NVDA stock compelling, priced for measured AI buildout**

NVDA's recent disclosure of ~\$500bn in CY25/26 data center orders suggests the potential for ~\$8/sh in CY26E PE, putting the stock capable of growing sales/EPS by 50%/70% YoY at essentially an undemanding 24x PE market multiple. If 2030E AI capex gets to be even 50% of NVDA's \$3-\$4Tn forecast, the company would likely generate over \$40/sh in scenario EPS, implying the stock is trading at <5x PE, which is of course unreasonable, and supports our argument that despite media headlines, NVDA stock is priced for very measured AI rollouts. The daily noise around China restrictions is unhelpful but irrelevant to the near/medium financial estimates in our view.

**Other week-ahead events: Tariff decisions, AMD a-day**

The two other events we are looking forward to next week include: 1) US Supreme court hearing on tariffs, any potential pushback against the White House could initially create market volatility, but could turn out to be a positive longer-term for beleaguered industrial/auto chipmakers (our favorites ADI, NXPI, ALGM, MTSI) facing a weak demand environment partly because of tariffs; 2) AMD analyst day, expect l-t business model, see our [detailed preview linked here](#). While rack-scale execution and OpenAI dependence will be debated, we see AMD's GPU and CPU benefitting from a rising AI tide.

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Glossary

NVDA: Nvidia

AVGO: Broadcom

AMD: Advanced Micro Devices

LRCX: Lam Research

KLAC: KLA Corp.

AMAT: Applied Materials

Wk: week

n-t: near-term

l-t: longer-term

Tn: Trillion, Bn: Billion

GTC: GPU Tech Conference

ADI: Analog Devices

NXPI: NXP Semiconductor

ALGM: Allegro Micro

MTSI: Macom

GPU: Graphics Processing Unit

CPU: Central Processing Unit

**Exhibit 1: Compute/EDA stocks were weak last week, though AI ancillary memory, optical stocks were very strong**

Last week, YTD performance and historical PE multiple comparison of key data center and related stocks. Certain AI stocks including NVDA trading below their historical trading multiples despite strong YTD gains

Ticker	Company Name	Last Wk	YTD	PE		Hist. Median		CY26E Prem/Disc	
				CY25E	CY26E	3-yr	5-yr	3-yr	5-yr
SOX	SOX INDEX	-3.9%	39.5%	37.7x	37.7x	24.0x	21.7x	57%	74%
SPX	SPX INDEX	-1.6%	14.4%	25.3x	25.3x	20.5x	20.7x	23%	22%
Nasdaq	CCMP INDEX	-3.0%	19.1%						
Software	IGV INDEX	-5.2%	9.3%						
<b>Compute/EDA/IP</b>									
NVDA	NVIDIA Corp	-7.1%	40.1%	41.8x	28.7x	33.5x	36.4x	-14%	-21%
INTC	Intel Corp	-4.7%	90.2%	111.5x	60.6x	28.1x	22.0x	116%	175%
AVGO	Broadcom Inc	-5.5%	50.7%	50.4x	35.3x	25.7x	18.4x	37%	92%
AMD	Advanced Micro Devices Inc	-8.8%	93.3%	59.0x	35.5x	29.5x	31.1x	20%	14%
MRVL	Marvell Technology Inc	-3.0%	-17.7%	33.1x	27.3x	28.6x	31.1x	-4%	-12%
SNPS	Synopsys Inc	-13.3%	-18.9%	29.9x	27.0x	35.2x	36.3x	-23%	-26%
CDNS	Cadence Design Systems Inc	-4.0%	8.2%	46.1x	40.5x	43.1x	42.6x	-6%	-5%
MPWR	Monolithic Power Systems Inc	-4.7%	62.0%	54.1x	46.0x	40.4x	43.6x	14%	6%
ARM	ARM Holdings PLC	-10.3%	23.5%	89.7x	71.6x	73.2x	73.2x	-2%	-2%
<b>Average</b>		<b>-6.8%</b>	<b>36.8%</b>	<b>57.3x</b>	<b>41.4x</b>	<b>37.5x</b>	<b>37.2x</b>	<b>15%</b>	<b>25%</b>
<b>Semicap</b>									
AMAT	Applied Materials Inc	-1.3%	41.5%	25.0x	23.6x	18.7x	18.1x	26%	30%
ASML	ASML Holding NV	-5.2%	28.3%	35.5x	33.6x	30.3x	31.8x	11%	6%
LRCX	Lam Research Corp	1.2%	120.6%	33.2x	31.1x	21.9x	20.0x	42%	56%
KLAC	KLA Corp	-1.3%	89.4%	33.7x	30.6x	22.5x	20.6x	36%	48%
TER	Teradyne Inc	0.3%	44.8%	52.2x	34.9x	28.3x	25.0x	24%	40%
<b>Average</b>		<b>-1.2%</b>	<b>64.9%</b>	<b>35.9x</b>	<b>30.8x</b>	<b>24.3x</b>	<b>23.1x</b>	<b>26%</b>	<b>33%</b>
<b>Memory/Storage</b>									
MU	Micron Technology Inc	6.3%	182.7%	21.3x	12.2x	11.7x	10.4x	5%	18%
WDC	Western Digital Corp	8.5%	261.7%	24.3x	19.2x	9.8x	7.8x	95%	145%
STX	Seagate Technology Holdings	9.2%	223.7%	28.3x	21.5x	17.6x	13.7x	22%	57%
SNDK	Sandisk Corp/DE	20.1%		53.6x	12.7x	9.0x	9.0x	42%	42%
<b>Average</b>		<b>11.0%</b>	<b>222.7%</b>	<b>31.8x</b>	<b>16.4x</b>	<b>12.0x</b>	<b>10.2x</b>	<b>41%</b>	<b>65%</b>
<b>SMLdcaps</b>									
COHR	Coherent Corp	17.1%	63.1%	36.1x	26.4x	20.4x	18.3x	29%	44%
ALAB	Astera Labs Inc	-11.4%	24.9%	93.0x	72.4x	87.0x	87.0x	-17%	-17%
MTSI	MACOM Technology Solutions	14.8%	30.9%	46.1x	38.8x	30.9x	28.2x	26%	38%
MKSI	MKS Inc	7.7%	48.3%	20.1x	18.0x	17.0x	15.2x	6%	19%
NVMI	Nova Ltd	-10.8%	56.2%	35.5x	33.0x	26.0x	26.6x	27%	24%
CAMT	Camtek Ltd/Israel	-3.8%	47.5%	37.5x	34.3x	26.0x	25.1x	32%	37%
LITE	Lumentum Holdings Inc	19.1%	186.0%	60.6x	33.0x	21.3x	15.5x	55%	113%
AMBA	Ambarella Inc	5.2%	23.3%	177.3x	182.1x	272.3x	108.5x	-33%	68%
AEIS	Advanced Energy Industries In	6.9%	87.4%	34.6x	28.1x	21.5x	18.7x	31%	50%
ALGM	Allegro MicroSystems Inc	-9.8%	23.4%	63.6x	31.8x	33.2x	34.1x	-4%	-7%
CRDO	Credo Technology Group Holdin	-12.8%	143.4%	91.6x	69.9x	69.3x	67.7x	1%	3%
ACLS	Axcelis Technologies Inc	7.8%	22.7%	19.1x	18.8x	16.6x	16.8x	13%	12%
<b>Average</b>		<b>2.5%</b>	<b>63.1%</b>	<b>59.6x</b>	<b>48.9x</b>	<b>53.5x</b>	<b>38.5x</b>	<b>14%</b>	<b>32%</b>

Source: Bloomberg, BofA Global Research Estimates



**Exhibit 2: IQ of key AI, semicap and industrial/auto stocks mentioned in this report**

Tickers, Price, PO and potential upside of key stocks referred to in this report

	<b>QRQ</b>	<b>Price</b>	<b>PO</b>	<b>Upside</b>
NVDA	C-1-7	\$188.15	\$275.00	46.2%
AVGO	C-1-7	\$349.43	\$400.00	14.5%
AMD	C-1-9	\$233.54	\$300.00	28.5%
LRCX	C-1-7	\$159.35	\$165.00	3.6%
KLAC	B-1-7	\$1,193.37	\$1,400.00	17.3%
AMAT	B-1-7	\$230.07	\$250.00	8.7%
ADI	B-1-7	\$228.48	\$275.00	20.4%
NXPI	B-1-7	\$204.56	\$255.00	24.7%
ALGM	C-1-9	\$26.98	\$36.00	33.4%
MTSI	C-1-9	\$179.03	\$190.00	11.7%

Source: Bloomberg, BofA Global Research Estimates

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**Price objective basis & risk****Advanced Micro Devices, Inc (AMD)**

Our \$300 PO is based on 32x our 2027E non-GAAP EPS, which is towards the middle of AMD's historical 14x-55x range, justified by AI growth and CPU share gains offset by slower growth in cyclical embedded/console markets.

Downside risks: 1) Execution on first rack-scale product (MI400 Series), 2) Timing/Magnitude of Middle East AI Projects, 3) Lumpy nature of consumer and enterprise spending that could create delays in acceptance and success of new products, 4) High reliance on one outsourced manufacturing partner, 5) Maturity of current game console cycle.

Upside risks are greater share gain potential in the PC and server processor market against competitors

**Allegro Microsystems (ALGM)**

Our \$36 PO is based on 28x CY27E P/E, within the company's historical 17x-64x trading range, and in-line with analog semi peers. This multiple is justified given ALGM's strong positioning across key secular trends (EVs, ADAS, strategic industrial), strong gross margins, and industry-leading EPS leverage. We think CY27 is the best basis as it values the business on normalized EPS following an acute downturn.

Upside risks are: 1) Faster adoption of electric vehicles and ADAS features, driving up ALGM's overall content opportunity, 2) Topline resiliency as key markets in auto/industrial benefit from secular tailwinds, offsetting near-term cyclical risks, 3) Gross margin strength as ALGM continues to leverage fabless benefits.

Downside risks are: 1) lumpy recovery process or even a recession prolonging inventory normalization, 2) China insourcing more lagging edge components, reducing reliance on US-based firms, 3) Increased competition from sensor/power semiconductor vendors looking to enter market with 55%-60% GM potential, 4) High stock ownership by partner Sanken Electric

**Analog Devices Inc. (ADI)**

Our \$275 PO is based on 30x CY2026E P/E, toward the upper end of the 15x-38x range, and justified based on ADI's best-in-class profitability and differentiated/secular comms exposure, offset by near-term concerns around cost inflation and tariffs.

Downside risks to our price objective: 1) Economic downturn, which could reduce



demand for automotive, industrial products, impacting gross margins, especially given recent capital expenditures and higher fixed cost footprint. 2) Inability to realize the planned cost synergies from the Maxim combination. 3) Competition from larger vendors that have lower-cost production facilities. 4) Exposure to US-China tensions/tariffs via Chinese automotive market.

#### **Applied Materials, Inc. (AMAT)**

Our PO of \$250 is based on 27x our CY26E P/E estimate, in the upper half of AMAT's 10-30x historical range given the potential for a memory WFE upcycle along with industry outgrowth. This multiple is still at a 1-2x discount to other large peers given its more balanced growth profile and lower profitability.

Downside risks to our PO are: ongoing US government probe that we are unable to size the financial impact at this time, slower-than-expected capital spending cycle, delay in memory capacity adds, market share loss in deposition, implant, thermal, CMP, etch, or process control segments, merger & integrations risk, and macro headwinds.

#### **Broadcom Inc (AVGO)**

Our \$400 price objective for Broadcom is based on 37x CY26E P/E, at the upper end of its 10x-38x historical range, still in-line with 1x-2x PEG framework for high-growth compute vendors, and justified given double-digit EPS growth and best-in-semis profitability, FCF generation, and returns.

Downside risks to our price objective are: 1) semiconductor cycle risks, including sensitivity to fundamental or sentiment shifts in AI theme, 2) high exposure to Apple and Google with potential design out risks, 3) competitive risks in networking, smartphone, storage, enterprise software markets, including rising NVDA competition in networking, 4) frequent acquirer of assets, which increases financial and integration risks, and 5) large \$60bn net-debt.

#### **KLA Corporation (KLAC)**

We assign a \$1400 PO based on 34x CY27E P/E, at the high-end of the historical range of 10x-35x. KLAC's leading profit margin, longer lead times which lend to greater visibility, and less cyclical topline supports a slightly higher multiple vs. semicap peers (23-36x).

Downside risks to our PO are the cyclical nature of the semiconductor capital spending and its impact on earnings, competitive price and market share issues, ability to get new products and technologies into the market in a timely manner.

#### **Lam Research Corp. (LRCX)**

We assign a \$165 PO based on 33x CY26E PE, above the high-end of LRCX's 10-30x range, justified by an ongoing memory WFE cycle, mid-teens EPS CAGR over time, etch/deposition product leadership, rising etch/deposition intensity, share gains, growing foundry/logic exposure over memory, improving prospects of NAND recovery, and robust FCF generation, offset by near-term concerns around cost inflation and tariffs.

Upside risks are tech inflections, F/L share gains, NAND upgrades.

Downside risks are slower than expected capital spending cycle, delay in memory capacity adds, market share loss in etch or clean segments, merger & integrations risk, macro headwinds, customer consolidation and China.

#### **M/A-Com (MTSI)**

Our \$190 PO is based on a 38x CY27E P/E, above the middle of historical 15x-46x trading range, justified, in our view, by continued data center strength, expanding margins, and stability in defense/telecom end markets, offset by near-term concerns



around cost inflation and tariffs.

Downside risks to our price objective are (1) semiconductor cyclicality driven by weak macroeconomic conditions, demand or inventory corrections, (2) large private ownership with limited public float, which could add volatility to the stock price, (3) demand fluctuations in optical, aerospace, and defense markets, and (4) high degree of leverage, which could limit M/A-Com's flexibility and ability to engage in buybacks/dividends.

#### **NVIDIA Corporation (NVDA)**

Our \$275 PO is based on 44x CY26E PE ex cash, within NVDA's historical 25x-56x forward year PE range, which we believe is justified by NVDA's leading share in fast-growing AI compute/networking markets, offset by lumpiness in global AI projects, cyclical gaming market, and concerns around access to power.

Downside risks are: 1) weakness in consumer driven gaming market, 2) Competition with major public firms, internal cloud projects and other private companies in AI and accelerated computing markets, 3) Larger than expected impact from restrictions on compute shipments to China, or additional restrictions placed on activity in the region, 4) Lumpy and unpredictable sales in new enterprise, data center, and autos markets, 5) Potential for decelerating capital returns, and 5) Enhanced government scrutiny of NVDA's dominant market position in AI chips.

#### **NXP Semiconductors NV (NXPI)**

Our PO of \$255 is based on 22x 2026E P/E, within the range of auto/industrial peers trading 19x-42x P/E. This is justified given NXPI's company-specific exposures to fast-growing ADAS/EV opportunities and high-50% normalized gross margins which are above most peers with auto-biased exposures.

Downside risks: 1) Semiconductor cycle risks, 2) Lumpy nature of projects in key identification segment, 3) Some exposure to and growth driven by Apple, which could add volatility, 4) Execution risk surrounding management's capability to reengage following two-year hiatus, 5) Macroeconomic supply/demand disruption. 6) Adverse effects from tariff backdrop

### **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
<b>BUY</b>				
	Advanced Energy Industries	AEIS	AEIS US	Duksan Jang
	Advanced Micro Devices, Inc	AMD	AMD US	Vivek Arya
	Allegro Microsystems	ALGM	ALGM 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	Michael Mani
	Credo Technology	CRDO	CRDO 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
	MKS Instruments	MKSI	MKSI US	Michael Mani
	Nova	NVMI	NVMI US	Michael Mani
	NVIDIA Corporation	NVDA	NVDA US	Vivek Arya
	NXP Semiconductors NV	NXPI	NXPI US	Vivek Arya
	Teradyne	TER	TER US	Vivek Arya
<b>NEUTRAL</b>				
	Ambarella	AMBA	AMBA US	Vivek Arya
	Ambiq Micro, Inc.	AMBQ	AMBQ US	Vivek Arya
	Astera Labs Inc	ALAB	ALAB US	Vivek Arya
	Coherent Corp	COHR	COHR US	Vivek Arya
	Lumentum Holdings	LITE	LITE US	Vivek Arya
	Marvell Technology, Inc.	MRVL	MRVL US	Vivek Arya
	Microchip	MCHP	MCHP US	Vivek Arya
	Micron Technology, Inc	MU	MU US	Vivek Arya
	onsemi	ON	ON US	Vivek Arya
<b>UNDERPERFORM</b>				
	Axcelis Technologies	ACLS	ACLS US	Duksan Jang
	GlobalFoundries	GFS	GFS US	Vivek Arya
	Intel	INTC	INTC US	Vivek Arya
	Lattice Semiconductor	LSCC	LSCC US	Duksan Jang
	Skyworks Solutions, Inc.	SWKS	SWKS US	Vivek Arya
	Synopsys	SNPS	SNPS US	Vivek Arya
	Texas Instruments Inc.	TXN	TXN US	Vivek Arya
<b>RVW</b>				
	Wolfspeed Inc	WOLF	WOLF US	Vivek Arya

## Disclosures

### Important Disclosures

#### Equity Investment Rating Distribution: Technology Group (as of 30 Sep 2025)

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	Count	Percent
Buy	195	51.72%	Buy	99	50.77%
Hold	103	27.32%	Hold	52	50.49%
Sell	79	20.95%	Sell	23	29.11%

#### Equity Investment Rating Distribution: Global Group (as of 30 Sep 2025)

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	Count	Percent
Buy	1816	53.11%	Buy	1062	58.48%
Hold	825	24.13%	Hold	480	58.18%
Sell	778	22.76%	Sell	385	49.49%

<sup>R1</sup> Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.



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Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

<sup>R2</sup>Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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